ENGINEERING AND OPERATIONS COMMITTEE MEETING
Tuesday, December 15, 2015 at 3:30 p.m.

CALL TO ORDER

PLEDGE OF ALLEGIANCE

PUBLIC COMMENTS

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

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

PRESENTATION AND DISCUSSION ITEMS:
Items recommended for approval at this meeting may be agendized for approval at a future Board meeting.

1. Mesa Water Property Lease Evaluation
2. Well 9 Update

ACTION ITEMS:

3. WATER CONSERVATION PROGRAM UPDATE:

   Recommendation:

   1. Adopt Resolution No. 1468 – Supplementing Resolution No. 1466, the Water Conservation and Water Supply Emergency Program Level 2 Water Supply Shortage, with the following restriction:
      • No outdoor watering of potable water (excluding single-family residential customers)

   2. Discuss and take action(s) on such other water conservation measures as the Board shall determine.

REPORTS:

4. Developer Project Status Report
5. Mesa Water® and Other Agency Projects Status Report
6. Water Quality Call Report  
7. Committee Policy & Resolution Review or Development  
8. Operations Department Status Report  
9. Municipal Water District of Orange County Activities Update  
10. Orange County Water District Activities Update  
11. Ocean Desalination Projects  
12. Report of the General Manager  
13. Directors’ Reports and Comments  

INFORMATION ITEMS:  
None.

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

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

ADJOURNMENT
RECOMMENDATION

Recommend that:

1. Mesa Water® discontinue efforts to host 3rd party telecommunication systems.

2. Mesa Water® consider solar facilities at Mesa Water facilities once cost advantages yield a maximum payback period of 5 years.

STRATEGIC PLAN

Goal #2: Practice perpetual infrastructure renewal and improvement.
Goal #3: Be financially responsible and transparent.

BACKGROUND

The telecommunication industry is continuously growing as the need for radio and cellular networks flourish. As a result of this growth there has been a constant demand for radio and cellular networks to increase their coverage. Thus, landowners that have infrastructure (i.e., communication towers, tall buildings, etc.) that would support cellular tower line-of-sight communications are approached by companies seeking opportunities to enhance their system coverage.

In addition, solar power leasing has been decreasing in price and solar companies are looking to install facilities via power purchase agreements (PPA) or long-term lease. Thus, landowners that have parcels of vacant land that would support solar arrays are being approached by those companies seeking to develop an agreement for a land lease or PPA.

Mesa Water® upgraded their Supervisory Control and Data Acquisition (SCADA) system in 2012 to include a high-speed radio communication system that links three backbone facilities via a telemetry network that connects twenty-two remote sites. To provide adequate coverage to the sites Mesa Water’s system uses radio equipment operating in the unlicensed and licensed frequency bands. The backbone radio communication systems are supported by 3 steel communication towers that span in height 70, 60, and 100 feet above the ground and are located at the Mesa Water Reliability Facility (MWRF), Kemp Reservoir, and main headquarters office, respectively.

DISCUSSION

Per direction from the Board, properties owned or leased by Mesa Water® were reviewed for vacant space availability that could be potentially leased to a 3rd Party. Based on this review several of Mesa Water’s properties were eliminated from further consideration due to the following parameters:
• Mesa Water® did not own the property (i.e. leased from another party)
• Lack of available vacant space when considering future facilities expansion
• Maintaining portions of properties for operations and maintenance activities (i.e. laydown and staging for well rehabilitation, etc.)

The facilities removed from further consideration are as follows:
• Wakeham Well (#2)
• Segerstrom Well (#4)
• Warren Booth Well (#8)
• Karl Kemp Reservoir

The remaining Mesa Water properties were evaluated for potential land lease opportunities to Telecommunication Companies and Solar Power Firms.

1. Telecommunication Companies

The remaining Mesa Water property locations were evaluated for vacant square footage that could be potentially leased to a 3rd Party. The square footage available at the remaining Mesa Water properties is presented in the table below:

<table>
<thead>
<tr>
<th>Well No.</th>
<th>Mesa Water Property</th>
<th>Total Area (sf)</th>
<th>Vacant Land (sf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Segerstrom</td>
<td>4,500</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Lee Pickens</td>
<td>10,000</td>
<td>None</td>
</tr>
<tr>
<td>5</td>
<td>Nathan L. Reade</td>
<td>10,000</td>
<td>None</td>
</tr>
<tr>
<td>7</td>
<td>Pat Patrick</td>
<td>10,000</td>
<td>840</td>
</tr>
<tr>
<td>9</td>
<td>Mario Durante</td>
<td>16,500</td>
<td>150 (southeast corner)</td>
</tr>
<tr>
<td></td>
<td>MWRF</td>
<td>75,800</td>
<td>None</td>
</tr>
<tr>
<td>11</td>
<td>Mesa Water Headquarters</td>
<td>160,890</td>
<td>On the Mesa Water Communication Tower</td>
</tr>
</tbody>
</table>

Eighteen (18) cell phone and telecommunication companies in Orange County were contacted to determine future interest in the installation of independent telecommunication and cell phone towers on Mesa Water property or repeater stations on Mesa Water® existing communication towers. All companies indicated (via site acquisition agents) that currently they are not in need to enhance their system coverage in the areas that Mesa Water® has available to lease. Telecommunication companies indicated that technological advances in the antenna design and power capabilities have reduced the number of required sites to provide the same or more enhanced level of service. Thus, telecommunication companies are strategically selective on choosing sites to host their communication towers and equipment. The companies took the Mesa Water site information and indicated that they would confirm with their Radio Frequency Engineering Departments that Mesa Water locations would not be of immediate interest. The companies also indicated that they will keep a record of the potential locations and contact Mesa Water® if future expansion opportunities or upgrades to their systems become necessary.

**Revenue Benefit:** Allowance of a 3rd party telecommunication company system would allow Mesa Water® to generate potential revenue. Unfortunately, there is minimal interest from 3rd
party telecommunication companies to lease the areas that Mesa Water® has available. The exact lease estimate cannot be obtained as it is specific to the location and need of the 3rd Party companies. However, based on other municipal locations hosting 3rd Party telecommunications companies it appears that the leases would be minimal (i.e. $250 per month for cell phone company installations and $500 per month for telecommunication installations).

Challenges:

I. **Operations and Maintenance:** Allowance of the 3rd party based telecommunication installations would include the following challenges:
   - Necessity of developing a specific contract/lease agreement program
   - Providing ongoing contract management activities
   - Periodic site inspections of the facilities per Mesa Water personnel
   - Periodic maintenance by outside vendors/contractors not under contract with Mesa Water®
   - Providing 3rd Party facility access (24 hours a day and 365 days per year)

II. **Risks:** Allowance of the 3rd party based telecommunication installations would include the following risks:
   - Mesa Water’s radio system works on line-of-sight principle that requires a tight degree of tolerance to its triangulated sources. Slight disturbances from external maintenance activities could cause Mesa Water’s antenna’s to fall out of alignment and loose communication with the SCADA system.
   - It is feasible that the 3rd party radio based communications system could cause interference with Mesa Water radio-based SCADA system. Implementation of a 3rd Party system would require a detailed radio communications system frequency and interference analyses to ensure no interference would hinder operations functionality of Mesa Water’s SCADA system.
   - Telecommunication companies indicated that no environmental documents are typically prepared prior to installation of their facilities. This could be a challenge and add additional costs for Mesa Water® due to the installation on public property.

Given the above challenges, a cost-benefit analysis (CBA) was utilized due to the systematic process for calculating and comparing benefits and costs.

The CBA had two purposes:
1. Determine if the project or decision is a sound investment for Mesa Water®.
2. Provide a basis for comparing cost and benefits. This involves comparing the total expected cost against the total expected benefits, in order to see whether the benefits outweigh the costs, and by how much.

Based on the CBA analysis, the conclusion is that leasing to a cellular or telecommunications company would not be a sound investment for Mesa Water® due to the negative financial benefit to Mesa Water® based upon the industry standard of a 10 year lease. The CBA benefit/cost analysis is a negative $42,190.96 for a Cellular Company 3rd Party Communication System Lease.
and a negative $28,050.58 for a Telecommunications Company 3rd Party Communication System Lease.

Recommendations:
Based on the aforementioned discussion there is uncertainty regarding the potential market for telecommunication installations, considerable risk associated with allowing 3rd parties access to Mesa Water’s antennas, and considerable resources that would have to be dedicated to managing 3rd party communication contract and maintenance activities. Therefore, it is recommended that the Board consider adopting a policy that would:

- Prohibit the use of Mesa Water’s superstructure assets or properties to directly host a 3rd Party telecommunication system.

2. Solar Power Companies

The remaining Mesa Water property locations were also evaluated for vacant square footage that could be potentially leased to a 3rd Party to host solar power generation facilities. The square footage available at Mesa Water properties is presented in the table below:

<table>
<thead>
<tr>
<th>Well No.</th>
<th>Mesa Water® Property</th>
<th>Total Area (sf)</th>
<th>Vacant Land (sf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Segerstrom</td>
<td>4,500</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Lee Pickens</td>
<td>10,000</td>
<td>None</td>
</tr>
<tr>
<td>5</td>
<td>Nathan L. Reade</td>
<td>10,000</td>
<td>None</td>
</tr>
<tr>
<td>7</td>
<td>William Patrick</td>
<td>10,000</td>
<td>None</td>
</tr>
<tr>
<td>9</td>
<td>Mario Durante</td>
<td>16,500</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>MWRF</td>
<td>75,800</td>
<td>4,900 on the building top</td>
</tr>
<tr>
<td></td>
<td>Mesa Water® Headquarters</td>
<td>160,890</td>
<td>1,500 of parking lot space on south side</td>
</tr>
<tr>
<td></td>
<td>Reservoir 1</td>
<td>160,890</td>
<td>5,600 on top of Res 1</td>
</tr>
</tbody>
</table>

Fifteen solar companies were contacted to determine interest and market opportunities for solar leasing implementation. Solar lease and power purchase options were investigated and discussed with the solar companies.

a) Solar Lease: A typical lease agreement would be for a term of 20 to 25 years and require Mesa Water® to pay the solar provider a monthly fee (fixed, escalating or de-escalating) to lease their solar panels. The power generated would feed into the existing electrical meters and offset power use from the traditional power grid. Any excess power would flow into the power grid as Southern California Edison (SCE) has not implemented “reversal meters” or banking of power. The leasing payment is usually fixed during the term of the lease and is typically 7 to 10 percent of the overall cost of the system. In addition there is typically a 2.9 percent annual payment increase. Solar leasing companies install, maintain and monitor performance of the system to assure the minimum power production. The solar companies are entitled to all rebates, tax benefits and other incentives such as Solar Renewable Energy Credits (SRECs). Mesa Water® would have the option to buy the solar system at any time during the lease term and/or at the end of the term. However, at lease end the equipment is typically at the end of its useful life and not the most current
technology.

b) **Power Purchase Agreement:** A power purchase agreement (PPA) would require Mesa Water® to pay for the amount of power the solar panels produce. The current market price can vary, but is in the range of $0.16 to $0.22 per kWh. The solar company would monitor and maintain the system performance for the duration of the PPA. Similarly as in the Solar Lease option, Mesa Water® would have the option to buy the solar system at any time during the lease term and/or at the end of the term. Under both the lease and PPA scenarios the solar companies are responsible for all capital and operations and maintenance costs.

**Revenue Benefit:** Allowance of a 3rd party solar power company system would allow Mesa Water® to generate potential revenue via offsetting its facility power costs. However, the available land at most of Mesa Water® properties is not sufficient for installation of the solar array systems on the scale that would yield large revenue potential. There are only two properties possessing sufficient land for a small (i.e. over 50 panels) solar array. The locations are the MWRF (top of the Administration and Nanofiltration Buildings) and Mesa Water® Headquarters (top of Reservoir 1 and visitor/employee parking lot). These facilities would need to be further evaluated for structural capacity should an actual project be considered for implementation.

Table 1 below presents a summary of solar power output, cost per kW currently paid by Mesa Water®, cost per kW via a solar lease option and cost per kW via Power Purchase Agreement.

Table 1 – Solar Power Output with Cost per kW by Solar Lease Option and Power Purchase Agreement Option

<table>
<thead>
<tr>
<th>Mesa Water® Site Location</th>
<th>Solar System Output (kW)</th>
<th>Annual Facility Usage (kW)</th>
<th>Avg. SCE Power Rate ($/kW)</th>
<th>Lease Cost ($/kW)</th>
<th>PPA Cost ($/kW)</th>
<th>% Solar Use</th>
<th>Payback Period (Yrs.) Lease</th>
<th>Payback Period (Yrs.) PPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWRF</td>
<td>96,500</td>
<td>950,000</td>
<td>0.084</td>
<td>0.18</td>
<td>0.20</td>
<td>10%</td>
<td>24</td>
<td>18</td>
</tr>
<tr>
<td>Reservoir 1</td>
<td>110,400</td>
<td>400,000</td>
<td>0.12</td>
<td>0.18</td>
<td>0.20</td>
<td>35%</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Parking Lot</td>
<td>29,500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The average capital cost for a solar array producing 100,000 kW is approximately $7,000,000.

The other benefits of allowing the 3rd party Solar Power Lease Program are as follows:

- Carbon footprint reduction
- Protection from rising electricity prices
- Minimal Mesa Water® staff effort, and
- Savings to Mesa Water® (low or no capital cost to Mesa Water®)
Challenges

I. Operations and Maintenance: Allowance of a 3rd party Solar Power installation would include the following challenges:

- Obstruction with ongoing Mesa Water maintenance and CIP replacements
- Structural capacity of buildings will need to be performed and potential structural modifications made
- Necessity of developing a specific contract/lease agreement program
- Providing ongoing contract administrative activities
- Periodic site inspections of the facilities per Mesa Water personnel
- Periodic maintenance by outside vendors/contractors not under contract with Mesa Water®

II. Risks: Allowance of the 3rd Party Solar Power installations would include the following risks:

- The solar power companies indicated that no environmental documents are typically prepared prior to installation of their facilities. This could be a challenge and add additional costs for Mesa Water® due to the installation on public property.

Recommendations:

The size of solar array required to offset the power consumption at the MWRF and Mesa Water Headquarters significantly exceeds the size of the areas available by Mesa Water® for solar facility installations. The PPA guarantee on the price of power is not of a significant difference comparing to SCE’s current price ($0.084 - $0.12 kWh) to merit entering into either a lease or PPA. This small price differential in conjunction with insufficient size of the solar array would not provide significant benefit to the overall operation and maintenance budget.

A payback period of less than 5 years is considered industry practice for investing in these types of project.

Thus, with a payback period of 9 to 18 years the above analysis points to conclusion that the solar lease system or power purchase agreement would not be in the best interest to Mesa Water® at this time.

FINANCIAL IMPACT

None.

ATTACHMENTS

Technical Memorandum
Property Lease Evaluation

Mesa Water District

Subject: Property Lease Evaluation
Prepared For: Mark Pelka, Senior Civil Engineer
Prepared by: John Robinson, John Robinson Consulting, Inc.
Reviewed by: Phil Lauri, Assistant General Manager
Date: December 2015

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Attachment A: Mesa Water Properties
Attachment B: California Civil, Government and Water Code Sections on leasing property
1 Background
The cellular and telecommunication industry is continuously growing as the need for cell towers and radio network installations is expanding. As a result of this growth there has been a constant demand for cell tower and radio network installations to increase their coverage. Thus, landowners that have infrastructure (i.e. communications towers, tall buildings, etc.) that would support cell tower line-of-site communications are often approached by companies seeking opportunities to enhance their system coverage.

In addition, solar power leasing has been decreasing in price and wholesale and retail companies are looking to install facilities via power purchase agreements or long term lease. Thus landowners that have large parcels of vacant land that would support solar arrays are being approached by those companies seeking to develop an agreement for the land lease.

Mesa Water District (Mesa Water) upgraded their Supervisory Control and Data Acquisition (SCADA) system in 2012 to include a high-speed radio communication system that links three backbone facilities via a telemetry network that connects twenty-two remote sites. To provide adequate coverage to the sites Mesa Water’s system uses radio equipment operating in the unlicensed and licensed frequency bands. The backbone radio communication system are supported by 3 steel communications towers that span in height 70, 60 and 100 feet above the ground and are located at the Mesa Water Reliability Facility (MWRF), Kemp Reservoir and Mesa Water Headquarters office, respectively.

