MEMORANDUM

TO: CITY COUNCIL
FROM: SHANE TAYLOR, UTILITIES MANAGER
SUBJECT: MONTHLY WATER SUPPLY AND DEMAND UPDATE
DATE: SEPTEMBER 25, 2018

SUMMARY OF ACTION:
The update reports the water supply and demand for August 2018. Current Lopez Reservoir level and projected levels are provided in the attachments.

IMPACT ON FINANCIAL AND PERSONNEL RESOURCES:
Approximately two (2) hours of staff time is required to prepare the report.

RECOMMENDATION:
It is recommended the City Council receive and file the monthly Water Supply and Demand Report.

BACKGROUND:
On April 25, 2017, the City Council, by resolution, rescinded the Stage 1 Water Shortage Emergency along with related emergency water conservation measures and restrictions. During the public hearing the City Council requested staff to continue preparing the monthly water supply and demand updates. The Council urged citizens to continue to practice every day water saving measures, and reiterated that the previously adopted water conservation measures were to remain in effect.

In August 2018, the City’s water use was 221.3 acre-feet with a per capita use of 132 gallons per day/per person. There was a total of 0” of rainfall in August. The water use for the current “rolling” water year from September 2017 to August 2018 was 2,312 acre-feet, which equates to a per capita use of 117 gallons per day/per person.

ANALYSIS OF ISSUES:
The United States Drought Monitor, as of September 13, 2018 shows San Luis Obispo County in a severe drought. Rainfall to date (July 1, 2018 to August 31, 2018) is 0 inches at the Corporation Yard rain gauge. Lopez Lake, as of September 13, 2018, is at 45.1% capacity (22,251 acre-feet of storage).

The new water year began on April 1, 2018 and the City’s current total available supply from Lopez is 2,290 acre-feet, our normal entitlement plus 564 acre-feet of surplus water.
In addition, we have 1,323 acre-feet of ground water entitlement from the Santa Maria Basin and 200 acre-feet from the Pismo Formation.

The projected water use for water year 2018/19 is 2,000 acre-feet if the City receives average rainfall.

ADVANTAGES:
No advantages noted at this time.

DISADVANTAGES:
No disadvantages noted at this time.

ALTERNATIVES:
Not applicable at this time.

ENVIRONMENTAL REVIEW:
No environmental review is required for this item.

PUBLIC NOTIFICATION AND COMMENTS:
The Agenda was posted at City Hall and on the City’s website in accordance with Government Code Section 54954.2.

Attachments:

1. Lopez Monthly Operations Report for August 2018
1.a. Lopez Monthly Operations Report for March 2018
2. Lopez Reservoir Storage Projection
3. Monthly Water Use Comparison
**San Luis Obispo County Flood Control and Water District**  
**Zone 3 - Lopez Project - Monthly Operations Report**  
**August, 2018**

### Lopez Water Deliveries

<table>
<thead>
<tr>
<th>Contractor</th>
<th>Entitlement This Month</th>
<th>April to Present</th>
<th>State Water Deliveries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arroyo Grande</td>
<td>2290 564.00 2854.00</td>
<td>211.02 9.2% 0.00</td>
<td>0.00 0.0% 0.00 0.0% 0.00 0.0% 996.33 43.5% 0.00 0.0% 996.33 34.9%</td>
</tr>
<tr>
<td>Oceano CSD</td>
<td>303 75.00 378.00</td>
<td>218.56 72.1% 0.00</td>
<td>0.00 0.0% 0.00 0.0% 0.00 0.0% 218.56 57.8%</td>
</tr>
<tr>
<td>Grover Beach</td>
<td>800 197.00 997.00</td>
<td>313.64 39.2% 0.00</td>
<td>0.00 0.0% 0.00 0.0% 0.00 0.0% 313.64 31.5%</td>
</tr>
<tr>
<td>Pismo Beach</td>
<td>892 220.00 1112.00</td>
<td>690.24 68.3% 0.00</td>
<td>0.00 0.0% 0.00 0.0% 0.00 0.0% 690.24 54.8%</td>
</tr>
<tr>
<td>CSA 12</td>
<td>245 60.00 305.00</td>
<td>34.44 14.1% 0.00</td>
<td>0.00 0.0% 0.00 0.0% 0.00 0.0% 34.44 11.3%</td>
</tr>
<tr>
<td>San Miguelito</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4530 1116.00 5646.00</td>
<td>2172.21 48.0% 0.00</td>
<td>0.00 0.0% 0.00 0.0% 0.00 0.0% 2172.21 38.5%</td>
</tr>
</tbody>
</table>

