



Louisville Water Tower and Pumping Station No. 1

**LOUISVILLE WATER COMPANY
BOARD OF WATER WORKS
REGULAR MONTHLY MEETINGS
DECEMBER 17, 2019**

**BOARD OF WATER WORKS
REGULAR MEETING AGENDA
DECEMBER 17, 2019 11:00 A.M.
LOUISVILLE WATER COMPANY HEADQUARTERS**

	<u>PAGE</u>
I. MEETING MINUTES	
A. Approval of the Minutes of the Regular Called Meeting held November 19, 2019	1 - 4
II. REPORT OF THE CHIEF EXECUTIVE OFFICER	5
III. SPECIAL ISSUES	
A. Declare Fourth Quarter 2019 Dividend	6 - 7
B. Approve 2020 Tariff and Cost of Service	
1. Proposed 2020 Tariff and Water Rate Schedule	8
2. Proposed 2020 Service Installation Fees, Customer Account Charges and System Development Charge	9
IV. NEW BUSINESS	
A. Approve 2020 Board of Water Works Regular Meeting Dates	10
B. Approve Proposed Changes Service Rules and Regulation	11 - 12
C. Approve Contract Renewal with RA Consultants	13
D. Discuss WaterMark Advancement, LLC	
V. COMMUNICATION	
A. Affirmative Action Plan	
VI. OTHER OFFICERS' REPORTS	
A. Financial	14 - 24
B. Communication and Marketing	25 - 26
C. Customer Service and Distribution Operations	27 - 29
D. Engineering and Production Operations	30 - 32
E. Human Resources	33
F. Information Technology	34
G. Legal	
VII. CLOSED SESSION	
VIII. EXECUTIVE SESSION	
IX. ADJOURN	

The next Regular Meeting of the Board of Water Works will be determined at the December 2019 meeting.
It will be held in the Board Room at the Louisville Water Company, 550 South Third Street, Louisville.

MEETING MINUTES

**Board Of Water Works
REGULAR CALLED MEETING MINUTES
November 19, 2019**

Board Members Present:

Mr. Creighton Mershon, Chair
Dr. Sharon Kerrick, Vice Chair
Dr. Sundeep "Sunny" Dronawat
Ms. Tierra Kavanaugh Wayne (via teleconference)
Mr. Craig Willman

Not Present:

Greg Fischer
Mr. Paul Esselman

Others Present:

Mr. Spencer Bruce, President and Chief Executive Officer
Mr. Daniel Frockt, CFO, Louisville / Jefferson County Metro Government
Mr. Dave Vogel, Executive Vice President, Customer Service and Distribution Operations
Ms. Kelley Dearing Smith, Vice President, Communications and Marketing
Mr. Tim Kraus, Vice President, Engineering and Chief Engineer
Dr. Tom Lockett, Vice President, Information Technology
Ms. Lynn Pearson, Vice President and Treasurer
Mr. Terrence Spence, Vice President, Human Resources and Labor Relations
Mr. Michael Tigue, Vice President, General Counsel and Corporate Secretary
Mr. Adam Carter, President, Local Union 1683 of the AFSCME
Ms. Kim Reed, Chief Innovation Officer, One Water
Ms. Sue Purdy, Director, Finance and Accounting
Ms. Jenni Schelling, Director, Internal Audit
Ms. Shannon Tivitt, Director, Project Liaison, One Water
Mr. Andrew Winslow, Supervisor, Budget Rates and Analysis
Ms. Ramiza Carpenter, Senior Accountant
Ms. Megan Starnes, Budget Specialist, II
Ms. Beverly Soice, Paralegal

Visitors:

The regular called meeting of the Board of Water Works (BOWW) was held on Tuesday, November 19, 2019 at the Louisville Water Company (Louisville Water or the Company) located at 550 South Third Street, Louisville, Kentucky. Chair, Creighton Mershon called the meeting to order at 11:03 a.m.

Minutes of the Previous Regular BOWW Meeting Approved

Craig Willman moved to approve the Regular Called Meeting Minutes of October 22, 2019 seconded by Dr. Sunny Dronawat and the motion unanimously carried.

Report Provided by the President/Chief Executive Office

Spencer Bruce advised that on November 5, Louisville Water recognized 56 employees who reached a milestone in their employment with our Company. The group included employees who

had 5, 10, 15, 20, 25, 30 and 35 years of service. As part of our Strategic Business Plan priority to be the “Employer of Choice,” we have placed an emphasis on employee retention and recruitment. This is the first time in decades the Company has hosted an employee recognition event. In the early 1900s, we frequently held gatherings of the “Old Timers Club” and honored employees with over 50 years of service!

For the third year, Louisville Water joined Louisville MSD in recognizing the veterans who work for our utilities. More than 90 veterans were treated to a breakfast and awards program where Louisville Mayor Greg Fischer thanked the men and women for their service and representatives of each military branch offered comments. The representative for the U.S. Navy was Lieutenant Junior Grade A.J. Lueke whose dad, Joe, works for Louisville Water and is a U.S. Marine Corp veteran. Our veterans also participated in the city’s Veterans Day Parade.

Mr. Mershon stated that if there is no objection, he will take the Budget item on the meeting agenda out of order.

Approve Proposed 2020 Annual Operating and Capital Budget

Lynn Pearson provided an overview of the proposed 2020 Annual Operating Budget. The summary included a presentation on budget trends for water consumption and sales, other operating revenue, and operating expense.

Ms. Pearson advised the 2019 – 2025 Strategic Business Plan drives the Operating and Capital Budget. She noted the organization has worked collectively to put together the proposed budget for the next fiscal year. Upon approval of the budget, staff will prepare the cost of service study for the 2020 water rates to be presented in December.

Ms. Pearson reviewed highlights of the proposed operating budget for 2020 with the Board. The budgeted consumption for 2020 is 33.6 billion gallons, which is based on a three-year average retail consumption less a trend adjustment, plus additional wholesale gallons totaling 225 million gallons projected to be sold. Overall, wholesale revenue is projected to be \$6.6 million in 2020, an increase of \$700,000 over 2019 budget.

Other operating revenue is budgeted at \$20.1 million, an increase of \$1.7 million from 2019 budget. Other operating revenue includes sewer billing charges, customer fees and charges, home service line protection revenue, and contract operations revenue.

Ms. Pearson also reviewed increases in operating and maintenance expense and depreciation.

Ms. Pearson advised that management is recommending an average rate increase effective January 1, 2020 of 3.5%. For a typical residential customer using 4,000 gallons, the increase is 85 cents, resulting in a monthly water bill of \$24.01.

Budgeted net income is \$40.246 million for 2020. Using the dividend formula from the Master Bond Resolution, this budget results in a budgeted dividend of \$20.425 million to Louisville Metro Government, Louisville Water’s sole shareholder.

Tim Kraus discussed the proposed 2020 Capital Budget.

The total Capital Budget for 2020 is proposed at \$109.2 million before cash reimbursements. This represents an increase of 3.6% over the 2019 Capital Budget. Mr. Kraus also reviewed the

amount of funding and the major areas of the Capital Budget. Infrastructure Renewal makes up the largest portion of capital projects at \$44.3 million (40.5%), followed by New Technology and Facilities at \$40.2 million (36.8%), Growth-Related Improvements at \$18.1 million (16.6%), and Self-Financing Improvements at \$6.6 million (6.1%).

A summary of the projects planned under each of the above-mentioned categories was also provided.

Projects Approved as a Part of the Capital Budget

Mr. Kraus advised that there are three current-year projects that require specific Board action due to changes in the budget.

Mr. Kraus provided a summary of the three projects that require Board action which include Project 15509: Belmont Road BPS; Project 14641: Harrods Creek PRV Renovation; and, Project 13650: Relocation 2013 – 690 – Preston Highway Corridor T&D – John Harper Highway to Highway 44.

Dr. Dronawat moved to adopt the following resolution for approval of the 2020 Capital and Operating Budget and to approve the requested change action items identified above. Mr. Willman seconded, and the motion unanimously carried.

RESOLVED, that the Draft 2020 Operating Budget submitted by staff on November 19, be adopted as the approved 2020 Operating Budget, and
RESOLVED, that the Draft 2020 Capital Budget submitted by staff on November 19, be adopted as the approved 2020 Capital Budget, and
RESOLVED, that the 2020 – 2029 Financial Plan submitted by staff on November 19, be filed as the approved Financial Plan, and
RESOLVED, that rate schedules be developed and presented by staff based upon a cost-of-service rate study with an average rate increase of 3.50%, effective for water service beginning January 1, 2020, and thereafter.

Closed Session Held

Dr. Dronawat moved to go into Closed Session to discuss current or pending litigation pursuant to KRS 61.810(1)(c) at 12:15 p.m., seconded by Mr. Willman and the motion unanimously carried.

Open Session Resumed

Dr. Kerrick moved to return to Open Session at 1:20 p.m., seconded by Dr. Dronawat and the motion unanimously carried. No action was taken in closed session.

Review Board Policies

Pursuant to discussions held in closed session, Mr. Mershon called for a motion on the Open Meetings and Open Records Policy and the Purchasing Policy. Mr. Willman moved to approve the Open Meetings and Open Records Policy and the Purchasing Policy as proposed. Dr. Dronawat seconded and the motion carried. Dr. Kerrick abstained.

Labor Relations

Adam Carter, Local 1683 Union President, Terrence Spencer and Dave Vogel provided a history of the partnership between Louisville Water Company and Local 1683 of the American Federation of State, County and Municipal Employees, AFL-CI (the Union). Mr. Vogel discussed the current state of the partnership noting that there has been many years of success and it is on solid footing. However, some challenges have developed that should be communicated to the Board. The specific challenges were reviewed with the Board and it was advised that both management and the Union have spent significant time and energy attempting to resolve the issues.

A grievance on the main issue of contention, after hours emergency call out response, is set for arbitration on December 12, 2019.

One Water Update

Shannon Tivitt provided a summary of the discussions that took place at the Louisville One Water Partnership Board meeting which was held on November 6, 2019.

A Human Resources update on the shared ancillary (dental, vision, life/disability) benefit initiative was provided to the One Water Board. Both Louisville Water and Louisville MSD were able to take advantage of better premiums based on this opportunity.

Ms. Tivitt provided an update on the Strategic Plan “Refresh” process. Strategic Initiatives are being reviewed and evaluated now through December in One Water Advisor Council meetings by owners/team. Once this process is completed, those items that are amended/carried forward will be the focus in 2020.

Kim Reed lead a discussion on the One Water Partnership’s journey from a historical perspective and the value of the One Water shared services opportunities since 2012.

Ms. Reed also briefed board members on innovation efforts underway by Louisville Water, Louisville MSD and the One Water Partnership. The One Water focus will shift to innovation activities in the coming year.

Financial Report, Communication and Marketing Report, Customer Service and Distribution Operations Report, Engineering and Production Operations Report, Human Resources Report, and the Information Technology

In the interest of time, Mr. Mershon asked the Board to take the above reports under advisement.

There being no further business for the Board, the meeting was adjourned at 2:12 p.m.

Respectfully submitted,

Michael F. Tigue, Esq.
Vice President, General Counsel and
Corporate Secretary

REPORT OF THE CHIEF EXECUTIVE OFFICER



December 17, 2019

Board of Water Works
Louisville, Kentucky 40202

Re: CEO December Report

Dear Directors:

In November, Louisville Water helped to host over 250 economic development professionals at the Kentucky Association for Economic Development (KAED) fall conference. The event in Louisville highlighted best-practices for recruiting and retaining businesses and allowed our staff to network with potential partners.

