



REGULAR MEETING
BOARD OF DIRECTORS
THURSDAY, AUGUST 25, 2016 – 6:30PM
3 DAIRY LANE, BELMONT CALIFORNIA

AGENDA

1. OPENING

- A. Call to Order
- B. Establishment of Quorum
- C. Pledge of Allegiance

2. PUBLIC COMMENT

Members of the public may address the Board on the Consent Agenda or any item of interest within the jurisdiction of the Board but not on its agenda today. In compliance with the Brown Act, the Board cannot discuss or act on items not on the agenda. Please complete a speaker's form and give it to the District Secretary. Each speaker is limited to three (3) minutes.

3. AGENDA REVIEW: ADDITIONS/DELETIONS AND PULLED CONSENT ITEMS

4. ACKNOWLEDGEMENTS/PRESENTATIONS

None.

5. CONSENT AGENDA

All matters on the Consent Agenda are to be approved by one motion. If Directors wish to discuss a consent item other than simple clarifying questions, a request for removal may be made. Such items are pulled for separate discussion and action after the Consent Agenda as a whole is acted upon.

- A. Approve Minutes for the Special Board Meeting of May 25, 2016
- B. Approve Minutes for the Regular Board Meeting of June 23, 2016
- C. Approve Minutes for the Regular Board Meeting of July 28, 2016
- D. Approve Expenditures from July 21, 2016 through August 19, 2016
- E. Approve Resolution 2016-11 Accepting a Grant of Easement from the Crystal Springs Upland School of a 45-square foot Piece of Property Near 8 Davis Drive in Belmont behind the Existing Right-of-Way for the Purpose of Relocating Existing Fire Hydrant #7064

6. HEARINGS AND APPEALS

None.

7. REGULAR BUSINESS AGENDA

- A. MPWD Capital Improvement Program (CIP):
 - 1. Receive Presentation by District Engineer of Asset Management Analysis for MPWD Water Mains and Storage Tanks and Annual Pay-Go Reinvestment Requirements
 - 2. Consider Financing Options for the MPWD 5-Year Capital Improvement Program and Resolution 2016-12 Authorizing Procurement of \$20,000,000 on behalf of the MPWD
 - 3. Receive Updated CIP Informational Summary & FAQs
- B. Receive Summary Presentation on 2015 MPWD GASB 45 (OPEB—Other Post-Employment Benefits) Actuarial Valuation Report
- C. Discuss Options Regarding Compliance with Senate Bill 415 and Requirement for District Elections To Be Held On Statewide Election Dates
- D. Consider Resolution 2016-13 Rescinding Stage 2 and Authorizing Stage 1 Water Shortage Response of MPWD Water Shortage Contingency Plan

8. MANAGER'S AND BOARD REPORTS

- A. General Manager's Report, including Water Conservation Progress Report
 - 1. Supplemented by Administrative Services Manager's Report
 - 2. Supplemented by Operations Manager's Report
 - 3. Supplemented by District Engineer's Report
- B. Financial Reports
- C. Director Reports

9. FUTURE AGENDA ITEMS

Requests from Board members to receive feedback, direct staff to prepare information, and/or request a formal agenda report be prepared and the item placed on a future agenda. No formal action can be taken.

10. COMMUNICATIONS

11. ADJOURNMENT

This agenda was posted at the Mid-Peninsula Water District's office, 3 Dairy Lane, in Belmont, California, and on its website at www.midpeninsulawater.org.

ACCESSIBLE PUBLIC MEETINGS

Upon request, the Mid-Peninsula Water District will provide written agenda materials in appropriate alternative formats, or disability-related modification or accommodation (including auxiliary aids or services), to enable individuals with disabilities to participate in public meetings. Please contact the District Secretary at (650) 591-8941 to request specific materials and preferred alternative format or auxiliary aid or service at least 48 hours before the meeting.

Next Board Meeting: September 22, 2016, at 6:30PM

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SPECIAL MEETING
OF THE BOARD OF DIRECTORS
OF THE MID-PENINSULA WATER DISTRICT

MAY 25, 2016
Belmont, California

1. OPENING

A. Call to Order:

The special meeting of the Mid-Peninsula Water District Board of Directors was called to order by President Zucca at 6:40PM.

B. Establishment of Quorum:

PRESENT: President Zucca, and Directors Linvill and Stuebing.

ABSENT: Vice President Warden and Director Vella.

A quorum was present.

ALSO PRESENT: General Manager Tammy Rudock, Operations Manager Rene Ramirez, District Counsel Julie Sherman, and District Treasurer Jeff Ira.

Absent were: District Secretary/Administrative Services Manager Candy Pina and District Engineer Joubin Pakpour,

C. Pledge of Allegiance – The Pledge of Allegiance was waived.

2. PUBLIC COMMENTS

None.

3. REGULAR BUSINESS

A. Discuss Board Development Activities facilitated by Julie Brown

- 1. Results from Myers-Briggs Type Indicator Assessment, including Communication and Leadership Dynamics**
- 2. 2016 Strategic Plan Board Development Progress**

General Manager Rudock introduced consultant, Julie Brown, of Julie M. Brown and Associates, who has worked several years now with the Board on its strategic planning and Board and staff development matters. Ms. Brown provided:

- An overview of the Myers-Briggs Type Indicator Assessment (MBTI);
- A review and discussion of individual MBTI results included within the Type 2 Interpretive Report and defining facets, including effective communication, making decisions, managing change, and managing conflict/problem solving; and
- A review of the group dynamics, types, and preferences, including temperaments and stress management.

The group identified individual strengths and leadership areas for personal development, and Ms. Brown charted those items.

51 The Board discussed the potential for a brief follow-up by Ms. Brown in a couple of months,
52 including those that were absent this evening. Ms. Brown stated she would have the lists typed
53 up and transmitted to the MPWD.
54

55 Ms. Brown closed with stating this was a very good exercise for Board growth and positive
56 direction for progress toward other Board development items identified in the MPWD 2016
57 Strategic Plan.
58

59 **B. Other Topics for the Good of the Order**

60
61 There were no other topics discussed by the Board.
62

63 **4. ADJOURNMENT**

64 Director Stuebing moved to adjourn at 8:45PM, Director Linvill seconded, and it was
65 unanimously approved.
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69 _____
70 DISTRICT SECRETARY

71 APPROVED:

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74 BOARD PRESIDENT

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REGULAR MEETING
OF THE BOARD OF DIRECTORS
OF THE MID-PENINSULA WATER DISTRICT

June 23, 2016
Belmont, California

1. OPENING

A. Call to Order:

The regular meeting of the Mid-Peninsula Water District Board of Directors was called to order by President Zucca at 6:30 PM.

B. Pledge of Allegiance – The Pledge of Allegiance was led by Vice President Warden.

C. Establishment of Quorum:

PRESENT: Directors Linvill, Vella, Warden, and Zucca.

ABSENT: Director Stuebing.

A quorum was present.

ALSO PRESENT: General Manager Tammy Rudock, District Secretary/Administrative Services Manager Candy Pina, Operations Manager Rene Ramirez, District Counsel Joan Cassman, and District Treasurer Jeff Ira.

The District Engineer was absent.

2. PUBLIC COMMENTS

None.

3. AGENDA REVIEW: ADDITIONS/DELETIONS AND PULLED CONSENT ITEMS

None.

4. ACKNOWLEDGEMENTS/PRESENTATIONS

None.

5. CONSENT AGENDA

A. Approve Minutes for the Special Board Meeting of May 25, 2016.

B. Approve Minutes for the Regular Board Meeting of May 26, 2016.

C. Approve Expenditures from May 19, 2016, through June 14, 2016.

Director Vella moved to approve the Consent Agenda, Director Linvill seconded, and it was unanimously approved with the following qualifications:

Director Vella and Vice President Warden abstained on the May 25th Special Board Meeting Minutes; therefore, the minutes were pulled from the Consent Agenda until such time as three Board members can vote on them. Vice President Warden abstained from the May 26th Regular Board Meeting Minutes.

6. HEARINGS AND APPEALS

51 **A. Consider Resolution 2016-04 Approving the MPWD Water Shortage Contingency**
52 **Plan**

53 General Manager Rudock presented a summary review of the Water Shortage
54 Contingency Plan (WSCP). It is a completely new plan with more user friendly
55 protocols. The WSCP is a stand-alone document and geared specifically for MPWD for
56 conservation and water efficiency planning, particularly during water supply shortages. It
57 includes an assessment of past and present water usage to determine baselines and
58 targets as required by SBx7-7, the Water Conservation Act of 2009. The public review
59 draft of the WSCP was made available at several locations in anticipation of this
60 evening's public hearing. The MPWD's published and posted public hearing notice
61 included the WSCP.
62

63 **B. Consider Resolution 2016-05 Approving the 2016 Urban Water Management Plan**

64 General Manager Rudock reported there were no changes made to the 2015 Urban
65 Water Management Plan (UWMP) from what was presented last month. All sections in
66 the UWMP are required under the law and the Plan covers years 2015-2020. The
67 UWMP facilitates local and regional water planning activities and supports the MPWD's
68 long-range water resource planning goals. The public review draft of the UWMP was
69 made available at several locations in anticipation of this evening's public hearing. The
70 appropriate hearing notice was published and posted on May 31, 2016.
71

72 Staff reported that the City of Belmont's Community Development Director replied that
73 he had reviewed the draft UWMP and WSCP and had no comments. No other
74 comments were received prior to the public hearing.
75

76 President Zucca opened the public hearings. Seeing there were no comments from the
77 public, Vice President Warden closed the public hearings.
78

79 Director Vella expressed concern that because there were no comments: was the
80 MPWD staff doing all they could to reach the public? MPWD's professional consultant,
81 Marty Laporte of ManageWater, Inc. replied that what MPWD is experiencing is typical
82 across the industry, and does not mean that MPWD had not adequately noticed the
83 public. General Manager Rudock reported not only the public notice of the hearings
84 published in the Daily Journal newspaper for two consecutive weeks and posted at the
85 MPWD, but that the draft documents have been on the MPWD website for a few months,
86 and available for review at the Belmont Library, Belmont City Hall, San Carlos Library,
87 San Carlos City Hall, and San Mateo County Government Center. The Belmont
88 Chamber of Commerce also sent out notices on MPWD's behalf.
89

90 Vice President Warden moved to approve Resolution 2016-04 Approving the MPWD
91 Water Shortage Contingency Plan and Resolution 2016-05 Approving the Urban Water
92 Management Plan, Director Vella seconded. Roll call was taken and the resolutions
93 were unanimously approved.
94

95 **7. DROUGHT AND WATER CONSERVATION**

96 **A. Water Conservation Progress Report**

97 General Manager Rudock summarized her written report and referenced the May
98 reduction in water use totaling 34.5% less than May 2013, with a cumulative water
99 savings of 27% since June 1, 2015. She added that the State Water Resources Control
100 Board is now discussing what the new goals should be given the current conservation
101 efforts and available water. The San Francisco Public Utilities Commission (SFPUC)

102 provided its report provided to the state, including its projected water supply availability
103 for wholesale customers like the MPWD within the Regional Water System. MPWD's
104 self-certification resulted in a requirement of 0% (-.000004) reduction goal from 2013
105 water use. However, the SFPUC requested a voluntary 10% water use reduction goal,
106 and the MPWD included that goal within its self-certification to the State. This
107 information was reported timely by June 22nd.
108

109 Director Linvill pointed out that while the SFPUC might currently have excess water
110 supply, Californians are not out of the woods yet. We need four years of rainfall to get
111 back to normal. Vice President Warden said that customers accepted brown lawns for
112 this year, but it will be interesting to see what happens this coming year. President
113 Zucca added that both San Jose and Santa Clara are being considered as permanent
114 wholesale customers by the SFPUC. If they come on board, there may be changes to
115 the caps on water purchases for the current agencies. Director Linvill said that California
116 is a desert and customers need to be reminded of that. Director Vella said that in
117 MPWD's messaging, there needs to be a qualification that we are not out of the woods
118 yet. General Manager Rudock requested direction from the Board with regard to future
119 water conservation reporting. She will include the conservation report in the General
120 Manager report beginning next month.
121

122 **8. REGULAR BUSINESS AGENDA**

123 **A. Consider Resolution 2016-07 Approving MPWD Fiscal Year 2016/2017 Operating** 124 **Budget**

125 General Manager Rudock noted that there were no changes from the proposed FY
126 2016/2017 budgets except for account #6042 – Short/Long Term Disability Insurance.
127 There could possibly be some changes in the short-term disability insurance program.
128 The current waiting period is 60 days, which is an excessively long time for a short-term
129 benefit. This waiting period is not comparable with other standard short-term disability
130 programs that have 7-day, 10-day, or 15-day waiting periods. If the waiting period were
131 changed, there would be associated price increases in the program. The overall
132 proposed FY 2016/2017 Operating Budget is actually projected less than the FY
133 2015/2016 Operating Budget. Even with the MPWD rate increases effective July 1,
134 2016, the resulting decreased water sales because of continued water conservation by
135 customers required staff to maintain or reduce operational expenses where possible.
136

137 Director Linvill stated that typically Salaries and Wages are combined with Payroll Taxes
138 and Benefits when included in a pie chart. She suggested that be changed within the
139 2016-2017 Operating Budget before publishing the document.
140

141 Discussion ensued around having Depreciation moved down within the Operating
142 Budget, having the subtotal of Operating Expenses not include Depreciation. There will
143 be an ad hoc finance committee meeting to discuss this, as there may be a transparency
144 issue if this is changed.
145

146 Director Vella moved to approve Resolution 2016-07 Approving MPWD Fiscal year
147 2016/2017 Operating Budget, Vice President Seconded. Roll call was taken, and it was
148 unanimously approved.
149

150 **B. Consider Resolution 2016-07 Approving MPWD Fiscal Year 2016-2017 Capital** 151 **Budget**

152 Director Linvill felt the Fiscal Impact section in the staff report should have been more
153 thorough rather than referencing financial details in the budget document in order to
154 avoid confusion. Vice President Warden disagreed and felt the reporting was sufficient.
155 General Manager Rudock responded that staff was trying not to be duplicative.
156

157 Director Vella discussed the AMI meters, noting that currently MPWD has two types of
158 meters in the ground. He wanted to make sure this two-system approach was working
159 properly, and felt it better to have all customers on the new AMI system as soon as
160 possible.
161

162 Vice President Warden moved to approve Resolution 2016-07 Approving MPWD Fiscal
163 Year 2016-2017 Capital Budget, Director Linvill seconded. Roll was taken, and it was
164 unanimously approved.
165

166 **C. MPWD Capital Improvement Program (CIP) Discussion:**

167 **1. Approved Resolution 2016-06 Authorizing 5-Year MPWD CIP added to CIP**
168 **Informational Summary & FAQs**

169 General Manager Rudock noted that the approved 5-year Capital Improvement
170 Program (CIP) was added to the FAQs and that staff would develop a section at the
171 MPWD website for this information and update it as priorities change within the
172 capital program.
173

174 Vice President Warden stated for the record that he did not vote for this resolution
175 because he was not at the board meeting, and he would not have voted for it had he
176 been present. The only reason he would not have voted for it was because he did
177 not feel there had been enough done to figure out how to try to use money, capital
178 reserves, and District assets to avoid spending millions of dollars in debt service.
179 The financing is going to cost MPWD \$8 million dollars in interest. In five years,
180 MPWD will spend \$20,000,000 and then pay it off over the next 15 years after that.
181

182 Director Linvill was confused as to why there was not a staff report for this agenda
183 item. President Zucca agreed. The Board requested there be a staff report, even a
184 simple one, included on all items listed in the agenda so there is no confusion on the
185 documents being presented.
186

187 President Zucca had a question about the Monthly Expenditures Report within the
188 Consent Agenda. He questioned if the appropriate place for this report is on the
189 Consent Agenda or with the Financial Reports section on the agenda. There was
190 discussion about legal requirements for approving the check register for monthly
191 expenditures. The Board requested a legal opinion from District Counsel on the
192 issue.
193

194 **2. Updates to Process for Selection/Award of Professional Services Contracts for**
195 **CIP**

196 President Zucca wanted to ensure that last month's discussion resulted in a better
197 understanding of the District Engineer's contract with MPWD. District Counsel
198 Cassman summarized that there are three categories in the contract. MPWD
199 decides contracts on other work outside the scope of his contract. President Zucca
200 stated the overall philosophy is that the General Manager makes the decision on
201 what work goes to the District Engineer, it is not automatic. There is a \$25,000 limit
202 on the General Manager's authority; therefore, the Board will be involved in

203 approving the General Manager's decisions. Director Linvill agreed it is in the best
204 interest of MPWD to use the District Engineer for what is spelled out in the contract,
205 but wants to caution staff to make sure that decisions are fully transparent so MPWD
206 will hold up under public scrutiny. She suggested there be a document written
207 explaining each decision. District Counsel Cassman reiterated the contract is very
208 clear as to the types of services the District Engineer provides and the procedures by
209 which they are provided. President Zucca is in favor of using an SOQ (Statement of
210 Qualifications) process for specialized services. Vice President Warden suggested
211 that staff balance the following: saving money, transparency with all decisions, and
212 use of other consultants when appropriate.
213

214 **9. MANAGER AND BOARD REPORTS**

215 **A. General Manager's Report**

216 General Manager Rudock provided a brief status report on the Personnel Manual, noting
217 that the MPWD Employees Association would have comments back by to her by
218 June 30th on the few items that are negotiable and any impacts related to changes made
219 within the manual.
220

221 She also discussed the new requirements under SB272 – Public Records Act which are
222 applicable to MPWD. This act requires that all software systems being used by MPWD
223 are required to be put on the website for transparency purposes. Software packages
224 which have personal information about customers are not to be listed, including our
225 security system or SCADA system. This information is required to be on our website by
226 July 1, 2016 and staff will make sure MPWD complies with this requirement.
227

228 She asked the Board to consider videotaping the monthly regular meetings and posting
229 to the MPWD website, and move to action-only minutes, which would save many hours
230 of staff time and consultant time in producing and reviewing them. The Board decided
231 against both videotaping the meetings and action-only minutes.
232

233 She discussed the GM Summit she attended, noting that she was part of a pre-
234 conference workshop, where she did speed-coaching for those interested in becoming a
235 General Manager. She reported that she learned a lot about some positive impacts but
236 also risks of public agencies' use of social media and that a staff member needs to be
237 dedicated to managing the public information and media sites. She stated the trainers
238 were knowledgeable attorneys in the field of social media and that the Board might be
239 interested in a training session in a potential future development session. She finished
240 her report sharing the new law being considered about legalizing marijuana for
241 recreational use in California and how that might impact the workplace.
242

243 She has been asked to serve on the ACWA/JPIA liability insurance committee, and she
244 accepted. It involves one committee meeting a year in Roseville, and possible
245 participation at annual ACWA/JPIA conferences.
246

247 Vice President Warden asked about the living wage adjustment which is currently part of
248 the MPWD Employees Association's agreement which will go into effect for this year as
249 of August 1, 2016. General Manager Rudock replied that would be considered by the
250 Board next month, and that staff was waiting on the January through June 2016 Bureau
251 of Labor Statistics information; it had not been posted through June 2016 yet.
252

253 **1. Supplemented by Administrative Services Manager's Report**

254 Administrative Services Manager Pina noted that the Accela Springbrook financial
255 management system implementation is on track, and that the field testing for the
256 financial audit will take place the first week in August.
257

258 **2. Supplemented by Operations Manager's Report**

259 Operations Manager Ramirez highlighted that staff responded to and completed 576
260 Underground Service Alert (USA) requests because PG&E is replacing power poles,
261 which require investigatory efforts on many individual poles.
262

263 **3. Supplemented by District Engineer's Report**

264 General Manager Rudock reported that there would be a project report next month
265 on the Alameda de las Pulgas main replacement project.
266

267 **B. Financial Reports**

268 General Manager noted that the target budget percentage for this month is 91.7%.
269 Actual revenues were 81.5% of budget and actual expenses were 82.5% of budget.
270

271 **C. Director Reports**

272 None.
273

274 **10. FUTURE AGENDA BUSINESS ITEMS**

275 None.
276

277 **11. COMMUNICATIONS**

278 None.
279

280 **12. ADJOURNMENT**

281 Director Warden moved to adjourn at 8:30 PM, Director Vella seconded, and it was
282 unanimously approved.
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DISTRICT SECRETARY

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APPROVED:

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BOARD PRESIDENT

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REGULAR MEETING
OF THE BOARD OF DIRECTORS
OF THE MID-PENINSULA WATER DISTRICT

July 28, 2016
Belmont, California

1. OPENING

A. Call to Order:

The regular meeting of the Mid-Peninsula Water District Board of Directors was called to order by Vice President Warden at 6:30 PM.

B. Pledge of Allegiance – The Pledge of Allegiance was led by Director Vella.

C. Establishment of Quorum:

PRESENT: Directors Stuebing, Vella, and Warden.

ABSENT: Directors Linvill and Zucca.

A quorum was present.

ALSO PRESENT: General Manager Tammy Rudock, District Secretary/Administrative Services Manager Candy Pina, Operations Manager Rene Ramirez, District Counsel Julie Sherman, District Engineer Joubin Pakpour who arrived at 6:45PM, and District Treasurer Jeff Ira.

2. PUBLIC COMMENTS

None.

3. AGENDA REVIEW: ADDITIONS/DELETIONS AND PULLED CONSENT ITEMS

None.

4. ACKNOWLEDGEMENTS/PRESENTATIONS

None.

5. CONSENT AGENDA

A. Approve Minutes for the Regular Board Meeting of June 23, 2016.

B. Approve Expenditures from June 15, 2016, through July 20, 2016.

C. Approve Contract for Professional Services in the amount of \$48,200 with John Davidson d/b/a Jrocket77 Design & Marketing for Public Outreach/Education/Relations Services and MPWD Website Updates

Director Stuebing moved to approve the Consent Agenda, Director Vella seconded, and it was unanimously approved with the following qualifications:

Director Stuebing abstained on the June 23, 2016 Special Board Meeting Minutes as he was not present; therefore, the minutes were pulled from the Consent Agenda until such time as three Board members who were present at the June 23, 2016 meeting can vote on them.

51 **6. HEARINGS AND APPEALS**

52 None.

53 **7. REGULAR BUSINESS AGENDA**

54 **A. Receive DRAFT Seismic Retrofit Evaluation and Strategy Development**
55 **Report for the Hallmark Tank Site, and Consider First Amendment to**
56 **Professional Services Agreement between the MPWD and Cornerstone**
57 **Structural Engineering Group, Inc., in the amount of \$11,400 for Additional**
58 **Structural Engineering and Seismic Analyses**

59 District Engineer Pakpour provided an overview of the report and summary of the
60 proposal. Recommendations are included in the report, including a potential retrofit
61 option involving raising the tank, which should be investigated further for viability.
62

63 Director Stuebing liked the potential retrofit option. Vice President Warden would like to
64 look at this from a risk management perspective, with an analysis of each option.
65 Director Vella would like to receive more information from those agencies that have
66 successfully executed the retrofit option.
67

68 General Manager Rudock explained that while this contract amendment was within her
69 signature authority for approval, staff presented it for the Board's consideration because
70 the total amount slightly exceeds what might be considered a reasonable amount for a
71 contract amendment and because she wanted the Board informed about the retrofit
72 option.
73

74 Director Stuebing moved to approve the First Amendment to Professional Services
75 Agreement between MPWD and Cornerstone Structural Engineering and Seismic
76 Analyses, Director Vella seconded, and it was unanimously approved.
77

78 **B. Approve Resolution 2016-09 Establishing the Appropriations Limit**
79 **Applicable to the MPWD during Fiscal Year 2016/2017**

80 District Counsel Julie Sherman summarized the appropriations limit, which while
81 negligibly impacting the MPWD, is considered by the Board each year. Director Vella
82 moved to approve Resolution 2016-09 establishing the Appropriations Limit Applicable
83 to the MPWD during Fiscal Year 2016/2017, Director Warden seconded. Roll was
84 taken, and it was unanimously approved.
85

86 **C. Approve Resolution 2016-10 Authorizing a 2.7% Living Wage Adjustment to**
87 **Salary Ranges for all MPWD Personnel Classifications, effective August 1,**
88 **2016**

89 General Manager Rudock briefly summarized the existing Letter Agreement between the
90 MPWD and the MPWD Employees Association (MPWDEA) that includes a living wage
91 adjustment in 2015, 2016, and 2017 and automatically applies to employees that
92 successfully received a satisfactory evaluation. Director Vella asked that the salary
93 ranges in the salary plan include an hourly rate. Director Vella moved to approve
94 Resolution 2016-10 authorizing a 2.7% Living Wage Adjustment to Salary Ranges for all
95 MPWD Personnel Classifications, effective August 1, 2016, Director Stuebing seconded.
96 Roll was taken, and it was unanimously approved.
97

98 **D. BAWSCA Update**

99 Director Vella summarized the meeting with the following points:

- 100 a. The SFPUC made a presentation discussing the current water levels, which look
- 101 promising. Precipitation and snow pack were good.
- 102 b. The SFPUC is also working with reduced revenues.
- 103 c. The BAWSCA CEO's performance review is coming up.
- 104

105 **8. MANAGER AND BOARD REPORTS**

106 **A. General Manager's Report**

- 107 ▪ The MPWD 2015 UWMP was timely submitted to the State by July 1st.
- 108 ▪ A brief status update on the Personnel Manual was provided, noting that the
- 109 MPWD Employees Association's deadline for a response is August 16th. It
- 110 should be introduced to the Board at its September regular meeting. Vice
- 111 President Warden suggested a committee meeting with him and Director Linvill
- 112 to discuss the final draft document prior to presenting it to the full Board.
- 113 ▪ Staff is working with Bartle Wells on the final review of the MPWD's
- 114 miscellaneous fees and charges. The summary of those fees is included on
- 115 page 112, and General Manager Rudock asked if the Board had any others to
- 116 consider.
- 117 ▪ As directed by the Board, the Water Conservation Progress report was attached
- 118 to the General Manager's report. There was a 24% reduction in water use for
- 119 June 2016 compared to June 2013.
- 120 ▪ The Board was briefed on the annual report on the MPWD's Safety and Loss
- 121 Prevention Program.
- 122 ▪ The Board was also briefed on the annual report on claims filed against the
- 123 MPWD in FY 2015/2016.
- 124

125 **1. Supplemented by Administrative Services Manager's Report**

- 126 ▪ Field testing for the audit will start on August 1st.
- 127 ▪ The accounting portion of the new financial management system,
- 128 Springbrook, will be going live the week of August 8th.
- 129

130 **2. Supplemented by Operations Manager's Report**

- 131 • The SFPUC might be shutting down its supply line to the MPWD for some
- 132 warranty system repair work, and staff has worked out a plan to have its
- 133 storage system full prior to that time. Dekoven Tank, which was out of
- 134 service, is now back in service as of July. Staff monitored water quality for 4-
- 135 6 days, and it has been good. Staff has also developed a notice for
- 136 distribution to customers to curtail their water use during the shutdown to
- 137 ensure adequate water supply during that time.
- 138 • At the 700 Island Parkway site, the building (dealership) is to be demolished
- 139 and the hydrant is to be relocated.
- 140

141 **3. Supplemented by District Engineer's Report**

142 A progress report was presented on the Alameda de las Pulgas water main

143 replacement project. The contractor is completing the installation of an eight inch

144 water main with service tie-ins. Two out of eight tie-ins will be completed by the end

145 of the week. PG&E had abandoned lines in the construction area, which created

146 some issues for the project, but the issues have been resolved. Michael Anderson is

147 doing a great job inspecting in the field on behalf of the MPWD. There were some

148 issues with the traffic control plan at the last minute with the City of Belmont. The

149 City had confirmed the traffic control plan back on May 20th, but changed their

150 approval just as the project started. There is a total of less than 5% change orders
151 on this project to date. The project is on schedule.
152

153 **B. Financial Reports**

154 General Manager Rudock noted that the target budget percentage for this month is
155 100%. Actual revenues were 91% of budget and actual expenses were 90.5% of
156 budget. She highlighted the new line added to the summary report, which recorded
157 Operating Expenditures less Depreciation, as requested by Director Linvill.
158

159 **C. Director Reports**

160 Director Vella noted that the Belmont Heights site will not be participating in the National
161 Night Out event this year.
162

163 Director Stuebing noted that he will be missing Belmont's National Night Out because he
164 will be attending the San Mateo County CSDA meeting, where Joshua Cosgrove is the
165 new president.
166

167 **9. FUTURE AGENDA BUSINESS ITEMS**

168 None.
169

170 **10. COMMUNICATIONS**

171 General Manager Rudock made available a report she received regarding the results of the
172 recent San Mateo County "All Mail Ballot" Election.
173

174 **11. ADJOURNMENT**

175 Director Stuebing moved to adjourn at 7:50 PM, Director Vella seconded, and it was
176 unanimously approved.
177

178
179
180 _____
181 DISTRICT SECRETARY

182
183 APPROVED:

184
185
186 _____
187 BOARD PRESIDENT

Type	Num	Date	Name	Account	Paid Amount
Bill Pmt -Check		07/31/2016	ACCELA, INC. #774375	1030 - Cash- Checking	
Bill	Reg052516EngageConf	05/25/2016	ACCELA, INC. #774375	2100 - Accounts Payable	\$ -
					\$ -
Check	EFT072516-1	07/25/2016	ICMA contributions	1030 - Cash- Checking	
				1430 - Payroll Clearing A/C	\$ (1,266.24)
					\$ (1,266.24)
Check	EFT072916-1	07/29/2016	Health Equity	1030 - Cash- Checking	
				1430 - Payroll Clearing A/C	\$ (850.00)
					\$ (850.00)
Check	EFT072516-2	07/25/2016	CALPERS	1030 - Cash- Checking	
				1430 - Payroll Clearing A/C	\$ (3,161.30)
				1430 - Payroll Clearing A/C	\$ (3,783.16)
					\$ (6,944.46)
Check	EFT072916-2	07/29/2016	ICMA contributions	1030 - Cash- Checking	
				1430 - Payroll Clearing A/C	\$ (3,416.63)
					\$ (3,416.63)
Check	EFT072516-3	07/25/2016	Health Equity	1030 - Cash- Checking	
				1430 - Payroll Clearing A/C	\$ (1,209.58)
					\$ (1,209.58)
Check	EFT072916-3	07/29/2016	CALPERS	1030 - Cash- Checking	
				1430 - Payroll Clearing A/C	\$ (1,163.07)
				1430 - Payroll Clearing A/C	\$ (1,391.89)
					\$ (2,554.96)
Check	EFT072516-5	07/22/2016	ADP Payroll Fees	1030 - Cash- Checking	
				7106 - Prof Serv - Accting & Payroll	\$ (153.64)
					\$ (153.64)
Check	EFT072516-8	07/29/2016	ADP Payroll Fees	1030 - Cash- Checking	
				7106 - Prof Serv - Accting & Payroll	\$ (99.83)
					\$ (99.83)

Bill Pmt -Check	30971	07/26/2016 AT&T 60197	1030 - Cash- Checking	
Bill	8352298	07/17/2016	7005 - Utilities - Telephones	\$ (19.57)
Bill	8352297	07/17/2016	7005 - Utilities - Telephones	\$ (19.30)
Bill	8367490	07/20/2016	7005 - Utilities - Telephones	\$ (1,151.07)
				<u>\$ (1,189.94)</u>
Bill Pmt -Check	30972	07/26/2016 BAWSCA	1030 - Cash- Checking	
Bill	2994	06/30/2016	6307 - Lawn-Be-Gone Rebates	\$ (473.52)
Bill	2993	06/30/2016	6308 - Rain Barrels Rebate	\$ (14.05)
Bill	2992	06/30/2016	6305 - HET (High Efficiency Toilet)	\$ (576.45)
				<u>\$ (1,064.02)</u>
Bill Pmt -Check	30973	07/26/2016 CINTAS CORPORATION	1030 - Cash- Checking	
Bill	464628809	07/21/2016	6052 - Uniforms	\$ (367.02)
				<u>\$ (367.02)</u>
Bill Pmt -Check	30974	07/26/2016 CITY OF BELMONT	1030 - Cash- Checking	
Bill	16335	07/18/2016	6902 - Claims	\$ (334.53)
				<u>\$ (334.53)</u>
Bill Pmt -Check	30975	07/26/2016 COMCAST BUSINESS SERVICES	1030 - Cash- Checking	
Bill	44654643	07/15/2016	7001 - Utilities - Internet/Cable	\$ (635.33)
				<u>\$ (635.33)</u>
Bill Pmt -Check	30976	07/26/2016 FRONTIER PRECISION, INC.	1030 - Cash- Checking	
Bill	150820	07/20/2016	1410 - Prepaid Expenses	\$ (590.00)
				<u>\$ (590.00)</u>
Bill Pmt -Check	30977	07/26/2016 GRANITE ROCK, INC.	1030 - Cash- Checking	
Bill	972600	07/16/2016	6404 - Mains/Distribution	\$ (263.88)
				<u>\$ (263.88)</u>
Bill Pmt -Check	30978	07/26/2016 HOME DEPOT	1030 - Cash- Checking	
Bill	5014357	07/22/2016	6502 - Equipment & Tools	\$ (350.37)
Bill	5014358	07/22/2016	6404 - Mains/Distribution	\$ (298.04)
Bill	2283360	07/25/2016	6501 - Buildings & Grounds	\$ (45.75)
				<u>\$ (694.16)</u>
Bill Pmt -Check	30979	07/26/2016 INTERSTATE ALL BATTERY CENTER	1030 - Cash- Checking	
Bill	1915002005906	07/21/2016	6408 - Employee Safety	\$ (92.65)
				<u>\$ (92.65)</u>

Bill Pmt -Check	30980	07/26/2016 LYNGSO GARDEN MATERIAL INC	1030 - Cash- Checking	
Bill	918403	07/21/2016	2070 - Customer Deposits	\$ (16.90)
Bill	918445	07/21/2016	2070 - Customer Deposits	\$ (45.78)
				<u>\$ (62.68)</u>
Bill Pmt -Check	30981	07/26/2016 MHN	1030 - Cash- Checking	
Bill	3200081482	07/17/2016	1410 - Prepaid Expenses	\$ (45.54)
				<u>\$ (45.54)</u>
Bill Pmt -Check	30982	07/26/2016 OFFICE DEPOT, INC.	1030 - Cash- Checking	
Bill	851156484001	07/15/2016	6701 - Office Supplies	\$ (64.08)
				<u>\$ (64.08)</u>
Bill Pmt -Check	30983	07/26/2016 PG&E CFM/PPC DEPT	1030 - Cash- Checking	
Bill	4665-4JUL2016	07/14/2016	7003 - Utilities - Electric - Pumping	\$ (768.08)
			7004 - Utilities - Electric-Bldgs&Grnd	\$ (2,089.79)
				<u>\$ (2,857.87)</u>
Bill Pmt -Check	30984	07/26/2016 PUMP REPAIR SERVICE CO	1030 - Cash- Checking	
Bill	037647	07/01/2016	2050 - Accrued Expenses	\$ (15,133.30)
				<u>\$ (15,133.30)</u>
Bill Pmt -Check	30985	07/26/2016 SAN FRANCISCO WATER DEPT	1030 - Cash- Checking	
Bill		07/18/2016	6101 - SFPUC Treated Water	\$ (447,202.73)
			6102 - BAWSCA (Debt Service Surcharge)	\$ (39,621.00)
			6104 - SFPUC Water Service Charge	\$ (6,522.00)
				<u>\$ (493,345.73)</u>
Bill Pmt -Check	30986	07/26/2016 STANDARD INSURANCE COMPANY	1030 - Cash- Checking	
Bill		07/21/2016	1410 - Prepaid Expenses	\$ (780.01)
				<u>\$ (780.01)</u>
Bill Pmt -Check	30987	07/26/2016 STEPFORD BUSINESS, INC.	1030 - Cash- Checking	
Bill	1601687	06/30/2016	6706 - Computer Supplies & Upgrades	\$ (320.00)
				<u>\$ (320.00)</u>
Bill Pmt -Check	30988	07/26/2016 TAMMY A. RUDOCK	1030 - Cash- Checking	
Bill		07/01/2016	7204 - Employee Travel/Training	\$ (31.76)
Bill		07/22/2016	6902 - Claims	\$ (58.60)
				<u>\$ (90.36)</u>

Bill Pmt -Check	30989	07/26/2016 UNDERGROUND SERVICE ALERT	1030 - Cash- Checking	
Bill	16070605	07/20/2016	1410 - Prepaid Expenses	\$ (624.46)
				<u>\$ (624.46)</u>
Bill Pmt -Check	30990	07/26/2016 VERIZON WIRELESS	1030 - Cash- Checking	
Bill	9768746432	07/15/2016	7002 - Utilities - Cell Telephone	\$ (73.68)
				<u>\$ (73.68)</u>
Bill Pmt -Check	30991	07/26/2016 CINTAS CORPORATION	1030 - Cash- Checking	
Bill	5005584936	07/25/2016	6707 - Security & Safety	\$ (213.54)
				<u>\$ (213.54)</u>
Bill Pmt -Check	30992	07/26/2016 VERIZON WIRELESS	1030 - Cash- Checking	
Bill	9768746431	07/15/2016	7002 - Utilities - Cell Telephone	\$ (1,539.98)
				<u>\$ (1,539.98)</u>
Check	30993	07/28/2016 RICK BISIO	1030 - Cash- Checking	
			2050 - Accrued Expenses	\$ (500.00)
				<u>\$ (500.00)</u>
Check	30994	07/28/2016 JON TSCHARNER	1030 - Cash- Checking	
			2050 - Accrued Expenses	\$ (100.00)
				<u>\$ (100.00)</u>
Check	30995	07/28/2016 ROBBY PICCOLOTTI	1030 - Cash- Checking	
			2050 - Accrued Expenses	\$ (100.00)
				<u>\$ (100.00)</u>
Check	30996	07/28/2016 HENRY YOUNG	1030 - Cash- Checking	
			2050 - Accrued Expenses	\$ (500.00)
				<u>\$ (500.00)</u>
Bill Pmt -Check	30998	07/31/2016 AIRGAS, LLC	1030 - Cash- Checking	
Bill	9053552401	07/20/2016	6502 - Equipment & Tools	\$ (544.42)
				<u>\$ (544.42)</u>
Bill Pmt -Check	30999	07/31/2016 AT&T 60197	1030 - Cash- Checking	
Bill	8376661	07/24/2016	7005 - Utilities - Telephones	\$ (19.32)
Bill	8387020	07/28/2016	7005 - Utilities - Telephones	\$ (19.34)
				<u>\$ (38.66)</u>

Bill Pmt -Check	31000	07/31/2016 C G UHLENBERG LLP	1030 - Cash- Checking	
Bill	11971	07/01/2016	7111 · Prof Serv - District Treasurer	\$ (300.00)
			7106 · Prof Serv - Accting & Payroll	\$ (1,025.00)
				<u>\$ (1,325.00)</u>
Bill Pmt -Check	31001	07/31/2016 CINTAS CORPORATION	1030 - Cash- Checking	
Bill	464631604	07/28/2016	6052 · Uniforms	\$ (376.26)
				<u>\$ (376.26)</u>
Bill Pmt -Check	31002	07/31/2016 GRANITE ROCK, INC.	1030 - Cash- Checking	
Bill	973953	07/21/2016	2070 · Customer Deposits	\$ (251.79)
				<u>\$ (251.79)</u>
Bill Pmt -Check	31003	07/31/2016 HANSON, BRIDGETT	1030 - Cash- Checking	
Bill	1171334	07/28/2016	1746 · Folger Demo - Prof Svs	\$ (38.02)
			1746 · Folger Demo - Prof Svs	\$ (171.98)
Bill	1171335	07/28/2016	7101 · Prof Serv - District Counsel	\$ (1,337.00)
Bill	1171336	07/28/2016	7101 · Prof Serv - District Counsel	\$ (490.00)
Bill	1171337	07/28/2016	7101 · Prof Serv - District Counsel	\$ (1,000.00)
Bill	1171338	07/28/2016	2070 · Customer Deposits	\$ (340.00)
Bill	1171339	07/28/2016	2070 · Customer Deposits	\$ (550.00)
				<u>\$ (3,927.00)</u>
Bill Pmt -Check	31004	07/31/2016 HOME DEPOT	1030 - Cash- Checking	
Bill	8101960	07/29/2016	6502 · Equipment & Tools	\$ (60.19)
				<u>\$ (60.19)</u>
Bill Pmt -Check	31005	07/31/2016 INDOOR AIR DESIGN, INC.	1030 - Cash- Checking	
Bill	101225	07/31/2016	1410 · Prepaid Expenses	\$ (175.00)
				<u>\$ (175.00)</u>
Bill Pmt -Check	31006	07/31/2016 KIMBALL MIDWEST	1030 - Cash- Checking	
Bill	4997014	07/01/2016	6501 · Buildings & Grounds	\$ (175.40)
Bill	5017519	07/13/2016	6501 · Buildings & Grounds	\$ (12.75)
				<u>\$ (188.15)</u>
Bill Pmt -Check	31007	07/31/2016 MATCO TOOLS	1030 - Cash- Checking	
Bill	249833	07/19/2016	6502 · Equipment & Tools	\$ (462.67)
Bill	250155	07/26/2016	6502 · Equipment & Tools	\$ (20.60)
				<u>\$ (483.27)</u>

Bill Pmt -Check	31008	07/31/2016 McNAMARA TRANSPORT, INC.	1030 - Cash- Checking	
Bill	9894	07/01/2016	6404 · Mains/Distribution	\$ (1,600.00)
				<u>\$ (1,600.00)</u>
Bill Pmt -Check	31009	07/31/2016 OFFICE DEPOT, INC.	1030 - Cash- Checking	
Bill	852197596001	07/21/2016	6701 · Office Supplies	\$ (95.47)
Bill	853353964001	07/27/2016	6701 · Office Supplies	\$ (106.35)
				<u>\$ (201.82)</u>
Bill Pmt -Check	31010	07/31/2016 OREILLY AUTO PARTS, INC.	1030 - Cash- Checking	
Bill	3535-466982	07/14/2016	6503 · Vehicle & Large Equip	\$ (93.96)
Bill	3535-467153	07/15/2016	6502 · Equipment & Tools	\$ (57.13)
				<u>\$ (151.09)</u>
Bill Pmt -Check	31011	07/31/2016 PACIFIC FIRE SAFE	1030 - Cash- Checking	
Bill	009561	07/13/2016	6707 · Security & Safety	\$ (518.60)
				<u>\$ (518.60)</u>
Bill Pmt -Check	31012	07/31/2016 PACIFIC WEST SECURITY, INC.	1030 - Cash- Checking	
Bill	1029318-in	07/01/2016	6708 · Other Fees	\$ (16.31)
				<u>\$ (16.31)</u>
Bill Pmt -Check	31013	07/31/2016 PAKPOUR CONSULTING GROUP, INC	1030 - Cash- Checking	
Bill		06/15/2016	7102 · Prof Serv - District Engineer	\$ (500.00)
Bill	1981	07/31/2016	7102 · Prof Serv - District Engineer	\$ (406.88)
			2070 · Customer Deposits	\$ (262.50)
			2070 · Customer Deposits	\$ (262.50)
			2070 · Customer Deposits	\$ (262.50)
			2070 · Customer Deposits	\$ (262.50)
			2070 · Customer Deposits	\$ (262.50)
			7102 · Prof Serv - District Engineer	\$ (1,673.44)
			1721 · Alameda - Prof Svs	\$ (8,128.31)
			1726 · Karen Road - Prof Svs	\$ (6,113.63)
			1731 · Hallmark - Prof Svs	\$ (162.75)
				<u>\$ (18,297.51)</u>
Bill Pmt -Check	31014	07/31/2016 PENINSULA BUILDING MATERIALS	1030 - Cash- Checking	
Bill	384606	07/14/2016	6404 · Mains/Distribution	\$ (824.48)
				<u>\$ (824.48)</u>

Bill Pmt -Check	31015	07/31/2016 PG&E CFM/PPC DEPT	1030 - Cash- Checking	
Bill	4441-0Jul2016	07/28/2016	7003 - Utilities - Electric - Pumping	\$ (9.64)
				<u>\$ (9.64)</u>
Bill Pmt -Check	31016	07/31/2016 RECOLOGY SAN MATEO	1030 - Cash- Checking	
Bill		07/28/2016	6501 - Buildings & Grounds	\$ (651.04)
				<u>\$ (651.04)</u>
Bill Pmt -Check	31017	07/31/2016 RICOH Philadelphia	1030 - Cash- Checking	
				\$ -
Bill Pmt -Check	31018	07/31/2016 RICOH USA, INC. Pasadena	1030 - Cash- Checking	
Bill	5043558596	07/25/2016	6705 - Equipment Services/Maintenance	\$ (1,672.10)
				<u>\$ (1,672.10)</u>
Bill Pmt -Check	31019	07/31/2016 ROBERTS & BRUNE CO. INC.	1030 - Cash- Checking	
Bill	S1580570.001	07/28/2016	6404 - Mains/Distribution	\$ (258.43)
Bill	S1580552.001	07/28/2016	6406 - Fire Hydrants	\$ (244.16)
Bill	S1572765.001	07/28/2016	2070 - Customer Deposits	\$ (4,651.32)
Bill	S1580404.001	07/28/2016	6405 - Meters & Service	\$ (300.74)
Bill	S1580554.001	07/28/2016	6405 - Meters & Service	\$ (43.31)
				<u>\$ (5,497.96)</u>
Bill Pmt -Check	31020	07/31/2016 STEPFORD BUSINESS, INC.	1030 - Cash- Checking	
Bill	1601730	07/20/2016	1410 - Prepaid Expenses	\$ (1,400.00)
				<u>\$ (1,400.00)</u>
Bill Pmt -Check	31021	07/31/2016 VALLEY OIL COMPANY	1030 - Cash- Checking	
Bill	811077	07/20/2016	6504 - Fuel	\$ (875.04)
Bill	841262	07/22/2016	6504 - Fuel	\$ (763.98)
				<u>\$ (1,639.02)</u>
Bill Pmt -Check	31022	07/31/2016 AUDREY SATO	1030 - Cash- Checking	
Bill		07/26/2016	6307 - Lawn-Be-Gone Rebates	\$ (576.00)
				<u>\$ (576.00)</u>
Bill Pmt -Check	31023	07/31/2016 KEITH FUKUHARA	1030 - Cash- Checking	
Bill		07/26/2016	6307 - Lawn-Be-Gone Rebates	\$ (779.43)
				<u>\$ (779.43)</u>
Bill Pmt -Check	31024	07/31/2016 RICOH Philadelphia	1030 - Cash- Checking	
Bill	50963576	07/23/2016	6704 - Printing/Printing Supplies	\$ (133.81)
				<u>\$ (133.81)</u>

Bill Pmt -Check	31025	07/31/2016	STEPFORD BUSINESS, INC.	1030 - Cash- Checking	
Bill	1601650	06/30/2016		6706 - Computer Supplies & Upgrades	\$ (2,179.69)
					<u>\$ (2,179.69)</u>
TOTAL:					\$ 586,596.34

Accounts Payable

Checks by Date - Summary by Check Date

User: candyp
 Printed: 8/19/2016 2:09 PM



Check No	Vendor No	Vendor Name	Check Date	Check Amount
31250	CARQUEST	CARQUEST AUTO PARTS	08/12/2016	41.19
31251	CINTS	CINTAS CORPORATION	08/12/2016	376.26
31252	DAVIDSON	JOHN T. DAVIDSON	08/12/2016	3,315.00
31253	OREILLYA	OREILLY AUTO PARTS, INC.	08/12/2016	161.83
31254	PG&E	PG&E CFM/PPC DEPT	08/12/2016	6,505.34
31255	RJGORDON	R. J. GORDON CONSTRUCTION, INC.	08/12/2016	285,439.30
31256	RandB	ROBERTS & BRUNE CO. INC.	08/12/2016	1,138.46
Total for 8/12/2016:				296,977.38
31257	ACWAJPIA	ACWA/JPIA	08/19/2016	41,079.94
31258	airgas	AIRGAS, LLC	08/19/2016	139.65
31259	ATT60197	AT&T 60197	08/19/2016	37.57
31260	BAWSCA	BAY AREA WATER SUPPLY & CONSER	08/19/2016	188.00
31261	bplandsc	BAY POINTE LANDSCAPE	08/19/2016	3,150.00
31262	CINTS	CINTAS CORPORATION	08/19/2016	376.26
31263	COMCAST	COMCAST	08/19/2016	373.06
31264	FERGWATE	FERGUSON WATER	08/19/2016	2,079.45
31265	granite	GRANITE ROCK, INC.	08/19/2016	201.43
31266	HACHCOMI	HACH COMPANY INC	08/19/2016	1,757.64
31267	JULBROWN	JULIE M BROWN & ASSOC	08/19/2016	5,245.94
31268	PARS	PARS	08/19/2016	300.00
31269	PRECISE	PRECISE, INC.	08/19/2016	8,744.20
31270	RICOHPhi	RICOH Philadelphia	08/19/2016	339.12
31271	VANGUARE	VANGUARD CLEANING SYSTEMS, INC	08/19/2016	385.00
Total for 8/19/2016:				64,397.26
Report Total (22 checks):				361,374.64



AGENDA ITEM NO. 5.E.