Inquiries have been made by various organizations regarding the potential for establishing a radio based communications system using Mesa Water’s towers.

2 Mesa Water Property Overview

2.1 Physical Location
Properties owned or leased by Mesa Water District (Mesa Water) were reviewed with the understanding and focus on vacant space availability within those property locations that could be leased to a 3rd party. The locations evaluated were the following:

- Segerstrom Well No. 1 – 1150 Sunflower Avenue, Costa Mesa, CA 92626
- Wakeham Well – 1001 Sunflower Avenue, Costa Mesa, CA 92626
- Lee Pickens Well – 3581 Harbor Blvd., Costa Mesa, CA 92626
- Segerstrom Well No. 2 – Abandoned Facility
- Nathen Reade Well – 3596 Cadillac Avenue, Costa Mesa, CA 92626
- Pat Patrick Well – 3325 Harbor Blvd., Costa Mesa, CA 92626
- Warren Booth Well – Leased from AAA
- Mario Durante Well – 1301 Sunflower Avenue, Costa Mesa, CA 92626
- Mesa Water Reliability Facility - 1350 Gisler Avenue, Costa Mesa, CA 92626
- Reservoir 1 – 1971 Placentia Avenue, Costa Mesa, CA 92627
- Mesa Water District Headquarter – 1965 Placentia Avenue, Costa Mesa, CA 92627
- Karl Kemp Reservoir – 2340 Orange Avenue, Costa Mesa, CA 92627

All the Mesa Water property locations footprints are located in Attachment A.
Based on the property site evaluation several Mesa Water properties were eliminated from further consideration due to the following issues:

1. Mesa Water does not own the property (i.e. leased from another party)
2. Lack of available vacant space when considering future facilities expansion (i.e. new well, etc.).
3. Maintaining portions of properties for operations and maintenance activities (i.e. laydown and staging for well rehabilitation, etc.).

The Mesa Water facility locations that were removed from further considerations are the following:

- Wakeham Well
- Segerstrom Well 2
- Warren Booth Well
- Karl Kemp Reservoir

### 2.2 California Civil, Government and Water Code Sections

Other similar Orange County municipal agencies were investigated that have radio towers via 3rd Party organizations that are allowed to apply for and potentially use municipal assets via a lease agreement for the establishment of outside telecommunications systems. Those three Orange County municipal agencies include the City of Anaheim, Moulton Niguel Water District and South Coast Water District.

In addition, 3rd party organizations leasing requirements were researched in the California Civil, Government and Water Codes. It does not appear that a 3rd party organization lease violates any of the codes. However it is strongly recommended that Mesa Water coordinate with their legal counsel to further evaluate these codes if Mesa Water decides to move forward with leasing of any of the property. The following codes can be found in Attachment B.

- California Civil Code Section: 715 – 719
- California Civil Code Section: 1954.25 – 1954.31
- Government Code Section: 37380 – 37396
- Water Code Section: 31040-31054
3  Cell Phone and Telecommunications Companies

3.1  Square Footage and Vacant Space
The remaining Mesa Water property locations were evaluated on vacant square footage that could be potentially leased to a 3rd party specifically for a cell phone or telecommunications tower. The square footage available for the remaining Mesa Water properties includes the following:

<table>
<thead>
<tr>
<th>Mesa Water Property</th>
<th>Total Property (Square Feet)</th>
<th>Vacant Land (Square Feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segerstrom Well 1</td>
<td>4,500</td>
<td>None</td>
</tr>
<tr>
<td>Lee Pickens</td>
<td>10,000</td>
<td>None</td>
</tr>
<tr>
<td>Nathen Reade</td>
<td>10,000</td>
<td>None</td>
</tr>
<tr>
<td>Pat Patrick</td>
<td>10,000</td>
<td>840 sq. ft.</td>
</tr>
<tr>
<td>Mario Durante</td>
<td>16,500</td>
<td>150 sq. feet southeast corner</td>
</tr>
<tr>
<td>Mesa Water Reliability Facility</td>
<td>75,800</td>
<td>None</td>
</tr>
<tr>
<td>Mesa Water Headquarters</td>
<td>160,890</td>
<td>On the Mesa Water Communications Tower</td>
</tr>
</tbody>
</table>

3.2  Potential Third Party Opportunities and Local Demands
In order to determine the market for leasing of Mesa Water property, all eighteen (18) cell phone and telecommunication companies in Orange County were contacted to determine future interest in the installation of an independent cell phone tower, installation of repeater stations on Mesa Water existing communication towers or the installation of an independent communication tower on Mesa Water property. The 18 cell phone and telecommunications vendors included:

1. AT&T – Costa Mesa
2. B&J Enterprise
3. CDM Development Group
4. Clearworld Communications
5. Fine Telecommunications
6. First Impulse
7. For Phones
8. KC Communications
9. On Call Communications
10. Pacificom-Intelligent Cabling
11. Pratt Communications
12. Right Choice Telecom
13. Sprint
14. Stellar Telecom
15. Supply Technology
16. TMobile
17. Verizon Wireless
18. Verstech Communications

In all cases, communications were referred to a “site acquisition agent” who works for cell phone or telecommunication companies as the agent that identifies those parcels in the Search Ring that are suitable for the location of a wireless tower. The site acquisition agent is the individual that contacts the owner of the parcel. Communications were held with all site acquisition agents for all 18 cell phone and
telecommunications vendors. Specifically, there are ten (10) site acquisition agents representing all 18 cell phone or telecommunications companies listed above. All site acquisition agents indicated that currently all their clients are not in need to enhance their system coverage in those areas that Mesa Water has available facilities based upon the GPS coordinate readings (latitude and longitude) of the properties.

All ten site acquisition agents did take the information and indicated that they would coordinate with their clients Radio Frequency Engineering Departments to confirm that Mesa Water District locations would not be of immediate interest. The site acquisition agents also indicated that any future expansion opportunities would have a record of the potential locations for future upgrades to their system. The site acquisition agents did indicate that having this information (i.e. suitable parcels) would eliminate further research for them in the future as implementation of systems on public property is more beneficial to their clients specifically to the security measures implemented by public property sites.

The site acquisition agent has complete authorization for negotiations and no client provides him with a “starting” offer and initial offers are at the discretion of the site acquisition agent, although there is a "cap" which cannot be exceeded without special reason. The initial offer typically is in the middle of the agents target range. However when discussed further it was determined the site acquisition agents would provide a typical range or cap.

The site acquisition agents will verbally provide an initial lease rate offer that can range from $250 to $500 per month. After coming to a verbal agreement on the terms of the lease, the agent will provide a draft lease agreement for Mesa Water’s review. After the lease terms are negotiated and the final lease is created, both parties will be asked to sign the cell tower lease with Mesa Water signing first. When the lease is signed, the process of acquiring local permits and meeting zoning regulations for a tower commences.

### 3.3 Revenue Benefit

**Revenue Generation:** Allowance of a 3rd Party cell phone and telecommunication company system would allow Mesa Water to generate potential revenue. There appears to be minimal interests from 3rd Party cell phone or telecommunication companies and the exact lease estimate cannot be obtained as it is specific to location and need of the 3rd Party companies. However, it appears that the leases would be minimal (i.e. $250 per month for cell phone company installations and $500 per month for telecommunication installations or $3,000 to $6,000 per year, respectively).

**Financial Analysis:** A cost-benefit analysis (CBA) was utilized due the systematic process for calculating and comparing benefits and costs for this option. The CBA is predicting on a financial basis if leasing to a 3rd party to install and maintain a cell phone and telecommunications system on Mesa Water property outweighs Mesa Water’s resources required to implement the project(s), and any other miscellaneous costs and by how much.

The CBA has two purposes:

1. Determine if the project or decision is a sound investment or decision for Mesa Water.
2. To provide a basis for comparing cost and benefits. This involves comparing the total expected cost against the total expected benefits, in order to see whether the benefits outweigh the costs, and by how much.
Table 1 is the CBA for a cellular company lease and Table 2 is a CBA for a telecommunications lease. It assumes the following for both leases:

- Similar initial costs, with Year 1 through 5 requiring constant Mesa Water’s staff resource requirements which are then decreased in Years 6 through 10 due to the elimination of external consultant time (effort).
- 10 year lease which is traditionally the time frame established in the industry.
- Present value discount rate of 2%

**Table 1 – CBA for a Cellular Company 3rd Party Communication System Lease**

<table>
<thead>
<tr>
<th>Cost Benefit Analysis</th>
<th>Current Year (CY)</th>
<th>CY +1</th>
<th>CY +6</th>
<th>CY + 10</th>
<th>Cost Benefit Analysis Net Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Costs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative Time</td>
<td>$10,000.00</td>
<td>$2,500.00</td>
<td>$1,000.00</td>
<td>$1,000.00</td>
<td></td>
</tr>
<tr>
<td>Maintenance Time</td>
<td>$5,000.00</td>
<td>$5,000.00</td>
<td>$5,000.00</td>
<td>$5,000.00</td>
<td></td>
</tr>
<tr>
<td>Consultant Time</td>
<td>$5,000.00</td>
<td>$1,000.00</td>
<td>$ --</td>
<td>$ --</td>
<td></td>
</tr>
<tr>
<td><strong>Total Costs (Future Value)</strong></td>
<td>$20,000.00</td>
<td>$8,500.00</td>
<td>$6,000.00</td>
<td>$6,000.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total Costs (Present Value)</strong></td>
<td>$20,000.00</td>
<td>$8,333.33</td>
<td>$6,000.00</td>
<td>$6,000.00</td>
<td>$56,331.34</td>
</tr>
<tr>
<td><strong>Benefits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue from Cellular Company</td>
<td>$ --</td>
<td>$3,000.00</td>
<td>$3,000.00</td>
<td>$3,000.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total Benefits (Future Value)</strong></td>
<td>$ --</td>
<td>$3,000.00</td>
<td>$3,000.00</td>
<td>$3,000.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total Benefits (Present Value)</strong></td>
<td>$ --</td>
<td>$2,941.18</td>
<td>$3,000.00</td>
<td>$3,000.00</td>
<td>$14,140.38</td>
</tr>
<tr>
<td>Present Value Discount</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net Benefits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>($42,190.96)</td>
</tr>
</tbody>
</table>
Table 2 – CBA for a Telecommunications Company 3rd Party Communication System Lease

<table>
<thead>
<tr>
<th>Cost Benefit Analysis</th>
<th>Current Year (CY)</th>
<th>CY +1</th>
<th>CY +6</th>
<th>CY + 10</th>
<th>Cost Benefit Analysis Net Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative Time</td>
<td>$10,000.00</td>
<td>$2,500.00</td>
<td>$1,000.00</td>
<td>$1,000.00</td>
<td></td>
</tr>
<tr>
<td>Maintenance Time</td>
<td>$5,000.00</td>
<td>$5,000.00</td>
<td>$5,000.00</td>
<td>$5,000.00</td>
<td></td>
</tr>
<tr>
<td>Consultant Time</td>
<td>$5,000.00</td>
<td>$1,000.00</td>
<td>$ --</td>
<td>$ --</td>
<td></td>
</tr>
<tr>
<td>Total Costs (Future Value)</td>
<td>$20,000.00</td>
<td>$8,500.00</td>
<td>$6,000.00</td>
<td>$6,000.00</td>
<td></td>
</tr>
<tr>
<td>Total Costs (Present Value)</td>
<td>$20,000.00</td>
<td>$8,333.33</td>
<td>$6,000.00</td>
<td>$6,000.00</td>
<td>$56,331.34</td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue from Cellular Company</td>
<td>$ --</td>
<td>$6,000.00</td>
<td>$6,000.00</td>
<td>$6,000.00</td>
<td></td>
</tr>
<tr>
<td>Total Benefits (Future Value)</td>
<td>$ --</td>
<td>$6,000.00</td>
<td>$6,000.00</td>
<td>$6,000.00</td>
<td></td>
</tr>
<tr>
<td>Total Benefits (Present Value)</td>
<td>$ --</td>
<td>$5,882.35</td>
<td>$6,000.00</td>
<td>$6,000.00</td>
<td>$28,280.76</td>
</tr>
<tr>
<td>Present Value Discount</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>($28,050.58)</td>
</tr>
</tbody>
</table>

Summary of CBA: Based on the two purposes of the CBA the conclusion is that leasing to a cellular or telecommunications company would not be a sound investment for Mesa Water due to the negative benefit/financial benefit to Mesa Water.

Community Outreach: Allowance of a 3rd Party Radio Communication System Lease Program would allow Mesa Water to partner with local businesses and other governmental organizations seeking locations to enhance their radio based communications systems. This would need to be evaluated on a case by case basis.

3.4 Operation & Maintenance

3.4.1 Cost Impacts to Mesa Water
Allowance of a 3rd Party based cell phone or telecommunication installation would require the development of a contract/lease program, ongoing contract administrative activities and periodic site inspections of the facility. Moulton Niguel Water District (MNWD), which has an existing cell phone communications agreement, could be used as a basis for Mesa Water’s agreement should they decide to move forward with such a program. Evaluation of MNWD’s efforts to manage this program has determined that the management of this program takes considerable internal resources as demonstrated in the CBA.
3.4.2 Property Access Requirements
Allowance of a 3rd Party based cell phone and telecommunication installation would require periodic maintenance by outside vendors/contractors not under contract with Mesa Water to access Mesa Water’s facilities. Outside maintenance work would require Mesa Water and dedicated resources to oversee any maintenance activities to ensure that work is being performed in compliance with Mesa Water’s Standards and Mesa Water’s facilities are protected while contractor(s) are onsite. This is especially an issue during off hours and weekends due to the decrease in staff during those periods.

Potentially a dedicated access could be built for the cell phone and telecommunications companies but unless this access was designed and constructed by Mesa Water the cell phone and telecommunications companies would not construct a dedicated access.

3.4.3 Facility Requirements
In conversations with the cell phone and telecommunication companies representatives the only requirement which is the top priority in the lease was 100-percent facility access to their equipment 24 hours a day and 365 days per year.

3.5 Risk Analysis

3.5.1 Compliance Requirements
It is feasible that a 3rd Party radio based communications system could cause interference with Mesa Water’s radio-based SCADA system which is specific to the system located at Mesa Water’s Headquarters. Implementation of a 3rd Party system would require a detailed radio communications system frequency and interference analyses to ensure no interference would hinder operation functionality of Mesa Water’s SCADA system.

3.5.2 Line-of-Sight Requirements
Mesa Water’s radio system works on line-of-sight principle that required a tight degree of tolerance to its triangulated sources. Slight disturbances from external maintenance activities could cause Mesa Water’s antenna’s to fall out of alignment and loose communication with the SCADA system.

3.5.3 Environmental Requirement
Mesa Water would need to consider the environmental requirements that the cell phone and telecommunication companies would need to provide. In conversation with the cell phone and telecommunication companies they indicated that no environmental document is typically prepared ahead of their installations. This could be a challenge and add additional costs for Mesa Water due to the installation on public property.
3.6 Overall Recommendation

Based on the aforementioned discussions there is still uncertainty regarding the potential market for cell phone and telecommunication installations. Therefore, it is recommended that the Board consider formally adopting a policy that would:

1. Prohibit the use of Mesa Water’s superstructure assets (i.e. buildings, towers, reservoirs, etc.) to directly host a 3rd party telecommunication system.