Our partnership with KAED is important as our regional service area grows. We are working with KAED, other utilities and stakeholders and the Kentucky Cabinet for Economic Development on a Product Development Initiative. This new program is a proactive approach to upgrade industrial and office sites for growth. A third-party review process by a national site selection company chose nine communities out of 45 applications for a total investment of \$2.95 million in grant funds. The communities must match dollar-for-dollar the investment, thereby allowing the state to leverage nearly \$6 million for upgrades. Two sites in Louisville Water's service area were chosen for investment: RiverPort Phase V in Jefferson County and the T.J. Patterson Industrial Park in Hardin County.

Louisville Water will continue to work with KAED and its partners to identify opportunities to build our brand around economic development.

Respectively submitted,

Spencer W. Bruce, PE
President & CEO

SPECIAL ISSUES

December 17, 2019

Board of Water Works
Louisville, Kentucky

Dear Directors:

Re: Declaration of Fourth Quarter 2019 Dividend to Metro Louisville

Section 508 of the Series 2009 Water System Revenue Bond Resolution provides that the Louisville Water Company will pay to the Louisville / Jefferson County Revenue Commission an annual dividend on the Louisville Water Company stock owned by Louisville / Jefferson County Metro Government, Kentucky. The dividend declared for 2018, based upon estimated net income, is required to be adjusted after completion of the annual audit to reflect any difference between estimated and actual net income. The amount of such adjustments is to be paid with or deducted from the regular quarterly dividend payments in 2019.

The annual audit has been completed. Net income of \$41,052,036 requires a total 2018 dividend to Louisville / Jefferson County Metro Government, Kentucky of \$18,997,197. The total dividends paid during 2018 were \$21,453,700. The difference between the dividend paid for 2018 and the actual dividend computed and declared for 2018 is \$2,456,503. A portion of the difference was deducted from the second quarter 2019 dividend payment and the balance will be deducted from the fourth quarter 2019 dividend payment as directed by Louisville Metro Office of Management and Budget.

The 2019 Annual Budget provides for a budgeted annual dividend of \$19,274,820. A draft resolution to recognize adjustment of the 2018 dividend and declare the fourth quarterly 2019 dividend in the amount of \$4,818,705 is attached for your consideration. This resolution provides for a total quarterly payment of \$3,678,887 after the deduction of \$1,139,818 for the adjustment for 2018.

Respectfully submitted,



Lynn O. Pearson, CPA
Vice President, Finance - Treasurer

**RESOLUTION TO DECLARE FOURTH QUARTER 2019 DIVIDEND
TO LOUISVILLE / JEFFERSON COUNTY METRO GOVERNMENT, KENTUCKY**

WHEREAS, it has been the long established policy of Louisville Water Company to pay a dividend on its common stock related to its net earnings, after giving consideration to any requirements for debt amortization and bond reserve requirements, and

WHEREAS, a covenant written into the 2009 Water System Revenue Bond Resolution sets forth a formula for determining the amount of any such dividend, and

WHEREAS, such covenant requires payment of a dividend each year based on estimated annual Adjusted Net Income, with adjustment upon completion of the annual audit to reflect any difference between estimated and actual net income, such adjustment to be made in the quarterly dividend payments of the following year, and

WHEREAS, an estimated dividend of \$21,453,700 was paid in 2018 based on estimated Adjusted Net Income of \$43,890,000 and

WHEREAS, the annual audit for 2018 has been completed establishing the full dividend for 2018 as \$18,997,197 based on actual Adjusted Net Income of \$40,322,463, and the Board resolution of December 18, 2018 was amended on June 18, 2019 to decrease the 2018 annual dividend by \$2,456,503 from \$21,453,700 to \$18,997,197, and a portion of the difference was deducted from the second quarterly 2019 dividend payment and the remainder will be deducted from the fourth quarterly 2019 dividend payment, as directed by Louisville Metro, and

WHEREAS, the 2009 Bond Resolution requires that the Board of Water Works pay a quarterly dividend based on the formula contained therein, such quarterly payments to be as nearly equal in amount as possible, and

WHEREAS, the 2019 Louisville Water Company Annual Budget reflects the 2019 annual dividend to be \$19,274,820, it would be in order at this time to declare a regular fourth quarter dividend of \$4,818,705; therefore, be it

RESOLVED, the regular fourth quarter 2019 dividend of \$4,818,705 is hereby declared, and

RESOLVED, that \$1,139,818 of the total difference of \$2,456,503 will be deducted from the fourth quarterly 2019 dividend payment, and further

RESOLVED, that the President of the Company hereby is authorized and directed to pay \$3,678,887 to the Louisville / Jefferson County Revenue Commission on December 27, 2019, this being the fourth quarterly dividend for 2019.



December 17, 2019

Board of Water Works
Louisville, Kentucky

Re: Proposed 2020 Tariff and Water Rate Schedule

Dear Directors:

At the November 19, 2019 meeting of the Board of Water Works, the 2020 Annual Budget was adopted and staff was directed to prepare rate schedules with an average rate increase of 3.5%, effective for water service beginning January 1, 2020 and thereafter.

The proposed 2020 Tariff and Water Rate Schedule was developed in accordance with a cost of service study based upon the methods suggested in American Water Works Association Manual M1, Water Rates. The Schedule will be distributed under separate cover.

We are recommending retail water rates increase January 1, 2020 and wholesale rates July 1, 2020. The wholesale rates will require approval by the Public Service Commission (PSC) for utilities that are under its jurisdiction. Upon approval, staff will meet with wholesale customers and begin the process for obtaining approval from the PSC.

Staff recommends and requests the Board of Water Works approve the proposed 2020 Tariff and Water Rate Schedule.

Respectfully submitted,

Lynn O. Pearson, CPA
Vice President, Finance and Treasurer



December 17, 2019

Board of Water Works
Louisville, Kentucky

Re: Proposed 2020 Service Installation Fees, Customer Account Charges and System Development Charge

Dear Directors:

The Service Rules and Regulations authorize certain fees and charges for providing service to customers. Service Rule 1.03.3 authorizes service installation fees for specific sizes installed under typical construction conditions. Service Rules 1.14.1 through 1.14.16 authorizes service deposits and other account charges for items including late payments, returned checks, and service activation or deactivation. Service Rule 3.07 authorizes a system development charge for all new services installed on public mains.

Each year, staff reviews these charges and fees as part of the annual Tariff and Water Rate Schedule and recommends appropriate changes as needed. A detailed list of the current and proposed fees and charges will be distributed under separate cover.

Staff recommends and requests the Board of Water Works approve the proposed customer installation fees and customer account charges and deposits effective January 1, 2020.

Respectfully submitted,

Lynn O. Pearson, CPA
Vice President, Finance and Treasurer

Timothy Kraus, PE
Vice President of Production Operations
and Chief Engineer

David A. Vogel
Executive Vice-President, Customer Service
and Distribution Operations

NEW BUSINESS



December 17, 2019

Board of Water Works
Louisville, Kentucky

Re: Approve 2020 Board of Water Works Regular Meeting Dates

Dear Directors:

Under the By Laws, Board of Water Works meetings are to be approved by the Board. The following dates are proposed for 2020 Board meetings.

Tuesday, January 21
Tuesday, February 18
Tuesday, March 17
Tuesday, April 21
Tuesday, May 19
Tuesday, June 23
Tuesday, July 28
Tuesday, August 18
Tuesday, September 22
Tuesday, October 20
Tuesday, November 24
Tuesday, December 15

Staff recommends the Board approve the above meeting dates for regular meetings of the Board of Water Works for 2020. The Annual meeting will be held immediately prior to the April Board meeting.

Respectfully submitted,

Michael F. Tigue
Vice President, Compliance,
General Counsel and Corporate Secretary



December 17, 2019

Board of Water Works
Louisville, Kentucky

Re: Proposed Revisions to the Service Rules and Regulations

Dear Directors:

Annually, staff reviews the Louisville Water Company Service Rules and Regulations to determine if any changes should be made. Staff recommends changes in the service rules to incorporate new initiatives and to provide clarification to existing regulations.

A detailed list of the proposed changes is listed in Table 1. Highlights of these changes includes the following items:

- Addition of the definition for Wholesale customers
- Language regarding charges incurred when enlarging services
- Additional fee and language pertaining to Temporary Meters
- Clarification between discontinue and cancellation of service
- Requirement for minimum participation for two-thirds majority contracts

These proposed changes are provided in the attached table. General Counsel has reviewed these proposed revisions and staff recommends approval by the Board, effective January 1, 2020.

Respectfully submitted,

David A. Vogel
Executive Vice President

Timothy Kraus, P.E.
Vice President Production Operations
and Chief Engineer

Attachment

	Reason for Review and /or Questions to Consider	2020 Proposed
1.04.7	Additional Definition	Wholesale service – A wholesale service is defined as a water service to provide water to a customer for resales purposes, while in agreement with service rule 1.05.6, and 105.7.
1.05.7	Remove Language	Use of Water - Water delivered by the Company shall not be used in any way that might conflict with Company or governmental rules and regulations. and customers should not waste water.
1.05.8	Additional Language	Enlargement and Relocation of Service Line - Customer will be required to pay for the installation of a new service and the cost to wholly discontinue the old service when the customer requests relocation or enlargement of an existing service line. All existing services within a development will be discontinued at the customer's expense upon new service installation to comply with Rule 1.04.
1.08.4	Additional Fee, language	d. Missing Read fee
1.08.4	Additional Language	The refundable deposit will be returned, less deductions for unbilled water consumption and any damage to the meter assembly, fire hydrants, and / or appurtenances used, or any unpaid balance on account.
1.12.4	Additional Language	Damage to Company Facilities - In all cases where any Company facilities are broken, cut, otherwise damaged or caused to leak by an act or omission performed by any third party, the Company shall charge a fee, make a claim and pursue collection against the responsible party(ies) for any and all actual costs for repairing and restoring the facility including, but not limited to, the
1.13.	Change Discontinue to Cancellation or terminate in section 1.13	Cancellation of Service
1.13.1	Change Discontinue to Cancellation or terminate in section 1.13	Cancellation by the Customer - When a customer wishes to cancel the water service account in their name, it shall be the customer's responsibility to notify the Company at its office by oral or written order to terminate such service. Only then will the customer be relieved of the responsibility for any future charges for water used through such service.
1.13.2	Change Discontinue to Cancellation or terminate in section 1.13	Cancellation by the Company - The Company may terminate water service without notice if it poses a threat to the safety of the public water supply or if it is received through an illegal and / or unauthorized connection. The Company may terminate a water service with prior notice for nonpayment of charges and fees.
1.13.3	Change Discontinue to Cancellation or terminate in section 1.13	Cancellation of Fire Service - In addition Fire Service accounts cannot be cancelled and water turned off unless written permission is granted to the Company from the appropriate fire department.
1.15.3	Clarify	Fire Service Charges - The charges for fire protection service will be made in accordance with the "Louisville Water Company Tariff, Rate Schedule , and Customer Fees and Charges" and will be billed monthly or as the Company may hereafter designate. The charge for water used, estimated from the meter registration, will be billed in addition to the scheduled monthly service charge at the established water rates without application of the minimum bill or allowable use. Water used for extinguishing fires or testing the fire protection system will not be billed provided a certificate of such use from a fire insurance underwriter or the fire department is submitted to the Company. Fire services will continue to be billed to the owner per PVA, unless the service is discontinued in accordance with 1.13.3. Unpaid fire service charges may result in a lien on the property.
3.04.4	Additional Language	Minimum Participation – A minimum of two-thirds of the improved premises must agree to the water main extension and execute an agreement with the Company agreeing to pay their tapping fee as outlined in Rule 3.04.4 in order for the project to be initiated by the Company
3.07.1	Clarify	General - All new water service connections (defined as a new tap on a water main) shall carry with them, in addition to any other applicable charges set forth in these service rules and regulations, a System Development Charge (SDC) in an amount prescribed by the Board of Water Works as in effect at the time of application. Any master meter installed in lieu of extending a public water main to provide service shall pay the applicable SDC. Customers with an existing service at a premise who wish to upgrade to a larger service at the same premise shall pay (in addition to installation, discontinue, or other applicable fees) the difference in the SDC for the larger service size and the existing service size. Likewise, customers with an existing service at a premise who wish to downsize to a smaller service at the same premise shall not be required to pay a SDC. Refunds shall not be paid by the Company for the difference in SDC between the original and smaller service size.