DATE: August 25, 2016
TO: Board of Directors
FROM: Rene A. Ramirez, Operations Manager

SUBJECT: CONSIDER RESOLUTION 2016-11 ACCEPTING A GRANT OF EASEMENT (NON-EXCLUSIVE) FROM THE CRYSTAL SPRINGS UPLAND SCHOOL OF A 45-SQUARE FOOT PIECE OF PROPERTY NEAR 8 DAVIS DRIVE BEHIND THE EXISTING RIGHT OF WAY FOR THE PURPOSE OF RELOCATING EXISTING FIRE HYDRANT #7064

RECOMMENDATION

Adopt Resolution 2016-11 accepting a grant of easement from the Crystal Springs Upland School of a 45-square foot piece of property near 8 Davis Drive in Belmont behind the existing right-of-way for the purpose of relocating existing fire hydrant #7064.

FISCAL IMPACT

The fiscal impact to the District is minimal and in the form of staff time and a potential recording fee from San Mateo County.

DISCUSSION

The attached non-exclusive easement was prepared by District Counsel and signed before a Notary Public by the Chief Financial Officer of the Crystal Springs Upland School. The legal description and map of the easement were prepared by a professional land surveyor. In order to provide some context, there are two other maps attached of the area showing the general location of the existing fire hydrant and proposed easement.

The easement will allow an existing fire hydrant to be relocated further west behind the sidewalk, out of the path of pedestrians, and moves the fire hydrant away from of an existing natural gas line.

Attachments: Grant of Easement with attachments
2 Maps of General Area

BOARD ACTION: APPROVED:_____ DENIED:_____ POSTPONED:_____ STAFF DIRECTION:_____

UNANIMOUS_____ ZUCCA_____ WARDEN_____ STUEBING_____ VELLA_____ LINVILL_____

RESOLUTION NO. 2016-11

ACCEPTING A GRANT OF EASEMENT (NON-EXCLUSIVE) FROM THE CRYSTAL SPRINGS UPLAND SCHOOL OF A 45-SQUARE FOOT PIECE OF PROPERTY NEAR 8 DAVIS DRIVE BEHIND THE EXISTING RIGHT OF WAY FOR THE PURPOSE OF RELOCATING EXISTING FIRE HYDRANT NO. 7064.

* * *

MID-PENINSULA WATER DISTRICT

WHEREAS, the Crystal Springs Upland School purchased property along Davis Drive including 8 Davis Drive in order to construct new school facilities; and

WHEREAS, the District operates and maintains fire hydrant no. 7064 along 8 Davis Drive within the right-of-way; and

WHEREAS, the Crystal Springs Upland School has been required to construct a new sidewalk and ADA ramp where none exists along 8 Davis Drive, and where District fire hydrant no. 7064 is currently located behind existing rolled curb; and

WHEREAS, the existing location of fire hydrant no. 7064 would be within the to be constructed ADA ramp if not relocated; and

WHEREAS, the District has hence required the Crystal Springs Upland School to provide a new easement in order to relocate fire hydrant no. 7064 outside of the sidewalk and ADA ramp to be constructed, and also safely away from an existing natural gas main within the current right of way; and

WHEREAS, the Crystal Springs Upland School, as owners of the property along Davis Drive, are willing to grant a 45 square-foot non-exclusive easement to the District for the purposes set forth herein at no cost to the District.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Mid-Peninsula Water District hereby accepts the Grant of Easement (Non-Exclusive) from the Crystal Springs Upland School on property commonly known as 8 Davis Drive, dated August 8, 2016, and authorizes the President of the Board of Directors to execute a Certificate of Acceptance of said Easement.

BE IT FURTHER RESOLVED that the Secretary of the District is hereby directed to record the Grant of Easement (Non-Exclusive) and Certificate of Acceptance with the County Recorder's Office of the County of San Mateo.

REGULARLY PASSED AND ADOPTED this 28th day of August 2016, by the following vote:

AYES:

NOES:

ABSENT:

President, Board of Directors

ATTEST:

District Secretary

RECORDING REQUESTED BY Mid-Peninsula Water District AND WHEN RECORDED MAIL TO	
Name Street Address City & State	Mid-Peninsula Water District P.O. Box 129 Belmont, CA 94002
MAIL TAX STATEMENTS TO	
Name Street Address City & State	Mid-Peninsula Water District P.O. Box 129 Belmont, CA 94002
SPACE ABOVE THIS LINE FOR RECORDERS USE	

Record without fees (Govt. Code ss27383). Exempt from Documentary Transfer Tax (Rev. and Tax Code ss 11922)

GRANT OF EASEMENT (NON-EXCLUSIVE)

For a valuable consideration, receipt of which is hereby acknowledged, Crystal Springs Upland School ('Grantor'), hereby grants to Mid-Peninsula Water District, a public corporation of the State of California ('District') and its assigns and successors in interest, a perpetual easement for the purposes of constructing, repairing, maintaining, replacing, renewing and using a water line and appurtenant facilities incidental thereto for use in connection therewith, including a fire hydrant, for the transmission and distribution of water, and for all connected and associated purposes, together with the right of ingress and egress over said easement for the aforesaid purposes, over, under and across the real property situated in the County of San Mateo, State of California, which is described in Exhibit A attached hereto and incorporated herein by this reference and depicted on Exhibit B attached hereto and incorporated herein by this reference.

This easement is non-exclusive. However, Grantor will not grant any other party rights to use the area within the easement for any purpose that would unreasonably burden or interfere with District's use or enjoyment of its easement rights. In addition, Grantor will not grant any other party rights to install (1) non-potable water lines including but not limited to sewer lines, irrigation lines or well water lines within ten (10) feet horizontally or crossing vertically above the Districts water lines, or (2) other under-ground facilities including but not limited to gas pipelines, or electrical, telephone, and cable TV conduit within four (4) feet horizontally or crossing vertically within two (2) feet over or under the Districts water lines, or such within greater distances as may be required by subsequently enacted laws or regulations of any federal, state, or local government authority with jurisdiction. Nor will Grantor make any use of the surface of the property within or in proximity to the easement that would interfere with District's easement rights, including, but not limited to storage of any inventory(s) or material(s) within the area of the easement, or construction of any fixed structure upon or blocking access to the easement, without the expressed written permission of the District, its assigns or successors.

IN WITNESS WHEREOF, the Grantor has executed this conveyance on this 8th day of August, 2016.

Grantor: Crystal Springs Upland School

By: Diane Sob

By: _____

EXHIBIT A

Description of Easement

EXHIBIT A

**LEGAL DESCRIPTION FOR 3'X15'
WATER FACILITIES EASEMENT**

ALL THAT REAL PROPERTY SITUATE IN THE CITY OF BELMONT, COUNTY OF SAN MATEO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEING A PORTION OF PARCEL 2 AS SHOWN ON THAT CERTAIN PARCEL MAP RECORDED ON DECEMBER 27, 1977, IN BOOK 40 OF PARCEL MAPS, AT PAGE 10, SAN MATEO COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST NORTHERLY CORNER OF SAID PARCEL 2, SAID POINT OF COMMENCEMENT BEING ON THE WESTERLY RIGHT OF WAY LINE FOR DAVIS DRIVE, AS SHOWN ON SAID MAP; THENCE FROM SAID POINT OF COMMENCEMENT ALONG SAID WESTERLY RIGHT OF WAY LINE SOUTH 22°01'34" EAST 57.48 FEET TO THE TRUE POINT OF BEGINNING FOR THIS DESCRIPTION; THENCE FROM SAID TRUE POINT OF BEGINNING, CONTINUING ALONG SAID WESTERLY RIGHT OF WAY LINE SOUTH 22°01'34" EAST 15.00 FEET; THENCE LEAVING SAID WESTERLY RIGHT OF WAY LINE, SOUTH 67°58'26" WEST 3.00 FEET; THENCE NORTH 22°01'34" WEST 15.00 FEET; THENCE NORTH 67°58'26" EAST 3.00 FEET TO THE TRUE POINT OF BEGINNING FOR THIS DESCRIPTION

SAID LAND CONSISTS OF 45 SQ. FT., MORE OR LESS.

END OF DESCRIPTION.



EXHIBIT B

Map of Easement

EXHIBIT B

DEED 2009-096023

P.O.C.

400.00'
N67°58'26"E

S22°01'34"E
57.48'

80' R/W
DAVIS DRIVE

PARCEL 2
(40 PM 10)

N67°58'26"E
3.00'

T.P.O.B.

N22°01'34"W
15.00'

S22°01'34"E
15.00'

S67°58'26"W
3.00'



GRAPHIC SCALE



1"=20'



801 YGNACIO VALLEY RD., SUITE 220
WALNUT CREEK, CA
925-943-2777 FAX 925-943-2778

associates, inc. PLANNING ENGINEERING SURVEYING TRANSPORTATION

EXHIBIT B
PLAT TO ACCOMPANY
3'X15' WATER
FACILITIES EASEMENT

JOB NO: 11-2114

SCALE: 1"=20'

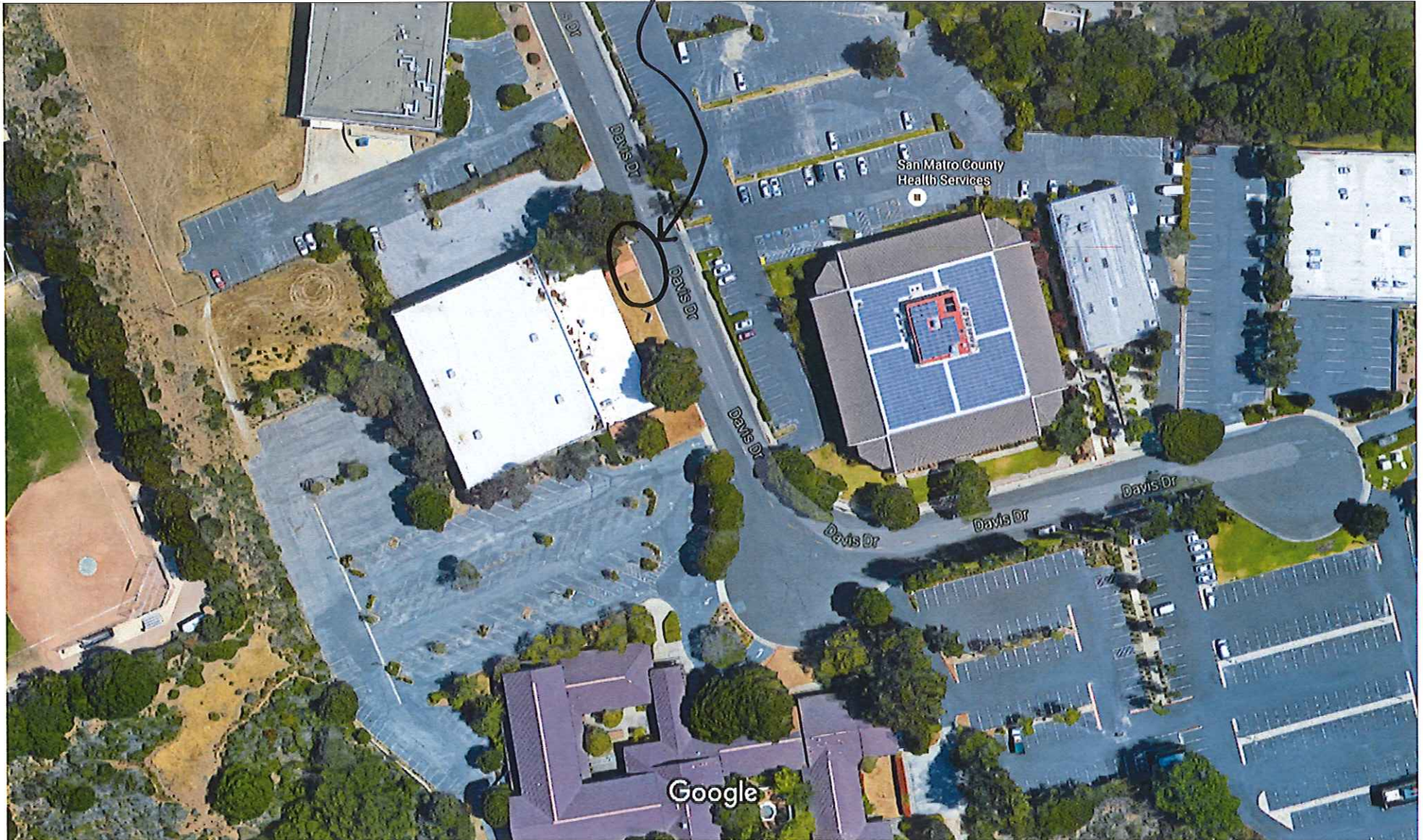
DATE:
6/13/16

6 DAVIS DRIVE
BELMONT, CA 94002

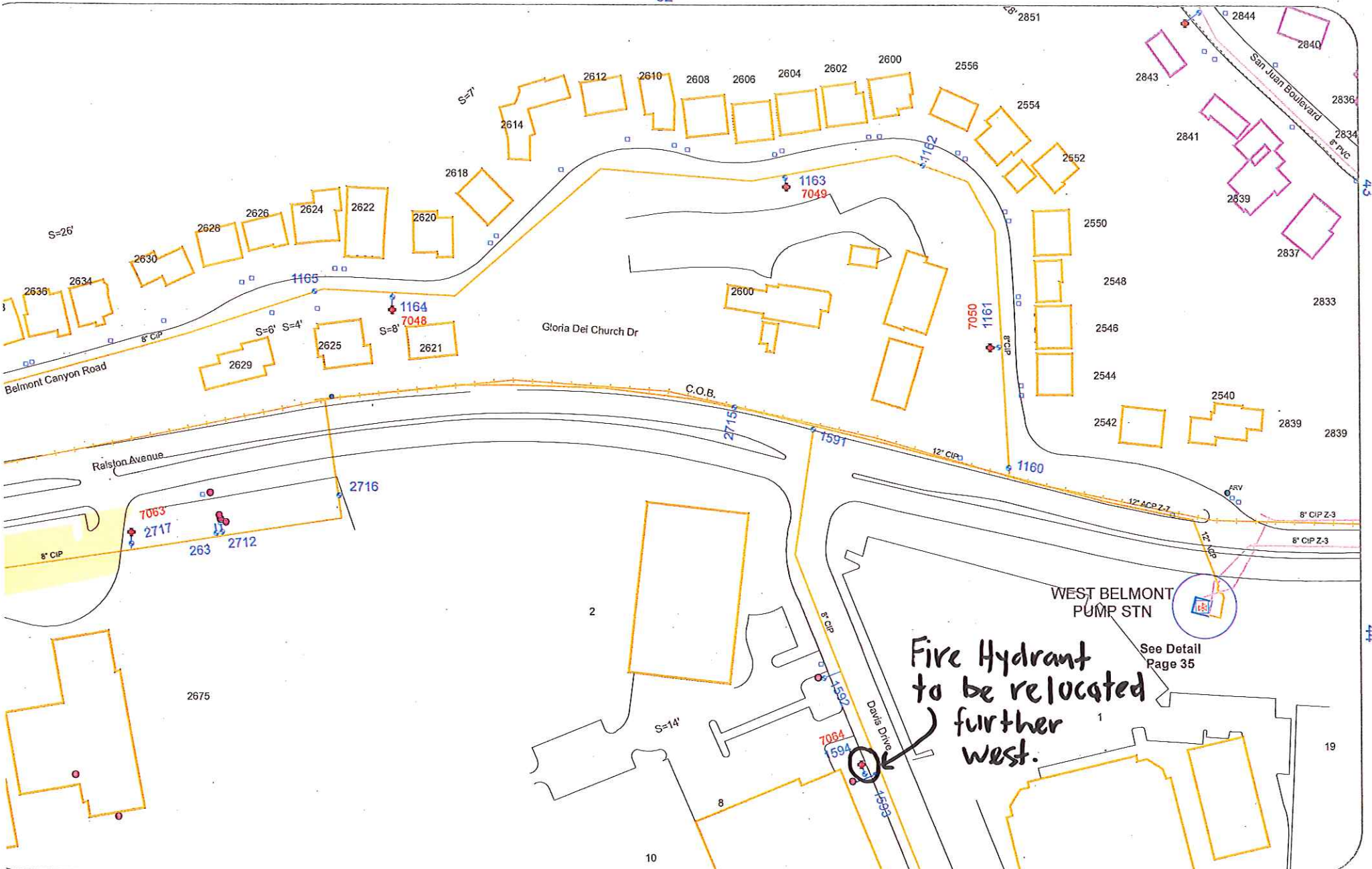
SHEET: 1



General location of Easement



Imagery ©2016 Google, Map data ©2016 Google 50 ft



Zone 8 Mains	Zone 9 Mains	Zone 2 Mains	Zone 6 Mains	Meters	Hydrants
Zone 7 Mains	Zone 4 Mains	Zone 2 Carlmont	Zone 1 Mains	Valves	ARVS
Zone 3 Mains	Zone 5 Mains	Fiber Optic Cable		Zone Valves	Blow Offs

WEST BELMONT
PUMP STN

See Detail
Page 35

Fire Hydrant
to be relocated
further
west.



AGENDA ITEM NO. 7.A.

DATE: August 25, 2016
TO: Board of Directors
FROM: Tammy Rudock, General Manager

SUBJECT:

MPWD CAPITAL IMPROVEMENT PROGRAM (CIP):

1. RECEIVE PRESENTATION BY DISTRICT ENGINEER OF ASSET MANAGEMENT ANALYSIS FOR MPWD WATER MAINS AND STORAGE TANKS AND ANNUAL PAY-GO REINVESTMENT REQUIREMENTS
 2. CONSIDER FINANCING OPTIONS FOR THE MPWD 5-YEAR CAPITAL IMPROVEMENT PROGRAM AND RESOLUTION 2016-12 AUTHORIZING MPWD MUNICIPAL FINANCE ADVISOR, WULFF HANSEN & COMPANY, TO PROCURE THE FUNDING ON BEHALF OF THE MPWD
 3. REVIEW UPDATED CIP INFORMATIONAL SUMMARY AND FAQs
-

RECOMMENDATION:

Receive Asset Management Analysis presentation by the District Engineer, approve Resolution 2016-12 authorizing the MPWD's Municipal Finance Advisor to procure funding for the MPWD's 5-Year CIP, and review updated CIP Informational Summary and FAQs.

FISCAL IMPACT:

It depends upon the financing option determined by the Board for funding the MPWD's 5-year CIP.

DISCUSSION:

1. RECEIVE PRESENTATION BY DISTRICT ENGINEER OF ASSET MANAGEMENT ANALYSIS FOR MPWD WATER MAINS AND STORAGE TANKS AND ANNUAL PAY-GO REINVESTMENT REQUIREMENTS

The Board previously directed staff and the District Engineer to consider a "50-year look-ahead" at the MPWD's infrastructure maintenance and capital replacement needs and the associated pay-go costs. This was a daunting task, and therefore, staff and the District Engineer approached it more pragmatically and determined it would be more resourceful to analyze the MPWD system and quantify the required annual capital

maintenance/replacement costs. Section 5.0 was added to the attached *MPWD Comprehensive System Analysis and Capital Improvement Program FY 2016/2017 Update (page 18)*, which outlines the analysis performed.

The average age of the water mains throughout the MPWD system is approximately 47 years old with an average install date of 1969. The MPWD has 11 water storage tanks throughout the system ranging from 720,000 gallons to 2,500,000 gallons, all made of steel. Most of the tanks have been rebuilt, recoated, or seismically retrofitted within the past 15 years with the exceptions of Dekoven and Hallmark Tanks.

Even with useful life extended to 75-100 years for water pipelines and 75 years for storage tanks, the total annual reinvestment requirement is \$8,800,000:

Infrastructure Item	Annual Cost (\$/yr)
Water Main Replacement	\$6,000,000
Water Tank Reconstruction/Retrofit/Recoating	\$2,800,000
Not Included: Pump Stations, PRVs, Buildings, AMI	
Total	\$8,800,000

The District Engineer will present a summary of the analysis during the meeting.

2. CONSIDER FINANCING OPTIONS FOR THE MPWD 5-YEAR CAPITAL IMPROVEMENT PROGRAM AND RESOLUTION 2016-12 AUTHORIZING MPWD MUNICIPAL FINANCE ADVISOR, WULFF HANSEN & COMPANY TO PROCURE THE FUNDING ON BEHALF OF THE MPWD

BACKGROUND

The Board selected Wulff Hansen & Company as the MPWD’s Municipal Finance Advisor at its December 16, 2015, regular meeting (via attached Resolution 2015-22 and services agreement.).

Based upon the updated cash flow projections for FY 2016/2017 presented by Bartle Wells on April 26, 2016, modified 5-year CIP alternatives were considered by the Board during its regular meeting on May 26, 2016 as follows:

- A. Alternative One - \$20 million/30 years;
- B. Alternative Two - \$18 million/25 years; and
- C. Alternative Three - \$15 million/20 years.

The Board approved Alternative One on May 26, 2016 via Resolution 2016-06.

Each capital project is described in the attached 2016 updated report entitled “*MPWD Comprehensive System Analysis and Capital Improvement Program.*”

*Note: Priority project Alameda de las Pulgas water main replacement is being constructed now in FY 2016/2017 as a cash pay-go project; thus, it was not listed in any

of the alternatives.

Several financing options have been presented to the Board during regular Board meetings in 2016.

FINANCING OPTIONS

The good news for debt financing is that rates are lower than they were when last presented at the Board’s regular meeting on April 28, 2016. There is a new Public Offering/Premium Option this month for the Board’s consideration.

In keeping with the \$1,045,000 debt service payment availability as outlined by Bartle Wells Associates in its August 24, 2016 Water Finance and Rate Update, attached are two (2) options for 30-year debt financing (public offerings) prepared last week by Wulff Hansen & Company, including payback summaries.

Bud Levine and Edmund Viray, MPWD’s Municipal Finance Advisors from Wulff Hansen & Company will present these options at the Board meeting and explain the process for procuring the funds for the MPWD’s 5-Year CIP totaling \$20,000,000. Attached is a draft schedule of the proposed debt financing activities.

District Counsel and staff recognized past discussions about retention of MPWD reserves in the attached Resolution 2016-12 for the Board’s discussion.

3. REVIEW UPDATED CIP INFORMATIONAL SUMMARY AND FAQs

The updated summary is attached for information, incorporating Board input from the June 23, 2016, regular meeting.

Attachments: MPWD Comprehensive System Analysis and CIP – 2016, including added Section 5.0
Resolution 2015-22 and Wulff Hansen & Company Municipal Advisory Services Agreement
Wulff Hansen & Company 30-Year Public Offering Financing Options
Resolution 2016-12
CIP Informational Summary and FAQs

BOARD ACTION: APPROVED:_____ DENIED:_____ POSTPONED:_____ STAFF DIRECTION:_____

UNANIMOUS_____ ZUCCA_____ WARDEN_____ STUEBING_____ VELLA_____ LINVILL_____



**Comprehensive System Analysis and
Capital Improvement Program
FY 2016 – 2017 Update**

August 19, 2016

Acknowledgements

The Mid-Peninsula Water District's Comprehensive System Analysis and Capital Improvement Program for Fiscal Year 2016-2017 represents a collaborative effort between the District Engineer, *Pakpour Consulting Group* and the Mid-Peninsula Water District. We would like to acknowledge and thank the following key personnel whose invaluable knowledge, experience, and contributions were instrumental in the preparation of this program.

Mid-Peninsula Water District Board of Directors

Matthew Zucca – President
Dave Warden – Vice President
Betty Linvill – Director
Al Stuebing – Director
Louis Vella – Director

Mid-Peninsula Water District Staff

Tammy Rudock - General Manager
Rene Ramirez - Operations Manager
Brent Chester - Field Operations Supervisor
Michael Anderson - Field Operations Supervisor
Henry Young - Field Operations Supervisor
Rick Bisio - Lead Operator
Stan Olsen - Lead Operator

All other District personnel who assisted with the fire flow calibration testing.

Pakpour Consulting Group - Engineers

Joubin Pakpour, P.E. – District Engineer
Brandon Laurie, P.E. – Project Manager

This assessment was prepared by or under the direction of the following design professional, licensed by the State of California, for the various disciplines involved:

Joubin Pakpour, P.E. – Civil Engineer

Registration No. 59155



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- Appendix B – Programmed Projects
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EXECUTIVE SUMMARY

In 2014 as part of its long-term strategic planning, the Mid-Peninsula Water District (District) undertook a comprehensive review and assessment of its water system infrastructure and facilities. This significant challenge involved a team comprised of senior operations personnel with many years of institutional knowledge of the District’s system, management with many years of public utility and water operations experience and master planning, and the District Engineer experienced with water system operations and infrastructure/facilities design and engineering. The goal was to complete this project with not only a comprehensive prioritized Capital Improvement Program (CIP) but a functional hydraulic model that could be used by the District. An added benefit was the capturing of operational institutional knowledge from long-time District personnel for succession planning purposes.

For planning purposes, this comprehensive analysis and resulting CIP is intended to replace the District’s July 2008 Water System Master Plan. On May 26, 2016, the District Board of Directors adopted the 2016-2017 Comprehensive Capital Improvement Program with Resolution 2012-06, a copy of which can be found in Appendix E.

The first step was to update and calibrate the District’s existing hydraulic model. The existing model was fragmented by each pressure zone and dysfunctional from a system-wide operational perspective. Next, the hydraulic model was used over a course of 18 months to develop a comprehensive District wide CIP, which currently totals \$51,820,000 (2015 dollars) over 92 projects. The projects were then ranked as detailed in Section 5.1 of this report. For a complete listing of ranked projects please refer to Appendix A. Appendix B provides a detailed analysis for each individual project. Appendix C includes completed projects. A list of projects per zone is detailed in Table 1 below:

Table 1 - CIP Projects by Zone

Zone	Number of Projects	Cost
1	18	\$12,080,000
2	27	\$11,935,000
3	19	\$14,385,000
4	1	\$745,000
5	7	\$1,655,000
6	1	\$200,000
7	5	\$3,385,000
8	9	\$1,745,000
9	0	\$0
DW	5	\$5,690,000
Total	92	\$51,820,000

1.0 PURPOSE

The purpose of this summary report is to identify the steps in developing the District's CIP. Each of the steps are identified in the following sections including calibrating/updating the hydraulic model, performing fire flow analysis with distribution system analysis reports, identifying CIP projects, ranking criteria, and a pay as you go funding scenario.

2.0 HYDRAULIC MODEL CALIBRATION / UPDATE

Hydraulic models are used to simulate operating conditions under multiple analysis scenarios, primarily steady state and extended period simulations.

Steady State

A steady state model predicts behavior in a water distribution system during a hypothetical condition where the effects of all changes in the operation and demands of the system have stopped. Steady state simulations are typically used in determining fire flows and infrastructure related problems. For the purposes of the CIP development, steady state simulations were primarily used to identify system bottlenecks and fire flow limitations. The existing hydraulic model, prior to updates, was developed to where only steady state analyses could be performed. Each zone was essentially treated as individual models where they were unable to communicate with one another. This type of model only allowed previous users to determine available fire flows by zone and no additional analysis capabilities beyond that.

Extended Period Simulation

Extended Period Simulation is a series of steady state calculations linked together to approximate the behavior of the system over one or more days. Extended period simulations are generally used to model change in pump operations, how tank levels fluctuate over time, valve operations, how water moves throughout the system, and water quality analyses. In order to develop this type of simulation, concrete information is needed of the system features. At this time of this report, no EPS analysis has been performed as system information continues to be gathered. However, the model is in a state where upon the receipt of this information, the entire system will be able to be modeled where zones communicate with each other. This will allow much more in depth system analysis.

Calibration

Calibrating the model and ensuring all system components match the field allow the user to accurately mimic operational conditions. The existing model did not appear to have gone through a calibration process.

To update the model, it was calibrated in a systematic way where each zone was calibrated independently of the other zones under steady state conditions. This involved preventing water from entering and leaving each zone through pump station shutdowns, closing of pressure reducing valves, and using only the static pressures provided by the tanks in each respective zone. As each zone was calibrated, they were reintroduced into the model. The following sections identify the calibration process.

2.1 HYDRANT FLOW TESTING

Over the course of several months between July 2013 and June 2015, fire flow tests were conducted zone by zone in the following order: 4, 6, 9, 5, 3, 7, 8, 2, 1. Depending on the size of the zone, anywhere between 3-10 hydrants spaced evenly throughout each zone were flow tested during low demand periods. Before the tests were conducted, the zone was isolated from the rest of the system (no water coming in or going out).

Two hydrants were used at each test location; one hydrant was used to monitor system pressures by attaching a pressure gauge to the 2 ½-inch port, and the other hydrant was used to measure flows using a special hydrant diffuser equipped with a flow gauge. Each test measured the system pressure drop at the residual hydrant at a specific flow rate as determined by the flow gauge on the flow hydrant. Static pressures represent the system pressures prior to the test and residual pressures represent the pressure during the test. Generally a pressure drop of 10 psi or greater during the test is recommended to ensure greater accuracy. In almost all cases, the tests were able to achieve a 10 psi pressure drop.

2.2 MODEL CALIBRATION RESULTS

Model calibration generally involves simulating each hydrant flow test in the model; comparing field results against model results, and making adjustments or corrections to the model, as necessary, to match the model against field conditions. Typically to calibrate the model, pipe roughness coefficient values (C-factors) are adjusted to simulate the stress placed on the system during hydrant flow testing. A model is generally considered calibrated when it is able to simulate a pressure drop and flows within 10 percent of those measured in the field. Fire flows were compared under average day demands.

The first step in using the fire flow test results is to compare the static pressures with those stated in the model. The static pressure is the difference between the hydrant elevation and the water elevation in the tank. In comparing the results, the majority of the static pressures, both at the test and residual hydrants, were within 0-3 psi with a few outliers in which case the reasons for the differences were analyzed and resolved by making small elevation adjustments in the model if needed.

The second step is to compare residual pressures at the flow rate measured in the field. Residual pressures represent the system pressures under stressed scenarios such as fire flows. To perform the comparison, the flow information from the field test is input into the model at the specific node representing the hydrant. The model is then run to compute the residual pressures given the flow input. The residual pressure comparison is measured at the node representing the residual hydrant from the field test. If there were significant discrepancies between the model and fire flow test result, we performed an additional hydrant flow test.

The third and final step is to adjust pipe roughness coefficients if necessary to bring model results in line with field results. Commonly used roughness coefficients are as follows:

- Old Cast / Ductile Iron Pipe – 110
- Newer Ductile Iron Pipe – 130
- PVC / AC Pipe – 150

Although calibration range guidelines have not yet been adopted, acceptable calibration limits within the water industry when comparing residual pressures generally range around 10 percent. Following are the average calibration residual results by zone:

- Zone 1 – 2.3% average
- Zone 2 – 3.1% average
- Zone 3 – 4.3% average
- Zone 4 – 8.6% average
- Zone 5 – 10% average
- Zone 6 – 1.4% average
- Zone 7 – 10.4% average
- Zone 8 – 8.7% average
- Zone 9 – 13.0 % average

Given the above calibration results, the model represents actual operating conditions fairly well. Although Zone 9 is slightly above the 10% average, this is a very small Zone within the District supplied by Zone 3 through a PRV configuration. Zone 9's effect on the overall operation of the system is minimal and therefore determined calibration in this zone was sufficient.

2.3 WATER DISTRICT SYSTEM MAP / MODEL RECONCILIATION

The District has a detailed map book showing the various system components including tanks, pump stations, pressure reducing stations / valves, pipes, hydrants, etc. It is maintained by the District and is an accurate representation of existing infrastructure. In reviewing the existing model, many discrepancies became apparent between the model and what was shown in the maps including differing water main sizes, types, abandonments not shown in the model, and missing water mains to name a few. To reconcile the data, meetings were held to compare the map and model information and ultimately the model was updated to reflect the map. In addition, tank, pump station, and pressure reducing information was also verified in the model.

3.0 FIRE FLOW ANALYSIS / DISTRIBUTION SYSTEM ANALYSIS

Upon completing the model calibration/update, fire flow analyses were conducted in each zone to determine available fire flows and to identify any flow deficiencies. In all analyses, each zone was modeled independently (no water in or out) given normal tank operating levels under maximum day demand scenarios. In addition, the following constraints were used in each analysis:

- A minimum 1,500 gpm fire flow
- A maximum 2,500 gpm fire flow
- A maximum pipe velocity of 15 ft/s
- A minimum 20 psi pressure residual
- A minimum 5 psi zone pressure
- A minimum system pressure of 1 psi

All nodes within the model not meeting the above constraints were analyzed to determine what improvements, if any, could improve the available fire flows. Distribution System Analysis (DSA) reports were prepared from the fire flow analysis results and typically identified existing conditions, various system reconfigurations to improve flows (mostly pipe size/type modifications), flow comparison charts, cost estimates, and recommendations. In most cases, simply increasing pipe size alleviated any fire flows under minimum fire flow recommendations. The DSA reports became the basis of identifying potential capital improvement projects and matched fairly well with previous reports indicating recommended improvements.

4.0 CAPITAL IMPROVEMENT PROJECTS

Currently, the capital improvement projects identified comprise of 92 projects. Projects fell into several work categories, a few of which are highlighted below. The majority of the projects identified were direct results from performing the distribution system analyses and resulting fire flow analysis but also include projects identified by District operations personnel.

- Abandoning cross country water mains
- Eliminating parallel water mains
- Eliminating dead ends by creating loops
- Eliminating lengthy water mains serving only one or two connections
- Eliminating all 4-inch water mains (undersized)
- Replacing aging pipes prone to leaks or expected to leak
- Increasing fire flows by adding fire hydrants
- Tank structural analyses
- Adding system redundancy
- Increasing water main size where capacity is needed

Exhibits were prepared for each project detailing the project background, proposed improvements, project benefits, and a project budget based on 2015 dollars. The exhibits also included a map of the area showing the intended improvements. Please refer to Appendix B for exhibits. Following is a zone by zone breakdown of identified projects. Those projects generated as a result of a DSA report are identified accordingly.

Zone 1 (18 Projects)

Table 2 - Zone 1 CIP Projects

Project No.	DSA No.	Description	Cost
15-68	073	Wessex Way Dead End Improvements	\$185,000
15-69	074	Sussex Court Improvements	\$90,000
15-70	075	Shoreway Road Improvements	\$125,000
15-71	076	Wessex Way Loop Improvements	\$150,000
15-72	077	SR 101 Crossing at PAMF Hospital	\$1,670,000
15-73	078	Karen Road Improvements	\$425,000
15-74	079	Malcolm Avenue Improvements	\$265,000
15-75	080	Old County Road Improvements	\$3,400,000
15-76	081	El Camino Real Improvements	\$2,100,000
15-77	082	Sixth Avenue (Zone 1) Improvements	\$190,000
15-78	083	Civic Lane Improvements	\$800,000
15-79	084	F Street Improvements	\$235,000
15-80	085	Bragato Road Improvements	\$420,000
15-81	086	Sixth / O'Neill Avenue Improvements	\$990,000
15-82	n/a	Ralston Avenue Improvements	\$290,000
15-84	n/a	Ralston Avenue Regulator Relocation	\$345,000
15-85	n/a	O'Neill Slough Bridge Crossing Assessments	\$55,000
15-87	n/a	Hillcrest Pressure Regulating Station	\$345,000

Zone 1 Total: \$12,080,000

A brief description of each project in Zone 1 follows. Please refer to the corresponding Exhibits in Appendix B for a more detailed description and background on each project.

15-68 - Wessex Way Dead End Improvements – Replaces 220 LF of a dead end 4” PVC with 8” PVC to replace aging / undersized infrastructure and improve fire flows.

15-69 - Sussex Court Improvements – Replaces 130 LF of a dead end 4” PVC with 8” PVC in addition to a new fire hydrant to replace aging / undersized infrastructure and improve fire flows.

15-70 - Shoreway Road Improvements – Abandons 850 LF of 8” AC paralleling a 12” PVC to eliminate aging infrastructure and reduce maintenance.

15-71 - Wessex Way Loop Improvements – Eliminates an 825 LF 6” PVC dead end by installing 230 LF of 8” PVC to loop the water main within the Sterling Place Development, provides system redundancy, improves fire flows, and improves water quality.

15-72 - SR 101 Crossing at PAMF Hospital – Abandons 500 LF of 12” AC under SR 101 in favor of a new 12” PVC crossing at the PAMF location eliminating aging infrastructure, dead ends, creates a looped system, and constructs a serviceable underground inter-tie utility vault.

15-73 – Karen Road Improvements – Replaces 800 LF of parallel 12” AC and 8” CIP with a single 8” PVC to replace aging infrastructure and minimize maintenance.

15-74 - Malcolm Avenue Improvements – Installs 550 LF of 8” DIP to allow a Zone 1 and Zone 2 boundary reconfiguration improving static pressures, eliminating 4 dead ends, and creating looped systems in both Zones.

15-75 - Old County Road Improvements – Abandons 6,475 LF of parallel water mains and installs 3,700 LF of 8” PVC to replace aging infrastructure, reduce maintenance, and improve fire flows.

15-76 - El Camino Real Improvements – Replaces 4,100 LF of 8” CIP with 8” DIP to replace aging infrastructure, reduce maintenance, and improve fire flows.

15-77 - Sixth Avenue (Zone 1) Improvements – Installs 200 LF of 8” DIP and a 6” PRV to eliminate 4 dead ends, provide Zone 1 redundancy with a Zone 2 connection, and to improve water movement.

15-78 – Civic Lane Improvements – Replaces 1,800 LF of various sized water main with new 8” DIP to replace aging infrastructure, shorten a dead end, loop the water main, and improve fire flows.

15-79 – F Street Improvements – Installs 400 LF of new 8” DIP to replace an out-of-service 10” CC with an unknown break location, relocates District facilities out of private property, increase system redundancy.

15-80 – Bragato Road Improvements – A replacement / new installation combination of 1,000 LF of 8” PVC to replace aging infrastructure, shorten a dead end, loop the water main, and improve fire flows.

15-81 - Sixth / O’Neill Avenue Improvements – Abandons 1,400 LF of 4”-8” CIP/PVC and replaces 1,500 LF of 18” CC with DIP to eliminate parallel water mains, reduce maintenance, and improve fire flows.

15-82 - Ralston Avenue Improvements – Replaces 500 LF of 6” CIP with 8” PVC to replace aging infrastructure.

15-84 – Ralston Avenue Regulator Relocation – Relocates the regulating station to a more accessible location.

15-85 – O’Neill Slough Bridge Crossing Assessments – Assesses existing water main conditions, their associated suspension systems, and seismic resistance.

15-87 – Hillcrest Pressure Regulating Station – Installs a pressure regulating station off the District’s Zone 1 connection to SFPUC to eliminate Zone 1 pressure fluctuations.

Zone 2 (27 Projects)

Table 3 - Zone 2 CIP Projects

Project No.	DSA No.	Description	Cost
15-41	042	Mills Avenue Improvements	\$195,000
15-42	043	North Road Improvements	\$220,000
15-43	044	North Road Cross Country / Davey Glen Road Improvements	\$680,000
15-44	045	South Road Abandonment	\$415,000
15-45	046-049	Hainline Drive and Vicinity Improvements	\$890,000
15-46	050	Miramar Terrace Improvements	\$600,000
15-47	051	Virginia Avenue Improvements	\$510,000
15-48	052	Willow Lane Improvements	\$320,000
15-49	053	Mid-Notre Dame Improvements	\$160,000
15-50	054	Fairway Drive Improvements	\$630,000
15-51	055	Francis Avenue / Court Improvements	\$425,000
15-52	056	Chevy / Clee Streets Improvements	\$375,000
15-53	057	Academy Avenue / Belburn Drive Improvements	\$270,000
15-54	058	Villa Avenue Improvements	\$730,000
15-55	059	Covington Road Improvements	\$500,000
15-56	060	Carlmont Drive Improvements	\$170,000
15-57	061	Alomar Avenue Improvements	\$350,000
15-58	062	Fernwood Way Improvements	\$380,000
15-59	063	Valdez Avenue Improvements	\$485,000
15-60	065	Escondido Way Cross Country Abandonment	\$45,000
15-61	066	Chula Vista Drive Improvements	\$440,000
15-62	067	Sixth Avenue Improvements	\$760,000
15-63	069	Lower Notre Dame Avenue Improvements	\$815,000
15-64	070	Tierra Linda Isolation Valve Install	\$25,000
15-65	n/a	Folger Drive Improvements	\$420,000
15-66	071	Vine Street / Oak Tree Lane Improvements	\$355,000
15-67	n/a	Village Drive Area Improvements	\$770,000

Zone 2 Total: \$11,935,000

A brief description of each project in Zone 2 follows. Please refer to the corresponding Exhibits in Appendix B for a more detailed description and background on each project.

15-41 - Mills Avenue Improvements – Replaces 280 LF of 4” CIP with 8” DIP and adds an additional fire hydrant to replace aging / undersized infrastructure and improve fire flows.

15-42 - North Road Improvements – Abandons 500 LF of 8” CIP paralleling an 8” PVC and relocates services to the 8” PVC to eliminate aging infrastructure and reduce maintenance.

15-43 - North Road Cross Country / Davey Glen Road Improvements – Abandons 400 LF of cross country 6” CIP and replaces 1,400 LF of 6”-8” CIP with 8” DIP to eliminate the cross country water main, reduce district maintenance, and replace aging infrastructure.

15-44 - South Road Abandonment – Abandons 1,325 LF of 4” CIP paralleling an 8” PVC and reconnects the branches to the 8” PVC to reduce maintenance, eliminate aging infrastructure and improve fire flows.

15-45 – Hainline Drive and Vicinity Improvements – Abandons 400 LF of cross country 4” CIP, replaces 1,740 LF of 4” CIP with 8” DIP along with additional hydrants to eliminate a cross country water main and to improve fire flows.

15-46 – Miramar Terrace Improvements – Replaces 1,250 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-47 – Virginia Avenue Improvements – Abandons 210 LF of cross country 6” CIP/PVC and replaces 950 LF of 6” CIP with 8” DIP to abandon an inaccessible cross country water main, replace aging infrastructure, and improve fire flows.

15-48 – Willow Lane Improvements – Abandons 230 LF of cross country 4” CIP in favor of a new 600 LF 8” DIP located within the roadway and adds a fire hydrant to eliminate a cross country water main and improve fire flows.

15-49 – Mid-Notre Dame Avenue Improvements – Abandons 650 LF of 6” CIP paralleling an 8” CIP to remove aging infrastructure and reduce maintenance.

15-50 – Fairway Drive Improvements – Replaces 1,420 LF of 4” PVC with 8” DIP and adds an additional fire hydrant to eliminate undersized infrastructure and improve fire flows.

15-51 – Francis Avenue / Court Improvements – Replaces 830 LF of 4” PVC with 8” DIP and adds an additional fire hydrant to eliminate undersized infrastructure and improve fire flows.

15-52 – Chevy / Clee Streets Improvements – Replaces 780 LF of 4” PVC with 8” DIP and adds an additional fire hydrant to eliminate undersized infrastructure and improve fire flows.

15-53 – Academy Avenue / Belburn Drive Improvements – Abandons 600 LF of 4” PVC paralleling a 6” CIP and replaces 300 LF of 4” PVC with 8” DIP to eliminate undersized infrastructure and improve fire flows.

15-54 – Villa Avenue Improvements – Replaces 1,500 LF of 4” PVC / 6” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows. This project also reconfigures water services connections so each resident has their own dedicated service line.

15-55 – Covington Road Improvements – Replaces 1,000 LF of 4” CIP / 6” DIP with 8” DIP and adds an additional fire hydrant to replace aging / undersized infrastructure and improve fire flows.

15-56 – Carlmont Drive Improvements – Abandons 800 LF of 8” CIP paralleling a 10” PVC to reduce maintenance.

