



# CITY OF BURBANK BURBANK WATER AND POWER STAFF REPORT

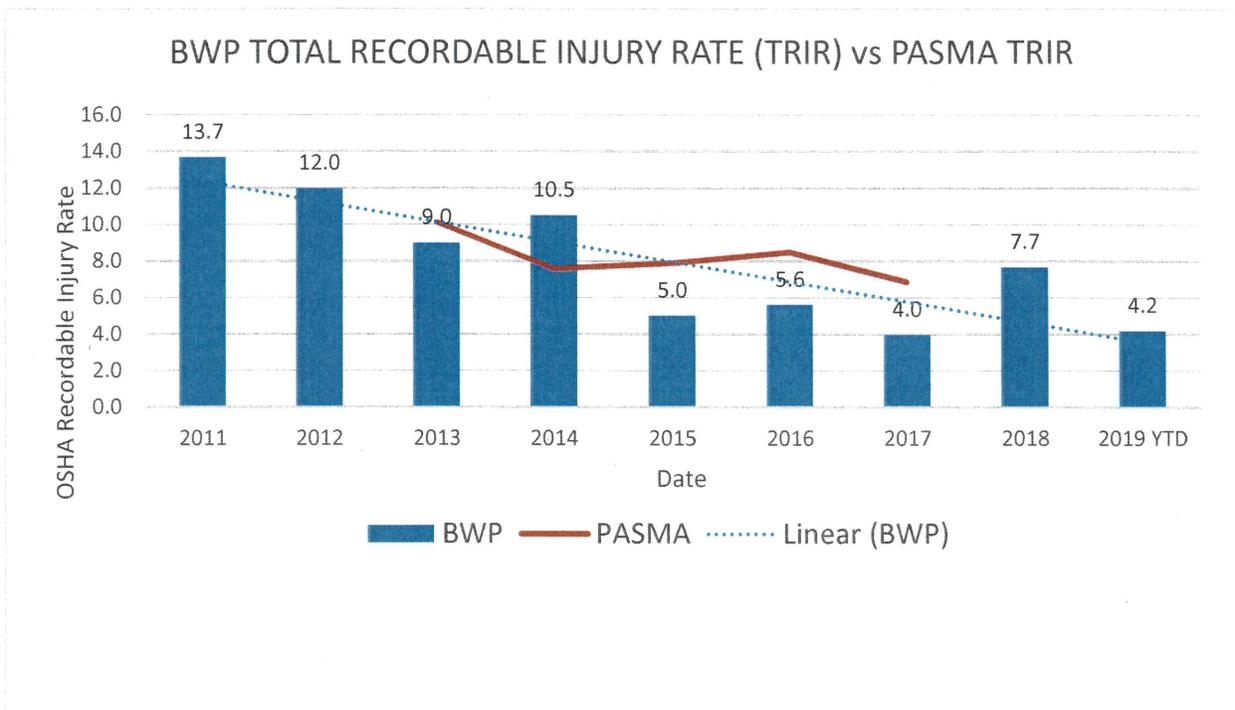
**DATE:** May 2, 2019  
**TO:** BWP Board  
**FROM:** Jorge Somoano, General Manager, BWP  
**SUBJECT:** March 2019 Operating Results

**\*Please note that changes from last month's report are in BOLD**

## SAFETY

Safety performance continues to improve.

The graph below reflects the historical safety performance of BWP as compared to data collected annually by the Public Agency Safety Management Association. The data illustrated in the graph represents the Utility organizations of BWP's local peers. The trend line identified as "Linear (BWP)" indicates a continued improvement in safety performance in light of the uptick in reports made in 2018.



## **Water Financial Results**

For the month of March, Potable water usage was 1% (2 million gallons) lower than budgeted and Potable Water Revenues were \$43,000 lower than budgeted. Recycled water usage was 13% (6 million gallons) higher than budgeted partially due to lower rainfall than the March average. Recycled Water Revenues were \$24,000 higher than budgeted. March Water Supply Expenses were \$84,000 lower than budgeted due to lower demand. March's Gross Margin was \$65,000 higher than budgeted. Net Income was -\$356,000, which was \$65,000 higher than budgeted.

March fiscal-year-to-date (FYTD) Potable water usage was 2% (96 million gallons) lower than budgeted. FYTD March Potable Water Revenues were \$828,000 lower than budgeted. FYTD recycled usage was 9% (70 million gallons) lower than budgeted and Recycled Water Revenues were \$335,000 lower than budgeted. FYTD Water Supply Expenses were \$236,000 lower than budgeted. The FYTD March Gross Margin was \$925,000 lower than budgeted. Operating Expenses were \$767,000 lower than budgeted. Net Income was \$1,295,000, which was \$53,000 lower than budgeted.

## **Electric Financial Results**

For the month of March, electric loads were 9% lower than budgeted due to conservation. Retail Sales were \$1,764,000 lower than budgeted. March Power Supply Expenses were \$761,000 lower than budgeted primarily due to receiving less renewable energy than planned and lower retail load. March's wholesale margin was \$21,000 lower than budgeted. March's Gross Margin was \$1,023,000 lower than budgeted. Net Income in March was -\$1,052,000 which was \$1,023,000 lower than budgeted.

FYTD March electric loads were 2% lower than budgeted due to conservation. Retail Sales were \$2,023,000 lower than budgeted. FYTD Power Supply Expenses were \$3,059,000 lower than budgeted primarily due to prior period true up credits, lower than planned O&M expenses, and lower retail load which is partially offset with higher energy and fuel prices, net of economic dispatch. FYTD Wholesale Margin was \$363,000 higher than budgeted. FYTD Gross Margin was \$928,000 higher than budgeted. March FYTD Operating Expenses were \$3,436,000 lower than budgeted. Net Income was \$11,424,000 which was \$4,390,000 higher than budgeted.

## WATER DIVISION

### State Water Project Update

On March 20, 2019, the Department of Water Resources (DWR) increased the State Water Project (SWP) Allocation Table A amounts from 35% to 70%. The 2019 allocation of 70% amounts to 2,942,158 acre-feet of water. Reservoir storage, snowpack, precipitation, and releases to meet local deliveries are among several factors used in determining allocations.

### Burbank's Water Use

The table below shows water use in Burbank during March 2019 compared to March 2018 measured in gallons per capita per day (gpcd). Also shown is a comparison of Burbank's average water use through the end of March 2018 and 2019 on a fiscal year basis (i.e., July 1 through February 28).

	Average Monthly Use	Average Monthly Use Fiscal Year Basis
March 2018	100 gpcd	132 gpcd
March 2019	82 gpcd	126 gpcd

These figures show water use is well below the target use of 157 gpcd that must be met by the year 2020.

### Burbank Operating Unit (BOU) Water Production

The table below provides the operational data for the BOU for the month of February. The contract operator performed weekly and monthly sampling for the treatment plant and wells.

	Availability
January 2019	95.6%
February 2019	97.8%
March 2019	97.9%

### PROJECT UPDATES

No project updates.

## FIELD WORK

In the photo below the water crew is shown installing a new valve to replace a broken 6" valve that was originally installed in 1947. This work is part of BWP's CIP annual distribution valve maintenance replacement program. We have a goal of replacing 10 or more of these each year, this fiscal year we have replaced 12 valves. Valve replacement is an item identified in our Water Master Plan which maximizes our pipe life and efficiently maintains the reliability of the system at the least cost to the community. With these new valves in place, there will be better circulation through the distribution system and will provide a suitable shut off with minimum interruptions in case of emergency or maintenance purposes.



## DISTRIBUTION

### ELECTRIC RELIABILITY

In March 2019, BWP experienced three (3) sustained feeder outages. In the past twelve (12) months, automatic reclosing has reduced customer outage time by approximately 1,202,710 customer minutes.