December 17, 2019

Board of Water Works
Louisville, Kentucky



RE: Contract Renewal - RA Consultants

Dear Directors:

The Construction Inspections Department is currently composed of 17 inspectors, of which nine are full time employees and eight are furnished through a contract with RA Consultants. Contract inspectors have been utilized each year since the first contract was awarded to Quest Engineering in 2000, to supplement the construction inspection.

A competitive RFP process was initiated in 2018 to select a contractor to provide construction inspection services. Contract P2433 was awarded to RA Consultants as the lowest cost proposal. The Contract was awarded for a period of one year with the option to renew up to four additional years. Compared to inspection contracts from other utilities, such as Louisville MSD, staff determined that Louisville Water received an excellent cost for inspection services.

RA Consultants has continued to provide the best inspectors available, who have continued to perform very well. Procurement Department has determined the CPI hourly rate increase for the renewal to be 1.8%. Given this low increase and the quality of service provided, staff requests to renew the contract for an additional year.

In 2020, it is anticipated that Louisville Water may utilize up to 14 contract inspectors from the RA Consultants contract. Most of these inspectors will be utilized by the Construction Inspections Department to inspect pipeline projects constructed by contractors obtained through our bidding process. In addition, up to four inspectors are budgeted to be utilized by MDOL to inspect various maintenance repairs and projects. Lastly, if needed, this budget also includes inspectors that may be utilized by the Metering Department to inspect the AMI project anticipated to begin in early 2020.

Budget Details

# of Inspectors	Hourly Rate	Weekly Rate	# of Weeks	# of Inspectors	
14 Inspectors (Construction Inspections, MDOL, AMI)	\$57.39	\$2,295.60	52	14	\$1,671,196.80

On November 22, 2019, the Louisville Water Bids and Awards Committee approved the request to renew our contract with RA Consultants. This will be the 2nd CPI renewal for this contract. In accordance with established internal controls, authorization is hereby requested from the Board of Water Works to proceed with the contract renewal with RA Consultants in the amount of \$1,671,196.80.

Respectfully Submitted,

Timothy Kraus, PE
Vice President of Production Operations and Chief Engineer

COMMUNICATIONS

OTHER OFFICERS' REPORTS

December 17, 2019

Board of Water Works
Louisville, Kentucky

Re: Finance Report for November 2019

Dear Directors:

November 2019 Overview

Water sales were strong in November, resulting in total operating revenue coming in \$138,000 higher than budget. This positive budget variance, however, was offset by unfavorable variances in operating and non-operating expenses. As a result, net income for November is \$325,000 lower than budget. Details of the Company's financial performance as compared to budget and prior year follows.

Consumption and Operating Revenue

Consumption of 2.8 billion gallons for November 2019 is 43.3 million gallons or 1.6% higher than budget, and 82.3 million gallons or 3.0% more than November 2018. The higher volume of water sales is driven largely by the irrigation customer class, reflecting the impact of hot, dry weather that lasted well into autumn. Year-to-date consumption remains slightly under budget and prior year, by 0.1% and 1.4% respectively. Excluding the negative variance in Metro government water consumption which is offset on the expense side, water consumption actually exceeds budget by a small margin.

Water Revenue for November 2019 is \$173,000 or 1.2% higher than budget and \$895,000 or 6.3% more than prior year. Water revenue through November is very close to budget, falling short by only \$370,000 or 0.2% and is \$6.3 million or 3.9% higher than last year. Slightly lower consumption is the key factor driving decreased water revenue for the year-to-date period as compared to budget.

Other Operating Revenue for November is \$34,000 or 2.2% lower than budget but is \$86,000 or 6.0% more than year-ago levels. The unfavorable variance to budget is mainly due to lower turn-off activity off-set by higher contract operations. Through November, other operating revenue is within \$108,000 or 0.6% of budget, and is \$1.3 million or 8.1% higher than 2018. The year-to-date variance to budget is primarily attributable to revenue from late charges, disconnect fees and cross connection coming in lower than expected, partially offset by higher revenue from contract operations. The favorable year-to-date variance to prior year is driven by higher cross connection, service line protection, sewer billing and contract operations revenue, offset to a small degree by lower late fees.

Operating Expense

Operating and Maintenance Expenses for November of \$6.8 million are \$256,000 or 3.9% higher than budget and \$141,000 or 2.1% higher than November 2018. The unfavorable variance to budget for the month is driven by contractual services. November year-to-date operating and maintenance expenses are \$705,000 or 0.9% under budget and \$3.5 million or 5.0% above year-ago levels. Many expense categories, including labor and labor related, utilities, fleet, contractual services, and travel and training continue to run lower than budget reflecting the cost reduction efforts which were implemented earlier in the year. Contractual services have been running under budget partially due to the timing of purchases. We saw a reversal of this trend in recent months, and we do expect an additional portion to reverse in December. The favorable variances are partially offset by higher chemical and materials and supplies expense, along with insurance reserves.

Total Operating Expenses for November of \$12.4 million exceeded budget by \$357,000 or 3.0% and were \$745,000 or 6.4% higher than November 2018. Total operating expenses year-to-date are lower than budget by 0.9% and higher than prior year by 5.3%. The unfavorable variance for the month of November as compared to budget is mainly due to higher operating and maintenance expense along with higher loss from disposition of property partially offset by lower depreciation. Loss on disposition of property is higher due to a loss recognized that was projected to occur earlier in the year. The November unfavorable variance to prior year is mainly due to higher operating and maintenance expense, depreciation and loss on disposition of property. The year-to-date favorable variance to budget is a result of lower operating and maintenance expense and lower depreciation expense. The year-to-date variance to prior year is primarily due to higher operating and maintenance expense, depreciation and loss on disposition of property.

Non-Operating Income/Expense

Non-Operating Income through November is \$1.2 million, which is \$27,000 or 2.2% lower than budget and \$461,000 or 27.5% less than the same period in 2018. The variance to budget is mainly due to a lower dollar amount invested than anticipated. The variance to prior year is due to a lower dollar amount invested as we continued throughout the year to spend down cash on the capital program and move towards the bond issuance which occurred at the end of October.

Non-Operating Expense through November of \$6.2 million is \$81,000 or 1.3% less than budgeted and \$97,000 or 1.6% more than year-ago levels. Interest expense is less than budget due the 2019 bond issuance taking place later than anticipated, along with higher amounts of interest capitalized. Interest expense is more than prior year due to the issuance of bonds in late October.

Net Income, Contributions, Cash and Reserves

Net Income before Distributions and Contributions for November is \$3.7 million, which is \$325,000 or 8.1% lower than budgeted. In comparison between years, net income is \$30,000 or 0.8% lower than November 2018. November year-to-date net income of \$47.5 million is \$741,000 or 1.6% higher than budget and is \$377,000 or 0.8% higher than the eleven months ended November 2018.

Contributions through November of \$11.6 million are \$4.6 million or 67.2% higher than budgeted and \$2.3 million or 25.0% more than prior year. Contributions are higher than budget and prior year primarily due to increased activity.

Cash, Cash Equivalents and Short-term Investments totaled \$55 million at the end of November 2019, equating to 246 days of estimated Operations and Maintenance expense.

In connection with the accompanying monthly financial report of Louisville Water Company for the period ended November 2019, I hereby certify that, to my knowledge, the information contained in the report fairly presents, in all material respects, the financial condition and results of the Company.

Respectfully submitted,



Lynn O. Pearson, CPA
Vice President-Finance and Treasurer

Exhibit 1

FINANCE/PROCUREMENT STATISTICS AND MEASUREMENTS - NOVEMBER 2019

General Information	NOVEMBER 2019	NOVEMBER 2018		YTD 2019	YTD 2018	
Louisville International Rainfall	5.64	4.76		49.68	62.93	
Normal Rainfall	3.59	3.59		41.45	41.08	
Number of Days Rain or Trace of Rain	17	21		163	187	
Average High Temperature	52.2	50.9		n/a	n/a	
DELIVERED TO MAINS MILLION-GALLONS						
Delivered to Mains (net plant usage) (million gallons)	3,316	3,113		40,041	40,256	
Average Daily System Delivery (million gallons)	111	104		120	121	
WATER METERED-MILLION GALLONS						
Total Water Metered (million gallons)	2,813	2,730		30,889	31,343	
Average metered per day (million gallons)	93.75	91.01		92.48	93.84	
Average metered gallons per customer per day	318.35	311.28		314.04	320.98	
Average metered gallons per residential customer per day	119.55	118.33		134.96	137.44	
Finance						
WATER REVENUE						
Revenue per Customer(Residential)	\$ 21.53	\$ 20.97		\$ 271.59	\$ 263.86	
Revenue Per Customer (excluding fire hydrants)	\$ 47.25	\$ 44.72		\$ 523.60	\$ 507.97	
Revenue per Million Gallons Sold (excluding fire hydrants)	\$ 4,947.52	\$ 4,788.57		\$ 4,991.87	\$ 4,738.18	
OTHER HIGHLIGHTS						
Operating Cost per Customer (excluding fire hydrants)	\$ 42.08	\$ 39.84		\$ 448.71	\$ 429.43	
Operating Cost per Million Gallons Sold	\$ 4,406	\$ 4,266		\$ 4,278	\$ 4,006	
Total Products, Services and Partnerships Revenue	\$ 1,232,206	\$ 1,093,054		\$ 12,725,689	\$ 11,255,010	
Total Full Time Employees end of month	450	448		n/a	n/a	
Procurement/Warehouse						
Contracts Awarded	\$ 8,885,407	\$ 4,937,490		\$121,845,273	\$158,297,941	
Total Inventory Value end of month	\$ 5,026,486	\$ 5,987,279		n/a	n/a	
Total Minority Spend (% of adjusted total)*	n/a	n/a		13.99%	8.00%	
Total Women Expenditures (% of adjusted total)*	n/a	n/a		30.56%	7.96%	

* M/WBE Spending report is Q3 YTD



Exhibit 2

Louisville Water Company
Revenues, Expenses & Changes in Net Assets with Budget Comparisons
November 2019