### State Water Deliveries

<table>
<thead>
<tr>
<th>Contractor</th>
<th>April to Present</th>
<th>State Water Deliveries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arroyo Grande</td>
<td>0.00 0.0% 0.00 0.0%</td>
<td>0.00 0.0%</td>
</tr>
<tr>
<td>Oceano CSD</td>
<td>205 0.00 0.0%</td>
<td>205.00 100.0%</td>
</tr>
<tr>
<td>Grover Beach</td>
<td>120 12.66 10.6%</td>
<td>69.18 57.7%</td>
</tr>
<tr>
<td>Pismo Beach</td>
<td>205 0.00 0.0%</td>
<td>167.32 83.96</td>
</tr>
<tr>
<td>CSA 12</td>
<td>120 12.66 10.6%</td>
<td>313.64 57.8%</td>
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<tr>
<td>San Miguelito</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1194.34</td>
<td>514.07</td>
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</tbody>
</table>

**Note:** Deliveries are in acre feet. One acre foot = 325,850 gallons or 43,560 cubic feet. Safe yield is 8,730 acre feet.

**Lopez Dam Operations**

<table>
<thead>
<tr>
<th>Item</th>
<th>This Month</th>
<th>Year to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Elevation (full at 522.37 feet)</td>
<td>484.84</td>
<td>Difference (feet)</td>
</tr>
<tr>
<td>Storage (full at 49200 acre feet)</td>
<td>22114</td>
<td>% Full</td>
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<tr>
<td>Rainfall</td>
<td>0.00</td>
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<tr>
<td>Downstream Release (4200 acre feet/year)</td>
<td>391.28 1777.81</td>
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<tr>
<td>Spillage (acre feet)</td>
<td>0.00</td>
<td></td>
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</tbody>
</table>

**Comments:**

Surplus water shown is as designated per BOS May 15, 2018 Declaration of Surplus Water.

1) Oceano supplied State Water to Canyon Crest via Arroyo Grande's Edna turn out. A total of 2.52 AF delivered to Canyon Crest was added to Oceano's State Water usage this month and 2.52 AF was subtracted from Arroyo Grande's usage this month.

**Note:** Deliveries are in acre feet. One acre foot = 325,850 gallons or 43,560 cubic feet. Safe yield is 8,730 acre feet.
San Luis Obispo County Flood Control and Water District
Zone 3 - Lopez Project - Monthly Operations Report
March, 2018

### Lopez Water Deliveries

<table>
<thead>
<tr>
<th>Contractor</th>
<th>Entitlement</th>
<th>Surplus</th>
<th>Total</th>
<th>Usage</th>
<th>% Usage</th>
<th>Surplus</th>
<th>Total</th>
<th>Usage</th>
<th>% Usage</th>
<th>Surplus</th>
<th>Total</th>
<th>Usage</th>
<th>% Usage</th>
<th>Surplus</th>
<th>Total</th>
<th>Usage</th>
<th>% Usage</th>
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<tbody>
<tr>
<td>Arroyo Grande</td>
<td>2399</td>
<td>2662.20</td>
<td>5061.20</td>
<td>1441.23</td>
<td>63.3%</td>
<td>0.00</td>
<td>0.0%</td>
<td>1441.23</td>
<td>91.7%</td>
<td>0.00</td>
<td>0.0%</td>
<td>2414.32</td>
<td>66.1%</td>
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<td></td>
</tr>
<tr>
<td>Oceano CSD</td>
<td>303</td>
<td>1141.50</td>
<td>1441.50</td>
<td>0.00</td>
<td>0.0%</td>
<td>50.60</td>
<td>0.6%</td>
<td>1501.10</td>
<td>100.0%</td>
<td>0.40</td>
<td>4.8%</td>
<td>1503.49</td>
<td>51.9%</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grover Beach</td>
<td>892</td>
<td>2408.20</td>
<td>3298.20</td>
<td>0.00</td>
<td>0.0%</td>
<td>9.32</td>
<td>0.0%</td>
<td>9.32</td>
<td>9.32</td>
<td>0.00</td>
<td>0.0%</td>
<td>9.32</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piño Beach</td>
<td>244</td>
<td>344.40</td>
<td>588.40</td>
<td>117.14</td>
<td>20.0%</td>
<td>0.00</td>
<td>0.0%</td>
<td>117.14</td>
<td>19.9%</td>
<td>0.00</td>
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<tr>
<td>CSA 12</td>
<td>345</td>
<td>496.80</td>
<td>841.80</td>
<td>171.39</td>
<td>20.3%</td>
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<tr>
<td>San Miguelita</td>
<td>4529</td>
<td>4645.70</td>
<td>9191.70</td>
<td>213.40</td>
<td>4.7%</td>
<td>142.42</td>
<td>2.1%</td>
<td>355.82</td>
<td>7.1%</td>
<td>504.75</td>
<td>54.0%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>4559</strong></td>
<td><strong>4660.70</strong></td>
<td><strong>9190.70</strong></td>
<td><strong>213.40</strong></td>
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<th>Surplus</th>
<th>Total</th>
<th>Usage</th>
<th>% Usage</th>
<th>SWP Deliveries</th>
<th>Change in Storage</th>
<th>Usage</th>
<th>% of Annual Request</th>
<th>SWP Deliveries</th>
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<td><strong>355.82</strong></td>
<td><strong>7.1%</strong></td>
<td><strong>504.75</strong></td>
</tr>
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</table>

