

CITY OF BURBANK BURBANK WATER AND POWER STAFF REPORT

DATE: May 6, 2021 TO: BWP Board

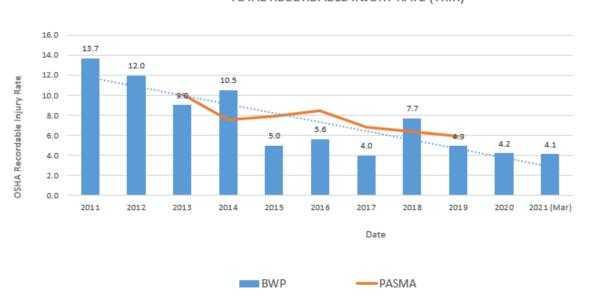
FROM: Dawn Roth Lindell, General Manager, BWP Run Roth Sindell

SUBJECT: March 2021 Operating Results

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

SAFETY

For this reporting period BWP experienced zero OSHA recordable injuries. BWP's 12 month rolling average rate is 4.1.



TOTAL RECORDABLE INJURY RATE (TRIR)

OSHA Recordable Injury Rate = No. of recordable cases per 100 full time employees. Current year expressed as 12 month rolling average PASMA - Public Agency Safety Management Association (Utilities only Data)

Water Estimated Financial Results

For the month of February, net income (NI) was a loss of \$100,000, which was \$207,000 better than budgeted. The better result was primarily the result of lower operating expenses.

For fiscal-year-to-date (FYTD) February, NI was \$2,202,000, which was \$2,180,000 better than budgeted. The better result was primarily attributed to lower operating expenses and lower water supply expenses due to using more ground water rather than the more expensive treated water from MWD.

For additional details, please see the section "COVID-19 "Safer at Home" Order Impacts" and the attached financial statements.

Electric Estimated Financial Results

For the month of February, NI was \$5,047,000, which was \$6,663,000 better than budgeted. The better result was primarily the result of lower retail power supply and transmission expenses.

For FYTD February, NI was \$10,323,000, which was \$10,048,000 better than budgeted. The better result was primarily attributed to lower retail power supply and transmission expenses, lower operating expenses, the wholesale asset utilization program, offset by lower retail sales as a result of COVID-19.

For additional details, please see the section "COVID-19 "Safer at Home" Order Impacts" and the attached financial statements.

COVID-19 "Safer at Home" Order Impacts

Financial Impacts

February's results reflect the eleventh month of the impacts resulting from the COVID-19 pandemic orders beginning on March 19, 2020. With many Burbank commercial enterprises being closed or curtailing operations, this order has, and is anticipated to continue to, significantly impact commercial demand for water and energy in Burbank.

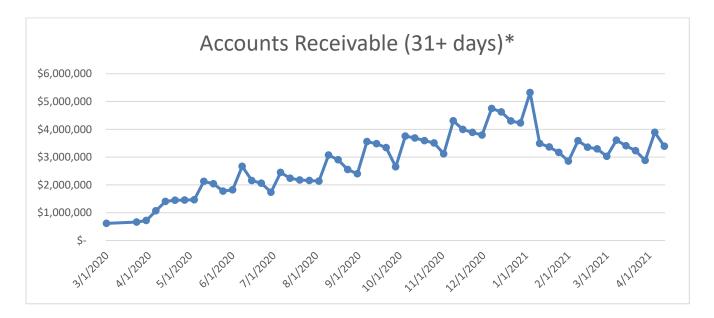
The current year's adopted budget, based on the estimated impacts of the pandemic order at the time, reflects a 5% lower energy demand and a 3% lower potable water usage as compared to last year's budget. Recent data has shown that the impact of COVID-19 has resulted in a significant reduction in electric demand and only a slight reduction in water demand. Along with the decrease in demand, there is a large increase in customer receivables and uncollectibles.

For the electric fund, February energy demand was 10% below budget. COVID-19 has a tremendous negative impact on energy sales, especially when commercial

customers account for approximately 75% of electric sales. FYTD energy usage was 6% below budget and retail revenues were \$6,679,000 below budget. The loss in retail revenue was more than offset by retail load management, economic dispatch and the wholesale asset utilization program, resulting in higher gross margin of \$5,628,000.

For the water fund, COVID-19 has had less of an impact than it has on the electric fund. For the fiscal year, potable water demand is slightly higher than budget. There is a decrease in demand from commercial customers related to COVID-19, but it has been offset by an increase in demand from residential customers.

The chart below shows the drastic increase for receivables that are over 31 days old for BWP's electric and water funds.



^{*}Excludes in-lieu and utility users tax. The COVID-19 Job Loss Bill Credit Program commenced on December 1, 2020. BWP also began engaging in customer outreach to key commercial accounts on December 17, 2020.

WATER DIVISION

State Water Project Update

With California off to a dry start for the water year, the California Department of Water Resources (DWR) announced a reduction in the State Water Project (SWP) allocation from 10% to 5 % of requested supplies for the 2021 water year.

Allocations are based on conservative assumptions regarding hydrology and factors such as reservoir storage. Allocations are reviewed monthly and may change based on snowpack and runoff information.

Lake Oroville, the SWP's largest reservoir, is currently at **41%** of capacity and **53%** of average for this time of year. Shasta Lake, the Central Valley Project's (CVP) largest reservoir, is at **53%** of capacity and **65%** of average. In southern California, SWP's Castaic Lake is at **77%** of capacity and **85%** of average.

Burbank's Water Use

The table below shows water use in Burbank during **March 2020** compared to **March 2021** measured in gallons per capita per day (gpcd). Also shown is a comparison of Burbank's water use based on a 12 month rolling average.

	Average Monthly Use	Rolling 12 Month Average
March 2020	102 gpcd	136 gpcd
March 2021	126 gpcd	137 gpcd

Grants

BWP worked with B & A Professional Grant Consulting to apply for a drought contingency planning grant (offered by the Bureau of Reclamation), which, if awarded, will help us fund the cost to develop the plan. The drought contingency plan outlines a strategy that builds long-term resiliency to drought and is a pre-requisite for future grant applications. This will help guide us toward meeting regulatory requirements. Applications were due January 6, 2021. The maximum funding available for each grant is \$200,000 and will be awarded October 1, 2021.

Burbank Operating Unit (BOU) Water Production

The table below provides the operational data for the BOU for the months of **October through March**.

	BOU Capacity Factor	BOU Ave. Flow Rate	Total System Blend % MWD/BOU
Oct-20	97.81%	8,803 gpm	21% / 79%
Nov-20	55.61%	5,005 gpm	49% / 51%
Dec-20	86.25%	7,762 gpm	19% / 81%
Jan-21	69.16%	6,224 gpm	24% / 76%
Feb-21	93.55%	8,402 gpm	25% / 75%
Mar-21	96.00%	8,640 gpm	27% / 73%
	Ave B	39% / 61 %	

The total system blend percentage represents the total amount of water that was purchased from Metropolitan Water District (MWD) vs. the amount treated by the BOU. This, along with capacity factor, is an important measure of efficiency. The capacity factor may fluctuate based on demand and plant production; the blend percentage measures how much of the total system's demand is made of purchased or produced water. The amount of MWD water needed is determined by demand, availability of BOU water, and O&M outages.

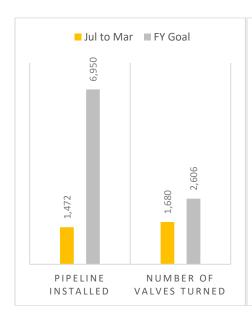
During the low water use months, BWP's demand can be lower than the BOU's treatment capacity. When this happens we use this additional capacity to continue to treat the contaminated groundwater at a higher rate and send the balance of the treated water to Los Angeles. BWP and LADWP have a transfer agreement which stipulates LADWP will directly reimburse MWD for the water used to blend and will reimburse BWP the costs related to O&M distribution and treatment. The LAIX began normal operation in February 2021 and continues to the end of March. **The total transfer for the month of March was 339.5 ac/ft.**

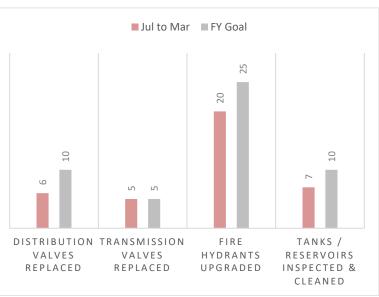
Water processed at the BOU must be accounted for in Burbank's groundwater credits. Groundwater credits are earned through return credits for 20% of recycled water use and by spreading raw water into the basin. In March 2021, BWP used the MWD raw water connection at the Pacoima and Lopez spreading grounds to store 1640.8 ac/ft of water, bringing our annual total to about 3493 ac/ft of water. The availability of water to spread next year may be difficult. The Pacoima spreading grounds will be closed for a 2 year CIP project and consecutive below average snowpacks may lead to shortages. With these factors in mind we have adjusted our fiscal year goal; now we intend to spread about 6,000 ac/ft of water.

