

**LCA Main Office:** 

1053 Spruce Road Wescosville, PA 18106 610-398-2503 **Agendas & Minutes Posted:** 

www.lehighcountyauthority.org

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#### **BOARD MEETING AGENDA – August 27, 2018**

- 1. Call to Order
  - NOTICE OF MEETING RECORDINGS

Meetings of Lehigh County Authority's Board of Directors that are held at LCA's Main Office at 1053 Spruce Road, Wescosville, PA, may be recorded for viewing online at lehighcountauthority.org. Recordings of LCA meetings are for public convenience and internal use only and are not considered as minutes for the meeting being recorded, nor are they part of public record. Recordings may be retained or destroyed at LCA's discretion.

- Public Participation Sign-In Request
- 2. Review of Agenda / Executive Sessions
- 3. Approval of Minutes
  - August 13, 2018 Board meeting minutes
- 4. Public Comments
- 5. Action / Discussion Items:

#### **FINANCE AND ADMINISTRATION**

- 2017 Annual Risk Management Report (information only) (grey)
- LCA 2020 Strategy 2018 Action Plan Update & Key Performance Indicators (discussion only) (yellow)

#### WATER

Allentown Division – Water Filtration Plant: SCADA System Replacement (tan)

#### **WASTEWATER**

- 6. Monthly Project Updates / Information Items (1st Board meeting per month)
- 7. Monthly Financial Review (2<sup>nd</sup> Board meeting per month) July 2018 report attached
- 8. Monthly System Operations Overview (2<sup>nd</sup> Board meeting per month) July 2018 report attached
- 9. Staff Comments
- 10. Solicitor's Comments
- 11. Public Comments / Other Comments
- 12. Executive Sessions
- 13. Adjournment

#### **UPCOMING BOARD MEETINGS**

Meetings begin at Noon at LCA's Main Office, unless noted otherwise below.

September 10, 2018 September 24, 2018

October 8, 2018

#### PUBLIC PARTICIPATION POLICY

In accordance with Authority policy, members of the public shall record their name, address, and discussion item on the sign-in sheet at the start of each meeting; this information shall also be stated when addressing the meeting. During the Public Comment portions of the meeting, members of the public will be allowed 5 minutes to make comments/ask questions regarding non-agenda items, but time may be extended at the discretion of the Chair; comments/questions regarding agenda items may be addressed after the presentation of the agenda item. Members of the public may not request that specific items or language be included in the meeting minutes.

### REGULAR MEETING MINUTES August 13, 2018

The Meeting of the Lehigh County Authority was called to order at 12:02 p.m. on Monday, August 13, 2018, at which time Chairman Nagle called an Executive Session regarding legal issues. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Jeff Morgan, Richard Bohner, and Ted Lyons. Deana Zosky was on the conference phone throughout the entire meeting. Authority Staff present were Liesel Gross, Brad Landon, Chuck Volk, Ed Klein, Pat Mandes, Susan Sampson, Chris Moughan, John Parsons, and Lisa Miller.

The Executive Session ended at 12:17 p.m.

The Regular Meeting of the Lehigh County Authority was called to order at 12:17 p.m.

#### **REVIEW OF AGENDA**

Chairman Nagle announced that today's Board meeting is being videotaped and streaming live and recordings will be posted to the Authority's website and that an Executive Session was held at the beginning of the meeting on potential litigation.

Liesel Gross stated there are no changes to the agenda but there are two items for Executive Session at the end of the meeting to discuss matters of potential litigation and personnel.

#### **APPROVAL OF MINUTES**

#### July 23, 2018 Regular Meeting Minutes

Liesel Gross informed the Board that Scott Bieber emailed her requesting a correction to the July 23, 2018 minutes.

On a motion by Linda Rosenfeld, seconded by Ted Lyons, the Board approved the Minutes of the July 23, 2018 meeting as corrected (5-0). Richard Bohner abstained.

#### **PUBLIC COMMENTS**

None.

#### **ACTION AND DISCUSSION ITEMS**

#### <u> Allentown Division – Water Main Replacement Program Cycle 4</u>

Chuck Volk explained the project before the Board is a scaled down water main replacement project. The original bid received for this project were previously rejected by the Board on July 23, 2018 due to construction costs coming in significantly higher than anticipated due to the strict work hour limitations in place by PennDOT on Susquehanna Street and also the increased pipe costs. The project was scaled down from 2.2 miles to 0.9 miles of water main to be replaced. Mr. Volk is asking for approval of a change order to the previously approved general construction contract with JOAO Bradley Construction Co., Inc. that was awarded for the Suburban Division Main Replacement Project in order to complete this additional scope of work. Pricing for the change order provided by JOAO Bradley Construction Co., Inc. falls within the terms and unit pricing for the previously approved contract. The total construction cost for the change order is \$1,892,497.00.

The Board discussed concerns regarding the unit cost and its accuracy and also preferred to keep the contracts separate between the Allentown Division and the Suburban Division. Liesel Gross asked Mr. Volk about the process if the Authority decided to rebid the project. Mr. Volk explained that a timing delay is the biggest factor and could delay the project for another month. Chairman Nagle noted the Board appears to be in favor of rebidding the package.

On a motion by Ted Lyons, seconded by Jeff Morgan, the Board requested the restructured Allentown Division – Water Main Replacement Program Cycle 4 project be rebid (6-0).

#### Suburban Division - Spring Creek Force Main Air Release Valve Replacement - Bid Rejection

Chuck Volk explained the request for the bid rejection for Suburban Division – Spring Creek Force Main Air Release Valve Replacement project is a lack of bidders and the bid price coming in significantly higher than anticipated. Mr. Volk would like to split the project into a multi-year project since there is not an urgency to complete the entire project at this time.

On a motion by Linda Rosenfeld, seconded by Richard Bohner, the Board rejected the bid for the Suburban Division – Spring Creek Force Main Air Release Valve Replacement project (6-0).

Kevin Baker arrived at 12:30 p.m.

#### MONTHLY PROJECT UPDATES / INFORMATION ITEMS

Chairman Nagle announced that the August 2018 Monthly Project Updates and Information Items report was received in advance. Liesel Gross highlighted items for the August 27, 2018 meeting that include the Allentown Division 2013C Bonds which may or may not be ready for discussion at that meeting. Kevin German will be present for any questions pertaining to the 2017 Annual Risk Management report that will be included in the next Board packet. The 2018 LCA Action Plan & Key Performance Indicators Dashboard will be on the agenda for discussion as well as an approval request for the Allentown Division Water Filtration Plant SCADA System Replacement project.

#### **STAFF COMMENTS**

None.

#### **SOLICITOR'S COMMENTS**

None.

#### **PUBLIC COMMENTS / OTHER COMMENTS**

None.

Chairman Nagle called a recess at 12:32 p.m. The meeting reconvened at 12:36 p.m.

#### **EXECUTIVE SESSION**

An Executive Session was held at 12:36 p.m. to discuss potential litigation and personnel. The Executive Session ended at 1:33 p.m.

#### **ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 1:33 p.m.

Richard Bohner Assistant Secretary



## 2017 RISK MANAGEMENT ANNUAL REPORT

By:

Risk Manager – Kevin German HR Manager – Kathy Martin

#### INTRODUCTION

The following report reviews the Lehigh County Authority 2017 Risk Management Program. Our program effort has been designed to maintain a high safety awareness level, ensure a safe work environment by recognizing and reducing work hazards, and maintain reasonable insurance costs. Employee training programs are outlined throughout this report.

#### **2017 TEAM MEMBERS**

Members of the Risk Management Team who contributed their efforts to achieve a successful year included: James Yoachim, Bill Brogan, JD Reed Wambold, Mike Walter, Mike Brunovsky, Shaun Lee, Gretchen Schleppy, George Lill, Dave Adams, Tim Carlson, Ryan Sirak, Mark Kudera, Bob Keenan, Bob Adams, Joe Thompson, Billy Schanz, Matt Abel, Nathan Roush, Jason Peters, Kathy Martin and Kevin German.

#### **RISK MANAGEMENT**

#### **Our Mission**

- Promote a safe and healthy work environment by performing regular site and equipment inspections.
- Reduce costs related to accidents and injuries.
- Protect the resources and assets of the Authority.

Lehigh County Authority continued its comprehensive risk management efforts in 2017. Delaware Valley Insurance Trust (DVIT) completed a comprehensive inspection of all our facilities including Water Filtration Plant, Wastewater Treatment Plant, Distribution and Collection Facility and Suburban Facilities. Managing the Authorities property and casualty risks as part of risk management.

#### **RISK CONTROL**

#### **Immunization Program**

The immunization program offers booster shots for tetanus and inoculations for hepatitis B to all operation and lab personnel. This program is consistent with the recommendations of wastewater industry experts, and provides protection from possible exposure to disease-carrying microorganisms. Sixteen employees participated in the 2017 program.

#### **Safety Shoes**

All employees that are required to wear safety shoes are reimbursed a portion of the purchase cost.

#### **Fire Extinguisher Inspection**

Fire extinguishers are inspected yearly. If any extinguisher fails the inspection they are repaired or replaced with a new fire extinguisher promptly.

#### **Site Inspection**

All water and wastewater facilities were inspected by the RM Team, for areas of potential high exposure. Linda Poole, Sr. Risk Control Consultant, Delaware Valley Workers' Compensation Trust, also inspected our facilities in August 2017. No citations were issued. Overall, the system inspections indicate that LCA continues to provide a safe work environment.

#### Workers Compensation, Accident Reports and Liability Claims

There were 11 workers compensation claims, 0 lost time accidents, 4 restricted duty incidents, 7 property claims, and 31 liability claims.

#### **Safety Incentive Program**

This program helps to promote safety throughout the year. Some of the portions of this program provide weekly safety talks and videos. Near miss reports found helpful and used to enhance safety. Employees received a coat or blanket for their safety efforts in 2017. One safety award were disbursed at our annual employee meeting for safety efforts put forth by the employee.

#### **Safety Training Program**

Traditional training programs and formats were utilized during the year. DVD, videotapes, and "tail gate talks" continue to provide the most effective training participation and results. Ongoing training efforts focus on:

- Confined Space Entry
- Trenching and Shoring
- Personal Protective Equipment
- Defensive Driving
- First Aid Training
- Tailgate talks
- Fork Lift Training
- Backhoe Safety

#### **Areas of Exposure**

**Legal, General and Automobile Liability** – Purchased from Pennsylvania Intergovernmental Risk Management Association (PIRMA, a local government risk pool). Insurance provider is H.A. Thomson Company.

**Property Insurance** – Acquired from our broker Murray Securus. Insurance provider is CNA Insurance Company. Authority asset values set at \$347,541,721.

**Workers' Compensation** –Workers Compensation is purchased from Delaware Valley Workers Compensation Trust (DVWCT).

**Pollution Liability Policy** – Purchased from Greenwich Insurance Company.

#### **INSURANCE MANAGEMENT**

The Authority has obtained its liability insurance coverage through the Pennsylvania Intergovernmental Risk Management Association (PIRMA) pool since 1991. In 2016, the cost for General Liability, Auto Liability and Comprehensive Damage and Public Officials Liability remains fairly stable since 2013. Crime Coverage was raised from \$250,000 to \$500,000 for all employees handling money and investments. We added 3 vehicles of high value to comprehensive and collision.

Workers' Compensation Coverage has been obtained through the Delaware Valley Workers Compensation Trust, a municipal pool of 89 entities. For the past few years, the Authority was recognized as one of the top performers within the trust.

Commercial Property Insurance is controlled by Murray Secures. There was an increase in total property premium since the acquisition of the city facilities. We added coverage for vehicles parked in garage, 2 vacuum-flush truck and TV truck. (High value trucks)

Pollution Liability Policy is provided by Greenwich Insurance Company. It covers the Wastewater Treatment Plant located on Route 100, Upper Macungie Township and Wastewater Treatment Plant located in the city.

The following table shows the 4-year trend in insurance costs. Over all it shows a 2.34% increase.

#### 2017 Annual Report Insurance Cost Trend

	2014			2015			20	016	2017		
	Annual	% Change	An	nual	% Change	An	nual	% Change	Ann	ual	% Change
	Preminum	from Prior-yr	Pr	eminum	from Prior-yr	Pre	eminum	from Prior-yr	Pre	minum	from Prior-yr
PIRMA Pool:											
General Liability	\$ 192,239	287.41%	\$	184,799	-3.87%	\$	182,807	-1.04%	\$	194,121	6.19%
Auto Liability & Comprehensive	\$ 49,795	297.50%	\$	53,500	7.44%	\$	42,142	-21.23%	\$	43,127	2.34%
Damage											
Public Officials Liability	\$ 33,198	150.20%	\$	34,691	4.50%	\$	38,091	9.80%	\$	38,662	1.50%
Auto Physical Damage(new dump)									\$	1,671	0.00%
Contract with City	\$ 20,000	0%	\$	20,000	0%	\$	20,000	0.00%	\$	20,000	0.00%
Total PIRMA	\$ 295,232	59.30%	\$	292,990	-0.76%	\$	283,040	-3.40%	\$	297,581	5.14%
Other Insurance Costs:											
Property - Murray Securus	\$ 197,800	82.03%	\$	175,000	-11.53%	\$	177,000	1.14%	\$	175,910	-0.62%
Worker's Compensation	\$ 188,719	231.88%	\$	224,020	18.71%	\$	243,046	8.49%	\$	212,664	-12.50%
Pollution Liability (PTP & WWTP)	\$ 7,872	-4.50%	\$	9,494	20.60%	\$	9,476	-0.19%	\$	9,696	2.32%
Employee Dishonesty Bond	\$ 971	29.63%	\$	1,500	54.48%	\$	2,881	92.07%	\$	2,881	0.00%
Treasurer Bonds	\$ 190	0.00%	\$	200	5.26%	\$	200	0.00%	\$	200	0.00%
Total Other Insurance	\$ 395,552	748.71%	\$	410,214	3.71%	\$	432,603	5.46%	\$	401,351	-7.22%
Grand Total	\$ 690,784	168.59%	\$	703,204	1.80%	\$	715,643	1.77%	\$	698,932	-2.34%

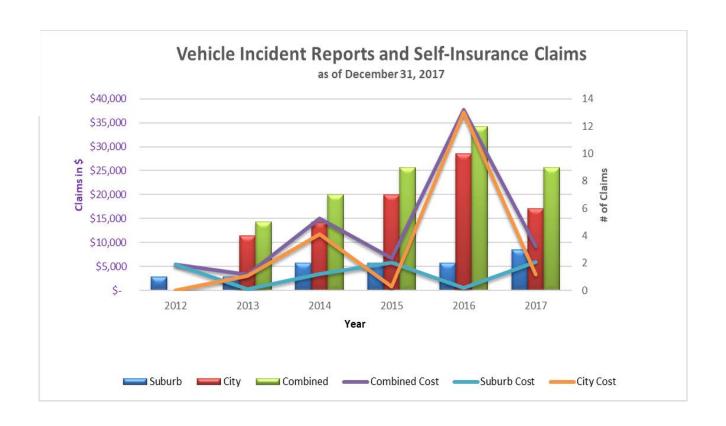
## Lehigh County Authority Risk Management 5-Year Expense History

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Immunizations	\$ 1,503	\$ 2,415	\$ 3,250	\$ 192	\$ 90
Safety Shoes	\$ 15,709	\$ 12,372	\$ 11,646	\$ 8,573	\$ 1,520
Fire Extinguishers	\$ 2,911	\$ 3,977	\$ 1,867	\$ 5,500	\$ 1,140
Safety Training & Equipment	\$ 61,488	\$ 36,156	\$ 52,900	\$ 33,233	\$ 310
Luncheon/Incentive	\$ 5,002	\$ 3,315	\$ 461	\$ 4,200	\$ -
CDL Drug & Alcohol Tests	\$ 1,640	\$ 1,860	\$ 1,145	\$ 1,354	\$ 220
RM and Safety Training Salary	\$ 61,155	\$ 62,908	\$ 70,432	\$ 90,417	\$ 10,900
Total	\$ 149,408	\$ 123,003	\$ 141,701	\$ 143,469	\$ 14,180

2014 increase due to addition of city salaries, training and equipment.