	<i>PTD Actual</i>	<i>PTD Budget</i>	<i>PTD Variance</i>	<i>% PTD Variance</i>	<i>YTD Actual</i>	<i>YTD Budget</i>	<i>YTD Variance</i>	<i>% YTD Variance</i>
Sale of Water								
Residential	\$ 5,424,687	\$ 5,505,935	\$ (81,248)	-1.5%	\$ 68,435,756	\$ 68,934,412	\$ (498,656)	-0.7%
Commercial	4,821,873	4,878,363	(56,489)	-1.2%	49,975,714	50,029,202	(53,488)	-0.1%
Industrial	969,021	1,073,821	(104,800)	-9.8%	11,374,523	11,604,980	(230,457)	-2.0%
Irrigation	1,449,075	1,034,654	414,421	40.1%	11,929,496	11,519,878	409,618	3.6%
Wholesale	477,794	531,827	(54,034)	-10.2%	5,420,213	5,419,021	1,191	0.0%
Public Fire Hydrants	1,234,272	1,230,696	3,576	0.3%	13,546,074	13,518,333	27,741	0.2%
Private Fire Services and Fire Hydrants	322,610	342,645	(20,036)	-5.8%	3,337,684	3,343,467	(5,783)	-0.2%
Metro Government	450,111	378,573	71,538	18.9%	3,722,497	3,742,852	(20,356)	-0.5%
Total Sale of Water	15,149,443	14,976,515	172,928	1.2%	167,741,956	168,112,145	(370,189)	-0.2%
Other Operating Revenue	1,522,583	1,557,082	(34,499)	-2.2%	16,823,019	16,930,861	(107,842)	-0.6%
Total Operating Revenue	16,672,027	16,533,598	138,429	0.8%	184,564,975	185,043,006	(478,031)	-0.3%
Total Operating and Maintenance	6,759,611	6,503,992	255,619	3.9%	74,643,699	75,348,668	(704,970)	-0.9%
Depreciation Expense	3,566,965	3,765,899	(198,934)	-5.3%	38,119,515	38,768,662	(649,147)	-1.7%
Depreciation Transferred	(155,104)	(159,605)	4,501	-2.8%	(1,553,186)	(1,576,064)	22,878	-1.5%
Amortization Expense	131,066	93,754	37,312	39.8%	1,208,791	1,044,946	163,845	15.7%
Water Service in Lieu of Taxes	1,708,087	1,609,269	98,818	6.1%	17,293,925	17,261,185	32,740	0.2%
Loss from Disposition of Property	382,134	222,947	159,187	71.4%	2,429,938	2,459,889	(29,951)	-1.2%
Total Other Operating Expenses	5,633,148	5,532,264	100,884	1.8%	57,498,983	57,958,619	(459,635)	-0.8%
Total Operating Expenses	12,392,759	12,036,257	356,503	3.0%	132,142,682	133,307,287	(1,164,605)	-0.9%
Net Operating Revenue	4,279,267	4,497,341	(218,074)	-4.8%	52,422,293	51,735,719	686,574	1.3%
Non-Operating Income								
Interest Income	214,117	117,125	96,992	82.8%	1,213,987	1,241,112	(27,124)	-2.2%
Non-Operating Expense								
Interest Expense	815,223	611,711	203,512	33.3%	6,169,322	6,250,512	(81,190)	-1.3%
Net Income Before Distributions & Contributions	3,678,162	4,002,755	(324,593)	-8.1%	47,466,959	46,726,319	740,640	1.6%
Dividends Paid & Payable	1,606,235	1,606,235	0	0.0%	17,668,585	17,668,585	0	0.0%
Contributions in Aid of Construction	560,160	666,006	(105,845)	-15.9%	11,563,467	6,916,727	4,646,741	67.2%
Increase in Net Assets	\$ 2,632,087	\$ 3,062,526	\$ (430,439)	-14.1%	\$ 41,361,841	\$ 35,974,461	\$ 5,387,380	15.0%
Water Sold (M.G)								
Residential	903.8	897.8	6.0	0.7%	11,358.4	11,359.1	(0.7)	0.0%
Commercial	1,045.6	1,047.7	(2.1)	-0.2%	10,892.9	10,781.8	111.1	1.0%
Industrial	284.1	333.3	(49.3)	-14.8%	3,431.4	3,610.2	(178.8)	-5.0%
Irrigation	261.3	166.0	95.3	57.4%	1,983.2	1,815.1	168.1	9.3%
Wholesale	196.9	219.5	(22.6)	-10.3%	2,267.9	2,270.4	(2.5)	-0.1%
Private Fire Service & Fire Hydrant	3.7	3.8	(0.1)	-1.5%	47.6	42.0	5.7	13.5%
Metro Government	117.2	101.2	16.0	15.9%	908.0	1,030.6	(122.5)	-11.9%
Total Sale of Water (M.G)	2,812.6	2,769.2	43.3	1.6%	30,889.4	30,909.1	(19.7)	-0.1%
LWC Usage	14.9	0.0	14.9	N/A	173.0	0.0	173.0	N/A



Louisville Water Company **Revenues, Expenses & Changes in Net Assets with Prior Year Comparisons** **November 2019**

	<i>PTD Actual</i>	<i>PTD Prior Year</i>	<i>PTD Variance</i>	<i>% PTD Variance</i>	<i>YTD Actual</i>	<i>YTD Prior Year</i>	<i>YTD Variance</i>	<i>% YTD Variance</i>
Sale of Water								
Residential	\$ 5,424,687	\$ 5,243,861	\$ 180,826	3.4%	\$ 68,435,756	\$ 65,977,818	\$ 2,457,938	3.7%
Commercial	4,821,873	4,829,590	(7,716)	-0.2%	49,975,714	48,370,090	1,605,624	3.3%
Industrial	969,021	1,028,551	(59,529)	-5.8%	11,374,523	11,534,850	(160,326)	-1.4%
Irrigation	1,449,075	831,299	617,776	74.3%	11,929,496	10,206,656	1,722,840	16.9%
Wholesale	477,794	417,703	60,091	14.4%	5,420,213	5,380,624	39,589	0.7%
Public Fire Hydrants	1,234,272	1,180,404	53,869	4.6%	13,546,074	12,962,030	584,045	4.5%
Private Fire Services and Fire Hydrants	322,610	331,589	(8,980)	-2.7%	3,337,684	3,201,143	136,541	4.3%
Metro Government	450,111	391,280	58,830	15.0%	3,722,497	3,838,508	(116,012)	-3.0%
Total Sale of Water	15,149,443	14,254,276	895,168	6.3%	167,741,956	161,471,718	6,270,239	3.9%
Other Operating Revenue	1,522,583	1,436,626	85,957	6.0%	16,823,019	15,562,845	1,260,174	8.1%
Total Operating Revenue	16,672,027	15,690,902	981,125	6.3%	184,564,975	177,034,563	7,530,412	4.3%
Total Operating and Maintenance	6,759,611	6,617,983	141,628	2.1%	74,643,699	71,117,510	3,526,189	5.0%
Depreciation Expense	3,566,965	3,388,532	178,433	5.3%	38,119,515	36,278,014	1,841,501	5.1%
Depreciation Transferred	(155,104)	(130,782)	(24,322)	18.6%	(1,553,186)	(1,265,120)	(288,066)	22.8%
Amortization Expense	131,066	61,144	69,923	114.4%	1,208,791	668,901	539,890	80.7%
Water Service in Lieu of Taxes	1,708,087	1,571,684	136,403	8.7%	17,293,925	16,810,311	483,613	2.9%
Loss from Disposition of Property	382,134	139,603	242,531	173.7%	2,429,938	1,938,085	491,853	25.4%
Total Other Operating Expenses	5,633,148	5,030,180	602,968	12.0%	57,498,983	54,430,192	3,068,791	5.6%
Total Operating Expenses	12,392,759	11,648,163	744,596	6.4%	132,142,682	125,547,702	6,594,980	5.3%
Net Operating Revenue	4,279,267	4,042,739	236,528	5.9%	52,422,293	51,486,861	935,432	1.8%
Non-Operating Income								
Interest Income	214,117	137,239	76,878	56.0%	1,213,987	1,675,363	(461,376)	-27.5%
Non-Operating Expense								
Interest Expense	815,223	472,216	343,006	72.6%	6,169,322	6,071,928	97,394	1.6%
Net Income Before Distributions & Contributions	3,678,162	3,707,762	(29,600)	-0.8%	47,466,959	47,090,296	376,662	0.8%
Dividends Paid & Payable	1,606,235	1,787,811	(181,576)	-10.2%	17,668,585	19,665,922	(1,997,337)	-10.2%
Contributions in Aid of Construction	560,160	427,980	132,180	30.9%	11,563,467	9,253,693	2,309,775	25.0%
Increase in Net Assets	\$ 2,632,087	\$ 2,347,931	\$ 284,156	12.1%	\$ 41,361,841	\$ 36,678,067	\$ 4,683,774	12.8%
Water Sold (M.G)								
Residential	903.8	887.7	16.1	1.8%	11,358.4	11,478.2	(119.8)	-1.0%
Commercial	1,045.6	1,096.3	(50.7)	-4.6%	10,892.9	11,110.6	(217.7)	-2.0%
Industrial	284.1	328.0	(43.9)	-13.4%	3,431.4	3,677.4	(246.0)	-6.7%
Irrigation	261.3	134.4	126.9	94.4%	1,983.2	1,706.6	276.6	16.2%
Wholesale	196.9	176.3	20.5	11.6%	2,267.9	2,313.0	(45.1)	-2.0%
Private Fire Service & Fire Hydrant	3.7	4.9	(1.2)	-23.8%	47.6	50.8	(3.2)	-6.3%
Metro Government	117.2	102.7	14.6	14.2%	908.0	1,006.6	(98.5)	-9.8%
Total Sale of Water (M.G)	2,812.6	2,730.2	82.3	3.0%	30,889.4	31,343.2	(453.8)	-1.4%
LWC Usage	14.9	20.5	(5.5)	-27.1%	173.0	232.0	(59.0)	-25.4%