Reliability Measurement	April 2018 – March 2019	April 2017 – March 2018
Average Outages Per Year (SAIFI)	0.4590	0.4102
Average Outage Duration (CAIDI)	45.43 minutes	19.32 minutes
Average Service Availability	99.996%	99.999%
Average Momentary Outages Per Year (MAIFI)	0.1693	0.2873
No. of Sustained Feeder Outages	13	9
No. of Sustained Outages by Mylar Balloons	2	3
No. of Sustained Outages by Animals	0	1
No. of Sustained Outages by Palm Fronds	3	0

### PROJECT UPDATES

#### Composite Pole Pilot Project

In March, BWP successfully completed a pilot project to replace two (2) high-priority deteriorated wood poles with a new modular composite utility pole. Due to access limitations, replacement with a standard wood pole would have demanded additional planning and coordination efforts and increased labor costs. The modular composite pole is a new pole technology that could potentially provide a lower-cost solution to these types of situations. The pole is comprised of three (3) hollow fiberglass sections that are light enough to carry in by hand. Each piece is lifted and assembled in place, which significantly reduces the amount of labor required to install a pole in difficult-to-reach locations. This reduction in labor cost is enough to offset the higher material cost of the composite pole. Aside from ease of installation, the composite pole is also stronger than the typical wood pole that BWP installs and provides a significant increase in life expectancy. Additionally, since the pole is impervious to water and insect damage, no intrusive inspections are necessary for the life of the pole. While a complete analysis of the pilot project is still in review, the composite pole has the potential to provide safety

enhancements, reliability improvements, and lower overall installation and maintenance costs for poles in difficult-to-reach areas.



Original Wood Pole in Difficult-to-Reach Location



**Composite Pole Installation**



**Composite Pole Installed**

### 34.5 kV Bus Differential Relay Replacement at San Jose Substation

BWP is in the process of replacing its older electromechanical bus relays with modern microprocessor relays. The older relays take about six (6) times longer to operate, resulting in higher arc flash levels and a higher risk of additional equipment failure. Some of these older relays currently installed in BWP's system have exceeded their typical life expectancy of 40 years. Pursuant to the Electric Distribution Master Plan, BWP has budgeted Capital Improvement Project funding with a goal to replace all of its older bus differential (diff.) relays by Fiscal Year 2020-21.

BWP's Electrical Equipment Section completed the installation and testing of the new relay for San Jose Substation's 34.5 kV bus in March 2019. This new relay improves personnel and equipment safety by rapid isolation of faults, increases reliability through self-diagnostics, improves maintenance by reducing the number of relays from three (3) to one (1), extends the routine testing interval from three (3) to five (5) years, and logs digital event records which aides in troubleshooting.



Bus Diff. Relays Before Replacement



Bus Diff. Relay After Replacement

## STREET LIGHTING

### LED Replacement Program

In accordance with the Street Lighting Master Plan, BWP is replacing high-pressure sodium (HPS) streetlight luminaires with light-emitting diode (LED) luminaires. Replacement is carried out on a maintenance basis, and LEDs are installed daily as the HPS luminaires burn out. The LED replacements consume approximately 60% less energy. To date, 53.72% of the total streetlight luminaires have been converted to LEDs, which translates to an annualized energy savings of 2,673MWh or a 28.84% reduction in energy consumption. LED conversions have also reduced evening load by 610kW, which shortens the “neck of the duck curve” and reduces the amount of energy generation that BWP needs.

## CUSTOMER SERVICE

### Electric Vehicle (EV) Charging Program

45 public EV charging stations are in service, including 2 DC Fast Chargers and 18 curbside stations. As of November 1, 2018, Time of Use (TOU) pricing for public EV charging is 17.36 cents per kilowatt hour (kWh) for Level 1 and Level 2 charging during all hours. For the DC Fast Chargers, the charging rate is 28.17 cents per kWh. Staff continues to monitor usage and maintenance issues.

Month of usage	Usage in kWh	Gross Revenue	GHG reduced in kg	kWh/ Station/ Day	% Peak Sessions	Parking Occupancy	Charging Occupancy
<b>Mar 2019</b>	<b>24,810</b>	<b>\$4,507</b>	<b>10,420</b>	<b>18</b>	<b>20%</b>	<b>21%</b>	<b>17%</b>
Feb 2019 <sup>5</sup>	20,127	\$3,277	8,453	17	23%	21%	17%
Jan 2019	20,706	\$3,511	8,696	16	22%	22%	18%
Dec 2018	22,889	\$3,991	9,613	18	21%	24%	19%
Nov 2018 <sup>4</sup>	22,145	\$3,879	9,301	18	20%	25%	20%
Oct 2018 <sup>3</sup>	23,141	\$3,957	9,719	18	20%	24%	21%
Sep 2018 <sup>3</sup>	18,592	\$3,665	7,809	17	18%	23%	20%
Aug 2018	18,613	\$3,757	7,818	23	21%	27%	23%
July 2018	19,352	\$3,909	8,128	23	19%	28%	24%
Jun 2018 <sup>1</sup>	18,561	\$3,697	7,796	22	20%	29%	24%
May 2018	20,512	\$3,695	8,615	24	19%	32%	27%
Apr 2018	20,643	\$3,729	8,670	25	20%	30%	25%
Mar 2018	19,414	\$3,459	8,154	22	21%	26%	22%
Feb 2018	19,884	\$3,666	8,351	25	21%	30%	25%
Jan 2018	24,790	\$4,927	10,412	29	21%	30%	24%
Dec 2017	24,402	\$4,757	10,249	28	21%	30%	24%
Nov 2017 <sup>2</sup>	21,410	\$3,996	8,992	26	21%	29%	24%
Oct 2017	23,000	\$4,828	9,660	27	20%	32%	27%
Sep 2017	20,755	\$4,307	8,717	25	20%	31%	25%
Aug 2017	22,207	\$4,669	9,327	26	23%	31%	26%
Jul 2017	22,981	\$4,845	9,652	27	22%	30%	25%
Jun 2017 <sup>1</sup>	21,456	\$4,513	9,011	26	23%	31%	27%

<sup>1</sup> The higher \$/kWh reflects the start of summer peak pricing for public EV charging.

<sup>2</sup> The lower \$/kWh reflects the end of summer peak pricing for public EV charging.

<sup>3</sup> Includes 16 new public Level 2 chargers installed mid-September.

<sup>4</sup> Includes the new DC Fast Charger and the removal of 2 chargers due to the Burbank Town Center project.

<sup>5</sup> Includes 4 new Ontario Substation curbside chargers installed mid-February.

## Rooftop Solar

The table below tracks the total number and capacity of installed customer owned rooftop solar photovoltaic systems in Burbank.

Month	Number of Solar Systems Installed This Month	Number of Solar Systems Installed FYTD	Total Solar Systems in Burbank	Total Solar Kilowatts
<b>March 2019</b>	<b>11</b>	<b>70</b>	<b>769</b>	<b>7,788</b>
February 2019	5	59	758	7,707
January 2019	15	54	753	7,677
December 2018	10	39	738	7,530
November 2018	6	29	728	7,375
October 2018	9	23	722	7,351
September 2018	5	14	713	7,289
August 2018	5	9	708	7,256
July 2018*	4	4	703	7,227
June 2018	8	99	699	7,112
May 2018	5	91	690	6,946
April 2018	9	86	685	6,911
March 2018	7	77	676	6,868
February 2018	5	70	669	6,832
January 2018	4	65	664	6,808
December 2017	9	61	660	6,777
November 2017	11	52	651	6,713
October 2017	13	41	640	6,630
September 2017	8	28	627	6,446
August 2017	15	20	619	6,405
July 2017*	5	5	604	6,302
June 2017	12	133	599	6,277
May 2017	8	121	587	5,601
April 2017	7	113	579	5,561
March 2017	8	106	572	5,529
February 2017	8	98	564	5,491

\* Start of new fiscal year.