#### **LCA Vehicle Incident and Claim History**

	Suburban #	City # of	Combined #	d Combined		S	Suburban	City		
Year	incidents	incidents	of incidents	Cost			Cost	Cost		
2012	1	0	0	\$	5,420	\$	5,420	\$	-	
2013	1	4	5	\$	3,326	\$	267	\$	3,059	
2014	2	5	7	\$	15,086	\$	3,376	\$	11,710	
2015	2	7	9	\$	6,709	\$	5,862	\$	847	
2016	2	10	12	\$	37,673	\$	479	\$	37,194	
2017	3	6	9	\$	9,227	\$	5,886	\$	3,341	



#### Accomplishments for 2017 - Plans for the Risk Management Team

The Risk Management Team remains committed to the safety of LCA employees and the protection of LCA assets. As such, the Team will continue to stress safety and will investigate and monitor all insurance options that will reduce costs and maintain adequate protection.

#### **Accomplishments**

- Employee records were updated in the Health & Safety manual and Emergency Response Plans (ERP).
- Processing 11 workers compensation claims, 0 lost time, 4 restricted duty claims, 7 property claims, and 31 liability claims.
- Received \$54,683 rebate for high performance rating and payroll audit figures from DVIT. (The Trust billing cycle is always a year behind and then adjusted based on actual payroll audit figures).
- Added additional safety training for employees
- Upgrading old safety equipment.
- Updated the Health and Safety Manual

#### **Looking forward to 2018**

- Keep self-insurance cost (lower than \$10,000)
- Eliminate Workers' Compensation Claims
- Add additional safety training for employees
- Inspect suburban and city facilities for security and safety upgrades
- Old safety equipment upgraded throughout LCA facilities.
- Provide refresher class for Incident Command System for all Managers



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#### **MEMORANDUM**

TO: LCA Board of Directors
FROM: Liesel Gross, CEO
DATE: August 20, 2018

**RE:** LCA 2020: Strategic Goals & 3-Year Action Plan

2018 Plan Update

At the January and February 2018 Board of Directors meetings, staff presented an updated goal-setting strategy that included the following elements:

- Alignment with the Effective Utility Management (EUM) framework established by the American Water Works Association (AWWA), US Environmental Protection Agency and other water industry organizations
- Key performance indicators selected from the AWWA Benchmarking program
- Three-year action plans for the four primary EUM attributes selected for Lehigh County Authority's strategic goals

The purpose of developing the three-year action plans, versus LCA's more traditional annual goal-setting approach, is to provide for somewhat longer-term focus on the overarching strategic goals and key performance indicators that are most important for LCA's overall organizational performance. These action plans can then be used to establish operational priorities, inform our budgeting process, and provide structure for reporting on key achievements as we move forward.

The four goal areas LCA has selected to focus on within the LCA 2020 timeframe are:

- 1. Product Quality
- 2. Financial Viability
- 3. Infrastructure Stability
- 4. Employee & Leadership Development

Attached to memo is a progress update on the specific actions planned in each of these areas for 2018. While the action items are fairly detailed and operational in nature, when taken in context of the overarching strategic goals for the organization, we can see the pathway for improvement. This update is provided for discussion at the August 27, 2018 Board meeting.

In addition to the progress update on the 2018 Action Plan, staff will also present in draft form the dashboard of key performance indicators (KPIs) that are under development to integrate with our action plan in these key areas. The KPI dashboard is a highly customizable system and will be reviewed to illustrate data that has been compiled to date and highlight the capabilities of the software so Board feedback can be incorporated.

Strategic Goal	What it means for LCA	Why is it important?	Measure(s)	2018 Action Plan	2018 Status	2018 Owner	Notes
<b>Product Quality</b>							
				Complete AO project planning w/ WLI signatories, City and City signatories (dependent upon regulatory feedback & municipal cooperation) – <i>CM</i>	1 - Complete	Pat M	
	Sewer system under EPA Administrative Orders to eliminate Sanitary Sewer Overflows – must be addressed for environmental compliance as well as to address future needs for system			LCA Suburban systems CMOM program – finalize and input into CityWorks – <i>OPS / IT</i>	1 - Complete	Chris M	
		compliance issue Difficult to	"project progress" report until approved corrective action plan is in place, when specific targets can be established and reported on.	City Division CMOM review – align with Operating Standards & existing process for identifying / tracking trouble spots – OPS	1 - Complete	John P	
Elimination of SSOs / EPA Clean Water Act compliance				Investigate & develop Fats, Oils & Grease (FOG) program  – City Division – <i>CM</i>	2 - On Track for 2018 Completion	Pat M	
	conveyance capacity.			Kick off PPS & force main rehab projects – CW	1 - Complete	( DIICK V	PPS is in progress, rehab level is yet to be determined for force main. To begin in late summer (See below in Infrastructure for more details)
				Develop updated connection / planning module approval method for City & Suburban – CW / CM	4 - Schedule Adjustment Required	Chuck V/Pat M	Contingent upon discussion with DEP after AO plan submission 8/1/18.
				Complete "rebaseline" of WLI communities' allocation – CM	2 - On Track for 2018 Completion	Pat M	
				City AO projects TBD – <i>CW</i>	1 - Complete		City has determined no additional work will be completed in 2018 prior to EPA review of AO plan submission 8/1/18

Strategic Goal	What it means for LCA	Why is it important?	Measure(s)	2018 Action Plan	2018 Status	2018 Owner	Notes
Financial Viability							
				Overall budget process improvement initiative – ALL	2 - On Track for 2018 Completion	Ed K	Team led by Chris M. Retooling scheduling and roll out of multiple portion of the process.
		Excess cash must be generated, which is needed for future capital		Adaptive Insights implemented – FN	3 - In jeopardy for non- completion	Ed K	Model of accounts established, procedure for data import from Munis being developed, data validation next.
		and principal payments, and to avoid/limit future borrowing,	Debt Service Coverage Ratio	Revised forecasting & reporting tools – ALL	3 - In jeopardy for non- completion	Ed K	Relies upon implementation of Adaptive Insights
		while also allowing for operational goals to be met.		Capital plan development process improvement & budget schedule alignment – CW / FN (crosses with Infrastructure Stability goal)	2 - On Track for 2018 Completion	Chuck V / Ed K	Capital planning process has been kicked off. Will focus on Year 1 to integrate with annual budget and then will complete new 5-year capital plan after budget is adopted.
	Cash generated from operations covers both operations and debt-related expenses; forward looking targets established to cover new debt/capex			Develop enhanced capital improvements prioritization methodology – <i>ALL</i>	3 - In jeopardy for non- completion	Chuck V	Jacobs prioritization model, payback and return on investment in select cases; need to spend time on this after 2019 budget for capex is known
Financial plans and rates		Division-specific evaluations, goals and plans are needed to		Suburban water budget 5-year expense forecast based on O&M targets – <i>OPS</i>	2 - On Track for 2018 Completion	John P	5-year forecast is complete, pending inputs on personnel costs and internal service costs.
match up with operational and capital program needs				Internal services budget review & process improvement – FN	4 - Schedule Adjustment Required	Ed K	General discussion started, but need more work to define goals of this effort. Could focus on rising expense trends, but also want to look at allocation method to operating budgets, along with streamlining payroll system. This is a very large effort with organization-wide tentacles!
				Completion of 2019-2022 Suburban water rate study – FN	2 - On Track for 2018 Completion	Ed K	Requies Suburban 5-year forecast to be completed
		address different needs of each "fund"	for Capital Projects	City Division financial evaluation & options analysis for improved financial performance – ALL	1 - Complete	Ed K	Completed and presented to Board by Jacobs Engineering
			<u>_</u>	Financial policy & strategy documentation – ALL	4 - Schedule Adjustment Required	Ed K	Some general discussion started, but no formal documentation started.  This will naturally roll out from additional efforts described in this goal area.
				Future capex financing plan for all divisions – FN	3 - In jeopardy for non- completion	Ed K	Requires revision of capex and budget process, prioritization of capex, and method for addressing "wish list" projects. This will be addressed in the 2019 planning cycle, but may not be complete by year-end.

Strategic Goal	What it means for LCA	Why is it important?	Measure(s)	2018 Action Plan	2018 Status	2018 Owner	Notes
Infrastructure Stabil	ty						
				CMMS Implementation – 2018 Milestones – IT	2 - On Track for 2018 Completion	Chris M	Must track Suburban implementation to ensure milestones are met.
				Convert 3 Suburban stations from Telog to SCADA – IT	2 - On Track for 2018 Completion	Chris M	2 of 3 complete
Asset Management Program Development			Asset Condition Assessment	Suburban asset condition assessment – mechanical focus (structural & electrical completed in 2016) – <i>CW / OPS</i>	2 - On Track for 2018 Completion	Chuck V/ John P	Asset condition assessment for primary SB mechanical components complete; upgrade projects to kick off in 2018
			Completion – Number / ratio of critical assets	Allentown wastewater treatment plant master plan developed – <i>OPS</i>	2 - On Track for 2018 Completion	John P	
	Planned approach to assessing risk and planning projects and	LCA's asset management approach is currently inconsistent and not well defined, but systems are aging and require increasing	with condition assessed and categorized.	Park Pump Station rehab construction under way – <i>CW</i>	2 - On Track for 2018 Completion	Chuck V	Construction on schedule for completion in Spring 2019.
	preventive maintenance strategies on a life-cycle cost basis.	investment to repair and replace critical assets. Methods to plan and prioritize our work is a growing need.	Asset "Needs Addressed" Coverage – Progress on addressing needs identified via condition assessment	Park Pump Station force main evaluation & rehab plan – CW	3 - In jeopardy for non- completion	Chuck V	Full scope of investigation and rehab planning effort will not be known until initial "pop and peek" evaluation completed in August / September 2018.
				Review / update / align LCA rules & regs for water / sewer service and City ordinances – ALL	3 - In jeopardy for non- completion	LMG: Brad	Internal team assembled to review, but progress has slowed due to competing priorities. City will not adopt new ordinances while certain lease disputes remain outstanding.
				Capital plan development process improvement & budget schedule alignment – CW / FN (crosses with Financial Viability goal)	2 - On Track for 2018 Completion	Chuck V / Ed K	
				CMMS Implementation – 2018 Milestones – IT	2 - On Track for 2018 Completion	Chris M	
				Investigate & develop Fats, Oils & Grease (FOG) program  – City Division – CM (crosses with Product Quality goal)	2 - On Track for 2018 Completion	Pat M	
	Applying consistent and measured	Increased focus on preventive maintenance needed at LCA in	Planned Maintenance Ratio Planned	Phase 2 Interceptor easement clearing program – OPS	2 - On Track for 2018 Completion	John P	
Preventive Maintenance Program Development	approach to maintaining assets on a planned / preventive basis, to reduce reactive and emergency- based repairs.	certain areas, and measure will also provide focus for establishing consistent procedures for tracking	maintenance as a percentage of all maintenance	Phase 2 flushing, valve & hydrant program – Suburban – OPS	3 - In jeopardy for non- completion	John P	Flushing may not be completed by year's end due to a short-handed department. Valvetek valve & hydrant project will be completed by year's end.
		maintenance activities		Develop measure for preventive vs. reactive maintenance – Phase 1 – multiple measures – <i>IT</i>	2 - On Track for 2018 Completion	Chris M	Ongoing process (reference KPI dashboard)

Strategic Goal	What it means for LCA	Why is it important?	Measure(s)	2018 Action Plan	2018 Status	2018 Owner	Notes
Employee/Leadersh	ip Development						
Knowledge Management / Succession Planning Hi	LCA's ability to move through personnel transitions within limited downtime in productivity or	LCA employees who are new to the organization, or new in their roles as managers/leaders, require training and support to be effective in their jobs.	Knowledge Management Coverage – Ratio of "high risk" employees for which a KM /	Update LCA retirement risk profile – <i>ALL</i>	1 - Complete	Liesel G / Kathy M	Completed July 2018.
	knowledge loss is critical to maintaining the pace of business and stature in the industry / region.			Complete treatment plant O&M staff realignment – OPS	2 - On Track for 2018 Completion	John P	Staff restructuring completed. Additional work required on knowledge transfer / technical & management training.
	und statute in the maastry/ region.			Identify next area of focus for succession planning & develop the plan – ALL	2 - On Track for 2018 Completion	Liesel G / Kathy M	
	High rates of employee turnover due to retirements results in many	Loss of institutional knowledge has already impacted LCA operations as new employees need to learn undocumented LCA processes from scratch. As employees retire from LCA with greater frequency, the	acvelopea	Conduct targeted employee focus groups to determine barriers to full engagement – <i>ALL</i>	3 - In jeopardy for non- completion		Top Workplaces survey will provide detailed feedback by year-end, and focus group discussion will be developed based on key themes.
	employees in new positions who need to develop expertise and skills		_	Complete foundations of leadership training program for all managers – <i>ALL</i>	2 - On Track for 2018 Completion	Liesel G / Kathy M	Training completed in August 2018. Evaluation & next steps to be completed by October 2018.
Technical & Leadership Training for LCA	to be effective in their new roles. Focus is on technical (water/sewer system operations and maintenance) and leadership skills,		Leadershin /	Offer at least 4 leadership "practice" opportunities to new / junior managers (Board presentations, team leadership, external networking, etc.) – ALL	3 - In jeopardy for non- completion	Liesel G / Kathy M	Requires dedicated focus following foundations of leadership training.
Employees / Managers	as the two areas identified as requiring significant attention to	importance of planning in advance for those transitions is becoming increasingly urgent.	Training	Conduct 2 <sup>nd</sup> round of train-the-trainer course – <i>ALL</i>	4 - Schedule Adjustment Required		Must identify a new trainer for this program and determine if 1st round of training was effective & being used.
	address existing gaps.	becoming increasingly digent.		Implement "lunch & learn" program for training topics of general interest to all employees (IT, CS, Safety) – IT/CS/RM	1 - Complete	Chris M	First session held in July on IT topic. Status of schedule for remainder of the year?