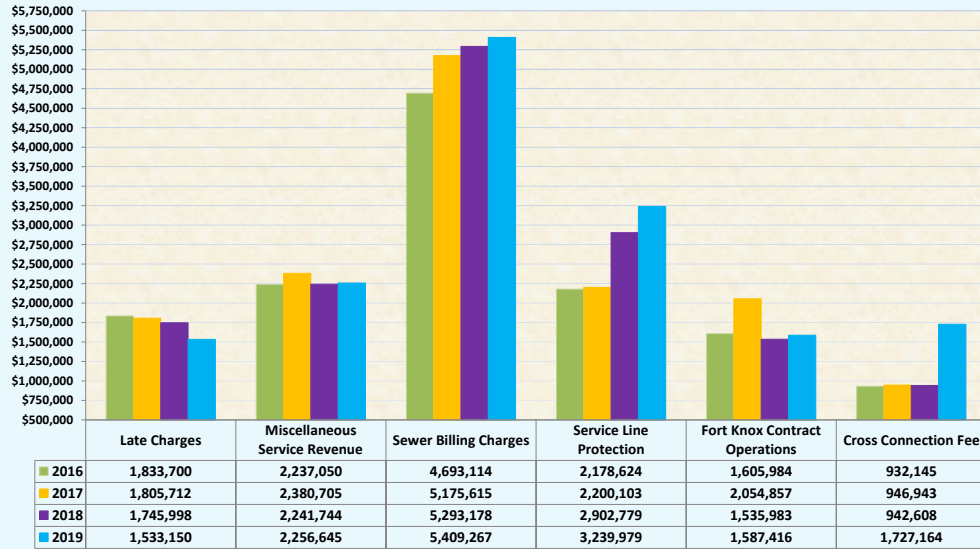
Exhibit 3

Louisville Water Company

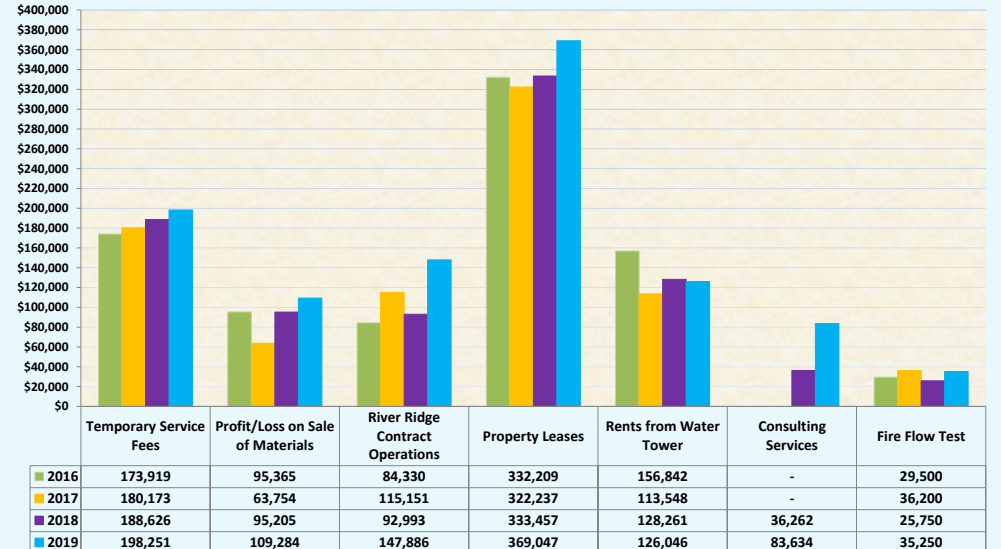
Other Operating Revenue

November 2019 YTD

Other Operating Revenue Larger Accounts



Other Operating Revenue Smaller Accounts



Prior Year Comparisons

Other Operating Revenue	November 2019	November 2018	\$ Variance	YTD November 2019	YTD November 2018	\$ Variance
Late Charges	\$159,149	\$174,070	(\$14,920)	\$1,533,150	\$1,745,998	(\$212,848)
Miscellaneous Service Revenue	108,980	158,005	(49,025)	2,256,645	2,241,744	14,901
Sewer Billing Charges	491,555	480,261	11,293	5,409,267	5,293,178	116,089
Service Line Protection	305,344	305,089	255	3,239,979	2,902,779	337,199
Fort Knox Contract Operations	141,976	151,163	(9,187)	1,587,416	1,535,983	51,433
Cross Connection Fee	181,471	100,242	81,230	1,727,164	942,608	784,556
Temporary Service Fees	4,835	5,514	(680)	198,251	188,626	9,625
Profit/Loss on sale of Materials	17,413	5,983	11,429	109,284	95,205	14,079
River Ridge Contract Operations	65,886	8,200	57,686	147,886	92,993	54,892
Property Leases	34,152	24,170	9,983	369,047	333,457	35,590
Rents from Water Tower	9,322	22,929	(13,607)	126,046	128,261	(2,216)
Consulting Services	0	0	0	83,634	36,262	47,372
Fire Flow Test	2,500	1,000	1,500	35,250	25,750	9,500
Total Other Operating Revenue	\$1,522,583	\$1,436,626	\$85,957	\$16,823,019	\$15,562,845	\$1,260,174
	NOV-2019	NOV-2018		NOV-2019	NOV-2018	
Misc. Svc Revenue Detail						
NSF Check Fee	\$14,280	\$19,350	(\$5,070)	\$202,290	\$211,560	(\$9,270)
Non Pay/Disconnect Fee	10,245	55,345	(45,100)	1,008,025	976,709	31,316
Service Activation Fee	84,000	82,930	1,070	1,040,280	1,048,480	(8,200)
Other	455	380	75	6,050	4,995	1,055
Total	\$108,980	\$158,005	(\$49,025)	\$2,256,645	\$2,241,744	\$14,901

Budget Comparisons

Other Operating Revenue	Actual November 2019	Budget November 2019	\$ Variance	Actual YTD November 2019	Budget YTD November 2019	\$ Variance
Late Charges	\$159,149	\$157,354	\$1,796	\$1,533,150	\$1,721,182	(\$188,032)
Miscellaneous Service Revenue	108,980	189,499	(80,519)	2,256,645	2,354,322	(97,677)
Sewer Billing Charges	491,555	495,542	(3,987)	5,409,267	5,444,109	(34,842)
Service Line Protection	305,344	323,026	(17,681)	3,239,979	3,264,729	(24,751)
Fort Knox Contract Operations	141,976	133,547	8,429	1,587,416	1,469,013	118,403
Cross Connection Fee	181,471	196,769	(15,297)	1,727,164	1,780,268	(53,103)
Temporary Service Fees	4,835	5,079	(244)	198,251	180,916	17,335
Profit/Loss on sale of Materials	17,413	2,927	14,485	109,284	74,185	35,099
River Ridge Contract Operations	65,886	8,200	57,686	147,886	90,200	57,686
Property Leases	34,152	26,990	7,163	369,047	331,389	37,658
Rents from Water Tower	9,322	9,481	(159)	126,046	117,753	8,292
Consulting Services	0	6,250	(6,250)	83,634	68,750	14,884
Fire Flow Test	2,500	2,420	80	35,250	34,046	1,205
Total Other Operating Revenue	\$1,522,583	\$1,557,082	(\$34,499)	\$16,823,019	\$16,930,861	(\$107,842)

Exhibit 4



Statement of Net Assets
Louisville Water Company
November 30, 2019

	NOV-2019	NOV-2018	NOV-2019 vs NOV-2018	DEC-2018	NOV-2019 vs DEC-2018
Assets					
Current Assets					
Cash	\$ 45,841,485	\$ 12,887,042	\$ 32,954,443	\$ 15,096,655	\$ 30,744,830
Short-term liquid investments	-	58,212,859	(58,212,859)	52,880,293	(52,880,293)
Cash and short-term liquid investments	45,841,485	71,099,901	(25,258,416)	67,976,948	(22,135,463)
Accounts receivable, net	13,477,958	13,156,650	321,308	12,533,216	944,742
Contracts receivable, current portion	553,553	525,772	27,781	529,087	24,466
Materials and supplies	5,867,609	7,036,913	(1,169,304)	6,800,448	(932,839)
Restricted, expendable bond service accounts	88,794,375	204,826	88,589,549	2,916,543	85,877,832
Other current assets	3,210,799	2,684,657	526,142	4,342,778	(1,131,979)
Accrued Interest Receivable	111,773	615,951	(504,178)	781,230	(669,457)
Total Current Assets	157,857,552	95,324,670	62,532,882	95,880,250	61,977,302
Utility Plant, net of accumulated depreciation	1,249,352,328	1,202,965,144	46,387,184	1,212,780,234	36,572,094
Noncurrent Assets					
Investments	-	-	-	-	-
Restricted reserves	39,309,099	33,534,662	5,774,437	29,979,594	9,329,505
Non-utility property	2,359,134	2,443,297	(84,163)	2,436,284	(77,150)
Unamortized bond issuance costs	1,644,069	1,540,089	103,980	1,519,694	124,375
Contracts receivable	588,441	674,330	(85,889)	692,924	(104,483)
Preliminary engineering charges	358,357	252,901	105,456	279,507	78,850
Prepaid regulatory assets	1,814,145	1,445,781	368,364	2,501,828	(687,683)
Total Noncurrent Assets	46,073,245	39,891,060	6,182,185	37,409,831	8,663,414
Total Assets	1,453,283,125	1,338,180,874	115,102,251	1,346,070,315	107,212,810
Deferred Outflow of Resources					
Deferred outflow - pension	14,413,312	18,197,360	(3,784,048)	14,413,312	-
Deferred outflow - OPEB	5,890,261	-	5,890,261	5,890,261	-
Loss on refunding of debt	515,669	4,274,732	(3,759,063)	4,209,928	(3,694,259)
Total Deferred Outflow of Resources	20,819,242	22,472,092	(1,652,850)	24,513,501	(3,694,259)
Total Assets and Deferred Outflow of Resources	\$ 1,474,102,367	\$ 1,360,652,966	\$ 113,449,401	\$ 1,370,583,816	\$ 103,518,551

Exhibit 4 (Continued)



Statement of Net Assets
Louisville Water Company
November 30, 2019

	NOV-2019	NOV-2018	NOV-2019 vs NOV-2018	DEC-2018	NOV-2019 vs DEC-2018
Liabilities and Net Position					
Current Liabilities					
Accounts payable	\$ 9,952,305	\$ 10,845,586	\$ (893,281)	\$ 13,259,220	\$ (3,306,915)
Sewer collections (contra)	3,481,419	2,023,800	1,457,619	2,089,684	1,391,735
Customer deposits and advances	6,627,004	7,262,309	(635,305)	7,321,683	(694,679)
Tax collections payable	537,536	507,764	29,772	498,010	39,526
Accrued interest payable	847,803	452,949	394,854	1,361,064	(513,261)
Contracts payable, retainage percentage	2,214,199	2,905,930	(691,731)	2,852,714	(638,515)
Accrued payroll	418,269	406,808	11,461	496,995	(78,726)
Accrued vacation and sick leave	1,428,364	1,810,856	(382,492)	1,428,364	-
Insurance reserve	2,464,445	1,389,485	1,074,960	1,612,744	851,701
Bonds and notes payable, current portion	15,761,539	18,780,632	(3,019,093)	18,780,632	(3,019,093)
Total Current Liabilities	43,732,883	46,386,119	(2,653,236)	49,701,110	(5,968,227)
Long-Term Liabilities					
Customer advances for construction	302,900	302,900	-	302,900	-
Net pension liability	77,085,962	72,516,743	4,569,219	77,085,962	-
Net OPEB liability	22,471,844	-	22,471,844	22,471,844	-
Unamortized debt premium and discount	29,815,431	14,004,587	15,810,844	13,804,499	16,010,932
Bonds and notes payable, less current portion	302,799,702	250,685,699	52,114,003	250,685,699	52,114,003
Total Long-Term Liabilities	432,475,839	337,509,929	94,965,910	364,350,904	68,124,935
Total Liabilities	476,208,722	383,896,048	92,312,674	414,052,014	62,156,708
Deferred Inflow of Resources					
Deferred inflow - pension	2,453,269	3,218,422	(765,153)	2,453,269	-
Deferred inflow - OPEB	4,265,429	-	4,265,429	4,265,429	-
Total Deferred Inflow of Resources	6,718,698	3,218,422	3,500,276	6,718,698	-
Total Liabilities and Deferred Inflow of Resources	482,927,420	387,114,470	95,812,950	420,770,712	62,156,708
Net Position					
Net investment in capital assets	900,921,195	922,403,115	(21,481,920)	926,336,366	(25,415,171)
Unrestricted	(37,849,722)	17,395,892	(55,245,614)	(9,419,399)	(28,430,323)
Restricted, expendable - debt service	128,103,474	33,739,489	94,363,985	32,896,137	95,207,337
Total Net Position	991,174,947	973,538,496	17,636,451	949,813,104	41,361,843
Total Liabilities and Net Position	\$ 1,474,102,367	\$ 1,360,652,966	\$ 113,449,401	\$ 1,370,583,816	\$ 103,518,551