4 Solar Power Companies

4.1 Square Footage and Vacant Space

The remaining Mesa Water property locations were evaluated on vacant square footage that could be potentially leased to a 3rd party to host solar generation facilities. The square footage available at Mesa Water properties includes the following:

<table>
<thead>
<tr>
<th>Mesa Water Property</th>
<th>Total Property (Square Feet)</th>
<th>Vacant Land (Square Feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segerstrom Well 1</td>
<td>4,500</td>
<td>None</td>
</tr>
<tr>
<td>Lee Pickens Well</td>
<td>10,000</td>
<td>None</td>
</tr>
<tr>
<td>Nathan Reade Well</td>
<td>10,000</td>
<td>None</td>
</tr>
<tr>
<td>Pat Patrick Well</td>
<td>10,000</td>
<td>None</td>
</tr>
<tr>
<td>Mario Durante Well</td>
<td>16,500</td>
<td>None</td>
</tr>
<tr>
<td>Mesa Water Reliability Facility</td>
<td>75,800</td>
<td>4,900 sq. ft. on top of building</td>
</tr>
<tr>
<td>Mesa Water Headquarters</td>
<td>160,890</td>
<td>1,500 sq. feet of parking lot space on south side</td>
</tr>
<tr>
<td>Reservoir 1</td>
<td>160,890</td>
<td>5,600 sq. ft. on top of Reservoir 1</td>
</tr>
</tbody>
</table>

4.2 Potential Third Party Opportunities and Local Demands

Fifteen (15) solar companies were contacted to determine interest and market conditions for solar leasing implementation. There are a variety of wholesalers and retailer installation vendors in Orange County who would potentially want to install solar via a power purchase agreement or lease on the vacant land owned by Mesa Water. The fifteen (15) solar companies included:

1. Advanced Improvements
2. ecoSolargy Inc.
3. DC Power Systems, Inc.
4. Direct Electric Company
5. LA Solar Group
6. Green Conception
7. Infinity Solar
8. NexGen Construction
9. ReStart Solar
10. Solar360
11. SolarCity
12. SolarForward  
13. Soloartrope Supply Corporation  
15. Sunline Energy

Solar lease and power purchase agreement options were investigated and discussed with all 15 solar companies. The following is a brief summary of how each method is implemented:

**Solar Lease:** The solar lease is a similar process as leasing a car. Mesa Water would pay the solar provider a monthly fee (fixed, escalating or de-escalating) to lease their solar panels. The power generated would feed into the existing electrical meters and offset power use from the traditional power grid. Any excess power would flow into the power grid as Southern California Edison has not implemented next meter (i.e. reversal of the meter or banking of power). Many of the solar power vendors would allow Mesa Water to pre-pay the entire lease or a part of it (i.e. a down payment). The following are some key items for a solar lease:

- Mesa Water leasing the equipment would be entitled to the benefits of using the system (i.e. the free power that the system generates).
- The leasing payment is fixed during the term of the lease and is typically 7% to 10% of the overall cost of the system which is divided across 12 months. In addition there is typically a 2.9% annual payment increase.
- Solar leasing companies will guarantee the minimum production of the system. If the PV system does not produce the guaranteed amount of electricity, the leasing company may compensate Mesa Water.
- The solar leasing company installs the system,
- The solar leasing company will monitor the system’s performance for the duration of the lease. Because they own the system, they will be responsible for maintaining and repairing it, performing periodic maintenance, replacing inverters, etc.
- The solar leasing company is entitled to all rebates, tax benefits (e.g., federal and state tax credits), and other incentives such as Solar Renewable Energy Credits (SRECs),
- As the system “lessee” Mesa Water is entitled to the benefits of using the system, i.e. the energy that the system generates,
- The energy could be utilized at the three potential Mesa Water properties outlined in Section 4.1
- One of the key benefits of utilizing a solar leasing company is there is no capital outlay
- Contract terms are generally for a 20 to 25 year period
- Mesa Water has the option to buy the solar PV system at any time during the lease term and/or at the end of the term. The purchase price will be the cost predefined in the contract or the fair market value, whichever is higher.

**Power Purchase Agreement:** The power purchase agreements (PPA) are almost identical to solar leases with the only difference that Mesa Water would pay for the amount of power the solar panels produce, as opposed to just leasing the equipment. The following are some key items for a PPA:

- Mesa Water agrees to buy the power generated by the system at a set price per kWh which typically is $0.18 per kWh to $0.20 per kWh.
• The solar company estimates the production of the system installed on the Mesa Water property, but Mesa Water is only required to pay for the actual kilowatt hours (kWh) the system produces.
• The solar leasing company will monitor the system’s performance for the duration of the lease. Because they own the system, they will be responsible for maintaining and repairing it, performing periodic maintenance, replacing inverters, etc.
• Mesa Water has the option to buy the solar PV system at any time during the lease term or at the end of the term. The purchase price will be the cost predefined in the contract or the fair market value, whichever is higher.
• Typically after the term of the PPA has been reached, the system is not purchased since the life span of the equipment has been reached and would not be considered a smart investment.
• At the termination of the PPA, Mesa Water will have an opportunity to renew the PPA, which will include modifying the kWh return on investment and new solar panels will be installed.

The following diagram outlines the “Utility” (Southern California Edison), “Host” (Mesa Water) and “Developer” (Solar Leasing Company):

As outlined in the figure, Mesa Water will only pay for the electricity produced by the solar power system during the PPA time frame.
4.3 Revenue Benefit

**Revenue Generation:** Allowance of a 3rd Party solar power company system would allow Mesa Water to generate potential revenue. However, the available land at most Mesa Water properties is not sufficient enough in order to install a solar array system with only three properties possessing sufficient land for a measurable (i.e. over 50 panels) solar array.

This lease arrangement would be different than the cell phone and telecommunication company system as with a residential installation the solar power company would require a 20 year lease or more on a portion of property that Mesa Water is certain would not be needed during that time period. The three locations that solar had the greatest potential are at the MWRF and the Mesa Water Headquarters (specifically Reservoir No. 1 and the Mesa Water Visitor/Employee Parking lot). At the MWRF there is not enough land but there is space on top of the Administration and Nanofiltration Building.

Table 3 is a summary of solar power output, cost per KW currently paid by Mesa Water, cost per KW via a solar lease option and cost per KW via a Power Purchase Agreement.

**Table 3 - Solar Power Output with Cost per KW by Solar Lease Option and Power Purchase Agreement Option**

<table>
<thead>
<tr>
<th>Mesa Water Site Location</th>
<th>Solar System Output (kW)</th>
<th>Annual Facility Usage (kW)</th>
<th>Avg. SCE Power Rate ($/kW)</th>
<th>Lease Cost ($/kW)</th>
<th>PPA Cost ($/kW)</th>
<th>% Solar Use</th>
<th>Payback Period (Yrs.) Lease</th>
<th>Payback Period (Yrs.) PPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWRF</td>
<td>96,500</td>
<td>950,000</td>
<td>0.084</td>
<td>0.18</td>
<td>0.20</td>
<td>10%</td>
<td>24</td>
<td>18</td>
</tr>
<tr>
<td>Reservoir 1</td>
<td>110,400</td>
<td>400,000</td>
<td>0.12</td>
<td>0.18</td>
<td>0.20</td>
<td>35%</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Parking Lot</td>
<td>29,500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Summary of Payback Analysis:** Solar Leasing and PPA options were analyzed over a 25 year period which is the typical leasing and PPA contracting time period. For the solar leasing an industry standard of 2% was utilized. An assumption of a 5% power escalation from Southern California Edison was utilized and supported by SCE’s public information that power escalation would be 3% to 10% per year over the next 15 to 25 years.
4.4 Benefits of Solar Power

**Carbon Footprint Reduction:** Allowance of a 3rd Party Solar Power Lease Program would allow Mesa Water to decrease their carbon footprint consumption by decreasing the use of power. Based on the potential annual solar power usage outlined in Table 4 the potential decrease in the Mesa Water carbon footprint would be approximately 0.22 metric tons of carbon dioxide per year or the equivalent of taking 25 cars off the road.

**Protection from rising electricity prices:** Leases and PPAs provide protection against volatile electricity prices. Top tier electricity prices have increased about 5% on average every year for the last 30 years.

**Minimal Mesa Water staff effort:** Five local solar companies interviewed indicated that they take care of everything from start-to-finish which will include installation, monitoring, maintenance and repairs. Mesa Water would be provided with a performance guarantee, insurance and warranty. The solar companies would need complete access to the site during construction and will need undeterred access during leasing period of the system.

4.5 Challenges of Solar Power

**Higher Power Rates to Mesa Water:** Solar leases and PPAs are more expensive on a kilowatt per hour costs then Mesa Water is currently paying. This higher kilowatt per hour costs does not provided the cost avoidance or revenue to Mesa Water.

4.6 Operation & Maintenance

4.6.1 Cost Impacts to Mesa Water

**Contract Administration:** Allowance of a 3rd Party based solar power company would require the development of a contract/lease program, ongoing contract administrative activities and periodic site inspections of the facility.

4.6.2 Property Access Requirements

**Mesa Water Facility Access:** Allowance of 3rd Party based solar power companies would require periodic maintenance by outside vendors/contractors under contract with Mesa Water to access Mesa Water’s facilities. Outside maintenance work would require Mesa Water and dedicated resources to oversee any maintenance activities to ensure that work is being performed in compliance with Mesa Water’s Standards and Mesa Water’s facilities are protected while contractor(s) are onsite. This is especially an issue during off hours and weekends due to the decrease in staff during those periods.

In reviewing the possibility of a dedicated access to the Mesa Water Facilities for the solar power companies it was determined that it would not be possible. All the solar power locations on Mesa Water facilities are not in one dedicated area so a separate access would not be practicable.

4.6.3 Facility Requirements

The solar power companies do not require access similar to the cell phone and telecommunication companies but their access is for routine maintenance which would allow the site visits to be scheduled and conducted during normal business hours.
4.7 Risk Analysis

4.7.1 Environmental Requirement
Mesa Water would need to consider the environmental requirements that the solar power companies would need to provide. In conversation with the solar power companies they indicated that no environmental document is typically prepared ahead of their installations. This could be a challenge and add additional costs for Mesa Water due to the installation on public property.

4.7.2 Proposed 3rd Party Agreement
Solar power companies leasing property from Mesa Water has a greater potential due to the numerous companies and business structures available.

4.8 Overall Conclusion/Recommendation

Based on the Section 4.3 Revenue Benefit analysis it does not appear that a solar lease or power purchase agreement would be in the best interest of Mesa Water based upon economics of the project payback. Paybacks greater than 5 years are not typical of industry standards. The size of solar array needed to offset the power consumption of the MWRF and the Mesa Water Headquarters with Reservoir 1 is beyond the available land that Mesa Water could provide on the sites.

The size of solar array capable to offset the power consumption at the MWRF and Mesa Water Headquarters significantly exceeds the size of the areas available by Mesa Water for solar facility installations.

The PPA guarantee on the price of power ($0.18 kWh) is not of a significant difference comparing to SCE’s current price ($0.12 kWh). This price difference in conjunction with insufficient size of the solar array would not provide significant benefit onto the overall operation and maintenance budget.

The above analysis points to conclusion that the solar lease system or power purchase agreement would not be in the best interest to Mesa Water at this time and thus are not recommended.
ATTACHMENT A
Mesa Water District Properties
ATTACHMENT B
California Civil, Government and Water Code Sections
715. A lease to commence at a time certain or upon the happening of a future event becomes invalid if its term does not actually commence in possession within 30 years after its execution.

717. No lease or grant of land for agricultural or horticultural purposes for a longer period than 51 years, in which shall be reserved any rent or service of any kind, shall be valid.

718. No lease or grant of any town or city lot, which reserves any rent or service of any kind, and which provides for a leasing or granting period in excess of 99 years, shall be valid. The property owned by, or that held by, or under the management and control of, any municipality, or any department or board thereof, may be leased for a period not to exceed 55 years. The property of any municipality not acquired for park purposes may, for the purpose of producing, or effecting the production of minerals, oil, gas or other hydrocarbon substances, be leased for a period not to exceed 35 years. Any tidelands or submerged lands, granted to any city by the State of California, may be leased for a period not to exceed 66 years unless the grant from the state of the use thereof provides specifically the term for which said lands may be leased. Tidelands and submerged lands owned or controlled by any city, together with the wharves, docks, piers and other structures or improvements thereon, and so much of the uplands abutting thereon as, in the judgment of the city council, or other governing body, of said city, may be necessary for the proper development and use of its waterfront and harbor facilities, may be leased for a period not to exceed 66 years. Said tidelands, submerged lands and uplands may be so leased only for industrial uses, the improvement and development of any harbor, or harbors, of said city, the construction and maintenance of wharves, docks, piers or bulkhead piers, or any other public use or purpose consistent with the requirements of commerce or navigation at, or in, any such harbor or harbors.

718f. A lease of land for the purpose of effecting the production of minerals, oil, gas, or other hydrocarbon substances from other lands may be made for a period certain or determinable by any future
event prescribed by the parties but no such lease shall be enforceable after 99 years from the commencement of the term thereof.

719. Notwithstanding the 55-year limitation imposed by Section 718, property owned by, or held by, or under the management and control of, any city, or any department or board thereof, may be leased for a period which exceeds 55 years but does not exceed 99 years, if all of the following conditions are met:
  (a) The lease shall be subject to periodic review by the city and shall take into consideration the then current market conditions. The local legislative body may, prior to final execution of the lease, establish the lease provisions which will periodically be reviewed, and determine when those provisions are to be reviewed.
  (b) Any lease entered into by any city pursuant to this section shall be authorized by an ordinance adopted by the legislative body. The ordinance shall be subject to referendum in the manner prescribed by law for ordinances of cities.
  (c) Prior to adopting an ordinance authorizing a lease, the legislative body shall hold a public hearing. Notice of the time and place of the hearing shall be published pursuant to Section 6066 of the Government Code, in one or more newspapers of general circulation within the city and shall be mailed to any person requesting special notice, to any present tenant of the public property, and to all owners of land adjoining the property.
  (d) Any lease shall be awarded to the bidder which, in the determination of the legislative body, offers the greatest economic return to the city, after competitive bidding conducted in the manner determined by the legislative body. Notice inviting bids shall be published pursuant to Section 6066 in one or more newspapers of general circulation within the city.
  (e) The provisions of subdivisions (b), (c), and (d) of this section do not apply to any charter city, which may utilize a procedure as specified by charter or adopted by ordinance in accordance with its charter.
  (f) This section shall not apply to leases of property acquired for park purposes; to leases for the purpose of producing mineral, oil, gas, or other hydrocarbon substances; nor to leases of tidelands or submerged lands or improvements thereon.
1954.25. The Legislature finds that the price charged for commercial real property is a matter of statewide concern. Price controls on commercial rents discourage expansion of commercial development and entrepreneurial enterprise. These controls also discourage competition in the open market by giving artificial price benefits to one enterprise to the disadvantage of another. Because the impact of these controls goes beyond the local boundaries within which the controls are imposed, the adverse economic consequences become statewide.

In order to prevent this statewide economic drain from occurring, the Legislature hereby enacts a uniform system with respect to commercial rents, which shall apply to every local jurisdiction in the state. This legislative action is needed to prevent the imposition of artificial barriers on commercial rents, as well as to define those areas not included within the definition of commercial real property.

In making these findings and in enacting this chapter, the Legislature expressly declares its intent that this chapter shall not apply or be interpreted to apply to local rental controls on residential real property.

1954.26. As used in this chapter, the following terms have the following meanings:

(a) "Owner" includes any person, acting as principal or through an agent, having the right to offer commercial real property for rent, and includes any predecessor in interest to the owner.

(b) "Price" includes any charge or fee, however denominated, for the hiring of commercial real property and includes any security or deposit subject to Section 1950.7.

(c) "Public entity" has the same meaning as defined in Section 811.2 of the Government Code.

(d) "Commercial real property" includes any part, portion, or unit thereof, and any related facilities, space, or services, except the following:

(1) Any dwelling or dwelling unit subject to the provisions of Section 1940.

(2) Any accommodation in any residential hotel, as defined in Section 50519 of the Health and Safety Code, or comparable accommodations which are specifically regulated by a public entity in structures where 20 percent or more of the accommodations are occupied by persons as their primary residence.

(3) Any hotel unit not otherwise specified in paragraph (1) or (2) that is located in a structure with 20 or more units or in which 20 percent or more of the accommodations were occupied as of August 5, 1987, by persons as their primary residence, if, in either circumstance, the unit was subject to rental controls on August 5, 1987, provided that any control exercised thereafter is in accordance
with the system of controls in effect on August 5, 1987.

(4) Any space or dwelling unit in any mobilehome park, as defined in Section 18214 of the Health and Safety Code.

(e) "Rent" means to hire real property and includes a lease or sublease.

(f) "Commercial rental control" includes any action of a public entity taken by statute, charter, ordinance, resolution, administrative regulation, or any other governmental enactment to establish, continue, implement, or enforce any control or system of controls, on the price at which, or the term for which, commercial real property may be offered for rent, or control or system of controls which would select, mandate, dictate, or otherwise designate a specific tenant or specific person or entity with whom the owner must negotiate on the formation, extension, or renewal of a tenancy; or any other enactment which has such a purpose.