#### **MEMORANDUM**

**Date:** August 20, 2018

To: Authority Board From: Christopher Moughan

**Subject:** Allentown Division: Water Filtration Plant SCADA Upgrade

#### **MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Capital Project Authorization	\$697,559
2	Professional Services Authorization – Kapsch TrafficCom USA, Inc. (1)	\$667,559

<sup>(1)</sup> Included in the Capital Project Authorization.

#### **PROJECT OVERVIEW:**

Lehigh County Authority (LCA) intends to retain the services of Kapsch TrafficCom USA, Inc., an engineering consulting firm, to provide installation and implementation services related to the upgrade of the existing Water Filtration Plant's SCADA application.

LCA Staff has identified the need to upgrade and standardize the SCADA systems at both the Water Filtration Plant (WFP) and Wastewater Treatment Plant (WWTP) to improve operational efficiencies and increase the ability to control operational costs by reducing power and chemical costs.

The existing WFP's SCADA system was last upgraded in 1999, and the existing Programmable Logic Controllers (PLCs) PLC hardware is no longer supported. Communication between the existing server and the remote PLCs is over a hard-wired network. This network will also be upgraded with new transceivers, switches and media converters.

This project will replace the existing SCADA application with Dynac ES SCADA application, providing a plant-wide control system. This application was installed at the wastewater plant in 2014 and 2015 by Kapsch. All existing PLCs will be upgraded and linked to the redundant database servers. The project will include the purchase and installation of 2 redundant servers, a historical server, and 3 work stations by the consultant.

#### FINANCIAL:

Funded by LCA Allentown Division.

#### PROJECT STATUS:

Pending Board approval of the Capital Plan Authorization and the Professional Services Authorization.

#### THIS APPROVAL-CONSTRUCTION PHASE

Lehigh County Authority (LCA) intends to retain the services of Kapsch TrafficCom USA, an engineering consulting firm, to provide installation, conversion and implementation services

related to the upgrade of the existing SCADA application to Dynac ES SCADA system. The following table summarizes the professional services to be performed:

	Professional Services							
1.	Hardware Submittals							
2.	System Design							
3.	PLC Panel Fabrication							
4.	Software Submittals							
5.	Software Configuration							
6.	Factory Acceptance Test							
7.	Equipment Installation							
8.	Site Acceptance Test							
9.	Final Submittals							
10	. System Training							

#### **CONSULTANT SELECTION PROCESS:**

Transdyn, Inc. installed the Dynac SCADA application at the Allentown Water Filtration Plant as part of the plant's upgrade in 1999, and has supported that system to date. In early 2014 Transdyn, Inc. was acquired by Kapsch TrafficCom. Kapsch provided similar professional services to LCA for the SCADA installation at the wastewater plant in 2014-2015.

#### TRANSDYN, INC. AND KAPSCH TRAFFICCOM USA, INC. -COMPANY INFORMATION:

Transdyn is a well-known systems integrator of control, communication, operations management and security/surveillance systems. For over 35 years, Transdyn has delivered a wide-range of systems for government agencies and private industry in the transportation, environmental, security, energy, and industrial markets throughout the United States and abroad. Transdyn's services include planning, design, systems integration, project management, software development, installation, commissioning, training, maintenance, and long-term support. As an engineering and contracting organization, Transdyn combines specialty contracting, project management, and a variety of technical services to deliver high-performance, high-availability systems tailored to their clients' requirements. Major transportation departments and authorities use Transdyn systems to manage the safety and throughput of their vital roadways, tunnels, bridges, and transit rail lines. The company's traffic management systems are installed in over 30 transportation facilities across the U.S., including the LBJ Express project in North Texas on which Kapsch and Transdyn worked jointly. The LBJ Express project opened the first section of the highway for traffic on December 12, 2013. The major references outside the United States comprise New Zealand, Australia and Israel, Transdyn Inc. is headquartered in Duluth, Georgia, and has branch offices in California, New Jersey and Virginia. With approximately 150 employees, Transdyn generated in its most recently completed fiscal year ended September 30, 2013, a revenue of USD 33.9 million (approximately EUR 25 million).

Kapsch TrafficCom is a provider of ITS in the application fields of road user charging, urban access and parking, road safety enforcement, commercial vehicle operations, electronic vehicle registration, traffic management and V2X cooperative systems. Kapsch TrafficCom covers with end-to-end solutions the entire value creation chain of its customers as a one-stop shop, from components and subsystems to their integration and operation. The solutions of Kapsch TrafficCom help to provide funding for infrastructure projects, to increase traffic safety, to

optimize traffic flow, and to reduce environmental pollution from traffic. The core business is to design, build and operate electronic toll collection systems for multi-lane free-flow traffic. References in 43 countries on all continents make Kapsch TrafficCom a recognized supplier of electronic toll collection worldwide

**PROJECT SCHEDULE:** The Project is anticipated to be awarded in August 2018 with completion of the work in October 2019.

#### **FUTURE AUTHORIZATIONS- NONE**

	CAPITAL PROJEC	T AUTHORIZAT	ION								
PROJECT No.:	AD-W-A	BUDGET FUND:	Allentown Div\Water\C	Capital							
PROJECT TITLE:	Allentown Division – DYN Upgrade: Construction Phase	•	· <u></u>								
THIS AUTHORIZATION: TO DATE (W/ ABOVE)	\$697,559 \$697,559		Construction Engineering Study Equipment Purchase Amendment No. 1								
DESCRIPTION AND BENEFITS:  The existing WFP's SCADA system was upgraded in 1999. Existing PLC hardware is no longer supported. Communications between the existing server and the remote Programmable Logic Controllers (PLCs) is over a hard wired network. This network will also be upgraded with new transceivers, switches and media converters.  This project will replace the existing SCADA application with Dynac ES SCADA application providing a plant-wide control system. All existing PLCs will be upgraded and linked to the redundant database servers. The project will include the purchase and installation of 2 redundant servers, a historical server, and 3 work stations by the consultant.  Notice to Proceed shall be given in August 2018 and substantial project completion is expected by October 2019.  Please see attached Board Memo for further project details.  Authorization Status:											
Prior Authorizations											
Conceptua	I/Design Phase		N/A								
	Requested T	his Authorization									
Constructi	•	III3 Additorization									
Staff			\$10,000								
SCADA (	Contractor	\$667,									
Conting	encies		20,000								
Total This	Authorization		\$697,559								
70000 11110			<b>,</b> ,								
	Future A	uthorizations	4.0								
None			\$0								
Total Estin	nated Project		\$697,559								
REVIEW AND APPROVAL	S:										
Project Manager	Date	Chief Execu	utive Officer	Date							
Chief Capital Works (	Officer Date	Chai	rman	Date							
H:\Minutes\2018\August 27 meeting	WTP SCADA CPA Construction_20180816.docx										



1053 Spruce Street \* P.O. Box 3348 \* Allentown, PA 18106-0348 (610)398-2503 \* FAX (610)398-8413 \* Email: service@lehighcountyauthority.org

#### PROFESSIONAL SERVICES AUTHORIZATION

Professional:	Date:	August 20, 2018
Kapsch TrafficCom USA, Inc.	Requested By	Christopher Moughan
8201 Greensboro Drive, Suite 1002	Approvals	emistopher woughun
McLean, VA 22102		
	General Manager:	
Description of Services (Work Scope, Steps, Check Poin	nts, etc.):	
This project will replace the existing SCADA approviding a plant-wide control system. All exists redundant database servers. The project will incluservers, a historical server, and 3 work stations be	ing PLCs will be upgrade ude the purchase and insta	d and linked to the
Professional Services	S	
1. Hardware Submittals	· · · · · · · · · · · · · · · · · · ·	
2. System Design		
3. PLC Panel Fabrication		
<ul><li>4. Software Submittals</li><li>5. Software Configuration</li></ul>		
6. Factory Acceptance Test		
7. Equipment Installation		
8. Site Acceptance Test		
9 Final Submittals		
10. System Training		
Please reference the attached Kapsch TrafficCom US cover Memo for additional information.  Construction Phase: Cost Estimate (not to be exceeded without further Time Table and Completion Deadline: As required proposal.	authorization): \$ 667,559	.00
(For Authori	ity Use Only)	
Approval: Actual Cost	t:D	ate:

# LEHIGH COUNTY AUTHORITY FINANCIAL STATEMENTS JULY 2018

# LEHIGH COUNTY AUTHORITY FINANCIAL STATEMENTS - SUMMARY JULY 2018

		MONTH			Υ	EAR-TO-DATE			FULL YEAR	
A	ctual	Forecast	FC Var	JULY 2018	Actual	Forecast	FC Var	Forecast	Budget	Variance
				Income Statement						
222	2,160	(12,834)	234,994	Suburban Water	252,239	17,245	234,994	(473,858)	(305,584)	(168,274)
(484	4,187)	(667,126)	182,939	Suburban Wastewater	(406,638)	(589,578)	182,939	(950,008)	883,715	(1,833,723)
(239	9,654)	(631,817)	392,163	City Division	(2,414,778)	(2,806,941)	392,163	(9,598,436)	(7,267,990)	(2,330,446)
(501	1,681)	(1,311,777)	810,097	Total LCA	(2,569,178)	(3,379,274)	810,097	(11,022,302)	(6,689,859)	(4,332,443)
				Cash Flow Statement						
680	0,107	(776,031)	1,456,138	Suburban Water	2,826,320	1,370,183	1,456,138	(2,157,696)	(4,392,584)	2,234,888
244	4,530	(579,326)	823,856	Suburban Wastewater	2,237,083	1,413,226	823,856	1,748,931	(2,751,285)	4,500,216
1,078	8,461	766,850	311,612	City Division	1,151,232	694,081	457,152	(12,137,668)	(5,085,490)	(7,052,178)
2,003	3,099	(588,507)	2,591,606	Total LCA	6,214,635	3,477,489	2,737,146	(12,546,433)	(12,229,359)	(317,074)
				Debt Service Coverage Ratio						
	2.23	1.37	0.86	Suburban Water	1.52	1.39	0.12	1.30	1.24	0.07
	(1.25)	(4.33)	3.08	Suburban Wastewater	6.53	6.02	0.52	6.02	8.95	(2.93)
	1.63	1.51	0.11	City Division	1.47	1.47	-	1.36	1.25	0.12

City cash forecast is expected to be off to budget by a little more than \$7m. The forecast has borrowing of \$10m to apply to paying off the \$18,735,000 principal payment on the Series C Bonds with the remainder coming out of cash reserves.

## LEHIGH COUNTY AUTHORITY MONTHLY FINANCIAL STATEMENTS - CONSOLIDATED JULY 2018

	MON	ITH				YEAR-TO	D-DATE		FULL YEAR FORECAST				
Suburban Water	Suburban Wastewater	City Division	LCA TOTAL	JULY 2018 INCOME STATEMENT	Suburban Water	Suburban Wastewater	City Division	LCA TOTAL	Suburban Water	Suburban Wastewater	City Division	LCA TOTAL	
				Operating Revenues									
888,329	1,035,579	3,010,995	4,934,903	Charges For Services	5,281,203	9,913,109	19,834,527	35,028,839	9,219,406	17,219,174	33,304,933	59,743,513	
10,844	-	-	10,844	Rent	53,226	-	-	53,226	87,860	-	-	87,860	
7,931		34,633	42,564	Other Income	76,844		339,055	415,899	129,158		567,706	696,865	
907,104	1,035,579	3,045,628	4,988,311	Total Operating Revenues	5,411,273	9,913,109	20,173,582	35,497,964	9,436,424	17,219,174	33,872,640	60,528,238	
				Operating Expenses									
76,236	39,587	425,802	541,625	Salaries and Wages	629,350	237,931	3,118,740	3,986,021	1,129,114	396,344	5,418,938	6,944,396	
114,152	43,054	606,761	763,967	General and Administrative	742,248	243,775	3,812,875	4,798,897	1,360,096	470,720	5,981,114	7,811,931	
6,134	5,279	57,966	69,379	Utilities	268,875	160,656	1,155,741	1,585,272	544,741	347,377	2,105,775	2,997,893	
9,708	40,391	90,945	141,044	Materials and Supplies	123,971	110,546	596,092	830,609	274,264	302,155	1,450,147	2,026,565	
214,432	726,616	156,680	1,097,728	Miscellaneous Services	1,267,893	4,559,894	751,753	6,579,539	2,941,460	7,913,277	1,825,073	12,679,811	
-	333,082	4,624	337,706	Treatment & Transportation	-	2,697,792	4,624	2,702,416	-	4,632,710	6,000	4,638,710	
245,832	397,865	466,667	1,110,364	Depreciation and Amortization	1,720,824	2,785,055	3,266,669	7,772,548	2,949,994	4,775,190	5,600,000	13,325,184	
666,493	1,585,875	1,809,445	4,061,813	Total Operating Expenses	4,753,161	10,795,648	12,706,493	28,255,303	9,199,670	18,837,773	22,387,046	50,424,489	
240,611	(550,296)	1,236,183	926,498	Operating Income	658,112	(882,539)	7,467,088	7,242,661	236,755	(1,618,599)	11,485,593	10,103,749	
				Non-Operating Revenues (Expenses)									
18,755	45,278	10,574	74,607	Tapping and Capital Recovery fees	127,705	459,066	254,325	841,096	472,950	788,788	321,751	1,583,489	
11,234	-	272	11,506	Meter Sales	44,693	-	5,404	50,097	107,459	-	11,132	118,591	
48,285	15,541	1,200	65,026	Inspection and Plan Reviews	94,198	15,852	21,895	131,944	157,913	311	206,695	364,918	
=	-	-	-	Project Reimbursements	(0)	-	-	(0)	(0)	=	190,000	190,000	
21,504	25,501	90,019	137,025	Interest Income	135,254	122,160	419,412	676,827	173,750	100,459	569,393	843,602	
3,525	75	4,097	7,697	Other Income	15,590	1,010	26,077	42,677	18,065	935	21,980	40,980	
(117,057)	(16,307)	(1,402,734)	(1,536,098)	Interest Expense	(816,809)	(114,653)	(9,819,138)	(10,750,600)	(1,638,942)	(206,346)	(18,544,404)	(20,389,692)	
(4,696)	(3,979)	(179,266)	(187,941)	Other Expense	(6,504)	(7,534)	(789,842)	(803,880)	(1,808)	(15,555)	(3,860,576)	(3,877,939)	
(18,450)	66,109	(1,475,837)	(1,428,178)	Total Non-Operating Revenues (Expenses)	(405,873)	475,901	(9,881,867)	(9,811,839)	(710,613)	668,592	(21,084,029)	(21,126,051)	
222,160	(484,187)	(239,654)	(501,681)	Net Income Before Capital Contributions	252,239	(406,638)	(2,414,778)	(2,569,178)	(473,858)	(950,008)	(9,598,436)	(11,022,302)	
			<u> </u>	Capital Contributions									
222,160	(484,187)	(239,654)	(501,681)	NET INCOME	252,239	(406,638)	(2,414,778)	(2,569,178)	(473,858)	(950,008)	(9,598,436)	(11,022,302)	