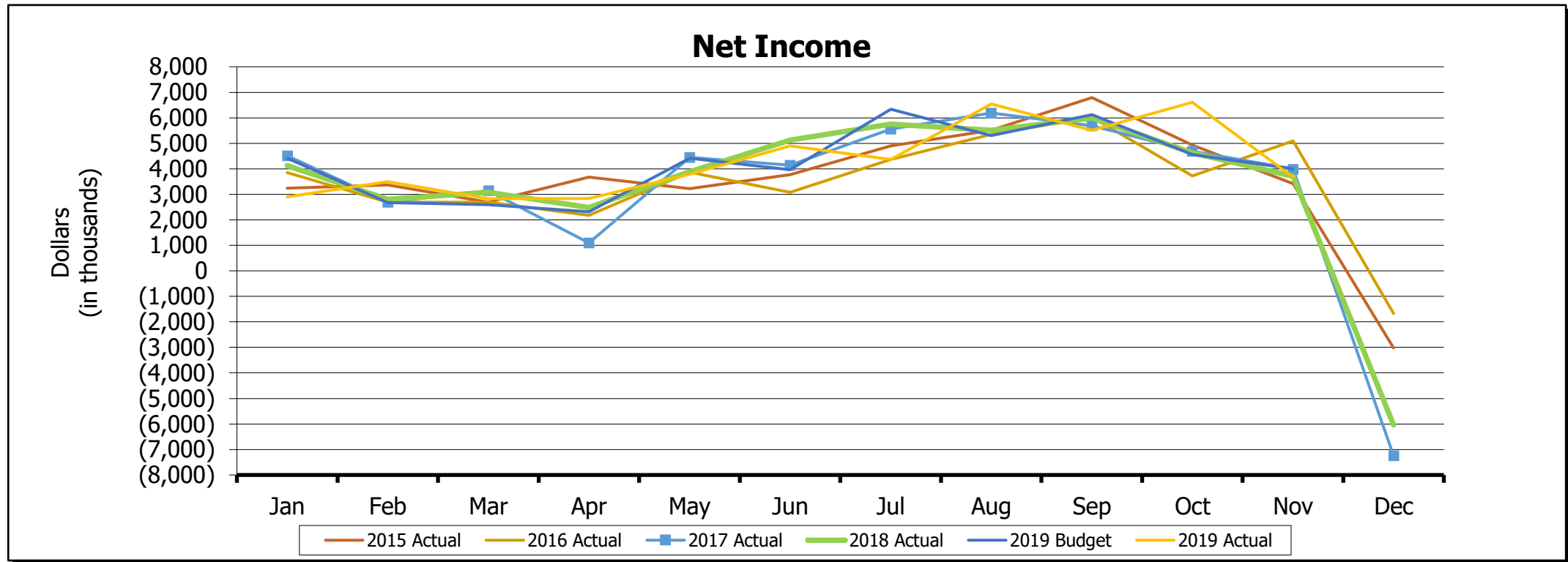
Statement of Cash Flows
Louisville Water Company
November 30, 2019

	NOV-2019	NOV-2018
Cash Flows from Operating Activities		
Cash received from customers	\$ 167,023,367	\$ 160,667,675
Cash paid to suppliers and others	(44,528,445)	(43,554,019)
Cash paid to employees for services	(28,303,981)	(28,525,742)
Net Cash Provided By Operating Activities	<u>94,190,941</u>	<u>88,587,914</u>
Cash Flows from Noncapital Financing Activities		
Dividends paid to stockholder	(17,668,585)	(19,665,922)
Cash Flows from Capital and Related Financing Activities		
Acquisition and construction of utility plant	(77,213,140)	(88,778,455)
Non-utility property (addition)	(1,040,050)	(500,160)
Proceeds from 2019 series bonds	155,540,000	-
Contributions in aid of construction	11,004,969	10,100,460
Customer advances for construction	-	(158,614)
Preliminary engineering charges	(78,850)	105,540
Principal paid	(106,445,090)	(19,528,844)
Interest paid	12,898,235	(8,353,583)
Net Cash (Used In) Provided By Capital and Related Financing Activities	<u>(5,333,926)</u>	<u>(107,113,656)</u>
Cash Flows from Investing Activities		
Investment - purchases	(22,714,550)	(7,957,399)
Investment - maturities	75,594,843	49,390,557
Restricted cash reserves	(9,329,505)	(4,046,493)
Restricted funds	(85,877,832)	2,518,912
Interest received	1,883,444	1,792,774
Net Cash Provided by (Used In) Investing Activities	<u>(40,443,600)</u>	<u>41,698,351</u>
Net Change in Cash and Temporary Investments	30,744,830	3,506,687
Cash, beginning of year	<u>\$ 15,096,655</u>	<u>\$ 9,380,355</u>
Cash, end of period	<u><u>\$ 45,841,485</u></u>	<u><u>\$ 12,887,042</u></u>

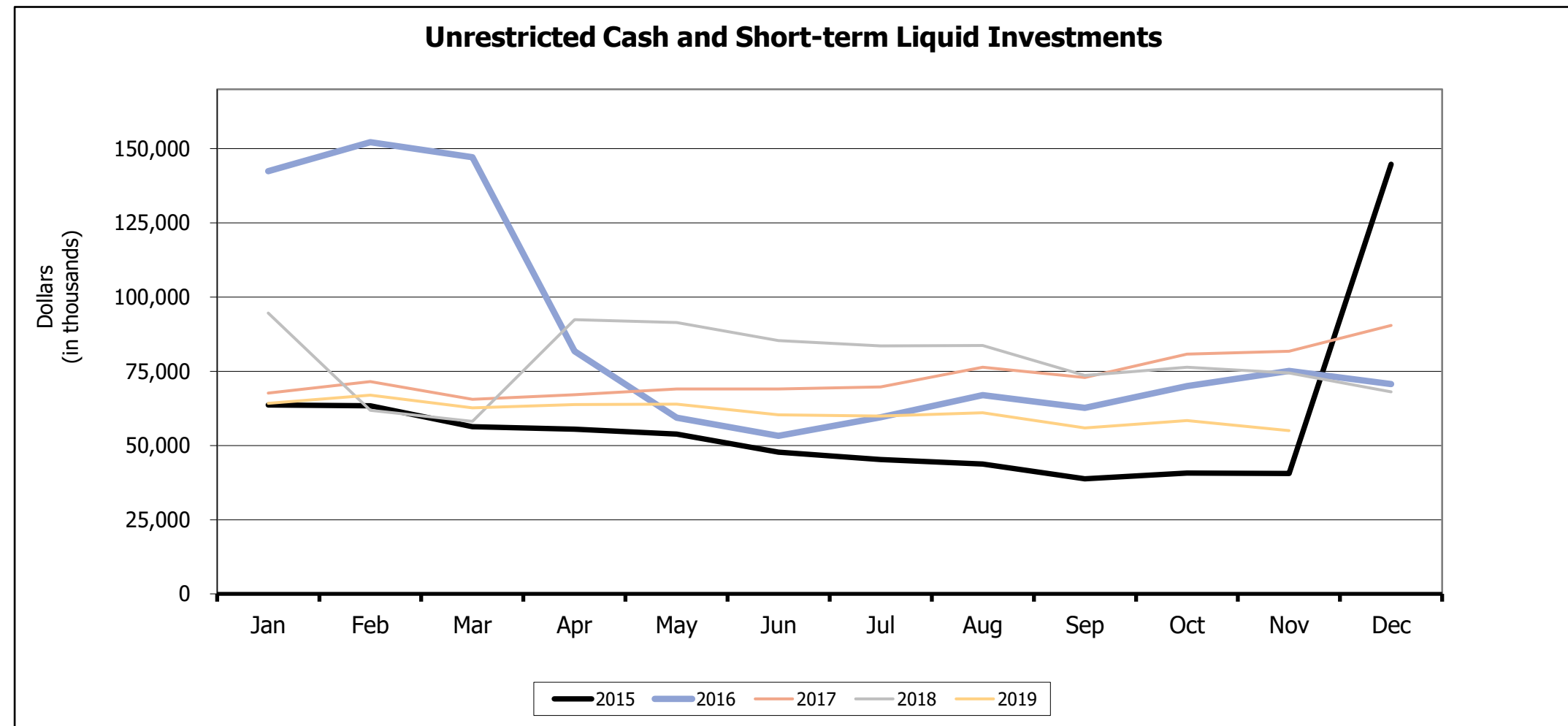


Statement of Cash Flows
Louisville Water Company
November 30, 2019

	NOV-2019	NOV-2018
Reconciliation of Net Operating Revenue to Net Cash Provided By Operating Activities		
Net operating revenue	\$ 52,422,296	\$ 51,486,865
Adjustments to reconcile net operating revenue to net cash provided by operating activities		
Depreciation	38,119,515	36,278,014
Amortization	1,208,791	668,901
Loss from sale and salvage of retired utility plant assets	2,429,938	1,938,085
(Increase) decrease in cash due to changes in current assets and liabilities		
Accounts receivable	(944,742)	(379,696)
Materials and supplies	932,839	(17,906)
Other current assets	1,131,979	672,058
Other deferred charges	687,683	508,318
Accounts payable	(3,306,915)	(3,049,433)
Accounts payable, sewer collections	1,391,735	434,213
Customer deposits	(694,679)	388,903
Tax collections payable	39,526	36,563
Accrued payroll	(78,726)	(10,171)
Insurance reserve	851,701	(366,800)
Net Cash Provided By Operating Activities	\$ 94,190,941	\$ 88,587,914



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015 Actual	3,243.1	3,367.2	2,691.3	3,671.3	3,227.1	3,769.1	4,894.6	5,505.1	6,791.5	4,935.3	3,410.0	(3,017.4)
2016 Actual	3,855.1	2,684.9	2,698.6	2,178.6	3,872.0	3,075.0	4,369.4	5,349.8	6,022.5	3,723.6	5,094.4	(1,668.9)
2017 Actual	4,515.7	2,690.5	3,149.0	1,096.8	4,449.9	4,141.4	5,554.7	6,189.0	5,688.0	4,683.3	3,989.5	(7,242.0)
2018 Actual	4,125.0	2,807.6	3,075.4	2,486.6	3,889.6	5,118.1	5,759.0	5,508.6	5,991.6	4,621.1	3,707.8	(6,038.3)
2019 Budget	4,421.0	2,673.5	2,597.6	2,316.2	4,410.9	3,970.9	6,335.5	5,308.2	6,121.6	4,568.1	4,002.8	
2019 Actual	2,904.0	3,504.5	2,828.2	2,842.3	3,786.5	4,894.4	4,368.2	6,543.4	5,509.7	6,607.7	3,678.2	



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	63,607	63,312	56,292	55,432	53,784	47,712	45,198	43,794	38,762	40,629	40,599	144,723
2016	142,418	152,168	147,036	81,781	59,388	53,235	59,552	66,977	62,602	69,991	75,109	70,699
2017	67,595	71,535	65,537	67,096	69,039	69,077	69,705	76,334	72,843	80,830	81,799	90,434
2018	94,604	61,899	58,109	92,409	91,450	85,308	83,563	83,657	73,613	76,403	74,358	68,001
2019	64,251	66,944	62,632	63,768	63,937	60,291	59,941	61,028	55,886	58,437	54,993	
250 Days Operations and Maintenance	53,697	53,472	53,431	53,475	53,263	53,218	53,855	54,173	55,244	55,919	55,963	

December 17, 2019

Board of Water Works
Louisville, Kentucky 40202



Re: Communications & Marketing Report

Dear Directors:

Community Outreach

Louisville Water employees, educators and community partners reached thousands of customers this year with a message of healthy, great-tasting, affordable drinking water. The community outreach initiative compliments our programming in schools and at the WaterWorks Museum.