Key Performance Indicators

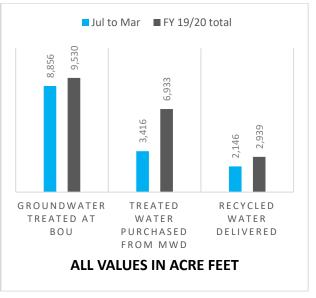
The graphs below illustrate the progress the water division has made on key performance measures through **March**. Note that the values provided need to be viewed with respect to where we are in the fiscal year. Pipeline installation is **21%** complete and we are **75%** through the fiscal year. There are several reasons for this, chief among them is that we shifted resources to complete the installation of all five transmission valves slated for this year. The work was complex and time consuming, but severely needed.

Also, the water division was understaffed by four workers and at times, this was made worse due to COVID, when staff had to be quarantined. This further reduced our workforce and affected productivity. Note that the number of valves turned is closely on pace with our goal and we are exceeding our pace on replacing distribution valves and upgrading fire hydrants. Tank and reservoir cleaning is conducted when demands are low, so we expect to perform more maintenance in the coming months.









Leak Alert Notifications

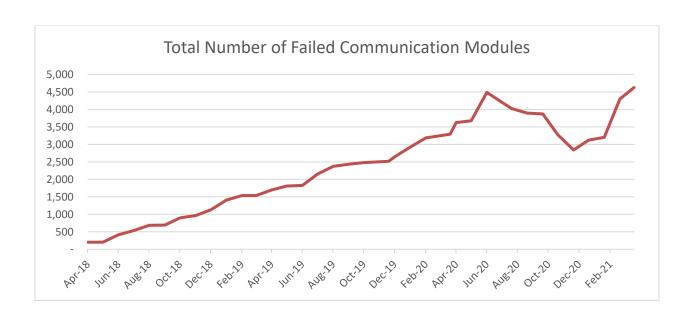
In 2009, BWP began installing an automated metering infrastructure (AMI) system by Itron. The system consists of endpoints that connect directly to the meter to get the meter read. The meter read was transmitted by radio from the endpoints located in the meter box and received by 10 collectors stationed throughout the city. The data was "backhauled" or bundled using the Tropos radio system and delivered to database servers that accepted and processed the meter data. Full deployment of the system (approximately 26,000 endpoints) was completed in 2011.

Benefits of AMI technology allow data to be collected rapidly and frequently and can be analyzed to find higher than normal usage and alert customers of leaks. BWP began providing leak alert service to residents who registered to receive notifications. This service, called Water Smart, works by receiving hourly water usage from the meter and analyzes this data to determine if a leak might be present based on continuous usage. Since 2015, BWP has provided 11,756 leak alerts to customers. Unfortunately, a high volume of water meter communication modules are not working reliably and replacement units are no longer produced.

As of March 2021, BWP was not able to receive remote reads for 4,625 water meters out of 27,058 (17% of the total) due to failing communications modules and they had to be read manually. In March 2021, staff deployed an interim automatic meter reading (AMR) system to read approximately 800 meters with failed communication modules and we are now able to read them.

BWP previously notified customers who participate in the leak alert program that the failure of these communication modules prevents the sending of leak alert notifications, and due to continued failures BWP is now in the process of notifying additional customers.

BWP is now exploring an updated AMI system. The AMR system unfortunately will not enable BWP to notify customers of leaks at all. This will leave customers vulnerable to unnoticed leaks causing water damage, bills that could reach thousands of dollars as well as unnecessary and significant water waste.



Projects

The water crew is shown replacing a broken 8" valve that was originally installed in the late 1940's. This work is part of BWP's CIP annual distribution valve maintenance replacement program. We have a goal or replacing 10 or more of these valves each year. Valve replacement is an important part of our water master plan. It improves water quality and, in cases of emergency or maintenance, minimizes interruption of service to our customers.







ELECTRIC DISTRIBUTION

ELECTRIC RELIABILITY

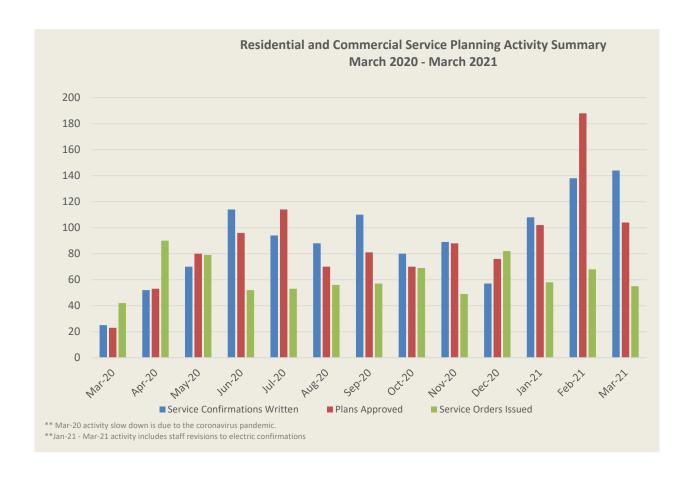
In March 2021, BWP did not experience any sustained feeder outages. In the past 12 months, automatic reclosing has reduced customer outage time by approximately 1,635,912 customer minutes.

Reliability Measurement	April 2019 – March 2020	April 2020 – March 2021
Average Outages Per Customer Per Year (SAIFI)	0.3356	0.3959
Average Outage Duration (CAIDI)	18.73 minutes	20.4 minutes
Average Service Availability	99.999%	99.998%
Average Momentary Outages Per Customer Per Year (MAIFI)	0.3322	0.3907
No. of Sustained Feeder Outages	5	11
No. of Sustained Outages by Mylar Balloons	2	2
No. of Sustained Outages by Animals	0	1
No. of Sustained Outages by Palm Fronds	0	0

PROJECT UPDATES

Residential and Commercial Service Planning Activities

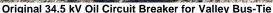
BWP provides our residential and commercial customers with the electrical power they need for new services or upgrades to their existing service. In order for a customer to obtain a building permit for their construction, BWP service planners must visit the customer's facility and fill out an electric service confirmation form which details what type of service is required and how it will be served. After reviewing and approving a customer's electrical plans, BWP service planners issue service orders to our field crews to carry out the inspections and electrical service work. The graph below summarizes monthly activity for our residential and commercial service planning group within the T&D engineering section.



Circuit Breaker Replacement

The 34.5 kV oil-filled circuit breaker (OCB) used for isolating Valley Substation bustie was not opening as quickly as designed. The existing unit was commissioned back in 1958. After performing additional maintenance on this circuit breaker, it was determined it could not be brought back to its original design specifications. As such, this circuit breaker was removed and replaced with a new vacuum circuit breaker (VCB). The new VCB opens faster than the original OCB, which means it does a better job of protecting equipment and reducing arc flash exposure to personnel.





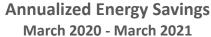


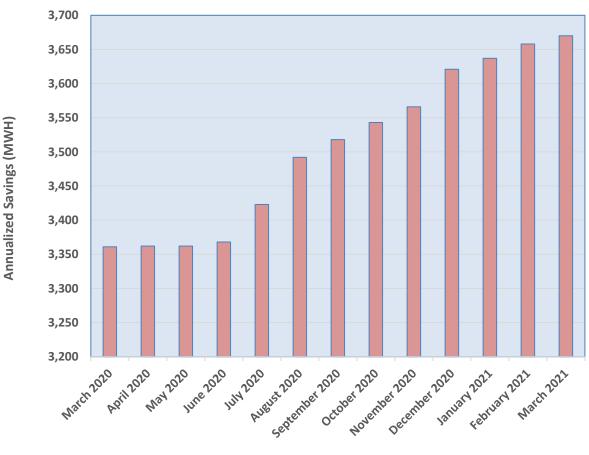
New 34.5 kV Vacuum Circuit Breaker for Valley Bus-Tie

STREET LIGHTING

LED Replacement Program

In accordance with the Street Lighting Master Plan, BWP is replacing high pressure sodium (HPS) street light luminaires with light emitting diodes (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, 69.08% of the total street light luminaires have been converted to LEDs, which translates to an annualized energy savings of 3,670 MWh or a 39.60% reduction in energy consumption. LED conversions have also reduced evening load by 838 kW, which shortens the "neck of the duck curve" and reduces the amount of energy generation that BWP needs. The graph below shows the annualized energy savings in MWh for the past 13 months.