## LEHIGH COUNTY AUTHORITY MONTHLY FINANCIAL STATEMENTS - CONSOLIDATED JULY 2018

	MONTH					YEAR-TO	D-DATE		FULL YEAR FORECAST				
Suburban Water	Suburban Wastewater	City Division	LCA TOTAL	JULY 2018 CASH FLOW STATEMENT	Suburban Water	Suburban Wastewater	City Division	LCA TOTAL	Suburban Water	Suburban Wastewater	City Division	LCA TOTAL	
				Cash Flows From Operating Activities									
907,104	1,035,579	3,045,628	4,988,311	Operating Revenues	5,411,273	9,913,109	20,173,582	35,497,964	9,436,424	17,219,174	33,872,640	60,528,238	
(420,661)	(1,188,010)	(1,342,778)	(2,951,449)	Operating Expenses (ex D&A)	(3,032,337)	(8,010,593)	(9,439,824)	(20,482,755)	(6,249,676)	(14,062,583)	(16,787,046)	(37,099,305)	
(2,210,431)	158,459	(205,573)	(2,257,545)	Non-Cash Working Capital Changes	(1,629,305)	(538,676)	(1,434,650)	(3,602,631)	=				
(1,723,988)	6,028	1,497,277	(220,683)	Net Cash Provided by (Used in) Operating Activities	749,631	1,363,840	9,299,107	11,412,578	3,186,749	3,156,591	17,085,593	23,428,933	
				Cash Flows From Financing Activities									
-	-	-	-	Lease Payments to City	-	-	(255,780)	(255,780)	-	-	(515,560)	(515,560)	
-	-	-	-	Capital Contributions	-	-	-	-	-	-	-	-	
-	-	-	-	Proceeds New Borrowing	-	-	-	-	-	-	10,000,000	10,000,000	
(6,889)	(14,277)	-	(21,166)	Interest Payments	(760,493)	(100,713)	(6,523,861)	(7,385,067)	(1,638,942)	(194,435)	(13,797,722)	(15,631,099)	
(29,597)	(40,438)		(70,035)	Principal Payments	(206,070)	(281,569)		(487,639)	(1,518,853)	(478,130)	(18,735,000)	(20,731,983)	
(36,486)	(54,716)		(91,202)	Net Cash Provided by (Used in) Financing Activities	(966,563)	(382,281)	(6,779,641)	(8,128,485)	(3,157,795)	(672,566)	(23,048,282)	(26,878,642)	
				Cash Flows from Capital and Related Activities									
81,799	60,894	16,143	158,836	Non-Operating Revenues	282,186	475,928	307,701	1,065,814	756,387	790,034	561,558	2,107,978	
-	-	-	-	Project Reimbursement	(0)	-	-	(0)	(0)	-	190,000	190,000	
(4,119)	(2,535)	-	(6,654)	Non-Operating Expenses	(4,119)	(2,535)	-	(6,654)	-	0	-	0	
(235,119)	(283,177)	(524,978)	(1,043,273)	Capital Expenditures	(1,968,595)	(812,564)	(2,095,347)	(4,876,505)	(5,138,797)	(2,605,587)	(7,495,929)	(15,240,313)	
(157,439)	(224,818)	(508,834)	(891,091)	Net Cash Provided By (Used In) Capital and Related Activities	(1,690,528)	(339,171)	(1,787,646)	(3,817,345)	(4,382,410)	(1,815,553)	(6,744,371)	(12,942,335)	
				Cash Flows From Investing Activities									
2,576,516	492,535	-	3,069,051	Investments Converting To Cash	4,598,526	1,472,535	-	6,071,061	2,022,010	980,000	-	3,002,010	
21,504	25,501	90,019	137,025	Purchased Invesments Interest Income	135,254	122,160	419,412	676,827	173,750	100,459	569,393	843,602	
2,598,020	518,036	90,019	3,206,076	Net Cash Provided By (Used In) Investing Activities	4,733,780	1,594,695	419,412	6,747,888	2,195,760	1,080,459	569,393	3,845,612	
680,107	244,530	1,078,462	2,003,100	FUND NET CASH FLOWS	2,826,320	2,237,083	1,151,232	6,214,635	(2,157,696)	1,748,931	(12,137,668)	(12,546,433)	
				DEBT SERVICE RATIO									
585,627	(68,572)	1,768,143	2,285,199	Total Cash Available For Debt Service	2,792,257	2,498,069	11,193,084	16,483,409	4,116,885	4,047,084	17,769,847	25,933,816	
263,150	54,716	1,087,310	1,405,176	Debt Service	1,842,050	382,281	7,611,171	9,835,502	3,157,795	672,566	13,047,722	16,878,082	
2.23	(1.25)	1.63	1.63	DSCR	1.52	6.53	1.47	1.68	1.30	6.02	1.36	1.54	
	\20)			2.7									

## LEHIGH COUNTY AUTHORITY FINANCIAL STATEMENTS - SUBURBAN WATER JULY 2018

	MONTH				JULY 2018	YEAR-TO-DATE					FULL YEAR					
Actual	Forecast	Prior Yr	FC Var	PY Var	INCOME STATEMENT	Actual	Forecast	Prior Yr	FC Var	PY Var	Forecast	Budget	Prior Yr	FC vs Bud	FC vs PY	
					Operating Revenues											
888,329	850,050	813,444	38,279	74,885	Charges For Services	5,281,203	5,242,924	5,017,557	38,279	263,646	9,219,406	9,591,000	8,863,788	(371,594)	355,618	
10,844	7,461	7,140	3,383	3,704	Rent	53,226	49,843	52,619	3,383	607	87,860	91,000	91,019	(3,140)	(3,159)	
7,931	12,853	12,299	(4,922)	(4,368)	Other Income	76,844	81,766	36,766	(4,922)	40,078	129,158	51,000	99,307	78,158	29,851	
907,104	870,364	832,884	36,740	74,220	Total Operating Revenues	5,411,273	5,374,533	5,106,942	36,740	304,331	9,436,424	9,733,000	9,054,114	(296,576)	382,310	
					Operating Expenses											
76,236	90,000	84,583	13,764	8,347	Salaries and Wages	629,350	643,114	573,332	13,764	(56,018)	1,129,114	1,064,358	1,042,565	(64,756)	(86,549)	
114,152	122,000	100,757	7,848	(13,395)	General and Administrative	742,248	750,096	699,532	7,848	(42,716)	1,360,096	1,251,856	1,257,063	(108,240)	(103,033)	
6,134	47,000	31,035	40,866	24,901	Utilities	268,875	309,741	256,009	40,866	(12,866)	544,741	584,346	420,812	39,605	(123,929)	
9,708	24,000	28,976	14,292	19,268	Materials and Supplies	123,971	138,264	150,398	14,292	26,427	274,264	320,654	422,730	46,390	148,466	
214,432	253,000	192,263	38,568	(22,169)	Miscellaneous Services	1,267,893	1,306,460	1,175,626	38,568	(92,267)	2,941,460	2,758,370	2,270,359	(183,090)	(671,101)	
-	-	-	-	-	Treatment & Transportation	-	-	-	-	-	-	-	-	-	-	
245,832	245,833	245,832	1	-	Depreciation and Amortization	1,720,824	1,720,825	1,720,824	1	-	2,949,994	2,950,000	2,695,548	6	(254,446)	
666,493	781,833	683,446	115,340	16,952	Total Operating Expenses	4,753,161	4,868,501	4,575,722	115,340	(177,439)	9,199,670	8,929,584	8,109,077	(270,086)	(1,090,593)	
240,611	88,531	149,438	152,080	91,173	Operating Income	658,112	506,033	531,220	152,080	126,892	236,755	803,416	945,037	(566,661)	(708,282)	
	·												<u> </u>			
					Non-Operating Revenues (Expenses)											
18,755	9,000	20,570	9,755	(1,815)	Tapping and Capital Recovery fees	127,705	117,950	256,800	9,755	(129,095)	472,950	485,000	455,405	(12,050)	17,545	
11,234	4,000	13,340	7,234	(2,106)	Meter Sales	44,693	37,459	64,127	7,234	(19,434)	107,459	105,000	112,468	2,459	(5,009)	
48,285	2,000	3,775	46,285	44,510	Inspection and Plan Reviews	94,198	47,913	32,091	46,285	62,107	157,913	156,000	154,433	1,913	3,480	
-	-	-	-	-	Project Reimbursements	(0)	(0)	25,397	=	(25,397)	(0)	23,000	-	(23,000)	(0)	
21,504	10,000	7,808	11,504	13,697	Interest Income	135,254	123,750	47,665	11,504	87,590	173,750	125,000	127,486	48,750	46,264	
3,525	1,000	4,065	2,525	(540)	Other Income	15,590	13,065	15,660	2,525	(70)	18,065	-	109,343	18,065	(91,278)	
(117,057)	(127,365)	(135,529)	10,308	18,472	Interest Expense	(816,809)	(827,117)	(1,020,399)	10,308	203,590	(1,638,942)	(2,003,000)	(1,371,796)	364,058	(267,146)	
(4,696)	<u> </u>	112,039	(4,696)	(116,736)	Other Expense	(6,504)	(1,808)	(39,842)	(4,696)	33,338	(1,808)		(427,991)	(1,808)	426,183	
(18,450)	(101,365)	26,068	82,915	(44,518)	Total Non-Operating Revenues (Expenses)	(405,873)	(488,788)	(618,501)	82,915	212,628	(710,613)	(1,109,000)	(840,652)	398,387	130,039	
222,160	(12,834)	175,506	234,994	46.654	Net Income Before Capital Contributions	252,239	17,245	(87,281)	234,994	339,520	(473,858)	(305,584)	104,385	(168,274)	(578,243)	
	( =/== -/	-,	,				.,=	(,==-)		,	( )	(,	,	, ,,,,,,,,,,	( = = = = )	
<del></del> -					Capital Contributions		<u> </u>		<u> </u>				6,324,208	<u> </u>	(6,324,208)	
222,160	(12,834)	175,506	234,994	46,654	NET INCOME	252,239	17,245	(87,281)	234,994	339,520	(473,858)	(305,584)	6,428,593	(168,274)	(6,902,451)	

## LEHIGH COUNTY AUTHORITY FINANCIAL STATEMENTS - SUBURBAN WATER JULY 2018

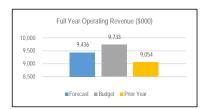
	MONTH				JULY 2018		١	YEAR-TO-DATE			FULL YEAR				
Actual	Forecast	Prior Yr	FC Var	PY Var	CASH FLOW STATEMENT	Actual	Forecast	Prior Yr	FC Var	PY Var	Forecast	Budget	Prior Yr	FC vs Bud	FC vs PY
					Cash Flows From Operating Activities	· ·									
907,104	870,364	832,884	36,740	74,220	Operating Revenues	5,411,273	5,374,533	5,106,942	36,740	304,331	9,436,424	9,733,000	9,054,114	(296,576)	382,310
(420,661)	(536,000)	(437,614)	115,339	16,952	Operating Expenses (ex D&A)	(3,032,337)	(3,147,676)	(2,854,898)	115,339	(177,439)	(6,249,676)	(5,979,584)	(5,413,529)	(270,092)	(836,147)
(2,210,431)	<u> </u>	<u> </u>	(2,210,431)	(2,210,431)	Non-Cash Working Capital Changes	(1,629,305)	581,126		(2,210,431)	(1,629,305)			(174,761)	-	174,761
(1,723,988)	334,364	395,270	(2,058,352)	(2,119,258)	Net Cash Provided by (Used in) Operating Activities	749,631	2,807,984	2,252,044	(2,058,352)	(1,502,413)	3,186,749	3,753,416	3,465,824	(566,667)	(279,075)
					Cash Flows From Financing Activities										
-	-	-	-	-	Capital Contributions	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	Proceeds New Borrowing	-	-	-	-	-	-	-	15,292,006	-	(15,292,006)
(6,889)	(127,365)	(135,529)	120,476	128,640	Interest Payments	(760,493)	(880,969)	(1,020,399)	120,476	259,906	(1,638,942)	(2,003,000)	(1,202,612)	364,058	(436,330)
(29,597)	(223,530)	(139,066)	193,933	109,469	Principal Payments	(206,070)	(400,003)	(941,662)	193,933	735,592	(1,518,853)	(1,741,000)	(1,667,818)	222,147	148,965
(36,486)	(350,895)	(274,595)	314,409	238,109	Net Cash Provided by (Used in) Financing Activities	(966,563)	(1,280,972)	(1,962,061)	314,409	995,498	(3,157,795)	(3,744,000)	12,421,576	586,206	(15,579,371)
					Cash Flows from Capital and Related Activities										
81,799	16,000	41,750	65,799	40,049	Non-Operating Revenues	282,186	216,387	368,678	65,799	(86,492)	756,387	746,000	722,306	10,387	34,081
-	-	-	-	-	Project Reimbursement	(0)	(0)	25,397	-	(25,397)	(0)	23,000	-	(23,000)	(0)
(4,119)	-	111,913	(4,119)	(116,032)	Non-Operating Expenses	(4,119)	-	(36,131)	(4,119)	32,012	-	-	-	-	-
(235,119)	(785,500)	(56,490)	550,381	(178,629)	Capital Expenditures	(1,968,595)	(2,518,976)	(1,415,286)	550,381	(553,309)	(5,138,797)	(9,296,000)	(5,698,875)	4,157,203	560,078
(157,439)	(769,500)	97,173	612,061	(254,611)	Net Cash Provided By (Used In) Capital and Related Activities	(1,690,528)	(2,302,589)	(1,057,342)	612,061	(633,186)	(4,382,410)	(8,527,000)	(4,976,569)	4,144,590	594,159
0.577.547			0.577.547	0.577.547	Cash Flows From Investing Activities	4.500.507	0.000.040		0.577.547	4 500 504	0.000.040	4 000 000	F F00 444	(4.077.000)	(0.400.404)
2,576,516	-	-	2,576,516	2,576,516	Investments Converting To Cash	4,598,526	2,022,010	-	2,576,516	4,598,526	2,022,010	4,000,000	5,520,144	(1,977,990)	(3,498,134)
21,504	10,000	7,808	11,504	13,697	Purchased Invesments Interest Income	135,254	123,750	47,665	11,504	87,590	173,750	125,000	(12,309,800) 127,486	48,750	12,309,800 46,264
2,598,020	10,000	7,808	2,588,020	2,590,213	Net Cash Provided By (Used In) Investing Activities	4,733,780	2,145,760	47,665	2,588,020	4,686,116	2,195,760	4,125,000	(6,662,170)	(1,929,240)	8,857,930
680,107	(776,031)	225,655	1,456,138	454,452	FUND NET CASH FLOWS	2,826,320	1,370,183	(719,694)	1,456,138	3,546,014	(2,157,696)	(4,392,584)	4,248,661	2,234,888	(6,406,357)
080,107	(110,031)	223,033	1,430,130	434,432	FUND NET CASH FLOWS	2,020,320	1,370,103	(717,074)	1,430,130	3,540,014	(2,137,070)	(4,372,304)	4,240,001	2,234,000	(0,400,337)
					DEBT SERVICE RATIO										
585,627	360,364	556,741	225,263	28,887	Total Cash Available For Debt Service	2,792,257	2,566,994	2,632,256	225,263	160,002	4,116,885	4,624,416	4,490,377	(507,531)	(373,492)
263,150	263,150	274,595	-	(11,445)	Debt Service	1,842,050	1,842,050	1,962,061	-	(120,011)	3,157,795	3,744,000	2,870,430	(586,206)	287,365
2.23	1.37	2.03	0.86	0.20	DSCR	1.52	1.39	1.34	0.12	0.17	1.30	1.24	1.56	0.07	(0.26)