We deliver the message in a diverse format. For example, young scientists, working from home this summer, were challenged to do “Science in the Sink” and share experiment results on-line; a “Living Green Wall” planted at the Southwick Community Center in the Park Duvalle neighborhood combats air pollution and we provide education on-site for volunteers; health fairs at large employers including UPS and Louisville Metro focus on hydration and handwashing; and, public libraries in Jefferson and Bullitt Counties include summer reading programs with Louisville Water. Often, we strategically choose the locations for programming to coincide with an existing Louisville Water engineering project. In 2019, the communication staff coordinated over 200 community outreach efforts.

In addition, we create community partnerships for outreach. The Louisville Zoo, Bernheim Forrest, Catholic Charities, Frazier History Museum, Girl Scouts of Kentuckianna, the Louisville Visual Arts Association and the Blackacre State Nature Preserve all deliver Louisville Water programming at their facilities.



Examples of community outreach include: Ask a Scientist at a local library, health fairs at Louisville International Airport and the KFC Yum! Center and the Park DuValle Center.

Content Marketing

Social media is an important part of our content marketing strategy and often college students and young professionals provide the best endorsement for the quality of Louisville’s drinking water. Over the Thanksgiving holiday, a tweet by a local fan went viral, thanks to the popularity of a hometown rapper (and our water).

Jack Harlow grew up in Louisville and now at 21, he has a recording contract, his own independent record label and couldn't be prouder of his hometown – and that includes the water. In advance of a Louisville performance during the Thanksgiving holiday, Harlow was interviewed on a national podcast and didn't hold back on bragging about Louisville's drinking water. "Louisville tap's as good as it gets," proclaimed Harlow. "We've got the number one water in the U.S."

Harlow's endorsement was picked up by a Louisville twitter fan who posted the clip and then watched it go viral with over 90,000 impressions. Our communication team followed up with a story and additional social media. Opportunities like these create a national platform to talk about the value of Louisville's water.

Respectfully submitted,

A handwritten signature in cursive script that reads "Kelley Dearing Smith".

Kelley Dearing Smith
Vice President, Communications & Marketing



December 17, 2019

Board of Water Works
Louisville, Kentucky

Re: Customer Service Report for November 2019

Dear Directors:

Customer Service Operations – Call Center operations received 22,121 calls in November with an abandonment rate of 0.4%. The monthly call volume was the lowest in the last five years driven by the implementation of the new IVR and lower field disconnect activity. The Average Speed to Answer for the month was 15 seconds which is also the lowest in recent history. Last year the Average Speed of Answer was 3:46 m:s and the five-year average was eight minutes. The Monday after the Thanksgiving holiday was one of the busiest days of the year and the entire staff worked from 8:00 am to 6:00 pm to manage the call volume. Staffing levels remain stable and we have still not experienced any turnover from the last recruitment class. The front lobby handled 8,553 transactions for the month (6,057 cash and 2,496 check).

Distribution Operations - The main break activity for the month of November was typical of past periods. For the month we experienced 67 main breaks versus 75 last year and 69 for the five-year average. Year to date our break activity (570) is running significantly lower than last year (643) and slightly higher than the five-year average (549). Winter planning activities continued in November, and all preparations are on schedule for the upcoming months. The priority backlogs are also in good shape as we enter the cold weather season. Hiring for eight general laborers and one supervisor continued in November and is expected to conclude in December, with anticipated start dates in January.

Metering and Billing – The volume of non-payment turn-offs was significantly down in November due primarily to shifting to a new mobile workforce management system. This implementation went extremely well and was completed in less than 25% of the average industry time. All Metering field personnel are now using the Kloudgin system which was deployed to plant personnel in October 2018. Staff worked through design issues with composite lids and a software upgrade to our meter reading software is underway. Both activities are needed as part of the AMI implementation efforts.

Respectfully submitted,

David A. Vogel
Executive Vice President

OPERATIONS PERFORMANCE MEASURES - NOVEMBER 2019

Exhibit 1

	November 2019	November 2018	November 5-YR Avg	YTD 2019	YTD 2018	YTD 5-YR Avg
METERING AND BILLING SERVICES						
Non-Payment Turn Off Orders Worked ¹	279	1,283	1,875	22,767	21,710	21,238
Non-Payment Turn On Orders Worked ²	300	679	1,074	15,846	13,770	13,414
Number of Service Order Work Units Accomplished	8,854	10,251	11,012	131,073	130,100	126,131
Backlog Service Orders	5,088	3,388	4,238	42,087	35,917	33,527
Metered Water Ratio ³	77.24%	77.83%	78.84%	77.74%	77.36%	79.98%
Non-Revenue Water ³ (000 Gallons)	818,856	806,422	759,368	8,690,070	9,095,481	8,282,464
Percent of Estimated Bills	0.88%	2.30%	1.62%	1.38%	2.89%	14.80%
Percent of Accurate Bills	99.95%	99.93%	99.86%	99.94%	99.94%	99.86%
CUSTOMER SERVICE						
Number of Calls Received	22,121	31,046	36,326	335,057	357,751	407,076
Number of Calls Abandoned	105	2,905	8,946	42,148	37,556	89,380
Abandonment Rate	0.4%	9.4%	19.5%	12.6%	10.5%	19.5%
ASA	0:15	3:46	8:17	5:08	4:12	7:02
Number of Credit/Debit Card Transactions	38,072	36,773	34,104	410,553	382,287	348,816
Bad Debt Total (\$000) ⁴	168	177	161	1,416	1,914	1,588
Total Water Sales (\$000)	15,149	14,254	14,338	167,741	161,472	156,395
Bad Debt % of Revenue	1.11%	1.24%	1.12%	0.84%	1.19%	1.02%

Notes:

1. Non-payment turn-off orders were not being actively worked prior to October after go-live.

2. Non-payment turn-ons (YTD) are reflective of the minimal turn-offs worked.

3. Rolling 12 month average.

4. May be revised to account for an increase in the bad debt provision.

Distribution Operations Performance Measures - November 2019

DISTRIBUTION OPERATIONS	November 2019		November 2018		November 5-YR Avg ¹		YTD 2019		YTD 2018		YTD 5-YR Avg ¹	
	Days to Comp.	Open Tick.	Days to Comp.	Open Tick.	Days to Comp.	Open Tick.	Days to Comp.	Open Tick.	Days to Comp.	Open Tick.	Days to Comp.	Open Tick.
Number of Work Units Accomplished ^{2&4}	1,913		1,753		1,763		18,420		21,271		21,631	
Backlog Work Orders ³ Total	2,310		2,065		1,944		2,243		2,038		1,887	
Priority 1 - Main Breaks/Out of Water/Fire HYdrant Emergencies. (<= 2 days)	0.63	4	0.82	6	1.07	6	0.99	6	0.97	6	1.19	6
Priority 2 - Main and Distribution Valve Leaks/Concrete and Paving/Backfill (<= 3 weeks)	8.97	90	8.38	107	11.62	116	9.27	94	14.63	171	12.75	135
Priority 3 - Restoration (<= 6 weeks)	16.04	28	10.25	56	11.08	40	20.59	41	29.84	101	18.88	51
Priority 4 - Low priority and other miscellaneous maintenance.	2,188		1,896		1,782		2,103		1,759		1,721	
Number of Main Breaks Repaired	67		75		69		570		643		549	
Number of Leaks on Main Repaired	3		7		5		58		93		82	
Valves Exercised	485		500		397		4503		5912		5026	
Fire Hydrant Availability	99.94%		99.92%		99.93%		99.93%		99.91%		99.92%	

Notes:

1 Five year average includes current year.

2 Work Units include all repair work performed from a work order and valves exercised in Managing Distribution Operations

3 For Priority Backlog tickets priority 1, 2 & 3 in the table above, the first value is the number of days it takes to close the tickets. The second value is the number of open tickets for that item.

4 As of mid-March 2015 ECIS is no longer in service. This will drastically reduce the amount of units completed in our reporting for work units accomplished.

December 17, 2019

Board of Water Works
Louisville, Kentucky



Re: Engineering and Operations Report for November 2019

Dear Directors:

November Capital Program Results

Exhibit 1 (attached) provides information for the 2019 capital program. Expenditures through November totaled \$78,051,101 which is \$12,415,846 or 13.72% lower than the same period last year. These expenditures equate to 71.62% of the 2019 total capital program of \$108,979,178.

Production

The amount of water produced and delivered to the system in November 2019 was 110.9 MGD, which was 6.3% higher than November 2018 and 2.5% higher than the November five-year average, as shown in Exhibit 2. For year-to-date, the amount of water delivered to the system was 0.6% lower than 2018, and 0.5% higher than the five-year average.

Water Quality

All water quality goals were achieved for November 2019. There were zero water quality violations.

There were four chemical spills reported upstream of the Zorn intake; none that prompted additional treatment. Staff monitored 1,133 water quality parameters of a required 973 per federal and state regulatory requirements. Staff collected 280 compliance distribution samples. There were zero Total Coliform and zero E-Coli detections. Staff also collected 126 main break samples on 63 repairs in the month, of which seven localized boil water advisories were issued due to field conditions and one was issued due to water quality monitoring results. There were a total of three water quality customer complaints, in comparison to the 5-year average of eight complaints.