## TECHNOLOGY

### Broadband Services (ONE Burbank)

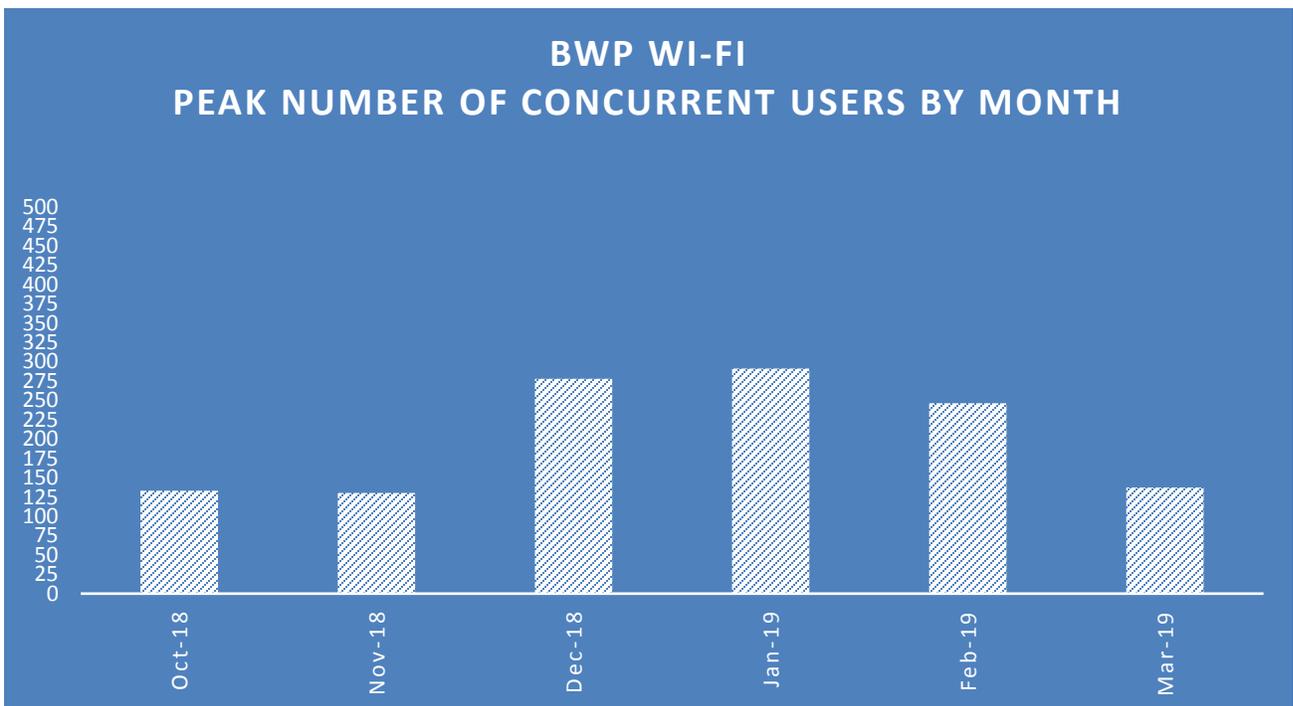
	March 2019 New Orders	March for February 2019	FYTD 2018-19 Revenues	FYTD Budget
Lit	2	\$112,910	\$1,018,973	\$1,215,000
Dark	2	\$207,240	\$1,842,178	\$1,822,500
Total	4	\$320,150	\$2,861,151	\$3,037,500

### BWP WiFi

On August 17, 2015, BWP WiFi launched throughout the City of Burbank as a free citywide wireless community broadband service.

BWP recently implemented new network security measures to safeguard and improve the reliability of BWP WiFi. These measures streamline overhead traffic and help to eliminate nefarious traffic. End users will experience a more robust, secure network, while BWP's metering assets that use the wireless networks will also be more secure.

Before these improvements, the number of peak users reported included active users as well as user devices that had disconnected from the network. Now, we are able to report just the number of users that are truly active and communicating to the internet (email, browsing, streaming, etc.) Our reports going forward will provide a clearer and more accurate picture to gauge actual usage of BWP WiFi.

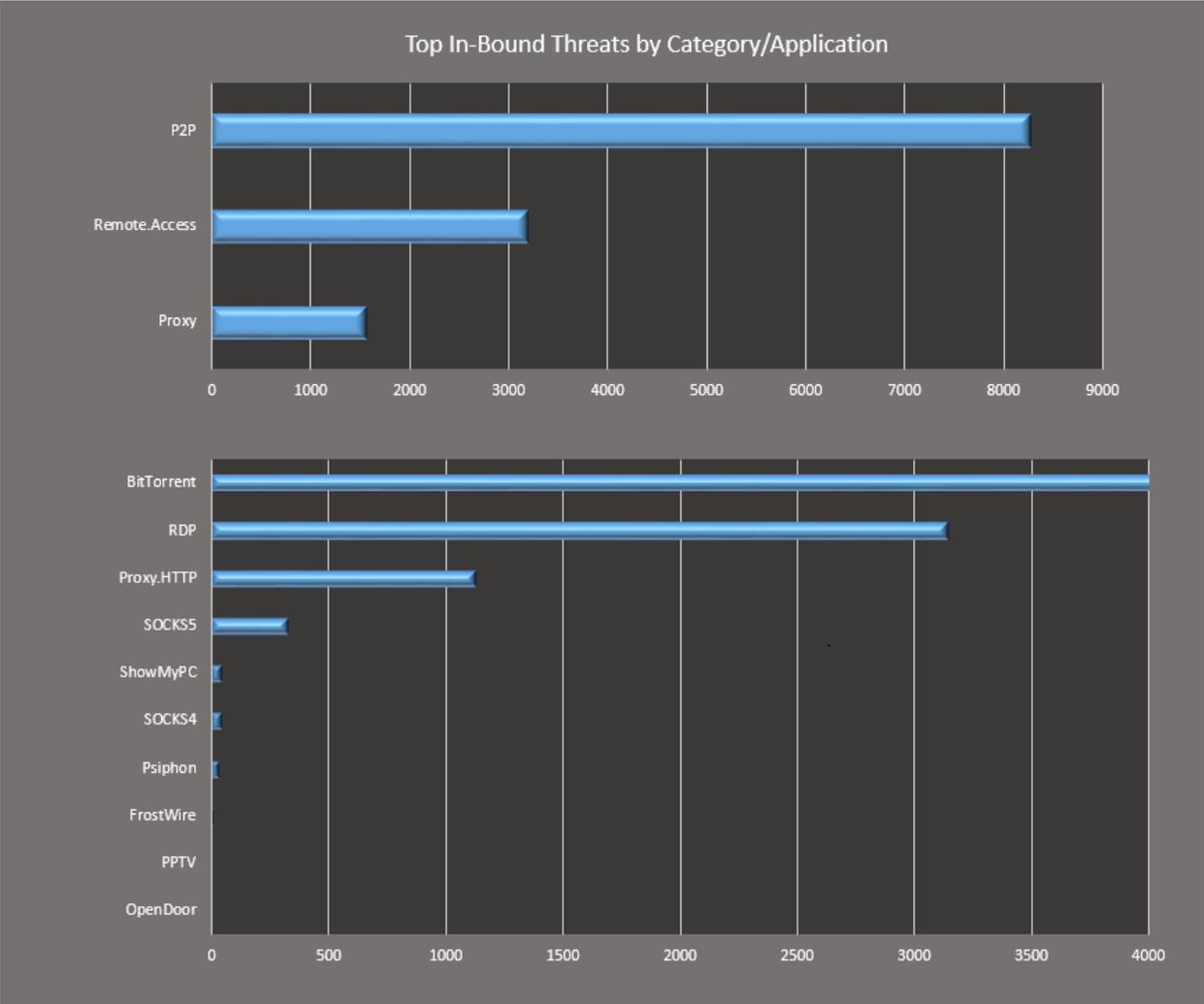


## Cyber Security Update – March 2019

The BWP cyber security risk factor was 2.4 out of 5.0 for the month of March. Operational Technology successfully prevented over 115 million cyber security threats of which over 59% were elevated or critical.