## LEHIGH COUNTY AUTHORITY FINANCIAL STATEMENTS - SUBURBAN WATER JULY 2018

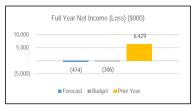
FORECAST VARIANCES - MONTH

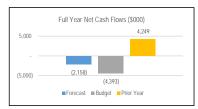
			Cast Varian	
INCOME STATEMENT	Actual	Forecast	Variance	Comments
Operating Revenues				
Charges For Services	888,329	850,050	38,279	Higher public fire service revenues and higher residential revenues
Rent	10,844	7,461	3,383	
Other Income	7,931	12,853	(4,922)	
Total Operating Revenues	907,104	870,364	36,740	Higher usage charges due to higher revenues from public tire service and residential segments
Operating Expenses				
Salaries and Wages	76,236	90,000	13,764	Lower charges from internal services
General and Administrative	114,152	122,000	7,848	Edward analysis from macrial services
General and Administrative	114,132	122,000	7,040	
Utilities Materials and Complian	6,134	47,000	40,866	Invoices not processed before closing. These will process in August and will create an unfavorable variance Lower equipment purchases
Materials and Supplies	9,708	24,000	14,292	Lower costs of purchased water
Miscellaneous Services	214,432	253,000	38,568	Lower costs of purchased water
Treatment & Transportation	245.022	245.022		
Depreciation and Amortization	245,832	245,833	1	Lower due to lower spending across all expense categories
Total Operating Expenses	666,493	781,833	115,340	Lower due to lower speriding across all expense categories
Operating Income	240,611	88,531	152,080	Higher due to combination of higher operating revenues and lower operating expenses
Non-Operating Revenues (Expenses)				
Tanning and Capital Decoupy food	10.755	0.000	0.755	Got significant fees from developers connecting to the system: Kay Builders and Chesapeake Homes. We forecasted most of this to occur later in the year
Tapping and Capital Recovery fees	18,755	9,000		forecasted most of this to occur later in the year.  Meter sales were up to the same developers
Meter Sales	11,234	4,000	7,234	·
Inspection and Plan Reviews	48,285	2,000	46,285	Significant revenues from Kay Builders and Parkland School District. Again, forecast for these were towards latter part of the year
Project Reimbursements	40,203	2,000	40,200	iation part of the year
Interest Income	21,504	10,000	11,504	Higher invested balances
Other Income	3,525	1,000	2,525	Tilghol invested balances
Interest Expense	(117,057)	(127,365)	10,308	
Other Expense	(4,696)	(127,303)	(4,696)	Higher expensed capex
Total Non-Operating Revenues (Expenses)	(18,450)	(101,365)	82,915	Higher inspection and plan review fees
Net Income Before Capital Contributions	222,160	(12,834)	234,994	Higher operating income adided by higher non-operating revenues
	222,100	(12,001)	201,771	
Capital Contributions				No contributions for the month
NET INCOME	222,160	(12,834)	234,994	Higher operating revenues, lower operating expenses, and higher non-operating revenues
NET INCOME	222,160			Higher operating revenues, lower operating expenses, and higher non-operating revenues  ICES - MONTH
NET INCOME  CASH FLOW STATEMENT	222,160 Actual			
		FORE	CAST VARIAN	ICES - MONTH
CASH FLOW STATEMENT		FORE	CAST VARIAN	ICES - MONTH
CASH FLOW STATEMENT Cash Flows From Operating Activities Operating Revenues	Actual 907,104	FOREGE Forecast 870,364	CAST VARIAN Variance 36,740	ICES - MONTH
CASH FLOW STATEMENT Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A)	Actual	FORE(	CAST VARIAN Variance	ICES - MONTH
CASH FLOW STATEMENT Cash Flows From Operating Activities Operating Revenues	Actual 907,104	FOREGE Forecast 870,364	CAST VARIAN Variance 36,740	ICES - MONTH
CASH FLOW STATEMENT Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A)	Actual 907,104 (420,661)	FOREGE Forecast 870,364	26,740 115,339	ICES - MONTH  Comments
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities	907,104 (420,661) (2,210,431)	FORE( Forecast 870,364 (536,000)	CAST VARIAN  Variance  36,740 115,339  (2,210,431)	Comments  Working capital movements resulted in a cash decrease. Working capital movements were not forecasted
CASH FLOW STATEMENT  Cash Flows From Operating Activities  Operating Revenues  Operating Expenses (ex D&A)  Non-Cash Working Capital Changes	907,104 (420,661) (2,210,431)	FORE( Forecast 870,364 (536,000)	CAST VARIAN  Variance  36,740 115,339  (2,210,431)	Comments  Working capital movements resulted in a cash decrease. Working capital movements were not forecasted
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions	907,104 (420,661) (2,210,431)	FORE( Forecast 870,364 (536,000)	CAST VARIAN  Variance  36,740 115,339  (2,210,431)	Comments  Working capital movements resulted in a cash decrease. Working capital movements were not forecasted
CASH FLOW STATEMENT  Cash Flows From Operating Activities  Operating Revenues  Operating Expenses (ex D&A)  Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities  Capital Contributions  Proceeds New Borrowing	907,104 (420,661) (2,210,431) (1,723,988)	FORE( Forecast 870,364 (536,000) - - 334,364	36,740 115,339 (2,210,431) (2,058,352)	Comments  Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments	907,104 (420,661) (2,210,431) (1,723,988)	FORE( Forecast  870,364 (536,000)	CAST VARIAN  Variance  36,740 115,339  (2,210,431) (2,058,352)	Comments  Working capital movements resulted in a cash decrease. Working capital movements were not forecasted
CASH FLOW STATEMENT  Cash Flows From Operating Activities  Operating Revenues  Operating Expenses (ex D&A)  Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities  Capital Contributions  Proceeds New Borrowing	907,104 (420,661) (2,210,431) (1,723,988)	FORE( Forecast 870,364 (536,000) - - 334,364	36,740 115,339 (2,210,431) (2,058,352)	Comments  Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities	907,104 (420,661) (2,210,431) (1,723,988) (6,889) (29,597)	FORE( Forecast 870,364 (536,000) 	20,210,431) (2,210,431) (2,058,352) (120,476 193,933	Comments  Comments  Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing Mis-forecasted debt service liming
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities	907,104 (420,661) (2,210,431) (1,723,988) (6,889) (29,597) (36,486)	FORE( Forecast  870,364 (536,000)	CAST VARIAN Variance 36,740 115,339 (2,210,431) (2,058,352) 120,476 193,933 314,409	Comments  Comments  Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing Mis-forecasted debt service timing Favorable on principal and interest
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CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement	907,104 (420,661) (2,210,431) (1,723,988) (6,889) (29,597) (36,486)	FORE( Forecast  870,364 (536,000)	265,799	Comments  Comments  Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing Mis-forecasted debt service timing Favorable on principal and interest
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses	907,104 (420,661) (2,210,431) (1,723,988)  . (6,889) (29,597) (36,486)  81,799 . (4,119)	FORE(Forecast 870,364 (536,000) - 334,364 (127,365) (223,530) (350,895)	CAST VARIAN Variance 36,740 115,339 (2,210,431) (2,058,352)  120,476 193,933 314,409 65,799 (4,119)	Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing Mis-forecasted debt service timing Favorable on principal and interest  Higher inspection and plan reviews
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures	907,104 (420,661) (2,210,431) (1,723,988) (6,889) (29,597) (36,486) 81,799 (4,119) (235,119)	FORE(Forecast 870,364 (536,000) 334,364 (536,000) (785,500) (350,895)	CAST VARIAN Variance  36,740 115,339 (2,210,431) (2,058,352)  120,476 193,933 314,409  65,799 (4,119) 550,381	Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing Mis-forecasted debt service timing Favorable on principal and interest  Higher inspection and plan reviews  Lower due to spending timing being off to forecast
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses	907,104 (420,661) (2,210,431) (1,723,988)  . (6,889) (29,597) (36,486)  81,799 . (4,119)	FORE(Forecast 870,364 (536,000) - 334,364 (127,365) (223,530) (350,895)	CAST VARIAN Variance 36,740 115,339 (2,210,431) (2,058,352)  120,476 193,933 314,409 65,799 (4,119)	Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing Mis-forecasted debt service timing Favorable on principal and interest  Higher inspection and plan reviews
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures	907,104 (420,661) (2,210,431) (1,723,988) (6,889) (29,597) (36,486) 81,799 (4,119) (235,119)	FORE(Forecast 870,364 (536,000) 334,364 (536,000) (785,500) (350,895)	CAST VARIAN  Variance  36,740 115,339 (2,210,431) (2,058,352)  120,476 193,933 314,409  65,799 (4,119) 550,381 612,061	Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing Mis-forecasted debt service timing Favorable on principal and interest  Higher inspection and plan reviews  Lower due to spending timing being off to forecast Lower, primarily, due to lower capex
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures Net Cash Provided By (Used In) Capital and Related Activities	907,104 (420,661) (2,210,431) (1,723,988) (6,889) (29,597) (36,486) 81,799 (4,119) (235,119)	FORE(Forecast 870,364 (536,000) 334,364 (536,000) (785,500) (350,895)	CAST VARIAN Variance  36,740 115,339 (2,210,431) (2,058,352)  120,476 193,933 314,409  65,799 (4,119) 550,381	Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing Mis-forecasted debt service timing Favorable on principal and interest  Higher inspection and plan reviews  Lower due to spending timing being off to forecast
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures Net Cash Provided By (Used In) Capital and Related Activities  Cash Flows From Investing Activities	Actual  907,104 (420,661) (2,210,431) (1,723,988)  . (6,889) (29,597) (36,486)  81,799 . (4,119) (235,119) (157,439)	FORE(Forecast 870,364 (536,000) 334,364 (536,000) (785,500) (350,895)	CAST VARIAN  Variance  36,740 115,339 (2,210,431) (2,058,352)  120,476 193,933 314,409  65,799 (4,119) 550,381 612,061	Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing Mis-forecasted debt service timing Favorable on principal and interest  Higher inspection and plan reviews  Lower due to spending timing being off to forecast Lower, primarily, due to lower capex  Converted investments into cash that was not forecasted until later in the year
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures Net Cash Provided By (Used In) Capital and Related Activities  Cash Flows From Investing Activities Investments Converting To Cash	Actual  907,104 (420,661) (2,210,431) (1,723,988)  . (6,889) (29,597) (36,486)  81,799 . (4,119) (235,119) (157,439)	FORE(Forecast 870,364 (536,000) 334,364 (536,000) (785,500) (350,895)	CAST VARIAN  Variance  36,740 115,339 (2,210,431) (2,058,352)  120,476 193,933 314,409  65,799 (4,119) 550,381 612,061	Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing Mis-forecasted debt service timing Favorable on principal and interest  Higher inspection and plan reviews  Lower due to spending timing being off to forecast Lower, primarily, due to lower capex
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures Net Cash Provided By (Used In) Capital and Related Activities  Cash Flows From Investing Activities Investments Converting To Cash Purchased Invesments	907,104 (420,661) (2,210,431) (1,723,988) (6,889) (29,597) (36,486) 81,799 (4,119) (235,119) (157,439)	FORE( Forecast  870,364 (536,000)	CAST VARIAN Variance  36,740 115,339 (2,210,431) (2,058,352)  120,476 193,933 314,409  65,799 (4,119) 550,381 612,061	Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing Mis-forecasted debt service timing Favorable on principal and interest  Higher inspection and plan reviews  Lower due to spending timing being off to forecast Lower, primarily, due to lower capex  Converted investments into cash that was not forecasted until later in the year
CASH FLOW STATEMENT  Cash Flows From Operating Activities Operating Revenues Operating Expenses (ex D&A) Non-Cash Working Capital Changes  Net Cash Provided by (Used in) Operating Activities  Cash Flows From Financing Activities Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures Net Cash Provided By (Used In) Capital and Related Activities  Cash Flows From Investing Activities Investments Converting To Cash Purchased Invesments Interest Income	907,104 (420,661) (2,210,431) (1,723,988) (6,889) (29,597) (36,486) 81,799 (4,119) (235,119) (157,439)	FORE( Forecast  870,364 (536,000)	CAST VARIAN Variance  36,740 115,339 (2,210,431) (2,058,352)  120,476 193,933 314,409  65,799 (4,119) 550,381 612,061  2,576,516 11,504	Working capital movements resulted in a cash decrease. Working capital movements were not forecasted Lower due to the unfavorable working capital movements  Mis-forecasted debt service timing Mis-forecasted debt service timing Favorable on principal and interest  Higher inspection and plan reviews  Lower due to spending timing being off to forecast Lower, primarily, due to lower capex  Converted investments into cash that was not forecasted until later in the year  Higher invested balances