15-57 – Alomar Way Improvements – Replaces 750 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-58 – Fernwood Way Improvements – Replaces 800 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-59 – Valdez Avenue Improvements – Replaces 1,000 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-60 – Escondido Way Cross Country Abandonment – Abandons 300 LF of 4” CIP located between two homes to eliminate aging / undersized infrastructure.

15-61 – Chula Vista Drive Improvements – Replaces parallel 6” / 8” CIP with a single 10” DIP to complete a uniform 10” water main between Hannibal Pump Station and Exborne Tanks, eliminates aging infrastructure and reduces maintenance.

15-62 – Sixth Avenue Improvements – Abandons 700 LF of cross country 6” – 8” CIP that crosses over an existing creek at two locations and replaces it with a combination of 350 LF 8” and 1,260 LF 10” DIP to relocate the water mains to accessible locations.

15-63 – Lower Notre Dame Improvements – Replaces 3,400 LF of parallel 6” - 8” CIP with a single 10” DIP to replace aging infrastructure and reduce maintenance.

15-64 – Tierra Linda Improvements – Installs an in-line gate valve at Tierra Linda Middle School in order to monitor water quality under an experimental dead-end scenario.

15-65 – Folger Drive Improvements – Replaces 830 LF of 6” CIP with 8” / 10” DIP to replace aging infrastructure and improve fire flows.

15-66 – Vine Street Improvements – Abandons 250 LF of 4” CIP and the Vine Street Regulator, replaces 700 LF of 4” CIP with 6” / 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-67 – Village Drive Area Improvements – Replaces 1,600 LF of 6” CIP with 8” DIP to replace aging infrastructure and eliminate two small dead-end stubs.

Zone 3 (19 Projects)

Table 4 - Zone 3 CIP Projects

Project No.	DSA No.	Description	Cost
15-09	012	Dekoven Tank Utilization Project	\$1,035,000
15-10	013	Notre Dame Avenue Loop Closure	\$910,000
15-11	014	Carmelita Avenue Improvements	\$635,000
15-12	015	Buena Vista Avenue Improvements	\$585,000
15-13	016	Monroe, Bellemonti, Coronet Avenues Improvements	\$1,445,000
15-14	017	Mezes Avenue Improvements	\$175,000
15-15	018	Shirley Road Improvements	\$325,000
15-16	019	Williams Avenue, Ridge Road, Hillman Avenue Improvements	\$1,100,000
15-17	020	Monte Cresta Drive, Alhambra Drive Improvements	\$1,075,000
15-18	021	Pine Knoll Drive Improvements	\$260,000
15-19	022	Oak Knoll Drive Improvements	\$690,000
15-20	023	Thurm and Bettina Avenues Improvements	\$525,000
15-21	024	Lincoln, Monserat Avenues Improvements	\$125,000
15-22	025	Arhtur Avenue Improvements	\$475,000
15-24	026	San Juan Boulevard Improvements	\$320,000
15-30	032	Alameda De Las Puglas Improvements	\$780,000
15-31	033	Monserat Avenue Cross Country Abandonment	\$30,000
15-89	n/a	Dekoven Tanks Replacement	\$3,500,000
15-90	096	Alameda De Las Pulgas Loop Improvements	\$395,000

Zone 3 Total: \$ 14,385,000

A brief description of each project in Zone 3 follows. Please refer to the corresponding Exhibits in Appendix B for a more detailed description and background on each project.

15-09 – Dekoven Tank Utilization Project – A replacement / new installation combination of 2,300 LF of 12” DIP allowing abandonment of two cross country water mains and zone wide fire flow improvement.

15-10 – Notre Dame Avenue Loop Closure – A replacement / new installation combination of 2,230 LF of 8” DIP to eliminate dead ends, replace aging / undersized infrastructure, and improve fire flows.

15-11 – Carmelita Avenue Improvements – Replaces 1,300 LF of 4”- 6” CIP/PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-12 – Buena Vista Avenue Improvements – Replaces 1,250 LF of 4”- 6” CIP/PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-13 – Monroe, Bellemonti, Coronet Avenues Improvements – Replaces 3,200 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-14 – Mezes Avenue Improvements – Replaces 310 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-15 – Shirley Road Improvements – A replacement / new installation combination of 720 LF of 8” DIP to eliminate dead ends, replace aging / undersized infrastructure, and improve fire flows.

15-16 – Williams Avenue, Ridge Road, Hillman Avenue Improvements – A replacement / new installation combination of 2,460 LF of 8” DIP to eliminate dead ends, replace aging / undersized infrastructure, minor zone reconfiguration, and improve fire flows.

15-17 – Monte Cresta Drive, Alhambra Drive Improvements – Replaces 2,250 LF of 6” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-18 – Pine Knoll Drive Improvements – Replaces 430 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-19 – Oak Knoll Drive Improvements –Replaces 920 LF of 4” PVC with 8” DIP, relines or installs 350 LF 8” HDD DIP to reduce a long dead end, replace aging / undersized infrastructure, and improve fire flows.

15-20 – Thurm and Bettina Avenues Improvements – Replaces 1,150 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-21 – Lincoln, Monserat Avenues Improvements – Installs 250 LF of 8” DIP with 8” DIP to eliminate two dead ends, creates a loop, and improves fire flows.

15-22 – Arthur Avenue Improvements – A replacement / new installation combination of 880 LF of 8” DIP to replace aging / undersized infrastructure, eliminate two dead ends between Zone 2 and Zone 3, install a PRV connection between the Zones, and improve fire flows.

15-24 – San Juan Boulevard Improvements – Abandons 200 LF of 4” CIP paralleling an 8” PVC, replaces 520 LF of 6” CIP with 8” DIP to replace aging / undersized infrastructure, reduce maintenance, and improve fire flows.

15-30 – Alameda de las Pulgas Improvements – Replaces 1,455 LF of 6” - 8” CIP with 8” DIP to eliminate bottlenecks, replace aging infrastructure prone to breaks, minor reconfigurations to simplify system.

15-31 – Monserat Avenue Cross Country Abandonment – Abandons 355 LF of 6” CIP to eliminate an inaccessible cross country water main.

15-89 – Dekoven Tanks Replacement – Replaces the existing 1.0 MG and 0.7 MG originally constructed in 1952 with two 0.8 MG tanks to improve seismic reliability.

15-90 – Alameda De Las Pulgas Loop Improvements – Installs 1,100 LF of 8” DIP to eliminate two dead ends, creates a loop, and improves water quality.

Zone 4 (1 Project)

Table 5 - Zone 4 CIP Projects

Project No.	DSA No.	Description	Cost
15-08	011	Zone 4 Water Main Improvement Project	\$745,000

Zone 4 Total: \$745,000

A brief description of each project in Zone 4 follows. Please refer to the corresponding Exhibits in Appendix B for a more detailed description and background on each project.

15-08 – Zone 4 Water Main Improvement Project – Replaces 1,300 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

Zone 5 (7 Projects)

Table 6 - Zone 5 CIP Projects

Project No.	DSA No.	Description	Cost
15-01	003	Buckland / Shelford Avenue Improvements	\$110,000
15-02	004	Courtland Road Improvements	\$345,000
15-03	005	Spring Lane Improvements	\$165,000
15-04	006	Rose Lane Improvements	\$110,000
15-05	n/a	Calwater Intertie	\$170,000
15-06	n/a	Zone 5 Fire Hydrant Upgrades	\$150,000
15-88	098	Vine Street Improvements	\$605,000

Zone 5 Total: \$1,655,000

A brief description of each project in Zone 5 follows. Please refer to the corresponding Exhibits in Appendix B for a more detailed description and background on each project.

15-01 – Buckland / Shelford Avenues Improvements – Abandons 270 LF of 6” CIP paralleling a 12” DIP. New connections will be made to the 12” DIP along with other pipe installation to improve fire flows.

15-02 – Courtland Road Improvements – Replaces 780 LF of 4” – 6” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-03 – Spring Lane Improvements – Replaces 270 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-04 – Rose Lane Improvements – Replaces 170 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-05 – Calwater Intertie – Installs an intertie connection to permit the District the ability to provide water to Calwater in the event of an emergency.

15-06 – Zone 5 Fire Hydrant Upgrades – Adds 7 hydrants between Desvio Way, Solana Drive and Altura Way improving fire flow protection and flushing operations.

15-88 – Vine Street Improvements – Replaces 1,400 LF of 6” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

Zone 6 (1 Project)

Table 7 - Zone 6 CIP Projects

Project No.	DSA No.	Description	Cost
15-07	010	Dartmouth Avenue Improvements	\$200,000

Zone 6 Total: \$200,000

A brief description of each project in Zone 6 follows. Please refer to the corresponding Exhibits in Appendix B for a more detailed description and background on each project.

15-07 – Dartmouth Avenue Improvements – Replaces 410 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

Zone 7 (5 Projects)

Table 8 - Zone 7 CIP Projects

Project No.	DSA No.	Description	Cost
15-25	027	Christian Court Improvements	\$200,000
15-26	028	West Belmont Tank Water Main Improvements	\$1,400,000
15-27	029	Lassen Drive Improvements	\$855,000
15-28	030	Tahoe Drive Area Improvements	\$510,000
15-29	031	Belmont Canyon Road Improvements	\$420,000

Zone 7 Total: \$3,385,000

A brief description of each project in Zone 7 follows. Please refer to the corresponding Exhibits in Appendix B for a more detailed description and background on each project.

15-25 – Christian Court Improvements – Replaces 300 LF of 4” CIP with 8” DIP and installs an additional fire hydrant to replace aging / undersized infrastructure, improve flushing capabilities, and improve fire flows.

15-26 – West Belmont Tank Water Main Improvements – A combination of abandonments / replacement / new installation of 1,400 LF of 8” DIP and 2,400 LF of 12” DIP to eliminate cross country and parallel water mains, improve zone wide fire flows, and replace aging infrastructure.

15-27 – Lassen Drive Improvements – Replaces 1,800 LF of 6” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-28 – Tahoe Drive Area Improvements – Replaces 900 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-29 – Belmont Canyon Road Improvements – Replaces 900 LF of 4” – 8” CIP with 8” DIP to eliminate a local bottle neck, replace aging infrastructure, and improve fire flows.

Zone 8 (9 Projects)

Table 9 - Zone 8 CIP Projects

Project No.	DSA No.	Description	Cost
15-32	034	Soho Circle Improvements	\$95,000
15-33	035	Paddington Court Improvements	\$110,000
15-34	036	Ridgewood Court Improvements	\$135,000
15-35	037	Bridge Court Improvements	\$160,000
15-36	038	Parkridge Court Improvements	\$160,000
15-37	039	Waterloo Court Improvements	\$95,000
15-38	040	Cliffside Court Improvements	\$220,000
15-39	n/a	Zone 8 - 14" Cross Country Improvements	\$460,000
15-40	041	Hastings Drive Improvements	\$310,000

Zone 8 Total: \$1,745,000

A brief description of each project in Zone 8 follows. Please refer to the corresponding Exhibits in Appendix B for a more detailed description and background on each project.

15-32 – Soho Circle Improvements – Replaces 130 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-33 – Paddington Court Improvements – Replaces 160 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-34 – Ridgewood Court Improvements – Replaces 200 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-35 – Bridge Court Improvements – Replaces 280 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-36 – Parkridge Court Improvements – Replaces 270 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-37 – Waterloo Court Improvements – Replaces 130 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-38 – Cliffside Court Improvements – Replaces 330 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-39 – Zone 8 – 14” Cross Country Improvements – Installs 8 trench dams, 2 remotely controlled gate valves, and a flow meter and/or pressure gauge vault to allow the District to quickly identify a leak along the water main, the ability to isolate a shorter section of repair length.

15-40 – Hastings Drive Improvements – Replaces 550 LF of 4” CIP/PVC with 8” DIP to replace aging / undersized infrastructure, improve fire flows, and also installs a Zone 8 to Zone 2 jumper to be used in emergency situations.

Zone 9 (0 Projects) - No projects identified in Zone 9.

District Wide Projects (5 Projects)

Table 10 - District Wide CIP Projects

Project No.	DSA No.	Description	Cost
15-83	n/a	Emergency Intertie Rebuilds	\$620,000
15-86	n/a	Folger Pump Station Site Demolition	\$70,000
15-91	n/a	SCADA System Replacement	\$1,500,000
15-92	n/a	AMI Installation Completion	\$2,000,000
15-93	n/a	Dairy Lane Facility Rehabilitation and Improvements	\$1,500,000

District Wide Total: \$5,690,000

A brief description of each District Wide project follows. Please refer to the corresponding Exhibits in Appendix B for a more detailed description and background on each project. Note there are no exhibits for projects 15-91, 15-92, and 15-93.

15-83 – Emergency Intertie Rebuilds – Rebuilds / reconfigures the existing interties to obtain more accurate meter readings.

15-86 – Folger Pump Station Site Demolition – Demolishes the existing pump station building at the abandoned Folger Pump Station.

15-91 – SCADA System Replacement – Replaces the existing SCADA system.

15-92 – AMI Installation Completion – Adds automatic meter reading capabilities to each service meter allowing the District and residents to monitor water use remotely.

15-93 – Dairy Lane Facility Rehabilitation and Improvements – Includes various improvements to the District’s facilities.

Capital Improvement Project Cost Summary by Zone

Table 11 - CIP Project Cost by Zone

Zone	Number of Projects	Cost
1	18	\$12,080,000
2	27	\$11,935,000
3	19	\$14,385,000
4	1	\$745,000
5	7	\$1,655,000
6	1	\$200,000
7	5	\$3,385,000
8	9	\$1,745,000
9	0	\$0
DW	5	\$5,690,000
Total	92	\$ 51,820,000

Additional Potential Projects

- Zone 1 – 20” CC and Zone 8 – 24” Transmission Main Assessments
- Zone 2 – Notre Dame EPS (10-inch from Hannibal to Hersom)
- Zone 3 – Hersom Pump Station EPS – Effects of pressure increase
- Zone 7 – Ralston – 12-inch from West Belmont Pump Station to West Belmont Tanks EPS
- District Wide Poly Service Connection Replacements
- Various Tank Site / Pump Station Improvements

4.1 CIP PROJECT RANKING

Of the current projects identified in Section 5.0, the District used specific criteria to evaluate and rank each of the projects in order of importance / immediate benefit to the system. The higher the score, the higher the priority for the District’s rolling 5-year CIP. The criteria and subsequent scoring were as follows:

1. Pipe Failure Score – Operation’s personnel assigned scores based on institutional knowledge of the District’s distribution/transmission system during a 5-year period.

6 or more water leaks	30
5 water leaks	25
4 water leaks	20
3 water leaks	15
2 water leaks	10
1 or fewer water leaks	5

2. Distribution System Benefits, Hydraulic Capacity & Low Flow Hydrants Affected - Operation’s personnel developed this scoring matrix. (Add up score from each cell selected)

	Deficient by 2 or more pipe sizes	Deficient by 1 or fewer pipe sizes	Min. standard for fire hydrants affects 2 or more fire hydrants	Min. standard for fire hydrants affects 1 or fewer fire hydrants
Improves distribution system capabilities	2	1	2	1
Can or is Serving as Backbone Infrastructure	2	1	2	1
Serves to intertie or eliminate a pressure zone	2	1	2	1

3. Water Main Age – It is not unusual, but not always true, for older water mains to have a higher rate of failure as they approach the end of their engineered life. Operations personnel scored each proposed project based on the age of the pipe to be replaced.

<u>Water Main Construction Year</u>	
Before 1939	10
1940 – 1959	8
1960 – 1979	6
1980 – 1999	4
2000 – newer	1

4. Water Main Material – The current standard for water pipe is based on restrained ductile iron or PVC pipe materials. In the past, steel pipe, cast iron pipe and asbestos cement pipe were materials of choice. This criteria will score each project based on a pipe material, where District history has provided information on the types of pipe material that do not perform as well as other pipe materials.

Water Main Material

Unlined Cast Iron	5
Steel (Not Cathodically Protected) & Cast Iron	4
Asbestos Cement	3
Other Unrestrained Pipe	2
Appropriate Pipe Material (Restrained PVC/DI)	0

5. Scheduled Paving – Each of the proposed projects were scored in relation to the City of Belmont’s Pavement Condition Index (PCI). A higher priority will be given to water mains under streets with a low PCI.

Street’s PCI

PCI under 49	5
PCI of 50 to 59	4
PCI of 60 to 69	3
PCI of 70 to 79	2
PCI of 80 and >	1
Cross Country Water Main	1

6. Static Pressure – Normally, the higher the static water pressure, the more potential damage caused by the leaking water main once it bursts. Additionally, higher system pressures increase the long-term stress on the pipe increasing the chance of failure when combined with corrosion.

Static Pressure

Over 100 psi	5
75 – 99 psi	3
Less than 75 psi	1

5.0 PAY AS YOU GO CAPITAL IMPROVEMENT NEEDS / ANALYSIS

The District conducted a small scale asset management analysis to determine how much funding would be necessary per year to replace old and aging infrastructure. The analysis involved compiling water main information including material type, linear footage, and date installed; and tank information including capacity, build date, and recoating dates. This information along with a variety of assumptions was used to determine infrastructure remaining life and annual replacement costs.

5.1 WATER MAIN ASSESSMENT

The District has a total 493,492 feet (ft) (93 miles) of water main ranging in size between 4-inch and 24-inch in a variety of material types including cast iron (CIP), asbestos cement (ACP), ductile iron (DIP), polyvinylchloride (PVC), concrete (CCP) and steel (STL). The average age of the water mains throughout the system is approximately 47 years old with an average install date of 1969. The following assumptions were made in the pipe assessment:

Table 12 - Water Main Life Expectancy

Water Main Life Expectancy					
Material	ACP	CIP	DIP	PVC	STL
Years	75	75	100	100	75

Table 13 - Water Main Replacement Costs

Water Main Replacement Costs					
Size	8"	10"	12"	18"	24"
Cost/lf (2016)	\$275	\$300	\$325	\$400	\$450

Using the above life expectancy values and costs, the average life remaining and annual replacement costs were calculated and grouped by water main material as shown in Table 14. Calculations indicate the District needs to replace approximately 20,600 lf (4 miles) of water main each year at a cost of \$6,000,000. For a breakdown of annual replacement costs by pipe size (used to generate Table 14), refer to Appendix D.

Table 14 - Water Main Annual Replacement Costs

Material	% of System	Length (lf)	Average Install Year ¹	Average Age (yrs) ²	Avg Life Remain (yrs) ³	Annual Replacement Length (lf) ⁴	Annual Replacement Cost ⁵
CIP	38.6%	190,591	1955	61	14	13,460	\$3,783,200
PVC	28.9%	142,504	1989	27	73	1,980	\$558,000
ACP	18.5%	91,225	1964	52	23	4,020	\$1,390,100
DIP	9.8%	48,335	1979	37	63	780	\$237,300
STL	0.8%	3,813	1957	59	16	240	\$71,100
Unknown	3.4%	17,024					
Totals		493,492	1969	47	38	20,660	\$6,000,000

¹Average Install Date = Weighted Average of Pipe Lengths * Installation Year

²Average Age = Current Year (2016) – Average Install Year

³Average Remaining Life = Water Main Life Expectancy – Average Age

⁴Annual Replacement Length = Length / Average Remaining Life

⁵Annual Replacement Cost = (Linear feet * Replacement Costs) / Average Life Remaining

5.2 WATER TANK ASSESSMENT

The District has 11 water storage tanks throughout the system ranging from 720,000 gallons to 2,500,000 gallons, all made of steel. Most of the tanks within the District have been rebuilt, recoated, or seismically retrofitted within the past 15 years with the exceptions of Dekoven and Hallmark Tanks. To assist in the tank assessments of useful life remaining and costs, the following assumptions were made:

- Tank Life Expectancy: 75 years
- Tank Coating Life Expectancy: 25 years
- Cost of Reconstruction per Gallon: \$1.00/gal
- Cost of Recoating per gallon: \$0.50/gal

The tank assessment also utilized size factors to illustrate how unit price costs (\$/gal) fluctuate given the size of the tank. As an example, the smaller the tank, the more it costs per gallon to reconstruct and recoat. The following size factors were used:

- 1 – 1,000,000 to 3,000,000 gallons
- 2 – 500,000 to 1,000,000 gallons
- 3 – 100,000 to 500,000 gallons
- 4 – 100,000 gallons or less

The water tank assessment is shown in Table 15 below. This is a condensed version of the overall table found in Appendix D which also includes size factors and year built/recoated data to generate the below table. Calculations indicate annual costs of \$2,800,000 for tank reconstruction/recoating.

Table 15 - Water Tank Annual Replacement Costs

Tank	Capacity (gal)	Remaining Tank Life ¹	Annual Replacement Cost ²	Remaining Coating Life ³	Annual Coating Cost ⁴	Total Cost ⁵
Zone 2						
Exbourne 1	1,000,000	67	\$14,295	17	\$29,412	\$44,337
Exbourne 2	1,500,000	69	\$21,739	19	\$39,474	\$61,213
Hersom	1,500,000	62	\$24,194	12	\$62,500	\$86,694
Zone 3						
Dekoven 1	720,000	11	\$130,909	1	\$720,000	\$850,909
Dekoven 2	1,000,000	11	\$181,818	1	\$1,000,000	\$1,181,818
Zone 5						
Buckland 1	100,000	74	\$5,405	24	\$8,333	\$13,739
Buckland 2	100,000	74	\$5,405	24	\$8,333	\$13,739
Zone 7						
West Belmont 1	800,000	61	\$26,230	11	\$72,727	\$98,957
West Belmont 2	800,000	61	\$26,230	11	\$72,727	\$98,957
Zone 8						
Hallmark 1	2,500,000	26	\$96,154	13	\$96,154	\$192,308
Hallmark 2	2,500,000	26	\$96,154	13	\$96,154	\$192,308
					Annual Cost	\$2,800,000

¹Remaining Tank Life = Tank Life Expectancy – (Current Year (2016) - Year of Construction/Retrofit)

²Annual Replacement Cost = (Capacity * Size Factor * Cost of Reconstruction per Gallon) / Remaining Tank Life

³Remaining Coating Life = Coating Life Expectancy – (Current year (2016) – Year Coated)

⁴Annual Coating Cost = (Capacity * Size Factor * Cost of Recoating per Gallon) / Remaining Coating Life

⁵Total Cost = Annual Replacement Cost + Annual Coating Cost

5.3 PAY AS YOU GO SUMMARY

Table 16 illustrates the total annual funding needed to address aging water mains and tanks within the District. Note the pay go funding does not take into account building facilities, pump stations, pressure reducing valve stations, etc.

Table 16 - Pay As You Go Summary

Infrastructure Item	Annual Cost (\$/yr)
Water Main Replacement	\$6,000,000
Water Tank Reconstruction / Retrofit / Recoating	\$2,800,000
Not Included: Pump Stations, PRV's, Buildings	
Total	\$8,800,000

	ACP	CIP	DIP	PVC	STL
Life Expectancy of Pipe (Years)	75	75	100	100	75
	8"	10"	12"	18"	24"
Replacement Cost DIP (per LF)	\$275	\$300	\$325	\$400	\$450
Current Year	2016				

Summary							
Material	Percentage of Total System	Linear Feet	Avg Installed Date	Avg Age (Y)	Avg Life Remaining (Y)	Annual Repl Length (ft)	Annual Replacement Cost
ACP	18.5%	91,225	1964	52	23	4,020	\$1,390,100
CIP	38.6%	190,591	1955	61	14	13,640	\$3,783,200
DIP	9.8%	48,335	1979	37	63	780	\$237,300
PVC	28.9%	142,504	1989	27	73	1,980	\$558,000
STL	0.8%	3,813	1957	59	16	240	\$71,100
Unknown	3.4%	17,024					
Total (ft):		493,492	1969	47	38	20,660	\$6,000,000
Total (miles):		93				4	

Detail							
Material	Percentage of Total System	Linear Feet	Avg Installed Date	Avg Age (Y)	Avg Life Remaining (Y)	Annual Repl Length (ft)	Annual Replacement Cost
2" & 4" ACP	0.1%	300	1966	50	25	10	\$3,400
2" & 4" CIP	4.7%	23,164	1952	64	11	2,030	\$557,600
2" & 4" DIP	0.3%	1,247	1978	38	62	20	\$5,600
2" & 4" PVC	3.8%	18,634	1974	42	58	320	\$88,800
2" & 4" STL	0.0%	0	0	0	0	0	\$0
Total 2" & 4"	8.8%	43,344	1962	54	33	2,380	\$655,400
6" ACP	5.4%	26,855	1966	50	25	1,090	\$299,900
6" CIP	21.3%	105,304	1955	61	14	7,500	\$2,063,000
6" DIP	4.5%	22,161	1978	38	62	360	\$98,200
6" PVC	8.0%	39,380	1984	32	68	580	\$158,500
6" STL	0.0%	83	1953	63	12	10	\$1,900
Total 6"	39.3%	193,783	1965	51	32	9,540	\$2,621,500

Material	Percentage of Total System	Linear Feet	Avg Installed Date	Avg Age (Y)	Avg Life Remaining (Y)	Annual Repl Length (ft)	Annual Replacement Cost
8" ACP	4.0%	19,587	1965	51	24	800	\$220,300
8" CIP	9.7%	48,069	1957	59	16	3,070	\$843,700
8" DIP	2.6%	12,764	1984	32	68	190	\$51,900
8" PVC	12.8%	63,185	1994	22	78	810	\$222,800
8" STL	0.0%	0	0	0	0	0	\$0
Total 8"	29.1%	143,606	1977	39	49	4,870	\$1,338,700
10" ACP	0.2%	877	1972	44	31	30	\$8,600
10" CIP	2.0%	9,748	1952	64	11	870	\$260,100
10" DIP	0.7%	3,659	1980	36	64	60	\$17,100
10" PVC	1.1%	5,562	1993	23	77	70	\$21,600
10" STL	0.8%	3,731	1957	59	16	230	\$69,200
Total 10"	4.8%	23,576	1968	48	37	1,260	\$376,600
12" ACP	2.8%	13,919	1969	47	28	510	\$164,300
12" CIP	0.8%	3,942	1965	51	24	160	\$53,200
12" DIP	0.2%	795	1993	23	77	10	\$3,400
12" PVC	3.0%	14,741	1994	22	78	190	\$61,200
12" STL	0.0%	0	0	0	0	0	\$0
Total 12"	6.8%	33,398	1980	36	51	870	\$282,100
14" & 18" ACP *	1.6%	7,888	1962	54	21	370	\$148,700
14" & 18" CIP	0.1%	363	1967	49	26	10	\$5,600
14" & 18" DIP	0.4%	1,738	1973	43	57	30	\$12,200
14" & 18" PVC	0.2%	1,003	1995	21	79	10	\$5,100
14" & 18" STL	0.0%	0	0	0	0	0	\$0
Total 14" & 18"	2.2%	10,992	1967	49	32	420	\$171,600
20" & 24" ACP *	4.4%	21,797	1959	57	18	1,210	\$544,900
20" & 24" CIP	0.0%	0	0	0	0	0	\$0
20" & 24" DIP	1.2%	5,971	1971	45	55	110	\$48,900
20" & 24" PVC	0.0%	0	0	0	0	0	\$0
20" & 24" STL	0.0%	0	0	0	0	0	\$0
Total 20" & 24"	5.6%	27,768	1962	54	26	1,320	\$593,800
Unknown Pipe Size and/or Type (ft)		17,024	3.4%				
Total (ft):		493,492				20,660	\$6,000,000
Total (miles):		93				4	

* Includes Concrete Cylinder Pipe (CCP)

Life Expectancy of Tank Coating (Y)	25	
Cost of Recoating per Gallon	\$0.50	Excluding Size Factor
Life Expectancy of Tanks (Y)	75	
Cost of Reconstruction per Gallon	\$1.00	Excluding Size Factor
Current Year	2016	

Name	Capacity (Gal)	Size Factor *	Year of Construction or Retrofit	Remaining Tank Life	Annual Replacement Cost	Year Painted	Remaining Paint Life	Annual Paint Cost	Total Cost
Buckland Tank 1	100,000	4	2015	74	\$5,405	2015	24	\$8,333	\$13,739
Buckland Tank 2	100,000	4	2015	74	\$5,405	2015	24	\$8,333	\$13,739
Exbourne 1	1,000,000	1	2008	67	\$14,925	2008	17	\$29,412	\$44,337
Exbourne 2	1,500,000	1	2010	69	\$21,739	2010	19	\$39,474	\$61,213
Hersom	1,500,000	1	2003	62	\$24,194	2003	12	\$62,500	\$86,694
Dekoven #1	720,000	2	1952	11	\$130,909	1992	1	\$720,000	\$850,909
Dekoven #2	1,000,000	2	1952	11	\$181,818	1992	1	\$1,000,000	\$1,181,818
West Belmont #1	800,000	2	2002	61	\$26,230	2002	11	\$72,727	\$98,957
West Belmont #2	800,000	2	2002	61	\$26,230	2002	11	\$72,727	\$98,957
Hallmark #1	2,500,000	1	1967	26	\$96,154	2004	13	\$96,154	\$192,308
Hallmark #2	2,500,000	1	1967	26	\$96,154	2004	13	\$96,154	\$192,308

4 (100,000 or less), 3 (100,000 to 500,000) , 2 (500,000 to 1,000,000), 1 (1,000,000 to 3,000,000), .5 (Over 3,000,000)

Annual Cost:	\$2,800,000
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RESOLUTION NO. 2015-22

**AUTHORIZING THE COMMENCEMENT OF PROCEEDINGS
IN CONNECTION WITH THE FINANCING OF WATER SYSTEM IMPROVEMENTS
AND DESIGNATING WULFF HANSEN & COMPANY AS MUNICIPAL ADVISOR,
AND QUINT & THIMMIG, LLP, AS BOND COUNSEL AND DISCLOSURE COUNSEL**

MID-PENINSULA WATER DISTRICT

* * *

WHEREAS, the Mid-Peninsula Water District ("MPWD") anticipates the issuance of bonds, certificates of participation or other appropriate securities (the "Securities") to finance water system improvements described in Exhibit "A" attached hereto, to be secured by the MPWD's water enterprise; and

WHEREAS, capital expenditures relating to the water system improvements described in Exhibit "A" (the "Expenditures") have been paid by the MPWD not more than 60 days prior to the adoption of this Resolution or will be paid by the MPWD on or after the adoption of this Resolution; and

WHEREAS, the MPWD reasonably expects to reimburse itself for the Expenditures with the proceeds of the Securities; and

WHEREAS, it is desirable to appoint a municipal advisor, a bond counsel, and a disclosure counsel in connection with the issuance of the Securities.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors for the Mid-Peninsula Water District as follows:

1. The MPWD reasonably expects to reimburse all or a portion of the Expenditures with the proceeds of the Securities.
2. The maximum principal amount of the Securities is TWENTY-FIVE MILLION DOLLARS (\$25,000,000).

3. This Resolution is a declaration of official intent to reimburse Expenditures pursuant to Treasury Regulations Section 1.150-2.
4. The issuance of Securities is authorized. Officers and officials of the MPWD are authorized to proceed with the preparation of the necessary documents in connection with the issuance of the Securities, subject to the final approval thereof by the Board at subsequent meetings.
5. Wulff, Hansen & Company, in San Francisco, California is hereby designated as municipal advisor to the MPWD in connection with the issuance of the Securities. The President, the Vice President, and the General Manager, or the designee thereof, are each hereby authorized and directed in the name and on behalf of the MPWD to execute an agreement for municipal advisory services with such firm, with compensation to be paid thereunder from the proceeds of the Securities, in a form approved by the District Counsel and General Manager.
6. Quint & Thimmig, LLP, in Larkspur, California, is hereby designated as bond counsel and disclosure counsel to the MPWD in connection with the issuance of the Securities. The President, the Vice President, and the General Manager, or the designee thereof, are each hereby authorized and directed in the name and on behalf of the MPWD to execute an agreement for legal services with such firm, with compensation to be paid thereunder from the proceeds of the Securities, in a form approved by the District Counsel and General Manager.
7. The President, the Vice President, the General Manager, the District Secretary and other appropriate officers and officials of the MPWD are hereby authorized and directed to take such action and to execute such documents as may be necessary or desirable to effectuate the intent of this Resolution.
8. This Resolution shall take effect from and after the date of its passage and adoption.

REGULARLY PASSED AND ADOPTED this 16th day of December 2015, by the following vote:

AYES: *Directors Stuebing, Warden, Linvill, Vella, Zucca*

NOES: *0*

ABSENT: *0*

Matthew Zucca

 President, Board of Directors

ATTEST:

Candace R. Piva

 District Secretary



**MUNICIPAL ADVISORY SERVICES AGREEMENT
MID-PENINSULA WATER DISTRICT – WULFF, HANSEN & CO.**

This is an agreement between the Mid-Peninsula Water District, a duly organized, validly existing and operating County Water District pursuant to the laws of the State of California, referred to as the "District", and Wulff, Hansen & Co. ("Wulff Hansen"), a Municipal Advisory firm registered as a broker/dealer and Municipal Advisor with the Securities and Exchange Commission and the Municipal Securities Rulemaking Board, and a member of the Financial Industry Regulatory Authority ("FINRA"), with its headquarters office in San Francisco, California, referred to as "Municipal Advisor", (together the "Parties") for performing certain Municipal Advisory Services ("Services") as set forth herein and consists of the following terms and conditions (the "Agreement"). The District has previously been informed, and understands and acknowledges, that any information or services provided by Wulff, Hansen pursuant to this Agreement are for the purpose of serving as municipal financial advisor to the District and not as an underwriter or otherwise facilitating the placement of municipal securities issued by the District.

This Agreement between the Parties is made and entered into effective on approval and execution by both parties. The term of this Agreement shall extend to midnight, December 31, 2016, unless mutually extended by both parties.

Over the past several years, significant planning, effort and progress has occurred in the District including the self-funding of public infrastructure and needed public facilities. The planning component is part of a long term District program to achieve such objectives. The financial aspects of this planning component are complicated and necessarily intricately linked with other District needs and objectives. Recognizing the complexity of the financial portion of its planning needs, the District wishes to obtain the Services of Municipal Advisor to assist it in coordination of the District's financing plans with the implementation of its other objectives.

NOW THEREFORE, in consideration of the mutual covenants and stipulations hereinafter set forth, the parties agree as follows:

1.0 Scope of Services

1.1 Municipal Advisor agrees to perform the following Services, as appropriate, for the District during the term of this Agreement.

- a) Attendance at public meetings of District at which matters relating to the Services are considered, except routine matters, including informational and educational meetings with the public;
- b) Attendance at District staff meetings, or meeting with members of the public on matters relating to the Services, upon the request of the District after reasonable notice;
- c) Work with members of the public, other public agencies, District staff, and District Board members to learn, discuss and respond to matters relating to the Services; and to develop and coordinate recommendations acceptable to interested parties, District and its consultants;
- d) Assist the District in its selection of other professionals (e.g., outside counsel, consultants, accountants, engineers, and others as appropriate), if requested;
- e) Prepare a distribution list with contact information on all relevant participants in a project and a schedule indicating timing for significant steps in the process;

- f) Assist any of the District's staff and/or special consultants in developing specific terms and conditions affecting a project so as to best reflect the District's priorities and interests;
- g) Preparation of cash flow analysis and other schedules per District direction and related consultation;
- h) If requested, assistance in developing supportive financial material and resource information for a District election;
- i) Telephone consultation with staff members and property owners to answer questions about a project and related matters;
- j) If debt financing is considered, assist in preparing and arranging for the transaction to be sold to a private investor through a placement agent (Private Placement) or alternatively, for sale to the public through an underwriter (Public Offering). Prepare a RFP for sale and distribution to identified banks and assist the District in selecting the best proposal and in closing a transaction of this type;
- k) If requested, assist the District in developing a comprehensive long term financial plan and strategies, particularly related to assessing capital needs associated with the District's planning activities; including development of certain aspects of an overall financial plan, not necessarily directly related to specific underwritings or public financings, such as capital improvement plan or capacity charge fees and water rates. Parties mutually agree that the services requested in Section 1.1 (k) will be compensated according to the terms in Section 4.3 of this Agreement
- l) Assist in developing and reviewing all financial plans related to development/real estate finance, whether submitted by developers or developed in-house;
- m) Assist the District in efforts to maintain or improve the District's underlying credit rating, including preparation of materials, presentation to and coordination with credit rating agencies;
- n) Long term evaluation, preparation, coordination and oversight of the District's public financing program, including application to state loan programs or pooled debt financing programs;
- o) Provide ongoing follow up consultation relating to public financing, as necessary, and coordination with other prospective District projects;
- p) Assist District, if requested, in coordinating existing debt obligations with prospective financing plans, including assisting with development of certain aspects of long range comprehensive planning;

1.2 The Services of Municipal Advisor under this Agreement shall not include the following;

- a) Legal services of any kind (including bond and disclosure counsel);
- b) Engineering services of any kind;
- c) Special tax rate consulting;
- d) Absorption analysis;

- e) Fiscal consulting;
- f) Underwriting or placement agent services;
- g) Accounting services;
- h) Advice concerning application of debt service savings, if any, and/or investment or other use of excess bond proceeds, if any, resulting from the transaction;

The Municipal Advisor is not a legal counsel or an accountant and is not providing legal or accounting guidance. None of the Services contemplated in this Agreement shall be construed as or a substitute for legal or accounting services.

1.3 Extent of Duties Arising under this Agreement

The District and the Municipal Advisor intend and agree that, to the extent the performance of services by the Municipal Advisor under this Agreement constitutes municipal advisory activities within the meaning of Section 15B of the Securities Exchange Act of 1934 or otherwise creates a duty of the Municipal Advisor under Section 15B(c)(1) of the Securities Exchange Act of 1934 or Rule G-23 of the Municipal Securities Rulemaking Board, such duty does not extend beyond the Services to be provided and such duty does not extend to any other contract, agreement, relationship, or understanding of any nature that may exist between the District and the Municipal Advisor.

2.0 District Responsibility

In consideration of the agreement of Municipal Advisor to provide the Services set forth in paragraph 1.0, District agrees as follows:

2.1 District will work with Municipal Advisor exclusively during the term of this Agreement with respect to Services rendered through this Agreement and each related project during the term hereof unless other arrangements are mutually agreed to in writing by the Parties.

2.2 District will cooperate with Municipal Advisor in all respects relating to the Services being rendered by Municipal Advisor in connection with each proposed project and will assist Municipal Advisor in obtaining information regarding the projects and will provide said information to the extent practicable. The District is responsible for the content and accuracy of information it provides to Municipal Advisor and Municipal Advisor is not expected to or responsible to independently verify such information prior to its inclusion in documents or other materials disseminated through Municipal Advisor.

2.3 District hereby acknowledges its responsibility with respect to compliance with federal securities laws and represents its intention to comply in all respects with federal securities laws. The District acknowledges and understands that state and federal laws relating to disclosure in connection with municipal securities, including but not limited to the Securities Act of 1933 and Rule 10b-5 promulgated under the Securities Exchange Act of 1934, may apply to the District and that the failure of the Municipal Advisor to advise the District respecting these laws shall not constitute a breach by the Municipal Advisor or any of its duties and responsibilities under this Agreement.

3.0 Municipal Advisor's Responsibility

3.1 It is understood and agreed that Advisor has the professional skills necessary to provide Services to District, and that District relies upon the professional skills of the Municipal Advisor to do and perform the Services in a skillful and professional manner in accordance with the standards of the profession.

3.2 Municipal Advisor agrees to perform the Services in a timely manner. Municipal Advisor shall not be held responsible for delays caused by circumstances beyond its reasonable control.

3.3 Nothing herein contained shall prevent Advisor from carrying on its usual business activities of providing municipal advice and investment banking services, including the performance of other additional services for the District by separate agreement, should the District request such additional services, nor from performing similar services for other agencies, cities, districts or other public entities, provided no actual or apparent conflict of interest arises. District is aware that Municipal Advisor has worked, or may in the future work with neighboring cities and other public entities, which could present a conflict of interest for the Municipal Advisor. Such occasion of actual or apparent material conflict of interest shall require full disclosure by the Municipal Advisor to the District and Municipal Advisor shall not pursue any activity that represents such a material conflict without the District's written authorization. Municipal Advisor is not presently aware of any such conflict.

3.4 The District, public agencies, landowners, consultants and other parties dealing with District at the District's request or on behalf of the District or otherwise involved at the District's request or on behalf of the District in the preparation of information and documents referenced in Paragraph 1.0 of this Agreement will be furnishing to Municipal Advisor various data, reports, studies, computer printouts and other information and representations as to facts involved in the Services which District understands Municipal Advisor will be using and relying upon in preparing the reports, studies, computer printouts, and other work products called for in this Agreement. Municipal Advisor shall not be obligated to establish or verify the accuracy of such information furnished by or on behalf of District, nor shall Municipal Advisor be responsible for the impact or effect on its work products of the information furnished by or on behalf of District, in the event that such information is in error and therefore introduces error into Municipal Advisor's work product.

4.0 Compensation

4.1 In the event a financing, including but not limited to a bond issue is required or requested by the District, Municipal Advisor shall provide an addendum to this agreement describing the services to be provided by the Municipal Advisor and the fees for such services to be paid to Municipal Advisor. The fees due Municipal Advisor under the addendum shall be paid out of the proceeds of the financing and will be contingent on the successful sale, or placement and the completion and funding of the financing. No fee compensation shall be due the Municipal Advisor for services rendered under any addendum if the financing is not completed. The addendum will require both the Municipal Advisor's and the District's approval.

4.2 Municipal Advisor acknowledges and agrees that the compensation to be paid to Municipal Advisor under this Section 4.0 represents the full amount due and owing to Municipal Advisor in connection with the Services provided for each project.

4.3 Amendments. In the event District desires to retain Municipal Advisor for the performance of additional services, or wishes to delete any Services in connection with this Agreement, specifications of such changes and adjustments to compensation due Municipal Advisor therefore shall be made only by written and signed amendment to this Agreement by both Parties.

5.0 Expenses

5.1 Municipal Advisor shall not charge District for any administrative expenses or overhead, including without limitation, facsimile, conference calls, mileage and/or any other expenses incurred by any consultant in connection with such consultant's provision of Services without prior written consent of the District.

6.0 Primary Contact

6.1 The lead representative of Advisor, Ben H. Levine, assisted by Edmund Viray, will be responsible for all communications and interaction with the District and others involved in the provision of Services.

7.0 Certification – Conflicts

7.1 Municipal Advisor certifies that, except as described in Section 8.2 or elsewhere in this Agreement, it has no interest and shall not acquire any interest, direct, indirect or contingent, that would conflict in any manner or degree with the performance of the Services hereunder, except as Municipal Advisor under this Agreement, or in any property or contract arising from or affected by Services with the District, or as may be disclosed in writing during a particular project. Municipal Advisor further covenants that in the performance of this Agreement, no persons having any such undisclosed conflict or interest shall be employed. In no event will Wulff Hansen provide underwriting / placement agent services in connection with public financings subject to this Agreement.

7.2 Municipal Advisor is subject to certain inherent conflicts of interest arising out of various forms of compensation. Such conflicts are described in the document entitled DISCLOSURE OF CONFLICTS OF INTEREST WITH VARIOUS FORMS OF COMPENSATION which is attached to this Agreement. Should Municipal Advisor become aware of any additional actual or apparent material conflict of interest, it shall be promptly disclosed by the Municipal Advisor to the District.

7.3 No officer, member, or employee of District and no member of the governing body of District who exercises any functions or responsibilities in the review, approval of the undertaking or carrying out of the Services, shall participate in any decision relating to this Agreement which affects his personal interest or the interest of any corporation, partnership, or association in which he/she is, directly or indirectly interested; nor shall any such officer, member or employee of District have any interest, direct or indirect, in this Agreement or the proceeds thereof.

8.0 Nondiscrimination

8.1 There shall be no discrimination against any Municipal Advisor employee who is employed to perform or assist in providing the Services, or against any applicant for such employment because of race, religion, color, sex or national origin. This provision shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

9.0 Hold Harmless and Indemnification

9.1 Municipal Advisor shall indemnify, defend and save District, its directors, officers, employees, contractors and agents harmless from and against any and all liability, claims, suits, actions, damages and/or causes of action of any kind arising out of any bodily injury, personal injury, property damage or in violation of any federal, state or municipal law or ordinance or other cause in connection with the activities of Advisor, or on account of the performance or character of the Services or otherwise related to its performance of this Agreement to the extent that any such liability, claims, suits, actions, damages and/or causes of action arises out of the negligent or willful misconduct of the Municipal Advisor.

9.2 Should the District seek advice from third party municipal advisors, bankers or legal advisors or others providing guidance similar in scope to that contemplated herein, the District agrees that the Municipal Advisor shall not be held liable for advice or recommendations made to the District by such third party municipal advisors, banker or legal advisors.

9.3 District will indemnify and hold Municipal Advisor harmless from any claims, suits, actions, damages and/or causes of action of any kind arising from errors contained in data or information furnished by District or District's designee to Municipal Advisor for use in carrying out the Services called for by this Agreement.

9.4 This Section 9.0 shall survive termination or expiration of this Agreement.

10.0 Termination of Agreement

10.1 This Agreement shall become effective on the date stated herein and will continue until the earlier of (i) the date of termination shown in the preamble of this Agreement or (ii) termination as provided for in this paragraph 10.0, and all proper invoices have been rendered and paid. This Agreement may be extended by mutual agreement of the Parties in writing.

10.2 In the event that Municipal Advisor has provided Services and/or incurred expenses pursuant to the terms of this Agreement, and District finds it necessary to discontinue the Services of Municipal Advisor and terminate this Agreement for reasons other than those set forth in paragraph 10.3 below, the District agrees to compensate Municipal Advisor for Services performed in full compliance with the terms of this Agreement and expenses incurred through the date of said termination at the rates as applicable in paragraph 4.1.

10.3 Notwithstanding the terms of paragraph 10.1, this Agreement may be terminated by the District for cause based on the following activities of Municipal Advisor: loss of registration as a Municipal Advisor, or malfeasance.

Termination of the Agreement for cause as set forth in this paragraph shall relieve District from compensating Municipal Advisor in accordance with paragraph 4.0 of this Agreement.

10.4 Payment for Services and expenses of Municipal Advisor as set forth in paragraph 4.0, shall be paid within thirty (30) days of submission of an approved invoice to District by Municipal Advisor.

10.5 If Municipal Advisor and District are working on a particular project, District may give written notice of termination to Municipal Advisor with regard to other prospective District projects that will terminate the Agreement upon the latter of (a) completion of the project upon which Municipal Advisor and District are then working, or (b) thirty (30) days after the notice.