**In-bound cyber threats by source location**



**Top In-bound cyber threats by category/application**

**RISK FACTOR**



**RISK FACTOR:** The risk levels (1=lowest to 5=highest) indicate the application’s relative security risk based on a variety of factors and criteria such as whether the application can share files, is prone to misuse, or tries to evade firewalls.

## POWER SUPPLY

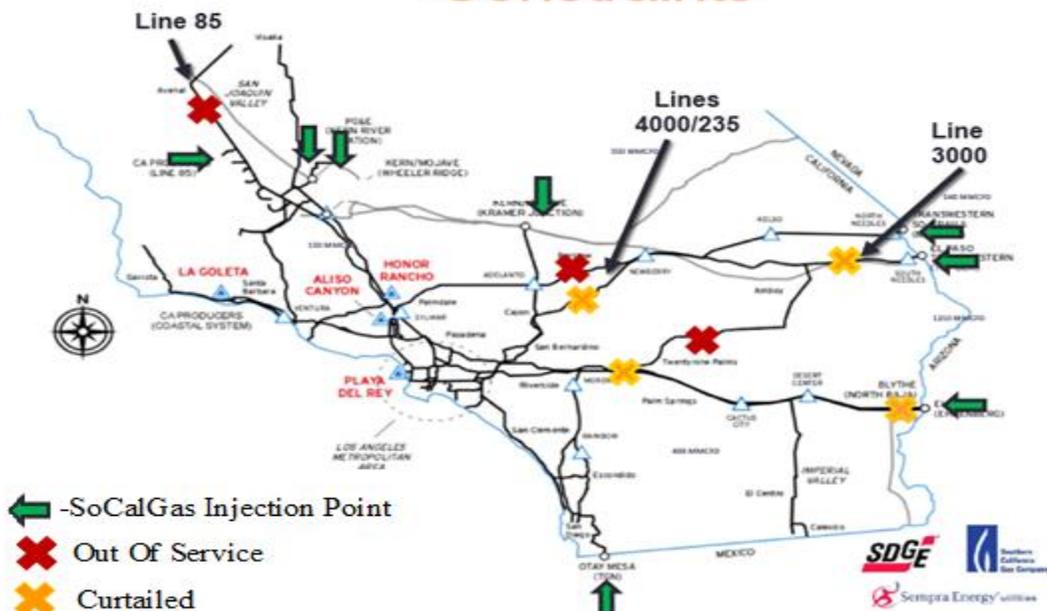
### BWP SYSTEM OPERATIONS:

The maximum load for March 2019 was 176.4 MW at 5:53 PM on Friday, March 8, and the minimum load was 72.6 MW at 9:15 AM on Saturday, March 16.

The Burbank power system did not experience colder than average weather or natural gas supply issues for March 2019. That said, the regional gas system did experience issues resulting in four withdrawals from the Aliso Canyon gas storage facility in March.

The Southern California area continues to experience natural gas reliability and affordability challenges because of supply and demand mismatches. SoCal Gas' system capacity and supply are primarily a function of two components: (1) transmission pipelines, which bring gas into and then transport it throughout the system; and (2) underground natural gas storage connected to transmission pipelines near system load. While one component of the system's limited supply is the transmission pipeline reductions and outages, the other critical and more readily addressed component is storage operating constraints resulting from the CPUC's November 2, 2017 Aliso Canyon Withdrawal Protocol restricting the use of the Aliso Canyon.

## SoCalGas System Receipt Points and Constraints



### Line 235-2

Line 235-2 (largely a 1957 vintage pipeline) has been out of service for assessment and remediation since a rupture occurred on the pipeline on October 1, 2017. SoCal Gas has remediated and repaired the ruptured segment, but, as detailed below, SoCal Gas has also initiated additional work to assess, analyze, and repair other segments on Line 235-2 that are of the same “family” of pipeline. **The estimated time of restoration to a reduced operational level is May 3, 2019.**

### Line 4000

Following the Line 235-2 rupture, SoCal Gas reduced the pressure of Line 4000 (largely a 1960 vintage pipeline) because it is in the same “family” of pipelines as Line 235-2. SoCal Gas lowered the pressure to increase the factor of safety on the pipeline until SoCal Gas can conduct further analysis of Line 4000 based on what is learned from Line 235-2. In addition, this increased safety margin reduced the safety risk to employees working on Line 235-2, which is in close proximity to Line 4000 for the first 5-6 miles. Line 4000 will continue operating at reduced pressure until testing and maintenance work is complete to mitigate potential pipeline anomalies, like those found on Line 235-2.

### Line 3000

Line 3000 (largely a 1957 vintage pipeline) returned to service at reduced operating pressure on September 17, 2018, allowing receipts from the Topock area. The full scope of the Line 3000 project to date included more than 10 miles of non-consecutive pipeline replacements, coating remediation, and cathodic protection insulator installations at more than 246 job sites that span approximately 125 miles, traversing challenging terrain and overcoming significant environmental challenges.

## **SoCal Gas Storage Capacity**

This winter, cold weather has required SoCal Gas to heavily withdraw from their storage facilities including Aliso Canyon. Both January and February, inventory levels at Honor Rancho and Playa del Rey storage fields have neared their respective minimums for core reliability.

The greatest risk to the system is from multiple high demand days that draw down storage inventories to a point where there is insufficient withdrawal capacity to meet gas demand later in the winter. This risk was underscored in the latter half of this winter as consistent cold weather resulted in high demand and necessitated heavy use of underground natural gas storage to the point where the non-Aliso Canyon fields experienced significant reductions in their withdrawal capabilities. When this occurred, Aliso Canyon was instrumental in providing supply to customers. Since November of 2018, SoCal Gas has withdrawn over 40 billion cubic feet (Bcf) of natural gas from storage, with over 13 Bcf of that withdrawn from Aliso Canyon.

This winter, hourly customer demand increased rapidly, peaking at levels that exceeded a 5 billion cubic feet per day equivalent on multiple occasions. In contrast, natural gas travels slowly through the system, at approximately 20-30 miles per hour, and can take many hours to get from receipt points to demand centers. It can take approximately 10 hours for natural gas supplies to travel from the interconnection at Blythe to the Los Angeles basin; while gas withdrawn from Aliso Canyon can respond to Los Angeles basin demand in 1-2 hours. As a result, Aliso Canyon has been essential in meeting these

extreme hourly peak demands along with daily demands, especially as the withdrawal capabilities at the non-Aliso Canyon fields decreased because inventory levels were being depleted.

With regard to Aliso Canyon, there were 10 days of withdraw in January 2019, 8 days in February and 4 days in March.

**ELECTRICITY GENERATION:**

**BWP Generating Facilities**

Unit	Availability	Operating Hrs	MWH (Net)	NO <sub>x</sub> , lbs.
Olive 1	0%	0	0	0
Olive 2	0%	0	0	0
Lake 1	100%	5	139	39
MPP	100%	744	139,809	5,637

Olive 1 and 2 remained in dry storage, with a 45-day notice required to restart. Olive 1 and 2 have been in dry storage since 2011 and 2012, respectively. **They are currently undergoing preventative maintenance to systems with asbestos-containing materials including steam system thermal insulation and cooling tower siding, for example.**

Lake 1 was available for generation during the entire month. Lake 1 was placed online for a total of 5 hours during the month.

**Magnolia Power Project (MPP)**

	March	FYTD	YTD
Availability	100%	95%	93%
Unit Capacity Factor (240 MW)	78%	72%	73%

There were no plant trips or other outages during March 2019. MPP was online for a total of 744 hours during the month.