#### DASHBOARD - SUBURBAN WATER JULY 2018









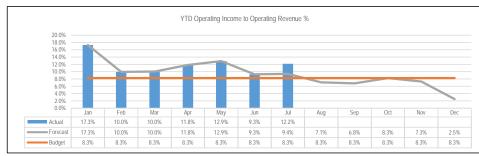


10,000	Full Year Capital Spending (\$000) 9,296								
	5,139	5,239							
5,000									

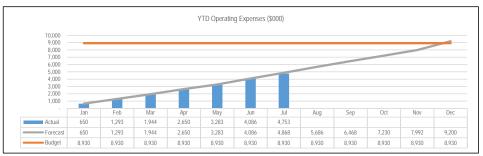
FULL YEAR COMPARATIVE (\$000)	Forecast	Budget	Prior Y
Operating Revenues	9,436	9,733	9,054
Less: Operating Expenses	9,200	8,930	8,109
Operating Income	236	803	945
Other income (expenses)	(710)	(1,109)	5,484
Net Income	(474)	(306)	6,429
Debt Service Coverage Ratio	1.30	1.24	1.35
Net Cash Flows	(2,158)	(4,393)	4,249

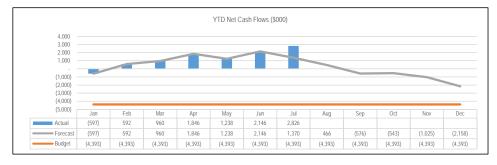












## LEHIGH COUNTY AUTHORITY FINANCIAL STATEMENTS - SUBURBAN WASTEWATER JULY 2018

	MONTH				JULY 2018		YEAR-TO-DATE					FULL YEAR				
Actual	Forecast	Prior Yr	FC Var	PY Var	INCOME STATEMENT	Actual	Forecast	Prior Yr	FC Var	PY Var	Forecast	Budget	Prior Yr	Bud Var	PY Var	
					Operating Revenues											
1,035,579	885,274	1,480,439	150,305	(444,860)	Charges For Services	9,913,109	9,762,804	9,797,288	150,305	115,820	17,219,174	19,197,000	12,568,375	(1,977,826)	4,650,799	
-	-	-	-		Rent	-	-	-	-		-	-	-	-	-	
	<u> </u>		<u> </u>	<u> </u>	Other Income		<u> </u>			-		<u> </u>	290,406	<u> </u>	(290,406)	
1,035,579	885,274	1,480,439	150,305	(444,860)	Total Operating Revenues	9,913,109	9,762,804	9,797,288	150,305	115,820	17,219,174	19,197,000	12,858,781	(1,977,826)	4,360,393	
					Operating Expenses											
39,587	33,000	34,677	(6,587)	(4,910)	Salaries and Wages	237,931	231,344	233,704	(6,587)	(4,228)	396,344	461,482	424,208	65,138	27,864	
43,054	45,000	32,435	1,946	(10,619)	General and Administrative	243,775	245,720	238,145	1,946	(5,630)	470,720	464,057	559,911	(6,663)	89,191	
5,279	32,000	17,737	26,721	12,458	Utilities	160,656	187,377	126,136	26,721	(34,520)	347,377	285,486	226,197	(61,891)	(121,180)	
40,391	22,000	12,291	(18,391)	(28,100)	Materials and Supplies	110,546	92,155	66,922	(18,391)	(43,624)	302,155	372,250	155,503	70,095	(146,652)	
726,616	680,000	612,330	(46,616)	(114,287)	Miscellaneous Services	4,559,894	4,513,277	4,144,412	(46,616)	(415,482)	7,913,277	8,579,017	6,369,014	665,740	(1,544,263)	
333,082	378,000	421,510	44,918	88,428	Treatment & Transportation	2,697,792	2,742,710	2,586,627	44,918	(111,165)	4,632,710	3,969,993	3,516,548	(662,717)	(1,116,162)	
397,865	398,000	364,694	135	(33,171)	Depreciation and Amortization	2,785,055	2,785,190	2,552,858	135	(232,197)	4,775,190	4,776,000	4,599,096	810	(176,094)	
1,585,875	1,588,000	1,495,674	2,125	(90,201)	Total Operating Expenses	10,795,648	10,797,773	9,948,802	2,125	(846,846)	18,837,773	18,908,285	15,850,477	70,512	(2,987,296)	
(550,296)	(702,726)	(15,235)	152,430	(535,061)	Operating Income	(882,539)	(1,034,969)	(151,514)	152,430	(731,025)	(1,618,599)	288,715	(2,991,696)	(1,907,314)	1,373,097	
					Non-Operating Revenues (Expenses)											
45,278	55,000	32,104	(9,722)	13,173	Tapping and Capital Recovery fees	459,066	468,788	764,365	(9,722)	(305,299)	788,788	1,015,000	449,376	(226,212)	339,412	
-	-	-	-		Meter Sales	-	-	-	-		-	-	-	-	-	
15,541	-	-	15,541	15,541	Inspection and Plan Reviews	15,852	311	5,901	15,541	9,951	311	92,000	12,444	(91,689)	(12,133)	
-	-	-	-	-	Project Reimbursements	-	-	-	-	-	-	-	-	-	-	
25,501	600	400	24,901	25,102	Interest Income	122,160	97,259	2,735	24,901	119,425	100,459	5,000	162,034	95,459	(61,575)	
75	-	135	75	(60)	Other Income	1,010	935	555	75	455	935	-	7,520	935	(6,585)	
(16,307)	(18,000)	(17,862)	1,693	1,556	Interest Expense	(114,653)	(116,346)	(126,049)	1,693	11,397	(206,346)	(216,000)	(204,418)	9,654	(1,928)	
(3,979)	(2,000)	(3,605)	(1,979)	(374)	Other Expense	(7,534)	(5,555)	(29,551)	(1,979)	22,016	(15,555)	(301,000)	(30,104)	285,445	14,549	
66,109	35,600	11,171	30,509	54,938	Total Non-Operating Revenues (Expenses)	475,901	445,392	617,956	30,509	(142,055)	668,592	595,000	396,852	73,592	271,740	
(484,187)	(667,126)	(4,063)	182,939	(480,123)	Net Income Before Capital Contributions	(406,638)	(589,578)	466,442	182,939	(873,080)	(950,008)	883,715	(2,594,844)	(1,833,723)	1,644,836	
		<u> </u>		<u>-</u>	Capital Contributions	<u> </u>	<u>-</u>		<u> </u>	<u> </u>		-	2,055,943		(2,055,943)	
(484,187)	(667,126)	(4,063)	182,939	(480,123)	NET INCOME	(406,638)	(589,578)	466,442	182,939	(873,080)	(950,008)	883,715	(538,901)	(1,833,723)	(411,107)	

## LEHIGH COUNTY AUTHORITY FINANCIAL STATEMENTS - SUBURBAN WASTEWATER JULY 2018

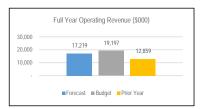
	MONTH				JULY 2018		YEAR-TO-DATE						FULL YEAR				
Actual	Forecast	Prior Yr	FC Var	PY Var	CASH FLOW STATEMENT	Actual	Forecast	Prior Yr	FC Var	PY Var	Forecast	Budget	Prior Yr	Bud Var	PY Var		
					Cash Flows From Operating Activities												
1,035,579	885,274	1,480,439	150,305	(444,860)	Operating Revenues	9,913,109	9,762,804	9,797,288	150,305	115,820	17,219,174	19,197,000	12,858,781	(1,977,826)	4,360,393		
(1,188,010)	(1,190,000)	(1,130,980)	1,990	(57,030)	Operating Expenses (ex D&A)	(8,010,593)	(8,012,583)	(7,395,944)	1,990	(614,649)	(14,062,583)	(14,132,285)	(11,251,381)	69,702	(2,811,202)		
158,459	<u> </u>	<u> </u>	158,459	158,459	Non-Cash Working Capital Changes	(538,676)	(697,135)		158,459	(538,676)			(1,605,524)		1,605,524		
6,028	(304,726)	349,459	310,754	(343,431)	Net Cash Provided by (Used in) Operating Activities	1,363,840	1,053,086	2,401,344	310,754	(1,037,504)	3,156,591	5,064,715	1,876	(1,908,124)	3,154,715		
					Cash Flows From Financing Activities												
-	-	-	-	-	Capital Contributions	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-		
(14,277)	(18,000)	(15,103)	3,723	826	Interest Payments	(100,713)	(104,435)	(106,208)	3,723	5,496	(194,435)	(216,000)	(204,418)	21,565	9,983		
(40,438)	(39,500)	(39,589)	(938)	(850)	Principal Payments	(281,569)	(280,630)	(276,587)	(938)	(4,981)	(478,130)	(474,000)	(475,585)	(4,130)	(2,545)		
(54,716)	(57,500)	(54,692)	2,784	(24)	Net Cash Provided by (Used in) Financing Activities	(382,281)	(385,066)	(382,795)	2,784	514	(672,566)	(690,000)	(680,003)	17,434	7,437		
					Cash Flows from Capital and Related Activities												
60,894	55.000	32,239	5.894	28,654	Non-Operating Revenues	475,928	470,034	770,821	5,894	(294,893)	790,034	1,107,000	503,658	(316,966)	286,376		
		,	-,	,	Project Reimbursement		-	-	-,	(= 1 1,0 1 0,	-	-		(=,	,		
(2,535)	_	(3,605)	(2,535)	1,070	Non-Operating Expenses	(2,535)	0	(29,033)	(2,535)	26,498	0	-	(130)	0	130		
(283,177)	(272,700)	(226,529)	(10,477)	(56,647)	Capital Expenditures	(812,564)	(802,087)	(1,409,415)	(10,477)	596,852	(2,605,587)	(11,718,000)	(2,865,337)	9,112,413	259,750		
(224,818)	(217,700)	(197,895)	(7,118)	(26,923)	Net Cash Provided By (Used In) Capital and Related Activities	(339,171)	(332,053)	(667,627)	(7,118)	328,456	(1,815,553)	(10,611,000)	(2,361,809)	8,795,447	546,256		
					0.15												
492,535			492,535	492,535	Cash Flows From Investing Activities Investments Converting To Cash	1,472,535	980.000		492,535	1,472,535	980,000	3.480.000	5,445,346	(2,500,000)	(4,465,346)		
492,000	-	-	492,333	492,333	Purchased Invesments	1,472,535	980,000	-	492,535	1,472,555	960,000	3,460,000	(5,618,502)	(2,500,000)	5,618,502		
25,501	600	400	24,901	25,102	Interest Income	122,160	97,259	2,735	24,901	119,425	100,459	5,000	154,918	95,459	(54,459)		
518,036	600	400	517,436	517,637	Net Cash Provided By (Used In) Investing Activities	1,594,695	1,077,259	2,735	517,436	1,591,960	1,080,459	3,485,000	(18,238)	(2,404,541)	1,098,697		
010,000		100	017,100	017,007	not ous. Trovided by (Good in) invosting rotations	1,071,070	1,077,207	2,700	017,100	1,071,700	1,000,107	0,100,000	(10,200)	(2) 10 1/0 11/	1,070,077		
244,530	(579,326)	97,272	823,856	147,258	FUND NET CASH FLOWS	2,237,083	1,413,226	1,353,656	823,856	883,426	1,748,931	(2,751,285)	(3,058,174)	4,500,216	4,807,105		
					DEDT OFFINISE DATIO												
//a ==-:	/a.a			/see (F.:	DEBT SERVICE RATIO					//=/ ee :				(0.400.40.7			
(68,572)	(249,126)	382,098	180,554	(450,670)	Total Cash Available For Debt Service	2,498,069	2,317,514	3,174,900	180,555	(676,831)	4,047,084	6,176,715	2,265,976	(2,129,631)	1,781,108		
54,716	57,500	54,692	(2,784)	24	Debt Service	382,281	385,066	382,795	(2,784)	(514)	672,566	690,000	680,003	(17,434)	(7,437)		
(1.25)	(4.33)	6.99	3.08	(8.24)	DSCR	6.53	6.02	8.29	0.52	(1.76)	6.02	8.95	3.33	(2.93)	2.69		

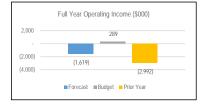
#### LEHIGH COUNTY AUTHORITY FINANCIAL STATEMENTS - SUBURBAN WASTEWATER JULY 2018