CUSTOMER SERVICE

Customer Service Operations

BWP continues to assist customers through the COVID-19 Job Loss Bill Credit Program. Customer service representatives assist customers, make payment arrangements to reduce the amount in arrears, and provide additional resources to help customers manage their utility bill.

BWP Call Center Call Types & Volume

Call Types	% of Calls
Balance	20%
Residential Stop	9%
Residential Start	6%
Clean & Show	6%
Kandela Offer	6%

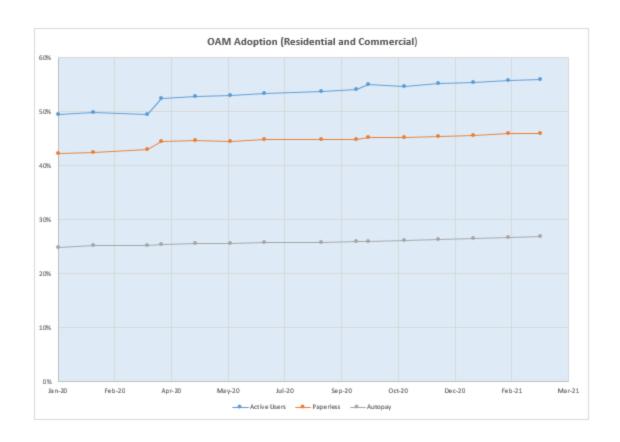
	Mar - 20 /	Apr - 20	May - 20 .	Jun - 20	Jul - 20	Aug - 20	Sep -20	Oct - 20	Nov - 20 [Dec - 20	Jan - 21	Feb - 21	Mar - 21	% Inc/Feb
Call Volume	4,320	3,543	3,392	3,582	4,055	3,812	3,783	3,527	3,055	3,684	3,383	2,897	3,384	14.4%

Online Account Manager

The enrollment in the online account manager (OAM) is currently at 56% of all active accounts; increases in enrollments have also been on the rise since the COVID-19 pandemic. Of all registered accounts, about **82**% are paperless customers helping BWP reduce costs and reduce carbon emissions. BWP will continue its efforts to drive customers to the OAM, paperless, and auto pay. These initiatives will continue to drive down costs. BWP's second milestone is to have 80% of all active accounts registered on the OAM by the end of 2021.

The OAM adoption plan consists of three phases. Phase one was to build awareness and promotion through broad communications. The second phase is to provide targeted messages to segments that have not adopted the OAM. The third phase is to provide incentives to adopt the OAM. Currently, about 86% of customers that have not adopted the OAM are residential. Therefore, phase two and three will be focused on residential adoption to reach the 80% overall adoption goal. The adoption plan is currently in phase two and will move into phase three during the last quarter of this calendar year.

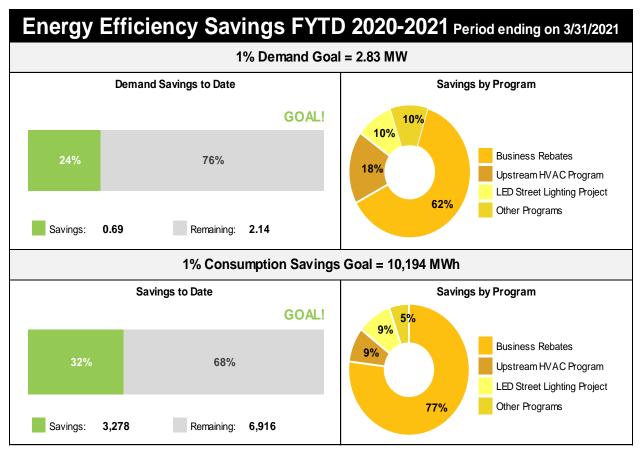
Below is the chart outlining activity for the OAM:

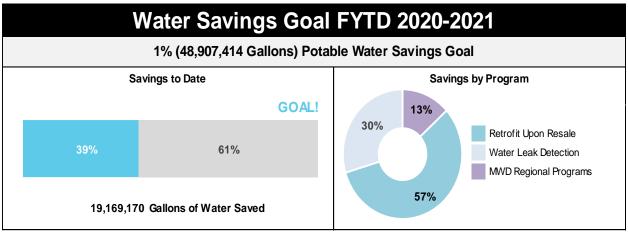


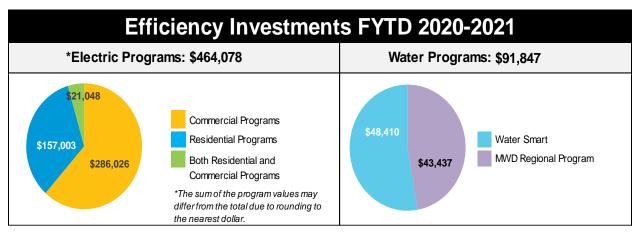
	Active	% of Total Active Accounts
Active Users	29,341	56%
Paperless	24,088	46%
Autopay	14,046	27%

BWP's Energy Efficiency and Water Savings - Fiscal Year to March 31, 2021

To comply with state and local COVID-19 orders, both residential and commercial energy efficiency programs that required home/on-site visits have been suspended since March 2020. Despite the imposed restrictions, other energy efficiency and water conservation programs that do not require on-site visits such as BWP's rebate programs continue to operate. As a result of the continued program suspensions due to COVID-19, program activities continued to be significantly reduced for the month of **March 2021**. However, in April 2020, the online Home Energy Audit was launched as part of a larger suite of online resources for residential customers. Promotion for the suite of resources has appeared in the *Currents* newsletter and other communication channels. The Home Energy Audit allows residential customers to complete the audit, analyze their energy use, and receive energy saving tips. Further, commercial program participation continues to significantly contribute to the reported savings for the month of **March**, mostly from the BWP business rebates program utilized by some of the largest commercial customers. Incentives for large projects have incentive caps but yield total project efficiency savings.







Electric Vehicle (EV) Charging Program

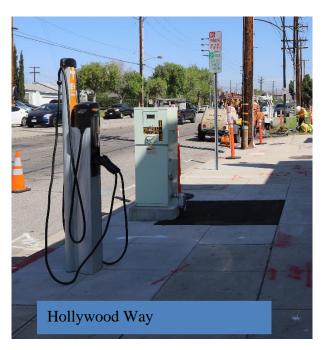
Forty-seven public EV charging ports are installed in Burbank, including 2 DC fast chargers and 18 curbside chargers. As of **March 1, 2021**, pricing for public EV charging is \$0.1753 per kWh for all hours for Level 1 and Level 2. For the DC fast chargers, the charging rate is \$0.2817 per kWh for all hours. Reduced public charger usage can likely be attributed to the safer-at-home order issued in March. Lower than expected participation in the rebate programs can likely also be attributed to COVID-19. Car sales are low across the board, which may have influenced low participation in the used car EV rebate. BWP has provided the required startup funding to the program administrator acting on behalf of the California Air Resources Board for the clean fuel rewards program. The clean fuel rewards statewide rebate is now available to California residents. The rebate provides up to \$1,500 for battery electric and plug-in electric vehicles that are leased or purchased.

There is a BWP goal to install 24 publicly available EV charging ports during fiscal year 2020-2021. Three projects are in progress to install 26 charging ports scheduled for completion before the end of the fiscal year in June 2021.

Curbside EV Chargers Project – 6 Ports

There will be six curbside charging ports constructed in three locations with existing curbside chargers, two ports at each location. The three locations are N. Hollywood Way, near Victory Blvd., Buena Vista Street, adjacent to the Buena Vista Library and Alameda Ave., near Main Street.

Charging ports are installed at the Hollywood Way and Buena Vista Street locations and are in the final process to make chargers available to the public as early as May 2021. Construction at the Alameda location will commence in mid-April 2021 and is projected to become operational and available to the public as early as May.



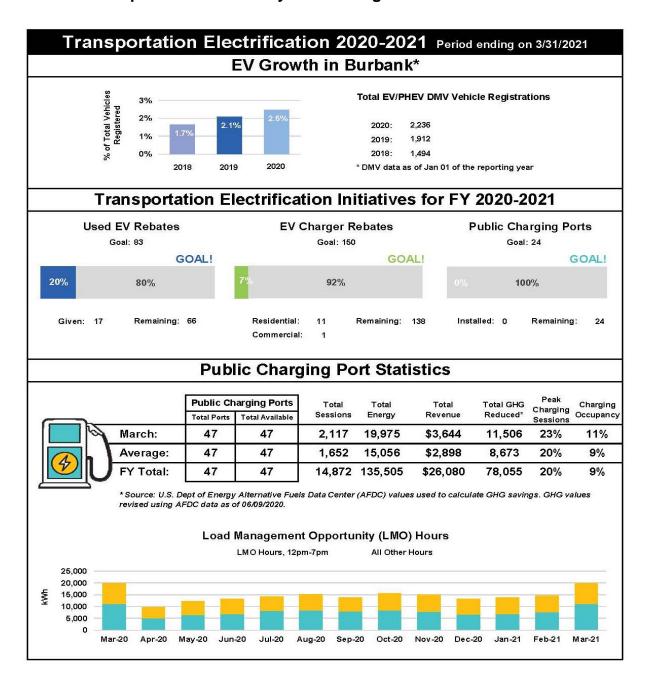


Community Services Building - 16 Ports

Publicly available charging ports will be constructed in the community services building parking lot in collaboration with the Community Development Department and the Public Works Department. The charging ports will be in the parking lot nearest the intersection of Olive Ave. and Glenoaks Blvd. The project is awaiting permits to commence construction planned for May 2021 through early June 2021.