**Tieton Hydropower Project (Tieton)**

Tieton’s annual generation season began on March 22, 2019 with limited water flow provided by the United States Bureau of Reclamation (USBR) which carried out “fish pulse” operations designed to encourage upward spawning migration of Spring salmon. Fish pulsing was conducted until March 27, 2019 when water flow was reduced and generation was no longer possible. Generation will resume once USBR increases water flow for irrigation.

## ENVIRONMENTAL

### Air Quality

**BWP has requested that the South Coast Air Quality Management District (SQAMD) revise Lake One's Title V Permit to Operate to allow two starts per day instead of the one start currently allowed. This revision would enhance operational flexibility, in particular, to decrease the need to operate Lake One for more hours than is operationally necessary during a single day.**

In addition, BWP is currently preparing to renew the Title V Operating Permits for BWP and MPP generating units. The renewal application packages are being prepared for submission to the SCAQMD and the Environmental Protection Agency (EPA). The permits will cover a five-year operating period.

### Storm Water

The Stormwater Resources Control Board, Industrial General Permit, requires industrial facilities to collect, at a minimum, four storm water samples per reporting year (July 1st – June 30th) and compare them to statewide regulatory limits. BWP has met this requirement and no additional samples are necessary this reporting year. The analytical results from the storm water samples taken during the current reporting year continue to indicate elevated levels of metals (specifically iron, copper and zinc). Therefore, BWP continues to investigate additional best management practices to enhance storm water quality.

## PROJECT UPDATES:

### Power Resources

#### **Los Angeles Department of Water and Power Open Access Transmission Tariff Update**

Los Angeles Department of Water and Power (LADWP) has implemented a new Open Access Transmission Tariff (OATT) effective September 1, 2017. The new OATT rates affect BWP's cost for services purchased from LADWP under the Balancing Authority Area Services Agreement (BAASA). Changes to the BAASA's cost of services resulting from the new OATT became effective on February 1, 2018.

Annual cost for services				
Service	FY 18/19 Under	FY 18/19 If	Variance	% Increase
	New OATT rates	Old OATT Rates		
BAASA Regulation & Frequency Response	\$871,952	\$604,350	(\$267,602)	44.3%
BAASA Contingency Reserves	\$3,462,962	\$3,224,186	(\$238,776)	7.4%
	\$4,334,914	\$3,828,536	(\$506,378)	13.2%

Staff is currently evaluating the new OATT, its impacts, and what next steps should be taken.

## **Integrated Resource Planning**

BWP's 2019 Integrated Resource Plan (IRP) was adopted by the City Council on December 11, 2018 in accordance with the requirements of Senate Bill 350. In conjunction with its adoption of the 2019 IRP, Council also established 1) a SB350-compliant process to update the BWP IRP at least every five years and 2) an aspirational goal to achieve a 100% greenhouse gas-free power supply for Burbank by 2040 or sooner, consistent with reliability and affordability.

Pursuant to SB350, BWP filed the 2019 IRP with the California Energy Commission on April 2, 2019, in advance of the **April 30 deadline. The CEC has 30 days from the date of filing to check the IRP materials for completeness and 120 days from the date of filing to review for consistency with the IRP requirements.**

## **Intermountain Power Project (Delta, UT) Renewal Progress**

The Intermountain Power Project (IPP) participants involved with the repowering project have agreed to resize the proposed project to 840 MW, instead of the 1200 MW contemplated earlier. This is being called the "alternative repowering." This change came about because there is not enough definite interest amongst the renewal participants for 1200 MW of gas-fired capacity. LADWP believes the majority of the renewal project participants will assign their capacity interest back to LA, which would cause LADWP to be left with more generation than it requires. Resizing the project to 840 MW minimizes this risk, while still satisfying the projected needs of the participants. This change requires all existing participants of the renewal power sales agreement to amend both the original power sales agreement and the renewal power sales agreement to reflect the reimagined gas-fired project in Delta, UT.

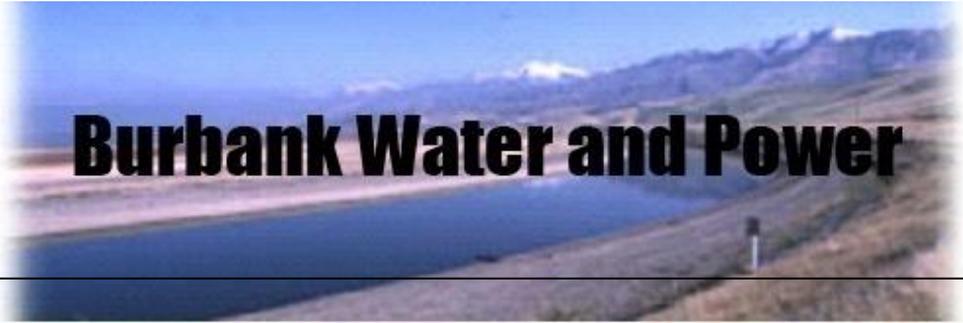
This resizing of the planned gas-fired power plant does not affect the transmission capacity associated with the project. However, because some current IPP participants have chosen not to participate in the renewal project, BWP's potential Southern Transmission System (STS) capacity allocation (i.e. between Delta and Southern California) could potentially increase. If BWP chooses to participate in the repowering at its maximum allowable generation interest of 35 MW, BWP would be entitled to 127 MW of capacity on the STS, up from the 108 MW of STS capacity that BWP currently enjoys.

Burbank's option to terminate or commit to the gas repowering must be decided, and communicated, to the Intermountain Power Agency in writing by August 3, 2019.

## **Power Generation**

### Landfill Gas to Energy Project

**"Notice to Proceed" was issued to the project contractor Mastec on November 19, 2018. Mastec is now underway with procurement and engineering activities consistent with the project schedule. In this connection, on March 27, 2019, an air permit application was also submitted to the SQAMD.**



**Estimated Financial Report  
March-19**

**Burbank Water and Power  
Electric Fund (496)  
Estimated Statement of Changes in Net Assets <sup>(1) (2)</sup>  
MTD and FYTD March 2019  
(\$ in 000's except MWh Sales)**