(g) "Tenant" includes a lessee, subtenant, and sublessee.

(h) "Term" means the period of time for which real property is rented or offered for rent, and includes any provision for a termination or extension of such a period or renewal thereof, except that nothing in this chapter supersedes the specific provisions of this code or of the Code of Civil Procedure which of themselves establish, prescribe, limit, or define the term for which real property may be rented.

(i) "Impasse notice" means a written notice which states either of the following:

(1) That the owner has not received from the tenant an offer of any terms for an extension or renewal of the lease which are acceptable to the owner, or an acceptance by the tenant of any offer of terms by the owner, and that an impasse with respect to any agreement on a lease extension or renewal has been reached.

(2) That the owner is not willing to extend or renew the lease.

(j) "Negotiation notice" means a written notice by a tenant in privity of estate, and in privity of contract with the owner, stating either of the following:

(1) That the tenant offers to extend or renew the lease on terms set forth in the notice.

(2) That the tenant solicits an offer for the extension or renewal of the lease from the owner.

(k) "Deliver" means to deliver by personal service or by placing a copy of the notice in the mail, postage prepaid, by certified mail, return receipt requested, addressed to the party at the address for the receipt of notices under the lease.

(l) "Developer" means any person who enters into an agreement with a redevelopment agency for the purpose of developing specific commercial real property within a redevelopment project area with the intention of acquiring ownership of that property, even if that person does not own that property when the agreement is executed.

1954.27. (a) No public entity shall enact any measure constituting commercial rental control, nor shall any public entity enforce any commercial rental control, whether enacted prior to or on or after January 1, 1988.

(b) However, nothing in this chapter shall be construed to do any of the following:
(1) Relieve any party to a commercial lease or rental agreement of the duty to perform any obligation thereunder.

(2) Preclude express establishment in a commercial lease or rental agreement of the price at which real property may be offered to a subtenant or sublessee.

(3) Impair any obligation of any contract entered into prior to January 1, 1988.

(4) Affect any provision of, or requirement for mitigation of damages under, Sections 1951 to 1952.6, inclusive.

(5) Limit any adjustment of price required or permitted by law due to constructive eviction.

(6) Enlarge or diminish in any way any power which a public entity may have with respect to regulation of rental rates or the ownership, conveyance, or use of any property specified in paragraph (1), (2), or (3) of subdivision (d) of Section 1954.26.

(7) Relieve any party of any requirement or mandate to arbitrate, or deprive any party of any right to arbitrate or compel arbitration, which mandate or right exists pursuant to Title 9 (commencing with Section 1280) of Part 3 of the Code of Civil Procedure, titled "Arbitration," Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, titled "Judicial Arbitration," Title 1 (commencing with Section 1823) of Part 3 of the Code of Civil Procedure, titled "Pilot Projects," or any other provision of state law.

(8) Affect in any way, or preclude the inclusion of, any provision in a lease creating any lawful option, right of first refusal, or any covenant to renew or extend the lease or sell the real property or any interest therein.

(9) Relieve any person of any duty or deprive any person of any right or cause of action which may exist pursuant to Section 51, 53, or 782.

1954.28. Nothing in this chapter limits or affects public entities with respect to any of the following:

(a) The Eminent Domain Law, Title 7 (commencing with Section 1230.10) of Part 3 of the Code of Civil Procedure.

(b) Abatement of nuisances. However, except as to conditions expressly defined as nuisances by statute, authority to abate or bring actions to abate nuisances shall not be used to circumvent the limitations of this chapter with respect to conditions not manifesting the quantum and character of unreasonableness and injuriousness to constitute a nuisance under law.

(c) The Airport Approaches Zoning Law, Article 6.5 (commencing with Section 50485) of Chapter 2 of Part 1 of Division 1 of Title 5 of the Government Code.

(d) Any contract or agreement by which an owner agrees with a public entity to offer any real property for rent at a stipulated or maximum price or under a specified formula for ascertaining a stipulated or maximum price, in consideration for a direct financial contribution; any written contract between a redevelopment agency and an owner or developer of commercial real property within a redevelopment project area; or any written development agreement entered into pursuant to Article 2.5 (commencing with Section 65864) of Chapter 4 of Division 1 of Title 7 of the Government Code. Any contract or agreement specified in this subdivision is not enforceable against an owner who became an owner (1) without actual
knowledge of the contract or agreement, and (2) more than 30 days prior to the recording with the county recorder of a written memorandum of the contract or agreement specifically describing its terms and identifying the real property and the owner. The county recorder shall index these memorandums in the grantor-grantee index.

(e) Article 2 (commencing with Section 5020) of Chapter 1 of Division 5 of the Public Resources Code, relating to historical resources.

(f) The Subdivision Map Act, Division 2 (commencing with Section 66410) of Title 7 of the Government Code.

(g) Any contract or agreement entered into by a public entity relating to the transfer, lease, or license of commercial real property owned or leased by that public entity, except any requirement enacted pursuant to Section 1954.31.

1954.29. Nothing in this chapter shall, with respect to a public entity:

(a) Grant, enlarge, or diminish any power (1) which it may possess under the provisions of, and for the purposes of, Division 1 (commencing with Section 65000) of Title 7 of the Government Code, (2) with respect to charter cities, planning, or zoning powers granted under Section 5 of Article XI of the California Constitution, or (3) any power which it may possess to mitigate the impact caused by the construction, reconstruction, demolition, or alteration of the size of any commercial real property. However, this subdivision does not apply to any actions taken for the clear or systematic purpose of circumventing this chapter.

(b) Grant, repeal, enlarge, or diminish any authority to require a business license, whether for regulation or revenue.

1954.30. Nothing in this chapter grants or augments any authority of a public entity which it does not possess independent of this chapter, nor diminish any power of a public entity except as expressly provided in this chapter.

1954.31. A public entity may by enactment of a statute, charter or charter amendment, or ordinance, establish a requirement for notice relating to the termination of a lease of commercial real property due to the expiration of its term.

(a) The enactment shall contain provisions dealing with any or all of the following:

(1) The delivery of a negotiation notice by a tenant.

(2) A requirement for an owner to deliver an impasse notice at any time after delivery of the negotiation notice, except that:

(A) The requirement shall be inapplicable unless the tenant has been required to deliver a negotiation notice not less than 270 days before the expiration of the lease, and has done so.

(B) The mandate for delivery of an impasse notice shall not occur earlier than 180 days before expiration of the lease.

(C) No impasse notice shall be required if the parties have executed a renewal or extension of the lease.

(D) Provision shall be made that the notice will include, in a
form of type which will distinguish it from the body of the text of the balance of the notice, a disclosure reading, either:

(i) The giving of this notice does not necessarily preclude further dialogue or negotiation on an extension or renewal of the lease if the parties choose to negotiate, but the delivery of this notice discharges all obligations of ____ (the owner) under provisions of ____ (the enactment) and Section 1954.31 of the Civil Code; or

(ii) By giving this notice ____ (the owner) declares that he or she does not intend to negotiate further on any extension or renewal of the lease.

(3) Establish that a bad faith failure to comply with the enactment is subject to a remedy for actual damages.

(4) Any remedy under the enactment or Section 1954.31 shall be available only by an action brought by the owner or the tenant.

(b) The enactment shall contain (or shall be deemed to contain), a provision that:

(i) A tenant may not exercise any right pursuant to the enactment or this chapter, unless the tenant has performed the terms of the lease in such manner as would entitle the tenant to exercise any option he or she might possess under the lease.

(ii) No right or cause of action accruing to a tenant pursuant to the enactment or this chapter, may be assigned other than to a person who is a lawful assignee of the lease, is in lawful possession of the premises under the lease, and is in compliance with paragraph (1).

(3) Nothing in the enactment or this chapter creates or imposes, nor shall be construed to create or impose, a duty to extend or renew, or to negotiate on an extension or renewal, of any lease; nor shall the delivery or receipt of any notice provided for by the enactment or by this chapter, constitute a waiver of any rights to continued performance under the covenants under the lease or to actions for possession.

(4) The delivery of any notice pursuant to the enactment or this chapter shall create a rebuttable presumption affecting the burden of proof, that the notice has been properly given.

(c) No enactment shall provide, or be deemed to provide:

(i) For any extension of the term of any lease without the mutual, written consent of the owner and the tenant.

(ii) For any requirement on either party to offer to extend or renew or to negotiate an extension or renewal of the lease.

(iii) Bar any action brought to recover possession whether by ejectment, unlawful detainer, or other lawful means.

(iv) Any remedy under the enactment or this chapter, other than that which may be provided pursuant to paragraph (3) of subdivision (a).

(d) The provisions of any enactment adopted pursuant to this section shall not apply to:

(i) Any lease or rental agreement which is not in writing, which constitutes a tenancy at will, which is for a term of less than one year or for an unspecified term, which is a month-to-month tenancy or a tenancy at sufferance.

(ii) Any lease, the term of which expires within 270 days after the effective date of the enactment.
37380. (a) A city may lease property owned or held or controlled by it, or any of its departments, for not to exceed 55 years.
   (b) Notwithstanding the 55-year limitation in subdivision (a), a city may lease property owned or held or controlled by it, or any of its departments or boards for a period exceeding 55 years but not exceeding 99 years, if all of the following conditions are met:
      (1) The lease shall be subject to periodic review by the city and shall take into consideration the then current market conditions. The local legislative body may, prior to final execution of the lease, establish the lease provisions which will periodically be reviewed, and determine when those provisions are to be reviewed.
      (2) Any lease entered into pursuant to this section shall be authorized by an ordinance adopted by the legislative body. The ordinance shall be subject to referendum in the manner prescribed by law for ordinances of cities.
      (3) Prior to adopting an ordinance authorizing a lease, the governing body shall hold a public hearing. Notice of the time and place of the hearing shall be published pursuant to Section 6066 in one or more newspapers of general circulation within the city, and shall be mailed to any person requesting special notice, to any present tenant of the public property, and to all owners of land adjoining the property.
      (4) Any lease shall be awarded to the bidder which, in the determination of the legislative body, offers the greatest economic return to the city, after competitive bidding conducted in the manner determined by the legislative body. Notice inviting bids shall be published pursuant to Section 6066 in one or more newspapers of general circulation within the city.

The provisions of paragraphs (2), (3), and (4) do not apply to any charter city, which may utilize a procedure as specified by charter or adopted by ordinance in accordance with its charter.

37382. A city may lease city land used for agricultural or horticultural purposes upon which sewage or waste water is discharged for not to exceed twenty-five years.

37383. A city may lease city property not acquired for park purposes for not to exceed thirty-five years for the production of
minerals, oil, gas, or other hydrocarbon substances.

37384. Except when the state grant specifically provides otherwise, a city may lease tide or submerged lands for not to exceed fifty years.

37385. A city may lease tide and submerged lands, the wharves, docks, piers, and other structures or improvements on these lands, and as much of the uplands abutting upon them as the legislative body deems necessary for the proper development and use of its waterfront and harbor facilities, for not to exceed 66 years.

37386. A city may lease such tide and submerged lands and uplands for:
   (a) Industrial uses.
   (b) Improvement and development of city harbors.
   (c) Construction and maintenance of wharves, docks, piers, or bulkhead piers.
   (d) Other public uses consistent with the requirements of commerce or navigation in city harbors.

37387. When the legislative body deems that industrial use of such tidelands and uplands is inimical to the best interest of the city, it may lease them for park, recreational, residential, or educational purposes, under conditions not inconsistent with the trust imposed upon the tidelands by the Constitution.

37388. A city may lease property owned or held or controlled by it or any of its departments for not to exceed fifty years to any nonprofit corporation for a housing development on the property.

37389. A city may lease or sublease property owned, leased, or otherwise controlled by it for not to exceed fifty years for airport purposes or purposes incidental to aircraft, including:
   (a) Manufacture of aircraft, airplane engines, and aircraft equipment, parts, and accessories.
   (b) Construction and maintenance of hangars, mooring masts, flying
fields, signal lights, radio equipment, service shops, conveniences, appliances, works, structures, and other air navigation, aircraft, and airplane engine manufacturing plants and facilities.

37390. A city may lease sewage and sewage effluent for not to exceed fifty years.

37391. A city or any of its departments may lease or sublease land to the State or any of its political subdivisions, or any nonprofit corporation, for fair, exposition, celebration, or exhibition purposes, for not to exceed fifty years.

37392. A city or any of its departments may lease or sublease land to the state for housing personnel and equipment, or to the State Adjutant General for military or armory purposes, for not to exceed 99 years.

37392.1. A city, district, or other public corporation, acting individually or jointly with others, may lease sewers and sewage treatment and disposal facilities, and any land, rights of way, or other property appurtenant thereto, to any other city or to any county, city and county, municipal corporation, public district, sanitation district or other public corporation, or any two or more of them acting jointly, for any term or in perpetuity. A city, district or other public corporation, acting individually or jointly with others, may grant to any other city or to any county, city and county, municipal corporation, sanitation district, public district or other public corporation, or any two or more of them acting jointly, a perpetual right of use, or right of use for any term, in any such facilities, land or other property.

37392.2. Notwithstanding Section 718 of the Civil Code, a city may lease any of its lands to a county, county water authoritiy, or special district for the purpose of constructing, operating, maintaining, and replacing a dam, reservoir, and appurtenant facilities to collect, divert, and store water for all beneficial uses, including development of power, flood control, and recreational uses. The lease may be for any term, but not to exceed the time during which the lands are devoted to the purposes and uses authorized by this section.
37393. A lease of an interest in real property of a city shall be recorded in the office of the recorder of the county in which the property is located.

37394. A city or city and county may lease property owned, held or controlled by it for not to exceed 55 years, if the contemplated use of the property is for off-street parking purposes. This section is applicable to any lease executed on or after January 1, 1986.

37395. A city may lease for not to exceed 55 years property owned, held, or controlled by it, or any of its departments, for commercial development for business purposes, when the governing body determines by ordinance or resolution that the property is not required for other city purposes. This section is applicable to any lease executed on or after January 1, 1986.

37396. (a) A city, county, or city and county may lease property owned, held, or controlled by it for not to exceed 99 years, for stadium, park, recreational, fair, exposition, or exhibition purposes, or for general sports purposes such as training and competitive sports.
   (b) On and after April 24, 2002, a lease executed pursuant to this section on territory annexed pursuant to Section 56472, may not include a shopping center, hotel, motel, or lodging house, but may include a lease for all other purposes authorized under this section, including a lease for either or both of the following purposes:
      (1) Any dormitory or medical facility that exclusively, except in the case of a medical emergency, serves individuals participating in training or competitions held at the site leased pursuant to subdivision (a).
      (2) Any food facility, as defined by Section 113785 of the Health and Safety Code, food vending, and sales of goods and services incidental to, and in support of, the purposes of the lease.
   (c) A lease made by a county pursuant to this section is subject to Article 8 (commencing with Section 25520) of Chapter 5 of Part 2 of Division 2 of Title 3.
WATER CODE
SECTION 31040-31054

31040. A district may take any property necessary to carry out the business of the district by grant, purchase, gift, devise, condemnation, or lease with or without the privilege of purchase.

31041. A district may hold, use, enjoy, lease, or dispose of property within or without the district necessary to the full exercise of its powers.

31042. A district may construct, purchase, lease, or otherwise acquire works, water rights, land, rights, and privileges useful or necessary to convey, supply, store, or otherwise make use of water for any purposes authorized by this division.

31045. A district may, on terms and conditions agreed upon by the board and the board of directors of a municipal water district formed pursuant to the Municipal Water District Act of 1911:
   (a) Transfer, sell, lease, or convey to the municipal water district any works, land, or structures within any improvement district formed pursuant to any of the provisions of this division.
   (b) Transfer to the municipal water district the proceeds of any bonds theretofore authorized by or for the improvement district.

31046. A district may sell or lease the mineral or hydrocarbon rights in any land belonging to it when deemed by the board for the best interest of the district.

31047. A district may control, distribute, store, spread, sink, treat, purify, recapture and salvage any water, including sewage and storm waters, for the beneficial use or uses of the district or its inhabitants or the owners of rights to water therein.
31048. A district may cooperate, act in conjunction and contract with the State of California or any agency thereof, municipalities, public and private corporations of any kind, and persons with respect to the salvage, control, storage, spreading, distribution, treatment, purification, and recapture of any waters, including sewage and storm waters, and the construction of any works, the acquisition of any property, or the doing of any act with respect thereto, or for the protection of property, watersheds, water courses, and underground water supplies, and for the use, operation, management, or control of any public works or property.