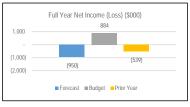
FORECAST VARIANCES - MONTH

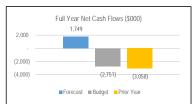
		FORE	CAST VARIAN	NCES - MONTH
INCOME STATEMENT	Actual	Forecast	Variance	Comments
Operating Revenues				
Charges For Services	1,035,579	885,274	150,305	Higher WWTP revenues from higher hauler fees, higher industrial charges, and higher excess removal credits
Rent	-		-	
Other Income				
Total Operating Revenues	1,035,579	885,274	150,305	Higher charges for service from higher WWTP revenues
Operating Expenses				
Salaries and Wages	39,587	33,000	(6,587)	
General and Administrative	43,054	45,000	1,946	
Utilities	5,279	32,000	26,721	Invoices not processed before closing. These will process in August and will create an unfavorable variance
Materials and Supplies	40,391	22,000	(18,391)	Equipment lease payments that were missed when developing the forecast
Miscellaneous Services	726,616	680,000	(46,616)	
Treatment & Transportation	333,082	378,000	44,918	Lower flows and loads
Depreciation and Amortization	397,865	398,000	135	
Total Operating Expenses	1,585,875	1,588,000	2,125	Offset of lower utilities and lower Treatment & Transportation costs against higher materials and supplies and higher WWTP treatment & removal costs
Total Operating Expenses	1,505,075	1,500,000	2,123	
Operating Income	(550,296)	(702,726)	152,430	Mainly due to higher operating revenues
Non-Operating Revenues (Expenses)				
Tapping and Capital Recovery fees	45,278	55,000	(9,722)	
Meter Sales				December from Key Duilders Was foresested for latter next of the year
Inspection and Plan Reviews	15,541		15,541	Revenues from Kay Builders. Was forecasted for latter part of the year
Project Reimbursements Interest Income	25,501	600	24,901	Higher invested balances
Other Income	25,501	-	75	This invested balances
Interest Expense	(16,307)	(18,000)	1,693	
Other Expense	(3,979)	(2,000)	(1,979)	
Total Non-Operating Revenues (Expenses)	66,109	35,600	30,509	Higher interest income and higher inspection & plan review revenues
Net Income Before Capital Contributions	(484,187)	(667,126)	182,939	Higher operating income from higher operating revenues and higher non-operating revenues
	(101,107)	(007/120)	102,707	No contributions for the month
Capital Contributions				NO CONTRIBUTIONS FOR THE HIGHRI
NET INCOME	(484,187)	(667,126)	182,939	Higher operating & non-operating revenues
		FORE	CAST VARIAN	NCES - MONTH
CASH FLOW STATEMENT	Actual	Forecast	Variance	Comments
Cash Flows From Operating Activities				
Operating Revenues	1,035,579	885,274	150,305	
Operating Expenses (ex D&A)	(1,188,010)	(1,190,000)	1,990	
Non-Cash Working Capital Changes	158,459		158,459	Favorable working capital movement. Not forecasted
Net Cash Provided by (Used in) Operating Activities	6,028	(304,726)	310,754	Higher net income along with favorable working capital movements
Cash Flows From Financing Activities				
Capital Contributions				
Proceeds New Borrowing		-	-	
Interest Payments	(14,277)	(18,000)	3,723	
Principal Payments	(40,438)	(39,500)	(938)	
Net Cash Provided by (Used in) Financing Activities	(54,716)	(57,500)	2,784	
Cash Flows from Capital and Related Activities				
Non-Operating Revenues	60,894	55,000	5,894	
Project Reimbursement		-		
Non-Operating Expenses	(2,535)		(2,535)	
Capital Expenditures	(283,177)	(272,700)	(10,477)	Project spending timing off to forecast
Net Cash Provided By (Used In) Capital and Related Activities	(224,818)	(217,700)	(7,118)	Lower capex
Cash Flows From Investing Activities				
Investments Converting To Cash	492,535		492,535	Converted investments into cash that was forecasted for later in the year
Purchased Invesments			-	
Interest Income	25,501	600	24,901	Higher invested balances
Net Cash Provided By (Used In) Investing Activities	518,036	600	517,436	Higher investement conversions
FUND NET CASH FLOWS	244,530	(579,326)	823,856	Higher cash from operations and higher investestment conversions
			,	

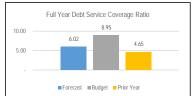
#### DASHBOARD - SUBURBAN WASTEWATER JULY 2018









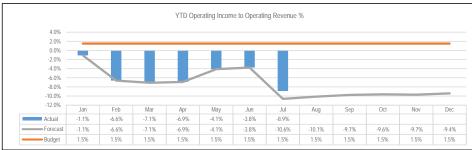


15,000		11,718
10,000		
5,000	2,606	3,183

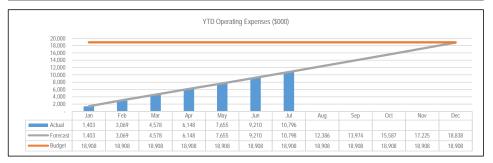
Forecast	Budget	Prior Yr
17,219	19,197	12,859
18,838	18,908	15,851
(1,619)	289	(2,992)
669	595	2,453
(950)	884	(539)
6.02	8.95	4.65
1,749	(2,751)	(3,058)
	18,838 (1,619) 669 (950) 6.02	17,219 19,197 18,838 18,908 (1,619) 289 669 595 (950) 884 6.02 8.95

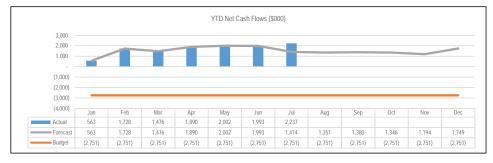












## LEHIGH COUNTY AUTHORITY FINANCIAL STATEMENTS - CITY DIVISION JULY 2018

	MONTH				JULY 2018 YEAR-TO-DATE					FULL YEAR					
Actual	Forecast	Prior Yr	FC Var	PY Var	INCOME STATEMENT	Actual	Forecast	Prior Yr	FC Var	PY Var	Forecast	Budget	Prior Yr	Bud Var	PY Var
					Operating Revenues										
3,010,995	2,986,780	1,440,211	24,216	1,570,784	Charges For Services	19,834,527	19,810,311	18,590,777	24,216	1,243,751	33,304,933	33,039,000	32,802,663	265,933	502,270
-		-		-	Rent	-	-	-		-	-		-	-	
34,633	49,070	26,973	(14,437)	7,660	Other Income	339,055	353,492	254,656	(14,437)	84,399	567,706	530,000	93,262	37,706	474,444
3,045,628	3,035,850	1,467,184	9,778	1,578,444	Total Operating Revenues	20,173,582	20,163,804	18,845,432	9,778	1,328,150	33,872,640	33,569,000	32,895,925	303,640	976,715
					Operating Expenses										
425,802	416,000	402,671	(9,802)	(23,131)	Salaries and Wages	3,118,740	3,108,938	2,808,710	(9,802)	(310,030)	5,418,938	5,483,083	5,756,508	64,145	337,570
606,761	448,000	529,050	(158,761)	(77,711)	General and Administrative	3,812,875	3,654,114	3,721,697	(158,761)	(91,177)	5,981,114	5,988,429	5,268,909	7,315	(712,205)
57,966	168,000	144,562	110,034	86,596	Utilities	1,155,741	1,265,775	1,013,834	110,034	(141,906)	2,105,775	1,983,202	1,903,666	(122,573)	(202,109)
90,945	165,000	106,654	74,055	15,709	Materials and Supplies	596,092	670,147	635,558	74,055	39,466	1,450,147	1,489,546	1,312,551	39,399	(137,596)
156,680	205,000	266,538	48,320	109,858	Miscellaneous Services	751,753	800,073	1,176,362	48,320	424,609	1,825,073	1,845,730	2,620,544	20,657	795,471
4,624	1,000	-	(3,624)	(4,624)	Treatment & Transportation	4,624	1,000	4,935	(3,624)	311	6,000	12,000	10,096	6,000	4,096
466,667	466,667	450,000		(16,667)	Depreciation and Amortization	3,266,669	3,266,669	3,150,000	<u> </u>	(116,669)	5,600,000	5,600,000	5,887,307		287,307
1,809,445	1,869,667	1,899,474	60,222	90,029	Total Operating Expenses	12,706,493	12,766,715	12,511,096	60,222	(195,397)	22,387,046	22,401,990	22,759,581	14,944	372,535
1,236,183	1,166,183	(432,290)	70,000	1,668,473	Operating Income	7,467,088	7,397,088	6,334,336	70,000	1,132,752	11,485,593	11,167,010	10,136,344	318,583	1,349,249
					Non-Operating Revenues (Expenses)										
10,574	13,000	13,029	(2,426)	(2,455)	Tapping and Capital Recovery fees	254,325	256,751	84,871	(2,426)	169,454	321,751	144,000	725,230	177,751	(403,479)
272	1,000	2,622	(728)	(2,350)	Meter Sales	5,404	6,132	9,970	(728)	(4,566)	11,132	15,000	17,187	(3,868)	(6,055)
1,200	1,000	1,500	200	(300)	Inspection and Plan Reviews	21,895	21,695	8,000	200	13,895	206,695	293,000	1,132,206	(86,305)	(925,511)
-		435,138		(435,138)	Project Reimbursements		-	558,736	-	(558,736)	190,000	2,480,000		(2,290,000)	190,000
90,019	40,000	18,499	50,019	71,520	Interest Income	419,412	369,393	242,509	50,019	176,902	569,393	348,000	341,431	221,393	227,962
4,097		3,765	4,097	332	Other Income	26,077	21,980	24,525	4,097	1,552	21,980	-	1,123,827	21,980	(1,101,847)
(1,402,734)	(1,403,000)	(1,262,941)	266	(139,793)	Interest Expense	(9,819,138)	(9,819,404)	(8,840,587)	266	(978,551)	(18,544,404)	(16,735,000)	(18,516,650)	(1,809,404)	(27,754)
(179,266)	(450,000)	(138,368)	270,734	(40,898)	Other Expense	(789,842)	(1,060,576)	(818,002)	270,734	28,160	(3,860,576)	(4,980,000)	(3,312,624)	1,119,424	(547,952)
(1,475,837)	(1,798,000)	(926,756)	322,163	(549,081)	Total Non-Operating Revenues (Expenses)	(9,881,867)	(10,204,029)	(8,729,977)	322,163	(1,151,889)	(21,084,029)	(18,435,000)	(18,489,393)	(2,649,029)	(2,594,636)
(239,654)	(621 017)	(1,359,046)	392,163	1,119,392	Net Income Before Capital Contributions	(2,414,778)	(2,806,941)	(2,395,641)	392,163	(19,137)	(9,598,436)	(7,267,990)	(8,353,049)	(2,330,446)	(1,245,387)
(237,034)	(031,017)	(1,307,040)	372,103	1,117,372	net meome before capital continutions	(2,414,770)	(2,000,741)	(2,373,041)	372,103	(17,137)	(7,070,430)	(1,201,770)	(0,333,049)	(2,330,440)	(1,240,307)
					Capital Contributions				<u> </u>			<u>-</u>			<u>-</u>
(239,654)	(631,817)	(1,359,046)	392,163	1,119,392	NET INCOME	(2,414,778)	(2,806,941)	(2,395,641)	392,163	(19,137)	(9,598,436)	(7,267,990)	(8,353,049)	(2,330,446)	(1,245,387)

## LEHIGH COUNTY AUTHORITY FINANCIAL STATEMENTS - CITY DIVISION JULY 2018

	MONTH				JULY 2018	EAR-TO-DATE			FULL YEAR						
Actual	Forecast	Prior Yr	FC Var	PY Var	CASH FLOW STATEMENT	Actual	Forecast	Prior Yr	FC Var	PY Var	Forecast	Budget	Prior Yr	Bud Var	PY Var
					Cash Flows From Operating Activities										
3,045,628	3,035,850	1,467,184	9,778	1,578,444	Operating Revenues	20,173,582	20,163,804	18,845,432	9,778	1,328,150	33,872,640	33,569,000	32,895,925	303,640	976,715
(1,342,778)	(1,403,000)	(1,449,474)	60,222	106,696	Operating Expenses (ex D&A)	(9,439,824)	(9,500,046)	(9,361,096)	60,222	(78,728)	(16,787,046)	(16,801,990)	(16,872,274)	14,944	85,228
(205,573)			(205,573)	(205,573)	Non-Cash Working Capital Changes	(1,434,650)	(1,374,617)		(60,033)	(1,434,650)			3,458,783		(3,458,783)
1,497,277	1,632,850	17,710	(135,573)	1,479,567	Net Cash Provided by (Used in) Operating Activities	9,299,107	9,289,140	9,484,336	9,967	(185,229)	17,085,593	16,767,010	19,482,434	318,583	(2,396,841)
					Cash Flows From Financing Activities										
					Lease Payments to City	(255,780)	(255,780)	(252,000)		(3,780)	(515,560)	(512,000)	(504,000)	(3,560)	(11,560)
-			-		Capital Contributions	(200,760)	(200,760)	(252,000)	-	(3,700)	(313,300)	(312,000)	(304,000)	(3,360)	(11,360)
-					Proceeds New Borrowing	-			-	-	10,000,000	1,720,000	-	8,280,000	10,000,000
					Interest Payments	(6,523,861)	(6,523,861)			(6,523,861)	(13,797,722)	(13,748,000)	(13,047,721)	(49,722)	(750,001)
					Principal Payments	(0,020,001)	(0,020,001)	_	_	(0,023,001)	(18,735,000)	(13,740,000)	(13,047,721)	(18,735,000)	(18,735,000)
					Net Cash Provided by (Used in) Financing Activities	(6,779,641)	(6,779,641)	(252,000)		(6,527,641)	(23,048,282)	(12,540,000)	(13,551,721)	(10,508,282)	(9,496,561)
					Cash Flows from Capital and Related Activities										
16,143	15,000	20,916	1,143	(4,773)	Non-Operating Revenues	307,701	306,558	127,366	1,143	180,335	561,558	452,000	2,998,450	109,558	(2,436,892)
-		435,138		(435,138)	Project Reimbursement	-	-	558,736	-	(558,736)	190,000	2,480,000	-	(2,290,000)	190,000
-	-	(51,824)		51,824	Non-Operating Expenses	-	-	(100,824)	-	100,824	-	-	-	-	-
(524,978)	(921,000)	(633,641)	396,022	108,664	Capital Expenditures	(2,095,347)	(2,491,369)	(3,101,780)	396,022	1,006,433	(7,495,929)	(12,592,500)	(7,881,008)	5,096,571	385,079
(508,834)	(906,000)	(229,411)	397,166	(279,423)	Net Cash Provided By (Used In) Capital and Related Activities	(1,787,646)	(2,184,811)	(2,516,503)	397,166	728,857	(6,744,371)	(9,660,500)	(4,882,558)	2,916,129	(1,861,813)
					Cash Flows From Investing Activities										
					Investments Converting To Cash								10,136,160		(10,136,160)
-					Purchased Invesments	-	-		-	-		-	10,130,100	-	(10,130,100)
90,019	40,000	18.499	50,019	71,520	Interest Income	419.412	369.393	242,509	50.019	176,902	569,393	348.000	370,712	221,393	198,681
90,019	40,000	18,499	50,019	71,520	Net Cash Provided By (Used In) Investing Activities	419,412	369,393	242,509	50,019	176,902	569,393	348,000	10,506,872	221,393	(9,937,479)
70,017	40,000	10,477	30,017	71,520	Net Cash Frontied by (Osed III) Investing Activities	417,412	307,373	242,307	30,017	170,702	307,373	340,000	10,500,072	221,373	(7,737,477)
1,078,462	766,850	(193,202)	311,612	1,271,664	FUND NET CASH FLOWS	1,151,232	694,080	6,958,343	457,152	(5,807,110)	(12,137,668)	(5,085,490)	11,555,027	(7,052,178)	(23,692,695)
										<del></del>					
					DEBT SERVICE RATIO										
1,768,143	1,645,220	17,975	122,923	1,750,168	Total Cash Available For Debt Service	11,193,084	11,155,420	9,678,245	37,663	1,514,839	17,769,847	17,129,856	18,325,297	639,991	(555,450)
1,087,310	1,087,310	1,087,310			Debt Service (Pro-Rated)	7,611,171	7,611,171	7,611,171	0	0	13,047,722	13,748,000	13,047,722	(700,278)	
1.63	1.51	0.02	0.11	1.61	DSCR	1.47	1.47	1.27	0.00	0.20	1.36	1.25	1.40	0.12	(0.04)