### April to Present Lopez Entitlement+Surplus Water Usage


### January to Present State Water Usage

- April '17: 0, May '17: 20, June '17: 40, July '17: 60, August '17: 80, September '17: 100, October '17: 120, November '17: 140, December '17: 160, January '18: 180, February '18: 200, March '18: 220

**Note:** Deliveries are in acre feet. One acre foot = 325.850 million of 43, 560 cubic feet. Safe yield is 8.710 acre feet.

**San Luis Obispo County Flood Control and Water District**

**Zona 3 - Lopez Project - Monthly Operations Report**

**March, 2018**

**Lopez Water Deliveries**

- **This Month:**
  - Arroyo Grande: 2399
  - Oceano CSD: 303
  - Grover Beach: 892
  - Piño Beach: 244
  - CSA 12: 345
  - San Miguelita: 4529

- **Total:** 4559

- **Surplus:**
  - Arroyo Grande: 2662.20
  - Oceano CSD: 1141.50
  - Grover Beach: 2408.20
  - Piño Beach: 344.40
  - CSA 12: 496.80
  - San Miguelita: 4645.70

- **Total:** 4660.70

**State Water Deliveries**

- **This Month:**
  - Arroyo Grande: 1441.23
  - Oceano CSD: 1501.10
  - Grover Beach: 9.32
  - Piño Beach: 117.14
  - CSA 12: 171.39
  - San Miguelita: 213.40

- **Total:** 2414.32

- **Surplus:**
  - Arroyo Grande: 2414.32
  - Oceano CSD: 1503.49
  - Grover Beach: 9.32
  - Piño Beach: 171.39
  - CSA 12: 171.39
  - San Miguelita: 504.75

- **Total:** 504.75

**Total Water Deliveries This Month:** 2919

**Last Month Used State Water:**

- April '17: 1343.69
- May '17: 1376.68

**April to Present Lopez Entitlement+Surplus Water Usage**

**January to Present State Water Usage**

- **April '17:** 20
- **May '17:** 40
- **June '17:** 60
- **July '17:** 80
- **August '17:** 100
- **September '17:** 120
- **October '17:** 140
- **November '17:** 160
- **December '17:** 180
- **January '18:** 200

**Comment:**

- Reservoir is currently operated under the Low Reservoir Response Plan. Reservoir is about 30,000 AF therefore no reduction in entitlements.

- Surplus water shown is actually "Canyon Over" water as designated in the LBFP and updated per BOS May 5, 2017 Declaration of Surplus.

- Oceano supplied State Water to Canyon Crest via Arroyo Grande's Edna turnout. A total of 1.55 AF delivered to Canyon Crest was added to Oceano's State Water usage this month and 1.55 AF was subtracted from Arroyo Grande's usage this month.
LOPEZ RESERVOIR STORAGE PROJECTION

Note:
1. Storage projection is based on predicted rainfall from longrangeweather.com, historic inflow based on predicted rainfall, 18-19 downstream release requests, and municipal usage.
2. Municipal Usage is based on 2010-2017 average monthly deliveries.
Monthly Water Use Comparison

<table>
<thead>
<tr>
<th></th>
<th>Aug-17</th>
<th>Aug-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acre Feet</td>
<td>196.7</td>
<td>221.3</td>
</tr>
<tr>
<td>Usage (gpcd)</td>
<td>117</td>
<td>132</td>
</tr>
</tbody>
</table>