31049. A district may make and perform any agreement with the State of California or any agency thereof, any public or private corporation of any kind, and any person, or any of them for the joint construction, acquisition, disposition or operation of any property or works of a kind which might be constructed, acquired, disposed of or operated by the district.

31051. A district may acquire by any means stock of any mutual water company or corporation for the purpose of furnishing a supply of water for public, municipal or governmental purposes.

31052. The North Marin County Water District may purchase devices for generation of energy from solar radiation and may resell such devices for use within the district. Resales shall be on reasonable terms and conditions, which may include warranties and guarantees by the district of payment of purchase loans.

31053. No publicly owned utility shall commence to provide any service for, on, or to any land within a county water district which is subject to the lien of a general obligation bonded indebtedness or which was the subject of a lease-purchase, revenue, or other type of debt incurred for capital improvements by or on behalf of the district incurred by the district for the purpose of providing a service similar to that which the utility proposes to provide. However, a publicly owned utility may commence to provide service, otherwise prohibited, upon either of the following conditions:
   (a) If the board of directors of the county water district, by resolution permits the service.
(b) In any portion of such a county water district proposed to be served by the publicly owned utility in which the total number of registered voters residing therein exceeds 200, if at least two-thirds of the voters voted at a special county water district election to permit the service. The election shall be called and held as an initiative measure pursuant to Section 30830.

31054. No publicly owned utility shall commence to provide any water service for, on, or to any land within a county water district which is subject to a lien of an indebtedness arising under any contract between the district and the United States of America incurred or contracted by the district for the purpose of providing water service, provided two-thirds of the voters voting at an election within the district have approved the incurrence of the indebtedness and, provided further, that the district has water available and is ready, able, and willing to serve such land.

However, a publicly owned utility may commence to provide service, otherwise prohibited, upon either of the following conditions:
(a) If the board of directors of such a county water district shall by resolution permit such service; or
(b) In any portion of such a county water district proposed to be served by the publicly owned utility in which the total number of registered voters residing therein exceeds 200, and in which at least a majority of the voters voting on the proposition shall have voted at a special county water district election to permit such service within that portion of the district. The election shall be called and held within that portion of the district as an initiative measure pursuant to Section 30830.
MEMORANDUM

TO: Engineering and Operations Committee
FROM: Phil Lauri, P.E., Assistant General Manager
DATE: December 15, 2015
SUBJECT: Well 9 Update

RECOMMENDATION

A. Recommend the Board of Directors authorize amendments to the Well Automation and Rehabilitation Contract to Carollo Engineers, Inc., (Carollo) and authorize execution of the amendments to perform the following additional services:

1. Revise the Well Automation and Rehabilitation bid package for an amount of $15,280 to update the site civil, mechanical, and electrical drawings for the new Mario Durante Well No. 9 location; and

2. Develop a design and bid package for an amount of $190,117 for the new Mario Durante Well No. 9 site and abandonment of existing Well 9.

OR

B. Direct staff to develop a Request for Proposal to retain hydrogeological and engineering services to develop a design and bid package for well drillers to drill the new Mario Durante Well No. 9 at the Mario Durante Well No. 9 site and abandon existing Well 9.

STRATEGIC PLAN

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

PRIOR BOARD ACTION/DISCUSSION

On October 9, 2014, the Board received a Mario Durante Well No. 9 update presentation.

On October 21, 2014, the E&O Committee approved a contract amendment to the Well Automation and Rehabilitation Design contract in the amount of $26,813, to evaluate Mario Durante Well No. 9.

On November 18, 2014, the E&O Committee received a presentation on the findings of the Well 9 evaluation, and recommendation to rehabilitate the well and replace the pump. The E&O Committee directed staff to implement the recommendation and expend the necessary funds to expedite the recommendations, and provide regular updates to the Committee.

On February 17, 2015, the E&O Committee received an information item summarizing the status of the procurement process for Well 9 Rehabilitation and Pump Replacement.

On March 30, 2015, the Board received notification via email from the General Manager that a contract had been executed with General Pump for Well 9 Rehabilitation and Pump Replacement.
On May 19, July 17, September 15, and November 17, 2015, the E&O Committee received an update on the progress of Well 9 Rehabilitation.

BACKGROUND

As reported to the E&O Committee on November 17, 2015, Mario Durante Well No. 9 produced an unacceptable amount of sand upon startup of the permanent pump. A dynamic video investigation of the well showed two critical issues:

1. The well bottom had failed despite installation of a new bentonite plug and aquifer formation was entering the well from the bottom during pumping.
2. The filter pack was missing from the middle well screen interval (488-feet to 495-feet below ground).

The casing repair implemented in July 2015 appeared to be in good condition and no breaches were found in the upper well casing. The missing filter pack was a new finding that was not evident in previous video surveys.

DISCUSSION

The Carollo team evaluated the options for repairing the well, the associated costs of implementation, and the likelihood of success. The evaluation explored potential repair options and found that replacing a concrete plug at the bottom of the well and re-lining the entire depth of the well with a 12-inch diameter stainless steel internal liner could potentially repair the well. The liner would serve as a new internal well casing, be screened to match the existing well screens, and glass beads would be installed as gravel pack. The cost estimate for this repair is approximately $375,000. The assessment also identified the benefits and risks associated with using the aforementioned approach.

The benefits were identified as follows:

1. **Reduced Costs**: Repairs could be completed for less cost than a new well; and
2. **Reduced Schedule**: Repairs could be completed in less time than drilling a new well (3 months verses 12-18 months)

The risks were identified as follows:

1. **Sanding Potential**: The new internal liner and installation of glass beads as a gravel pack may not be able to keep fine sand from entering the well.
2. **Pump Fit**: The inside diameter of the proposed liner is 11.3 inches. The outer diameter of the pump bowls is 9.75 inches. Installation of the pump may not be possible without damaging the pump or the liner. If the pump can be successfully installed, removal of the pump for future well rehabilitations may not be possible without damaging the pump or the liner. The tight fit also eliminates the potential to fit a video camera into the well while the pump is installed.
3. **Reduced Capacity**: The new layer of glass bead gravel pack is likely to reduce the production capacity of the well by 50-250 gallons per minute (gpm). This would result in a well that produces approximately 1,500 gpm.
4. **Aquifer Formation Damage**: Sand produced during test pumping in May and October may have caused voids and weak points in the aquifer formation, which could cause the formation, gravel pack, and filter pack to continue to settle, and allow sand to enter the well from screen intervals that are functioning at an acceptable level.

The aforementioned risks and additional incremental costs have resulted in the recommendation to abandon the existing Mario Durante Well No. 9 and drill a new Mario Durante Well No. 9 on the same site. The cost estimate to design, construct a new well, and abandon the existing well is approximately $1,400,000. It is estimated that the development of a new Mario Durante Well No. 9 will take 12-18 months.

In order to expedite the new Mario Durante Well No. 9, it is recommended that the Committee consider authorizing execution of the amendments to the Well Automation and Rehabilitation Contract in the amount of $205,397. $15,280 is to revise the Well Automation and Rehabilitation bid package to update the Mario Durante Well No. 9 site civil, mechanical, and electrical drawings for the new Mario Durante Well No. 9 location. This will reduce the potential for a contractor change order request during well automation and rehabilitation construction related to the Well 9 site. $190,117 is for Carollo to develop the design and bid package to solicit bids from qualified well drillers.

Carollo was competitively selected in FY 2014 as the design engineer for the Well Automation and Rehabilitation project. The Carollo team includes Geotechnical Consultants Inc. (GTC) to provide hydrogeological expertise. GTC has overseen drilling of several of Mesa Water’s wells. The Carollo/GTC team is very familiar with Mesa Water’s other well sites and the operational standardization that Mesa Water® plans to implement throughout the clear well sites as part of the Well Automation and Rehabilitation Project. Alternatively, the Committee may direct staff to develop a Request for Proposal to retain hydrogeological and engineering consulting services to develop plans, specifications, and cost estimates for drilling new Mario Durante Well No. 9 and abandoning the existing Mario Durante Well No. 9.

**FINANCIAL IMPACT**

**Existing Mario Durante Well No. 9 Repair.** $156,685 was budgeted in fiscal year 2016 for Mario Durante Well No. 9 repair. The additional funding will come from Cash on Hand.
## Project Estimate Amounts

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Project Estimate (FY2015)</td>
<td>$330,000</td>
</tr>
<tr>
<td>Original Contracts</td>
<td>$423,240</td>
</tr>
<tr>
<td>Change Orders</td>
<td>$293,390</td>
</tr>
<tr>
<td>New Additional Funding</td>
<td>$190,117</td>
</tr>
<tr>
<td>Revised Contracts</td>
<td>$906,747</td>
</tr>
</tbody>
</table>

| Actual spent to date             | $544,086 |
| Revised Project Estimate         | $2,116,630 |

### ATTACHMENTS

None.
MEMORANDUM

TO:  Board of Directors
FROM: Stacie Sheek, Customer Services Manager
DATE: December 15, 2015
SUBJECT: Water Conservation and Water Supply Emergency Program Update

RECOMMENDATION

1. Adopt Resolution No. 1468 – Supplementing Resolution No. 1466, the Water Conservation and Water Supply Emergency Program Level 2 Water Supply Shortage, with the following restriction:
   • No outdoor watering of potable water (excluding single-family residential customers)

2. Discuss and take action(s) on such other water conservation measures as the Board shall determine.

STRATEGIC PLAN

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

PRIOR BOARD ACTION

Mesa Water District Board adopted Ordinance No. 26, the Water Conservation and Water Supply Emergency Program, on May 14, 2015, and passed Resolution No. 1466 which currently restricts irrigation to 1 day per week, and prohibits various uses of water such as irrigation during and up to 48 hours after rainfall, filling & refilling of fountains, lakes, ponds, and irrigation of turf medians with potable water.

DISCUSSION

On January 17, 2014, Governor Brown declared a drought state of emergency. As the state of California (State) enters a fourth year of severe drought, the State Water Resources Control Board (SWRCB) adopted and expanded emergency regulations on March 17, 2015 to safeguard the State’s remaining water supplies. Inclusive of those regulations, Mesa Water® is required to reduce its total water production by 20% compared to a calendar year 2013 baseline, for the period of June 2015-February 2016.

Mesa Water® has met or surpassed the 20% reduction mandate for the months of June through August; however, the District fell short of its goal in September, October, and November. The cumulative percent saved is approximately 18.8% as of November 30, 2015, based on the District’s weekly production data. It is unlikely Mesa Water® will meet the 20% goal through the winter unless customers proactively shut down irrigation, whether it is mandatory or voluntary due to significant rainfall.
The table below shows, to date, the number of water conservation violations that occurred in each month. To date, no conservation fees have been assessed to accounts, due to staff reaching out to customers and correcting the issues. However, the amount of 3rd violations has continued to increase.

<table>
<thead>
<tr>
<th>Month</th>
<th>Qty Violations</th>
</tr>
</thead>
<tbody>
<tr>
<td>May-15</td>
<td>292</td>
</tr>
<tr>
<td>Jun-15</td>
<td>1,085</td>
</tr>
<tr>
<td>Jul-15</td>
<td>418</td>
</tr>
<tr>
<td>Aug-15</td>
<td>308</td>
</tr>
<tr>
<td>Sep-15</td>
<td>309</td>
</tr>
<tr>
<td>Oct-15</td>
<td>642</td>
</tr>
<tr>
<td>Nov-15</td>
<td>405</td>
</tr>
</tbody>
</table>

Staff has been working closely with the District’s Top 250 accounts, providing monthly updates regarding the progress made towards their conservation goals. Each of the 250 accounts receive a monthly letter showing their 2013 water usage for each month, a goal for that respective month in 2015, and whether or not they are meeting that goal. Staff is using Meter Masters, a data logger that records hourly water usage, to provide information to the customers about their water use behavior, and to verify that customers are abiding by the water conservation ordinance. Additionally, many of the Top 250 accounts utilize automated meter reading technology where hourly water use data is stored within the meter and can be manually or automatically downloaded.

In addition to the 1 day per week watering, staff is recommending that the Board approve Resolution No. 1468, which would supplement Resolution No. 1466, including no outdoor watering of potable water, excluding single-family residential customers. If approved by the Board, staff plans to contact each of the affected customers.
FINANCIAL IMPACT

The Board adopted a 20% reduction in budget revenue through the mandated conservation period.

$134,000 has been spent on temporary staff and vehicle costs.

$180,000 is budgeted in fiscal year 2016; $177,997 funds have been spent to date in fiscal year 2016.

<table>
<thead>
<tr>
<th>Drought-Reach Project Estimate</th>
<th>Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amounts</td>
<td>Amounts</td>
</tr>
<tr>
<td>Initial Project Estimate (FY 2015)</td>
<td>$ 178,731</td>
</tr>
<tr>
<td>Original Contract</td>
<td>$ 178,731</td>
</tr>
<tr>
<td>Change orders #1-3</td>
<td>$ 390,000</td>
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<tr>
<td>Revised Contracts</td>
<td>$ 568,731</td>
</tr>
<tr>
<td>Actual spent to date</td>
<td>$ 416,728</td>
</tr>
<tr>
<td>Revised Project Estimate</td>
<td>$ 568,731</td>
</tr>
</tbody>
</table>

ATTACHMENTS

Attachment A: Resolution No. 1468
Attachment B: Resolution No. 1466
RESOLUTION NO. 1468

RESOLUTION OF THE
MESA WATER DISTRICT BOARD OF DIRECTORS
MAKING CERTAIN FINDINGS, ACTIVATING
THE MESA WATER DISTRICT
WATER CONSERVATION AND
WATER SUPPLY EMERGENCY PROGRAM
REDUCING WATER CONSUMPTION BY TWENTY (20) PERCENT
AND TAKING RELATED ACTIONS
SUPPLEMENTING RESOLUTION NO. 1466

WHEREAS, the Mesa Water District (Mesa Water®) is a county water district organized and operating according to California law; and

WHEREAS, periodic droughts are a historical fact in the State of California; and

WHEREAS, on January 17, 2014, the Governor of the State of California ("State") declared a State of Emergency to exist throughout the State due to severe and identified drought conditions; and

WHEREAS, on July 16, 2014, March 17, 2015, and May 5, 2015 the California State Water Resources Control Board (SWRCB) adopted various drought-related emergency regulations for urban water conservation; and

WHEREAS, on April 1, 2015, the Governor issued an Executive Order that, in part, directed the SWRCB to impose restrictions on water suppliers to achieve a statewide 25 percent reduction in potable urban usage through February 28, 2016; and

WHEREAS, the State is entering a fourth consecutive year of below-normal precipitation and many communities in the State will suffer water shortages; and

WHEREAS, Mesa Water® has the authority to adopt water conservation requirements and programs to promote and effectuate wise water use and avoid water wastage; and

WHEREAS, the Board of Directors of Mesa Water® (Board) has previously adopted Ordinance No. 26, including the Mesa Water District Water Conservation and Water Supply Emergency Program (Conservation Program) to address water supply shortages and water conservation requirements to address such; and

WHEREAS, Mesa Water® derives the water which it delivers to its customers from local groundwater and supplemental waters imported from outside Mesa Water® boundaries; and
WHEREAS, the quality and quantity of supplemental imported water is under the control of other agencies, and may be subject to conditions beyond the control of those other agencies or Mesa Water®;

WHEREAS, the Board of Directors of Mesa Water District has previously adopted Resolution No. 1466 on November 12, 2015;

WHEREAS, the Board of Directors of Mesa Water District desires to supplement the findings and directives set out in Resolution No. 1466, as set forth herein; and

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE MESA WATER DISTRICT DOES HEREBY RESOLVE, DETERMINE, AND ORDER AS FOLLOWS:

Section 1. Under the provisions of Ordinance No. 26, the Board finds and determines that a water shortage or threat of a water shortage exists, such that it is necessary to activate the Water Conservation and Water Supply Emergency Program, based upon the occurrence of the following condition:

(a) A general water supply shortage due to limited supplies and drought conditions.

Section 2. In addition to the directives set out in Section 2 of Resolution No. 1466, the Board directs that the provision of Section 10(h) of the Conservation Program shall become effective immediately upon adoption of this Resolution. Under the provision of 10(h) the Board directs the following:

- No Outdoor Watering of potable water (excluding single-family residential customers).