## LEHIGH COUNTY AUTHORITY FINANCIAL STATEMENTS - CITY DIVISION JULY 2018

FORECAST VARIANCES - MONTH

		FORE	CAST VARIA	INCES - MONTH
INCOME STATEMENT	Actual	Forecast	Variance	Comments
Operating Revenues				
				Water up by \$51k, Wastewater down by \$27k. Favorable water revenue variance coming from
				residential/industrial/commercial segments. Unfavorable wastewater variance mainly coming from lower
Charges For Services	3,010,995	2,986,780	24,216	signatory revenues
Rent		-	-	
				We took in \$22k of site turn on charges and another \$11k related to site visits and customer meter
Other Income	34,633	49,070	(14,437)	replacement. This was below the average of H1 which was used as forecast
Total Operating Revenues	3,045,628	3,035,850	9,778	Higher usage charges partially offset by lower other revenues
Operating Expenses				
Salaries and Wages	425,802	416,000	(9,802)	
	,	,	(-,)	
General and Administrative	606,761	448,000	(158,761)	Unfavorable due to annual insurance premiums paid that were forecast for the last quarter of the year
	,	,	(,)	
Utilities	57,966	168,000	110,034	Invoices not processed before closing. These will process in August and will create an unfavorable variance
Materials and Supplies	90,945	165,000	74,055	Lower due to timing of invoices
Miscellaneous Services	156,680	205,000	48,320	Lower due to timing of invoices
Treatment & Transportation	4,624	1,000	(3,624)	<b>3</b>
Depreciation and Amortization	466,667	466,667	(0,021)	
Depreciation and Amortization	400,007	400,007		
Total Operating Eupenson	1 000 445	1 040 447	40.222	Lower spending on utilities, materials & supplies, and services was partially offset by higher G&A expenses
Total Operating Expenses	1,809,445	1,869,667	60,222	
0 " 1				ower operating expenses
Operating Income	1,236,183	1,166,183	70,000	Lower operating expenses
Non-Operating Revenues (Expenses)				
Tapping and Capital Recovery fees	10,574	13,000	(2,426)	
Meter Sales	272	1,000	(728)	
Inspection and Plan Reviews	1,200	1,000	200	
Project Reimbursements	-	-	-	
Interest Income	90,019	40,000	50,019	Higher invested balances
Other Income	4,097	-	4,097	
Interest Expense	(1,402,734)	(1,403,000)	266	
Other Expense	(179,266)	(450,000)	270,734	Lower expensed capex from lower overall project spending
Total Non-Operating Revenues (Expenses)	(1,475,837)	(1,798,000)	322,163	Lower exepensed capex along with higher interest income
Net Income Before Capital Contributions	(239,654)	(631,817)	392,163	Higher operating income along with higher non-operating revenues
Net income before capital contributions	(237,034)	(031,017)	372,103	The sportaling mount doing managed non-sportaling coverages
Capital Contributions				No contributions for the month
Capital Contributions				
NET INCOME	(220 (54)	(/21.017)	202 1/2	Lower operating expenses along with higher interest income and lower expensed capex
NET INCOME	(239,654)	(631,817)	392,163	Editor operating expenses along that higher microst mediate and lotter expenses deposit
		FODE	CACTUARIA	NOTO MONTH
				NCES - MONTH
CASH FLOW STATEMENT	Actual	Forecast	Variance	Comments
Cash Flows From Operating Activities				
Operating Revenues	3,045,628	3,035,850	9,778	
Operating Expenses (ex D&A)	(1,342,778)	(1,403,000)	60,222	
Non-Cash Working Capital Changes	(205,573)		(205,573)	Unfavorable working capital movements not forecasted
Net Cash Provided by (Used in) Operating Activities	1,497,277	1,632,850	(135,573)	Unfavorable working capital movements not forecasted
, , , , , , , , , , , , , , , , , , , ,				<b>∀</b>
Cash Flows From Financing Activities				
Lease Payments to City				
Lease Payments to City Capital Contributions	-	-	-	
Capital Contributions	-	-	-	
Capital Contributions Proceeds New Borrowing			-	
Capital Contributions Proceeds New Borrowing Interest Payments	- - -		-	
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments	- - - -	- - - -	- - - -	
Capital Contributions Proceeds New Borrowing Interest Payments	- - - - -	- - - - -	- - - - -	
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities	- - - - -	- - - - - -		
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities	· · · ·			
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities	16,143	15,000		
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities		- 	1,143	
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues		- 	1,143	
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement		- 	1,143	Project spending timing off to forecast
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures	16,143	15,000	396,022	
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses	16,143 - - (524,978)	15,000	396,022	Project spending timing off to forecast Lower capex
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures Net Cash Provided By (Used In) Capital and Related Activities	16,143 - - (524,978)	15,000	396,022	
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures Net Cash Provided By (Used In) Capital and Related Activities  Cash Flows From Investing Activities	16,143 - - (524,978)	15,000	396,022	
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures Net Cash Provided By (Used In) Capital and Related Activities  Cash Flows From Investing Activities Investments Converting To Cash	16,143 - (524,978) (508,834)	15,000	396,022	
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures Net Cash Provided By (Used In) Capital and Related Activities  Cash Flows From Investing Activities Investments Converting To Cash Purchased Invesments	16,143	15,000 - - (921,000) (906,000)	396,022 397,166	Lower capex
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures Net Cash Provided By (Used In) Capital and Related Activities  Cash Flows From Investing Activities Investments Converting To Cash Purchased Invesments Interest Income	16,143	15,000	396,022 397,166	
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures Net Cash Provided By (Used In) Capital and Related Activities  Cash Flows From Investing Activities Investments Converting To Cash Purchased Invesments	16,143	15,000 - - (921,000) (906,000)	396,022 397,166	Lower capex
Capital Contributions Proceeds New Borrowing Interest Payments Principal Payments Net Cash Provided by (Used in) Financing Activities  Cash Flows from Capital and Related Activities Non-Operating Revenues Project Reimbursement Non-Operating Expenses Capital Expenditures Net Cash Provided By (Used In) Capital and Related Activities  Cash Flows From Investing Activities Investments Converting To Cash Purchased Invesments Interest Income	16,143	15,000	396,022 397,166	Lower capex

#### DASHBOARD - CITY DIVISION JULY 2018



Full Year Net Cash Flows (\$000)

■Forecast ■ Budget ■ Prior Year

(12,138)

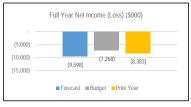
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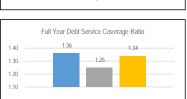
20.000

10,000

(10,000) (20,000)



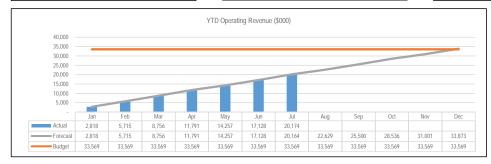


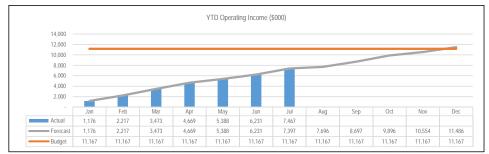


■Forecast ■Budget ■ Prior Year



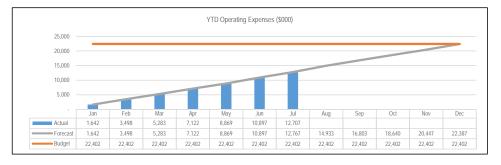
FULL YEAR COMPARATIVE (\$000)	Forecast	Budget	Prior Y
Operating Revenues	33,873	33,569	32,896
Less: Operating Expenses	22,387	22,402	22,760
Operating Income	11,486	11,167	10,136
Other income (expenses)	(21,084)	(18,435)	(18,519
Net Income	(9,598)	(7,268)	(8,383
Debt Service Coverage Ratio	1.36	1.25	1.34
Net Cash Flows	(12,138)	(5,085)	11,555

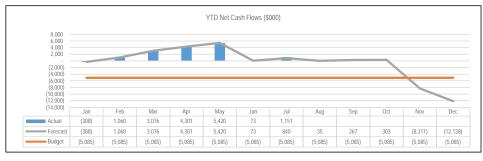












## CASH & INVESTMENT SUMMARY JULY 2018

	JULY 2018							
	Suburban	Suburban	City	TOTAL				
US Dollars	Water	Wastewater	Division	LCA				
CASH				_				
Operating	6,511,617.02	5,257,528.55	5,122,723.36	16,891,868.93				
Capital	5,961,754.36	6,951,540.74	3,507,147.45	16,420,442.55				
Restricted	1,555,400.05	337,447.13	41,620,768.87	43,513,616.05				
Escrow	4,919,070.69	-	6,360.57	4,925,431.26				
Total Cash	18,947,842.12	12,546,516.42	50,257,000.25	81,751,358.79				
INVESTMENTS								
Operating	5,457,783.80	-	-	5,457,783.80				
Capital	6,045,068.99	7,033,584.39	-	13,078,653.38				
Restricted	25,513.80	-	7,940,640.00	7,966,153.80				
Total Investments	11,528,366.59	7,033,584.39	7,940,640.00	26,502,590.98				
TOTAL CASH & INVESTMENTS	30,476,208.71	19,580,100.81	58,197,640.25	108,253,949.77				
TOTAL CASH								
Unrestricted	12,473,371.38	12,209,069.29	8,629,870.81	33,312,311.48				
Restricted	6,474,470.74	337,447.13	41,627,129.44	48,439,047.31				
Total Cash	18,947,842.12	12,546,516.42	50,257,000.25	81,751,358.79				
TOTAL INVESTMENTS								
Unrestricted	11,502,852.79	7,033,584.39	-	18,536,437.18				
Restricted	25,513.80	-	7,940,640.00	7,966,153.80				
Total Investments	11,528,366.59	7,033,584.39	7,940,640.00	26,502,590.98				
TOTAL CASH & INVESTMENTS								
Unrestricted	23,976,224.17	19,242,653.68	8,629,870.81	51,848,748.66				
Restricted	6,499,984.54	337,447.13	49,567,769.44	56,405,201.11				
Total Cash & Investments	30,476,208.71	19,580,100.81	58,197,640.25	108,253,949.77				
OPERATING RESERVES								
Unrestricted Cash	6,511,617.02	5,257,528.55	5,122,723.36	16,891,868.93				
Unrestricted Investments	5,457,783.80	-	-	5,457,783.80				
Total Operating reserves	11,969,400.82	5,257,528.55	5,122,723.36	22,349,652.73				
PROJECT RESERVES (CAPITAL)								
Unrestricted Cash	5,961,754.36	6,951,540.74	3,507,147.45	16,420,442.55				
Unrestricted Investments	6,045,068.99	7,033,584.39	-	13,078,653.38				
Total Project Reserves (Capital)	12,006,823.35	13,985,125.13	3,507,147.45	29,499,095.93				

#### Lehigh County Authority

System Operations Review - July 2018

Presented: August 27, 2018

Critical Activities	System	Description	<u>Jul-18</u>	2018-to-Date	2017 Totals	<u>Permit</u>	
			Daily Avg (MGD)	Daily Avg (MGD)	Daily Avg (MGD)	Daily Max (MGD)	
Water Production	Allentown	Total	22.64	21.28	21.16	39.0	
		Schantz Spring	6.96	6.16	6.39	9.0	
		Crystal Spring	3.87	3.89	3.89	4.0	
		Little Lehigh Creek	11.81	11.20	10.84	30.0	
		Lehigh River	0.00	0.04	0.03	28.0	
	Central Lehigh	Total	10.46	9.62	9.29	19.04 MGD Avg	
		Feed from Allentown	7.05	6.51	6.94	7.0 MGD Avg 10.5 MGD Max	
		Well Production (CLD)	3.41	3.11	2.35	8.54 MGD Avg	
		Sum of all (12) other Suburban Water Systems	0.17	0.19	0.18	1.71 Sum of all wells	
Wastewater Treatment		Kline's Island	31.53	33.12	30.78	40.0	
		Pretreatment Plant	4.97	4.72	4.35	5.75 (design capacity)	
		Sum of all (5) other Suburban WW Systems	0.17	0.18	0.16	0.36	
			<u>Jul-18</u>	2018-to-Date	2017 Totals	2016 Totals	
Precipitation Totals (inche	s)		5.80	28.88	50.18	36.82	
Compliance Reports Submitted to Allentown			29	185	291	269	
Notices of Violation (NOVs)		(Allentown + Suburban)	0	0	3	3	
Sanitary Sewer Overflows (S	SOs)/Bypasses	(Allentown + Suburban)	2	15	22	16	
Main Breaks Repaired		Allentown	2	22	19	19	
		Suburban	4	17	12	11	
Customer Service Phone Inqu	iries	(Allentown + Suburban)	2,175	16,334	27,313	28,099	
Water Shutoffs for Non-Paym	ent	(Allentown + Suburban)	182	1,184	1,577	1,685	
Injury Accidents		(Allentown + Suburban)	1	8	8	10	
Emergency Declarations		Allentown	0	(4) @ \$52,719	(2) @ \$51,235	(2) @ \$87,079	
		Suburban	0	(1) @ \$21,197	(1) @ \$72 554	(1) @ \$33 49	

#### <u>Significant Repairs</u>:

Park Pump Station Pump #3 has been repaired and it has been placed back into service. The #4 raw water pump at the City WFP was rebuilt and it also has been placed back into service.

Description of NOVs and/or SSOs: There was one (1) bypass at Heidelberg Heights that occurred from 7/24/18 - 7/26/18. There was also one (1) bypass at the Lynn Township WWTP during that same timeframe. Both bypasses resulted from very high influent flows after several days of heavy rain.

Other Highlights: Primary Digester #2 at Kline's Island WWTP is undergoing a cleaning and mechanical upgrade. The project is expected to be completed by the end of September. Ten (10) roofs are being replaced in the Allentown Water System and WWTP. The drive and rake mechanism on #6 Final Settling Tank at KIWWTP are currently being replaced. Both the roofs and FST #6 are expected to be completed by the end of August.