MTD FY 18-19	MTD Mar-19 Budget	\$ Variance <sup>(3)</sup>	% Variance		FYTD FY 18-19	FYTD Mar-19 Budget	\$ Variance <sup>(3)</sup>	% Variance
80,760	88,644	(7,884)	(9%) <sup>(a)</sup>	NEL MWh	848,363	869,682	(21,319)	(2%) <sup>(A)</sup>
				<b>Retail</b>				
\$ 11,239	\$ 13,003	\$ (1,764)	(14%)	Retail Sales	\$ 126,073	\$ 128,095	\$ (2,023)	(2%)
595	595	-	0% <sup>(b)</sup>	Other Revenues <sup>(4)</sup>	4,886	5,357	(471)	(9%) <sup>(B)</sup>
<u>8,319</u>	<u>9,080</u>	<u>761</u>	<u>8%</u> <sup>(c)</sup>	Retail Power Supply & Transmission	<u>82,015</u>	<u>85,074</u>	<u>3,059</u>	<u>4%</u> <sup>(C)</sup>
3,516	4,519	(1,003)	(22%)	<b>Retail Margin</b>	48,944	48,379	565	1%
				<b>Wholesale</b>				
584	3,564	(2,981)	(84%)	Wholesale Sales	12,569	37,150	(24,581)	(66%)
<u>515</u>	<u>3,475</u>	<u>(2,960)</u>	<u>(85%)</u>	Wholesale Power Supply	<u>11,278</u>	<u>36,222</u>	<u>24,944</u>	<u>69%</u>
68	89	(21)	(23%)	<b>Wholesale Margin</b>	1,291	929	363	39%
<u>3,584</u>	<u>4,608</u>	<u>(1,023)</u>	<u>(22%)</u>	<b>Gross Margin</b>	<u>50,235</u>	<u>49,308</u>	<u>928</u>	<u>2%</u>
				<b>Operating Expenses</b>				
923	923	-	0%	Distribution	7,609	8,326	717	9%
107	107	-	0%	Administration/Safety	1,289	998	(291)	(29%) <sup>(D)</sup>
282	282	-	0%	Finance, Fleet, & Warehouse	1,799	2,494	695	28% <sup>(E)</sup>
499	499	-	0%	Transfer to General Fund for Cost Allocation	4,494	4,495	1	0%
392	392	-	0%	Customer Service, Marketing & Conservation	3,004	3,873	869	22% <sup>(F)</sup>
360	360	-	0%	Public Benefits	3,288	3,542	254	7%
147	147	-	0%	Security/Oper Technology	1,532	1,451	(81)	(6%)
139	139	-	0%	Telecom	834	1,011	177	17%
166	166	-	0%	Construction & Maintenance	1,098	1,492	395	26% <sup>(G)</sup>
<u>1,567</u>	<u>1,567</u>	<u>-</u>	<u>0%</u>	Depreciation	<u>13,400</u>	<u>14,099</u>	<u>700</u>	<u>5%</u>
<u>4,582</u>	<u>4,582</u>	<u>-</u>	<u>0%</u> <sup>(d)</sup>	Total Operating Expenses	<u>38,346</u>	<u>41,782</u>	<u>3,436</u>	<u>8%</u>
\$ (998)	\$ 26	\$ (1,023)	(3948%)	<b>Operating Income/(Loss)</b>	\$ 11,889	\$ 7,525	\$ 4,364	58%

**Burbank Water and Power  
Electric Fund (496)  
Estimated Statement of Changes in Net Assets <sup>(1) (2)</sup>  
MTD and FYTD March 2019**

(\$ in 000's)								
MTD FY 18-19	MTD Mar-19 Budget	\$ Variance <sup>(3)</sup>	% Variance		FYTD FY 18-19	FYTD Mar-19 Budget	\$ Variance <sup>(3)</sup>	% Variance
\$ (998)	\$ 26	\$ (1,023)	(3948%)	<b>Operating Income/(Loss)</b>	\$ 11,889	\$ 7,525	\$ 4,364	58%
				<b>Other Income/(Expenses)</b>				
181	181	-	0%	Interest Income	1,678	1,631	47	3%
125	125	-	0%	Other Income/(Expense) <sup>(5)</sup>	1,109	1,129	(21)	(2%)
(361)	(361)	-	0%	Bond Interest/ (Expense)	(3,252)	(3,252)	(0)	(0%)
(55)	(55)	-	0%	Total Other Income/(Expenses)	(466)	(492)	26	5%
(1,052)	(29)	(1,023)	3561%	<b>Net Income</b>	11,424	7,033	4,390	62%
490	490	-	0%	Capital Contributions (AIC)	906	2,410	(1,504)	(62%) <sup>(H)</sup>
<u>\$ (562)</u>	<u>\$ 461</u>	<u>\$ (1,023)</u>	<u>(222%)</u>	<b>Net Change in Net Assets (Net Income)</b>	<u>\$ 12,330</u>	<u>\$ 9,443</u>	<u>\$ 2,887</u>	<u>31%</u>

1. After the passing of Measure T in June 2018, electric utility bills now reflect a separate line item in the amount of the utility transfer to the City. Reported electric retail revenues and expenses on the utility's financial statements do not reflect the transfer; and the transfer no longer impacts the utility's financial results. This change in financial reporting took effect with July 2018 financial reporting and should be taken into account when comparing results to prior periods.
2. This report may not foot due to rounding.
3. ( ) = Unfavorable
4. Other Revenues include transmission, telecom and internet revenues as well as other items such as damaged property recovery, connection fees, late fees, and tampering fees.
5. Other Income/(Expense) includes miscellaneous revenue from the sale of scrap materials, inventory, and assets, as well as BABS subsidy.

**Burbank Water and Power**  
**Electric Fund (496)**  
**Estimated Statement of Changes in Net Assets - Footnotes**  
**MTD March 2019**  
**(\$ in 000's)**

Foot-note #	Accounts/Description	Actual	Budget	Variance to Budget	Explanation
a.	Electric Usage in MWh	80,760	88,644	(7,884)	- NEL is 8.89% lower than budget due to conservation. For the month of March average high temperature was 70.9°F and the 15 year average high temperature was 72.9°F. For the month of March average low temperature was 46.1°F and the 15 year average low temperature was 47.8°F. MTD HDD were 201 versus the 30 year average of 182.
b.	Other Revenues	595	595	-	- Other revenues are at budgeted values.
c.	Retail Power Supply & Transmission	8,319	9,080	761	- The favorable variance is attributable to various components within Retail Power Supply & Transmission, including receiving less renewable energy than planned and lower retail load. Please refer to page A-5 for additional details.
d.	Total Operating Expenses	4,582	4,582	-	- Expenses for March 2019 are estimated at budgeted values.

**Burbank Water and Power**  
**Electric Fund (496)**  
**Estimated Statement of Changes in Net Assets - Footnotes**  
**FYTD March 2019**  
**(\$ in 000's)**

Foot-note #	Accounts/Description	Actual	Budget	Variance to Budget	Explanation
A.	Electric Usage in MWh	848,363	869,682	(21,319)	- NEL is 2.45% lower than budget due to conservation. FYTD CDD were 1,255 versus the 30 year average of 1,103.
B.	Other Revenues	4,886	5,357	(471)	- The unfavorable variance is partially attributable to lower than planned Telecom revenues of \$175k. Other revenues also include items such as damaged property recovery, connection fees, late fees, and tampering fees which tend to fluctuate.
C.	Retail Power Supply & Transmission	82,015	85,074	3,059	- The favorable variance is attributable to various components within Retail Power Supply & Transmission, including prior period true up credits and lower than planned O&M expenses. Please refer to page A-6 for additional details.
D.	Administration/Safety	1,289	998	(291)	- The unfavorable variance is primarily attributable to salaries and related benefits due to transitional training for the Environmental and Safety Manager in anticipation of retirement. Also contributing to the unfavorable variance is the timing of payments for membership dues.
E.	Finance, Fleet, & Warehouse	1,799	2,494	695	- The favorable variance is primarily attributable to budgetary savings on software and hardware, other professional services, and insurance.
F.	Customer Service, Marketing & Conservation	3,004	3,873	869	- The favorable variance is primarily attributable to lower than planned spending on bill, print, and mail services of approximately \$300k. Also contributing to the favorable variance is lower than planned spending on professional services and software and hardware as well as salary and fringe benefits savings due to vacant positions.
G.	Construction & Maintenance	1,098	1,492	395	- The favorable variance is due to facility maintenance and servicing requirements being less than planned. Also contributing to the variance is the timing of contract custodial invoices, which is delayed by seven months.
H.	Capital Contributions (AIC)	906	2,410	(1,504)	- The unfavorable variance is primarily attributable to the timing of AIC projects.

**Estimated March 2019 Budget to Actual P&L Variance Highlights - Electric Fund  
(in 000's)**

	<u>Variance Month-to-Date</u>		
	<u>Favorable Items</u>	<u>Unfavorable Items</u>	<u>Budget to Actual Variance</u>
<b><u>MTD NET INCOME/(LOSS): (\$1,052)</u></b>		\$ (1,023)	\$ (1,023)
 <b><u>MTD GROSS MARGIN VARIANCE</u></b>			
Retail Sales		(1,764)	(1,764)
Power Supply and Transmission			
- Less renewable energy than planned	315		315
- Lower retail load	250		250
- Economic dispatch	116		116
- Lower transmission expenses than planned	81		81
Wholesale Margin		(21)	(21)
<b>Total</b>	<u>762</u>	<u>(1,785)</u>	<u>(1,023)</u>

**Estimated March 2019 Budget to Actual P&L Variance Highlights - Electric Fund**  
(in 000's)

	Footnote	Variance Fiscal Year-to-Date		
		Favorable Items	Unfavorable Items	Budget to Actual Variance
<b><u>FYTD NET INCOME: \$11,424</u></b>		4,390		4,390
<b><u>FYTD GROSS MARGIN VARIANCE</u></b>				
Retail Sales			(2,023)	(2,023)
Power Supply and Transmission				
- Prior period true up credits	A	2,245		2,245
- Lower than planned O&M expenses		1,279		1,279
- Lower retail load		633		633
- Lower than planned transmission expenses		469		469
- Net MPP fuel savings from a six day outage		361		361
- Less renewable energy than planned		84		84
- Higher energy and fuel prices, net of economic dispatch			(852)	(852)
- A ten day unplanned outage at IPP			(630)	(630)
- An unplanned outage at MPP			(531)	(531)
Wholesale Margin		363		363
Other Revenues			(445)	(445)
<b>Total</b>		<u>5,434</u>	<u>(4,481)</u>	<u>953</u>
<b><u>FYTD EXPENSE AND OTHER VARIANCES</u></b>				
Depreciation expense		700		700
Finance, Fleet, & Warehouse		695		695
Customer Service, Marketing & Conservation		869		869
Construction & Maintenance		395		395
Distribution		717		717
All other		60		60
<b>Total</b>		<u>3,436</u>	<u>-</u>	<u>3,436</u>
<b>FOOTNOTE A</b>				
		Favorable Items	Unfavorable Items	Total
<b><u>FYTD TRUE-UP CREDITS</u></b>				
MPP		1,442		1,442
Palo Verde		526		526
Prepaid Gas		281		281
SCPPA Natural Gas		157		157
Tieton Hydro		141		141
Mead-Phoenix		77		77
Ameresco Chiquita		25		25
Wild Rose (Don Campbell)		26		26
Mead-Adelanto		15		15
STS			(62)	(62)
IPP			(383)	(383)
<b>Total</b>		<u>2,690</u>	<u>(445)</u>	<u>2,245</u>

**Burbank Water and Power  
Electric Fund (496)  
Estimated Statement of Cash Balances <sup>(a)</sup>  
(\$ in 000's)**

	<u>Mar-19</u>	<u>Feb-19</u>	<u>Jan-19</u>	<u>Dec-18</u>	<u>Sep-18</u>	<u>Jun-18</u>	<u>Recommended Reserves</u>	<u>Minimum Reserves</u>
<b>Cash and Investments</b>								
General Operating Reserve	\$ 71,925	\$ 73,870	\$ 76,954	\$ 76,141	\$ 75,814	\$ 78,993	\$ 52,010	\$ 37,570
Capital & Debt Reduction Fund	10,000	10,000	10,000	10,000	10,000	10,000	21,000	5,200
BWP Projects Reserve Deposits at SCPPA	16,713	16,686	16,655	16,648	16,541	16,492		
Sub-Total Cash and Investments	<u>98,638</u>	<u>100,556</u>	<u>103,609</u>	<u>102,789</u>	<u>102,355</u>	<u>105,485</u>	<u>73,010</u>	<u>42,770</u>
Capital Commitments	-	-	(266)	(266)	(5,530)	(6,740) <sup>(b)</sup>		
Customer Deposits	(5,471) <sup>(c)</sup>	(4,635)	(4,694)	(5,266)	(3,339)	(5,432)		
Public Benefits Obligation	(6,409)	(6,337)	(6,274)	(6,359)	(6,341)	(5,549)		
Pacific Northwest DC Intertie	(3,175)	(3,175)	(3,175)	(5,113)	(6,406)	(7,455)		
Low Carbon Standard Fuel <sup>(d)</sup>	(1,140)	(1,237)	(1,240)	(1,242)	(1,242)	(1,251)		
Cash and Investments (less Commitments)	<u><u>82,442</u></u>	<u><u>85,173</u></u>	<u><u>87,960</u></u>	<u><u>84,542</u></u>	<u><u>79,496</u></u>	<u><u>79,059</u></u>	<u><u>73,010</u></u>	<u><u>42,770</u></u>

<sup>(a)</sup> The Statement of Cash Balances may not add up due to rounding.

<sup>(b)</sup> Denotes capital commitment for the Ontario Distribution Station and 4kV to 12kV conversion of circuits.

<sup>(c)</sup> Includes a \$2.5M customer deposit for new service for LADWP at Johnny Carson Park.

<sup>(d)</sup> Denotes funds reserved related to the sale of Low Carbon Fuel Standard (LCFS) credits.

**Burbank Water and Power  
Water Fund (497)  
Estimated Statement of Changes in Net Assets <sup>(1)</sup>  
MTD and FYTD March 2019  
(\$ in 000's except Gallons)**

MTD FY 18-19	MTD Mar-19 Budget	\$ Variance <sup>(2)</sup>	% Variance		FYTD FY 18-19	FYTD Mar-19 Budget	\$ Variance <sup>(2)</sup>	% Variance
334	336	(2)	(1%)	Water put into the system in Millions of Gallons	3,815	3,912	(96)	(2%) <sup>(A)</sup>
51	46	6	13% <sup>(a)</sup>	Metered Recycled Water in Millions of Gallons	700	769	(70)	(9%) <sup>(B)</sup>
<b>Operating Revenues</b>								
1,741	1,784	\$ (43)	(2%) <sup>(b)</sup>	Potable Water	20,013	20,841	\$ (828)	(4%) <sup>(C)</sup>
215	191	24	13% <sup>(c)</sup>	Recycled Water	2,770	3,105	(335)	(11%) <sup>(D)</sup>
62	62	-	0% <sup>(d)</sup>	Other Revenue <sup>(3)</sup>	605	603	2	0%
<u>2,018</u>	<u>2,037</u>	<u>(19)</u>	<u>(1%)</u>	<b>Total Operating Revenues</b>	<u>23,388</u>	<u>24,549</u>	<u>(1,161)</u>	<u>(5%)</u>
732	816	84	10% <sup>(e)</sup>	Water Supply Expense	8,747	8,983	236	3% <sup>(E)</sup>
<u>1,286</u>	<u>1,221</u>	<u>65</u>	<u>5%</u>	<b>Gross Margin</b>	<u>14,641</u>	<u>15,566</u>	<u>(925)</u>	<u>(6%)</u>
<b>Operating Expenses</b>								
668	668	-	0%	Operations & Maintenance - Potable	5,401	5,514	113	2%
166	166	-	0%	Operations & Maintenance - Recycled	1,189	1,365	176	13% <sup>(F)</sup>
192	192	-	0%	Allocated O&M	1,518	1,790	272	15% <sup>(G)</sup>
169	169	-	0%	Transfer to General Fund for Cost Allocation	1,502	1,522	20	1%
348	348	-	0%	Depreciation	2,946	3,132	185	6%
<u>1,543</u>	<u>1,543</u>	<u>-</u>	<u>0%</u> <sup>(f)</sup>	<b>Total Operating Expenses</b>	<u>12,555</u>	<u>13,322</u>	<u>767</u>	<u>6%</u>
<b>Other Income/(Expenses)</b>								
16	16	-	0%	Interest Income	201	141	60	43% <sup>(H)</sup>
44	44	-	0%	Other Income/(Expense) <sup>(4)</sup>	441	400	41	10%
(160)	(160)	-	0%	Bond Interest/(Expense)	(1,433)	(1,436)	3	0%
<u>(99)</u>	<u>(99)</u>	<u>-</u>	<u>0%</u>	<b>Total Other Income/(Expenses)</b>	<u>(790)</u>	<u>(895)</u>	<u>105</u>	<u>12%</u>
<u>(356)</u>	<u>(421)</u>	<u>65</u>	<u>15%</u>	<b>Net Income/(Loss)</b>	<u>1,295</u>	<u>1,348</u>	<u>(53)</u>	<u>(4%)</u>
28	28	-	0%	Aid in Construction	238	250	(12)	(5%)
<u>\$ (328)</u>	<u>\$ (393)</u>	<u>\$ 65</u>	<u>17%</u>	<b>Net Change in Net Assets (Net Income)</b>	<u>\$ 1,533</u>	<u>\$ 1,599</u>	<u>\$ (65)</u>	<u>(4%)</u>

1. This report may not foot due to rounding.

2. ( ) = Unfavorable

3. Other Revenue includes items such as damaged property recovery, connection fees, late fees, and tampering fees.

4. Other Income/(Expense) includes miscellaneous revenue from the sale of scrap materials, inventory, and assets.

**Burbank Water and Power  
Water Fund (497)  
Estimated Statement of Changes in Net Assets - Footnotes  
MTD March 2019  
(\$ in 000's except Gallons)**

Foot-note #	Accounts/Description	Actual	Budget	Variance to Budget	Explanation	
a.	Recycled Water Usage in Millions of Gallons	51	46	6	- Recycled water sales are higher due to higher irrigation. Monthly rainfall was 2.04 inches versus the monthly normal of 2.97 inches.	
b.	Potable Water Revenue	1,741	1,784	(43)	- The WCAC impact increased potable water revenues by \$66k MTD. Without this adjustment, potable water revenues would be unfavorable by 6%.	
						MTD Actual
					WCAC Revenue	665
					WCAC Expenses	732
					<b>WCAC revenue deferral (decreased revenues)</b>	<b>\$ (66)</b>
c.	Recycled Water Revenue	215	191	24	- MTD Recycled water revenue corresponds with the demand.	
d.	Other Revenue	62	62	-	- Other revenues are at budgeted values.	
e.	Water Supply Expense	732	816	84	- Water supply expense is lower because of lower demand, and is enhanced with savings by maximizing BOU production.	
f.	Total Operating Expenses	1,543	1,543	-	- Expenses for March 2019 are at budgeted values.	

**Burbank Water and Power**  
**Water Fund (497)**  
**Estimated Statement of Changes in Net Assets - Footnotes**  
**FYTD March 2019**  
(\$ in 000's except Gallons)

Foot-note #	Accounts/Description	Actual	Budget	Variance to Budget	Explanation
A.	Water put into the system in Millions of Gallons	3,815	3,912	(96)	- FYTD Potable water sales are lower due to lower demand for landscaping irrigation. Rainfall season-to-date was 17.89 inches versus the season normal of 15.74 inches. FYTD CDD were 1,255 versus the 30 year average of 1,103.
B.	Metered Recycled Water in Millions of Gallons	700	769	(70)	- FYTD Recycled water sales are lower due to lower demand for landscaping irrigation. FYTD CDD were 1,255 versus the 30 year average of 1,103. Rainfall season-to-date was 17.89 inches versus the season normal of 15.74 inches.
C.	Potable Water	20,013	20,841	(828)	- The WCAC impact decreased potable water revenues by \$138k YTD. Without this adjustment, potable revenues would be unfavorable by 3%.
					FYTD Actual
					WCAC Revenue
					8,885
					WCAC Expenses
					8,747
					<b>WCAC revenue deferral (decreased revenues)</b>
					<b>\$ 138</b>
D.	Recycled Water	2,770	3,105	(335)	- FYTD Recycled water revenue is unfavorable due to lower demand.
E.	Water Supply Expense	8,747	8,983	236	- Water supply expense is lower because of lower demand.
F.	Operations & Maintenance - Recycled	1,189	1,365	176	- The favorable variance is primarily attributable to lower than planned spending on professional services, software & hardware, private contractual services, and lower than planned electricity for water pumping.
G.	Allocated O&M	1,518	1,790	272	- The favorable variance is attributable to lower than planned allocated expenses (Customer Service, Finance, and Construction & Maintenance) from the Electric Fund.
H.	Interest Income	201	141	60	- The favorable variance is attributable to higher cash through January 2019 and higher actual rate of return.

**Estimated March 2019 Budget to Actual P&L Variance Highlights - Water Fund  
(in 000's)**

	<b>Variance Month-to-Date</b>		<b>Budget to Actual Variance</b>
	<b>Favorable Items</b>	<b>Unfavorable Items</b>	
<b><u>MTD NET INCOME (LOSS): -\$356</u></b>	65		65
<b><u>MTD GROSS MARGIN VARIANCE</u></b>			
Potable Revenues		(43)	(43)
Recycled Revenues	24		24
Water Supply Expense	84		84
<b>Total</b>	108	(43)	65

**Estimated March 2019 Budget to Actual P&L Variance Highlights - Water Fund**  
**(in 000's)**

	<b>Variance Fiscal Year-to-Date</b>		
	<u>Favorable Items</u>	<u>Unfavorable Items</u>	<u>Budget to Actual Variance</u>
<b><u>FYTD NET INCOME: \$1,295</u></b>		(53)	(53)
<b><u>FYTD GROSS MARGIN VARIANCE</u></b>			
Potable Revenues		(828)	(828)
Recycled Revenues		(335)	(335)
Other Revenue	2		2
Water Supply Expense	236		236
<b>Total</b>	<u>238</u>	<u>(1,163)</u>	<u>(925)</u>
<b><u>FYTD O&amp;M AND OTHER VARIANCES</u></b>			
Allocated O&M	272		272
Depreciation Expense	185		185
Recycled Water O&M	176		176
All Other	239		239
<b>Total</b>	<u>872</u>	<u>-</u>	<u>872</u>

**Burbank Water and Power  
Water Fund (497)  
Statement of Changes in Cash and Investment Balances <sup>(a)</sup>**

	<u>Mar-19</u>	<u>Feb-19</u>	<u>Jan-19</u>	<u>Dec-18</u>	<u>Sep-18</u>	<u>Jun-18</u>	<u>Recommended Reserves</u>	<u>Minimum Reserves</u>
<b>Cash and Investments</b>								
General Operating Reserves	\$ 6,038 <sup>(b)</sup>	\$ 6,231	\$ 11,561	\$ 12,471	\$ 12,419	\$ 10,925	\$ 12,630	\$ 8,070
Capital Reserve Fund	2,220	2,220	2,220	2,220	2,220	2,220	5,200	1,300
Sub-Total Cash and Investments	<u>8,258</u>	<u>8,451</u>	<u>13,781</u>	<u>14,691</u>	<u>14,639</u>	<u>13,145</u>	<u>17,830</u>	<u>9,370</u>
Customer Deposits	(1,266)	(1,254)	(1,202)	(1,170)	(1,084)	(607)		
Capital Commitments	-	-	-	-	(140) <sup>(d)</sup>	(140)		
Cash and Investments (less commitments)	<u><u>6,993</u></u> <sup>(c)</sup>	<u><u>7,198</u></u>	<u><u>12,578</u></u>	<u><u>13,521</u></u>	<u><u>13,415</u></u>	<u><u>12,397</u></u>	<u><u>17,830</u></u>	<u><u>9,370</u></u>

<sup>(a)</sup> The Statement of Cash Balances may not add up due to rounding.

<sup>(b)</sup> Includes a payment of \$3.97M for the purchase of 5,719 acre-feet of cyclic water.

<sup>(c)</sup> Water Fund anticipates receiving a loan from the Electric Fund to bring cash balances up to the minimum reserve requirement by June 30, 2019.

<sup>(d)</sup> Capital commitment for the recycled water I-5 Freeway second tie crossing project paid in October.