Section 3. This Resolution shall remain in place until rescinded, superseded, or modified by action of the Board.

Section 4. The Conservation Program is not otherwise amended or revised.

Section 5. The General Manager is authorized to take such other and further action(s) as are necessary or desirable to carry out the directives of this Resolution.
ADOPTED, SIGNED, and APPROVED, this 15th day of December 2015 by a roll call vote.

AYES: DIRECTORS:
NOES: DIRECTORS:
ABSENT: DIRECTORS:
ABSTAIN: DIRECTORS:

_________________________
Shawn Dewane
President, Board of Directors

_________________________
Coleen L. Monteleone
District Secretary
RESOLUTION NO. 1466

RESOLUTION OF THE
MESA WATER DISTRICT BOARD OF DIRECTORS
MAKING CERTAIN FINDINGS, ACTIVATING
THE MESA WATER DISTRICT
WATER CONSERVATION AND
WATER SUPPLY EMERGENCY PROGRAM
REDUCING WATER CONSUMPTION BY TWENTY (20) PERCENT
AND TAKING RELATED ACTIONS
SUPERSEADING RESOLUTION NO. 1460

WHEREAS, the Mesa Water District (Mesa Water®) is a county water district organized and operating according to California law; and

WHEREAS, periodic droughts are a historical fact in the State of California; and

WHEREAS, on January 17, 2014, the Governor of the State of California (“State”) declared a State of Emergency to exist throughout the State due to severe and identified drought conditions; and

WHEREAS, on July 16, 2014, March 17, 2015, and May 5, 2015 the California State Water Resources Control Board (SWRCB) adopted various drought-related emergency regulations for urban water conservation; and

WHEREAS, on April 1, 2015, the Governor issued an Executive Order that, in part, directed the SWRCB to impose restrictions on water suppliers to achieve a statewide 25 percent reduction in potable urban usage through February 28, 2016; and

WHEREAS, the State is entering a fourth consecutive year of below-normal precipitation and many communities in the State will suffer water shortages; and

WHEREAS, Mesa Water® has the authority to adopt water conservation requirements and programs to promote and effectuate wise water use and avoid water wastage; and

WHEREAS, the Board of Directors of Mesa Water® (Board) has previously adopted Ordinance No. 26, including the Mesa Water District Water Conservation and Water Supply Emergency Program (Conservation Program) to address water supply shortages and water conservation requirements to address such; and

WHEREAS, Mesa Water® derives the water which it delivers to its customers from local groundwater and supplemental waters imported from outside Mesa Water® boundaries; and
WHEREAS, the quality and quantity of supplemental imported water is under the control of other agencies, and may be subject to conditions beyond the control of those other agencies or Mesa Water®; and

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE MESA WATER DISTRICT DOES HEREBY RESOLVE, DETERMINE, AND ORDER AS FOLLOWS:

Section 1. Under the provisions of Ordinance No. 26, the Board finds and determines that a water shortage or threat of a water shortage exists, such that it is necessary to activate the Water Conservation and Water Supply Emergency Program, based upon the occurrence of the following condition:

(a) A general water supply shortage due to limited supplies and drought conditions.

Section 2. The Water Conservation and Water Supply Emergency Program is activated at Water Supply Shortage Level 2 in its entirety. Such activation shall be effective immediately upon the adoption of this Resolution.

Designated Watering Day: Watering or irrigating of lawn, landscape, or other vegetated area is limited to a maximum of one (1) day per week, as referenced in Section 8(b)(1), on the following schedule:

- For all properties upon which water is used, the Watering Day is Saturday.

Section 3. In addition to the direction set out in Section 2, the Board directs that the provisions of Sections 10(a), 10(d), 10(e), and 10(g) of the Conservation Program shall become effective immediately upon the adoption of this Resolution.

Section 4. This Resolution shall remain in place until rescinded, superseded, or modified by action of the Board.

Section 5. The Conservation Program is not otherwise amended or revised.

Section 6. The General Manager is authorized to take such other and further action(s) as are necessary or desirable to carry out the directives of this Resolution.
ADOPTED, SIGNED, and APPROVED, this 12th day of November 2015 by a roll call vote.

AYES: DIRECTORS: Bockmiller, Fisler, Dewane
NOES: DIRECTORS: Atkinson, Temianka
ABSENT: DIRECTORS:
ABSTAIN: DIRECTORS:

________________________
Shawn Dewane
President, Board of Directors

________________________
Coleen L. Monteleone
District Secretary
<table>
<thead>
<tr>
<th>FILE NO.</th>
<th>PROJECT ADDRESS</th>
<th>PROJECT DESCRIPTION</th>
<th>PROJECT NOTES/STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 2083</td>
<td>2600 Harbor Blvd.</td>
<td>Orange Coast Cadillac</td>
<td>Plans received on 3/12/14. Initial comments sent to Engineer via email 3/27/14 and official plan check with check prints completed 4/24/14. Revised plans received from Engineer 4/27/14. Revised plans did not address comments. Comments sent back to Engineer 4/29/14. Revised plans received 5/9/14. Notified Engineer that plans need to include fireline improvements in addition to meter and service relocations. Engineer stated that the fireline improvements were still under design and a re-submittal would not be immediate. Awaiting revised plans containing fire line improvements. Checked status with Engineer on 8/7/14. Developer stopped by on 10/7/14 to ask about status and was reminded that Engineer has not yet submitted revised plans. Developer again stopped by on 10/30/14 and was reminded that Engineer is awaiting revised plans. Revised plans submitted 12/4/14. Coordinating with developer on plan check comments. Plans reviewed and ready for permit issuance. Water service agreement application for new service and payment voucher mailed to the developer. Fees paid on 5/27/15. Mylars signed on 6/25/15. Permit issued 8/6/15. Hot-tapped watermain and ran fireline on 9/1/15. Abandonment of 1&quot; and 1.5&quot; service on 10/3/15. Irrigation meter installed on 10/12/15 (12/3/15)</td>
</tr>
<tr>
<td>FILE NO.</td>
<td>PROJECT ADDRESS</td>
<td>PROJECT DESCRIPTION</td>
<td>PROJECT NOTES/STATUS</td>
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</tr>
<tr>
<td>MC 2095</td>
<td>2023-2027 Placentia</td>
<td>36 Condos</td>
<td>Plans received and fees paid on 6/3/14. Plans reviewed and discussed with Phil L and easement proposal denied. Plan revisions emailed to Engineer and discussed over the counter. Engineer inquired about master meter options. Mesa Water indicated that master meter option was not within Board policy. Direction to install meter manifolds sent to Engineer on 7/3/14. Engineer submitted completely revised plans on 8/19/14. 1st plan check comments (1st with complete revised design) issued on 8/21/14. Revised plans received on 9/4/14 and 2nd plan check complete on 09/9/14. Final plans submitted, reviewed, and approved for mylar printing on 09/9/14. Signed/stamped mylars received, forms signed, and fees paid on 10/2/14. Water service agreement signed and permit issued on 10/21/14. USA underground marking on 3/30/15. Awaiting request for inspection. Pre-con meeting on 7/15/15. Inspector performed site visit on 8/26/15 to check status. Inspected 6” manifold installation on 10/3/15. Installed fire hydrant backflow device on 11/17/15. (12/3/15)</td>
</tr>
<tr>
<td>MC 2118</td>
<td>220 E. 16th St.</td>
<td>Home Remodel (Complete Remodel)</td>
<td>Plans received and plan check fees paid 08/27/14. Plan check complete 8/28/14. Following plan check, and while awaiting corrected plans, inaccuracies in Mesa Water records were discovered, and inspector was requested to field verify the actual conditions. 2nd set of plans were revised to reflect actual conditions, and plan check finalized on 10/02/14. Mylars received and fees paid on 10/14/14. Permit issued on 10/21/14, and issued inspection checklist on 10/27/14. Mesa Water inspector reported no activity onsite 5/5/15. Contractor came into Mesa Water Plan Check Desk to discuss project status on 8/25/15. (12/3/15)</td>
</tr>
<tr>
<td>FILE NO.</td>
<td>PROJECT ADDRESS</td>
<td>PROJECT DESCRIPTION</td>
<td>PROJECT NOTES/STATUS</td>
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</tr>
<tr>
<td>MC 2119</td>
<td>236 E. 16th St.</td>
<td>Home Remodel (Complete Remodel)</td>
<td>Plans received and fees paid 08/27/14. Plan check complete 8/28/14. Following plan check, and while awaiting corrected plans, inaccuracies in Mesa Water records were discovered, and inspector was requested to field verify the actual conditions. 2nd set of plans were revised to reflect actual conditions, and plan check finalized on 10/2/14. Mylars received and fees paid on 10/14/14. Permit issued on 10/21/14, and issued inspection checklist on 10/27/14. Mesa Water inspector reported Contractor contacted on 8/10/15 to obtain status of project. Contractor scheduled to complete work, waiting for inspection to be scheduled. (12/3/15)</td>
</tr>
<tr>
<td>MC 2134</td>
<td>2026 Placentia</td>
<td>15 New Homes</td>
<td>Plans received and fees paid on 10/30/14. Plans reviewed on 10/30/14 and circulated for Dept. signatures. Plan check comments issued to Engineer on 11/13/14. Received revised plans 1/6/14. Plan check completed and permit issued 2/9/15. PreCon meeting held 2/11/15. Inspection ongoing as work progresses. Main hot-tap performed on 5/5/15. Services installed by contractor on 5/7/15. 16 - 1 inch meters installed on 7/6/15. (12/3/15)</td>
</tr>
</tbody>
</table>
## PROJECT STATUS - DEVELOPER PROJECTS

<table>
<thead>
<tr>
<th>FILE NO.</th>
<th>PROJECT ADDRESS</th>
<th>PROJECT DESCRIPTION</th>
<th>PROJECT NOTES/STATUS</th>
</tr>
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<tbody>
<tr>
<td>MC 2165</td>
<td>341 16th Place</td>
<td>2 Single Family Homes</td>
<td>Plans received and plan check fees paid 4/22/15. First plan check completed and returned to developer 4/30/15. Mylars received on 8/6/15. Permit issued on 8/13/15. Installed 1 - 1&quot; service on 9/28/15. Installed 2 - 1&quot; meters on 10/1/15. Second home in process of being built. (12/3/15)</td>
</tr>
<tr>
<td>MC 2178</td>
<td>334 East 16th Street</td>
<td>2 Single Family Homes</td>
<td>Plans received and plan check fees paid on 6/12/15. Comments returned on 6/24/15. Second plan check received 8/10/15 and returned on 8/24/15. Fees and mylars delivered and permit issued on 11/17/15. (12/3/15)</td>
</tr>
<tr>
<td>FILE NO.</td>
<td>PROJECT ADDRESS</td>
<td>PROJECT DESCRIPTION</td>
<td>PROJECT NOTES/STATUS</td>
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</tr>
<tr>
<td>MC 2181</td>
<td>250 Flower Street</td>
<td>Remodel</td>
<td>Plans received and plan check fees paid on 6/22/15. Comments returned on 7/22/15. Second submittal received on 10/29/15 and returned on 11/6/15. Final submittal and fees submitted on 11/30/15. (12/3/15)</td>
</tr>
<tr>
<td>MC 2184</td>
<td>1670 Tustin Ave</td>
<td>Remodel</td>
<td>Plans received and plan check fees paid on 7/1/15. Comments were not picked-up at Plan Check Desk until 10/6/15. Final plans and fees submitted on 11/6/15. Permit issued on 11/17/15. (12/3/15)</td>
</tr>
<tr>
<td>MC 2187</td>
<td>2245 Tustin Ave</td>
<td>Single Family Home</td>
<td>Plans received and plan check fees paid on 7/8/15. Second plan check submitted on 7/31/15 and comments returned on 8/17/15. Awaiting fee payment. (12/3/15)</td>
</tr>
<tr>
<td>MC 2188</td>
<td>2701 Harbor Blvd</td>
<td>Restaurant</td>
<td>Plans received and plan check fees paid on 7/13/15. Inspector performed pre-site survey to determine size of meter in meter room. First plan check comments awaiting pick up. (12/3/15)</td>
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<tr>
<td>MC 2197</td>
<td>217 Ogle St.</td>
<td>Single Family Home</td>
<td>Plans received and plan check fees paid on 7/30/15. Plan check comments awaiting pick up. (12/3/15)</td>
</tr>
<tr>
<td>MC 2199</td>
<td>225 Ogle St.</td>
<td>Single Family Home</td>
<td>Plans received and plan check fees paid on 7/30/15. Plans did not require changes. Mylars and fees submitted on 9/17/15. Permit issued on 9/21/15. (12/3/15)</td>
</tr>
<tr>
<td>MC 2202</td>
<td>2880 Mesa Verde Drive East</td>
<td>10 Single Family Homes</td>
<td>Plans received and plan check fees paid on 8/19/15. Second submittal received 10/29/15 and returned on 11/6/15. (12/3/15)</td>
</tr>
<tr>
<td>FILE NO.</td>
<td>PROJECT ADDRESS</td>
<td>PROJECT DESCRIPTION</td>
<td>PROJECT NOTES/STATUS</td>
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<tr>
<td>MC 2204</td>
<td>1672 Placentia</td>
<td>32 Single Family Homes</td>
<td>Plans received and plan check fees paid on 8/26/15. Plan check picked up by customer on 10/6/15. (12/3/15)</td>
</tr>
<tr>
<td>MC 2206</td>
<td>247 E 23rd St</td>
<td>Single Family Home</td>
<td>Plans received and plan check fees paid on 9/21/15. Plans did not require changes. Fees paid on 11/25/15. (12/3/15)</td>
</tr>
<tr>
<td>MC 2207</td>
<td>1654 Oahu Pl</td>
<td>Single Family Home</td>
<td>Plans received and plan check fees paid on 9/22/15. Permit issued on 10/1/15. (12/3/15)</td>
</tr>
<tr>
<td>MC 2208</td>
<td>353 &amp; 355 Rochester St.</td>
<td>2 Single Family Homes</td>
<td>Plans received and plan check fees paid on 9/22/15. First submittal picked up on 10/23/15. Second plan check submitted on 11/19/15 and currently in progress. (12/3/15)</td>
</tr>
<tr>
<td>MC 2210</td>
<td>3086 Warren Lane</td>
<td>Single Family Home</td>
<td>Plans received and plan check fees paid on 9/22/15. Plan check awaiting pick up. (12/3/15)</td>
</tr>
<tr>
<td>MC 2213</td>
<td>847 W 16th St</td>
<td>Tenant Improvement</td>
<td>Plans received and plan check fees paid on 9/29/15. Plan check awaiting pick up. (12/3/15)</td>
</tr>
<tr>
<td>MC 2214</td>
<td>1944 Church St</td>
<td>2 Single Family Homes</td>
<td>Plans received and plan check fees paid on 10/5/15. First submittal returned on 10/26/15. Awaiting payment of fees. (12/3/15)</td>
</tr>
<tr>
<td>MC 2216</td>
<td>320 E 18th St</td>
<td>4 Single Family Homes</td>
<td>Plans received and plan check fees paid on 10/5/15. First submittal returned on 10/26/15. Awaiting payment of fees. (12/3/15)</td>
</tr>
<tr>
<td>MC 2217</td>
<td>823 Towne St</td>
<td>Assisted Living Facility</td>
<td>Plans received and plan check fees paid on 11/3/15. First submittal returned on 11/23/15. (12/3/15)</td>
</tr>
<tr>
<td>MC 2225</td>
<td>215 Knox Place</td>
<td>2 Single Family Homes</td>
<td>Plans received and plan check fees paid on 11/18/15. Plan check in progress. (12/3/15)</td>
</tr>
</tbody>
</table>
### Project Title: OC-44 Transmission Main Leak

**File No.:** MC 1977  
**Description:** Replace damaged section of pipeline

**Status:** Notice of intent to issue permit was granted by California Coastal Commission on 3/14/13. Staff is working on preparing a plan to monitor the disturbed area. Requested RBF to review the Habitat Restoration Plan and provide recommendations 7/2/14. Working with RBF on developing Permit Application and CEQA documents for OC-44 repair and proposed slip-lining project (see below OC-44 Replacement and Rehabilitation Evaluation and Cathodic Protection Study MC 2034)