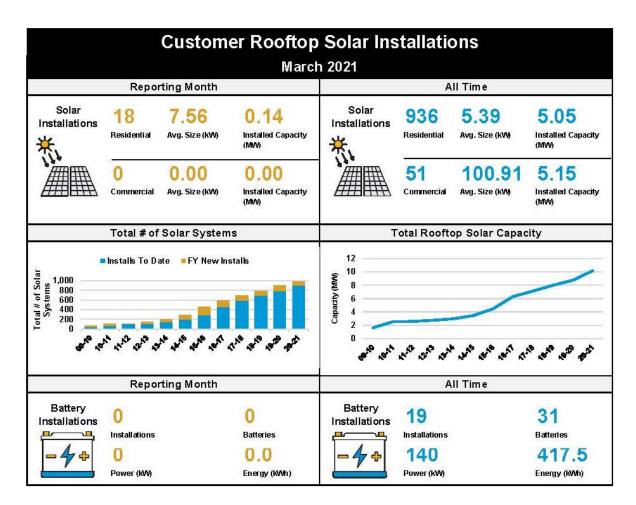
BWP Lake Street – 4 Ports

Publicly available charging ports will be constructed in the BWP Lake Street parking lot, near Magnolia Blvd. and across the alley from the Chamber of Commerce facility. Designs are submitted for permits and once issued, construction is planned for mid-May 2021 through mid-June 2021.



Rooftop Solar and Battery Installations

Customer owned rooftop solar and battery storage system installations continue to grow. Burbank Water and Power does not provide rebates for installing these systems. However, overall, lower equipment costs and the Federal Investment Tax Credit make purchasing solar and/or battery systems more accessible. System capacity and number of installations are tracked monthly and in total below.



TECHNOLOGY

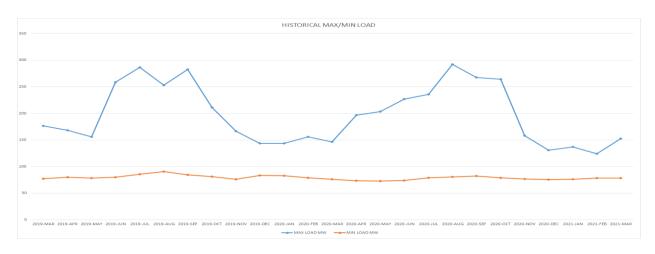
Broadband Services (ONEBurbank)

	March 2021 New	Revenues for	FYTD 2020-21	FYTD budget
	Orders	March 2021	Revenues	
Lit	1	\$136,560	\$1,142,705	\$1,185,000
Dark	1	\$209,690	\$1,810,160	\$1,777,500
Total	2	\$346,250	\$2,952,865	\$2,962,500

POWER SUPPLY

BWP SYSTEM OPERATIONS:

The maximum load for March 2021 was 152.3 MW at 5:01 PM on March 31, and the minimum load was 78.0 MW at 3:55 AM on March 7.



Minimum load values corrected for Sept & Dec 2018.

YEAR	MAX LOAD	MAX DATE
2021	152.2 BAVA/	31-Mar-21
2021	152.3 MW	17:01:19
2020	292.3 MW	18-Aug-20
2020	292.3 IVIVV	15:22:41
2019	282.66 MW	04-Sep-19
2019	202.00 IVIVV	15:31:17
2018	306.3 MW	06-Jul-18
2018	200.2 IVIVV	16:41:28
2017	322.1 MW	31-Aug-17
2017	227.T IAIAA	16:02:52

The Burbank power system did not experience any operational issues or natural gas supply issues for March 2021. BWP had zero days of red flag warnings.

Southern California continues to experience natural gas reliability and affordability challenges because of supply and demand mismatches. SoCalGas' 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 component is storage operating constraints from the CPUC restricting the use of the Aliso Canyon Storage Facility. The current effective withdrawal protocol is restrictive but is less restrictive than the previous protocol, in that Aliso Canyon was only allowed to be withdrawn from if curtailment was imminent, but now can occur under less acute circumstances.

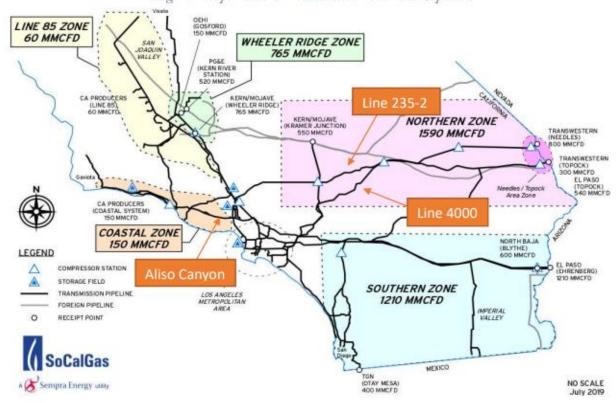


Image 1: Receipt Points & Transmission Zone Firm Capacities

ELECTRICITY GENERATION:

BWP Generating Facilities

Unit	Availability	Operating Hrs	MWH (Net)	Net Heat Rate (Btu/kWh)	Number of Starts
Olive 1	0%	0	0	0	0
Olive 2	0%	0	0	0	0
Lake 1	0%	0	0	-	0
MPP	2.2%	16	292	22,854	3

Olive 1 and 2 remained in dry storage, with a 120-day notice required to restart. Olive 1 and 2 have been in dry storage since 2011 and 2012, respectively.

Lake 1 is currently unavailable for dispatch. The turbine experienced operational concerns in late December. As a result, it was removed and shipped to a certified facility in Houston, TX for inspection and repairs. The inspection findings indicate the need to replace multiple components that are worn beyond allowable limits. Original estimates included a possible June 2021 return to service; however, COVID-19 has impacted service and essential parts suppliers located overseas. A new turbine return estimate is September 2021. As a risk mitigation, BWP has located a lease turbine which can be installed for June 2021 operation and is finalizing the contractual agreement.

Magnolia Power Project (MPP)

	March	FYTD	YTD
Availability	2.2%	68.5%	9.4%
Unit Capacity Factor (240 MW)	0.2%	49.9%	5.8%

MPP was shut down on January 8, 2021, to perform a major inspection of the turbines/generators and balance of plant equipment. The GE turndown enhancement was also completed during this outage which included installation of upgraded hardware to the combustion turbine. After several schedule extensions due to steam turbine inspection findings and additional work, the maintenance outage was completed on March 29, 2021.

MPP was returned to service on March 30, 2021, and began recommissioning of the new turndown enhancement hardware. Following recommissioning, MPP will undergo performance testing to validate the turndown enhancements and this is estimated to conclude on April 26, 2021.

<u>Tieton Hydropower Project (Tieton)</u>

Tieton's 2021 generation season began April 5, 2021 with a single generation unit due to limited water flow controlled by the United States Bureau of Reclamation (BOR).

ENVIRONMENTAL

Air Quality

There are no air quality updates at this time.

Storm Water

The State Water Resources Control Board Industrial General Permit requires industrial facilities to collect, at a minimum, four storm water samples per reporting year and compare them to statewide regulatory limits. On January 28, 2021, a second set of storm water samples was collected. The results from the last two samples continue to indicate ongoing compliance issues with metals, specifically zinc. Samples were also collected from the offsite influent that commingles with BWP's storm water discharge. The offsite samples also exceeded the limits for metals.

In order to address the storm water compliance issues, BWP is in the process of implementing a campus storm water improvement project. BWP has completed an environmental review of the project required under the California Environmental Quality Act (CEQA). The environmental review will be finalized when the project is approved by the Burbank City Council. MNS Engineers was contracted to prepare the final design plans, as well as provide engineering support and permitting support for the project. After the final design is completed, bid specifications will be prepared and a request for proposals (RFP) will be issued for the construction activities. As an interim measure, BWP has also applied for time schedule orders (TSOs) that include interim limits which

are achievable for this site. These TSOs began a 30- day public comment period on April 6, 2021, and it is estimated that the final approval by the Los Angeles Regional Water Quality Control Board will occur by May 20, 2021. Once approved, these TSOs and interim limits will apply until the improvement project is complete.