11.0 Assignment

11.1 Municipal Advisor shall not assign any interest in this Agreement, and shall not transfer any interest in the same (whether by assignment or novation) without the prior written consent of District, which consent shall not be unreasonably withheld.

12.0 Insurance

12.1. Workers' Compensation: Municipal Advisor shall procure and maintain at all times during the performance of such work Worker's Compensation Insurance in conformance with the laws of the State of California and Federal laws where applicable. Employers' Liability Insurance shall not be less than One Million Dollars (\$1,000,000) per accident or disease. Prior to commencement of work hereunder, Municipal Advisor shall deliver to District a Certificate of Insurance which shall stipulate that 30 days advance written notice of cancellation, shall be given to District.

12.2. Bodily Injury, Death and Property Damage Liability Insurance: Municipal Advisor shall also procure and maintain at all times during the performance of this Agreement General Liability Insurance (including automobile operation) covering Municipal Advisor and District for liability arising out of the operations of Municipal Advisor and any subcontractors. The policy(ies) shall be subject to a general liability limit for each occurrence of One Million Dollars (\$1,000,000) naming as an additional insured, in connection with Municipal Advisor's activities, the District, and its directors, officers, employees and agents. The Insurer(s) shall agree that its policy(ies) is Primary Insurance and that it shall be liable for the full amount of any loss up to and including the total limit of liability without right of contribution from any other insurance covering the District.

Inclusion of the District as additional insured shall not in any way affect its rights as respects to any claim, demand, suit or judgment made, brought or recovered against Municipal Advisor. Said policy shall protect Municipal

Advisor and District in the same manner as though a separate policy had been issued to each; but nothing in said policy shall operate to increase the Insurer's liability as set forth in the policy beyond the amount or amounts shown or to which the Insurer would have been liable if only one interest had been named as an insured.

Prior to commencement of work hereunder, Municipal Advisor shall deliver to District a Certificate of Insurance which shall indicate compliance with the insurance requirements of this paragraph and shall stipulate that 30 days advance written notice of cancellation, shall be given to District.

13.0 Entire Agreement/Amendments

13.1 This Agreement, including any amendments hereto which are expressly incorporated herein, constitutes the entire Agreement between the parties hereto with respect to the Services subject to this Agreement and sets forth the rights, duties, and obligations of each to the other as of this date. Any prior agreement, promises, negotiations, or representations not expressly set forth in this Agreement are of no force and effect. This Agreement may not be modified except by a writing executed by both the Municipal Advisor and the District.

14.0 Classification of Relationship

14.1 It is expressly understood and agreed and District hereby recognizes that in providing Services under this Agreement Advisor is acting as an independent contractor of the District. Nothing herein shall be construed to make the Advisor an employee, common law employee, agent or servant of the District. Advisor shall be solely liable and responsible to pay all required taxes and other obligations, including, but not limited to, withholding and Social Security. Advisor acknowledges and agrees that he/she is not entitled to the benefits of civil service status and/or the rights and privileges enjoyed by civil service employees and Advisor hereby waives any and all claims to such rights and/or privileges.

15.0 Notices

15.1 Any written notice or communications required or permitted by this Agreement or by law to be served on, given to, or delivered to either party hereto, by the other party shall be in writing and shall be deemed duly served, given, or delivered, when personally delivered to the party to whom it is addressed or in lieu of such personal services, when deposited in the United States' mail, first-class postage prepaid, addressed as follows:

To the District:

Mid-Peninsula Water District
3 Dairy Ln
Belmont, CA 94002
Attn: General Manager

To the Municipal Advisor:

Wulff, Hansen & Co.
351 California Street, Suite 1000
San Francisco, CA 94104
Attn: Public Finance Dept.

16.0 Consent to Jurisdiction;

16.1 This Agreement shall be deemed to have been executed in the State of California, and the laws of the State of California govern the construction of this Agreement and the rights and remedies of the respective parties hereto.

17.0 Counterparts; Severability

17.1 This Agreement may be executed in two or more separate counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Any term or provision of this Agreement which is invalid or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such invalidity or unenforceability without rendering invalid or unenforceable the remaining terms and provisions of this Agreement or affecting the validity or enforceability of any of the terms or provisions of this Agreement in any other jurisdiction.

18.0 No Third Party Beneficiaries

18.1 This Agreement, including rights to indemnity and contribution hereunder, shall be binding upon and inure solely to the benefit of each party hereto, any indemnitee and their respective successors, heirs and assigns, and nothing in this Agreement, express or implied, is intended to or shall confer upon any other person any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

19.0 General

The failure of either of the parties to enforce any right or provision under this Agreement shall not constitute a waiver of such right or provision unless acknowledged and agreed to by such party in writing. No waiver shall be implied from a failure of either party to exercise a right or remedy. In addition, no waiver of a party's right or remedy will affect the other provisions of this Agreement.

The captions in this Agreement are included for convenience of reference only and are in no way meant to define or limit any of the provisions contained in this Agreement or otherwise affect their construction or effect.

WHEREFORE, the Parties have executed this Agreement as of the 3rd day of February 2016. By the signature of its representative below, each party affirms (a) that it has taken all necessary action to authorize said representative to execute this Agreement, and (b) that it has read the attached DISCLOSURE OF CONFLICTS OF INTEREST WITH VARIOUS FORMS OF COMPENSATION, and has asked any questions or sought any clarification about the disclosure, with no further questions about said disclosure.

WULFF, HANSEN & CO.

BY: 
Christopher Charles, President

Mid-Peninsula Water District

BY: 
Tammy A. Rudock, General Manager

DISCLOSURE OF CONFLICTS OF INTEREST WITH VARIOUS FORMS OF COMPENSATION

The Municipal Securities Rulemaking Board requires us, as your municipal advisor, to provide written disclosure to you about the actual or potential conflicts of interest presented by various forms of compensation. We must provide this disclosure unless you have required that a particular form of compensation be used. You should select a form of compensation that best meets your needs and the agreed upon scope of services.

Forms of compensation; potential conflicts. The forms of compensation for municipal advisors vary according to the nature of the engagement and requirements of the client, among other factors. Various forms of compensation present actual or potential conflicts of interest because they may create an incentive for an advisor to recommend one course of action over another if it is more beneficial to the advisor to do so. This document discusses various forms of compensation and the timing of payments to the advisor.

Fixed fee. Under a fixed fee form of compensation, the municipal advisor is paid a fixed amount established at the outset of the transaction. The amount is usually based upon an analysis by the client and the advisor of, among other things, the expected duration and complexity of the transaction and the agreed-upon scope of work that the advisor will perform. This form of compensation presents a potential conflict of interest because, if the transaction requires more work than originally contemplated, the advisor may suffer a loss. Thus, the advisor may recommend less time-consuming alternatives, or fail to do a thorough analysis of alternatives. There may be additional conflicts of interest if the municipal advisor's fee is contingent upon the successful completion of a financing, as described below.

Hourly fee. Under an hourly fee form of compensation, the municipal advisor is paid an amount equal to the number of hours worked by the advisor times an agreed-upon hourly billing rate. This form of compensation presents a potential conflict of interest if the client and the advisor do not agree on a reasonable maximum amount at the outset of the engagement, because the advisor does not have a financial incentive to recommend alternatives that would result in fewer hours worked. In some cases, an hourly fee may be applied against a retainer (e.g., a retainer payable monthly), in which case it is payable whether or not a financing closes. Alternatively, it may be contingent upon the successful completion of a financing, in which case there may be additional conflicts of interest, as described below.

Fee contingent upon the completion of a financing or other transaction. Under a contingent fee form of compensation, payment of an advisor's fee is dependent upon the successful completion of a financing or other transaction. Although this form of compensation may be customary for the client, it presents a conflict because the advisor may have an incentive to recommend unnecessary financings or financings that are disadvantageous to the client. For example, when facts or circumstances arise that could cause the financing or other transaction to be delayed or fail to close, an advisor may have an incentive to discourage a full consideration of such facts and circumstances, or to discourage consideration of alternatives that may result in the cancellation of the financing or other transaction.

Fee paid under a retainer agreement. Under a retainer agreement, fees are paid to a municipal advisor periodically (e.g., monthly) and are not contingent upon the completion of a financing or other transaction. Fees paid under a retainer agreement may be calculated on a fixed fee basis (e.g., a fixed fee per month regardless of the number of hours worked) or an hourly basis (e.g., a minimum monthly payment, with additional amounts payable if a certain number of hours worked is exceeded). A retainer agreement does not present the conflicts associated with a contingent fee arrangement (described above).

Fee based upon principal or notional amount and term of transaction. Under this form of compensation, the municipal advisor's fee is based upon a percentage of the principal amount of an issue of securities (e.g., bonds) or, in the case of a derivative, the present value of or notional amount and term of the derivative. This form of compensation presents a conflict of interest because the advisor may have an incentive to advise the client to increase the size of the securities issue or modify the derivative for the purpose of increasing the advisor's compensation.

MID-PENINSULA WATER DISTRICT
Public Offering; 30 YEARS, Premium

Prepared by Wulff, Hansen & Co.

8/18/2016

All figures are preliminary, estimated and subject to change

Period Ending	Principal	Coupon	Yield	Interest	Debt Service	Available Revenue**	Excess Revenue	Cumulative Excess	Debt Service Coverage Ratio***
10/1/2017	525,000	2.00%	0.50%	523,794.79	1,048,794.79	1,500,000	451,205	451,205	1.430
10/1/2018	485,000	2.00%	0.85%	560,912.50	1,045,912.50	1,772,000	726,088	1,177,293	1.694
10/1/2019	495,000	2.00%	1.00%	551,212.50	1,046,212.50	1,462,000	415,788	1,593,080	1.397
10/1/2020	505,000	2.00%	1.10%	541,312.50	1,046,312.50	1,425,000	378,688	1,971,768	1.362
10/1/2021	515,000	3.00%	1.20%	531,212.50	1,046,212.50	1,500,000	453,788	2,425,555	1.434
10/1/2022	530,000	3.00%	1.35%	515,762.50	1,045,762.50	1,500,000	454,238	2,879,793	1.434
10/1/2023	545,000	3.00%	1.50%	499,862.50	1,044,862.50	1,500,000	455,138	3,334,930	1.436
10/1/2024	565,000	3.00%	1.65%	483,512.50	1,048,512.50	1,500,000	451,488	3,786,418	1.431
10/1/2025	580,000	3.00%	1.85%	466,562.50	1,046,562.50	1,500,000	453,438	4,239,855	1.433
10/1/2026	600,000	3.00%	1.95%	449,162.50	1,049,162.50	1,500,000	450,838	4,690,693	1.430
10/1/2027	615,000	2.00%	2.15%	431,162.50	1,046,162.50	1,500,000	453,838	5,144,530	1.434
10/1/2028	630,000	2.25%	2.25%	418,862.50	1,048,862.50	1,500,000	451,138	5,595,668	1.430
10/1/2029	645,000	2.45%	2.45%	404,687.50	1,049,687.50	1,500,000	450,313	6,045,980	1.429
10/1/2030	660,000	2.60%	2.60%	388,885.00	1,048,885.00	1,500,000	451,115	6,497,095	1.430
10/1/2031	675,000	2.70%	2.70%	371,725.00	1,046,725.00	1,500,000	453,275	6,950,370	1.433
10/1/2032	695,000	2.85%	2.85%	353,500.00	1,048,500.00	1,500,000	451,500	7,401,870	1.431
10/1/2033	715,000	2.95%	2.95%	333,692.50	1,048,692.50	1,500,000	451,308	7,853,178	1.430
10/1/2034	735,000	3.00%	3.00%	312,600.00	1,047,600.00	1,500,000	452,400	8,305,578	1.432
10/1/2035	755,000	3.00%	3.00%	290,550.00	1,045,550.00	1,500,000	454,450	8,760,028	1.435
10/1/2036	780,000	3.00%	3.00%	267,900.00	1,047,900.00	1,500,000	452,100	9,212,128	1.431
10/1/2037	805,000	3.00%	3.00%	244,500.00	1,049,500.00	1,500,000	450,500	9,662,628	1.429
10/1/2038	825,000	3.00%	3.00%	220,350.00	1,045,350.00	1,500,000	454,650	10,117,278	1.435
10/1/2039	850,000	3.00%	3.00%	195,600.00	1,045,600.00	1,500,000	454,400	10,571,678	1.435
10/1/2040	875,000	3.00%	3.00%	170,100.00	1,045,100.00	1,500,000	454,900	11,026,578	1.435
10/1/2041	905,000	3.00%	3.00%	143,850.00	1,048,850.00	1,500,000	451,150	11,477,728	1.430
10/1/2042	930,000	3.00%	3.00%	116,700.00	1,046,700.00	1,500,000	453,300	11,931,028	1.433
10/1/2043	960,000	3.00%	3.00%	88,800.00	1,048,800.00	1,500,000	451,200	12,382,228	1.430
10/1/2044	985,000	3.00%	3.00%	60,000.00	1,045,000.00	1,500,000	455,000	12,837,228	1.435
10/1/2045	1,015,000	3.00%	3.00%	30,450.00	1,045,450.00	1,500,000	454,550	13,291,778	1.435
	20,400,000			9,967,222.29	30,367,222.29	43,659,000	13,291,778		

Project Fund

Estimated Total Cost of Issuance (COI)

20,235,926.27

519,180.38

20,755,106.65

=

Total Par Amount

20,400,000.00

TIC 2.86495%

Net Premium

355,106.65

All-in TIC 2.96254%

Plus

20,755,106.65

Estimated and Subject to Actual Proposals

(1) Underwriter's Discount	193,800.00
(2) Bond Insurance	60,734.44
(3) Surety Reserve Fund	13,645.94
Bond Counsel	70,000.00
Disclosure Counsel	30,000.00
Municipal Advisor	70,000.00
Public Financing Corp.	3,500.00
Trustee	7,500.00
Rating Agency	35,000.00
Consultant	10,000.00
Misc.	25,000.00
Total Estimated COI	544,180.38

(1) Based on percentage of Bond issue. Estimated at 0.950%, to be determined by competitive bid or RFP

(2) 0.20% of total Debt Service

(3) 1.30% of Debt Service Reserve Requirement

** Source: Rate Study update from MPWD

*** Debt Service Coverage (DSC): A debt service coverage ratio is an indicator of the amount of funds available to pay debt service after O&M expenses and other pre-debt obligations have been met. A DSC ratio of 1.40 means the utility has 40% more funds available to pay debt service than the amount of the debt service payment(s). For example, assuming a utility has a \$1.0 million debt service payment, a DSC of 1.40 means that the utility has \$1.4 million available to pay debt service.

- Debt Service Coverage Covenant (1.25): The DSC below which water rate increases may be required to avoid technical default.

- True Interest Cost (TIC): A measurement of interest expense to the issuer of bonds, without the adjustment of COI in calculation.

- All-in TIC: A measurement of total cost of a bond financing, including adjustment of COI in calculation.

MID-PENINSULA WATER DISTRICT
Public Offering; 30 YEARS, Premium

Prepared by Wulff, Hansen & Co.

8/18/2016

All figures are preliminary, estimated and subject to change

Period Ending	Principal	Coupon	Yield	Interest	Debt Service	Available Revenue**	Excess Revenue	Cumulative Excess	
10/1/2017	525,000	2.00%	0.50%	523,794.79	1,048,794.79	1,500,000	451,205	451,205	
10/1/2018	485,000	2.00%	0.85%	560,912.50	1,045,912.50	1,772,000	726,088	1,177,293	
10/1/2019	495,000	2.00%	1.00%	551,212.50	1,046,212.50	1,462,000	415,788	1,593,080	
10/1/2020	505,000	2.00%	1.10%	541,312.50	1,046,312.50	1,425,000	378,688	1,971,768	
10/1/2021	515,000	3.00%	1.20%	531,212.50	1,046,212.50	1,500,000	453,788	2,425,555	
10/1/2022	530,000	3.00%	1.35%	515,762.50	1,045,762.50	1,500,000	454,238	2,879,793	
10/1/2023	545,000	3.00%	1.50%	499,862.50	1,044,862.50	1,500,000	455,138	3,334,930	
10/1/2024	565,000	3.00%	1.65%	483,512.50	1,048,512.50	1,500,000	451,488	3,786,418	
10/1/2025	580,000	3.00%	1.85%	466,562.50	1,046,562.50	1,500,000	453,438	4,239,855	
10/1/2026	600,000	3.00%	1.95%	449,162.50	1,049,162.50	1,500,000	450,838	4,690,693 ⁽¹⁾	
	5,345,000								
									Principal + Excess Revenue ⁽²⁾
10/1/2027	615,000	2.00%	2.15%	431,162.50	1,046,162.50	1,500,000	453,838	5,144,530	10,364,307
10/1/2028	630,000	2.25%	2.25%	418,862.50	1,048,862.50	1,500,000	451,138	5,595,668	1,068,837.50
10/1/2029	645,000	2.45%	2.45%	404,687.50	1,049,687.50	1,500,000	450,313	6,045,980	1,081,137.50
10/1/2030	660,000	2.60%	2.60%	388,885.00	1,048,885.00	1,500,000	451,115	6,497,095	1,095,312.50
10/1/2031	675,000	2.70%	2.70%	371,725.00	1,046,725.00	1,500,000	453,275	6,950,370	1,111,115.00
10/1/2032	695,000	2.85%	2.85%	353,500.00	1,048,500.00	1,500,000	451,500	7,401,870	1,128,275.00
10/1/2033	715,000	2.95%	2.95%	333,692.50	1,048,692.50	1,500,000	451,308	7,853,178	1,146,500.00
10/1/2034	735,000	3.00%	3.00%	312,600.00	1,047,600.00	1,500,000	452,400	8,305,578	1,166,307.50
10/1/2035	755,000	3.00%	3.00%	290,550.00	1,045,550.00	1,500,000	454,450	8,760,028	1,187,400.00
10/1/2036	780,000	3.00%	3.00%	267,900.00	1,047,900.00	1,500,000	452,100	9,212,128	1,209,450.00
10/1/2037	805,000	3.00%	3.00%	244,500.00	1,049,500.00	1,500,000	450,500	9,662,628	1,232,100.00
10/1/2038	825,000	3.00%	3.00%	220,350.00	1,045,350.00	1,500,000	454,650	10,117,278	11,426,435.00
10/1/2039	850,000	3.00%	3.00%	195,600.00	1,045,600.00	1,500,000	454,400	10,571,678	
10/1/2040	875,000	3.00%	3.00%	170,100.00	1,045,100.00	1,500,000	454,900	11,026,578	
10/1/2041	905,000	3.00%	3.00%	143,850.00	1,048,850.00	1,500,000	451,150	11,477,728	
10/1/2042	930,000	3.00%	3.00%	116,700.00	1,046,700.00	1,500,000	453,300	11,931,028	
10/1/2043	960,000	3.00%	3.00%	88,800.00	1,048,800.00	1,500,000	451,200	12,382,228	
10/1/2044	985,000	3.00%	3.00%	60,000.00	1,045,000.00	1,500,000	455,000	12,837,228	
10/1/2045	1,015,000	3.00%	3.00%	30,450.00	1,045,450.00	1,500,000	454,550	13,291,778	
	15,055,000			9,967,222.29	30,367,222.29	43,659,000	13,291,778		
	20,400,000								

In 2026 when bonds are callable, \$ 4,690,693 will be available to pay down the outstanding principal, amount of \$ 15,055,000, leaving \$ 10,364,307 outstanding. The remaining outstanding balance will be paid using principal and excess revenue for each year. And it will take another ten years to payoff the \$ 10,364,307

No. of years to pay the debt: 20 years

MID-PENINSULA WATER DISTRICT
Public Offering; 30 YEARS, Rate 3%

Prepared by Wulff, Hansen & Co.

8/18/2016

All figures are preliminary, estimated and subject to change

Period Ending	Principal	Coupon*	Interest	Debt Service	Available Revenue**	Excess Revenue	Cumulative Excess	Debt Service Coverage Ratio***
10/1/2017	495,000	3.00%	553,987.50	1,048,987.50	1,500,000	451,013	451,013	1.430
10/1/2018	460,000	3.00%	589,500.00	1,049,500.00	1,772,000	722,500	1,173,513	1.688
10/1/2019	470,000	3.00%	575,700.00	1,045,700.00	1,462,000	416,300	1,589,813	1.398
10/1/2020	485,000	3.00%	561,600.00	1,046,600.00	1,425,000	378,400	1,968,213	1.362
10/1/2021	500,000	3.00%	547,050.00	1,047,050.00	1,500,000	452,950	2,421,163	1.433
10/1/2022	515,000	3.00%	532,050.00	1,047,050.00	1,500,000	452,950	2,874,113	1.433
10/1/2023	530,000	3.00%	516,600.00	1,046,600.00	1,500,000	453,400	3,327,513	1.433
10/1/2024	545,000	3.00%	500,700.00	1,045,700.00	1,500,000	454,300	3,781,813	1.434
10/1/2025	565,000	3.00%	484,350.00	1,049,350.00	1,500,000	450,650	4,232,463	1.429
10/1/2026	580,000	3.00%	467,400.00	1,047,400.00	1,500,000	452,600	4,685,063	1.432
10/1/2027	595,000	3.00%	450,000.00	1,045,000.00	1,500,000	455,000	5,140,063	1.435
10/1/2028	615,000	3.00%	432,150.00	1,047,150.00	1,500,000	452,850	5,592,913	1.432
10/1/2029	635,000	3.00%	413,700.00	1,048,700.00	1,500,000	451,300	6,044,213	1.430
10/1/2030	655,000	3.00%	394,650.00	1,049,650.00	1,500,000	450,350	6,494,563	1.429
10/1/2031	670,000	3.00%	375,000.00	1,045,000.00	1,500,000	455,000	6,949,563	1.435
10/1/2032	695,000	3.00%	354,900.00	1,049,900.00	1,500,000	450,100	7,399,663	1.429
10/1/2033	715,000	3.00%	334,050.00	1,049,050.00	1,500,000	450,950	7,850,613	1.430
10/1/2034	735,000	3.00%	312,600.00	1,047,600.00	1,500,000	452,400	8,303,013	1.432
10/1/2035	755,000	3.00%	290,550.00	1,045,550.00	1,500,000	454,450	8,757,463	1.435
10/1/2036	780,000	3.00%	267,900.00	1,047,900.00	1,500,000	452,100	9,209,563	1.431
10/1/2037	805,000	3.00%	244,500.00	1,049,500.00	1,500,000	450,500	9,660,063	1.429
10/1/2038	825,000	3.00%	220,350.00	1,045,350.00	1,500,000	454,650	10,114,713	1.435
10/1/2039	850,000	3.00%	195,600.00	1,045,600.00	1,500,000	454,400	10,569,113	1.435
10/1/2040	875,000	3.00%	170,100.00	1,045,100.00	1,500,000	454,900	11,024,013	1.435
10/1/2041	905,000	3.00%	143,850.00	1,048,850.00	1,500,000	451,150	11,475,163	1.430
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10/1/2043	960,000	3.00%	88,800.00	1,048,800.00	1,500,000	451,200	12,379,663	1.430
10/1/2044	985,000	3.00%	60,000.00	1,045,000.00	1,500,000	455,000	12,834,663	1.435
10/1/2045	1,015,000	3.00%	30,450.00	1,045,450.00	1,500,000	454,550	13,289,213	1.435
	20,145,000		10,224,787.50	30,369,787.50	43,659,000	13,289,213		

Project Fund	19,628,234.22
Estimated Total Cost of Issuance (COI)	516,765.78
Total Par Amount	20,145,000.00

<u>Estimated and Subject to Actual Proposals</u>	
(1) Underwriter's Discount	191,377.50
(2) Bond Insurance	60,739.58
(3) Surety Reserve Fund	13,648.70
Bond Counsel	70,000.00
Disclosure Counsel	30,000.00
Municipal Advisor	70,000.00
Public Financing Corp.	3,500.00
Trustee	7,500.00
Rating Agency	35,000.00
Consultant	10,000.00
Misc.	25,000.00
Total Estimated COI	516,765.78

TIC 3.10615%
All-in TIC 3.20821%

* Based on Comparable Public Offerings as of 08/15/2016, to be determined by

** Source: Rate Study update from MPWD

*** Debt Service Coverage (DSC): A debt service coverage ratio is an indicator of the amount of funds available to pay debt service after O&M expenses and other pre-debt obligations have been met. A DSC ratio of 1.40 means the utility has 40% more funds available to pay debt service than the amount of the debt service payment(s). For example, assuming a utility has a \$1.0 million debt service payment, a DSC of 1.40 means that the utility has \$1.4 million available to pay debt service.

(1) Based on percentage of Bond issue. Estimated at 0.950%, to be determined by competitive bid

(2) 0.20% of total Debt Service

(3) 1.30% of Debt Service Reserve Requirement

- True Interest Cost (TIC): A measurement of interest expense to the issuer of bonds, without the adjustment of COI in calculation.

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- Debt Service Coverage Covenant (1.25): The DSC below which water rate increases may be required to avoid technical default.

MID-PENINSULA WATER DISTRICT
Public Offering; 30 YEARS, Rate 3%

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10/1/2019	470,000	3.00%	575,700.00	1,045,700.00	1,462,000	416,300	1,589,813	
10/1/2020	485,000	3.00%	561,600.00	1,046,600.00	1,425,000	378,400	1,968,213	
10/1/2021	500,000	3.00%	547,050.00	1,047,050.00	1,500,000	452,950	2,421,163	
10/1/2022	515,000	3.00%	532,050.00	1,047,050.00	1,500,000	452,950	2,874,113	
10/1/2023	530,000	3.00%	516,600.00	1,046,600.00	1,500,000	453,400	3,327,513	
10/1/2024	545,000	3.00%	500,700.00	1,045,700.00	1,500,000	454,300	3,781,813	
10/1/2025	565,000	3.00%	484,350.00	1,049,350.00	1,500,000	450,650	4,232,463	
10/1/2026	580,000	3.00%	467,400.00	1,047,400.00	1,500,000	452,600	4,685,063 ⁽¹⁾	
	5,145,000							Principal + Excess Revenue ⁽²⁾
10/1/2027	595,000	3.00%	450,000.00	1,045,000.00	1,500,000	455,000	5,140,063	10,314,938
10/1/2028	615,000	3.00%	432,150.00	1,047,150.00	1,500,000	452,850	5,592,913	1,050,000.00
10/1/2029	635,000	3.00%	413,700.00	1,048,700.00	1,500,000	451,300	6,044,213	1,067,850.00
10/1/2030	655,000	3.00%	394,650.00	1,049,650.00	1,500,000	450,350	6,494,563	1,086,300.00
10/1/2031	670,000	3.00%	375,000.00	1,045,000.00	1,500,000	455,000	6,949,563	1,105,350.00
10/1/2032	695,000	3.00%	354,900.00	1,049,900.00	1,500,000	450,100	7,399,663	1,125,000.00
10/1/2033	715,000	3.00%	334,050.00	1,049,050.00	1,500,000	450,950	7,850,613	1,145,100.00
10/1/2034	735,000	3.00%	312,600.00	1,047,600.00	1,500,000	450,950	8,303,013	1,165,950.00
10/1/2035	755,000	3.00%	290,550.00	1,045,550.00	1,500,000	452,400	8,757,463	1,187,400.00
10/1/2036	780,000	3.00%	267,900.00	1,047,900.00	1,500,000	454,450	9,209,563	1,209,450.00
10/1/2037	805,000	3.00%	244,500.00	1,049,500.00	1,500,000	452,100	9,660,063	1,232,100.00
10/1/2038	825,000	3.00%	220,350.00	1,045,350.00	1,500,000	450,100	10,114,713	11,374,500.00
10/1/2039	850,000	3.00%	195,600.00	1,045,600.00	1,500,000	454,650	10,569,113	
10/1/2040	875,000	3.00%	170,100.00	1,045,100.00	1,500,000	454,400	11,024,013	
10/1/2041	905,000	3.00%	143,850.00	1,048,850.00	1,500,000	454,900	11,475,163	
10/1/2042	930,000	3.00%	116,700.00	1,046,700.00	1,500,000	451,150	11,928,463	
10/1/2043	960,000	3.00%	88,800.00	1,048,800.00	1,500,000	454,550	12,379,663	
10/1/2044	985,000	3.00%	60,000.00	1,045,000.00	1,500,000	451,200	12,834,663	
10/1/2045	1,015,000	3.00%	30,450.00	1,045,450.00	1,500,000	451,200	13,289,213	
	15,000,000		10,224,787.50	30,369,787.50	43,659,000	13,289,213		
	20,145,000							

⁽¹⁾ In 2026 when bonds are callable, \$ 4,685,063 will be available to pay down the outstanding principal, amount of \$ 15,000,000, leaving \$ 10,314,938 outstanding.

⁽²⁾ The remaining outstanding balance will be paid using principal and excess revenue for each year. And it will take another ten years to payoff the \$ 10,314,938

**MID-PENINSULA WATER DISTRICT
FINANCING SCHEDULE**

2016

September						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

October						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Date	Action
------	--------

2016

- | | |
|---------|--|
| Aug 25 | Board recommends that financing team moves forward with Bond Financing (B) |
| Aug 26 | Financing team and staff assemble required diligence information (Staff, MA) |
| Aug 31 | Financing team recommends to staff final bond structure to bring to Board (Staff, MA) |
| Sept 9 | First Draft of Bond Documents including Preliminary Official Statement (POS) Circulated for comment (BC/DC) |
| Sept 14 | Conference call to discuss documents (Staff, BC/DC, MA) |
| Sept 19 | Bond Documents to Board for Agenda (B) |
| Sep 22 | Board approves bond documents and POS, authorizes issuance of bond, authorizes designated officers to execute final documents. (B) |
| Sep 23 | Initiate Bond Rating and insurance process |
| Oct 4 | Receive bond rating |
| Oct 6 | Receive insurance bids, select insurer |
| Oct 10 | Receive Bond Insurance commitment; Finalize Bond Size and POS and NOS (Notice of Sale) |
| Oct 17 | Post NOS mail POS to bidders |
| Oct 27 | Receive bids on bonds and award sale of bonds |
| Nov 9 | Pre-close bond issue |
| Nov 10 | Close bond issue |
| Nov 11 | Report bond sale results to MPWD Board |

B	MPWD Board
BC/DC	Bond and Disclosure Counsel
MA	Municipal Advisor
Staff	MPWD Staff

RESOLUTION NO. 2016-12

**AUTHORIZING PROCUREMENT OF FUNDING FOR
MPWD 5-YEAR CAPITAL IMPROVEMENT PROGRAM TOTALING \$20,000,000**

* * *

MID-PENINSULA WATER DISTRICT

WHEREAS, an updated FY 2016/2017 Comprehensive System Analysis and Capital Improvement Program (CIP) report was developed by the District Engineer and MPWD staff, and presented to the Board of Directors at its May 26, 2016, regular meeting; and

WHEREAS, a preliminary draft 5-year capital improvement program was introduced to the Board of Directors on November 16, 2015, totaling \$12 million, and the Board provided direction to staff to revise it to encompass all current necessary District capital improvements and develop financing options; and

WHEREAS, a revised 5-year capital improvement program was developed totaling \$25 million and presented to the Board on December 16, 2015, and was accepted in principle by the Board but not approved until financing options could be presented, reviewed and considered; and

WHEREAS, on April 28, 2016, updated cash flow projections for FY 2016/2017 were presented by MPWD's rate consultant Bartle Wells Associates, and financing alternatives for potential capital improvements were created by the MPWD's municipal finance advisor, Wulff Hansen & Company, based upon the updated cash flow projections and presented to the Board for consideration; and

WHEREAS, as a result of the updated financial information for FY 2016/2017, staff modified the MPWD's 5-year capital planning and presented the Board with three CIP financing alternatives on May 26, 2016, and the Board authorized CIP financing Alternative One totaling \$20,000,000; and

WHEREAS, at its regular August 25, 2016, Board meeting, Wulff Hansen & Company presented two debt financing options consistent with the Board's authorization of Alternative One: (1) a 30-year public offering/premium financing option, and (2) a 30-year public offering/3% coupon rate

option, each totaling approximately \$20,000,000, and it also presented a proposed schedule of financing activities; and

WHEREAS, the Board discussed the options and decided to authorize the _____ financing option totaling \$_____, with direction to staff that the District's reserve fund shall remain at current levels in order to respond to District emergencies and unforeseen events; and

WHEREAS, specific financing documents, in a form approved by District Counsel, will be presented to the Board for final approval before funding is initiated.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Mid-Peninsula Water District hereby:

1. Authorizes the _____ financing option totaling \$_____ for the MPWD 5-Year Capital Improvement Program for Fiscal Years 2016/2017 through 2020/2021 totaling \$20,000,000; and
2. Authorizes the Wulff Hansen & Company and the General Manager to take the necessary steps to procure the funding.

REGULARLY PASSED AND ADOPTED this 25th day of August 2016, by the following vote:

AYES:

NOES:

ABSENT:

President, Board of Directors
Mid-Peninsula Water District

ATTEST:

District Secretary

INFORMATIONAL SUMMARY OF BOARD DISCUSSIONS AND FAQs (FREQUENTLY ASKED QUESTIONS)

PROPOSED CAPITAL IMPROVEMENT PROGRAM (CIP) AND POTENTIAL OPTIONS FOR FINANCING

The Mid-Peninsula Water District (MPWD) has completed several strategic projects during the past 24 months, each of them building upon the other, in order to best consider the entire MPWD system and its capital infrastructure rehabilitation and improvement needs, namely:

- Construction standards and specifications;
- Water hydraulic modeling and capital program development;
- Water capacity charges update; and
- Water financial plan and rate study, **including a 2016 update.**

First, senior Operations staff, management, and the District Engineer teamed up and revised its construction standards and specifications. These were important not only for consistent construction application throughout the MPWD system for future operations and maintenance, but also in preparation for any major capital improvement program.

Next, in preparation of a meaningful capital program, the same team systematically reviewed the MPWD's infrastructure and developed a water hydraulic model to identify deficiencies. This was an 18-month process and one in which institutional knowledge of the MPWD system blended with engineering know-how and management experience resulting in the development of a comprehensive list of needed capital projects within the MPWD system. A distribution system analysis was developed by the District Engineer for each project, including an engineering cost estimate. Nearly 90 capital projects were identified, totaling over \$50 million. Operations staff selected several pertinent criteria for evaluating the projects for prioritization. That priority list resulted in the MPWD's proposed Capital Improvement Program (CIP). A 5-year CIP is currently being discussed, and while the exact amount has not yet been approved, the concept of \$20-\$25 million is the range under consideration. The water hydraulic model is a valuable tool for operations and maintenance analyses, development assessments and fire flow reviews, and is maintained to keep it current.

Third, the MPWD hired an independent public finance consultant, Bartle Wells Associates, to work with staff for review and update of the MPWD's development impact fees and structure. That nearly 9-month process was thoroughly vetted by the Board of Directors to ensure transparent stakeholder and customer participation and input. The result was a Water Capacity Charges Update dated March 20, 2015, and adopted by the Board of Directors per Ordinance No. 112 dated April 23, 2015. Not only were water capacity charges updated for new development requiring a "buy-in" to the MPWD system for its added service impact, but the MPWD also created water demand offset fees to manage the new demand within its available regional water system supply from San Francisco Public Utilities Commission (SFPUC). This is in addition to the new development requirements to comply with current building codes requiring high efficient water fixtures. These supplemental revenues depend

upon the level of proposed development within the MPWD service area, but are additional resources for capital projects and water conservation/educational programs and public outreach.

Finally, the MPWD updated its water financial plan and reviewed its rates and structure, again with the assistance of Bartle Wells Associates. A rate workshop was held on March 26, 2015. A water financial plan and rate study was presented and adopted by the Board of Directors on May 26, 2015, including phased increases to the monthly fixed system charge and within the tiered structure. Further provisions adopted were pass-through of additional increases by SFPUC to projected wholesale water rates, and emergency water shortage rates should the MPWD experience a significant decrease in its water commodity revenues as a result of greater water use reductions due to a drought.

In FY 2015/2016, water conservation efforts resulted in lower revenue receipts and associated purchased water costs. Therefore, the MPWD contracted with Bartle Wells Associates to update its 2015 finance and rate study in order to adequately prepare for the FY 2016/2017 budget process. The Board received an updated financial report on April 24, 2016. The cash flow projections were decreased as a result of the reduced water consumption, while at the same time considering rate increases effective July 1, 2016. Bartle Wells Associates also took into consideration the potential for a debt financing, and concluded that an annual debt service payment of \$1,045,000 could be achieved, even with the reduced cash flow projections. Lastly, excess revenues were forecasted resulting in sufficient coverage required for a debt financing.

Since the completion of the above critical projects and since late 2015, the MPWD has been engaged in discussions around options for implementing a CIP and funding alternatives. Prioritized projects were presented to and accepted by the Board as a capital program. Staff has been working with its municipal finance advisor, Wulff Hansen & Company, since January 2016, to identify potential options for financing a 5-year CIP. The Board of Directors considered three (3) 5-Year CIP alternatives at its regular meeting on May 26, 2016. They selected Alternative One totaling \$20,000,000 and approved Resolution No. 2016-06, which is attached, including the approved CIP.

As a result of the detailed capital infrastructure modeling and analyses performed, the District Engineer and staff created a report entitled *MPWD Comprehensive System Analysis and Capital Improvement Program FY 2016/2017 Update*, which was adopted by the Board at its regular meeting on May 26, 2016 (via Resolution No. 2016-06). It is posted at the MPWD website.

During the summer of 2016, the District Engineer and staff developed an added section to the *MPWD Comprehensive System Analysis and Capital Improvement Program FY 2016/2017 Update*, including their asset management analysis of MPWD water mains and storage tanks and annual pay-go reinvestment requirements. The added section will be presented to the Board during its regular meeting on August 25, 2016.

MPWD's FY 2016/2017 Operating and Capital Budgets were approved at the regular Board meeting on June 23, 2016, via Resolution Nos. 2016-07 and 2016-08. The Capital Budget was approved as a pay-go program. They are posted at the MPWD website.

In summary of the Board's discussions, these Frequently Asked Questions (FAQs) were developed and will be updated to ensure resourcefulness throughout the process.

FAQs

1. MPWD discussions regarding CIP and financing options:

- August 25, 2016
- June 23, 2016
- May 26, 2016
- April 28, 2016
- March 24, 2016
- February 25, 2016
- January 28, 2016
- December 16, 2015
- November 16, 2015

2. Why is a Capital Improvement Program important?

- *It allows for a systematic evaluation of all potential projects at the same time in a prioritized order.*
- *It allows for grouping of projects for construction, which will reduce overall program cost.*
- *It aids in the preservation of the MPWD's infrastructure while ensuring the efficient use of public funds.*
- *It provides sound information to the Board of Directors and its customers on the infrastructure needs of the MPWD.*
- *Through its development it allows an opportunity to foster cooperation among staff, management and District Engineer.*
- *It is a reinvestment of ratepayer dollars back into the water system, which is good financial stewardship.*

3. What has been the MPWD's current process for CIP implementation?

The MPWD's practice has been to appropriate a certain dollar amount per year, typically between \$1 million to \$1.5 million dollars, to fund capital projects on a cash "pay go" basis. There is no systematic way of evaluating if this level of funding was adequate to ensure the timely replacement of MPWD infrastructure.

4. What happens if the MPWD maintains the status quo and continues with a cash “pay-go” program?

The pay-go system has allowed the MPWD to slowly replace some deficient distribution pipeline segments and rehabilitate or replace some tanks that were not seismically safe. But much of the MPWD water system is more than 50 years old and is spread out over nine (9) distinct pressure zones. The system’s age in combination with system pressures exceeding 120 pounds per square inch (psi), have led to and continue to create many water leaks, which has wasted millions of gallons of water and resulted in personnel and maintenance costs to repair main breaks.

The comprehensive analysis resulting from the water hydraulic modeling indicates the MPWD has historically been underfunding its capital infrastructure needs and now must undertake an accelerated program to catch up. If it does not, the MPWD system risks falling further behind and being vulnerable to severe damage during a large seismic event and increased maintenance costs.

The external financial auditor, James Marta & Company, reported last year that the MPWD’s existing capital replacement is not keeping pace with the annualized depreciation of the system, thereby an increased level of capital spending was recommended. Reference the attached slide.

5. Briefly describe the identified \$50 million CIP.

As a result of the water hydraulic modeling, the currently identified CIP includes 90 unique projects consisting of replacement of:

- *14 miles of water main (15% of the MPWD’s system);*
- *Seismically vulnerable water tanks;*
- *Pressure regulators;*
- *Hydrants for fire safety; and*
- *Other MPWD infrastructure.*

Reference the report entitled *MPWD Comprehensive System Analysis and Capital Improvement Program FY 2016/2017 Update*, which is available on the MPWD website.

6. How were the proposed CIP projects prioritized?

Senior MPWD Operations personnel that work within the system daily were involved in developing criteria used to prioritize the 90 capital projects. After deliberation, six (6) criteria were selected and included: pipe failure over the past five (5) years, distribution system benefits, pipe age, pipe material, City pavement condition, and static water pressure. Each of the criteria was given a certain range of scores with a maximum score of 81 points. Each project was scrutinized based on the criteria and a score was given, which lead to the prioritization of the projects.

7. Why do a 5-year CIP, and how did the MPWD arrive at the proposed \$25 million funding level?

One of the MPWD's goals in its Strategic Plan was to develop and implement a rolling 5-year capital program. Because there has historically been a minimal level of capital reinvestment, the MPWD has fallen behind on funding its capital infrastructure needs, and in order to cost effectively bundle pipeline replacement projects, the MPWD aimed to create a capital program that would accomplish at least \$4 million to \$5 million per year (three to four times that of the MPWD's existing funding level). Another significant factor was ensuring a sustainable level of capital funding within the MPWD's existing annual water rate revenues, which is currently under review since the MPWD is having FY 2016/2017 budget discussions. Therefore, a list of 30 prioritized capital projects was finalized for a 5-year program, including the completion of the Automated Metering Infrastructure (AMI) program, totaling approximately \$25 million.

8. What are some financing options?

- *Continue on a "pay-go" basis.
Utilize available revenues to pay for planned projects. It will take 16 years to pay for \$25 million planned 5-year CIP. Cost of unexpected maintenance will reduce available funds and extend over 16 years' completion of planned projects. Current ratepayers pay for capital projects while future ratepayers do not pay an equitable share. The MPWD may experience an impairment of its operations due to delayed needed infrastructure improvements.*
- *Debt.
Ability to finance much needed capital improvements now. Rates are the lowest in 25 years. Term of debt can be flexible from 10 to 30 years. The debt can be structured to allow pre-payment after 10 years.*
- *A hybrid approach, including a combination of debt and "pay go."
Debt will be issued to complete capital projects and use all excess revenues that can be used for "pay go" or pay down the debt, which shortens the term of the debt.*
- *Returning to only "pay go" depends upon how much of the excess revenues after debt service is applied to early payment of the debt. First additional reduction of the debt beyond the scheduled payment of principal will occur after 10 years.**

Exhibits are attached for sample private placement and public offering debt, including breakdown of estimated principal, interest, all-in interest costs, and detailed costs of issuance. These examples were prepared by the MPWD's Municipal Finance Advisor team and as a result of the FY 2016/2017 cash flow projections contained within the Bartle Wells Associates Water Finance & Rate Update dated April 24, 2016.

**Potential debt payoff estimates are also attached (for each debt example).*

9. What is the difference between a private placement loan and revenue bond debt financing?

Private place debt is issued by the MPWD that is sold to private investors, usually a bank or an insurance company. The debt can only be sold to qualified institutional buyers. Structure may be the same as a revenue bond. A placement agent is used instead of an underwriter. MPWD will only have to deal with one representative of the investors when negotiating for changes on the terms of the debt. The rate is usually fixed. The cost of issuance is substantially lower than issuing public debt. No continuing disclosure requirement and in the initial sale a Disclosure Counsel is not used and no official statement or formal disclosure document is required. The term of the debt is shorter and generally cannot exceed 20 years limiting the amount of capital projects that can be financed through the issuance.

Revenue bond financing is long-term debt issued by the MPWD that is sold to the public. Fixed terms and covenants. Impossible to negotiate changes of terms with bondholders. The cost of issuance is generally higher than a private placement. Sold to an underwriter that resells to the public. Compared to a private placement, the debt can be issued for up to 30 years increasing the size of the financing and the amount of capital projects that can be financed with the same annual debt payment. The net interest cost can be slightly lower than a private placement.

10. How much does it cost to do a debt financing?

Exhibits are attached for sample private placement and public offering debt, including breakdown of estimated principal, interest, all-in interest costs, and detailed costs of issuance. These examples were prepared by the MPWD's Municipal Finance Advisor team and as a result of the FY 2016/2017 cash flow projections contained within the Bartle Wells Associates Water Finance & Rate Update dated April 24, 2016.

Potential debt payoff estimates are also attached (for each debt example).

11. Why not mortgage the MPWD's Dairy Lane property to raise cash for the CIP?

The MPWD owns all of its properties, including its Operations Center at 3 Dairy Lane in Belmont. There are many challenges with borrowing against public property, and the same water rate revenues would be the payment source. It makes more sense to borrow a lump sum, especially at current market rates of interest, and pledge a revenue source rather than encumber the MPWD's property that might be needed later in an emergency.

The amount available to borrow would be limited to 50% to 75% of the appraised value of the property. The revenue pledge may impair the ability to borrow additional funds when needed as that source of repayment would already be pledged.

12. Are there other properties owned by the MPWD, and, if so, why not sell them for cash toward the CIP?

Another one of the MPWD’s strategic goals is to evaluate the properties it owns and carefully consider those that might be considered surplus by the Board and potentially for sale.

Selling properties would result in a loss of appreciating assets. It may impact the MPWD’s credit rating making debt issuance less attractive to underwriters, placement agents, bond insurers, and investors. It also reduces the ability to raise additional funds in the future if needed. It could create a negative perception of the MPWD—selling assets to raise cash.

This could be a one-time infusion of cash to the MPWD, determined by the Board to be used toward paying off any capital debt financing or toward additional capital projects on a “pay go” basis.

13. How much does the MPWD have in reserves, and why not use them to pay for the CIP?

The table below reflects the current reserves totaling \$4.1 million through July 31, 2016.

MPWD RESERVE FUNDS				
Reserve Account	Balance @ 07/31/2014	Balance @ 07/31/2015	Balance @ 07/31/2016	Budget for Reserve Policy
Capital Reserves	\$ 1,879,466	\$ 889,457	\$ 1,555,161	\$ 2,500,000
Emergency Reserves	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000
Working Capital Reserves	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
TOTAL RESERVE FUNDS	\$ 4,379,466	\$ 3,389,457	\$ 4,055,161	\$ 5,000,000

It would be a policy decision by the Board of Directors as to what level, if any, of the MPWD’s reserves to use for its capital program. Reserves are important in the event of an emergency or as the result of some unplanned operating revenue decrease(s) or expenditure(s). The MPWD’s current reserve policy is set at \$5 million. The Board of Directors has recently expressed its intention of revisiting its reserve policy in the near future.

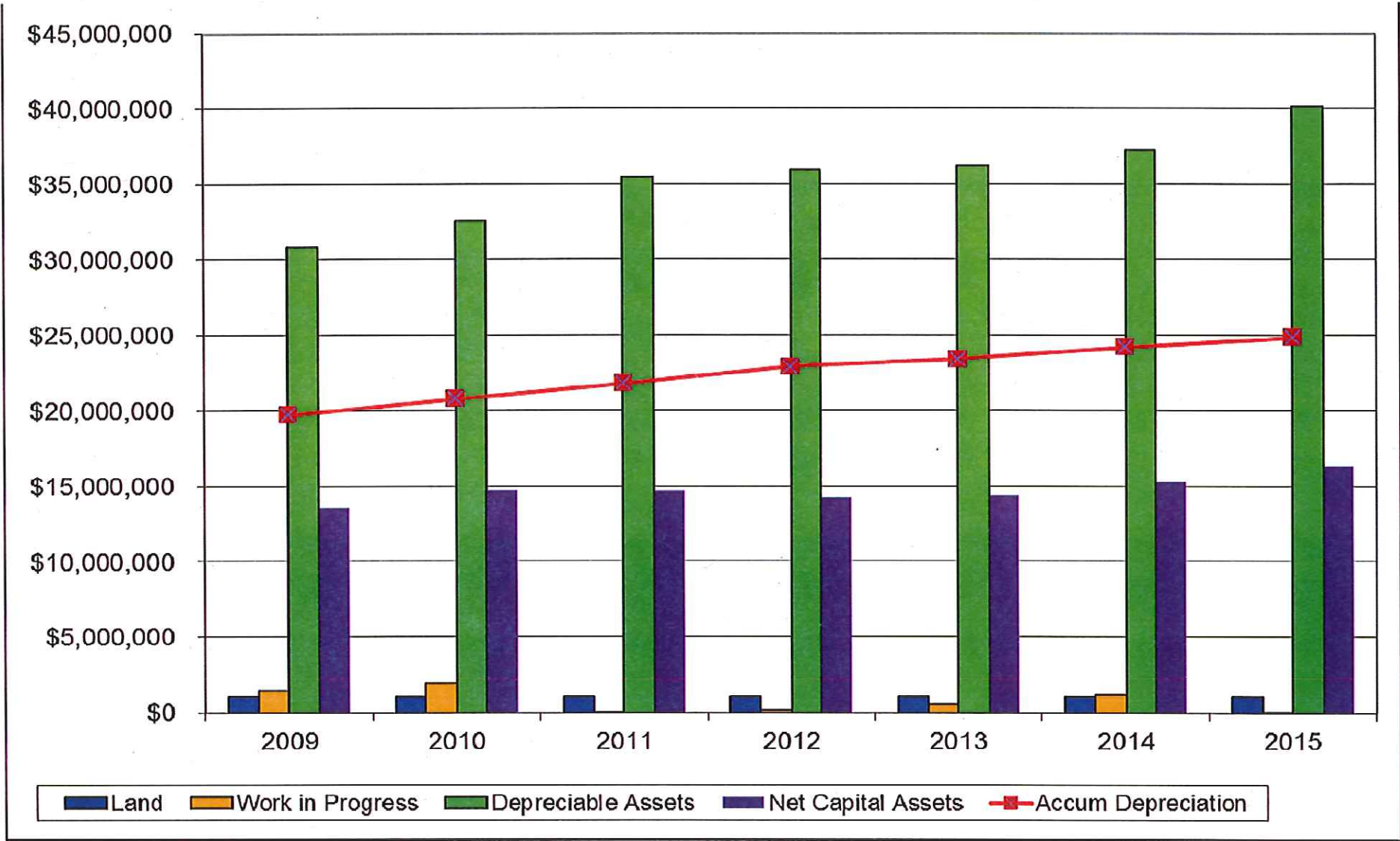
14. Explain all potential cash funding sources for the CIP.

Four (4) cash sources have been identified so far for CIP funding on a continued “pay-go” basis, or for annual loan/debt service payments, or a combination of both: Water revenues, development impact revenues, reserves, or real property sales. The Board of Directors would authorize the funding source(s) for any approved CIP.

- *Water revenues can be used for any type of improvement related to the MPWD’s business.*
- *Development impact revenues are normally used and may have statutory requirements such that they can only be used to support the construction of new infrastructure and facilities to support the impacts of growth to the system.*
- *Reserves, unless restricted, are an available cash source that could be used as a funding source;*
- *Real property sales proceeds, generally speaking, and unless restricted, could be used as a source of funding.*

*Thank you for being interested in the MPWD.
Please contact General Manager Tammy Rudock
at tammy@midpeninsulawater.org or 650-591-8941
with questions or comments on any of the FAQs contained herein.*

Capital Assets



MID-PENINSULA WATER DISTRICT
Private Placement; RATE 3.25%; 20 YEARS

Prepared by Wulff, Hansen & Co.

4/27/2016

All figures are preliminary, estimated and subject to change

Period Ending	Principal	Coupon *	Interest	Debt Service	Available Revenue**	Excess Revenue	Cumulative Excess	Debt Service Coverage Ratio***
10/1/2017	530,000	3.25%	515,450.00	1,045,450.00	1,500,000	454,550	454,550	1.435
10/1/2018	590,000	3.25%	458,575.00	1,048,575.00	1,772,000	723,425	1,177,975	1.690
10/1/2019	610,000	3.25%	439,400.00	1,049,400.00	1,462,000	412,600	1,590,575	1.393
10/1/2020	630,000	3.25%	419,575.00	1,049,575.00	1,425,000	375,425	1,966,000	1.358
10/1/2021	650,000	3.25%	399,100.00	1,049,100.00	1,500,000	450,900	2,416,900	1.430
10/1/2022	670,000	3.25%	377,975.00	1,047,975.00	1,500,000	452,025	2,868,925	1.431
10/1/2023	690,000	3.25%	356,200.00	1,046,200.00	1,500,000	453,800	3,322,725	1.434
10/1/2024	715,000	3.25%	333,775.00	1,048,775.00	1,500,000	451,225	3,773,950	1.430
10/1/2025	735,000	3.25%	310,537.50	1,045,537.50	1,500,000	454,463	4,228,413	1.435
10/1/2026	760,000	3.25%	286,650.00	1,046,650.00	1,500,000	453,350	4,681,763	1.433
10/1/2027	785,000	3.25%	261,950.00	1,046,950.00	1,500,000	453,050	5,134,813	1.433
10/1/2028	810,000	3.25%	236,437.50	1,046,437.50	1,500,000	453,563	5,588,375	1.433
10/1/2029	835,000	3.25%	210,112.50	1,045,112.50	1,500,000	454,888	6,043,263	1.435
10/1/2030	865,000	3.25%	182,975.00	1,047,975.00	1,500,000	452,025	6,495,288	1.431
10/1/2031	895,000	3.25%	154,862.50	1,049,862.50	1,500,000	450,138	6,945,425	1.429
10/1/2032	920,000	3.25%	125,775.00	1,045,775.00	1,500,000	454,225	7,399,650	1.434
10/1/2033	950,000	3.25%	95,875.00	1,045,875.00	1,500,000	454,125	7,853,775	1.434
10/1/2034	985,000	3.25%	65,000.00	1,050,000.00	1,500,000	450,000	8,303,775	1.429
10/1/2035	1,015,000	3.25%	32,987.50	1,047,987.50	1,500,000	452,013	8,755,788	1.431
	14,640,000		5,263,212.50	19,903,212.50	28,659,000	8,755,788		

			<u>Estimated and Subject to Actual Proposals</u>	
Project Fund		14,446,500	Bond Counsel	60,000
Estimated Total Cost of Issuance		193,500	Placement Agent	30,000
Total Par Amount		14,640,000	Municipal Advisor	60,000
			Public Financing Corp.	3,500
TIC	3.24972%		Investor's Counsel	15,000
All-in TIC	3.39968%		Misc.	25,000
			Total COI	193,500

* Based on estimated rates in Private Placement market as of 04/25/2016, to be determined by competitive bid

** Source: Rate Study update from MPWD

*** Debt Service Coverage (DSC): A debt service coverage ratio is an indicator of the amount of funds available to pay debt service after O&M expenses and other pre-debt obligations have been met. A DSC ratio of 1.40 means the utility has 40% more funds available to pay debt service than the amount of the debt service payment(s). For example, assuming a utility has a \$1.0 million debt service payment, a DSC of 1.40 means that the utility has \$1.4 million available to pay debt service.

- Debt Service Coverage Covenant (1.25, estimated and determined through negotiation): The DSC below which water rate increases may be required to avoid technical default.

- True Interest Cost (TIC): A measurement of interest expense to the issuer of bonds, without the adjustment of COI in calculation.

- All-in TIC: A measurement of total cost of a bond financing, including adjustment of COI in calculation.

MID-PENINSULA WATER DISTRICT
Private Placement; RATE 3.25%; 20 YEARS

Prepared by Wulff, Hansen & Co.

4/27/2016

All figures are preliminary, estimated and subject to change

<u>Period Ending</u>	<u>Principal</u>	<u>Coupon</u>	<u>Interest</u>	<u>Debt Service</u>	<u>Available Revenue</u>	<u>Excess Revenue</u>	<u>Cumulative Excess</u>	
10/1/2017	530,000	3.25%	515,450.00	1,045,450.00	1,500,000	454,550	454,550	
10/1/2018	590,000	3.25%	458,575.00	1,048,575.00	1,772,000	723,425	1,177,975	
10/1/2019	610,000	3.25%	439,400.00	1,049,400.00	1,462,000	412,600	1,590,575	
10/1/2020	630,000	3.25%	419,575.00	1,049,575.00	1,425,000	375,425	1,966,000	
10/1/2021	650,000	3.25%	399,100.00	1,049,100.00	1,500,000	450,900	2,416,900	
10/1/2022	670,000	3.25%	377,975.00	1,047,975.00	1,500,000	452,025	2,868,925	
10/1/2023	690,000	3.25%	356,200.00	1,046,200.00	1,500,000	453,800	3,322,725	
10/1/2024	715,000	3.25%	333,775.00	1,048,775.00	1,500,000	451,225	3,773,950	
10/1/2025	735,000	3.25%	310,537.50	1,045,537.50	1,500,000	454,463	4,228,413	
10/1/2026	760,000	3.25%	286,650.00	1,046,650.00	1,500,000	453,350	4,681,763	
	6,580,000							
								Principal + Excess Revenue ⁽²⁾
10/1/2027	785,000	3.25%	261,950.00	1,046,950.00	1,500,000	453,050	453,050	3,378,238
10/1/2028	810,000	3.25%	236,437.50	1,046,437.50	1,500,000	453,563	453,563	1,238,050.00
10/1/2029	835,000	3.25%	210,112.50	1,045,112.50	1,500,000	454,888	454,888	1,263,562.50
10/1/2030	865,000	3.25%	182,975.00	1,047,975.00	1,500,000	452,025	906,913	1,289,887.50
10/1/2031	895,000	3.25%	154,862.50	1,049,862.50	1,500,000	450,138	1,357,050	
10/1/2032	920,000	3.25%	125,775.00	1,045,775.00	1,500,000	454,225	1,811,275	
10/1/2033	950,000	3.25%	95,875.00	1,045,875.00	1,500,000	454,125	2,265,400	
10/1/2034	985,000	3.25%	65,000.00	1,050,000.00	1,500,000	450,000	2,715,400	
10/1/2035	1,015,000	3.25%	32,987.50	1,047,987.50	1,500,000	452,013	3,167,413	
	8,060,000							
	14,640,000							

⁽¹⁾ In 2026 when bonds are callable, \$ 4,681,763 will be available to pay down the outstanding principal, amount of \$8,060,000, leaving \$ 3,378,238 outstanding.

⁽²⁾ The remaining outstanding balance will be paid using principal and excess revenue for each year. And it will take another three years to payoff the \$3,378,238

No. of years to pay the debt: 13 years

MID-PENINSULA WATER DISTRICT

Public Offering; 25 YEARS

Prepared by Wulff, Hansen & Co.

4/27/2016

All figures are preliminary, estimated and subject to change

Period Ending	Principal	Coupon*	Interest	Debt Service	Available Revenue**	Excess Revenue	Cumulative Excess	Debt Service Coverage Ratio
10/1/2017	565,000	0.85%	482,217.67	1,047,217.67	1,500,000	452,782	452,782	1.432
10/1/2018	605,000	1.10%	440,321.50	1,045,321.50	1,772,000	726,679	1,179,461	1.695
10/1/2019	615,000	1.23%	433,666.50	1,048,666.50	1,462,000	413,334	1,592,794	1.394
10/1/2020	620,000	1.45%	426,102.00	1,046,102.00	1,425,000	378,898	1,971,692	1.362
10/1/2021	630,000	1.49%	417,112.00	1,047,112.00	1,500,000	452,888	2,424,580	1.433
10/1/2022	640,000	1.61%	407,725.00	1,047,725.00	1,500,000	452,275	2,876,855	1.432
10/1/2023	650,000	1.72%	397,421.00	1,047,421.00	1,500,000	452,579	3,329,434	1.432
10/1/2024	660,000	1.87%	386,241.00	1,046,241.00	1,500,000	453,759	3,783,193	1.434
10/1/2025	675,000	2.00%	373,899.00	1,048,899.00	1,500,000	451,101	4,234,294	1.430
10/1/2026	685,000	2.10%	360,399.00	1,045,399.00	1,500,000	454,601	4,688,895	1.435
10/1/2027	700,000	2.22%	346,014.00	1,046,014.00	1,500,000	453,986	5,142,881	1.434
10/1/2028	715,000	2.33%	330,474.00	1,045,474.00	1,500,000	454,526	5,597,407	1.435
10/1/2029	735,000	2.45%	313,814.50	1,048,814.50	1,500,000	451,186	6,048,593	1.430
10/1/2030	750,000	2.57%	295,807.00	1,045,807.00	1,500,000	454,193	6,502,786	1.434
10/1/2031	770,000	2.70%	276,532.00	1,046,532.00	1,500,000	453,468	6,956,254	1.433
10/1/2032	790,000	2.84%	255,742.00	1,045,742.00	1,500,000	454,258	7,410,512	1.434
10/1/2033	815,000	2.94%	233,306.00	1,048,306.00	1,500,000	451,694	7,862,206	1.431
10/1/2034	840,000	3.00%	209,345.00	1,049,345.00	1,500,000	450,655	8,312,861	1.429
10/1/2035	865,000	3.10%	184,145.00	1,049,145.00	1,500,000	450,855	8,763,716	1.430
10/1/2036	890,000	3.15%	157,330.00	1,047,330.00	1,500,000	452,670	9,216,386	1.432
10/1/2037	920,000	3.20%	129,295.00	1,049,295.00	1,500,000	450,705	9,667,091	1.430
10/1/2038	945,000	3.30%	99,855.00	1,044,855.00	1,500,000	455,145	10,122,236	1.436
10/1/2039	980,000	3.40%	68,670.00	1,048,670.00	1,500,000	451,330	10,573,566	1.430
10/1/2040	1,010,000	3.50%	35,350.00	1,045,350.00	1,500,000	454,650	11,028,216	1.435
	18,070,000		7,060,784.17	25,130,784.17	36,159,000	11,028,216		

Estimated and Subject to Actual Proposals

(1) Underwriter's Discount	225,875.00
(2) Bond Insurance	50,261.57
(3) Surety Reserve Fund	13,641.49
Bond Counsel	70,000.00
Disclosure Counsel	30,000.00
Municipal Advisor	70,000.00
Public Financing Corp.	3,500.00
Trustee	7,500.00
Rating Agencies	30,000.00
Consultant	10,000.00
Misc.	25,000.00
Total Estimated COI	535,778.06

Project Fund	17,534,221.94
Estimated Total Cost of Issuance	535,778.06
Total Par Amount	18,070,000.00

TIC	2.95179%
All-in TIC	3.07944%

* Based on Comparable Public Offerings as of 04/21/2016; actual rates to be determined by competitive sale of bonds

** Source: Rate Study update from MPWD

(1) Estimated at 1.20% of Bond Issuance, to be determined by competitive bid

(2) Estimated at 0.20% of total Debt Service, insures Debt Service, to be determined by competitive bid

(3) Estimated at 1.30% of Debt Service Reserve Requirements, to be determined by competitive bid; Surety replaces debt service reserve estimated at approximately \$1,050,000; funded from bond proceeds

- True Interest Cost (TIC): A measurement of interest expense to the issuer of bonds, without the adjustment of COI in calculation.

- All-in TIC: A measurement of total cost of a bond financing, including adjustment of COI in calculation.

MID-PENINSULA WATER DISTRICT

Public Offering; 25 YEARS

Prepared by Wulff, Hansen & Co.

4/27/2016

All figures are preliminary, estimated and subject to change

Period Ending	Principal	Coupon*	Interest	Debt Service	Available Revenue**	Excess Revenue	Cumulative Excess	
10/1/2017	565,000	0.85%	482,217.67	1,047,217.67	1,500,000	452,782	452,782	
10/1/2018	605,000	1.10%	440,321.50	1,045,321.50	1,772,000	726,679	1,179,461	
10/1/2019	615,000	1.23%	433,666.50	1,048,666.50	1,462,000	413,334	1,592,794	
10/1/2020	620,000	1.45%	426,102.00	1,046,102.00	1,425,000	378,898	1,971,692	
10/1/2021	630,000	1.49%	417,112.00	1,047,112.00	1,500,000	452,888	2,424,580	
10/1/2022	640,000	1.61%	407,725.00	1,047,725.00	1,500,000	452,275	2,876,855	
10/1/2023	650,000	1.72%	397,421.00	1,047,421.00	1,500,000	452,579	3,329,434	
10/1/2024	660,000	1.87%	386,241.00	1,046,241.00	1,500,000	453,759	3,783,193	
10/1/2025	675,000	2.00%	373,899.00	1,048,899.00	1,500,000	451,101	4,234,294	
10/1/2026	685,000	2.10%	360,399.00	1,045,399.00	1,500,000	454,601	4,688,895 ⁽¹⁾	
	6,345,000							
								Principal + Excess Revenue ⁽²⁾
10/1/2027	700,000	2.22%	346,014.00	1,046,014.00	1,500,000	453,986	5,142,881	7,036,105
10/1/2028	715,000	2.33%	330,474.00	1,045,474.00	1,500,000	454,526	5,597,407	1,153,986.00
10/1/2029	735,000	2.45%	313,814.50	1,048,814.50	1,500,000	451,186	6,048,593	1,169,526.00
10/1/2030	750,000	2.57%	295,807.00	1,045,807.00	1,500,000	454,193	6,502,786	1,186,185.50
10/1/2031	770,000	2.70%	276,532.00	1,046,532.00	1,500,000	453,468	6,956,254	1,204,193.00
10/1/2032	790,000	2.84%	255,742.00	1,045,742.00	1,500,000	454,258	7,410,512	1,223,468.00
10/1/2033	815,000	2.94%	233,306.00	1,048,306.00	1,500,000	451,694	7,862,206	1,244,258.00
10/1/2034	840,000	3.00%	209,345.00	1,049,345.00	1,500,000	450,655	8,312,861	
10/1/2035	865,000	3.10%	184,145.00	1,049,145.00	1,500,000	450,855	8,763,716	
10/1/2036	890,000	3.15%	157,330.00	1,047,330.00	1,500,000	452,670	9,216,386	
10/1/2037	920,000	3.20%	129,295.00	1,049,295.00	1,500,000	450,705	9,667,091	
10/1/2038	945,000	3.30%	99,855.00	1,044,855.00	1,500,000	455,145	10,122,236	
10/1/2039	980,000	3.40%	68,670.00	1,048,670.00	1,500,000	451,330	10,573,566	
10/1/2040	1,010,000	3.50%	35,350.00	1,045,350.00	1,500,000	454,650	11,028,216	
	11,725,000		7,060,784.17	25,130,784.17	36,159,000	11,028,216		
	18,070,000							

⁽¹⁾ In 2026 when bonds are callable, \$ 4,688,895 will be available to pay down the outstanding principal, amount of \$11,725,000, leaving \$ 7,036,105 outstanding.

⁽²⁾ The remaining outstanding balance will be paid using principal and excess revenue for each year. And it will take another three years to payoff the \$7,036,105

No. of years to pay the debt:	16 years
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MID-PENINSULA WATER DISTRICT

Public Offering; 30 YEARS

Prepared by Wulff, Hansen & Co.

4/27/2016

All figures are preliminary, estimated and subject to change

Period Ending	Principal	Coupon	Interest	Debt Service	Available Revenue**	Excess Revenue	Cumulative Excess	Debt Service Coverage Ratio
10/1/2017	460,000	0.85%	586,469.54	1,046,469.54	1,500,000	453,530	453,530	1.433
10/1/2018	510,000	1.10%	537,446.50	1,047,446.50	1,772,000	724,554	1,178,084	1.692
10/1/2019	515,000	1.23%	531,836.50	1,046,836.50	1,462,000	415,164	1,593,247	1.397
10/1/2020	520,000	1.45%	525,502.00	1,045,502.00	1,425,000	379,498	1,972,745	1.363
10/1/2021	530,000	1.49%	517,962.00	1,047,962.00	1,500,000	452,038	2,424,783	1.431
10/1/2022	535,000	1.61%	510,065.00	1,045,065.00	1,500,000	454,935	2,879,718	1.435
10/1/2023	545,000	1.72%	501,451.50	1,046,451.50	1,500,000	453,549	3,333,267	1.433
10/1/2024	555,000	1.87%	492,077.50	1,047,077.50	1,500,000	452,923	3,786,189	1.433
10/1/2025	565,000	2.00%	481,699.00	1,046,699.00	1,500,000	453,301	4,239,490	1.433
10/1/2026	575,000	2.10%	470,399.00	1,045,399.00	1,500,000	454,601	4,694,091	1.435
10/1/2027	590,000	2.22%	458,324.00	1,048,324.00	1,500,000	451,676	5,145,767	1.431
10/1/2028	600,000	2.33%	445,226.00	1,045,226.00	1,500,000	454,774	5,600,541	1.435
10/1/2029	615,000	2.45%	431,246.00	1,046,246.00	1,500,000	453,754	6,054,295	1.434
10/1/2030	630,000	2.57%	416,178.50	1,046,178.50	1,500,000	453,822	6,508,117	1.434
10/1/2031	645,000	2.70%	399,987.50	1,044,987.50	1,500,000	455,013	6,963,129	1.435
10/1/2032	665,000	2.84%	382,572.50	1,047,572.50	1,500,000	452,428	7,415,557	1.432
10/1/2033	685,000	2.94%	363,686.50	1,048,686.50	1,500,000	451,314	7,866,870	1.430
10/1/2034	705,000	3.00%	343,547.50	1,048,547.50	1,500,000	451,453	8,318,323	1.431
10/1/2035	725,000	3.10%	322,397.50	1,047,397.50	1,500,000	452,603	8,770,925	1.432
10/1/2036	745,000	3.15%	299,922.50	1,044,922.50	1,500,000	455,078	9,226,003	1.436
10/1/2037	770,000	3.20%	276,455.00	1,046,455.00	1,500,000	453,545	9,679,548	1.433
10/1/2038	795,000	3.30%	251,815.00	1,046,815.00	1,500,000	453,185	10,132,733	1.433
10/1/2039	820,000	3.40%	225,580.00	1,045,580.00	1,500,000	454,420	10,587,153	1.435
10/1/2040	850,000	3.50%	197,700.00	1,047,700.00	1,500,000	452,300	11,039,453	1.432
10/1/2041	880,000	3.50%	167,950.00	1,047,950.00	1,500,000	452,050	11,491,503	1.431
10/1/2042	910,000	3.50%	137,150.00	1,047,150.00	1,500,000	452,850	11,944,353	1.432
10/1/2043	940,000	3.60%	105,300.00	1,045,300.00	1,500,000	454,700	12,399,053	1.435
10/1/2044	975,000	3.60%	71,460.00	1,046,460.00	1,500,000	453,540	12,852,593	1.433
10/1/2045	1,010,000	3.60%	36,360.00	1,046,360.00	1,500,000	453,640	13,306,233	1.434
	19,865,000		10,487,767.04	30,352,767.04	43,659,000	13,306,233		

Estimated and Subject to Actual Proposals

(1) Underwriter's Discount	248,312.50
(2) Bond Insurance	60,705.53
(3) Surety Reserve Fund	13,632.92
Bond Counsel	70,000.00
Disclosure Counsel	30,000.00
Municipal Advisor	70,000.00
Public Financing Corp.	3,500.00
Trustee	7,500.00
Rating Agencies	35,000.00
Consultant	10,000.00
Misc.	25,000.00
Total Estimated COI	573,650.95

Project Fund	19,291,349.05
Estimated Total Cost of Issuance	573,650.95
Total Par Amount	19,865,000.00

TIC	3.19640%
All-in TIC	3.29940%

* Based on Comparable Public Offerings as of 04/21/2016; actual rates to be determined by competitive sale of bonds

** Source: Rate Study update from MPWD

(1) Estimated at 1.20% of Bond Issuance, to be determined by competitive bid

(2) Estimated at 0.20% of total Debt Service, insures Debt Service, to be determined by competitive bid

(3) Estimated at 1.30% of Debt Service Reserve Requirements, to be determined by competitive bid; Surety replaces debt service reserve estimated at approximately \$1,050,000; funded from bond proceeds

- True Interest Cost (TIC): A measurement of interest expense to the issuer of bonds, without the adjustment of COI in calculation.

- All-in TIC: A measurement of total cost of a bond financing, including adjustment of COI in calculation.

MID-PENINSULA WATER DISTRICT

Public Offering; 30 YEARS

Prepared by Wulff, Hansen & Co.

4/27/2016

All figures are preliminary, estimated and subject to change

Period Ending	Principal	Coupon	Interest	Debt Service	Available Revenue**	Excess Revenue	Cumulative Excess	
10/1/2017	460,000	0.85%	586,469.54	1,046,469.54	1,500,000	453,530	453,530	
10/1/2018	510,000	1.10%	537,446.50	1,047,446.50	1,772,000	724,554	1,178,084	
10/1/2019	515,000	1.23%	531,836.50	1,046,836.50	1,462,000	415,164	1,593,247	
10/1/2020	520,000	1.45%	525,502.00	1,045,502.00	1,425,000	379,498	1,972,745	
10/1/2021	530,000	1.49%	517,962.00	1,047,962.00	1,500,000	452,038	2,424,783	
10/1/2022	535,000	1.61%	510,065.00	1,045,065.00	1,500,000	454,935	2,879,718	
10/1/2023	545,000	1.72%	501,451.50	1,046,451.50	1,500,000	453,549	3,333,267	
10/1/2024	555,000	1.87%	492,077.50	1,047,077.50	1,500,000	452,923	3,786,189	
10/1/2025	565,000	2.00%	481,699.00	1,046,699.00	1,500,000	453,301	4,239,490	
10/1/2026	575,000	2.10%	470,399.00	1,045,399.00	1,500,000	454,601	4,694,091 ⁽¹⁾	
	5,310,000							
								Principal + Excess Revenue ⁽²⁾
10/1/2027	590,000	2.22%	458,324.00	1,048,324.00	1,500,000	451,676	5,145,767	9,860,909
10/1/2028	600,000	2.33%	445,226.00	1,045,226.00	1,500,000	454,774	5,600,541	1,041,676.00
10/1/2029	615,000	2.45%	431,246.00	1,046,246.00	1,500,000	453,754	6,054,295	1,054,774.00
10/1/2030	630,000	2.57%	416,178.50	1,046,178.50	1,500,000	453,822	6,508,117	1,068,754.00
10/1/2031	645,000	2.70%	399,987.50	1,044,987.50	1,500,000	455,013	6,963,129	1,083,821.50
10/1/2032	665,000	2.84%	382,572.50	1,047,572.50	1,500,000	452,428	7,415,557	1,100,012.50
10/1/2033	685,000	2.94%	363,686.50	1,048,686.50	1,500,000	452,314	7,867,870	1,117,427.50
10/1/2034	705,000	3.00%	343,547.50	1,048,547.50	1,500,000	451,453	8,318,323	1,136,313.50
10/1/2035	725,000	3.10%	322,397.50	1,047,397.50	1,500,000	452,603	8,770,925	1,156,452.50
10/1/2036	745,000	3.15%	299,922.50	1,044,922.50	1,500,000	455,078	9,226,003	1,177,602.50
10/1/2037	770,000	3.20%	276,455.00	1,046,455.00	1,500,000	453,545	9,679,548	
10/1/2038	795,000	3.30%	251,815.00	1,046,815.00	1,500,000	453,185	10,132,733	
10/1/2039	820,000	3.40%	225,580.00	1,045,580.00	1,500,000	454,420	10,587,153	
10/1/2040	850,000	3.50%	197,700.00	1,047,700.00	1,500,000	452,300	11,039,453	
10/1/2041	880,000	3.50%	167,950.00	1,047,950.00	1,500,000	452,050	11,491,503	
10/1/2042	910,000	3.50%	137,150.00	1,047,150.00	1,500,000	452,850	11,944,353	
10/1/2043	940,000	3.60%	105,300.00	1,045,300.00	1,500,000	454,700	12,399,053	
10/1/2044	975,000	3.60%	71,460.00	1,046,460.00	1,500,000	453,540	12,852,593	
10/1/2045	1,010,000	3.60%	36,360.00	1,046,360.00	1,500,000	453,640	13,306,233	
	14,555,000		10,487,767.04	30,352,767.04	43,659,000	13,306,233		
	19,865,000							

⁽¹⁾ In 2026 when bonds are callable, \$ 4,694,091 will be available to pay down the outstanding principal, amount of \$ 14,555,000, leaving \$ 9,860,909 outstanding.

⁽²⁾ The remaining outstanding balance will be paid using principal and excess revenue for each year. And it will take another three years to payoff the \$ 9,860,909

RESOLUTION NO. 2016-06

**ADOPTING MPWD COMPREHENSIVE SYSTEM ANALYSIS AND
CAPITAL IMPROVEMENT PROGRAM FY 2016-2017 UPDATE, AND
AUTHORIZING MPWD 5-YEAR CAPITAL IMPROVEMENT PROGRAM
FOR FISCAL YEARS 2016/2017 THROUGH 2020/2021**

* * *

MID-PENINSULA WATER DISTRICT

WHEREAS, the Mid-Peninsula Water District ("MPWD") completed a comprehensive water hydraulic model of the entire MPWD system over the course of the past 18 months; and

WHEREAS, almost 90 capital improvement projects were identified for completion as a result of the water hydraulic modeling, and a list of six scoring criteria was developed in order to rank and prioritize each of the 90 capital projects; and

WHEREAS, an updated FY 2016/2017 Comprehensive System Analysis and Capital Improvement Program report was developed by the District Engineer and MPWD staff, and presented to the Board of Directors at its May 26, 2016, regular meeting; and

WHEREAS, a preliminary draft 5-year capital improvement program was introduced to the Board of Directors on November 16, 2015, totaling \$12 million, and the Board provided direction to staff to revise it to expand beyond what the MPWD is currently funding on a pay-go basis and develop financing options; and

WHEREAS, a revised 5-year capital improvement program was developed totaling \$25 million and presented to the Board on December 16, 2015, and was accepted in principle but not approved until financing options were reviewed and considered; and

WHEREAS, on April 28, 2016, updated cash flow projections for FY 2016/2017 were presented by MPWD's rate consultant Bartle Wells Associates, and financing alternatives for potential capital improvements were created by the MPWD's Municipal Finance Advisors based upon the updated cash flow projections and presented to the Board at that same meeting; and

WHEREAS, as a result of the updated financial information for FY 2016/2017, staff

modified the MPWD's 5-year capital planning and presented the Board with three (3) program alternatives on May 26, 2016, and recommended Alternative One totaling \$20,000,000.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Mid-Peninsula Water District hereby:

1. Adopts the MPWD Comprehensive System Analysis and Capital Improvement Program FY 2016/2017 Update Report; and
2. Authorizes the 5-Year Capital Improvement Program for Fiscal Years 2016/2017 through 2020/2021 totaling \$20,000,000 (attached as Exhibit "A").

BE IT FURTHER RESOLVED that the Board directs staff to commence coordination with the MPWD's Municipal Finance Advisor on developing the appropriate financing options for the 5-Year Capital Improvement Program, that are most advantageous for the Mid-Peninsula Water District, for presentation to the Board at an upcoming regular meeting.

REGULARLY PASSED AND ADOPTED this 26th day of May 2016, by the following vote:

AYES:
NOES:
ABSENT:

President, Board of Directors
Mid-Peninsula Water District

ATTEST:

District Secretary



**5-YEAR CAPITAL IMPROVEMENT PROGRAM
FY 2016/2017 THROUGH FY 2020/2021**

PROJECT NUMBER	PROJECT NAME	PROJECTED COST (2015)
15-14	Mezes Avenue Improvements	\$ 175,000
15-76	El Camino Real Improvements	2,100,000
15-65	Folger Drive Improvements	420,000
15-73	Karen Road Improvements	425,000
15-10	Notre Dame Avenue Loop Closure	910,000
15-44	South Road Abandonment	415,000
15-22	Arthur Avenue Improvements	475,000
15-16	Williams Avenue, Ridge Road, Hillman Avenue Improvements	1,100,000
15-43	North Road Cross Country/Davey Glen Road Improvements	680,000
15-06	Zone 5 Fire Hydrant Upgrades	150,000
15-78	Civic Lane Improvements	800,000
15-17	Monte Cresta Drive/Alhambra Drive Improvements	1,075,000
15-87	Hillcrest Pressure Regulating Station	345,000
15-09	Dekoven Tank Utilization Project	1,035,000
15-28	Tahoe Drive Area Improvements	510,000
15-29	Belmont Canyon Road Improvements	420,000
15-38	Cliffside Court Improvements	220,000
15-42	North Road Improvements	220,000
15-75	Old County Road Improvements	3,400,000
15-72	SR 101 Crossing at PAMF Hospital	1,670,000
15-89	Dekoven Tanks Replacement	3,500,000
	TOTAL	\$20,045,000

Project No. 15-92: AMI Completion Project (\$2.5 million) is also a priority project that could be substituted for the projects highlighted in gray.



AGENDA ITEM NO. 7.B.

DATE: August 25, 2016
TO: Board of Directors
FROM: Tammy Rudock, General Manager

SUBJECT: RECEIVE SUMMARY PRESENTATION ON 2015 MPWD GASB 45 (OPEB—OTHER POST-EMPLOYMENT BENEFITS) ACTUARIAL VALUATION REPORT AND APPROVE CONSTANT PERCENTAGE INCREASE FUNDING SCHEDULE

RECOMMENDATION

Receive a summary of the 2015 MPWD GASB 45 (OPEB) Actuarial Valuation Report by Demsey, Filliger & Associates.

FISCAL IMPACT

This actuarial report is required every three (3) years and was developed by Demsey, Filliger & Associates (DFA) at an expenditure of \$3,500 for their professional services.

DFA determined the amount of actuarial liability for the MPWD-paid retiree healthcare benefits is \$3,627,044 as of July 1, 2015.

DFA provided examples of proposed funding schedules. Since I've been General Manager, my recommendation has been a combination approach: Pay-go for the retirees and payment of the ARC (Annual Required Contribution). In FY 2015/2016, the actual total cost paid for retirees and spousal healthcare coverage was \$59,261. The ARC contributed in FY 2015/2016 was \$162,200. Total OPEB funded in FY 2015/2016: \$221,461.

As previously reported to the Board, this comprehensive valuation includes the surviving spouse benefit for Tier 1 employees. For whatever reason, this was inadvertently not addressed in former actuarial reports. As a result, the ARC increased by approximately \$30,000. Over the proposed 20-year funding cycle for the trust account, that adds approximately \$600,000 in costs.

DISCUSSION

DFA's *MPWD GASB 45 Valuation* report as of July 1, 2015 (and dated July 23, 2016) is attached. It is comprehensive as required and because it is a transition report (from prior 2012 valuation).

Highlights from the report:

- Page 1 – The amount of actuarial liability for the MPWD-paid retiree healthcare benefits is \$3,627,044 as of July 1, 2015.
- Page 2 – It covers benefits for four (4) existing retirees as well as 18 active employees that may become eligible to retire and receive benefits in the future.
- Page 4 – The most recent valuation was prepared by Steve Itelson (retired) as of July 1, 2012.
- Page 4 – The Accrued Liability as of July 1, 2012, was \$1,517,700, compared to \$2,452,610 as of July 1, 2015. (Key factors will be discussed during the Board meeting, the largest being the lowering of the discount rate from 7.0% to 5.5% and reduced earnings.)
- Pages 5-6 – Three (3) alternative schedules proposed:
 - Level contribution amount for next 20 years.
 - Level percent of the UAL (Unfunded Accrued Liability); or
 - Constant percentage (3%) increases for the next 20 years.
- Page 5 – Pay-go costs for existing retirees included in funding alternatives.

Staff recommends the third alternative—Constant percentage (3%) increases for the next 20 years—because it is reasonable. The FY 2016/2017 Operating Budget has \$170,000 projected for the OPEB funding, and \$56,000 for the existing retirees' healthcare costs, totaling \$226,000. The ARC beginning FY 2016/2017 totals \$222,470 for the third alternative and is, therefore, within budget projections.

Attachments: MPWD GASB 45 Valuation by DFA as of July 1, 2015 (dated July 23, 2016)

BOARD ACTION: APPROVED:_____ DENIED:_____ POSTPONED:_____ STAFF DIRECTION:_____

UNANIMOUS_____ ZUCCA_____ WARDEN_____ STUEBING_____ VELLA_____ LINVILL_____



July 23, 2016

Ms. Tammy Rudock
General Manager
Mid-Peninsula Water District
3 Dairy Lane
Belmont, CA 94002

Re: Mid-Peninsula Water District ("District") GASB 45 Valuation

Dear Ms. Rudock:

This report sets forth the results of our GASB 45 actuarial valuation of the District's retiree health insurance program as of July 1, 2015.

In June, 2004 the Governmental Accounting Standards Board (GASB) issued accrual accounting standards for retiree healthcare benefits, GASB 43 and GASB 45. GASB 43/45 require public employers such as the District to perform periodic actuarial valuations to measure and disclose their retiree healthcare liabilities for the financial statements of both the employer and the trust, if any, set aside to pre-fund these liabilities. The District must obtain actuarial valuations of its retiree health insurance program under GASB 43/45 not less frequently than once every three years.

To accomplish these objectives the District selected Demsey, Filliger and Associates (DF&A) to perform an actuarial valuation of the retiree health insurance program as of July 1, 2015. This report may be compared with the valuation performed by Steven Itelson as of July 1, 2012, to see how the liabilities have changed since the last valuation. We are available to answer any questions the District may have concerning the report.

Financial Results

We have determined that the amount of actuarial liability for District-paid retiree benefits is \$3,627,044 as of July 1, 2015. This represents the present value of all benefits expected to be paid by the District for its current and future retirees. If the District were to place this amount in a fund earning interest at the rate of 5.5% per year, and all other actuarial assumptions were exactly met, the fund would have exactly enough to pay all expected benefits.

This includes benefits for 4 retirees as well as 18 active employees who may become eligible to retire and receive benefits in the future. It excludes employees hired after the valuation date.

When we apportion the \$3,627,044 into past service and future service components under the Projected Unit Credit Cost Method, the past service liability (or "Accrued Liability") component is \$2,452,610 as of July 1, 2015. This represents the present value of all benefits earned to date assuming that an employee earns retiree healthcare benefits ratably over his or her career. The \$2,452,610 is comprised of liabilities of \$1,637,434 for active employees and \$815,176 for retirees. The District has established a trust account with PARS (Public Agency Retirement Services) for the pre-funding of retiree healthcare benefits. Trust assets have an actuarial value of \$432,917 as of July 1, 2015, so the Unfunded Accrued Liability (called the UAL, equal to the AL less assets) is \$2,019,693.

We have determined that the District's "Annual Required Contributions", or "ARC", for the fiscal year 2015-16, is \$259,428. The \$259,428 is comprised of the present value of benefits accruing in the current year, called the "Service Cost", and a 30-year amortization of the UAL. We estimate that the District paid approximately \$60,488 for the 2015-16 fiscal year in healthcare costs for its retirees, so the difference between the accrual accounting expense (ARC) and pay-as-you-go is an increase of \$198,940.

There are two adjustments to the ARC that are required in order to determine the District's Annual OPEB Cost (AOC) for the 2015-16 fiscal year. We have calculated these adjustments based on a Net OPEB Obligation of \$4,565 as of June 30, 2015, resulting in an AOC for 2015-16 of \$259,365.

We show these numbers in the table on the next page and in Exhibit I. All amounts are net of expected future retiree contributions, if any.

Mid-Peninsula Water District
Annual Liabilities and Expense under
GASB 45 Accrual Accounting Standard
Projected Unit Credit Cost Method

Item	Amounts for Fiscal 2015-16
Present Value of Future Benefits (PVFB)	
Active	\$2,811,868
Retired	<u>815,176</u>
Total: PVFB	\$3,627,044
Accrued Liability (AL)	
Actives	\$1,637,434
Retired	<u>815,176</u>
Total: AL	\$2,452,610
Assets	<u>(432,917)</u>
Total: Unfunded AL	\$2,019,693
Annual Required Contributions (ARC)	
Service Cost At Year-End	\$120,462
30-year Amortization of Unfunded AL	<u>138,966</u>
Total: ARC	\$259,428
Adjustments to ARC	
Interest on Net OPEB Obligation*	251
Adjustment to ARC*	<u>(314)</u>
Total: Annual OPEB Cost (AOC) for 2015-16	\$259,365

*Amounts based on June 30, 2015 Net OPEB Obligation of \$4,565.

The ARC of \$259,428, shown above, should be used for the 2015-16 and 2016-17 fiscal years, but the Annual OPEB Cost for 2016-17 must include an adjustment based on the Net OPEB Obligation as of the end of the preceding fiscal year, which is not known precisely in advance.

When the District begins preparation of the June 30, 2016 government-wide financial statements, DF&A will provide the District and its auditors with complimentary assistance in preparation of footnotes and required supplemental information for compliance with GASB 45 (and GASB 43, if applicable).

We determined the July 1, 2015 actuarial asset value of \$432,917 by using the market value of the PARS trust account as of June 30, 2015, as reported to us by the District, without adjustment.

Differences from Prior Valuation

The most recent prior valuation was completed as of July 1, 2012 by Steven Itelson. The AL (Accrued Liability) as of that date was \$1,517,700, compared to \$2,452,610 as of July 1, 2015. In this section, we provide a reconciliation between the two numbers so that it is possible to trace the AL from one actuarial report to the next.

Several factors have caused the AL to change since 2012. The AL increases as employees accrue more service and get closer to receiving benefits. There are actuarial gains/losses from one valuation to the next, and changes in actuarial assumptions and methodology for the current valuation. To summarize, the most important changes were as follows:

1. There was a net gain (a decrease in the AL) of \$68,726 due to the changes in retiree health provisions scheduled to take effect on January 1, 2017.
2. We lowered the discount rate from 7.0% to 5.5% to reflect the target rate of return for the PARS Moderately Conservative investment strategy applicable to the District's trust assets. This change caused an increase in the AL of \$512,772.
3. There was a net loss (an increase in the AL) of \$244,462 from all other causes, including changes in demographic and other actuarial assumptions since the prior valuation.

The estimated changes to the AL from July 1, 2012 to July 1, 2015 may be summarized as follows:

Changes to AL	AL
AL as of 7/1/12	\$1,517,700
Passage of time	246,402
Plan changes effective 1/1/17	(68,726)
Change discount rate	512,772
Net loss from all other causes	<u>244,462</u>
AL as of 7/1/15	\$2,452,610

Funding Schedules

There are many ways to approach the pre-funding of retiree healthcare benefits. In the *Financial Results* section, we determined the annual expense for all District-paid benefits. The expense is an orderly methodology, developed by the GASB, to account for retiree healthcare benefits. This amount will fluctuate from year to year based on the asset performance and as the population matures. However, the GASB 45 expense has no direct relation to amounts the District may set aside to pre-fund healthcare benefits.

The table on the next page provides the District with three alternative schedules for funding (as contrasted with expensing) retiree healthcare benefits. The schedules all assume that the retiree fund earns 5.5% per annum on its investments, a starting PARS trust balance of \$432,917 as of July 1, 2015, and that contributions and benefits are paid mid-year.

The schedules are:

1. A level contribution amount for the next 20 years.
2. A level percent of the Unfunded Accrued Liability.
3. A constant percentage (3%) increase for the next 20 years.

We provide these funding schedules to give the District a sense of the various alternatives available to it to pre-fund its retiree healthcare obligation. The three funding schedules are simply three different examples of how the District may choose to spread its costs.

By comparing the schedules, you can see the effect that early pre-funding has on the total amount the District will eventually have to pay. Because of investment earnings on fund assets, the earlier contributions are made, the less the District will have to pay in the long run. Of course, the advantages of pre-funding will have to be weighed against other uses of the money.

The table on the following page shows the required annual outlay under the pay-as-you-go method and each of the above schedules. **The three funding schedules include the "pay-as-you-go" costs; therefore, the amount of pre-funding is the excess over the "pay-as-you-go" amount.**

These numbers are computed on a closed group basis, assuming no new entrants, and using unadjusted premiums. We use unadjusted premiums for these funding schedules because we do not recommend that the District pre-fund for the full age-adjusted costs reflected in the GASB 45 liabilities shown in the first section of this report. If the District's premium structure changes in the future to explicitly charge under-age 65 retirees for the full actuarial cost of their benefits, this change will be offset by a lowering of the active employee rates (all else remaining equal), resulting in a direct reduction in District operating expenses on behalf of active employees from that point forward. For this reason among others, we believe that pre-funding of the full GASB liability would be redundant.

Mid-Peninsula Water District

Sample Funding Schedules (Closed Group)

Starting Trust Balance of \$432,917 as of July 1, 2015

Fiscal Year	Pay-as-you-go	Level Contribution for 20 years	Level % of Unfunded Liability	Constant Percentage Increase
2015	\$60,488	\$275,445	\$422,249	\$215,990
2016	67,502	275,445	368,783	222,470
2017	69,608	275,445	323,963	229,144
2018	77,062	275,445	286,154	236,018
2019	82,011	275,445	254,637	243,099
2020	88,753	275,445	228,291	250,392
2021	103,302	275,445	206,434	257,903
2022	112,254	275,445	188,824	265,641
2023	127,508	275,445	174,451	273,610
2024	141,525	275,445	163,145	281,818
2025	158,010	275,445	154,320	290,273
2026	172,969	275,445	147,676	298,981
2027	191,787	275,445	142,744	307,950
2028	209,420	275,445	139,393	317,189
2029	220,176	275,445	137,253	326,704
2030	240,532	275,445	135,755	336,506
2031	258,897	275,445	135,182	346,601
2032	278,065	275,445	135,223	356,999
2033	294,311	275,445	135,738	367,709
2034	310,279	275,445	136,456	378,740
2035	329,796	0	137,264	0
2036	339,899	0	138,204	0
2037	359,543	0	138,841	0
2038	376,209	0	139,488	0
2039	392,735	0	139,955	0
2040	404,219	0	140,185	0
2041	419,841	0	139,987	0
2042	432,674	0	139,476	0
2043	443,888	0	138,549	0
2044	453,287	0	137,159	0
2045	452,027	0	135,272	0
2046	454,140	0	132,684	0
2047	455,952	0	129,559	0
2048	454,407	0	125,945	0
2049	450,916	0	121,839	0
2050	445,462	0	117,277	0
2055	391,499	0	89,266	0
2060	307,758	0	55,880	0
2065	214,363	0	24,794	0
2070	127,557	0	11,016	0

Note to auditor: when calculating the employer OPEB contribution for the year ending on the statement date, we recommend multiplying the actual District-paid premiums on behalf of retirees by a factor of 1.2840 to adjust for the implicit subsidy.

Actuarial Assumptions

In order to perform the valuation, the actuary must make certain assumptions regarding such items as rates of employee turnover, retirement, and mortality, as well as economic assumptions regarding healthcare inflation and interest rates. Our assumptions are based on a standard set of assumptions we have used for similar valuations, modified as appropriate for the District. For example, turnover rates are taken from a standard actuarial table, T-5, without adjustment. This matches the District's historic turnover patterns. Retirement rates were also based on recent District retirement patterns. Both assumptions should be reviewed in the next valuation to see if they are tracking well with experience.

The discount rate of 5.5% is based on our best estimate of expected long-term plan experience. It is in accordance with our understanding of the guidelines for selection of this rate under GASB 45 for funded plans such as the District's. The healthcare trend rates are based on our analysis of recent District experience and our knowledge of the general healthcare environment.

A complete description of the actuarial assumptions used in the valuation is set forth in the "Actuarial Assumptions" section.

Projected Annual Pay-as-you go Costs

As part of the valuation, we prepared a projection of the expected annual cost to the District to pay benefits on behalf of its retirees on a pay-as-you-go basis. These numbers are computed on a closed group basis, assuming no new entrants, and are net of retiree contributions. Projected pay-as-you-go costs for selected years are as follows:

FYB	Pay-as-you-go
2015	\$60,488
2016	67,502
2017	69,608
2018	77,062
2019	82,011
2020	88,753
2025	158,010
2030	240,532
2035	329,796
2040	404,219
2045	452,027
2050	445,462
2055	391,499
2060	307,758
2065	214,363
2070	127,557

Net OPEB Obligation and Annual OPEB Cost (AOC)

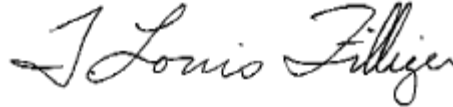
Exhibit I shows a development of the District's Net OPEB Obligation as of June 30, 2012 through June 30, 2015, and the Annual OPEB Cost ("AOC") for the fiscal years 2012-13 through 2015-16.

Certification

The actuarial certification, including a caveat regarding limitations of scope, if any, is contained in the "Actuarial Certification" section at the end of the report.

We have enjoyed working with the District on this report, and are available to answer any questions you may have concerning any information contained herein.

Sincerely,
DEMSEY, FILLIGER AND ASSOCIATES



T. Louis Filliger, FSA, EA, MAAA
Partner & Actuary

Benefit Plan Provisions

Mid-Peninsula Water District provides health benefits for employees and qualified dependents (and also for retirees and their dependents) through the Association of California Water Agencies Joint Powers Insurance Authority (ACWA/JPIA). All current retirees are in the Anthem Blue Cross Classic Plan (PPO), but four other Anthem options are offered (Advantage PPO, CalCare HMO, Value HMO, and Consumer Driven Health Plan) as well as Kaiser North. Employees and retirees also receive dental and vision coverage through ACWA. Retirees must enroll in Medicare Parts A and B once they become eligible to do so, and the retirees are then moved into a corresponding Medicare Supplement plan under ACWA.

In order to be eligible to retire with District-paid health benefits, an employee must have attained age 55 and completed 20 years of service with the District, and must retire from the District under CalPERS. Benefits vary by tier as follows:

Tier 1 (hired prior to June 27, 2008): 100% of medical, dental and vision premiums paid by the District for the lifetime of the retiree and the retiree's spouse, surviving spouse, domestic partner or surviving domestic partner at the time the retiree terminates employment.

Tier 2 (hired between June 27, 2008 and September 26, 2014): 100% of the medical, dental and vision premiums paid by the District for the lifetime of the retiree, with the dollar amount frozen at the time of retirement. Spousal coverage is not provided.

Tier 3 (hired on or after September 26, 2014): 50% of the medical, dental, and vision premiums for the lifetime of the retiree only, with the dollar amount frozen at the time of retirement. Spousal coverage is not provided.

Effective for retirements on or after January 1, 2017, the District's contribution will be limited to the lowest cost health plan offered, with the retiree paying the cost of a more expensive plan if selected. The eligibility provisions will also change for all 3 tiers to the later of age 50 and 15 years of service. Retirees with fewer than 20 years of service at retirement will have benefits permanently reduced by 25%, that is, the District will contribute 75% of the amounts described above. The freeze in the year of retirement will no longer affect Tier 2 retirees. These changes have been taken into account in the present valuation since they have already been contractually agreed to as of the valuation date.

The District's General Manager becomes eligible for 100% District-paid benefits for her lifetime only, after completion of 7 1/2 years of service with the District.

ACWA charges blended rates for employees and non-Medicare eligible retirees, giving rise to an implicit subsidy, which has been taken into account in the claims costs used in this valuation.

Valuation Data

Age distribution of retirees and surviving spouses included in the valuation

Age	Count
Under 55	0
55-59	0
60-64	2
65-69	0
70-74	0
75-79	0
80-84	0
85-89	2
90-94	0
95+	<u>0</u>
Total	4
Average Age	75.00

Age/years of service distribution of active employees included in the valuation

Years →	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
<u>Age</u>									
< 25	0								0
25-29	0	0							0
30-34	0	0	0	1					1
35-39	0	0	1	1					2
40-44	0	1	0	1	1				3
45-49	0	1	1	0	0	0			2
50-54	1	0	1	1	1	0	0		4
55-59	3	0	1	0	0	1	0	0	5
60-64	0	0	0	0	0	0	0	0	1
65+	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	4	2	4	5	2	1	0	0	18

Average Age: 48.78
Average Service: 12.39

Actuarial Assumptions

Valuation Date:	July 1, 2015
Actuarial Cost Method:	Projected Unit Credit
Discount Rate:	5.5% per annum
Return on Assets:	5.5% per annum
Amortization Method:	30-year level dollar; open period
Pre-retirement Turnover:	According to the Crocker-Sarason Table T-5 less mortality, without adjustment. Sample rates are as follows:

Age	Turnover (%)
25	7.7%
30	7.2
35	6.3
40	5.2
45	4.0
50	2.6
55	0.9

Pre-retirement Mortality:	RP-2014 Employee Mortality, without projection. Sample deaths per 1,000 employees are as follows:
---------------------------	---

Age	Males	Females
25	0.48	0.17
30	0.45	0.22
35	0.52	0.29
40	0.63	0.40
45	0.97	0.66
50	1.69	1.10
55	2.79	1.67
60	4.69	2.44

Post-retirement Mortality:	RP-2014 Healthy Annuitant Mortality, without projection. Sample deaths per 1,000 retirees are as follows:
----------------------------	---

Age	Males	Females
55	5.74	3.62
60	7.78	5.19
65	11.01	8.05
70	16.77	12.87
75	26.83	20.94
80	44.72	34.84
85	77.50	60.50
90	135.91	107.13

Actuarial Assumptions (Continued)
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Claim Cost per Retiree or Spouse:

Age	Medical/Rx	Dental/Vision
50	\$9,537	\$815
55	11,056	815
60	12,817	815
64	14,426	815
65	4,507	815
70	4,855	815
75	5,229	815

Medical/Rx costs reduced by 15.8% beginning in calendar 2017 to reflect cost of lowest plan.

Retirement Rates:

Age	Pct. Retiring*
50	2.0%
51	3.0
52	4.0
53	5.0
54	6.0
55	8.0
56	10.0
57	12.0
58	14.0
59	16.0
60	18.0
61	20.0
62	21.0
63	22.0
64	24.0
65	100.0

*Of those having met the eligibility for District-paid benefits. The percentage refers to the probability that an active employee reaching the stated age will retire within the following year. Rates below age 55 do not apply until January 1, 2017.

Trend Rate:

Healthcare costs were assumed to increase according to the following schedule:

FYB	Medical/Rx	Dental/Vision
2015	8.0%	4.0%
2016	7.0	4.0
2017	6.0	4.0
2018+	5.0	4.0

Percent Married:

Future Tier 1 retirees: 70% at retirement, with male spouses assumed 3 years older than female spouses. For current retirees, actual dependent data was used. 100% of eligible tier 1 surviving spouses assumed to elect survivor coverage.

Actuarial Certification

The results set forth in this report are based on our actuarial valuation of the health and welfare benefit plans of the Mid-Peninsula Water District ("District") as of July 1, 2015.

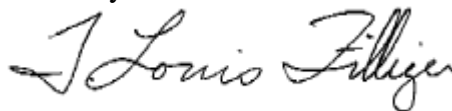
The valuation was performed in accordance with generally accepted actuarial principles and practices. We relied on census data for active employees and retirees provided to us by the District in March, 2016. We also made use of claims, premium, expense, and enrollment data, and copies of relevant sections of healthcare documents provided to us by the District, as well as trust account values as reported to the District by PARS.

The assumptions used in performing the valuation, as summarized in this report, and the results based thereupon, represent our best estimate of the actuarial costs of the program under GASB 43 and GASB 45, and the existing and proposed Actuarial Standards of Practice for measuring post-retirement healthcare benefits. We have assumed no post-valuation mortality improvements, consistent with our belief that there will be no further significant, sustained increases in life expectancy in the United States over the projection period covered by the valuation.

Throughout the report, we have used unrounded numbers, because rounding and the reconciliation of the rounded results would add an additional, and in our opinion unnecessary, layer of complexity to the valuation process. By our publishing of unrounded results, no implication is made as to the degree of precision inherent in those results. Clients and their auditors should use their own judgment as to the desirability of rounding when transferring the results of this valuation report to the clients' financial statements.

The undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Certified by:



T. Louis Filliger, FSA, EA, MAAA Date: 7/23/16
Partner & Actuary

**Mid-Peninsula Water District
Development of Annual OPEB Costs**

Exhibit I

	Amount
Net OPEB (Asset) 6/30/2012	(68,234)
ARC for 2012-13	124,400
Interest on Net OPEB (Asset)	(4,776)
Amortization adjustment to ARC	<u>4,124</u>
Annual OPEB Cost 2012-13	123,748
Employer contribution	<u>(78,546)</u>
Change in Net OPEB (Asset) 2012-13	45,202
Net OPEB (Asset) 6/30/2012	<u>(68,234)</u>
Net OPEB (Asset) 6/30/2013	(23,032)
ARC for 2013-14	151,000
Interest on Net OPEB (Asset)	(1,359)
Amortization adjustment to ARC	<u>1,392</u>
Annual OPEB Cost 2013-14	151,033
Employer contribution	<u>(147,344)</u>
Change in Net OPEB (Asset) 2013-14	3,689
Net OPEB (Asset) 6/30/2013	<u>(23,032)</u>
Net OPEB (Asset) 6/30/2014	(19,343)
ARC for 2014-15	155,500
Interest on Net OPEB (Asset)	(1,141)
Amortization adjustment to ARC	<u>1,169</u>
Annual OPEB Cost 2014-15	155,528
Employer contribution	<u>(131,620)</u>
Change in Net OPEB Obligation 2014-15	23,908
Net OPEB (Asset) 6/30/2014	<u>(19,343)</u>
Net OPEB Obligation 6/30/2015	4,565
ARC for 2015-16	259,428
Interest on Net OPEB Obligation	251
Amortization adjustment to ARC	<u>(314)</u>
Annual OPEB Cost 2015-16	259,365



AGENDA ITEM NO. 7.C.

DATE: August 25, 2016
TO: Board of Directors
FROM: Tammy Rudock, General Manager
Julie Sherman, District Counsel

**SUBJECT: DISCUSS COMPLIANCE WITH SENATE BILL 415 AND
REQUIREMENT FOR DISTRICT ELECTIONS TO BE HELD ON
STATEWIDE ELECTION DATES**

RECOMMENDATION

Discuss compliance with Senate Bill (SB) 415 and requirement for MPWD elections to be held on statewide election dates.

FISCAL IMPACT

None.

BACKGROUND

The Board discussed a related matter last March 2015 after staff received notice from the San Mateo County Counsel regarding the request by three (3) local special districts that requested a move of their odd-year elections to even-year cycles. The impact analysis provided on behalf of the Coastside Fire Protection District, Granada Community Services District, and Midcoast Community Council by the Chief Elections Officer & Assessor-County Clerk-Recorder was that:

“Generally, odd-numbered year General District Elections have higher costs for cities, schools, and special districts because contests scheduled for these elections are borne fully by each entity, and the number of entities with elections during odd-numbered years is fewer, resulting in less cost sharing. Even-numbered year Statewide General Elections include federal, state, and county contests whose costs are borne solely by the County, and these elections constitute a substantial portion of the total cost for Statewide General Elections. When cities, schools, and special districts participate in Statewide General Elections, they accordingly benefit from a lesser portion of the total costs as a result of the County payment for federal, state, and county contests.”

DISCUSSION

Staff was contacted by Terri Cook, Belmont’s City Clerk on August 11th regarding SB 415 and reporting that Belmont staff has had preliminary conversations with its City Council about the requirements. Ms. Cook inquired about the MPWD’s plans as election costs will be higher if there are fewer entities holding odd-year elections. The Belmont City Council intends to take action by late fall.

Ms. Cook shared that 12 cities in San Mateo County hold odd-year elections and some have already taken action to extend terms, while others will soon be doing so. A couple of cities are likely to hold their regular 2017 elections and extend the terms of those members whose terms of office would have expired prior to the next statewide general election.

SB 415 added Chapter 1.7 to the Elections Code and is known as the California Voter Participation Rights Act. Effective January 1, 2018, SB 415 will prohibit a political subdivision, which includes districts organized under state law, from holding an election other than on a statewide election date if doing so has resulted in a significant decrease in voter turnout ("for a regularly scheduled election in that political subdivision ... at least 25% less than the average voter turnout within the political subdivision for the previous four statewide general elections.")

In 2017, terms for the following MPWD Directors will expire:

- Betty Linvill
- Al Stuebing
- Dave Warden

Attachments: SB 415

BOARD ACTION: APPROVED:_____ DENIED:_____ POSTPONED:_____ STAFF DIRECTION:_____

UNANIMOUS_____ ZUCCA_____ WARDEN_____ STUEBING_____ VELLA_____ LINVILL_____

Senate Bill No. 415

CHAPTER 235

An act to add Chapter 1.7 (commencing with Section 14050) to Division 14 of the Elections Code, relating to elections.

[Approved by Governor September 1, 2015. Filed with
Secretary of State September 1, 2015.]

LEGISLATIVE COUNSEL'S DIGEST

SB 415, Hueso. Voter participation.

Existing law generally requires all state, county, municipal, district, and school district elections be held on an established election date. Existing law also establishes certain dates for statewide elections. Existing law requires any state, county, municipal, district, and school district election held on a statewide election date to be consolidated with a statewide election, except as provided.

This bill, commencing January 1, 2018, would prohibit a political subdivision, as defined, from holding an election other than on a statewide election date if holding an election on a nonconcurrent date has previously resulted in voter turnout for a regularly scheduled election in that political subdivision being at least 25% less than the average voter turnout within the political subdivision for the previous 4 statewide general elections, except as specified.

This bill would require a court to implement appropriate remedies upon a violation of this prohibition. The bill would authorize a voter who resides in a political subdivision where a violation is alleged to file an action in superior court to enforce this prohibition, and it would allow a prevailing plaintiff other than the state or political subdivision to collect a reasonable attorney's fee and litigation expenses, as provided.

The people of the State of California do enact as follows:

SECTION 1. Chapter 1.7 (commencing with Section 14050) is added to Division 14 of the Elections Code, to read:

CHAPTER 1.7. VOTER PARTICIPATION

14050. This chapter shall be known and may be cited as the California Voter Participation Rights Act.

14051. As used in this chapter:

(a) "Political subdivision" means a geographic area of representation created for the provision of government services, including, but not limited

to, a city, a school district, a community college district, or other district organized pursuant to state law.

(b) “Significant decrease in voter turnout” means the voter turnout for a regularly scheduled election in a political subdivision is at least 25 percent less than the average voter turnout within that political subdivision for the previous four statewide general elections.

(c) “Voter turnout” means the percentage of voters who are eligible to cast ballots within a given political subdivision who voted.

14052. (a) Except as provided in subdivision (b), a political subdivision shall not hold an election other than on a statewide election date if holding an election on a nonconcurrent date has previously resulted in a significant decrease in voter turnout.

(b) A political subdivision may hold an election other than on a statewide election date if, by January 1, 2018, the political subdivision has adopted a plan to consolidate a future election with a statewide election not later than the November 8, 2022, statewide general election.

14053. Upon a finding of a violation of subdivision (a) of Section 14052, the court shall implement appropriate remedies, including the imposition of concurrent election dates for future elections and the upgrade of voting equipment or systems to do so. In imposing remedies pursuant to this section, a court may also require a county board of supervisors to approve consolidation pursuant to Section 10402.5.

14054. In an action to enforce subdivision (a) of Section 14052, the court shall allow the prevailing plaintiff other than the state or political subdivision of the state, a reasonable attorney’s fee consistent with the standards established in *Serrano v. Priest* (1977) 20 Cal.3d 25, 48-49, and litigation expenses including, but not limited to, expert witness fees and expenses as part of the costs. A prevailing defendant shall not recover any costs, unless the court finds the action to be frivolous, unreasonable, or without foundation.

14055. A voter who resides in a political subdivision where a violation of subdivision (a) of Section 14052 is alleged may file an action pursuant to that section in the superior court of the county in which the political subdivision is located.

14056. This chapter does not apply to special elections.

14057. This chapter shall become operative on January 1, 2018.



AGENDA ITEM NO. 7.D.

DATE: August 25, 2016
TO: Board of Directors
FROM: Tammy Rudock, General Manager

SUBJECT: CONSIDER RESOLUTION 2016-13 RESCINDING STAGE 2 AND AUTHORIZING STAGE 1 WATER SHORTAGE RESPONSE OF MPWD WATER SHORTAGE CONTINGENCY PLAN

RECOMMENDATION

Approve Resolution 2016-13 rescinding Stage 2 and authorizing Stage 1 water shortage response of MPWD Water Shortage Contingency Plan.

FISCAL IMPACT

There would be an impact in the collection of development fees—Water Demand Offset Charges would shift from 50% to 25% when Stage 2 is rescinded and Stage 1 implemented. See attached page 6 from the 2015 MPWD Water Capacity Charge Update.

DISCUSSION

The SFPUC requested a 10% voluntary reduction in water use for FY 2016/2017 for wholesale customers within the Regional Water System. Staff reported a couple of months ago that it would be appropriate for the Board to consider rescission of the existing Stage 2 and implementation of Stage 1 water shortage response per the MPWD Water Shortage Contingency Plan (WSCP). The relevant pages from the MPWD WSCP describing the stages are attached. The attached Ordinances 111 and 113 contain the current MPWD water use restrictions and related enforcement actions.

Since statewide prohibitions remain in place (e.g., no irrigation runoff, no watering medians, no irrigation within 48 hours of rainfall, shutoff nozzle on hose required, no washing driveways/sidewalks, recirculating fountains required, etc.) staff recommends leaving those restrictions in place. Therefore, that is how District Counsel drafted the attached Resolution 2016-13. The continuing standards should be more than sufficient to achieve a 10% (and likely greater) water use reduction within the MPWD system. June and July 2016 water conservation efforts exceeded 20%.

Attachments: Page 6 from the 2015 MPWD Water Capacity Charge Update
Pages 20-25 from the MPWD WSCP
MPWD Ordinances 111 and 113
Resolution 2016-13

BOARD ACTION: APPROVED:_____ DENIED:_____ POSTPONED:_____ STAFF DIRECTION:_____

UNANIMOUS_____ ZUCCA_____ WARDEN_____ STUEBING_____ VELLA_____ LINVILL_____

Proposed Water Demand Offset Charges

	UWMP Water Shortage Response Stages				
	Stage 1	Stage 2	Stage 3	Stage 4	
Water Supply Reduction	Up to 11%	12% - 18%	19% - 32%	33% - 50%	
Required Water Demand Offset	25%	50%	75%	100%	
RESIDENTIAL					
<i>Charge applies per residential dwelling unit</i>					
Single Family Detached Dwelling Unit	\$633	\$1,217	\$1,800	\$2,383	
<i>Applies to residential dwelling units served by meters up to 1-inch.</i>					
Multi-Family Dwelling Unit	\$380	\$730	\$1,080	\$1,430	
<i>Includes: apartments, townhouses, condominiums, and other developments with multiple residential units and separate irrigation meters as designated by the District</i>					
OTHER CONNECTIONS					
<i>Charge based on meter size</i>					
<u>Meter Size</u>	<u>Water Demand</u>				
Up to 3/4"	200 gpd	\$633	\$1,217	\$1,800	\$2,383
1"	333 gpd	1,055	2,028	3,000	3,972
1-1/2"	667 gpd	2,110	4,057	6,000	7,943
2"	1,067 gpd	3,376	6,491	9,600	12,709
3"	2,000 gpd	6,330	12,170	18,000	23,830
4"	3,333 gpd	10,550	20,283	30,000	39,717
6"	6,667 gpd	21,100	40,567	60,000	79,433
8"	10,667 gpd	33,760	64,907	96,000	127,093

Other Related Charges

The District should also consider updating its *Meter Charge* and *Service Line Charge* to ensure these charges reflect the current costs of providing these services. The *Service Line Charge* can be renamed the *Service Line and Meter Installation Charge* to more accurately reflect the purpose of this fee.

4. MPWD'S WATER SHORTAGE STAGES OF ACTION

The number of stages of action in a WSCP is at the discretion of the water supplier. Not including "Normal" supply conditions and routine on-going conservation, the MPWD's WSCP includes four (4) "Stages of Action" to be taken in response to water supply shortages (Water Code §10632[a][1]). The MPWD's 4 Stages of Action and percent reductions to increasingly restrictive water supply conditions, including a reduction of up to 50% are consistent with MPWD's Water Service Ordinance 112, Attachment "103A" Schedule of Rates and Fees.¹⁹ The MPWD's 4 Stages of Action are presented in Table 6 (Table 8-1 in MPWD's 2015 UWMP).

The MPWD has in the past, and will continue in the future, to respond to water supply shortages on a case-by-case basis. For droughts or any other water supply shortage, the MPWD will respond to state mandates and coordinate with SFPUC, BAWSCA, and BAWSCA agencies. The MPWD will implement a program of water conservation measures that will result in use restrictions proportional and responsive to the severity and duration of the reductions needed.

¹⁹ Water Service Ordinance 112, Attachment 103A, Schedule of Rates and Fees
<http://midpeninsulawater.org/uploads/ORDINANCE%20No.%20112%20Attachment%20A.pdf>

Table 6. Shortage Stages and Corresponding Necessary Percent Supply Reductions

Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction* <i>Numerical value as a percent</i>	Water Supply Condition <i>(Narrative description)</i>
1	up to 11%	Water Alert - Slightly restricted water supplies. Voluntary reductions.
2A, 2B	12% - 18%	Water Warning - Moderately restricted water supplies. 2A - voluntary, 2B - mandatory reductions. Continue to look for all ways to reduce water use indoors and outdoors (e.g., increasingly shorter showers, reduced irrigation)
3	19% - 32%	Water Crisis - Severely restricted water supplies. Mandatory reductions. Implement all possible ways to reduce water use indoors and outdoors (e.g., concentrate efforts to reduce landscape irrigation, turn off decorative water features, increase rebates for efficient water equipment)
4	33% - 50%	Water Emergency - Extremely restricted water supplies. Mandatory reductions. Prioritize water use for essential domestic sanitation and other critical needs.
*At least one stage in the Water Shortage Contingency Plan must address a water shortage of 50%.		
NOTES: MPWD Water Demand Offset Charges, UWMP Water Shortage Response Stages, Water Service Ordinance 112 Attachment 103A, Schedule of Rates and Fees, June 25, 2015.		

Although the circumstances surrounding future droughts, or any other long-term supply shortages, may differ from the situations that the MPWD has faced in previous shortages, a systematic approach and framework are in place with MPWD’s updated WSCP. This approach includes practical, initial voluntary conservation stages, followed by mandatory water rationing in response to increasingly severe water shortages.

5. PROHIBITIONS ON END USES

In the past and in 2015 extending into 2016, in response to Governor's Executive Order and State Emergency Regulations²⁰, the MPWD has implemented various increasingly restrictive mandatory drought measures. The following are state-mandated prohibitions in place, starting in 2015:

- Using potable water to irrigate ornamental turf on public street medians
- Using potable water to irrigate landscapes of new homes and buildings inconsistent with California Building Standards Code (CBSC) and Department of Housing and Community Development (DHCD) requirements
- Using outdoor irrigation during, and 48 hours following, measurable precipitation
- Using potable water in decorative water features that do not recirculate the water
- Using hoses with no shutoff nozzles to wash cars
- Runoff when irrigating with potable water
- Using potable water to wash sidewalks and driveways

Water waste is prohibited in all Normal conditions and Water Shortage Stages in the MPWD service area. The MPWD has adopted the Mandatory Restrictions on Outdoor Water Use Ordinance 111.²¹

Table 7 lists the different restrictions and prohibitions on end uses, as well as any penalties, charges or other enforcements that MPWD has developed.

²⁰ State Water Resources Control Board. Resolution No. 2015-0032, May 2015.
http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/docs/emergency_regulations/rs2015_0032_with_adopted_regs.pdf

²¹ MPWD Ordinance 103, Section 4.2. Ordinance 111 implemented Stage 2 water shortage response to the MPWD's WSCP regarding mandatory restrictions on outdoor water use. Ordinance 113 amended sections in Ordinance 111.

Table 7. Restrictions and Prohibitions on End Uses

Stage	Restrictions and Prohibitions on End Users	Additional Explanation or Reference (optional)	Penalty, Charge, or Other Enforcement?
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		No
1	Other - Require automatic shut of hoses		No
1	Landscape - Limit landscape irrigation to specific times	Prohibited between the hours of 10AM-6PM	No
2	Other	Never during or within 48 hours of a rain event	Yes
2	Other	Watering of medians prohibited	Yes
2	CII - Lodging establishment must offer opt out of linen service	Include all measures from Stage 1	Yes
2	Other - Prohibit use of potable water for washing hard surfaces	Include all measures from Stage 1	Yes
2	Landscape - Restrict or prohibit runoff from landscape irrigation	Include all measures from Stage 1	Yes
2	CII - Restaurants may only serve water upon request	Include all measures from Stage 1	Yes
2	Water Features - Restrict water use for decorative water features, such as fountains	Include all measures from Stage 1	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Include all measures from Stage 1,2	Yes
3	Landscape - Other landscape restriction or prohibition	Include all measures from Stage 1,2	Yes
3	Other water feature or swimming pool restriction	Include all measures from Stage 1,2	Yes
4	CII - Other CII restriction or prohibition	Include all measures from Stage 1,2,3	Yes
4	Landscape - Prohibit certain types of landscape irrigation	Include all measures from Stage 1,2,3	Yes

NOTES: Each subsequent Stage includes all restrictions and prohibitions of previous Stage(s).

5.1 Landscape Irrigation

This section includes examples of restrictions or prohibitions for landscape irrigation. On December 16, 2015, the MPWD adopted Ordinance 115, titled “Water Efficient Landscape Ordinance,” effective as of February 1, 2016.²²

The specific categories of prohibitions, as prescribed by DWR, are listed below (MPWD’s 2015 UWMP, Table 8.2):

- Restrict or prohibit runoff from landscape irrigation; encourage cycle and soak management.
- Limit landscape irrigation to specific times, such as early mornings and after sunset.
- Limit landscape irrigation to specific days.
- Prohibit certain types of landscape irrigation such as using sprinklers; using potable water to irrigate decorative turf; limiting irrigation to only to trees and shrubs.
- Other landscape restriction or prohibition, such as other landscape restrictions or prohibitions utilized that do not fall into the above listed categories. This allows flexibility for MPWD to define prohibitions on a case-by-case basis.

5.2 Commercial, Industrial, and Institutional (CII)

The categories of prohibitions on CII are listed below (Table 8.2. in MPWD’s 2015 UWMP):

- Lodging establishments must offer opt out of linen service and are required to place notices in each room that inform the guest that they may opt out of linen service.
- Restaurants may only serve water upon request.
- Commercial kitchens are required to use pre-rinse spray valves as part of their dish-washing operation.
- Other CII restrictions or prohibitions, include: any other CII restriction or prohibition selected by the agency that does not fall into the categories listed above. This allows flexibility for MPWD to define prohibitions on a case-by-case basis.

5.3 Water Features and Swimming Pools

The section below includes examples of restrictions or prohibitions that may fall within the water features and swimming pools categories:

- Restrict water use for decorative water features, such as decorative fountains, and they may only be operated if they use recirculating water. During certain Stages, decorative water features shall not be allowed to operate.

²² MPWD Ordinance 115, “Water Efficient Landscape Ordinance,” effective as of February 1, 2016. http://midpeninsulawater.org/uploads/Approved_Ordinance_No0.115_WELO_B.pdf

- Require covers for pools and spas because they reduce evaporation during hours that the pool or spa is not in use; allow filling of swimming pools only when an appropriate pool cover is in place.
- Other water feature or swimming pool restrictions for reducing water that does not fall into the above listed categories. This allows flexibility for MPWD to define prohibitions on a case-by-case basis.

5.4 Defining Water Features

When MPWD includes a limitation on, or prohibition of, water use for water features, this prohibition or limitation is restricted to decorative water features (e.g., fountains) only and does not apply to swimming pools or spas. If MPWD includes limitations on pools or spas, MPWD will list those separately from limitations on water features.

5.5 Other Requirements

This “Other requirements” category will be used to include prohibitions that do not fall into the previously listed categories:

- Customers must repair leaks, breaks, and malfunctions in a timely manner – Examples include: broken or malfunctioning sprinkler heads must be repaired within 48 hours after the customer receives a notification from the MPWD; Broken pipes must be repaired by the customer within 48 hours of receiving a notification from the water agency.
- MPWD requires that all hoses must have automatic shut off nozzles.
- MPWD may prohibit use of potable water for construction and dust control.
- MPWD may prohibit use of potable water for washing hard surfaces, such as driveways or sidewalks, except in cases of preparing surfaces for painting, and for health and safety.
- MPWD may prohibit vehicle washing except at facilities using recycled or recirculating water.

MPWD works collaboratively with its customers and provides timely information about water conservation measures on its website²³. During the 2015 drought emergency restrictions, the MPWD customers and community, through their active support for conservation, illustrated great community resolve by reducing water use by 27.3% (June 2015 – May 2016)²⁴, which is greater than the 2015 25% state-wide reduction mandated by the Governor’s Executive Order. In the future, if severe potable water reductions are mandated, MPWD could enforce water use prohibitions and water shortage emergency rates using MPWD’s Ordinance 112, Attachment 103A, Schedule of Rates and Fees with Ordinances 111 and 113²⁵.

²³ https://www.midpeninsulawater.org/rules_and_tips.php

²⁴ Source: [file://localhost/MPWD data, website/](file://localhost/MPWD_data_website/) and https://www.midpeninsulawater.org/billing_inserts.php

²⁵ MPWD Water Service Ordinance 112, Attachment 103A, Schedule of Rates and Fees, June 25, 2015. Online: <https://www.midpeninsulawater.org/uploads/ORDINANCE%20No.%20112%20Attachment%20A.pdf>

ORDINANCE NO. 111

**IMPLEMENTING STAGE 2 WATER SHORTAGE RESPONSE OF WATER
SHORTAGE CONTINGENCY PLAN REGARDING MANDATORY RESTRICTIONS
ON OUTDOOR WATER USE**

MID-PENINSULA WATER DISTRICT

WHEREAS, California is experiencing one of the most severe droughts on record; and

WHEREAS, on January 17, 2014, Governor Brown declared a drought state of emergency and called on all Californians to do their part to reduce their water use; and

WHEREAS, on January 31, 2014, the wholesale water provider for the District's water supply, the San Francisco Public Utilities Commission, requested 10 percent voluntary water use reduction system-wide; and

WHEREAS, on April 25, 2014, Governor Brown issued a proclamation of a continued state of emergency to mitigate the effects of drought conditions upon the people and property of California, and called on residents to refrain from wasting water; and

WHEREAS, on July 15, 2014, the State Water Resources Control Board (SWRCB) adopted drought emergency regulations (Resolution No. 2014-0038) that impose mandatory actions by urban water suppliers, which became effective July 28, 2014; and

WHEREAS, the Mid-Peninsula Water District (District) is an urban water supplier, as defined in the SWRCB emergency regulations, that has an adopted Water Shortage Contingency Plan considered sufficient by the California Department of Water Resources by review of the District's Urban Water Management Plan; and

WHEREAS, the District is required to comply with the SWRCB drought emergency regulations that apply to an urban water supplier, and one of the mandatory actions requires the District to implement all requirements and actions of the stage of its Water Shortage Contingency Plan that impose mandatory restrictions on outdoor irrigation of ornamental landscapes or turf with potable water; and

WHEREAS, since February 2014, the District has undertaken a substantial public outreach effort to encourage its customers to reduce water use and conserve water during this state-wide water shortage emergency; and

WHEREAS, Stage 2 of the District's Water Shortage Contingency Plan provides for water rationing programs that may include prohibitions on the wasteful use of water including any use that results in run off to gutters or streets, the use of water to clean hard surfaces such as sidewalks and streets, and restrictions on certain outdoor irrigation; and

WHEREAS, as required by the SWRCB emergency regulations, the District will implement Stage 2 of its Water Shortage Contingency Plan; and

WHEREAS, the actions taken hereinafter are exempt from the provisions of Section 21000 *et seq.* of the Public Resources Code as they constitute a project undertaken as immediate action necessary to prevent or mitigate an emergency pursuant to Title 14, California Code of Regulations Section 15269 and a project undertaken to assure the maintenance, restoration or enhancement of a natural resource pursuant to Title 14, California Code of Regulations Section 15307.

NOW, THEREFORE, BE IT ORDAINED that the Board of Directors of the Mid-Peninsula Water District hereby takes the following actions:

1. The District, based on the directive in the SWRCB emergency regulations, implements Stage 2 of its Water Shortage Contingency Plan.
2. The District, to promote water conservation, prohibits each of the following actions except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a state or federal agency:
 - A. The application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures.
 - B. The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water when immediately not in use.

- C. The application of potable water to driveways and sidewalks.
- D. The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system.
- E. The irrigation of outdoor ornamental landscapes or turf with potable water between the hours of 10 a.m. and 6 p.m.
- F. The use of potable water for outdoor irrigation in an amount that exceeds 80% of the customer's use of water for that purpose in calendar year 2013.

3. The mandatory restrictions on the irrigation of outdoor ornamental landscapes or turf do not apply to the following categories or manner of use:

- A. Watering or irrigating by use of a hand-held bucket or similar container.
- B. Watering or irrigating by a hand-held hose with a positive shut-off valve or similar device.
- C. Properly functioning low volume irrigation system.
- D. Watering for very short periods of time for the express purpose of adjusting or repairing an irrigation system.
- E. Graywater system.
- F. Recycled water.

4. Enforcement

A. Education/Written Notice. If the District believes that water has been or is being used in violation of the above restrictions, the District will first devote efforts to educating the customer(s) in question by contacting them and informing them about the violation.

If the violation occurs again, the District will send a written notice to the customer specifying the nature of the violation and the date and time of occurrence and request that the customer cease the violation and take prompt remedial action. The District will provide the

customer with a copy of this Ordinance and inform the customer that failure to comply may result in temporary termination of water service.

B. On-Site Notification. In the event that a further violation(s) is observed by the District after the written notice sent pursuant to 4.A. above, the District will make reasonable efforts to notify the customer of the violation and post a notice on the front door or other point of entry onto the property requiring the customer to cease the violation and take remedial action within 48 hours of the on-site notification. Failure to comply after the on-site notification may result in the temporary termination of water service and, pursuant to the mandate in the SWRCB Drought Emergency Regulations, a fine of up to \$500.

C. Termination of Water Service/Flow Restrictors

1. In the event that a further violation(s) is observed by District personnel 48 or more hours after the on-site notification, it will be deemed a willful violation of the mandatory restrictions on water use and the District may, but is not required to, temporarily terminate water service or install a flow restrictor.

2. The customer shall be responsible for paying the District's costs incurred in enforcing this Ordinance, including providing the on-site notification, installing a flow restrictor, and temporarily terminating and restoring water service, on a time and material basis.

3. The customer shall take and implement appropriate remedial actions to come into full compliance with this Ordinance, pay all fees and charges described in 4.C.2. above, and bring the customer's water account to good standing before the District proceeds with the reconnection of water service after it has been temporarily terminated.

5. Appeal. Any customer who disputes a staff determination of a violation(s) of the above restrictions may appeal the termination of water service or installation of a flow restrictor in writing to the General Manager. The written appeal must be addressed to the General Manager and include (1) the customer's name; (2) address; (3) account number; (4) a description of the violation(s); (5) the enforcement action taken; and (6) a detailed explanation of the basis of the appeal. The General Manager will evaluate each written appeal based on the following criteria: (1) public health; (2) public safety; and (3) regulatory requirements of a state, federal, or local

agency. The General Manager shall issue a written decision that may be appealed to the Board of Directors within 7 days from the date of issuance. The decision of the Board of Directors shall be final.

6. Effective Date. All provisions of this Ordinance shall become effective after the publication of this Ordinance and remain in effect until the District takes action to cancel the implementation of Stage 2 of the District's Water Shortage Contingency Plan.

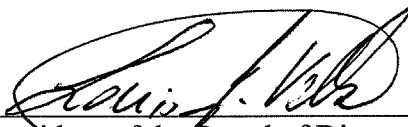
7. Publication. The District shall publish this Ordinance within 15 days of enactment in a newspaper of general circulation in the District and shall post it on the District's website.

PASSED AND ADOPTED this 25th day of September, 2014, by the following vote:

AYES: Stuebing, Linvill, Zucca, Vella, and Warden


NOES: 0

ABSENT: 0



President of the Board of Directors
Mid-Peninsula Water District

ATTEST:



Secretary of the Board

ORDINANCE NO. 113

**AMENDING ORDINANCE NO. 111 IMPLEMENTING STAGE 2 WATER SHORTAGE
RESPONSE OF WATER SHORTAGE CONTINGENCY PLAN REGARDING
MANDATORY RESTRICTIONS ON OUTDOOR WATER USE**

MID-PENINSULA WATER DISTRICT

WHEREAS, California is experiencing one of the most severe droughts on record; and

WHEREAS, on January 17, 2014, Governor Brown declared a drought state of emergency and called on all Californians to do their part to reduce their water use; and

WHEREAS, on April 25, 2014, Governor Brown issued a proclamation of a continued state of emergency to mitigate the effects of drought conditions upon the people and property of California, and called on residents to refrain from wasting water; and

WHEREAS, on July 15, 2014, the State Water Resources Control Board (SWRCB) adopted drought emergency regulations (Resolution No. 2014-0038) that impose mandatory actions by urban water suppliers, which became effective July 28, 2014; and

WHEREAS, the Mid-Peninsula Water District (District) is required to comply with the SWRCB drought emergency regulations that apply to an urban water supplier; and

WHEREAS, in response to the SWRCB emergency regulations, the District adopted Ordinance No. 111, which implemented Stage 2 of the District's Water Shortage Contingency Plan, which provides for water rationing programs that may include prohibitions on the wasteful use of water including any use that results in run off to gutters or streets, the use of water to clean hard surfaces such as sidewalks and streets, and restrictions on certain outdoor irrigation; and

WHEREAS, on April 1, 2015, Governor Brown issued an Executive Order that, in part, directs the SWRCB to impose restrictions on water suppliers to achieve a statewide 25 percent reduction in urban potable water usage through February , 2016; requires commercial, industrial, and institutional users to implement water efficiency measures; prohibits irrigation with potable water of ornamental turf in public street medians; and prohibits irrigation with potable water outside newly constructed homes and buildings that is not delivered by drip or microspray systems; and

WHEREAS, on May 15, 2015, the SWRCB adopted drought emergency regulations (Resolution No. 2015-0032) that impose mandatory actions and reporting requirements by urban water suppliers, which became effective May 18, 2015; and

WHEREAS, in order to comply with the SWRCB requirements, including a 20% conservation standard for the District, the District needs to amend Ordinance No. 111 to incorporate additional mandatory conservation measures applicable to the District's customers; and

WHEREAS, the actions taken hereinafter are exempt from the provisions of Section 21000 *et seq.* of the Public Resources Code as they constitute a project undertaken as immediate action necessary to prevent or mitigate an emergency pursuant to Title 14, California Code of Regulations Section 15269 and a project undertaken to assure the maintenance, restoration or enhancement of a natural resource pursuant to Title 14, California Code of Regulations Section 15307.

NOW, THEREFORE, BE IT ORDAINED that the Board of Directors of the Mid-Peninsula Water District hereby takes the following actions:

1. Section 2 of Ordinance No. 111 is hereby deleted in its entirety and replaced with the following:

The District, to promote water conservation, prohibits each of the following actions except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a state or federal agency:

- A. The application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures.
- B. The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use.
- C. The application of potable water to driveways and sidewalks.

- D. The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system.
- E. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall.
- F. The serving of drinking water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served and/or purchased.
- G. The irrigation with potable water of ornamental turf on public street medians.
- H. The irrigation with potable water of landscapes outside of newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission and the Department of Housing and Community Development.
- I. The irrigation of outdoor ornamental landscapes or turf with potable water between the hours of 10 a.m. and 6 p.m.
- J. Irrigation of outdoor ornamental landscapes or turf more than two days per week with the purpose of not exceeding 80% of the customer's use of water for that purpose in calendar year 2014.


In addition, to promote water conservation, operators of hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily.

- 2. All other provisions of Ordinance No. 111 remain in full force and effect.
- 3. Effective Date. All provisions of this Ordinance shall become effective after the publication of this Ordinance and remain in effect until the District takes action to cancel the implementation of Stage 2 of the District's Water Shortage Contingency Plan.

4. Publication. The District shall publish this Ordinance within 15 days of enactment in a newspaper of general circulation in the District and shall post it on the District's website.

PASSED AND ADOPTED this 28th day of May, 2015, by the following vote:

AYES: Directors Stuebing, Warden, Vella, Zucca,
Linville
NOES:
ABSENT:



President of the Board of Directors
Mid-Peninsula Water District

ATTEST:



Secretary of the Board



RESOLUTION NO. 2016-13

**RESCINDING STAGE 2 AND AUTHORIZING STAGE 1 WATER SHORTAGE RESPONSE OF
MPWD WATER SHORTAGE CONTINGENCY PLAN**

* * *

MID-PENINSULA WATER DISTRICT

WHEREAS, pursuant to Ordinance No. 111, the Mid-Peninsula Water District (District), based on the directive in the State Water Resources Control Board (SWRCB) emergency regulations, which imposed mandatory actions by urban water suppliers in an effort to mitigate the effects of severe drought conditions, implemented Stage 2 of its Water Shortage Contingency Plan; and

WHEREAS, as a result of improved State conditions and the success of Californians in achieving substantial water savings, Governor Brown issued Executive Order B-37-16 on May 9, 2016 directing the Department of Water Resources to work with the SWRCB to develop new targets as part of the permanent framework for urban water agencies to achieve a 20% reduction in urban water use by 2020, with each water agency using this target to customize water conservation practices and adjust its local actions to attain this goal and to continue to permanently prohibit specific practices that waste drinking water, which practices are set forth in Ordinance Nos. 111 and 113; and

WHEREAS, Ordinance Nos. 111 and 113 provide that the restrictions prohibiting specific practices that waste drinking water, along with the provisions related to enforcement of said restrictions, shall remain in effect until the District takes action to cancel the implementation of Stage 2 of the District's Water Shortage Contingency Plan; and

WHEREAS, notwithstanding the District's decision to rescind Stage 2 of the District's Water Shortage Contingency Plan, the District finds that (1) current water shortage conditions require the District to implement Stage 1 of its Water Shortage Contingency Plan, and, (2) consistent with Executive Order B-37-16, the restrictions prohibiting specific practices that waste

drinking water, along with the provisions related to enforcement of said restrictions, set forth in Ordinance Nos. 111 and 113 shall remain in full force and effect until rescinded or amended by the District.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Mid-Peninsula Water District hereby:

1. Rescinds Stage 2 of the District's Water Shortage Contingency Plan; and
2. Implements Stage 1 of the District's Water Shortage Contingency Plan; and
3. Declares that all water use restrictions and enforcement procedures set forth in Ordinance Nos. 111 and 113 shall remain in full force and effect until rescinded or amended by the District.

REGULARLY PASSED AND ADOPTED this 25th day of August 2016, by the following vote:

AYES:
NOES:
ABSENT:

President, Board of Directors
Mid-Peninsula Water District

ATTEST:

District Secretary



TO: Board of Directors

FROM: Tammy A. Rudock
General Manager

DATE: August 25, 2016

MANAGER'S REPORT

FOLLOW-UP FROM 07/28/16 REGULAR BOARD MEETING

- The Contract for Professional Services with John Davidson d/b/a Jrocket77 Design & Marketing for Public Outreach/Education/Relations was executed.
- The First Amendment to Professional Services Agreement between the MPWD and Cornerstone Structural Engineering Group, Inc. was signed.
- The FY 2016/2017 Operating and Capital Budget document was posted to the MPWD website.
- A Capital Improvement Program section was added to the MPWD website where the FAQs, MPWD 5-Year CIP, and other related information were posted.

PERSONNEL MANUAL UPDATE

<i>TASK</i>	<i>TARGET DATE</i>
DRAFT to ACWA/JPIA and District Counsel	02/24/16
DRAFT to MPWD Employees Association for review	03/24/16
Meet and confer with MPWD Employees Association	04/21/16
Review internal working draft of Personnel Manual with Board ad hoc committee	06/21/16
Response expected from MPWD Employees Association	06/30/16
Consider and respond to potential negotiable provisions or impacts (as applicable) with MPWD Employees Association	07/22/16
Complete FINAL DRAFT	08/19/16
Review FINAL DRAFT with Board ad hoc committee	08/26/16
Legal review of FINAL DRAFT	09/02/16
Manual typesetting completed	09/16/16
Initial presentation for Board consideration	09/22/16
Final presentation for Board approval	10/27/16

WATER CONSERVATION PROGRESS

The monthly progress report is attached, including staff's quarterly conservation update.

3-MONTH “LOOK AHEAD” FOR BOARD MEETINGS

SEPTEMBER

- Strategic plan follow-up facilitated by Julie Brown.
- Receive presentation of new MPWD Personnel Manual.
- Receive General Manager’s MPWD annual progress report for FYE June 30, 2016.
- Consider updated Conflict of Interest Code (every even-numbered year).
- Receive BAWSCA report.

OCTOBER

- Receive Annual Financial Audit Presentation for Year Ended June 30, 2016
- Consider approval of new MPWD Personnel Manual.
- Review proposed updated MPWD Miscellaneous Fees.
- Consider proposed Board Bylaws.

NOVEMBER

- Consider/approve annual Board meeting schedule for 2017.
- Receive annual PARS OPEB trust account performance review and confirm investment strategy.
- Receive BAWSCA report.

MEETINGS

<i>DATE</i>	<i>EVENT</i>
July 28 th	Attended safety session with staff and facilitated GM rap session.
August 18 th	Meeting with Municipal Finance Advisors regarding CIP funding options. Conference call with District Engineer and Operations Manager regarding general engineering activities.

UPCOMING MEETINGS/EVENTS

- HIA Meeting (Belmont) – September 1, 2016
- BAWSCA Water Management Meeting (Foster City) – September 1, 2016
- ACWA Region 5 Event (Byron) – September 18-19, 2016
- CSDA Annual Conference (San Diego) – October 10-13, 2016
- ACWA/JPIA Fall Conference & Exhibition (Anaheim) – November 28, 2016 – December 2, 2016



August 25, 2016

WATER CONSERVATION PROGRESS REPORT

The report due August 15th to the SWRCB was timely submitted. July’s total water consumption was 120,096 units. The reduction (compared with 2013) measured -23%, and the R-GPCD was 96.9.

2016/2017 MONTH	UNITS		2013 UNITS	PERCENT CHANGE*		CUMULATIVE WATER SAVINGS*		R-GPCD**		2013 R-GPCD
	16/17	15/16		16/17	15/16	16/17	15/16	16/17	15/16	
June 2016	115,047	103,863	150,614	-24.0%	-31.0%	-24.0%	-31.0%	90.6	82.3	122.6
July	120,096	105,639	156,081	-23.0%	-32.3%	-23.5%	-31.7%	96.9	81.1	122.9
August		106,832	155,788		-31.4%		-31.6%		82.0	122.7
September		105,459	145,551		-27.5%		-30.6%		83.6	118.5
October		98,345	122,117		-19.5%		-28.3%		75.5	96.2
November		77,733	106,535		-27.0%		-28.1%		61.6	86.7
December		70,423	94,062		-25.1%		-27.7%		54.0	74.1
January 2017		69,741	84,202		-17.2%		-26.4%		53.5	66.3

**R-GPCD = Residential-Gallons per Capita per Day). The SWRCB performance standard for indoor use is 55GPCD.
 (Note: Beginning in July 2016, the SWRCB formula for calculating the R-GPCD will include factors from the MPWD’s 2015 Urban Water Management Plan adopted June 23, 2016: 90% residential use of total production and 26,924 population projection. For June 2016 ONLY, the SWRCB formula for calculating the R-GPCD included MPWD factors: 85% residential use of total production, and 2014 population projection—26,730—from 2010 Urban Water Management Plan.)

WATER WASTE COMPLAINTS

MPWD started tracking water waste complaints in July 2014. All have been investigated and resolved through communications and education.

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	YEAR TOTAL
2016	2	1	4	2	6	1	1						17
2015	2	0	5	12	6	6	12	5	5	3	1	0	57
2014	-	-	-	-	-	-	3	6	3	4	7	0	23

QUARTERLY CONSERVATION UPDATE

Staff’s quarterly report on water conservation activities is attached.

STATEWIDE UPDATES

The SWRCB statewide Emergency Water Conservation Regulations Update dated August 2, 2016, and Media Release dated August 2, 2016, are attached for information.

Attachments: Staff Quarterly Report on Water Conservation Activities
 SWRCB statewide Emergency Conservation Regulation Update dated August 2, 2016
 SWRCB Media Release dated August 2, 2016

2016 STATEWIDE WATER CONSERVATION REGULATIONS

The SWRCB adopted a statewide water conservation approach that replaces the percentage reduction-based standard with a localized “stress test” benchmark. Urban water suppliers were mandated to locally develop conservation standards based upon each agency’s specific circumstances. The new statewide standards required local water agencies to ensure a 3-year supply assuming three more dry years like the ones recently experienced from 2012 to 2015. Water suppliers that would face shortages under three additional dry years would be required to meet a conservation target equal to the amount of the shortage. For example, if a water supplier’s projections include a 10% supply shortfall, its mandatory conservation standard would be 10% (compared with 2013 consumption).

The SFPUC’s *Self-Certification of Supply Reliability for Three Additional Years of Drought and Update to Final Water Supply Availability Estimate* dated June 9, 2016 was submitted to the State before the June 15th deadline. The SFPUC’s 3-year look ahead is good for the RWS supply and a 10% voluntary reduction (compared with 2013 consumption) was requested.

The SFPUC used actual CY 2013 and CY 2014 demand for each of its wholesale customers, and then averaged the two calendar years for its projected supply for each customer under the SWRCB’s proposed 3-year drought methodology. For the MPWD, the projected supply is 1,038.8 MG (1.4 million units) for each of the water years 2017, 2018, and 2019. For comparison in units, the MPWD’s CY demand was as follows:

CALENDAR YEAR	DEMAND IN UNITS
2013	1.5 million
2014	1.3 million
2015	1.1 million

The MPWD’s self-certification was submitted to the State on June 20th. It was posted to the MPWD website as required, together with the SFPUC’s June 9th self-certification as backup documentation.

The SWRCB regulations further required continued monthly conservation reporting by urban water suppliers. Prohibitions against certain water uses were also extended.

The new water conservation standards took effect in June 2016 and remain in effect until the end of January 2017.

HISTORICAL INFORMATION

JUNE 2015 THROUGH MAY 2016

June 1, 2015 was the start of the measurement period for the 2015/2016 statewide water conservation goals. The MPWD system's conservation goal was 20% when compared to 2013 water consumption.

2015/2016 MONTH	2015/2016 UNITS	2013 UNITS	PERCENT CHANGE*	CUMULATIVE WATER SAVINGS*	2015/2016 R-GPCD	2013 R-GPCD
June 2015	103,863	150,614	-31.0%	-31.0%	82.3	122.6
July	105,639	156,081	-32.3%	-31.7%	81.1	122.9
August	106,832	155,788	-31.4%	-31.6%	82.0	122.7
September	105,459	145,551	-27.5%	-30.6%	83.6	118.5
October	98,345	122,117	-19.5%	-28.3%	75.5	96.2
November	77,733	106,535	-27.0%	-28.1%	61.6	86.7
December	70,423	94,062	-25.1%	-27.7%	54.0	74.1
January 2016	69,741	84,202	-17.2%	-26.4%	53.5	66.3
February	71,345	86,478	-17.5%	-25.4%	58.5	75.4
March	71,219	106,663	-33.2%	-26.2%	54.6	84.0
April	82,916	120,265	-31.1%	-26.6%	65.7	87.9
May	101,955	155,736	-34.5%	-27.3%	78.2	122.7

*Compared to 2013.

The R-GPCD (Residential-Gallons Per Capita Day) calculations are highlighted above in yellow. The SWRCB performance standard for indoor use is 55GPCD. (Note: For 2015/2016, the SWRCB formula for calculating the R-GPCD included MPWD factors: 85% residential use of total production, and 2014 population projection—26,730—from 2010 Urban Water Management Plan.)

JANUARY THROUGH MAY 2015 AND FEBRUARY THROUGH DECEMBER 2014

The 2015 and 2014 tables reflect MPWD's water system purchases in units (1 unit = 748 gallons), percentage change comparison, and cumulative average savings. The statewide goal was 15%.

2015 MONTH	2015 UNITS	2014 UNITS	2013 UNITS	PERCENT CHANGE*	CUMULATIVE WATER SAVINGS*	2015 R-GPCD	2014 R-GPCD	2013 R-GPCD
January	82,360	102,910	84,202	-2.2%	-2.2% / -15.1%**	64.9	81.1	66.3
February	79,782	73,221	86,478	-7.7%	-5.0% / -14.5%	69.6	63.9	75.4
March	102,964	89,152	106,663	-3.5%	-4.5% / -13.7%	81.1	70.2	84.0
April	91,491	96,019	120,265	-23.9%	-9.3% / -14.4%	74.5	78.2	87.9
May	97,806	126,934	155,736	-37.2%	-14.9% / -15.8%	77.1	100.0	122.7

*Compared to 2013. **Cumulative total since February 2014.

2014 MONTH	2014 UNITS	2013 UNITS	PERCENT CHANGE*	CUMULATIVE WATER SAVINGS*	2014 R-GPCD	2013 R-GPCD
February	73,221	86,478	-15.3%	-15.3%	64	75
March	89,152	106,663	-16.4%	-15.9%	70	84
April	96,019	120,265	-20.2%	-17.3%	78	98
May	126,934	155,736	-18.5%	-17.6%	100	123
June	139,729	150,614	-7.2%	-15.5%	114	123
July	134,669	156,081	-13.7%	-15.2%	106	123
August	128,924	155,788	-17.2%	-15.5%	102	123
September	118,284	145,551	-18.7%	-15.9%	96	119
October	109,652	122,117	-10.2%	-15.3%	92	96
November	86,670	106,535	-18.6%	-15.6%	71	87
December	72,835	94,062	-22.6%	-16.2%	57	74

*Compared to 2013.

The R-GPCD (Residential-Gallons Per Capita Day) calculations are highlighted above in yellow. The SWRCB performance standard for indoor use is 55GPCD. (Note: For Calendar Years 2014 and 2015 tracking, the SWRCB formula for calculating the R-GPCD included MPWD factors: 85% residential use of total production, and population from 2010 Urban Water Management Plan—26,030.)



DATE: August 18, 2016

TO: Tammy Rudock, General Manager

FROM: Jeanette Kalabolas, Water Conservation Administrative Specialist

SUBJECT: 2016 SECOND QUARTER WATER CONSERVATION STAFF REPORT

SUBJECT #1: MPWD Rebate Programs

BACKGROUND: Provide a summary of Fiscal Year Washing Machine (WM), High-Efficiency Toilet (HET), Lawn Be Gone (LBG) and Rain Barrel Rebates issued.

DISCUSSION: 69 WM rebates, 175 HETs, 12 LBG rebates and 27 rain barrels were paid out in FY 2015-2016. 8 LBG rebates remain pending into the next Fiscal Year (FY) 2016-2017. BAWSCA issued grant reimbursement checks to date as follows: \$4,025.63 for WM's, \$7,834.59 for HETs, \$2,990.72 for the LBG program and \$3,400.00 for Rain Barrels for the replacement period of February 2014 – March 2015. All fore-mentioned rebate programs are being renewed for FY 2016-2017. MPWD will continue to consider enrollment in BAWSCA rebate program opportunities.

SUBJECT #2: SFPUC Requests 10% Voluntary Reduction from Retailers

BACKGROUND: In May 2016 the state adopted a new Water Emergency Self Certification Regulation in place of an updated order issued February 2016. Based on several factors including the results of the state's required assumptions, approach and findings, and calculation analysis, SFPUC decided to issue a 10% voluntary call to action for its retail customers.

DISCUSSION: Recognizing that drought issues, although less severe than years past, continue to affect California the State Water Resources Control Board (SWRCB) adopted a new statewide self-certification water approach that shall remain in effect June 2016 to January 2017. It was through this designated assessment process that SFPUC analyzed a savings precedent of some measure needed to be established for its retail customers. 2013-2015 conditions were reviewed and although findings determined that State Board requirements could essentially be met without shortages, and a 0% conservation standard was ultimately reported, challenges remained. Even with ample spring precipitation and snow pack at 89% the fact remains that system reservoir storage did not reach full capacity and it was agreed that if the coming water year(s) remained dry, ample carryover storage will be required to protect against additional water use reductions. Hence, the SFPUC's voluntary call for 10% reduction.

SUBJECT #3: WaterWise Resource Action Programs (RAP) FY15-16 Annual Report

BACKGROUND: RAP is a full service sponsor funded solution platform provider that specializes in innovative and customized conservation outreach by offering savings and efficiency programs to school grades K-12. The program is designed for school administrators, parents and teachers to emphasize conservation education and introduce families to the concept of natural resources, while teaching them the importance of environmental responsibility in their daily lives through the use of proven and time-tested materials.

DISCUSSION: Our executive summary concluded that five schools participated in FY 2015-2016's program: Benjamin Fox, Central, Cipriani, Immaculate Heart of Mary & Nesbit for a total of 382 5th-grade students & eight teachers. Teachers were asked to complete a short survey and the results found that 100% of teachers would recommend this program to colleagues. Students participated in the survey process as well by taking a test at the start of the program, then again upon completion to measure knowledge gained. These results established that student knowledge improved from 71% to 82%. The report also confirmed that the program had a significant impact within the community by helping to generate resource savings through the installation of water efficient devices in the home. Estimated savings generated annually by the 388 kits distributed were as follows: showerheads - 247,712 gallons, kitchen aerators - 68,651 gallons, bathroom aerators - 180,979 gallons, 191,253 gallons of savings would be generated if shower timers were used, 62,356 gallons of savings would be generated if all toilet leaks were repaired and 6,736 gallons of savings would be generated if all faucet leaks were repaired. It is also worth noting that the Bay Area Region as a whole under BAWSCA's program canopy performed extremely well – 2,452 total students participated for a combined projected annual water savings of 12,957,133 gallons.

SUBJECT #4: Footsteps "Summer Camp" Visit

BACKGROUND: In 2010 MPWD developed a Fieldtrip Education Program, which is offered to community schools, scouts, camps and other organizations interested in learning more about conservation and the water industry.

DISCUSSION: Belmont Redwood Shores School District's summer care facilities visited the District on Wednesday, June 29, 2016 from 10:00AM-11:30AM. Our regular curriculum typically includes a CA Water Awareness Video Presentation, review of District Scale Model, a water experiment, inner workings of the Water Distribution System through hands-on demonstrations and a rain-barrel craft activity. Snacks are also provided. In an effort to accommodate Footsteps' scaled-down group size and diversified ages (K-8), at the request of the site's Director, a shortened and less stringent education package was offered. The CA Water Awareness Video was shared. Brent played the District's "NEW" Family Feud game with the students based on water themed questions complete with buzzers and television graphics. Then Rene gave an overview of the District's scale model while snacks were provided and the event concluded with the re-introduction of one of our more popular past crafts, the teaching of the "Water Cycle" through the building of terrariums.

SUBJECT #5: AWWA Water Loss Audit Technical Assistance Program (TAP)

BACKGROUND: California Senate Bill 555 (2015) requires urban retail water suppliers to submit a validated water loss audit annually to the California Department of Water

Resources (DWR) beginning October 2017 based on a state initiative given the DWR to develop rules and guidance on water loss by January 1, 2017. This condition builds on SB 1420 (2014) which directs urban water suppliers to complete a water loss audit and include a quantification of water loss in their urban water management plans.

DISCUSSION: In an effort to assist urban retail water suppliers in completing validated water loss audits, the CA-NV section of the American Water Works Association (AWWA) and the newly formed California Water Loss Collaborative, with funding from a revolving fund state grant administered by the SWRCB, has developed an educational tool that provides technical assistance by knowledgeable professionals to urban retail water suppliers to help refine water audit practices. Specifically, the Water Loss TAP was developed as an aid to assist retailers with future urban water management plans and to offer assistance in the preparation and validation of water loss audits. The program is free and will consist of a series of two (2) in-person sessions and 2 follow-up technical assistance phone conferences over 1.5 year period. Brent and I have enrolled in the program and both have completed the introductory webinar held Thursday, July 28, 2016 from 10:00AM-11:30AM.

SUBJECT #6: BAWSCA and Stanford Turf Removal Study

BACKGROUND: In June 2016, a quantitative and qualitative effectiveness study was performed by a team of Stanford students evaluating the effectiveness of BAWSCA's Lawn-Be-Gone turf replacement rebates program by analyzing the independent turf removal programs within select member Agency regions.

DISCUSSION: The study explored a handful of research questions - How BAWSCA Agency turf removal and landscape programs impact water use trends? What program elements contribute to its effectiveness? How do demographic factors impact participation and what recommendations emerge from this study to best improve management practices in the future? The results demonstrated two key findings - 1) there has been a significant increase in turf conversion program participation over the past two years, and 2) they appear to be responsible for an observable amount of water savings within the agencies studied, although other outside factors such as the rising water rates and Governor Brown's drought mandate may also be directly correlated with water use trends and help explain overall declines in water use. The results further recommend a framework for analyzing future water savings, measures to reduce overall program costs, and strategies for addressing barriers to program participation. Simple implementations such as a uniform and consistent process for data collection, photo submissions in place of pre-inspections and landscape contractors to cut program costs and a one-stop website were also suggested to streamline the program process and improve program accessibility.

SUBJECT #7: California's "Save Our Water" 2016 Agency Tool Kits Released

BACKGROUND: Save Our Water (SOW) was created in 2009 as a partnership between the Association of California Water Agencies and the California Department of Water Resources. The program reaches millions of Californians each year with its water saving messaging and tips by offering ideas and inspiration for permanent reduction in water use regardless of drought conditions.

DISCUSSION: A new marketing and creative firm "Lunia Blue" was hired by the state to revamp this year's tool kit. The intended message for 2016 is "water conservation, it's

for life". It was determined that a more neutral catch phrase was necessary to move the public's focus away from drought toward the direction of lifestyle changes. A \$2M budget was approved. Paid media bulletin boards and 2015 thank you radio spots (no funding for TV) will soon pop up across the state and the website will be updated to include – new graphics, around the town (personal story) feature, a fresh new tips page, as well as a video portfolio section. Partner buys are still available for interested Agencies, focus group possibilities are also still being explored and to date no celebrity endorsements have been found. The next scheduled webinar to provide an update on efforts will be held Tuesday, August 23, 2016 from 10:00-11:00AM.

SUBJECT #8: State Water Corps Program

BACKGROUND: Water Corps is being introduced as a 2016 initiative of the parent program CivicSpark by the Governor under the AmeriCorps umbrella that will build on the success of CivicSpark with participants focused more specifically on water infrastructure, efficiency, and capacity development. CivicSpark is a program that was launched in 2014 by Governor Brown with the objective to focus on local government capacity building and is managed by the Local Government Commission (LGC) in partnership with the Governor's Office of Planning and Research.

DISCUSSION: The impact and severity of California's recent drought, land use planning, groundwater management, flood mitigation, supply-demand challenges, and watershed health need to be addressed from an integrated approach as water remains a preeminent asset to California's viability. To better assist in this given capacity the LGC is developing a special team of members focused specifically on local government challenges related to water. The Water Corp program will select fellows who will work as liaisons between many cities, counties, local water providers, and state agencies within specific service regions. They will complete specific research, planning, and implementation service projects for chosen beneficiaries by following a 3-step process – 1) use of a standardized instrument to identify current integrated water resource and management needs, 2) share info through staff trainings and stakeholder education and 3) implement specific water focused projects based on capacity assessment results. An open call for program partner hosts and sponsors was held March-June 2016 and individual applications for fellows interested in joining were due July 2016. Fellows will learn transferable job skills, develop strong professional networks, and gain valuable experience in multiple aspects of the water sector while helping to achieve local and statewide water management goals. The LGC is currently in the beneficiary solicitation and security phase of the project through September 2016 with initial launch set for mid-October 2016.

Emergency Water Conservation Regulation Update

Office of Research, Planning, and Performance

August 2, 2016

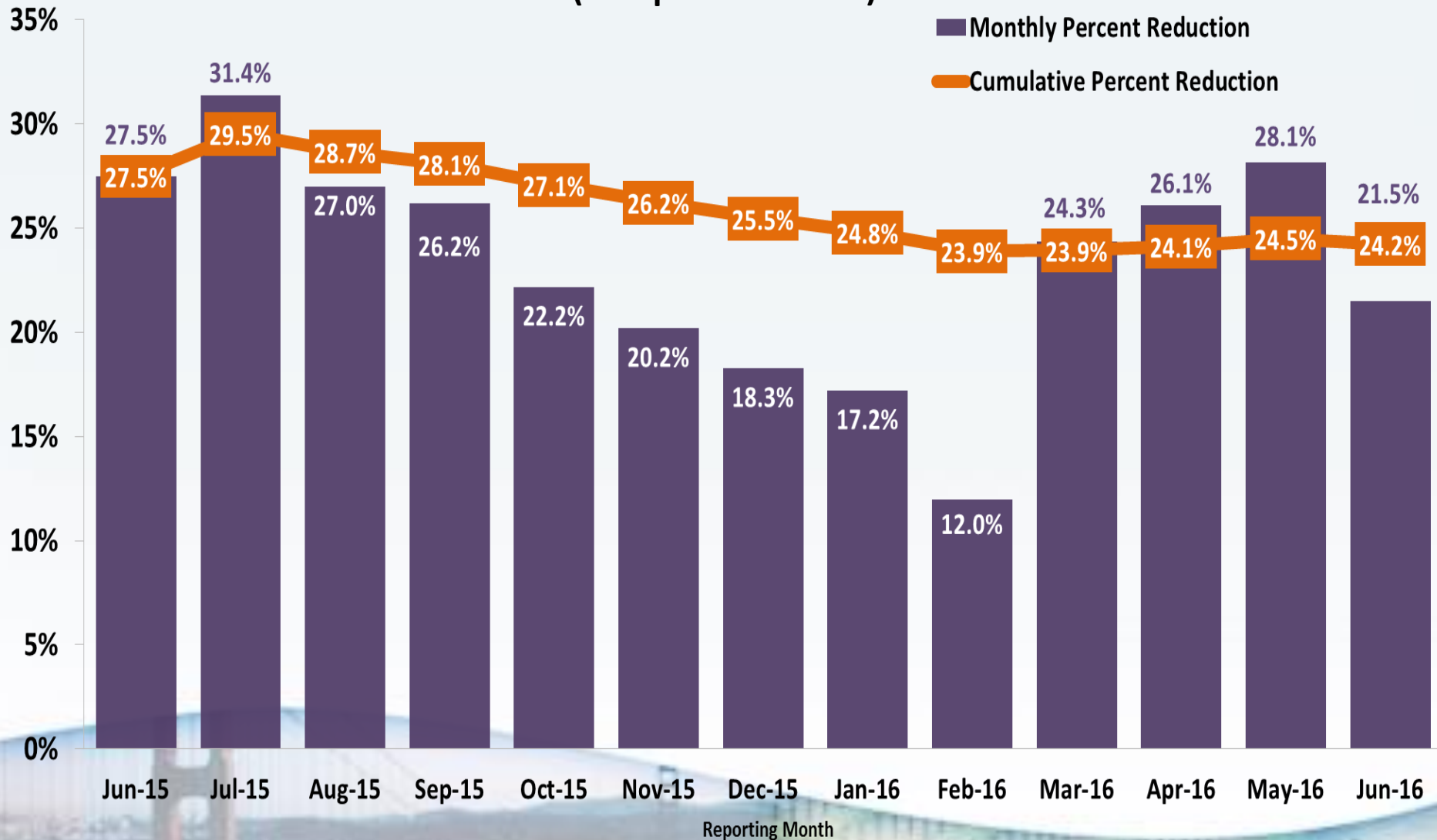


Status of Implementation

- Water production data collected from June 2014 through June 2016 (25 months)
- Thirteen months of statewide urban water conservation requirements (June 2015 – June 2016)
- June 2016: Statewide 21.5 percent reduction from June 2013 baseline
- Cumulative statewide reduction June 2015 - June 2016: 24.2 percent (1.75 million acre-feet)

Statewide Water Production Percent Reduction

(Compared to 2013)



Average Statewide June 2016 R-GPCD = 105

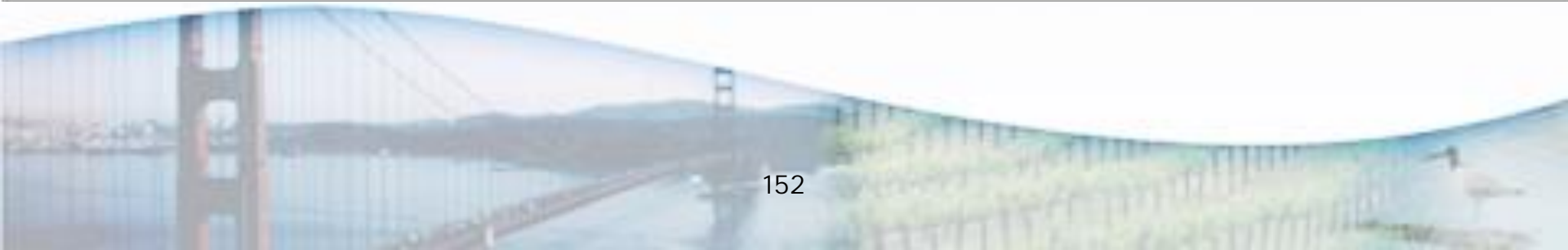
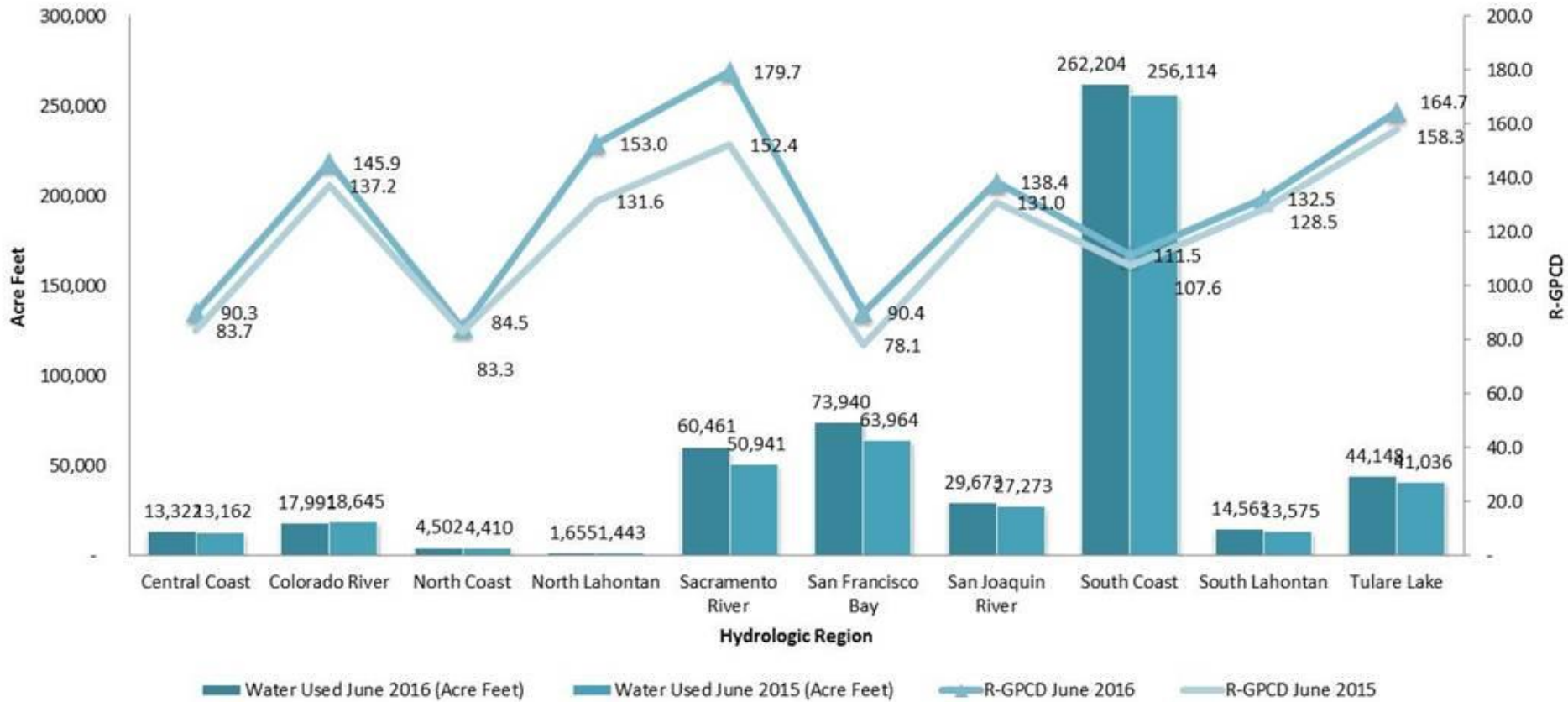
Statewide Cumulative Savings

(June 2015 – June 2016)

- 1,752,918 acre-feet (571.2 billion gallons) of water saved
- Savings is enough to provide 8.8 million Californians (22.5% of state population) with water for one year



June 2016 Compared to June 2015 by Hydrologic Region



Self-Certified Conservation Standards

- 379 of 410 suppliers submitted self-certifications
 - 31 suppliers will retain their pre-existing conservation standard
- Reviews ongoing due to follow up with some suppliers
 - Need for well documented analysis

Conservation Compliance & Enforcement

- Follow up with non-reporting suppliers
- Information Orders for incomplete self-certification submissions
- Assess compliance once self-certification conservation standards are finalized

Long-term Water Conservation

- Executive Order (EO-B-37-16):
 - Use Water Wisely - Targets
 - Eliminate Water Waste
 - Drought Resiliency & Preparedness
 - Agricultural Water Management Planning
- Urban Advisory Group Public Meeting
August 15
- Board Workshop in October

Next Steps

- Complete review of self-certifications and provide update
- Follow up with individual water suppliers as needed
- Begin work on permanent water waste prohibitions



**Save Our Water
and Our Trees!**

saveourwater.com/trees



Media Release

Statewide Water Conservation Declines to 21.5 Percent in June; Water supplier “Stress Tests” still under review

FOR IMMEDIATE RELEASE

Aug. 2, 2016

Contact: George Kostyrko

george.kostyrko@waterboards.ca.gov

SACRAMENTO — With water conservation falling to 21.5 percent savings in June 2016—down from 27.5 percent a year ago—the State Water Resources Control Board today announced that it is closely monitoring conservation levels, will scrutinize actions by water suppliers where use has risen dramatically and is carefully reviewing the "stress tests" to ensure that water supply reliability claims are complete and accurate.

"Californians have continued to conserve without top down mandates, but the question is whether we can save enough and keep it up for the long haul," said State Water Board Chair Felicia Marcus. "While last winter's rains allowed us to ease state mandated conservation, that didn't mean the drought was over or that local conservation efforts should stop -- and we're looking carefully at the data to see what's happening where, and why."

Cumulatively, local water suppliers have saved 1.75 million acre feet in the 13 months since mandatory conservation goals began – enough water to supply 8.8 million people for a year. The cumulative average savings June 2015-June 2016 is 24.2 percent.



Although new regulations that took effect in June give local water suppliers more autonomy to set their own conservation goals based on local supply conditions, the State Water Board has maintained since mid-2014 that it expects suppliers to continue emphasizing water conservation to their customers as a top priority as California enters the summer months, when the opportunity for water savings is greatest. While local water suppliers may have relaxed water use restrictions that were in place last summer – the statewide prohibitions, from operation of fountains without recirculating pumps, to irrigation of turf in street medians, remain in place.

"Conservation should be the California way of life," said Marcus. "Some relaxation of conservation in light of the relief we got last winter and other supply conditions is appropriate and expected; abandonment of conservation is not. Saving water now extends local water

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY



STATE WATER RESOURCES CONTROL BOARD

1001 I Street, Sacramento, CA 95814 • Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 • www.waterboards.ca.gov



supplies into an uncertain future, and saves money in the long term on the need to develop additional supplies. In particular, the summer months are the time it's easiest to save by reducing outdoor irrigation to the minimum needed to water trees and shrubs while letting our lawns go the color of the surrounding hillsides.”

June Conservation Data

- Statewide water savings for June 2016 was 21.5 percent (143,130 acre feet or 46.6 billion gallons), a decrease from May 2016's 28.1 percent savings, and also a decrease from June 2015's 27.5 percent statewide savings (60.6 billion gallons).
- Cumulative statewide percent reduction for June 2015 – June 2016 (thirteen months) is 24.2 percent, which equates to 1,752,918 acre-feet (571.2 billion gallons).
- Statewide average R-GPCD for June 2016 was 104.9 gallons; (an 18 percent increase) up from 86.7 R-GPCD in May 2016 and also above 98.1 R-GPCD reported for June 2015. [All June data can be found on this page.](#)

Revised Emergency Regulations

Starting in June, the State Water Board's recently updated [emergency water conservation regulations](#) give urban water agencies the ability to set their own conservation standards based on a “stress test” of supply reliability. Water suppliers must demonstrate that they have sufficient supplies to withstand three years of continuous drought or take additional measures that include mandatory conservation targets. The regulation is in effect through January 2017.

The deadline to submit the “stress test” results and three-year resiliency plans was June 22. While most urban water suppliers and wholesale water providers have submitted materials, the State Water Board staff is following up with a number of suppliers whose submissions appear inaccurate, incomplete, or unclear. Once all of the submissions have been received and are complete, the State Water Board will make them publicly available.

While water suppliers may calculate lower conservation targets for purposes of state enforcement, the State Water Board expects that they will continue to promote and achieve water conservation at the local level and enforce prohibitions on wasting water first enacted in July 2014. The Board expectation is that all water suppliers will continue encouraging their customers to conserve, even if they pass their “stress test” and demonstrate that they will have sufficient water after three additional dry years.

Moreover, the Board is prepared to come back in early 2017 to reimpose new mandatory water restrictions if needed.

Permanent Ban on Wasting Water

The recently adopted regulation is part of a wider effort to build on short-term, emergency water restrictions to establish permanent conservation measures that improve long-term drought preparedness and eliminate the worst water-wasting practices. These actions will help achieve a top priority of the state's Water Action Plan: to "Make Conservation a California Way of Life."

In May, Governor Edmund G. Brown Jr. issued an [executive order](#) calling for new permanent water use efficiency targets for each urban water supplier and for strengthening local Water Shortage Contingency Plans. The local "stress test" data and three-year resiliency plans collected by the State Water Board will serve as a bridge to these actions and inform the development of new water use efficiency targets.

The State Water Board regulation also continues the statewide ban on specific wasteful uses, such as hosing off sidewalks, driveways and other hardscapes; washing cars with hoses not equipped with a shut-off nozzle; and watering lawns in a manner that causes runoff. Prohibitions also remain against homeowners associations or local governments taking action against homeowners who reduce or stop watering lawns. As directed by the executive order, the State Water Board will be making these prohibitions permanent.

Background

In his April 1, 2015 [Executive Order](#), in light of the worst snowpack in 500 years, Gov. Edmund G. Brown Jr. mandated a 25 percent water use reduction by users of urban water supplies across California. In May 2015, the State Water Board adopted an emergency regulation requiring a 25 percent reduction in overall potable urban water use statewide from June 2015 through February 2016.

On Feb. 2, 2016, based on Gov. Brown's [November 2015 Executive Order](#), the State Water Board approved an updated and extended emergency regulation. The extended regulation responded to calls for continuing the conservation structure that had spurred such dramatic savings while providing greater consideration of some factors that influence water use: climate, population growth and significant investments in new local, drought-resilient water supplies such as wastewater reuse and desalination.

On May 9, 2016, Governor Edmund G. Brown Jr. issued [Executive Order B-37-16](#), requiring the Board to adjust its emergency water conservation regulation through the end of January 2017 in recognition of improved urban water supply conditions across the state and, separately, take action to make some of the requirements of the regulation permanent. The Board [adopted the revised regulation](#) on May 18. June was the first month under the revised regulation.

Since June 2014, the State Water Board has been tracking water conservation for each of the state's larger urban water suppliers (those with more than 3,000 connections) on a monthly basis. Compliance with individual water supplier conservation requirements is based on cumulative savings. Cumulative tracking means that conservation savings will be added together from one month to the next and compared to the amount of water used during the same months in 2013.

California has been dealing with the effects of an unprecedented drought. To learn about all the actions the state has taken to manage our water system and cope with the impacts of the drought, visit Drought.CA.Gov. Every Californian should take steps to conserve water. Find out how at SaveOurWater.com. While saving water, it is important to properly water trees. Find out how at www.saveourwater.com/trees. In addition to many effective local programs, state-funded turf removal and toilet replacement rebates are also available. Information and rebate applications can be found at: www.saveourwaterrebates.com/.

###



TO: Board of Directors
 FROM: Candy Pina
 DATE: August 25, 2016

ADMINISTRATIVE SERVICES MANAGER'S REPORT

CONFERENCES, TRAINING, & MEETINGS:

- 1) Misty Malczon/Laura Ravella/ Candy Pina: 08/01-08/03/16 – Field Audit
- 2) Jeanette Kalabolas/Candy Pina: 08/02/16 – “National Night Out” in Belmont, CA
- 3) Candy Pina: 8/03, 8/10, 8/17, 8/31/16 – Weekly Springbrook Update Meetings
- 4) Jeanette Kalabolas/Laura Ravella/Candy Pina: 08/08-08/12/16 – “Springbrook” On-site training
- 5) Jeanette Kalabolas: 08/17/16 – BAWSCA’s Conservetrack Training Part 2
- 6) Jeanette Kalabolas/Candy Pina: 08/22-26/16 – ACCELA Conference in Los Angeles

FINANCIAL REPORTING:

- 1) Schedule of Cash and Investments:

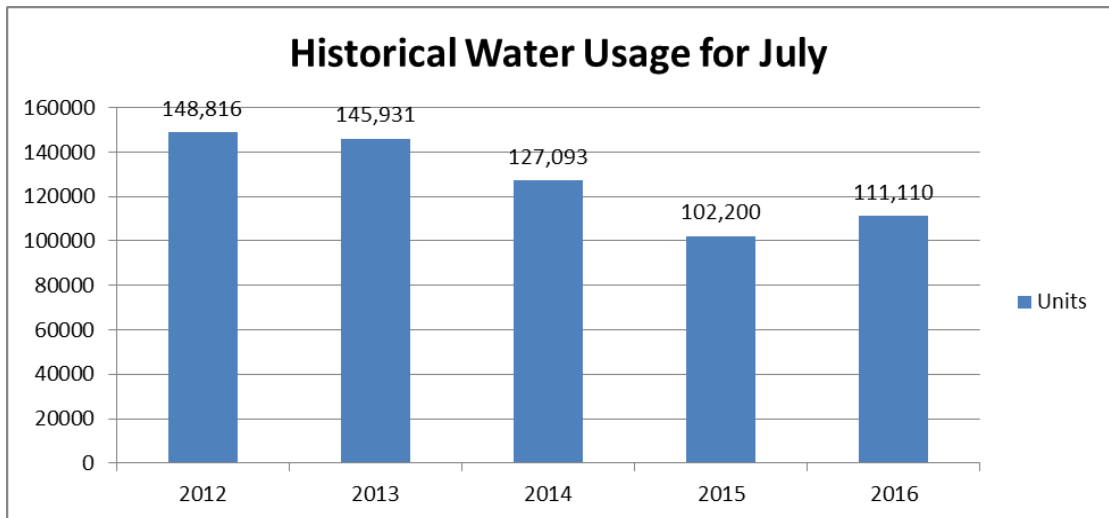
SCHEDULE OF CASH AND INVESTMENTS		
CASH ACCOUNT	BALANCE @ 07/31/16	BALANCE 08/16/16
PETTY CASH	400	400
CASH DRAWER	200	200
WELLS FARGO CHECKING	\$ 104,265	\$ 549,631
LAIF	\$ 4,055,161	\$ 4,055,161
TOTAL	\$ 4,160,026	\$ 4,605,392

Month End Balance of PARS/OPEB for June 2016 (July 2017 report not available): \$626,356.68. Annual report for July 2015-June 2016 had contributions of \$181,575.00; Earnings of \$13,043.87; and Expenses of \$1,179.47.

MPWD RESERVE FUNDS				
Reserve Account	Balance @ 07/31/2014	Balance @ 07/31/2015	Balance @ 07/31/2016	Budget for Reserve Policy
Capital Reserves	\$ 1,879,466	\$ 889,457	\$ 1,555,161	\$ 2,500,000
Emergency Reserves	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000
Working Capital Reserves	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
TOTAL RESERVE FUNDS	\$ 4,379,466	\$ 3,389,457	\$ 4,055,161	\$ 5,000,000

2) Water Revenue Report:

WATER REVENUES for FISCAL YEAR 2016/2017					
Month	Total Units	Water Commodity Charges	Fixed System Charges	Total Water Revenues	Misc Rev
JUL	111,110	851,106.50	205,631.47	1,056,737.97	1,242.50
TOTAL	111,110	851,106.50	205,631.47	1,056,737.97	1,242.50



3) **SPRINGBROOK PROGRESS:**

David Becker and his staff from James Marta & Company were on site for the audit. Carolyn Towles from Accela was at MPWD for 5 days of on-site training the week of August 8th for financial reporting. The entire staff was trained on using a template form, which will upload invoices into the new accounting system. This will better streamline account item responsibility, coding the proper general ledger accounts, and accountability. We are on target and on budget.

SPRINGBROOK IMPLEMENTATION SCHEDULE - PRELIMINARY			
DATE		Task	Work Complete
Start	End		
4/11/2016	4/13/2016	Overview training for Finance - Billing System and Chart of Accounts	X
5/9/2016	5/13/2016	Finance Conversion - General Ledger and Accounts Payable data review	x
8/8/2016	8/12/2016	Finance Go Live	x
8/22/2016	8/24/2016	Project Management Set-up and go-live	x
9/21/2016	9/21/2016	Fixed Assets - Go Live	
9/26/2016	9/30/2016	Inventory Control - setups and go-live	
9/26/2016	9/27/2016	Bank Reconciliation Configuration and go-live	
1/11/2017	11/19/2017	Utility Billing Data Conversion	
2/13/2017	2/16/2017	License & Permits - Go Live Session	
2/27/2017	3/3/2017	Utility Billing - Go-Live Session	
3/6/2017	3/7/2017	Ancillaries - AR - setups	
3/6/2017	3/6/2017	Coding Accuracy Support System (CASS) Certification - Setup and Process Training	
3/20/2017	3/24/2017	Utility Billing - Post Go Live Refresher Training	

- 4) **TEAM BUILDING ACTIVITIES:**
Nothing to report (no birthdays to celebrate this month).



TO: Board of Directors
FROM: Rene A. Ramirez, Operations Manager
DATE: August 25, 2016

OPERATIONS REPORT – July 2016

Projects:

- The contractor continued with the Alameda de las Pulgas project during July. By the end of July all of the new water pipe had been installed as well as the customer water services, and several customers were receiving water from a portion of the new water main. For August, the contractor will finish connecting the new water main to existing water infrastructure and begin process to finish trench work including paving trench and slurry sealing road surface;
- Through July staff has installed a total of 512 AMI meters throughout Zone 1 with 2 left to fit. We continue to work with our customer's needs before and after the new meter is installed;
- AMI: staff has replaced the AMI repeater, which gathers meter readings in the challenging San Juan Canyon area. The unit was removed from service and sent to Sensus for replacement. The replacement unit is on line and functioning as properly;
- Working with John Davidson finalize and begin to install graphics to the new vehicles and updating graphics on existing fleet;
- Coordinated AMI meter change-outs with customers for: 955 Ralston, 435 Harbor, 555 Harbor, and 1190 Ralston;
- Completed construction of service for 1006 Muir Way; and
- Were on site with a firm contracted by PG&E to test our larger pumps for efficiency at no cost to District.

Maintenance:

- Responded to and completed 177 USA (underground service alerts) requests and identified infrastructure before digging in the streets or easements. PG&E looking to replace a lot of power poles, which is requiring investigatory efforts on many individual poles. Last month we marked 405 locations. An average month is closer to 140 requests;
- Repaired gate valve along 1100 block of North Road;
- Repainted hydrants at: 1929 Hillman, Folger at Notre Dame, Arbor at Fairway and 2140 Carlmont Drive;

- Continued to perform normal maintenance and exercised water system pressure regulating valves;
- Hydrant maintenance resumed with 16 hydrants and operating valves exercised;
- Exposed and removed a non-essential water valve on Coronet near Sharon;
- Engaged a contractor to trim several trees at the Exbourne Tank site that were becoming a safety issue;
- Collected the typical forty-four water samples for bacteriological testing – all samples were normal and showed no signs of coliform bacteria;
- Water system dead-ends continue to be monitored for disinfectant residual, and where needed, we flowed water into landscapes, street sweepers or sewer flushing trucks versus monitoring for discharge into the storm water systems to improve water quality; and
- Monitoring for signs of nitrification within our tanks, sample stations and dead ends continues as a part of regular water quality monitoring.

System Repairs: None to report.

Location	Event	Material	Installation Date	Estimated Water Loss (Gals.)

Development:

- Staff is currently working with developers on 13 development projects:
 - o 576-600 El Camino Real – currently reviewing their plans;
 - o 539 Harbor Blvd. – currently reviewing their plans;
 - o 6, 8, and 10 Davis Dr. – awaiting payment;
 - o 400-490 El Camino Real – currently reviewing their plans;
 - o 700 Island Parkway – payment received, awaiting scheduling;
 - o 750 Dartmouth – installation complete;
 - o 1201 Shoreway Road – there is nothing to report out at this time;
 - o 1477 El Camino Real – currently reviewing their plans;
 - o 2204 Thurm – installation scheduled;
 - o 2177 Carlmont Avenue – installation scheduled;
 - o 1006 Muir Way – installation scheduled;
 - o 699 Ralston Ave – currently reviewing their plans; and
 - o 2828 Monte Cresta – installation scheduled.

Administration:

- Ops Staff meetings held during month;
- Staff continue to use summer months to take time off;
- Visited the Alameda de las Pulgas work site two times;
- Met with two representatives from San Mateo County to discuss the County's ground water assessment project and share any information from District archives;
- Participated in quarterly coordination meeting with City of Belmont Public Works Department;

- Attended meeting at the District office requested by District Engineer to discuss the Alameda de las Pulgas project with contractor;
- Attended quarterly General Manager luncheon put on by District Engineer and held locally;
- Participated in a webinar with the San Mateo County Sea Rise Group;
- Attended a pre-construction meeting held in the Public Works Department of San Mateo County for their Ralston Avenue resurfacing project – Christian Drive (Belmont) to Paul Scannell Drive (San Mateo);
- Met with staff to begin preparing comments to the City's sewer system rehabilitation plans; and
- Continue to actively manage power use during pumping with positive energy savings results and cost reduction, and no net effect on the operation of the water system.



TO: Board of Directors
FROM: Joubin Pakpour, PE
District Engineer
DATE: August 25, 2016

DISTRICT ENGINEER'S REPORT

See attached report.



Pakpour Consulting Group, Inc.

MEMO

Agency: Mid-Peninsula Water District **Date:** August 18, 2016
Attn: Board of Directors
Project Name: Alameda de las Pulgas Water Main Replacement Project **Project No.:** 10012.15
Reference: Project Update and Progress Payment No. 2
From: Joubin Pakpour, P.E. – District Engineer *JP*

Construction Status

As of August 18, 2016 installation of the new water main along Alameda de las Pulgas is complete. The water main successfully passed the pressure test, was disinfected and is now fully in service. All the service connections were transferred to the new water main and the old water main abandoned. R.J. Gordon (RJG) is in process of paving the roadway.

Project Schedule

Remaining work includes finishing the road restoration including paving and slurry seal, roadway striping and restoring the sidewalks and resident landscaping around the new water meter boxes. During the last month, RJG used additional crew along with approved extended hours (beginning at 8:00 AM) to stay on schedule and finish the construction prior to the first day of school, August 25, 2016.

Change Orders

Enclosed, please find Change Order No.2 for \$2,504.80 which includes 4 items primarily due to unforeseen site conditions such as unknown/unmarked underground utilities. The total change order costs to date through July 31, 2016 is \$10,381.80. This represents an approximate 1.7% increase in the original contract amount which is well below the industry average of 10% change order for underground construction.

Potential Change Order – The contractor is requesting additional LF of pipe for tie-ins. The District is in the process of obtaining additional information from the contractor as this item was intended to be included in bid item no. 1 as a lump sum. Additional updates will be provided at the board meeting.

Request for Progress Payment No. 1

As of July 31, 2016, RJG completed 81% of the contractual work **(\$511,803.05)**. Enclosed please find Progress Payment No. 2 due RJG for **\$285,439.30** value of work (minus 5% retention). The work performed to date has been satisfactory and payment is recommended.

	Current Month	Total	
Original Contract Amount		\$ 620,807.00	
Approved Change Orders	\$2,504.80	\$ 10,381.80	1.7%
Final Contract Amount		\$ 631,188.80	
Previously Paid		\$ 200,773.75	
Current Request (<i>Less Retention</i>)	\$ 285,439.30	\$ 486,213.05	
Retention	\$15,023.00	\$ 25,590.00	
Total Value of Work Completed	\$ 300,462.30	\$ 511,803.05	81%
Total Remaining on Contract		\$ 119,385.75	19%

Bid Item	Description	Original Contract Amount				Change Order			Revised Contract Amount			Earned This Period			Prior Billing			Total to Date		
		Unit	Unit Price	Qty	Total Price	Qty	Unit Price	Total Price	Qty	Unit Price	Total Price	Qty	Amount Earned	%	Qty	Amount Earned	%	Qty	Amount Earned	%
1	8-inch Class 350 DIP (Upper Alameda De Las Pulgas)	LF	\$ 199.00	1618	\$ 321,982.00	0	\$ 199.00	\$ -	1,618	\$ 199.00	\$ 321,982.00	940	\$ 187,060.00	58%	650	\$ 129,350.00	40%	1590	\$ 316,410.00	98%
2	8-inch Gate Valve	EA	\$ 1,750.00	16	\$ 28,000.00	0	\$ 1,750.00	\$ -	16	\$ 1,750.00	\$ 28,000.00	7	\$ 12,250.00	44%	6	\$ 10,500.00	38%	13	\$ 22,750.00	81%
3	8-inch 45° and/or 90° bend (Vertical/Horizontal)	EA	\$ 550.00	11	\$ 6,050.00	0	\$ 550.00	\$ -	11	\$ 550.00	\$ 6,050.00	11	\$ 6,050.00	100%	4	\$ 2,200.00	36%	15	\$ 8,250.00	136%
4	8-inch 22.5° and/or 11.25° Bend (Vertical/Horizontal)	EA	\$ 450.00	12	\$ 5,400.00	0	\$ 450.00	\$ -	12	\$ 450.00	\$ 5,400.00	5	\$ 2,250.00	42%	4	\$ 1,800.00	33%	9	\$ 4,050.00	75%
5	6-inch 45° and/or 90° bend (Vertical/Horizontal)	EA	\$ 400.00	1	\$ 400.00	0	\$ 400.00	\$ -	1	\$ 400.00	\$ 400.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
6	6-inch 22.5° and/or 11.25° Bend (Vertical/Horizontal)	EA	\$ 350.00	1	\$ 350.00	0	\$ 350.00	\$ -	1	\$ 350.00	\$ 350.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
7	4-inch 45° and/or 90° bend (Vertical/Horizontal)	EA	\$ 290.00	4	\$ 1,160.00	0	\$ 290.00	\$ -	4	\$ 290.00	\$ 1,160.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
8	4-inch 22.5° and/or 11.25° Bend (Vertical/Horizontal)	EA	\$ 275.00	1	\$ 275.00	0	\$ 275.00	\$ -	1	\$ 275.00	\$ 275.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
9	6-inch Fire Hydrant Assembly	EA	\$ 9,950.00	5	\$ 49,750.00	0	\$ 9,950.00	\$ -	5	\$ 9,950.00	\$ 49,750.00	2	\$ 19,900.00	40%	2	\$ 19,900.00	40%	4	\$ 39,800.00	80%
10	Fire Hydrant Bollard	EA	\$ 950.00	4	\$ 3,800.00	0	\$ 950.00	\$ -	4	\$ 950.00	\$ 3,800.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
11	4-inch Temporary MJ Cap at Lyon Avenue	LS	\$ 575.00	1	\$ 575.00	0	\$ 575.00	\$ -	1	\$ 575.00	\$ 575.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
12	8-inch MJ Cap at Mezes Avenue	LS	\$ 950.00	1	\$ 950.00	0	\$ 950.00	\$ -	1	\$ 950.00	\$ 950.00	0	\$ -	0%	2	\$ 1,900.00	200%	2	\$ 1,900.00	200%
13	1-inch Service Connection (Same General Location)	EA	\$ 4,015.00	2	\$ 8,030.00	0	\$ 4,015.00	\$ -	2	\$ 4,015.00	\$ 8,030.00	1	\$ 4,015.00	50%	0	\$ -	0%	1	\$ 4,015.00	50%
14	5/8-inch Service Connection (Same General Location)	EA	\$ 2,950.00	21	\$ 61,950.00	0	\$ 2,950.00	\$ -	21	\$ 2,950.00	\$ 61,950.00	12	\$ 35,400.00	57%	7	\$ 20,650.00	33%	19	\$ 56,050.00	90%
15	5/8-inch Service Connection (Relocate)	EA	\$ 3,350.00	13	\$ 43,550.00	0	\$ 3,350.00	\$ -	13	\$ 3,350.00	\$ 43,550.00	7	\$ 23,450.00	54%	3	\$ 10,050.00	23%	10	\$ 33,500.00	77%
16	Service Meter Retaining Wall	EA	\$ 5,500.00	1	\$ 5,500.00	0	\$ 5,500.00	\$ -	1	\$ 5,500.00	\$ 5,500.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
17	Abandon Existing Fire Hydrant Assembly	EA	\$ 1,365.00	2	\$ 2,730.00	0	\$ 1,365.00	\$ -	2	\$ 1,365.00	\$ 2,730.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
18	Removing Existing Fire Hydrant Assembly	EA	\$ 850.00	3	\$ 2,550.00	0	\$ 850.00	\$ -	3	\$ 850.00	\$ 2,550.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
19	Abandon Existing Gate Valve	EA	\$ 495.00	11	\$ 5,445.00	0	\$ 495.00	\$ -	11	\$ 495.00	\$ 5,445.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
20	Traffic Striping (Detail 21)	LF	\$ 2.10	1350	\$ 2,835.00	0	\$ 2.10	\$ -	1350	\$ 2.10	\$ 2,835.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
21	Pavement Marking (Stop Marking + Stop Bar)	EA	\$ 158.00	10	\$ 1,580.00	0	\$ 158.00	\$ -	10	\$ 158.00	\$ 1,580.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
22	Type II Slurry Seal	SF	\$ 0.99	43,000	\$ 42,570.00	0	\$ 0.99	\$ -	43000	\$ 0.99	\$ 42,570.00	0	\$ -	0%	0	\$ -	0%	0	\$ -	0%
23	Traffic Control Plan	LS	\$ 9,375.00	1	\$ 9,375.00	0	\$ 9,375.00	\$ -	1	\$ 9,375.00	\$ 9,375.00	0.5	\$ 4,687.50	50%	0.25	\$ 2,343.75	25%	0.75	\$ 7,031.25	75%
24	Water Pollution Control Plan	LS	\$ 7,500.00	1	\$ 7,500.00	0	\$ 7,500.00	\$ -	1	\$ 7,500.00	\$ 7,500.00	0.25	\$ 1,875.00	25%	0.5	\$ 3,750.00	50%	0.75	\$ 5,625.00	75%
25	Street Sweeping	EA	\$ 340.00	25	\$ 8,500.00	0	\$ 340.00	\$ -	25	\$ 340.00	\$ 8,500.00	3	\$ 1,020.00	12%	3	\$ 1,020.00	12%	6	\$ 2,040.00	24%
	Change Order No. 1					1	\$ 7,877.00	\$ 7,877.00	1	\$ 7,877.00	\$ 7,877.00	0	\$ -	0%	1	\$ 7,877.00	100%	1	\$ 7,877.00	100%
	Change Order No. 2					1	\$ 2,504.80	\$ 2,504.80	1	\$ 2,504.80	\$ 2,504.80	1	\$ 2,504.80	100%	0	\$ -	0%	1	\$ 2,504.80	100%
	Contract Amount				\$620,807.00			\$10,381.80			\$631,188.80									
	Amount Earned											\$300,462.30	48%		\$211,340.75	33%		\$511,803.05	81%	
	Retention (5%)											(\$15,023.00)						(\$25,590.00)		
	Progress Payment No.1																	(\$200,773.75)		
	Amount Due											\$285,439.30						\$285,439.30		
	Amount Remaining on Contract																	\$119,385.75	19%	

Prepared By
JP
Joubin Pakpour, P.E.
District Engineer

Amount Remaining on Contract	\$119,385.75	19%
Total Retention Being Held	(\$25,590.00)	
Total Pending Change Orders	\$ -	

**Mid-Peninsula Water District
Alameda de las Pulgas Water Main Replacement Project
Project No. 10012.15**

**Change Order No. 2
R.J. Gordon, Inc.
August 02, 2016**

Item No. 1 –Removing 18-inch Thick AC

On June 29, 2016 R.J. Gordon (RJG) notified the District the existing asphalt concrete (AC) at the Alameda de las Pulgas (ADLP) / Mezes Avenue intersection was between 18 to 21-inches thick. RJG spent additional time removing the AC by breaking the AC into smaller sections using a backhoe.

This work was performed on a Time and Material (Force Account) basis with the District inspector on site. The District reviewed RJG's total cost for the additional work and determined it conforms to the project specifications. Extra Work Report dated June 29, 2016.

Total Cost of Item No. 1	\$ 339.73
Total Working Days Increase for Item No. 1	0.25 Days

Item No. 2 – Removing 12-inch Abandoned Storm Drain

On June 30, 2016 RJG discovered an unmarked 12-inch storm drain at the ADLP / Mezes Avenue intersection. The District contacted the City of Belmont and they verified the storm drain was abandoned. The District requested RJG to cut and remove a section of the storm drain that was in conflict with the new water main alignment.

This work was performed on a Time and Material (Force Account) basis with the District inspector on site. The District reviewed RJG's total cost for the additional work and determined it conforms to the project specifications. Extra Work Report dated June 30, 2016.

Total Cost of Item No. 2	\$ 221.23
Total Working Days Increase for Item No. 2	0 Days

Item No. 3 – Unmarked Water Main

On July 07, 2016 RJG discovered a 4-inch unmarked and abandoned water main at the ADLP / Sharon Avenue intersection. The District requested RJG to excavate, cut, and remove a section of the water main that was in conflict with the new water main alignment.

This work was performed on a Time and Material (Force Account) basis with the District inspector on site. The District reviewed RJG's total cost for the additional work and determined it conforms to the project specifications. Extra Work Report dated July 07, 2016.

Total Cost of Item No. 3	\$ 485.96
Total Working Days Increase for Item No. 3	0.25 Days

Item No. 4 – Abandoned 2-inch Irrigation Line

On July 21, 2016 and July 22, 2016, RJG discovered an unmarked 2-inch steel pipe along the new water main alignment. This pipe appeared to be an old abandoned irrigation line. The District requested RJG to excavate, cut, and remove approximately 100 lf of this pipe that was in conflict with the new water main alignment.

This work was performed on a Time and Material (Force Account) basis with the District inspector on site. The District reviewed RJG’s total cost for the additional work and determined it conforms to the project specifications. Extra Work Reports dated July 21, 2016 and July 22, 2016.

Total Cost of Item No. 4 **\$ 1,457.88**
Total Working Days Increase for Item No. 4 **0.5 Days**

Total Cost of Change Order No. 2 **\$ 2,504.80**
Overall Working Days Increase for Change Order No. 2 - **1 Day**

Other Terms Remain in Effect

Change Order No.2 fully resolves all cost and time issues related to the work described above, including any indirect effects or the effect of this Change Order on any other work performed by RJG. This Change Order does not modify or supersede any provision of the Contract, unless, and only to the extent, explicitly stated in this Change Order.

Signature Block

Prepared by:

Feraaydoon Farsi
District Project Manager
Pakpour Consulting Group

Reviewed and Approved by:

Mike Anderson
District Inspector
Mid-Peninsula Water District

Reviewed and Approved by:

Joubin Pakpour, P.E.
District Engineer
Pakpour Consulting Group, Inc.

Reviewed and Approved by:

Tammy Rudock
General Manager
Mid-Peninsula Water District

Reviewed and Approved by:

John Johnson
President/CEO
R.J. Gordon Construction, Inc.

Alameda de las Pulgas Water Main Replacement Project
Mid-Peninsula Water District, Belmont, CA
July 16 thru August 16, 2016



**Alameda de las Pulgas Water Main Replacement Project
Mid-Peninsula Water District, Belmont, CA
July 16 thru August 16, 2016**



July 19, 2016 - 4 valve set at Lyon Ave



July 19, 2016 - 4 valve set at Lyon Ave

Alameda de las Pulgas Water Main Replacement Project
Mid-Peninsula Water District, Belmont, CA
July 16 thru August 16, 2016



**Alameda de las Pulgas Water Main Replacement Project
Mid-Peninsula Water District, Belmont, CA
July 16 thru August 16, 2016**



August 15, 2016 - Concrete work



August 16, 2016 - Paving

**MID-PENINSULA WATER DISTRICT
BUDGET FOR YEAR 2016-2017
SUMMARY**

Target YTD % 8.5%

DESCRIPTION	APPROVED FY 2016-2017 BUDGET \$	ACTUAL 7/1/16 7/31/16	REMAINING BALANCE/ (OVER BUDGET)	Y-T-D % OF BUDGET
OPERATING REVENUE				
WATER COMMODITY CHARGES	8,100,000	850,028	7,249,972	10.5%
FIXED SYSTEM CHARGES	2,663,720	205,821	2,457,899	7.7%
FIRE SERVICE CHARGES	14,400	1,243	13,158	8.6%
SERVICE LINE & INSTALLATION CHARGES	25,000	-	25,000	NA
WATER SYSTEM CAPACITY CHARGES	200,000	-	200,000	NA
WATER DEMAND OFFSET CHARGES	10,000	-	10,000	NA
MISCELLANEOUS CHARGES	10,000	-	10,000	NA
INTEREST REVENUE - LAIF	10,000	3,020	6,980	30.2%
LEASE OF PHYSICAL PROPERTY	200,000	10,812	189,188	5.4%
PROPERTY TAX REVENUE	255,000	4,583	250,417	1.8%
TOTAL OPERATING REVENUE	11,488,120	1,075,507	10,412,613	9.4%
OPERATING EXPENDITURES				
SALARIES & WAGES	1,668,500	117,976	1,550,524	7.1%
PAYROLL TAXES & BENEFITS	1,163,800	85,984	1,077,816	7.4%
PURCHASED WATER	4,976,000	493,346	4,482,654	9.9%
OUTREACH & EDUCATION	133,900	4,384	129,516	3.3%
M&R - OPS SYSTEM	398,250	22,207	376,043	5.6%
M&R - FACILITIES & EQUIPMENT	162,000	6,300	155,700	3.9%
MAJOR MAINTENANCE	12,000	-	12,000	NA
OFFICE SUPPLIES & EQUIPMENT	326,750	23,648	303,102	7.2%
MEMBERSHIP & GOV FEES	217,500	13,380	204,120	6.2%
BAD DEBT & CLAIMS	37,000	485	36,515	1.3%
UTILITIES	288,300	16,156	272,144	5.6%
PROFESSIONAL SERVICES	501,950	15,162	486,788	3.0%
TRAINING/TRAVEL & RECRUITMENT	31,000	189	30,811	0.6%
RESTRICTED EARNINGS	(10,000)	(3,020)	(6,980)	30.2%
RESERVES	-	-	-	NA
DEPRECIATION	950,000	74,248	875,752	7.8%
TOTAL OPERATING EXPENDITURES	10,856,950	870,445	9,986,505	8.0%
OPERATING REVENUE LESS EXPENDITURES	631,170	205,062	426,108	32.5%
NET TRANSFERS TO CAPITAL	(631,170)	(205,062)	(426,108)	32.5%
NET RESULTS OF OPERATIONS	-	-	-	
OPERATING EXPENDITURES LESS DEPRECIATION	9,906,950	796,197	9,110,753	8.0%

**MID-PENINSULA WATER DISTRICT
OPERATIONS BUDGET FOR YEAR 2016-2017
DETAILED**

Target YTD % 8.5%

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	APPROVED FY 2016-2017 BUDGET \$	ACTUAL 7/1/2016 7/31/2016	REMAINING BALANCE/ (OVER BUDGET)	Y-T-D % OF BUDGET
4010	WATER COMMODITY CHARGES	8,100,000	850,028	7,249,972	10.5%
4020	FIXED SYSTEM CHARGES	2,663,720	205,821	2,457,899	7.7%
4030	FIRE SERVICE CHARGES	14,400	1,243	13,158	8.6%
4050	SERVICE LINE & INSTALLATION CHARGES	25,000	-	25,000	NA
4060	WATER SYSTEM CAPACITY CHARGES	200,000	-	200,000	NA
4070	WATER DEMAND OFFSET CHARGES	10,000	-	10,000	NA
4090	MISCELLANEOUS REVENUES	<u>10,000</u>	<u>-</u>	<u>10,000</u>	NA
4000	TOTAL WATER AND FEE CHARGES	<u>11,023,120</u>	<u>1,057,091</u>	<u>9,966,029</u>	9.6%
4102	Interest Revenue- LAIF	<u>10,000</u>	<u>3,020</u>	<u>6,980</u>	30.2%
4100	INTEREST REVENUE	<u>10,000</u>	<u>3,020</u>	<u>6,980</u>	30.2%
4201	Lease of Physical Property	200,000	10,812	189,188	5.4%
4202	Property Tax Revenue (A)	<u>255,000</u>	<u>4,583</u>	<u>250,417</u>	1.8%
4200	OTHER REVENUE	<u>455,000</u>	<u>15,395</u>	<u>439,605</u>	3.4%
4000	TOTAL OPERATING REVENUE	<u>11,488,120</u>	<u>1,075,507</u>	<u>10,412,613</u>	9.4%
6011	Salaries & Wages	1,575,000	115,171	1,459,829	7.3%
6012	Director Compensation	11,000	300	10,700	2.7%
6017	Capital Salaries & Wages	<u>-</u>	<u>12,179</u>	<u>(12,179)</u>	NA
6010	GROSS REGULAR WAGES	<u>1,586,000</u>	<u>127,651</u>	<u>1,458,349</u>	8.0%
6017	CAPITAL SALARY & WAGES reversed	<u>-</u>	<u>(12,179)</u>	<u>12,179</u>	N/A
6021	Overtime Labor	45,500	1,026	44,474	2.3%
6022	Standby Labor	<u>37,000</u>	<u>1,479</u>	<u>35,521</u>	4.0%
6020	SUB-TOTAL SALARY & WAGES	<u>1,668,500</u>	<u>117,976</u>	<u>1,550,524</u>	7.1%
6031	FICA/Medicare PR Tax	131,500	6,867	124,633	5.2%
6038	ACWA Health Care	320,000	24,533	295,467	7.7%
6039	ACWA Dental	31,000	1,934	29,066	6.2%
6040	ACWA Vision	4,350	344	4,006	7.9%
6041	ACWA Life/AD&D	4,200	349	3,851	8.3%
6042	Standard LDL/SDL Disability	12,400	694	11,706	5.6%
6043	Workers' Comp Insurance (A)	50,400	6,586	43,814	13.1%
6044	Unemployment	1,000	-	1,000	NA
6045	CALPERS Retirement - ER 2%@55	235,000	14,037	220,963	6.0%
6054	CAPITAL PAYROLL TAXES & BENEFITS	-	6,978	(6,978)	N/A
6046	Retirees' ACWA Health Care	179 56,000	5,135	50,865	9.2%

**MID-PENINSULA WATER DISTRICT
OPERATIONS BUDGET FOR YEAR 2016-2017
DETAILED**

Target YTD % 8.5%

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	APPROVED FY 2016-2017 BUDGET \$	ACTUAL 7/1/2016 7/31/2016	REMAINING BALANCE/ (OVER BUDGET)	Y-T-D % OF BUDGET
6047	Directors' ACWA Health Care	108,000	9,236	98,764	8.6%
6049	Medical Reimbursement	1,000	46	954	4.6%
6050	Employee Service Recognition	7,000	(720)	7,720	-10.3%
6051	Safety Incentive Program	7,200	600	6,600	8.3%
6052	Uniforms	24,750	2,593	22,157	10.5%
6053	PARS OPEB Expense	170,000	13,750	156,250	8.1%
6030	SUB-TOTAL PAYROLL TAXES & BENEFITS	1,163,800	92,963	1,070,837	8.0%
6054	CAPITAL PAYROLL TAXES & BENEFITS	-	(6,978)	6,978	N/A
6000	PERSONNEL COSTS	2,832,300	203,960	2,628,340	7.2%
6101	SFPUC Treated Water	4,500,000	447,203	4,052,797	9.9%
6102	BAWSCA (Debt Service Surcharges)	476,000	39,621	436,379	8.3%
6103	Rates Stabilization	-	-	-	NA
6104	SFPUC Water Service Charge	-	6,522	(6,522)	N/A
6100	PURCHASED WATER	4,976,000	493,346	4,482,654	9.9%
6301	Water Conservation Program	7,200	-	7,200	NA
6302	School Conservation Program	7,200	-	7,200	NA
6303	Public Outreach & Education	25,750	870	24,880	3.4%
6305	HET Rebates	24,750	29	24,721	0.1%
6306	Washing Machine Rebates	25,750	29	25,721	0.1%
6307	Lawn-Be-Gone Rebates	38,100	3,427	34,673	9.0%
6308	Rain Barrel Rebates	5,150	29	5,121	0.6%
6304	TOTAL WATER CONSERVATION REBATES	93,750	3,514	90,236	3.7%
6300	OUTREACH/EDUCATION	133,900	4,384	129,516	3.3%
6401	Water Quality	67,000	6,230	60,770	9.3%
6402	Pumping	78,250	179	78,071	0.2%
6403	Storage Tanks	15,000	-	15,000	NA
6404	Mains/Distribution	100,000	3,256	96,744	3.3%
6405	Meters & Service	30,000	520	29,480	1.7%
6406	Fire Hydrants (B)	31,000	11,528	19,472	37.2%
6407	Regulator Stations	6,000	-	6,000	NA
6408	Safety	32,000	93	31,907	0.3%
6409	SCADA Maintenance	15,000	401	14,599	NA
6410	Generator Maintenance	24,000	-	-	-
6400	M&R - OPS SYSTEMS	398,250	22,207	376,043	5.6%
6501	M&R-Buildings&Grounds	93,000	2,766	90,234	3.0%
6502	M&R- Equipment&Tools	21,000	1,751	19,249	8.3%
6503	M&R- Vehicles & Large Equipment	19,000	145	18,855	0.8%
6504	M&R - Fuel	29,000	1,639	27,361	5.7%
6500	M&R - FACILITIES & EQUIPMENT	162,000	6,300	155,700	3.9%
6601	Cathodic Protection Survey	12,000	-	12,000	NA

**MID-PENINSULA WATER DISTRICT
OPERATIONS BUDGET FOR YEAR 2016-2017
DETAILED**

Target YTD % 8.5%

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	APPROVED FY 2016-2017 BUDGET \$	ACTUAL 7/1/2016 7/31/2016	REMAINING BALANCE/ (OVER BUDGET)	Y-T-D % OF BUDGET
6602	Leak Detection Survey	-	-	-	NA
6600	MAJOR MAINTENANCE	12,000	-	12,000	NA
6701	Office Supplies	18,000	1,071	16,929	6.0%
6702	Insurance- Liability/Vehicles	87,750	6,083	81,667	6.9%
6703	Postage (C)	3,250	1,023	2,227	31.5%
6704	Printing/Printing Supplies	13,000	973	12,027	7.5%
6705	Equipment Services/Maintenance	56,750	2,584	54,166	4.6%
6706	Computer Supplies & Upgrades	11,750	1,012	10,739	8.6%
6707	Security & Safety	10,750	732	10,018	6.8%
6708	Other Fees	500	16	484	3.3%
6709	Customer Credit Card Svs Fees	125,000	10,153	114,847	8.1%
6700	OFFICE SUPPLIES & EQUIP	326,750	23,648	303,102	7.2%
6801	Dues & Publications	39,500	3,013	36,487	7.6%
6802	Gov't Fees & Licenses	73,250	1,994	71,257	2.7%
6803	BAWSCA Membership Assessments	68,750	5,874	62,876	8.5%
6804	Env Health - Cross Connection Inspection	31,000	2,500	28,500	8.1%
6805	Software License	5,000	-	5,000	NA
6800	MEMBERSHIP & GOV FEES	217,500	13,380	204,120	6.2%
6901	Bad Debt	7,000	92	6,909	1.3%
6902	Claims	30,000	393	29,607	1.3%
6900	BAD DEBT & CLAIMS	37,000	485	36,515	1.3%
7001	Utilities-Internet/Cable (D)	7,500	1,269	6,231	16.9%
7002	Utilities-Cellular Telephones	11,850	1,614	10,236	13.6%
7003	Utilities-Electric-Pumping	220,000	9,410	210,591	4.3%
7004	Utilities-Electric-Bldgs&Grounds	24,000	2,090	21,910	8.7%
7005	Utilities-Telephones	17,500	1,230	16,270	7.0%
7006	Utilities-Sewer - NPDES	7,450	543	6,907	7.3%
7000	UTILITIES	288,300	16,156	272,144	5.6%
7101	Prof Serv - District Counsel	100,000	1,877	98,123	1.9%
7102	Prof Serv - District Engineer	100,000	2,580	97,420	2.6%
7103	Prof Serv - IT	19,750	1,400	18,350	7.1%
7104	Prof Serv- Annual Finance Audit	20,000	-	20,000	NA
7105	Prof Serv - Mngmt Consult	-	-	-	NA
7106	Prof Serv- Accounting & Payroll	21,750	1,779	19,971	8.2%
7107	Prof Serv- Customer Billing	72,250	6,921	65,329	9.6%
7108	Prof Serv - Answering Svs	4,500	4	4,496	0.1%
7110	Prof Serv - Miscellaneous	160,000	300	159,700	0.2%
7111	Prof Serv - District Treasurer	3,700	300	3,400	8.1%
7100	PROFESSIONAL SERVICES	501,950	15,162	486,788	3.0%
7201	Director Travel	181 5,000	-	5,000	NA
7202	Director Expense	1,000	-	1,000	NA

**MID-PENINSULA WATER DISTRICT
OPERATIONS BUDGET FOR YEAR 2016-2017
DETAILED**

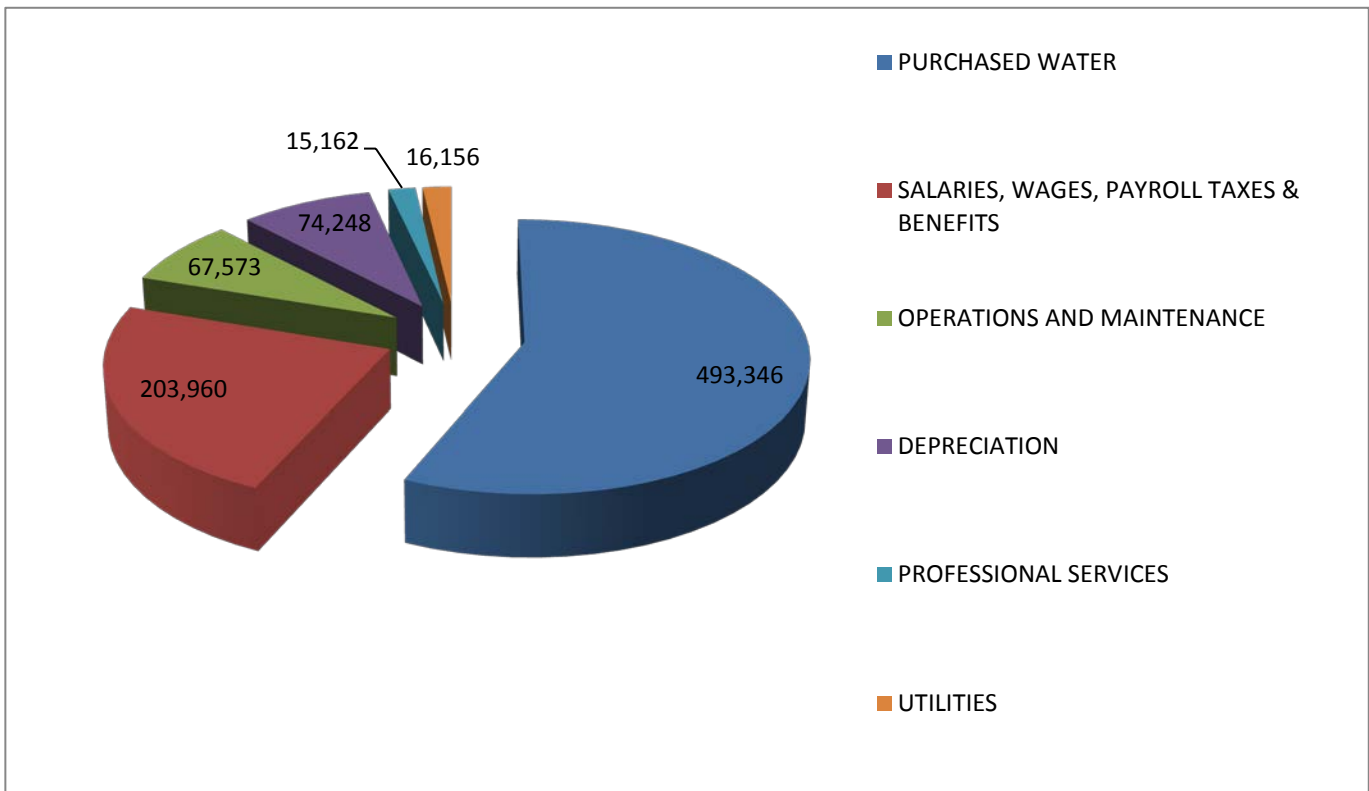
Target YTD % 8.5%

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	APPROVED FY 2016-2017 BUDGET \$	ACTUAL 7/1/2016 7/31/2016	REMAINING BALANCE/ (OVER BUDGET)	Y-T-D % OF BUDGET
7203	Elections	-	-	-	NA
7204	Employee Travel/Training	20,000	189	19,811	0.9%
7205	Meetings Expense	5,000	-	5,000	NA
7200	TRAINING & TRAVEL	31,000	189	30,811	0.6%
7302	Restricted Earnings Expense - Interest LAIF	(10,000)	(3,020)	(6,980)	30.2%
7300	RESTRICTED EARNINGS EXPENSE	(10,000)	(3,020)	(6,980)	30.2%
8001	Working Reserves: Capital	-	-	-	NA
8002	Working Reserves: Operating	61,123	-	61,123	NA
8000	RESERVES	-	-	-	NA
9010	DEPRECIATION	950,000	74,248	875,752	7.8%
SUB-TOTAL - OPERATING EXPENSES		8,024,650	666,485	7,358,165	8.3%
TOTAL OPERATING EXPENSES		10,856,950	870,445	9,986,505	8.0%
NET OPERATING SURPLUS/(LOSS) TRANSFER TO CAPITAL		631,170	205,062	426,108	32.5%

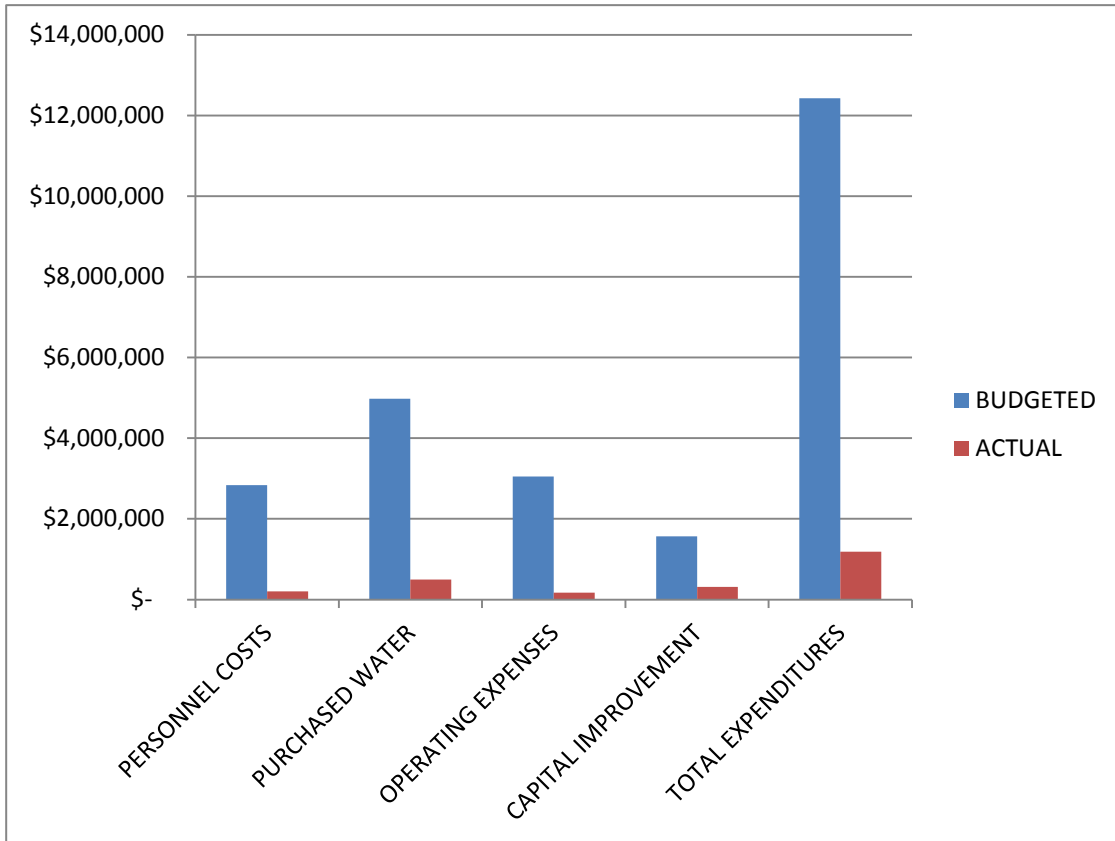
- (A) Work Comp was accrued twice, will be adjusted next month.
- (B) 4 Fire hydrants purchased totaling \$8525.65.
- (C) Postage of \$1000 put in meter.
- (D) June 2016 bills included in this month.

**MID-PENINSULA WATER DISTRICT
ACTUAL OPERATING EXPENDITURES SUMMARY
Jul-16**

OPERATING EXPENDITURES	ACTUAL \$	% OF TOTAL
PURCHASED WATER	493,346	56.7%
SALARIES, WAGES, PAYROLL TAXES & BENEFITS	203,960	23.4%
OPERATIONS AND MAINTENANCE	67,573	7.8%
DEPRECIATION	74,248	8.5%
PROFESSIONAL SERVICES	15,162	1.7%
UTILITIES	16,156	1.9%
TOTAL OPERATING EXPENDITURES	870,445	100%



2014/2015 BUDGET vs ACTUAL TOTAL EXPENDITURES Jul-16



	BUDGETED	ACTUAL	BUDGETED % OF TOTAL	ACTUAL % OF TOTAL
TOTAL EXPENDITURES				
PERSONNEL COSTS	\$ 2,832,300	\$ 203,960	23%	17%
PURCHASED WATER	\$ 4,976,000	\$ 493,346	40%	42%
OPERATING EXPENSES	\$ 3,048,650	\$ 173,139	25%	15%
CAPITAL IMPROVEMENT	\$ 1,565,000	\$ 311,583	13%	26%
TOTAL EXPENDITURES	\$ 12,421,950	\$ 1,182,028	100%	100%

**MID-PENINSULA WATER DISTRICT
BUDGET FOR FY 2016-2017
CAPITAL OUTLAY/CAPITAL PROJECTS**

DESCRIPTION	APPROVED AMENDED FY 2016-2017 BUDGET \$	ACTUAL 7/1/2016 7/31/2016	REMAINING BALANCE/ (OVER BUDGET)	Target YTD % 8.5%
				Y-T-D % OF BUDGET
CAPITAL IMPROVEMENTS - WORK IN PROCESS (WIP)				
AMI Meter Change Out Program	500,000	1,085	498,915	0.2%
Karen Road Water Main Replacement - CIP	100,000	6,114	93,886	6.1%
Folger Pump Station Demolition - CIP	50,000	1,160	48,840	2.3%
Alameda de las Pulgas Water Main Replacement Project - CIP (B)	700,000	303,224	396,776	43.3%
CAPITAL IMPROVEMENTS - WIP TOTAL	1,350,000	311,583	1,038,417	23.1%
CAPITAL OUTLAY				
Financial Management System (FMS) - Comprehensive Replacement	95,000	-	95,000	0.0%
Implementation of Sensus Consumer Portal	70,000	-	70,000	0.0%
Miscellaneous Capital Outlay/Projects	50,000	-	50,000	0.0%
CAPITAL OUTLAY TOTAL	215,000	0	215,000	0.0%
CAPITAL IMPROVEMENTS & CAPITAL OUTLAY TOTAL	1,565,000	311,583	1,253,417	19.9%
DEPRECIATION	950,000	74,248	875,752	7.8%
TRANSFER FROM OPS	631,170	205,062	426,108	32.5%
TRANSFER (TO)/FROM CAPITAL RESERVES	(16,170)	32,274	(48,444)	-199.6%
CAPITAL OUTLAY/CAPITAL PROJECTS	(1,565,000)	(311,583)	(1,253,417)	19.9%
NET RESULTS OF CAPITAL	-	0	(0)	N/A

**MID-PENINSULA WATER DISTRICT
CONDENSED BALANCE SHEET
PREVIOUS YEAR COMPARISON**

	Jul 31, 16	Jul 31, 15	\$ Change	% Change
ASSETS				
CURRENT ASSETS				
Total Checking/Savings	4,161,862.56	3,457,152.89	704,709.67	20.38%
Total Accounts Receivable	1,022,637.08	726,437.33	296,199.75	40.77%
Other Current Assets				
Inventory (A)	0.00	177,209.50	-177,209.50	-100.0%
Other Current Assets	197,455.56	154,418.92	43,036.64	27.87%
Total Other Current Assets	197,455.56	331,628.42	-134,172.86	-40.46%
TOTAL CURRENT ASSETS	5,381,955.20	4,515,218.64	866,736.56	19.2%
FIXED ASSETS				
Fixed Assets	42,008,899.48	41,159,247.64	849,651.84	2.06%
Accumulated Depreciation	-25,838,339.64	-24,933,097.84	-905,241.80	-3.63%
Construction in Progress	866,530.19	105,270.20	761,259.99	723.15%
TOTAL FIXED ASSETS	17,037,090.03	16,331,420.00	705,670.03	4.32%
TOTAL OTHER ASSETS	219,777.55	198,895.55	20,882.00	10.5%
TOTAL ASSETS	22,638,822.78	21,045,534.19	1,593,288.59	7.57%
LIABILITIES & EQUITY				
LIABILITIES				
CURRENT LIABILITIES				
Total Accounts Payable	65,776.69	66,993.04	-1,216.35	-1.82%
Total Other Current Liabilities (B)	1,288,792.77	577,731.49	711,061.28	123.08%
TOTAL CURRENT LIABILITIES	1,354,569.46	644,724.53	709,844.93	110.1%
TOTAL LONG TERM LIABILITIES (B)	1,151,444.00	1,118,234.00	33,210.00	2.97%
TOTAL LIABILITIES	2,506,013.46	1,762,958.53	743,054.93	42.15%
EQUITY				
3000 - Opening Bal Equity	144.00	144.00	0.00	0.0%
3800 - RESERVES *	4,055,161.46	3,389,457.38	665,704.08	19.64%
3940 - Fund Balance Invest in Ut Plant	16,823,236.31	16,313,308.69	509,927.62	3.13%
Net Assets (B)	-745,732.45	-420,334.41	-325,398.04	-77.41%
TOTAL EQUITY	20,132,809.32	19,282,575.66	850,233.66	4.41%
TOTAL LIABILITIES & EQUITY	22,638,822.78	21,045,534.19	1,593,288.59	7.57%

	Balance @ Jul 2014	Balance @ Jul 2015	Balance @ Jul 2016	Budget for Reserve Policy
* RESERVES				
Capital Reserves	1,879,466	889,457	1,555,161	2,500,000
Emergency Reserves	2,000,000	2,000,000	2,000,000	2,000,000
Working Capital Reserves	500,000	500,000	500,000	500,000
TOTAL RESERVE FUNDS	4,379,466	3,389,457	4,055,161	5,000,000

(A) Change in Capitalization/Inventory Policy. Inventory less than \$5,000 were expensed last fiscal year.

(B) CalPERS Net Pension Liability - GASB 68 requirement.

**MID-PENINSULA WATER DISTRICT
OPERATIONS SUMMARY
PREVIOUS YEAR COMPARISON**

	Jul 16	Jul 15	\$ Change	% Change
Ordinary Income/Expense				
Income				
4000 · OPERATING REVENUE	1,057,091.22	832,632.06	224,459.16	26.96%
4100 · INTEREST INCOME	3,020.17	1,135.81	1,884.36	165.91%
4200 · OTHER INCOME	15,395.47	23,683.77	-8,288.30	-35.0%
Total Income	<u>1,075,506.86</u>	<u>857,451.64</u>	<u>218,055.22</u>	<u>25.43%</u>
Gross Profit	1,075,506.86	857,451.64	218,055.22	25.43%
Expense				
6000 · PERSONNEL COSTS	203,960.41	200,817.27	3,143.14	1.57%
6100 · PURCHASED WATER	493,345.73	405,431.77	87,913.96	21.68%
6300 · OUTREACH/EDUCATION	4,383.70	4,754.06	-370.36	-7.79%
6400 · M&R - OPS SYSTEMS	22,207.42	4,583.81	17,623.61	384.48%
6500 · M&R - FACILITIES & EQUIPMENT	6,300.42	6,155.84	144.58	2.35%
6600 · MAJOR MAINTENANCE	0.00	700.00	-700.00	-100.0%
6700 · OFFICE SUPPLIES & EQUIPMENT	23,648.45	26,176.12	-2,527.67	-9.66%
6800 · MEMBERSHIP & GOV FEES	13,380.30	10,974.57	2,405.73	21.92%
6900 · BAD DEBT & CLAIMS	484.63	3,987.00	-3,502.37	-87.85%
7000 · UTILITIES	16,155.58	27,467.04	-11,311.46	-41.18%
7100 · PROFESSIONAL SERVICES	15,162.25	47,068.65	-31,906.40	-67.79%
7200 · TRAINING & TRAVEL	188.72	1,687.49	-1,498.77	-88.82%
Total Expense	<u>799,217.61</u>	<u>739,803.62</u>	<u>59,413.99</u>	<u>8.03%</u>
Net Ordinary Income	276,289.25	117,648.02	158,641.23	134.84%
Other Income/Expense				
Other Expense				
9000 · OTHER EXPENSE	74,247.67	79,368.04	-5,120.37	-6.45%
Total Other Expense	<u>74,247.67</u>	<u>79,368.04</u>	<u>-5,120.37</u>	<u>-6.5%</u>
7302 - RESTRICTED EARNINGS EXPENSE - INTEREST LAIF	-3,020.17	-1,135.81	-1,884.36	-165.9%
Total Restricted Earnings Expense	<u>-3,020.17</u>	<u>-1,135.81</u>	<u>-1,884.36</u>	<u>-165.9%</u>
Net Operating Surplus/(Loss)	<u><u>205,061.75</u></u>	<u><u>39,415.79</u></u>	<u><u>165,645.96</u></u>	<u><u>420.3%</u></u>