### Project Title: MWRF Finished Water Quality Polishing Project

**File No.:** MC 2039  
**Description:** Enhance finished water quality water at the MWRF via Pilot Scale test

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

File No.: MC 2034

Description: Evaluate potential repair and replacement options

Status: Contract awarded to RBF Consulting 2/12/13. Kick-off meeting held on 2/21/13. TM 1, 2 and 3 reviewed by Mesa Water® and City of Huntington Beach. Revised TM 1 and 3 submitted 6/12/13. Final study report due 7/31/13. Staff requested RBF to perform hydraulic modeling and habitat assessment to supplement original SOW. A meeting with MWDOC, MET and RBF to analyze possible new service connections on the OC Feeder held on 6/25/13. Workshop to discuss TM’s held on 7/2/13. Meeting to discuss PDR, permitting, work plan and design concerns held on 7/16/13. Draft PDR and final design scope proposal received 8/6/13. Hydraulic studies “Evaluation of MWD Water Supply Facilities” and “Analysis of Emergency Supply from OC-44 and OCF” received 8/8/13. Staff reviewed the PDR and Hydraulic Study reports and submitted comments to RBF 9/12/13. Proposal approved by E&O Committee 11/19/13 and by Board on 12/12/13. Staff prepared change order to RBF. Kick-off meeting held on 01/22/14. Project on progress. Outreach coordination meetings with project stakeholders took place on 2/14/2014. RBF is working with City of Newport Beach, County of Orange, and Irvine Company on receiving permits for surveying and geotechnical boring work. Orange County Health Care Permit issued 3/24/2014. Geotechnical boring conducted on 3/28/14. The county of Orange permit was issued April 7, 2014. Biological and Topographic Survey started in mid-April and will continue through the end of July. Scour analysis completed on May 29, 2014. Jurisdictional Delineation completed on 6/30/2014. Project progress meeting with RBF and City of Huntington Beach held on 7/2/14 to review environmental assessment and predesign requirements. The design of the pipeline rehabilitation started on 7/8/2014. 60% plans and specifications submitted for review 9/8/2014. Staff is coordinating with City of Huntington Beach and finalizing review of the design package. Initial Study and Mitigated Negative Declaration submitted 11/2/14. Staff is reviewing the submittal (11/6/14). 60% review meeting with City of Huntington Beach and RBF held on 12/1/14. 90% design submittal received on 2/5/15. Notice of Intent (NOI) posted at County Clerk and State Clearinghouse on 1/29/15. Initial Study/Mitigated Negative Declaration (IS/MND) posted on Mesa Water® website and distributed to agencies/parties identified on distribution list on 1/29/15. Permit applications submitted to the regulatory agencies, legal notice posted in the Daily Pilot, and hard copy of IS/MND posted at front counter on 1/29/15 for public review. The review period concluded 2/27/15. Three comment letters received. Prepared written responses to the comments and held public hearing at the Board Meeting on 4/9/15. 90% design submittal comments sent back to RBF on 3/26/15. Additional questions from RBF analyzed in coordination with the City of Huntington Beach and comments provided to RBF on 6/1/15. Progress meeting with RBF and City of Huntington Brach...
MESA WATER® AND OTHER AGENCY PROJECTS STATUS REPORT
December 2015

held 7/1/15. RBF is working with the regulatory agencies on obtaining encroachment permits and/or certifications. On 7/16/15 the consultant is scheduled to meet with the US Army Corps of Engineers (USACE) to discuss initial comments and obtain additional directions. Due to USACE staff shortage the permit is anticipated to be issued in March 2016. RBF is working with Regional Water Quality Control Board (RWQCB) on drafting the 401 Water Quality Certification for the project. The 401 Water Quality Certification was issued on 9/29/15. Comments to the California Department of Fish and Wildlife (CDFW) draft agreement were sent by RBF on 7/17/15. The CDFW permit is predicted to be issued in late October, 2015. In mid-June, 2015 RBF provided response to the California Coastal Commission’s (CCC) comments. The comments from CCC were received in the late July, 2015 and the permit is expected to be issued in mid-November, 2015. Permit from Caltrans obtained on August 17, 2015. 100% design package submitted on 7/21/15. Final bid set will be completed once permits are approved (10/12/15). Scour protection evaluation and recommendations submitted on 11/5/15. The CDFW should be issued by 12/18/15. The USACE has indicated that their permit should be issued in mid-January 2016. Michael Baker (former RBF) is working on finalizing the Habitat Mitigation and Monitoring Plan (HMMP) and should have it ready by 12/7/15. Project in progress (12/3/15).

Project Title:  Well Automation and Rehabilitation

File No.:  MC 2101

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


Construction Management (CM) Services: Released and RFP for CM services on December 30, 2014 Preproposal meeting held on January 12, 2015. Four (4) proposals were received on January 26, 2015. Three proposers were interviewed on February 4, 2015, and the recommended Contract with RBF was approved by the Board on March 12, 2015.

60% design received on April 13, 2015. General 60% Design Review workshop held on April 27, 2015 and electrical/instrumentation review workshop held on May 11, 2015.
Working on optimizing construction sequence. Electrical design workshop scheduled for June 25, 2015. 90% design submittal received on July 15, 2015. Engineer's Estimate of probable cost at 90% is approximately $8.5M. Workshop to review and address 90% comments held on July 29, 2015. Contractor prequalification package sent to eight (8) General Contractors on July 18, 2015. Four prequalification applications were received on August 17, 2015. 100% Design received on September 16, 2015. Notice Inviting Sealed Bids was released to four prequalified contractors on October 5, 2015. Job Walks were conducted on October 13, 2015 for prequalified Prime Contractors and on November 3, 2015. Addenda and clarifications in response to bidders questions have been issued. Bid opening has been extended to January 7, 2016 to allow for recent changes for new Well 9 layout.

**Project Title:** Well 9 Repair  
**File No.:** MC 2145  
**Description:** Comprehensive cost/benefit evaluation and planning for Well 9  
**Status:** Change Order 1 to Well Automation and Rehabilitation Project issued on 10/23/14 to provide comprehensive evaluation and recommendations for Well 9. Kickoff held on 10/24/14. OCWD provided requested aquifer information on 11/3/14. Evaluation recommended rehabilitation of existing Well 9 and placement of pump at 300’ below ground to account for predicted aquifer drawdown levels at 500,000 AF overdraft. Design of rehabilitation and pump specification are in process. Change Order 2 issued to Carollo on 12/15/14 for Well 9 Design scope. Draft Well Rehabilitation design package and pump procurement design package were received on January 16, 2015. Draft combined Request for Bid (RFB) for well rehabilitation, pump procurement, and pump installation was received on February 3, 2015. The RFP was released to six recommended contractors on February 24, 2015. A job walk was held on March 5 with four contractors. Bid opening is held on March 16, 2015. Three bids were received. A contract was awarded to General Pump, the low bidder, on March 30, 2015. Pre-construction meeting was held on March 27, 2015. Well video to diagnose camera port damage conducted on April 1, 2015, and viewed on April 5, 2015. Well screens cleaned May 1-May 11, 2015. Well redevelopment and pumping tests planned for May 25-June 4, 2015, stopped due to sanding. Well 9 progress report provided at May 19, 2015 E&O Committee meeting, and updated at July 21, 2015 E&O Committee meeting. Swage of casing successfully completed on July 27, 2015. Well screen swabbing completed on July 31, 2015. Video after swabbing on August 3, 2015, confirmed filter pack in place and no additional visible issues. Test pumping and redevelopment successfully completed August 14-21, 2015. Well casing survey performed on August 27, 2015, and well bottom bailing and re-capping planned for September 16, 2015. Well pump factory witness testing was completed August 31, 2015. Well pump installed during the week of September 28, 2015 and construction of water flush system and reconnection to distribution system piping performed during the week of October 5, 2015. Well start up was attempted on October 22, 2015. The well produced an
unacceptable amount of sand. Evaluation of the source of the sand using a dynamic video was completed on November 19, 2015, and revealed that the well bottom had failed, and that filter pack was missing from the mid-level well screens. Evaluation of potential repairs to Well 9 were evaluated and deemed to be too costly and too low of a probability of success. This evaluation will be presented to the Committee at the December committee meeting along with the recommendation to abandon Well 9 and drill new Well 9B at the site.

**Project Title:** Two New Wells  
**File No.:** MC 2158  
**Description:** New wells and real estate services to identify and acquire property

**Status:** Change Order to Well Rehabilitation and Automation approved at January 20, 2015 E&O to retain Carollo and subconsultant Geotechnical Consultants Inc. (GTC) to provide typical well site layout and hydrogeological investigation to identify promising locations for two new 2,000-gpm clear wells. Met with Real Estate Professionals on February 2, 2015, to discuss scope of work for well site property identification and acquisition. Met with OCWD Chief Hydrogeologist on March 24, 2015, to identify study area for new well sites. Gave Notice to Proceed to Real Estate company on May 4, 2015, and provided consultant report on preferred well site property characteristics. Real Estate consultant developed an advertisement postcard to describe the type of property needed, and sent it to over 1,000 commercial and industrial property owners in the study area. Three sites have been presented for evaluation. Also met with the Laguna Beach County Water District (LBCWD) Manager of Engineering & Operations on October 13, 2015, to discuss development of a jointly-owned well on property in Fountain Valley owned by LBCWD. An offer to purchase one site has been prepared for presentation to the property owner. The owner has not yet responded.

**Project Title:** MWRF Parking Project  
**File No.:** MC 2052  
**Description:** Conduct parking layout design  

**Status:** Parking study prepared by Onward Engineering in November 2013. The Board approved alternative # 3 Parking Along the MWRF Frontage on Gisler Ave. on 3/15/2014. RFP for the parking design in consultants’ review (11/6/14). RFP sent out to consultants 11/25/14. Proposals due 12/19/14. Interview with three consultants held on 1/7/15. Recommendation brought to January E and O for consideration of approval and will be brought to the Board on 2/12/15 for approval. Project approved 2/12/15. Kick-off meeting held on 2/19/15. Design in progress. 30% design submittal submitted 3/23/15. Staff met with C.J. Segerstrom and discussed concept and details of the proposed parking layout. Segerstrom verbally approved the project. City of Costa Mesa approved the concept and currently consultant is evaluating the landscape requirements with the City of Costa Mesa. E and O Committee accepted the
conceptual design and provided comments on 5/19/15. The condition approval from Segerstrom received on 6/29/15. Staff is working with the designer (CivilSource), Mesa Water’s attorney, and City of Costa Mesa on addressing Segerstrom’s comments. Staff is reviewing the Initial Study/Summary of Findings Report received on 8/3/15. Staff has addressed all Segerstrom’s requests included in their 6/29/15 letter and prepared a response letter. Staff and City of Costa Mesa are reviewing the 100% design submittal package. The final design package is expected to be submitted on 12/10/15 after receiving the City approval. (12/3/15)

**Project Title:** OC 44 Import Stations Flow Meter Replacement

**File No.:** MC 2088

**Description:** Provide design for replacement of Flow Meters in the OC 44 Import Turnouts No. TO-2, TO-4, and TO-5

**Status:** Task Order No. RBF-3 for preparing construction drawings, technical specifications, and bid documents for the flow meter replacements in the import turnouts No. TO-2, TO-4, and TO-5 issued to RBF Consulting on July 23, 2014. 75% plans and specifications submitted for review 10/7/2014. Staff is reviewing the submittal (10/9/2014). The review comments returned back to the consultant 11/4/14. Design of new pressure gauges, pressure transmitters, and related improvements were added to the scope in December 2014. Design in progress. 90% design package submitted for review on 2/20/15. Working with consultant and CLA-VAL on reviewing the design (3/6/15).

100% design submitted on 3/10/15. The comments to the 100% design sent back to the designer 4/30/15. Final design package received on 5/27/15. Mesa Water® staff is reviewing the package and working with RBF on addressing final comments 6/8/15. Project solicited 6/17/15 and pre-bid walk held on 6/29/15. Bids opened on 7/10/15. Staff recommended that the Board of Directors award a contract to the lowest bidder Jamison Engineering. E & O Committee recommended approval on 7/21/15. Board approved the project on 8/10/15. The kick-off meeting held on 8/17/15. Staff has finalized the contract and issued Notice to Proceed on 9/16/15. Project team is in the submittal review process (12/3/15).
Project Title: Reservoir 1 and 2 Improvements

File No.: MC 2111

Description: Installation of gas flow meters at Reservoir 1 and Reservoir 2.

Status: Staff prepared Scope of Work and sent a request for quote to on-call Engineering consultant (As-Needed Design Consultant) to provide:

Design and specifications for installation of gas meters for Res 1, Res 2, and Well 5. Evaluation and design of Res 1 Air Vent Covers and Roof Membrane, and design for replacement of Res 1 silencers. Request for quote sent out 3/5/15. Brady Engineers selected for the project. Kickoff meeting held on 4/7/15. 30% design package submitted 5/27/15. Designer is working on addressing the review comments and continuing the design (7/10/15). Well 5 gas meter moved into the well automation and rehabilitation project scope of work. 100% Design Package received on 8/4/15. Meeting with the designer to discuss reviewers’ comments held on 8/10/15. The designer is revising the design and final bid package is anticipated to be submitted on 9/4/15. The final bid package submitted on 10/12/15. Staff has reviewed the submittal (11/5/15). Project will be advertised for bid in spring 2016. (12/3/15)

Project Title: Pipeline Testing Program

File No.: MC 2112

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

Status: Identifying segments for FY 2015 non-destructive testing and arranging for excavation and removal of segments that tested below 70% remaining wall thickness in FY2014 non-destructive testing. Released a Request for Proposal for a consultant to administer the program and develop standard operating processes on February 6, 2015. Three proposals were received on February 26, 2015, and interviews conducted on March 4, 2015. A contract with RBF was approved by the Board on April 9, 2015. Kickoff meeting held on April 21, 2015. Project status meeting held on June 8, 2015. Draft deliverable of prioritization of asbestos concrete pipe (ACP) for non-destructive testing received on June 26, 2015; updated draft received on August 7, 2015. Draft deliverable with recommendations for non-destructive testing technologies for metallic pipe received on August 7, 2015. Draft evaluation of destructive testing laboratories and tests received on August 21, 2015; final report received on September 16, 2015. Echologics performed non-destructive testing of 3 miles of ACP from July 13-17, 2015. Draft report received on August 14, 2015; final report received on September 1, 2015. Based on the Echologics reports from 2013 and 2015, ten ACP segments were selected for sampling and destructive testing. Three ferrous material pipelines with a history of repairs were also selected for field sampling and destructive testing. Draft bid
documents for field sampling received on October 16, 2015. Final bid documents were released to three on-call contractors on November 23, 2015, for bids. Pre-bid meeting was held on December 7, 2015 and attended by 2 of the bidders. Bids are due on December 16, 2015. Notice to proceed with field sampling is planned for January 2016, with a 75 day completion. Samples will be sent to MEIC Lab in Portland, Oregon, for destructive testing. Lab results, including estimates of remaining useful life, are expected in April 2016.

**Project Title:** Fall Protection Implementation  
**File No.:** MC 2129  
**Description:** Implement recommendations from Fall Protection evaluation.  
**Status:** Developing project schedule and recommendations for procurement. Identifying qualified contractors for design-build for construction of guardrails and access gates. Developing scope of services. Job walk conducted on March 25, 2015, with Versatile Fall Protection to identify options for closing the fall protection audit findings. Initial recommendations and cost estimate received on April 8, 2015. Contract for implementation of fall protection recommendations signed with Versatile Fall Protection under General Manager's authority on July 7, 2015. Preconstruction meeting held on July 9, 2015. Initial project submittals received on July 22, 2015. Installation of guardrails, skylight screens, ladder gates, and anchor points at the Administration Building and Field Office completed Aug 20-22, 2015. Installation of skylight screens and guardrails completed at the MWRF on September 1, 2015, and anchor points on September 14, 2015. Installation of new ladders, guardrail repair, and ladder gates at the Reservoir 1 access hatches and Admin building roof completed on September 21, 2014. All construction is completed. Record drawings and O&M manuals were received on November 22, 2015, and are being reviewed. Project will be completed upon acceptance of record drawings.