PROJECT UPDATES:

Power Resources

Renewable Portfolio Standard (RPS) Compliance

BWP continues to be on track to meet RPS compliance requirements for calendar year 2021. The calendar year 2021 goal is 35.75% RPS. BWP staff continue to evaluate renewable resources in order to meet future compliance requirements.

On December 22, 2020, the California Energy Commission (CEC) adopted new regulations on several important RPS regulations. The CEC provided clarification on how to count resources towards the long term requirement (LTR), which requires that 65% of RPS compliance come from contracts that are 10 years or longer in duration, as well as set new interim targets, post calendar year 2020. The new regulations now comply with the SB 100 requirement of utilities needing to meet a 60% RPS by 2030, meaning that 60% of BWP's retail load requirement will need to come from renewable resources by 2030.

Integrated Resource Plan (IRP) Update

As BWP moves forward with an update to the IRP, it is possible that it may look different and it may be a document that provides a path towards BWPs many compliance requirements. Concurrently, BWP is starting to review options for a new IRP, which is due to the CEC in 2024. Stakeholder engagement efforts, compliance and costs will be some of the major factors in the 2024 IRP.

Transmission Update

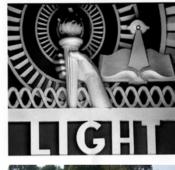
Negotiations with LADWP regarding the renewal of several existing transmission service agreements (TSA), including those associated with Hoover and IPP, are ongoing. An amendment for a one-year extension of the existing Hoover TSA was approved by consent by City Council on April 28, 2020. This amendment extended the Hoover TSA through September 30, 2021. The IPP related TSA expires in 2027. **BWP continues to work with counterparties to negotiate the long-term Hoover TSA.**

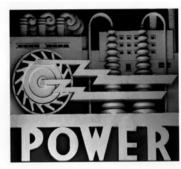
Intermountain Power Project (Delta, UT) Renewal Progress

LADWP, BWP and GWP (the IPP repowering participants) are working together to create a detailed roadmap for green hydrogen production, potential energy storage, and power generation at IPP. In the medium-term, the IPP Renewal participants are targeting 30% green hydrogen combustion by July 2025, when the repowered project is scheduled to come on-line. On a monthly basis, IPP participants continue to meet to discuss the IPP Renewal, including concerns on facilities development and potential additional resources at the site.

Burbank Water and Power













Financial Report February-21

Burbank Water and Power Electric Fund (496)

Statement of Changes in Net Assets (1) (2)

MTD and FYTD February 2021

(\$ in 000's except MWh Sales)

D Actual Y 20-21	MTD Budget FY 20-21	\$ Variance	% Variance		YTD Actual FY 20-21	YTD Budget FY 20-21	\$ Variance	% Variance
67,437	74,615	(7,178)	-10% ^(a)	NEL MWh	695,006	738,399	(43,393)	-6% ^(A)
				Retail				
\$ 10,322	\$ 10,901	\$ (578)	-5%	Retail Sales	\$ 105,304	\$ 111,983	\$ (6,679)	-6%
371	622	(251)	-40%	Other Revenues	3,413	4,976	(1,562)	-31% ^(B)
 1,479	8,301	6,821	82% (b)	Retail Power Supply & Transmission	64,882	74,219	9,337	13% ^(C)
9,214	3,222	5,992	186%	Retail Margin	43,836	42,740	1,096	3%
				Wholesale				
1,425	4,338	(2,912)	-67%	Wholesale Sales	20,255	36,169	(15,915)	-44%
 1,144	4,251	3,107	73%	Wholesale Power Supply	14,998	35,446	20,447	58%
281	87	194	224%	Wholesale Margin	5,256	723	4,533	627% ^(D)
9,495	3,309	6,186	187%	Gross Margin	49,092	43,463	5,628	13%
				Operating Expenses				
638	936	298	32% ^(c)	Distribution	7,547	7,683	136	2%
121	110	(11)	-10%	Administration/Safety	1,169	914	(255)	-28% ^(E)
165	258	92	36% ^(d)	Finance, Fleet, & Warehouse	1,505	1,958	453	23% ^(F)
523	525	2	0%	Transfer to General Fund for Cost Allocation	4,181	4,198	17	0%
457	472	16	3%	Customer Service, Marketing & Conservation	3,398	3,816	417	11% ^(G)
252	309	57	19%	Public Benefits	2,617	3,179	562	18% ^(H)
171	186	14	8%	Security/Oper Technology	1,823	1,722	(101)	-6%
77	110	33	30% ^(e)	Telecom	732	903	171	19% ^(I)
151	187	36	19%	Construction & Maintenance	1,047	1,499	452	30% ^(J)
 1,560	1,781	221	12%	Depreciation	10,971	14,249	3,279	23% (K)
4,116	4,874	758	16%	Total Operating Expenses	34,990	40,121	5,131	13%
\$ 5,379	\$ (1,565)	\$ 6,944	444%	Operating Income/(Loss)	\$ 14,102	\$ 3,343	\$ 10,759	322%

Burbank Water and Power Electric Fund (496) Statement of Changes in Net Assets ⁽¹⁾ (2) MTD and FYTD February 2021

(\$ in 000's)

	Actual 20-21		D Budget Budget	Vai	\$ riance ⁽²⁾	% Variance		TD Actual FY 20-21		D Budget Budget	Vai	\$ riance ⁽²⁾	% Variance
\$	5,379	\$	(1,565)	\$	6,944	444%	Operating Income/(Loss)	\$ 14,102	\$	3,343	\$	10,759	322%
							Other Income/(Expenses)						
	84		142		(58)	(41%)	Interest Income	874		1,135		(260)	(23%) ^(L)
	(132)		91		(223)	(245%) ^(f)	Other Income/(Expense) (4)	(2,381)		(1,931)		(450)	(23%) ^(M)
	(284)		(284)		-	0%	Bond Interest/ (Expense)	(2,272)		(2,271)		(1)	(0%)
	(332)		(51)		(281)	(551%)	Total Other Income/(Expenses)	(3,779)	-	(3,068)		(711)	(23%)
-	5,047	-	(1,616)		6,663	412%	Net Income	 10,323		275		10,048	3652%
	15		1,054		(1,040)	(99%) (g)	Capital Contributions (AIC)	458		8,434		(7,976)	(95%) ^(N)
\$	5,062	\$	(562)	\$	5,624	1001%	Net Change in Net Assets	\$ 10,781	\$	8,709	\$	2,072	24%

^{1.} This report may not foot due to rounding.

^{2. () =} Unfavorable.

^{3.} 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.

^{4.} Other Income/(Expense) includes a one-time payment to CalPERS (for pension), revenues and expenses related to Low Carbon Fuel Standard credits, and miscellaneous revenue from the sale of scrap materials, inventory, and assets, as well as BABS subsidy.

Burbank Water and Power Electric Fund (496) Statement of Changes in Net Assets - Footnotes MTD February 2021 (\$ in 000's)

Foot- note #	Accounts/Description	Actual	Budget	Variance to Budget	Explanation
a.	Electric Usage in MWh	67,437	74,615	(7,178) -	NEL is 10% lower than budget, which is driven primarily by the closing of businesses within Burbank due to the pandemic orders beginning on March 19th, 2020. The average high temperature was 71.7°F, compared to the 15-year average high temperature of 69.9°F. MTD HDD were 213 versus the 15-year average of 234.
b.	Retail Power Supply & Transmission	1,479	8,301	6,821 -	The favorable variance is attributable to various components within Retail Power Supply & Transmission. Please refer to page 5 for additional details.
c.	Distribution	638	936	298	The favorable variance is primarily attributable to the timing of capital labor.
d.	Finance, Fleet, & Warehouse	165	258	92 -	The favorable variance is primarily attributable to vacancies and timing of software purchases and professional services.
e.	Telecom	77	110	33 -	The favorable variance is primarily attributable to the timing of private contractual services.
f.	Other Income/(Expense)	(132)	91	(223) -	The unfavorable variance is attributable to the timing of revenues and expenses related to Low Carbon Fuel Standard credits.
g.	Capital Contributions (AIC)	15	1,054	(1,040) -	The unfavorable variance is attributable to the timing of AIC projects.

Burbank Water and Power Electric Fund (496) Statement of Changes in Net Assets - Footnotes FYTD February 2021 (\$ in 000's)

Foot- note #	Accounts/Description	Actual	Budget	Variance to Budget	Explanation
A.	Electric Usage in MWh	695,006	738,399	(43,393)	- NEL is 6% lower than budget, which is driven primarily by the closing of businesses within Burbank due to the pandemic orders beginning on March 19th, 2020, partially offset by warmer summer temperatures. Summer (Jul-Sep) actual average high temperature was 90.1°F, compared to the 15-year average high temperature of 87.7°F. Summer (Jul-Sep) CDD were 1,015 versus the 15-year average of 929.
В.	Other Revenues	3,413	4,976	(1,562)	 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 which tend to fluctuate.
C.	Retail Power Supply & Transmission	64,882	74,219	9,337	- The favorable variance is attributable to various components within Retail Power Supply & Transmission. Please refer to page 6 for additional details.
D.	Wholesale Margin	5,256	723	4,533	 The wholesale margin is higher than budget driven by BWP's asset optimization strategy during persistent and record breaking heatwave this past summer.
E.	Administration / Safety	1,169	914	(255)	- The unfavorable variance is attributable to the timing of expenditures on membership dues and higher leave expense.
F.	Finance, Fleet, & Warehouse	1,505	1,958	453	 The favorable variance is primarily attributable to vacancies and the timing of software purchases and professional services.
G.	Customer Service, Marketing & Conservation	3,398	3,816	417	 The favorable variance is primarily attributable to vacancies and the timing of professional services.
н.	Public Benefits	2,617	3,179	562	 Lifeline discounts of \$380k are recorded as a reduction to retail sales but are budgeted as an expense. The balance of the variance is attributable to lower than planned electric retail sales.
I.	Telecom	732	903	171	The favorable variance is primarily attributable to the timing of expenditures for private contractual services and vacancies.
J.	Construction & Maintenance	1,047	1,499	452	- The favorable variance is primarily attributable to timing of expenditures on building grounds maintenance & repair, and more work for others and capital than planned.
K.	Depreciation	10,971	14,249	3,279	- The favorable variance is primarily attributable to delays in capital projects.
L.	Interest Income	874	1,135	(260)	The unfavorable variance is primarily attributable to a lower actual rate of return than planned.
М.	Other Income/(Expense)	(2,381)	(1,931)	(450)	 The unfavorable variance is primarily attributable to the timing of revenues and expenses related to Low Carbon Fuel Standard credits.
N.	Capital Contributions (AIC)	458	8,434	(7,976)	- The unfavorable variance is attributable to the timing of AIC projects.

February 2021 Budget to Actual P&L Variance Highlights - Electric Fund (\$ in 000's)

	Variance Month-to-Date										
		vorable Items		favorable Items	P	dget to actual ariance					
MTD NET INCOME/(LOSS): \$5,047	\$	6,663	\$	-	\$	6,663					
MTD GROSS MARGIN VARIANCE											
Retail Sales		-		(578)		(578)					
Power Supply and Transmission:											
- Lower retail load		151				151					
- Higher than planned renewables cost and other				(247)		(247)					
- Lower transmission		149				149					
- Financing savings		417				417					
- Retail load management and economic dispatch		5,988				5,988					
- Lower O&M		363				363					
Other Revenues		-		(251)		(251)					
Wholesale Margin		194		-		194					
Total	\$	7,262	\$	(1,076)	\$	6,186					
MTD O&M AND OTHER VARIANCES											
Distribution		298		-		298					
Administration/Safety		-		(11)		(11)					
Finance, Fleet, & Warehouse		92		-		92					
Customer Service, Marketing & Conservation		16		-		16					
Public Benefits		57		-		57					
Security/Oper Technology		14		-		14					
Telecom		33		-		33					
Construction & Maintenance		36		-		36					
Depreciation expense		221		-		221					
All other			_	(279)		(279)					
Total	\$	767	\$	(290)	\$	477					

February 2021 Budget to Actual P&L Variance Highlights - Electric Fund (\$ in 000's)

	Month-to-Date										
		Varia	scal Year-to	ear-to-Date							
	Favorable Items			Unfavorable Items		udget to Actual ariance					
FYTD NET INCOME/(LOSS): \$10,323	\$	10,048		-	\$	10,048					
FYTD GROSS MARGIN VARIANCE											
Retail Sales		-		(6,679)		(6,679)					
Power Supply and Transmission											
- Lower retail load		911				911					
- Prior period true up credits and adjustments		1,457				1,457					
- Lower transmission		601				601					
- Financing savings		417									
- Higher than planned renewables cost and other				(972)		(972)					
- Lower O&M		517				517					
- Retail load management and economic dispatch offset by											
higher energy prices		6,406				6,406					
Other Revenues		-		(1,562)		(1,562)					
Wholesale Margin		4,533				4,533					
Total	\$	14,841	\$	(9,213)	\$	5,629					
FYTD O&M AND OTHER VARIANCES											
Distribution		136		-		136					
Administration/Safety		-		(255)		(255)					
Finance, Fleet, & Warehouse		453		-		453					
Customer Service, Marketing & Conservation		417		-		417					
Public Benefits		562		-		562					
Security/Oper Technology		=		(101)		(101)					
Telecom		171		-		171					
Construction & Maintenance		452		-		452					
Depreciation expense		3,279		-		3,279					
All other		-		(694)		(694)					
Total	\$	5,470	\$	(1,050)	\$	4,420					

Burbank Water and Power Electric Fund (496) Statement of Cash Balances ^(a) (\$ in 000's)

	Feb-21	Jan-21	Dec-20	Dec-20 Sep-20		Dec-19	Jun-19	Recommended Reserves	Minimum Reserves	
Cash and Investments										
General Operating Reserve	\$ 65,025	\$ 65,696	\$ 65,223	\$ 65,133 ^(f)	\$ 52,719 ^{(d) (e)}	\$ 67,481	\$ 67,320 ^(b)	\$ 52,010	\$ 37,570	
Capital & Debt Reduction Fund	10,000	10,000	10,000	10,000	10,000	10,000	10,000	21,000	5,200	
BWP Projects Reserve Deposits at SCPPA (g)	4,210	3,792	6,021	3,769	17,163	17,014	16,817			
Sub-Total Cash and Investments	79,234	79,488	81,244	78,902	79,882	94,495	94,137	73,010	42,770	
Customer Deposits	(2,485)	(2,832)	(3,083)	(1,486)	(1,811)	(6,632)	(5,641)			
Public Benefits Obligation	(8,190)	(8,319)	(8,287)	(7,826)	(6,990)	(7,125)	(6,069)			
Pacific Northwest DC Intertie	-	-	(45)	(48)	(62)	(855)	(2,218)			
Low Carbon Fuel Standard (c)	(3,027)	(3,270)	(3,273)	(3,394)	(3,642)	(2,267)	(2,267)			
Cash and Investments (less Commitments)	65,532	65,066	66,556	66,149	67,376	77,615	77,942	73,010	42,770	

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

⁽b) Includes a \$3.95M loan to the Water Fund for the purchase of cyclic storage water.

⁽c) Denotes funds reserved related to the sale of Low Carbon Fuel Standard (LCFS) credits, net of Electric Vehicle charger infrastructure expenditures.

⁽d) Includes early redemption of the 2010A Electric Bonds (\$7.63M).

⁽e) Includes a \$2.5M loan to the Water Fund for the purchase of cyclic storage water.

⁽f) Includes a one-time payment to CalPERS (for pension) in the amount of \$2.75M.

⁽g) Includes a \$4.4M drawdown to pay SCPPA for June and July power invoices, \$4.6M for July and August power invoices, and \$4.6M for August and September power invoices.

Burbank Water and Power Water Fund (497) Statement of Changes in Net Assets (1) (2)

MTD and FYTD February 2021

(\$ in 000's except Gallons)

20-21	MTD Budget Budget	\$ Variance ⁽²⁾	% Variance	· · ·		YTD Budget Budget	\$ Variance ⁽²⁾	% Variance
362	329	33	10% ^(a)	Water put into the system in Millions of Gallons	3,600	3,553	47	1% ^(A)
27	60	(33)	(56%) (b)	Metered Recycled Water in Millions of Gallons	651	672	(21)	(3%) ^(B)
				Operating Revenues				
\$ 1,863	\$ 1,817	\$ 46	3%	Potable Water	\$ 19,417	\$ 19,262	\$ 155	1%
123	243	(120)	(49%)	Recycled Water	2,577	2,736	(159)	(6%)
152	122	30	25%	Other Revenue (3)	1,040	974	66	7%
2,138	2,182	(44)	(2%)	Total Operating Revenues	23,035	22,972	62	0%
817	780	(37)	(5%) ^(c)	Water Supply Expense	8,103	8,683	580	7% ^(C)
1,321	1,402	(81)	(6%)	Gross Margin	14,932	14,289	642	4%
				Operating Expenses				
587	732	145	20% ^(d)	Operations & Maintenance - Potable	5,291	5,967	676	11% ^(D)
120	149	29	20% ^(e)	Operations & Maintenance - Recycled	973	1,130	158	14% ^(E)
142	204	62	31% ^(f)	Operations & Maintenance - Shared Services	1,182	1,659	477	29% (F)
175	175	-	0%	Transfer to General Fund for Cost Allocation	1,401	1,401	-	0%
 329	355	26	7%	Depreciation	2,537	2,842	305	11% ^(G)
1,353	1,616	263	16%	Total Operating Expenses	11,383	12,999	1,616	12%
(32)	(214)	182	85%	Operating Income/(Loss)	3,549	1,290	2,258	175%
				Other Income/(Expenses)				
18	21	(3)	(14%)	Interest Income	139	171	(32)	(19%) ^(H)
58	45	13	30%	Other Income/(Expense) (4)	(331)	(172)	(159)	(92%) ^(I)
(144)	(158)	(14)	(9%)	Bond Interest/(Expense)	(1,155)	(1,267)	112	9% (J)
 (68)	(92)	25	27%	Total Other Income/(Expenses)	(1,347)	(1,268)	(79)	(6%)
(100)	(307)	207	67%	Net Income/(Loss)	2,202	22	2,180	9908%
 10	94	(84)	(89%) (g)	Aid in Construction	93	749	(656)	(88%) (K)
\$ (90)	\$ (213)	\$ 123	58%	Net Change in Net Assets	\$ 2,295	\$ 771	\$ 1,524	198%

^{1.} This report may not foot due to rounding.

^{2. () =} Unfavorable

^{3.} Other Revenue includes items such as fire protection services, damaged property recovery, connection fees, late fees, and tampering fees.

^{1.} Other Income/(Expense) includes a one-time payment to CalPERS (for pension) and miscellaneous revenue from the sale of scrap materials, inventory, and assets.

Burbank Water and Power Water Fund (497) Statement of Changes in Net Assets - Footnotes MTD February 2021 (\$ 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	362	329	33	Potable water demand was higher than budget, which was perhaps driven by warmer temperatures and low rainfall, offset by the closing of businesses within Burbank due to the pandemic orders beginning on March 19th, 2020. The average high temperature was 71.7°F, compared to the 15-year average high temperature of 69.9°F. Burbank received 0.02 inches of rainfall in February as compared to the monthly normal of 4.48 inches.
b.	Recycled Water Usage in Millions of Gallons	27	60	(33)	Recycled water demand was lower than budget as a result of the MPP major overhaul, offsest by warmer temperatures and low rainfall. The average high temperature was 71.7°F, compared to the 15-year average high temperature of 69.9°F. Burbank received 0.02 inches of rainfall in February as compared to the monthly normal of 4.48 inches.
c.	Water Supply Expense	817	780	(37)	The unfavorable variance was primarily a result of higher demand than planned.
d.	Operations & Maintenance - Potable	587	732	145	- The favorable variance is primarily attributable to vacancies and timing of professional services.
e.	Operations & Maintenance - Recycled	120	149	29 -	The favorable variance is primarily attributable to the timing of professional services.
f.	Operations & Maintenance - Shared Services	142	204	62 -	The favorable variance is attributable to lower than planned allocated expenses (Customer Service, Finance and Administration) from the Electric Fund.
g.	Aid in Construction	10	94	(84)	The unfavorable variance is attributable to the timing of AIC projects.

Burbank Water and Power Water Fund (497)

Statement of Changes in Net Assets - Footnotes FYTD February 2021 (\$ 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	3,600	3,553	47	- Potable water demand is slightly higher than budget, which is driven by warmer summer temperatures and a drier winter, offset by the closing of businesses within Burbank due to the pandemic orders beginning on March 19th, 2020. Summer (Jul-Sep) actual average high temperature was 90.1°F, compared to the 15-year average high temperature of 87.7°F. Summer (Jul-Sep) CDD were 1,015 versus the 15-year average of 929. Burbank received 3.90 inches of rainfall FYTD as compared to the normal of 12.77 inches.
B.	Metered Recycled Water in Millions of Gallons	651	672	(21)	- FYTD Recycled water demand was lower than budget as a result of the MPP major overhaul, offset by warmer summer temperatures and a drier winter. Summer (Jul-Sep) actual average high temperature was 90.1°F, compared to the 15-year average high temperature of 87.7°F. Summer (Jul-Sep) CDD were 1,015 versus the 15-year average of 929. Burbank received 3.90 inches of rainfall FYTD as compared to the normal of 12.77 inches.
C.	Water Supply Expense	8,103	8,683	580	- The favorable variance is a result of using more Valley/BOU water which is less costly than imported MWD water.
D.	Operations & Maintenance - Potable	5,291	5,967	676	- The favorable variance is primarily attributable to vacancies and timing of professional and private contractual services.
E.	Operations & Maintenance - Recycled	973	1,130	158	- The favorable variance is primarily attributable to the timing of professional services.
F.	Operations & Maintenance - Shared Services	1,182	1,659	477	- Allocated O&M is lower than budget due to favorable variances in allocated expenses (Administration, Safety, Finance, Customer Service, Marketing, Construction and Maintenance) from the Electric Fund.
G.	Depreciation	2,537	2,842	305	- The favorable variance is primarily attributable to delays in capital projects.
Н.	Interest Income	139	171	(32)	The unfavorable variance is primarily attributable to a lower actual rate of return than planned.
I.	Other Income/(Expense)	(331)	(172)	(159)	Other Income/(Expense) includes a one-time payment to CalPERS (for pension) and miscellaneous revenue from the sale of scrap materials, inventory, and assets, which tend to fluctuate.
J.	Bond Interest/(Expense)	(1,155)	(1,267)	112	The loan from the Electric Fund to the Water Fund for the purchase of cyclic water was lower than planned, resulting in a favorable interest expense variance.
K.	Aid in Construction	93	749	(656)	- The unfavorable variance is attributable to the timing of AIC projects.

February 2021 Budget to Actual P&L Variance Highlights - Water Fund (\$ in 000's)

	Variance Month-to-Date												
					Bud	get to							
	Fav	orable	Unfa	avorable	A	ctual							
	It	ems	It	ems	Va	riance							
MTD NET INCOME (LOSS): \$(100)	\$	207	\$	-	\$	207							
MTD GROSS MARGIN VARIANCE													
Potable Revenues		46		_		46							
Recycled Revenues	-			(120)		(120)							
Other Revenue		30		-		30							
Water Supply Expense		-		(37)		(37)							
Total		76	\$	(156)	\$	(81)							
FYTD O&M AND OTHER VARIANCES													
Potable O&M		145		-		145							
Recycled Water O&M		29		-		29							
Allocated O&M		62		-		62							
Depreciation Expense		26		-		26							
All Other		25		_		25							
Total	\$	288	\$		\$	288							

February 2021 Budget to Actual P&L Variance Highlights - Water Fund (\$ in 000's)

	Variance Fiscal Year-to-Date											
	_	vorable Items		avorable ems	Budget to Actual Variance							
FYTD NET INCOME: \$2,202	\$	2,180	\$	-	\$	2,180						
FYTD GROSS MARGIN VARIANCE												
Potable Revenues Recycled Revenues Other Revenue Water Supply Expense Total FYTD O&M AND OTHER VARIANCES	\$	155 - 66 580 801	\$	- (159) - - (159)	\$	155 (159) 66 580 642						
Potable O&M Recycled Water O&M Allocated O&M Depreciation Expense All Other Total		676 158 477 305 - 1,616	\$	- - - - (79) (79)	\$	676 158 477 305 (79) 1,537						

Water Fund (497)
Statement of Changes in Cash and Investment Balances ^(a)
(\$ in 000's)

	Feb-21		Jan-21		Dec-20		Sep-20		Jun-20	Dec-19	Jun-19		Recommended Reserves		Minimum Reserves	
Cash and Investments																
General Operating Reserves	\$	14,835	\$	14,366	\$	13,972	\$	10,972 ^(e) \$	8,395 (c) (d)	\$ 16,341	\$	11,555 ^(b)	\$	12,630	\$	8,070
Capital Reserve Fund		2,220		2,220		2,220		2,220	2,220	2,220		2,220		5,200		1,300
Sub-Total Cash and Investments		17,055		16,586		16,192		13,192	10,615	18,561		13,775		17,830		9,370
Customer Deposits		(1,252)		(1,292)		(1,311)		(1,133)	(1,227)	(1,650)		(1,454)				
Cash and Investments (less commitments)	\$	15,803	\$	15,294	\$	14,882	\$	12,060 \$	9,388	\$ 16,911	\$	12,321	\$	17,830	\$	9,370

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

⁽b) Includes a \$3.95M loan from the Electric Fund for the purchase of cyclic storage water.

⁽c) Includes early redemption of the 2010A Water Bonds (\$2.07M).

⁽d) Includes a \$2.5M loan from the Electric Fund for the purchase of cyclic storage water.

⁽e) Includes a one-time payment to CalPERS (for pension) in the amount of \$440k.

DATE: May 6, 2021 **TO:** BWP Board

FROM: Dawn Roth Lindell, General Manager, BWP Hun Roth Sindell

2020

ELECTRICAL DISTRIBUTION ASSET INSPECTION REPORT

OVERVIEW

Burbank Water and Power (BWP) conducts routine inspections of distribution assets to assess condition and repair/replacement needs. Some of the asset analysis inspections are currently computer-based, while others are still paper-based. It is a goal of BWP to have all distribution asset inspections become computer-based, which will enable effective data management and report generation. Inspection types, points, and methods are in line with industry practices. COVID-19 impacted staffing levels, crew availability, and processes and resulted in a much lower than normal level of detailed inspections performed. All annual patrol inspections were performed as usual.

Assets determined upon inspection to require repair or replacement are prioritized according to need and based on safety concern, reliability impact, and crew efficiency and availability factors. Assets are assigned a condition level based on several factors, including the previously mentioned elements, and are further evaluated accordingly. The assigned condition levels for distribution assets are:

Condition Level 1: Immediate repair or replacement required. Asset condition presents a current safety hazard or reliability problem. Corrective action shall be scheduled and performed within 90 days. Inspector shall immediately notify inspection crew supervisor of condition. Crew supervisor will coordinate repair/replacement with the Electrical Distribution Manager and electrical engineering. If needed, temporary repairs will be made immediately to mitigate safety and reliability risks.

Condition Level 2: Repair or replacement needed. Asset condition presents an impending safety or reliability concern. Inspector shall notify inspection crew supervisor of condition. Crew supervisor will coordinate repair/replacement with the Electrical Distribution Manager and electrical engineering. Repair/replacement shall be scheduled and performed after consultation with electrical engineering concerning criticality and priority. To enable effective work order management and scheduling, assets assigned a condition level 2 are additionally prioritized using a 2.1, 2.2, or 2.3 rating.

Condition Level 3: Operationally effective repair or replacement needed. Asset condition presents no current or impending safety or reliability concerns. Corrective efforts may be deferred and shall be scheduled when effective manpower and equipment scheduling allows.

Condition Level 4: Pass. Asset condition presents no discovered safety or reliability concerns. Asset is fully functional and serviceable. Okay until next scheduled inspection.

Calendar Year 2020

One asset, a primary pull box (PB-155), was discovered to be a safety hazard, it was assigned a condition level (CL) 1, temporarily made safe and later repaired.

There are 2 remaining assets assigned a CL-1 prior to 2020. These are underground substructure assets which are part of a replacement project which requires significant planning and coordination. Where needed, reinforcement methods were utilized to prevent performance issues until replacement could be scheduled and completed. Replacement was expected to be completed in 2020, but COVID and substructure contractor issues caused delays. The replacements are expected to be completed in spring of 2021.

In 2020, two poles were discovered to be very significantly deteriorating and were assigned a CL-2.1, both were replaced. All remaining previously assessed CL-2.1 poles (27) were replaced.

INSPECTION RESULTS

Underground

BWP performs detailed inspections of the utility's 795 manholes on an 8-year cycle. To remain on schedule, crews need to complete an average of 99 manhole inspections per year. COVID-19 impacted crew availability, processes, and staffing levels and resulted in a much lower than normal level of detailed inspections performed. In 2020, only 27 detailed manhole inspections were completed. To ensure inspection rates stay on track, significant additional inspections above the average rate of 99 will need to be performed for the next few years. A schedule has been developed and implemented to ensure a minimum of 200 manhole inspections are completed in calendar year 2021.

BWP performs detailed inspections of the utility's 733 primary pull boxes on an 8-year cycle. To remain on schedule, crews need to complete an average of 92 inspections per year. In 2020, 60 detailed primary pull box inspections were completed, but it places BWP behind schedule. To ensure inspection rates stay on track, significant additional inspections above the average rate of 92 will need to be performed for the next few years. A schedule has been developed and implemented to ensure a minimum of 125 primary pull box inspections are completed in calendar year 2021.

Due to known deterioration issues, BWP has increased the frequency for performing detailed inspections of vaults (manholes containing transformers) from a 5-year cycle to a 3-year cycle. All 26 of the vaults in the BWP system were inspected in 2018, within the current 3-year cycle and are scheduled for inspection again in 2021. In 2020, 7 of the remaining 26 vaults were scheduled to be replaced with padmounted transformers. Due to COVID-19 and a lack of substructure installation contractor availability, all 7 were postponed and are now scheduled for summer of 2021. Funding has been earmarked, and a project to convert the remaining vaults to padmounted transformers is in the planning stages. Conversion of the remaining vaults is expected to be completed on a prioritized basis by 2023. The last three underground switches that remained in the BWP system were removed in 2020.

BWP maintains underground distribution cable circuits totaling 129.4 circuit miles. To ensure reliability and/or support load changes, BWP proactively replaced 2570 circuit feet of high-voltage cable. Due to failure of the existing cable or components, 145 feet of high-voltage cable required replacement. The low failure rate is evidence of BWP's well planned and maintained high voltage cable program. In addition, BWP installed 13,700 feet of new cable to support new customers and/or system design upgrades.

Padmounted Equipment

BWP performs detailed inspections on a 5-year cycle and annual patrol inspections of all of its 960 padmounted switches, transformers, and regulators.

In 2020, patrol inspections of all padmounted equipment were completed.

To remain on schedule, crews need to complete an average of 192 detailed inspections of padmounted equipment per year. Due largely to COVID-related reasons, only 17 were completed in 2020. To ensure inspection rates stay on track, significant additional inspections above the average rate of 192 will need to be performed for the next few years. We anticipate getting back on schedule to complete detailed inspections of all padmounted equipment within a 5-year cycle period. A schedule has been developed and implemented to ensure a minimum of 250 padmounted equipment inspections are completed in calendar year 2021.

Overhead Facilities

The BWP overhead electrical-distribution system consists of 10,693 Burbank-owned wood poles, approximately 205 circuit miles of conductor, 4,697 transformers, 396 switches, and 52 capacitor banks. In 2020, patrol inspections of all overhead facilities were completed.

Wood Poles

As deteriorated poles are discovered, BWP prioritizes and schedules replacement on a regular basis. As part of an ongoing 4 kV to 12 kV rebuild and conversion effort, many older poles are replaced each year. In 2020, 61 deteriorated poles were replaced, and 124 poles were replaced as part of capital projects or customer-related projects.

An intrusive inspection is required for all wood poles that have been in service for 25 years and every 20 years thereafter. In 2020, partially due to a self-imposed restriction on sending a contractor onto private property during COVID-19 for a non-essential activity, no intrusive inspections were schedule to be performed. It is planned for 1,000 intrusive inspections to be performed in 2021.

As discovered, staff works diligently to schedule replacements of discovered CL-1 and CL-2.1 wood poles and effectively manage the manpower and available budget required to perform the efforts necessary to ensure safety and reliability.

Street Lighting

There are 6,412 streetlight standards in BWP's street-lighting system. In 2020, patrol inspections were performed on all streetlight standards.

There are 9,465 streetlight luminaires in the BWP street-lighting system. BWP has a stated goal of addressing all streetlight complaints within one working day of notification received by electrical distribution staff. BWP electrical distribution staff worked diligently to address all complaints as quickly as practical.

In 2020, BWP staff replaced 581 less-efficient streetlight luminaires with high-efficiency LED luminaires.

Vegetation Management

BWP executes an aggressive line-clearance tree-trimming program. To effectively manage vegetation in proximity to all BWP overhead facilities, the city was divided into 19 zones. BWP's line-clearance tree-trimming contractor, currently overseen by an Electrical Distribution Supervisor, performs trimming through the 19 zones on a cyclical basis. As part of BWP's Wildfire Mitigation Plan, a Zone 20 was created to specifically address the facilities and associated vegetation which is located within the Tier 2 Fire Designation Area. All of the area now located within Zone 20 was previously part of other zones. Zone 20 will be assessed and trimmed, where needed, on an annual basis. Recurring "problem" trees are removed when practical. To support emergency situations, capital construction projects, or found conditions, the contracted crews may be called upon to perform trimming or tree removals at specific locations that may be out of the current zone they are working in. Effective use of resources is consistently coordinated. The desired goal is to complete trimming within each of the original 19 zones within a 24 to 36

month cycle rate. As of December 31, 2020, the crews had completed trimming in each of the 19 zones within the last 32 months. Zone 20 was completely assessed and trimmed, where needed, during the calendar year 2020. Additionally, 3,134 trees were trimmed, and 82 "problem" trees were removed to eliminate future growth and repeated interference with power lines.