Respectfully Submitted,

Timothy Kraus, PE
Vice President of Production Operations and Chief Engineer

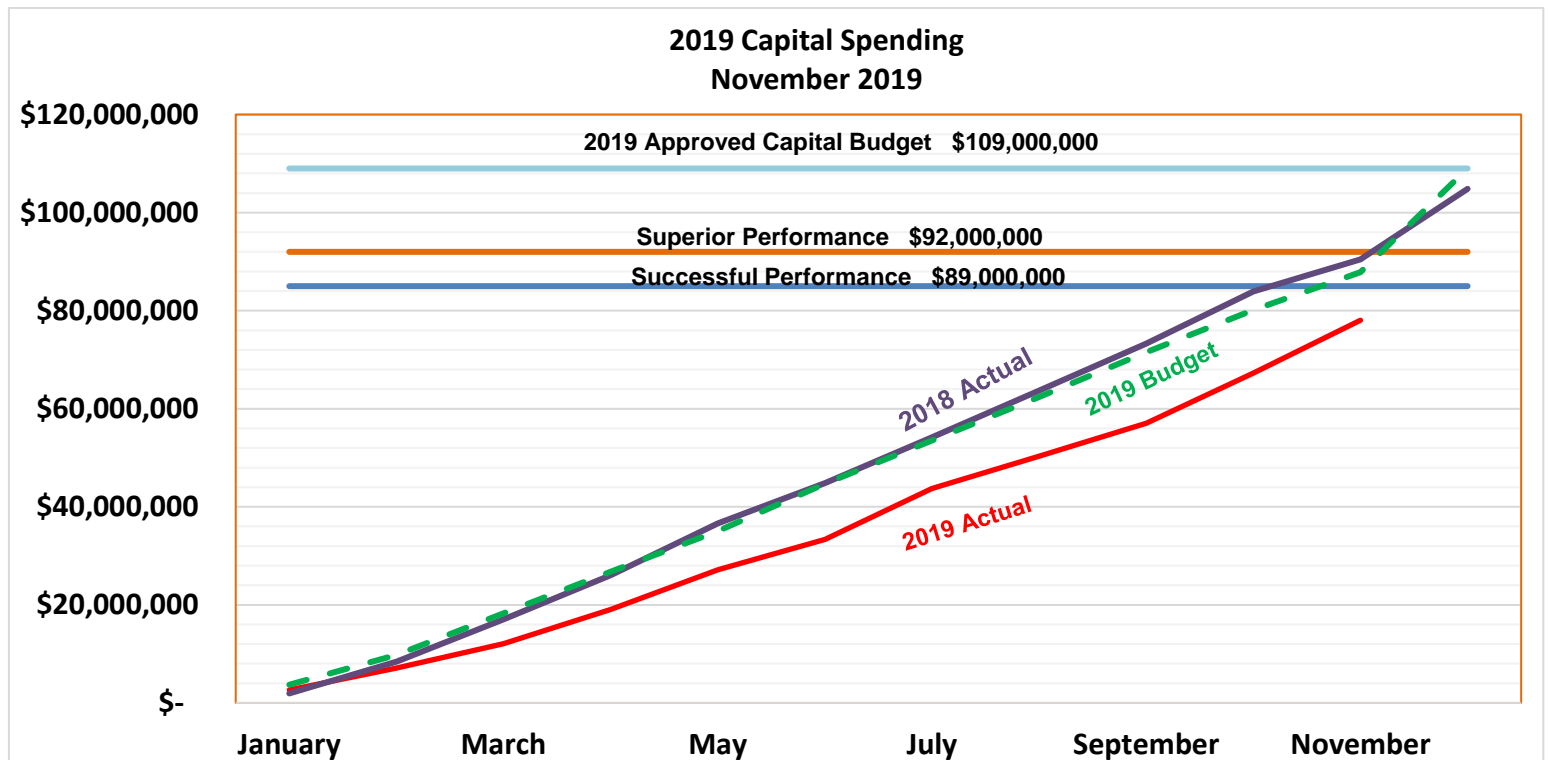
Attachments

**Exhibit 1
Total Capital Program
November 2019 YTD**

	2015	2016	2017	2018	2019
Capital Plan approved by BOWW ¹	\$ 89,613,445	\$ 91,599,884	\$ 99,140,436	\$ 102,314,141	\$ 105,404,440
Carryover / Addtl Funds Needed ¹	5,149,837	4,967,464	8,548,443	8,641,632	3,574,738
Total Capital Program ¹	\$ 94,763,282	\$ 96,567,348	\$ 107,688,879	\$ 110,955,773	\$ 108,979,178

	2015 YTD	2016 YTD	2017 YTD	2018 YTD	2019 YTD
Total Expenditures to date ³	\$ 70,379,706	\$ 55,721,220	\$ 62,855,741	\$ 90,466,947	\$ 78,051,101
% Total Expenditures to Total Program	74.27%	57.70%	58.37%	81.53%	71.62%
Total Year Estimate of Capital Program ²	\$ 85,191,708	\$ 75,857,497	\$ 87,943,200	\$ 108,191,263	\$ 106,360,839
% Total Expend. to Total Year Estimate	82.61%	73.46%	71.47%	83.62%	73.38%
% Revised to Original Program	89.90%	78.55%	81.66%	97.51%	97.60%

Type of Change for Revised Program:	YTD 5-YR Avg	2018 YTD	2019 YTD
Non-budgeted	5,418,316	4,181,023	10,898,385
Cancelled	(1,410,572)	(454,301)	-2,835,240
Deferred	(29,101,664)	(26,451,765)	-32,068,297
Advanced	6,002,649	13,145,128	10,757,942
Change Actions	5,069,979	325,794	5,994,185
Other ⁴	3,169,090	6,489,611	4,634,686
Change from Original Plan	(9,686,339)	(2,764,510)	-2,618,339



¹ The 2019 Total Capital Program is the Board approved plan of \$105,404,440 plus the 2018 Carryover of \$3,574,738 (excluding child projects taken from 2019 parent programs).

² The Total Year (Revised) Capital Program is the Latest Total Estimate less Future Year Est less Prior Year Costs for capital projects.

³ Accruals are in the December total expenditures. 2015 = \$5,070,604; 2016 = \$1,019,855; 2017 = \$509,574; 2018 = \$562,364

⁴ Other for 2019 represents program funding \$901,575; new program child projects \$912,607; contributions posted in prior year not included in carryover \$(0), rounding \$4, closed project net adjustment \$2,820,508.

Exhibit 2
Water Quality and Production Performance Measures

DISTRIBUTION - PRODUCTION	November 2019	November 2018	November 5-YR Avg	YTD 2019	YTD 2018	YTD 5-YR Avg
River Water Temperature (Degree F)	52.4	49.5	53.9	62.7	61.0	61.9
Finished Temperature at BEP (Degree F)	67.4	64.7	66.3	62.6	62.5	62.9
Finished Temperature at CHFP (Degree F)	51.2	48.7	53.1	61.4	60.1	61.2
Total Precipitation @ Louisville Weather Office (inch)	5.64	4.76	3.13	49.68**	63.08**	47.75**
Mean Air Temp @ Weather Office (Degree F)	43.0	43.2	48.0	61.6	61.0	61.0
Raw Water Turbidity at CHFP (NTU)	10.5	67.1	33.0	48.0	65.8	48.6
Finished Water Turbidity at CHFP (NTU)	0.046	0.045	0.048	0.047	0.049	0.045
Water Pumpage to System (MGD)	110.9	104.3	108.2	120.3	121.0	119.7
Previous Month Cost of Production (\$/1,000 gallons)	\$0.438	\$0.324	\$0.375	\$0.353	\$0.341	\$0.367
WATER QUALITY						
Water Quality and Treatment Compliance						
Water Quality Compliance						
Required Monitoring	973	973	929	11,022	11,072	10,590
Actual Monitored and Reported	1,133	1,133	1,080	12,920	12,994	12,388
Drinking Water Violations	0	0	0	0	0	0
Water Treatment Compliance						
Pre-Sed Turbidity % Removal (68% required)	88.1	97.1	92.7	94.7	96.3	95.5
Ind. Filter Effluent% ≤ 0.10 NTU (95% PSW Goal)	99.9	99.9	99.9	99.8	99.8	99.9
Ohio River Incident Response						
Upstream Spill Reports	4	5	3.4	100	80	69.4
Days Treatment Impacted (spills, algae, etc.)	0	0	0.8	115	25	50
Distribution Water Quality						
Revised Total Coliform Rule (RTCR) Compliance						
Number Monitoring Samples Collected	280	280	280	3,089	3,089	3,076
Turbidity >0.5 NTU	0	0	0	0	0	0
Chlorine <0.5 ppm	0	0	0	0	0	0
Number Positive Coliforms	0	0	0.4	2	3	2.0
Number Positive Rechecks	0	0	0	1	0	0.4
Drinking Water Violations	0	0	0	0	0	0
Turbidity (LWC Goal: 99% less than 0.5 NTU)	100	100	100	100	100	100
Chlorine (LWC Goal: 99% greater than 0.5 ppm)	100	100	100	100	100	100
Bacti (LWC Goal: 99% negative Total Coliform)	100	100	99.9	99.9	99.9	99.9
Main Break Water Quality						
Number Monitoring Samples Collected	126	156	129	1,034	1,190	949
Number Positive Coliforms	1	2	0.8	6	14	7
Bacti (LWC Goal: 99% negative Total Coliform)	99.2	98.7	99.4	99.4	98.8	99.3
Water Quality Customer Satisfaction						
Water Quality Customer Complaints						
Discolored Water Complaints	0	4	4	19	58	71
Appearance Complaints	2	0	1	13	28	38
Taste & Odor Complaints	1	3	3	31	51	48
Health & Illness Complaints	0	0	0	0	1	4
Total Water Quality Customer Complaints	3	7	8	64	141	164



December 17, 2019

Board of Water Works
Louisville, KY

RE: Labor Management Update

Dear Board Members:

The following is a summary outline regarding recent and current activity between the Louisville Water Company's (Louisville Water/the Company) Labor Management and Local Union 1683 of the American Federation of State, County and Municipal Employees, AFL-CIO (the Union).

- Currently there are three (3) active grievances filed by the Union two (2) are pending results from arbitration hearings and one (1) in discussion for possible resolution.
- Union and Company representatives reconvened to establish Union employee's Health Incentive Plan goals for the 2020 benefit year.
- The Executive Union Management Alliance Council (EUMAC) met and reviewed the completion/status of various initiative action items.
- The Company posted two (2) regular full-time classified positions for the internal Union personnel bidding process. The Company extended offers for eight (8) full-time general laborer positions.
- Union President and Vice-President, Adam Carter and Bart Matherly along with Louisville Water Executive Vice-President, Dave Vogel, facilitated the communication roll-out of the 2019-2025 Strategic Partnership Plan drafted by the Company and the Union.

Respectfully,

Terrence T. Spence
Vice President - Human Resources & Labor Relations



December 17, 2019

Board of Water Works
Louisville, Kentucky

Re: Information Technology Report for December 2019

Dear Directors:

Oracle Work & Asset Management (WAM) Implementation. Work continues to support Phase One in production while developing Phase Two. The virtualized platform for WAM and CC&B was rearchitected and the platform is much more stable.

Advanced Metering Infrastructure (AMI). Work is progressing on the interfaces necessary to integrate AMI with the existing Louisville Water applications. Testing will begin in January.

Security. Cisco's Identity Services Engine (ISE) is a network administration product that enables the creation and enforcement of security and access policies for endpoint devices connected to the company's routers and switches. This implementation is on schedule to be completed by the end of the year.

Disaster Recovery (DR). Louisville Water has, for the past four years, utilized MSD's Cedar Creek location as an offsite data backup site with limited computing capabilities. The goal of this DR project is to move out of Cedar Creek and expand our computing capabilities at our offsite location. Phase one is to vacate Cedar Creek. That was accomplished last week. We will begin implementing a full failover DR function next year with a maximum target recovery point of ten minutes and recovery time of one hour. This means that, in the event of a disaster, we will lose no more than ten minutes of data, and the systems will be back up within one hour.

Windows 10. Over 125 desktops, all-in-ones, and laptops were ordered from Dell to replace remaining computers still using Windows 7. Included in the order were systems to replace call center thin clients with new computers, and dual monitors. The systems should be installed by mid-January.

Respectfully submitted,

Tom Luckett, PhD
Vice President and Chief Information Officer

CLOSED SESSION

EXECUTIVE SESSION

ADJOURN