**Project Title:** MWRF Outreach Center  
**File No.:** MC 2147  
**Description:** Report on the feasibility of reconfiguring and potentially expanding the functional uses of the MWRF Operations and Administration Building to include a multi-purpose room and educational forum.  
**Status:** Mesa Water® is coordinating with IBI Group (designer) on the feasibility of implementing an education and outreach center at the MWRF. Kick-off meeting was held on 6/1/2015. Program Requirement Questionnaire meetings were held on 6/9/2015 and 6/17/15. Program Report delivered to Mesa Water® for review on 7/7/2015. 60% design concepts are scheduled for submittal on 08/14/15. 100% concept design received on 09/29/15. Virtual rendering received on 10/6/15. Concept designs presented at the October Board Workshop. A follow-up planning session was
held at the November Engineering and Operations Committee Meeting to capture the Board’s input on evaluating reduced cost options and to revisit the existing Boardroom improvements. Board directed staff to develop a scope of work to evaluate scaled down layouts of the MWRF Outreach Center and revisit expanded layouts of the main Boardroom.

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

**File No.:** MC 2171  
**Description:** Evaluate the existing HVAC system and provide recommendations for improved efficiency and operations of the system.  
**Status:** Mesa Water® has contracted with Goss Engineering Inc. to perform this study.

### Project Title: South Coast Plaza Pipeline Repair

**File No.:** MC 2218  
**Description:** Water main repair due to failed 12” main.  
**Status:** On October 19, 2015, a 50-year old waterline near the western end of the interior roadway of South Coast Plaza at Bristol Street (across from Anton Boulevard), ruptured and impacted the pavement. At the rupture location the pavement caved-in resulting in a deep sinkhole (approximately 30 feet by 20 feet at the ground surface) undermining a South California Edison (SCE) high voltage (12 KVA) duct bank and roadway infrastructure (sidewalk, light poles, palm trees, etc.). Beyond the immediate location of the waterline rupture, the asphaltic concrete pavement was uplifted under the water pressure and the base course was filled with water, soaking the upper parts of the clay subgrade. Mesa Water® used its on-call contractor and consulting resources to facilitate the work. The project was completed on Thursday, October 29, 2015. Staff is working on reviewing the contractors’ invoicing (12/3/15).

### Project Title: Other Agency Project Coordination

**File No.:**  
**Description:** Median construction in Placentia Ave. between Wilson St. and Adams Ave.  
**Status:** Mesa Water® 16” main runs 5’ East of the street center line. Mesa Water® is coordinating with designer and City on design of necessary protection and root barrier for the water main. 85% design plans received on (12/22/14). Plan review in progress 1/8/15. Plan review comments sent to the City 2/6/15. Mesa Water® provided update comments to landscaping plans on 6/17/15. Mesa Water® continuing to coordinate with the City, Stivers and Associates, Inc., and City Designer on layout of project. Revised final plans submitted for Mesa Water® review on 11/19/15. Staff is reviewing
the submittal (12/3/15).

<table>
<thead>
<tr>
<th>Project Title: Other Agency Project Coordination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>File No.:</strong></td>
</tr>
<tr>
<td><strong>Description:</strong> Water main relocation in New Hampshire Ave. due to Greenville-Banning Channel Improvements by County of Orange.</td>
</tr>
<tr>
<td><strong>Status:</strong> Relocation of 12” water main is required due to enlarged box culvert on Greenville-Banning Channel. Task Order No. RBF-2 issued to RBF Consulting on June 24, 2014 for design of the relocation. Mesa Water® is coordinating with County of Orange and RBF. Design in progress. Hydraulic analysis received from RBF 9/12/14 indicated that taking the New Hampshire pipeline out of service during construction of the Greenville-Banning Channel will have no adverse impacts on the distribution system (8/9/14). Mesa Water® is working with OCFCD on finalizing the cooperative agreement. E&amp;O Committee approved the agreement 11/18/14. Pipeline relocation design package submitted to Mesa Water® on 1/31/15. Mesa Water® is coordinating with OCFCD and consultant to address final comments. Plans and specifications for the pipeline relocation completed 3/3/15 and forwarded to OCFCD on 3/5/15. Attended the pre-construction meeting on 7/21/15. Project start date has been moved to end of March 2016. (12/3/15)</td>
</tr>
</tbody>
</table>
Water Quality Call Report
November 2015

Date: 11/6/2015
Source: Phone
Address: 2784 Albatross Drive
Description: Customer bought home water testing kit and detected lead and pesticide in her water. Customer would not provide the test kit name, levels of lead and pesticide, or the type of pesticide detected.

Outcome: Explained to customer about the extensive testing Mesa Water conducts to ensure the water meets state and federal standards. Also explained to her that the analyses are done by a state certified laboratory unlike her home test kit which may not be a state approved method for testing drinking water. Water quality data shows we do not have an exceedance for pesticide and our water is non-corrosive.

Date: 11/9/2015
Source: Phone
Address: 1822 Jamaica Rd.
Description: Customer interested in testing the water from his home filter system to see how it’s performing. His concern was with the hardness level.

Outcome: Explained to customer about Mesa Water’s drinking water monitoring plan and assured the customer that the water meets state and federal drinking water standards. Regarding his interest in testing the water for hardness, explained to customer he may use a local laboratory that will test for hardness or search for home test kits depending on his preference for accuracy.

Date: 11/9/2015
Source: Phone
Address: 2339 Cornell Dr.
Description: Customer concerned about water coming out foamy from hose initially and then clears up.

Outcome: Confirmed with customer that the water is normal (not foamy) at other faucets in the home. The foamy water appears to be caused by the hose. Recommended that customer flush the hose before using the water or replace the hose.
## Policy Assignments for 2015

<table>
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<tr>
<th>Policy Name</th>
<th>Resolution</th>
<th>Date Adopted</th>
<th>Revision Schedule</th>
<th>Next Review</th>
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<td>Rules and Regulations for Water Services (will include review of meter capacity charges and easement procedures)</td>
<td>Resolution No. 1452</td>
<td>10/09/14</td>
<td>Review and update as needed</td>
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<td>Standard Specifications and Drawings</td>
<td>Resolution No. 1449</td>
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<td>Review and update as needed</td>
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## Water Operations Status Report

**July 1, 2015 - November 30, 2015**

### Operations Department Status Report

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<th>Act Days</th>
<th>Plan Qty</th>
<th>Act Qty</th>
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</table>
MEMORANDUM

TO: Engineering and Operations Committee
FROM: Phil Lauri, P.E., Assistant General Manager
DATE: December 15, 2015
SUBJECT: Municipal Water District of Orange County Activities Update

RECOMMENDATION

This report is for information only. No action is recommended at this time.

STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.
Goal #3: Be financially responsible and transparent.

PRIOR BOARD ACTION/DISCUSSION

None.

DISCUSSION

This report on Municipal Water District of Orange County (MWDOC) issues is intended to brief the Committee and Board on activities relevant to Mesa Water District (Mesa Water®). The first section, “On-Going Issues”, is a status update on current studies, reports, and/or policy work groups that staff are involved with. The second section, “Last Month’s Issues”, is a report on noteworthy items that were covered at the last month’s MWDOC Board and Committee meetings. The last section, “Upcoming Issues”, is a preview of new and forthcoming issues important to Mesa Water®. This format is intended to keep the Committee and Board informed about current and future items at MWDOC in order to provide direction to staff and its MWDOC representatives in a timely manner, if required.

ON-GOING ISSUES

- **MWDOC Drought Allocation and State Water Use Tracking:** At the end of September, 2015, Orange County was tracking at 26.6% conservation. Several agencies did not meet their monthly goal. MWDOC’s General Manager stated that the Board has given him authority to approve additional supply allocations to Orange County Water District (OCWD). MWDOC stated that an additional 5,000 acft is possible in mid-December. OCWD is currently taking water from MWDOC’s allocation at a rate equal to their percolation rate. At this rate, OCWD will have taken all the approved water by December 3. In regards to MWDOC imported water from MET; for the period of July 2015 – October 2015, MWDOC imported 56,789 AF – this is 23,078 AF below estimated allocation target.

- **Turf Removal Program:** By the end of November, 2015, MWDOC will have contacted all customers that were approved for the turf removal program and have yet to complete the work. If the customer is no longer interested the funding will be allocated to next person on the waiting list.
LAST MONTH’S ISSUES

- **SWP East Branch Mud Flow Outage Repair and Reopened**: Mud flow damaged a section of the California Aqueduct. A 17-foot high mud and debris flow entered the aqueduct and blocked flow and damaged the liner. It took contractors 3 weeks to clean and repair the channel. The Department of Water Resources estimates there are 100 locations along the aqueduct where mud and debris could enter the aqueduct and damage the liner.

- **Los Angeles County Sanitation District/Metropolitan Recycling 1MGD Demonstration Project**: In September, Metropolitan staff discussed with its Board of Directors an opportunity with the Sanitation Districts of Los Angeles County to develop a potential regional recycling water project for the recharge of groundwater basins and augmentation of water supplies within the Southern California region, in particular, delivering such recycled water to the Orange County Basin. In November, the MET Board considered appropriating $15 million in funds and authorizing an agreement with the Los Angeles Sanitation District for the development of a 1 MGD demonstration project; including the initial planning for a potential regional recycled water supply program that could deliver up to 160 MGD.

MET ITEMS CRITICAL TO ORANGE COUNTY

- **Colorado River Issues**: On September 15, Metropolitan submitted its 2016 Colorado River Water Diversion request letter, to the Bureau of Reclamation. Metropolitan’s letter estimated that 961,000 acre-feet of Colorado River supplies would be available to Metropolitan in 2016.

- **Bay Delta/State Water Project Issues**: Metropolitan staff worked jointly with the State Water Project (SWP), Central Valley Project (CVP) and member agencies to prepare and submit comments on the Bay Delta Conservation Plan (BDCP) and California Water Fix Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement (RDEIR/SDEIS).

- **Ocean Desalination**: The Doheny Desalination Project is anticipated to be operational as early as, 2019. The Huntington Beach Ocean Desalination Project (Poseidon Project); OCWD has continued work on evaluating where the product water estimated from the Poseidon Project would be utilized, either for the seawater barrier operations, injection or replenishment in the groundwater basin, for direct delivery to other agencies or some combination thereof.

UPCOMING ISSUES

- Emergency Drought Regulations
- MET- Integrated Resource Planning
- Local Resource Planning - Desalination
FINANCIAL IMPACT
None.

ATTACHMENTS
None.
MEMORANDUM

TO: Engineering and Operations Committee
FROM: Phil Lauri, P.E., Assistant General Manager
DATE: December 15, 2015
SUBJECT: Orange County Water District Activities Update

RECOMMENDATION

This report is for information only. No action is recommended at this time.

STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.
Goal #3: Be financially responsible and transparent.

PRIOR BOARD ACTION/DISCUSSION

None.

DISCUSSION

This report on Orange County Water District (OCWD) issues is intended to brief the Committee and Board on activities relevant to Mesa Water District (Mesa Water®). The first section, “On-Going Issues”, is a status update on current studies, reports, and/or policy work groups that staff are involved with. The second section, “Last Month’s Issues”, is a report on noteworthy items that were covered at the last month’s OCWD Board and Committee meetings. The last section, “Upcoming Issues”, is a preview of new and forthcoming issues important to Mesa Water®. This format is intended to keep the Committee and Board informed about current and future items at OCWD in order to provide direction to staff and its OCWD representatives in a timely manner, if required.

ON-GOING ISSUES

- **Update on Prado Dam Water Control Manual Deviation:** OCWD staff presented an update on the concept of bringing the water elevation to 505 feet for a 12-month demonstration period. OCWD Staff and the Army Corps of Engineers are working on a permanent change to the Water Control Manual, but that effort has been delayed. The dam has a total capacity of 170,000 acft. at an elevation of 542 feet. The current release point per the Water Control Manual is an elevation of 498 feet during the winter months. OCWD Staff is confident that the 12-month demonstration period will be approved, which will save an additional 20,000 acft in storage for controlled releases.

- **Prado Basin Sediment Removal Demonstration Project:** OCWD staff presented options from the original plan and offered possible alternatives such as: 1) selling the sediment; or 2) seeing if contractors were interested in mining the sediment. The Army Corps of Engineers has funding up to $5,000,000, which may qualify if they can prove the removal of sediment has a benefit to flood protection or the environment. Staff will continue to work on options with the Army Corp Engineers for joint funding.
• **Urban Runoff Diversion Project to Orange County Sanitation District Plant #1 – Funding Request:** This is a project that is being considered by the cities of Santa Ana, Costa Mesa, Newport Beach, Orange County Public Works (OCPW) and Orange County Flood Control. The project would capture and transport an estimated 2,000 acft of dry-weather runoff to Orange County Sanitation District (OCSD) plant No. 1, which would then be recycled by OCWD’s GWRS. This project is estimated at $8,000,000 and OCWD has been asked to join the group and contribute $1 million in funding for the capital cost only. The Board authorized the General Manager and Legal Counsel to negotiate and execute an Agreement to financially participate in the Delhi Channel Urban Runoff Diversion Project for $1 million.

**LAST MONTH’S ISSUES**

• **Recharge Facilities Workshop – Preparation for Winter:** OCWD field Headquarters staff is working to prepare the District’s recharge facilities for the winter season. Additionally, the District is currently receiving 125 cubic feet/second (250 acre feet/day) of Metropolitan Water District untreated full service water which is being recharged.

• **Proposed Recycled Water Legislation – Alicia Dunkin:** OCWD is attempting to adopt Legislative approval to bottle GWRS water for educational distribution. This requires approval and OCWD has requested a letter of support from the Producer’s Group. The Producers group agreed to submit a letter of support for this effort. The 2016 Legislative Draft Agenda has been circulated via e-mail to all Producers. OCWD staff would like comments this month on any items to be considered.

• **Letter to MWDOC on MWD Policy Issues:** OCWD’s General Manager sent a letter to MWDOC’s General Manager highlighting issues that are important to all of Orange County and OCWD. The letter was also sent to the cities of Anaheim, Santa Ana and Fullerton. Two critical areas are:
  o Water Supply Allocation Plan including OCWD within future allocations, and; In-Lieu Storage, concept of reinstatement of the old in-lieu program was discussed. The Producers will be updated on this issue.
  o OCWD also indicated that they changed their Commercial Paper program to allow financing of large water purchases up to 70,000 acft.

• **Poseidon Update:** A date of January 6, 2016, is slated for a workshop on desalination distribution. This will be the first of several workshops on how to transport and use the water from the Poseidon Huntington Beach Project. OCWD staff anticipates the Board to give a ‘Go-No go’ decision on the Poseidon project by May 2016. Currently three (3) options are being considered for distribution. The first option is for OCWD to take the entire production of the plant and inject/percolate into the basin (this option will be presented on January 6). The second option is for OCWD to take some of the production and the remaining water used by local producers (this option is slated for a later workshop). The third option will be a combination of the first two options and sending some water to South Orange County.
GROUNDWATER REMEDIATION PROJECTS UPDATE

- **North Basin:** On December 16, 2015, the EPA will update OCWD’s Board on this project. Staff from OCWD continues to work with a large water user in Fullerton on taking water produced and treated from the plume site. This large water user has requested that the water be treated to drinking water standards, distributed by the City of Fullerton and therefore can be shown as conserved water. Other alternatives are to sell the water to the City of Fullerton for use within their system, or to discharge to OCWD sewer. Cost for all three projects can run as high as $8,000,000 in construction and $1-2 million in annual O&M.

- **South Basin:** Orange County Water District staff had a productive meeting with DTSC, RWQCB and SWRCB in Sacramento two weeks ago. All three state agencies left with a clearer understanding of the issues.

- **Award Contract to ACCO Engineered Systems for the Admin Building HVAC System Replacement and Upgrade Project:** Bids to replace the existing HVAC system, which has met its useful life, were received. ACCO Engineered Systems was the lowest responsible bidder at $849,000.00. Staff is requesting a project budget of $950,000. MWDOC will be responsible for paying 20% of the project costs. The committee approved the bid from ACCO Engineered Systems for $849,000 and the project budget of $950,000.

UPCOMING ISSUES

- Groundwater Management
- MWD IRP
- Drought
- Poseidon
- North/South Basin

FINANCIAL IMPACT

None.

ATTACHMENTS

None.
There are no support materials for this item.
REPORTS AND INFORMATION ITEMS:

12. REPORT OF THE GENERAL MANAGER:
REPORTS AND INFORMATION ITEMS:

13. DIRECTORS' REPORTS AND COMMENTS: