



BOARD MEETING AGENDA – July 8, 2019

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

- *June 24, 2019 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

- *Budget Amendment Request – WLI Emergency Project (yellow)*

WATER

WASTEWATER

6. Monthly Project Updates / Information Items (1st Board meeting per month) – **July report attached**

7. Monthly Financial Review (2nd Board meeting per month)

8. Monthly System Operations Overview (2nd Board meeting per month)

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.

July 22, 2019

August 12, 2019

August 26, 2019

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

June 24, 2019

The Regular Meeting of the Lehigh County Authority was called to order at 12:00 p.m. on Monday, June 24, 2019, Chairman Brian Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Jeff Morgan, and Richard Bohner. Authority Staff present were Liesel Gross, Brad Landon, Ed Klein, Pat Mandes, John Parsons, Chris Moughan, Susan Sampson, Todd Marion, and Lisa Miller.

Chairman Nagle announced that today's Board meeting is being videotaped and streaming live and recordings will be posted to the Authority's website.

Chairman Nagle announced that the Board has received their packets prior to the meeting. There are no action items on the agenda and since there is no quorum, the Minutes cannot be approved at this time and only discussion items will be discussed.

REVIEW OF AGENDA

Liesel Gross noted there are two brief items for discussion to be added to the agenda. One is regarding employee benefits and the other is regarding a source water protection issue. There will be an Executive Session at the end of the regular meeting to discuss matters of potential litigation and personnel.

PUBLIC COMMENTS

Jennifer McKenna, City of Allentown, Office of Compliance introduced Brian Wehbey who is a summer intern for the Office of Compliance and will be working on a document archivist project for the City. The Board welcomed him.

ACTION AND DISCUSSION ITEMS

Authority Benefits Review (new agenda item)

Liesel Gross informed the Board that the Authority staff is in the process of selecting a broker for health insurance and other employee benefits. The Authority will be taking an open approach to address rising cost of insurance and will have the broker look at what the Authority is offering and make any recommendations for improvements to reduce costs or expand options for employees. Employee input will be sought through this process as well to ensure new insurance programs that may be considered will meet employee needs.

Norma Cusick arrived at 12:04 p.m. giving the Board a quorum.

Chairman Nagle asked how this would affect the union workers. Ms. Gross explained that the SMART union contract is up at the end of the year and the benefit options will be part of the negotiations.

APPROVAL OF MINUTES

June 10, 2019 Regular Meeting Minutes

On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved the minutes of June 10, 2019 meeting (5-0).

Schantz Spring Source Water Protection (new agenda item)

Chuck Volk gave an overview of a potential project that was described in The Morning Call regarding a proposed development plan to be submitted to Lower Macungie Township by Green Acres Landscaping. The location of the proposed development is near Schantz Spring, which is one of the Authority's primary drinking water sources. The Authority has concerns that a portion of the property is in the spring's Source Water Protection Zone 2. The Source Water Protection Zone 2 is defined by the movement of groundwater according to the hydrogeological study completed by Spotts Stevens and McCoy in 2011. Mr. Volk said there is also a fuel oil fill station proposed on this site as part of the plan. Liesel Gross noted that the Authority's hydrogeologist will provide a study after reviewing the proposed plan, and no specific comments will be provided to the township at this time until the study is complete.

MONTHLY FINANCIAL REVIEW

Ed Klein presented the May 2019 financial report with a PowerPoint presentation, highlighting variances between budgeted expenses and actual or forecasted expenses.

MONTHLY SYSTEM OPERATIONS OVERVIEW

John Parsons reviewed the Monthly System Operations Overview report for April 2019 which included a status report of the Western Lehigh Interceptor High Flow Emergency Project as of June 10, 2019. Norma Cusick questioned the high daily average of 47.46 at Kline's Island Wastewater Treatment Plant. Mr. Parsons stated the high flows are due to the 9.1 inches of rain that occurred during the month of May. There was some discussion regarding the repairs and upgrades portion of the report.

Mr. Parsons stated that Phase I of the Western Lehigh Interceptor High Flow Emergency Project has been completed. The weather has caused many delays with this project. Phase 2 is expected to be started in two weeks and Phase 3 is expected to begin in a month. Liesel Gross noted that the project is being funded through the capital budget which will be reviewed and discussed at an upcoming meeting in July.

STAFF COMMENTS

None.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

Chairman Nagle called a recess at 12:33 p.m. The meeting reconvened at 12:40 p.m.

EXECUTIVE SESSION

An Executive Session was held at 12:40 p.m. to discuss potential litigation and personnel.

The Executive Session ended at 1:45 p.m.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 1:45 p.m.

Richard H. Bohner
Secretary



1053 SPRUCE ROAD * P.O. BOX 3348 * ALLENTOWN, PA 18106-0348
610-398-2503 * FAX 610-398-8413 * www.lehighcountyauthority.org
email: service@lehighcountyauthority.org

MEMORANDUM

To: LCA Board of Directors
From: Edward C. Klein, CFO
Date: 28 June 2019
Re: WLI Emergency Project

Attachments: Budget Amendment Request – WLI Emergency
Suburban WW Capex Forecast

In November 2018, as a result of extended periods of rain with resulting higher groundwater levels, the Western Lehigh Interceptor (WLI) system experienced significant surcharge to the system along with significant sanitary sewer overflows. At that time, with Board approval, an emergency was declared that allowed for the exploration and attempted remediation of the system to mitigate the negative system effects.

The issues with the system started after the 2019 budget had been approved, so going into 2019, there is no budget for these costs. Through May 2019, \$421,510 has been expended on this emergency work in fiscal year 2019. The forecasted costs to complete the remaining work scope are \$1,790,000. That would result in a total forecasted cost of \$2,211,510. Since this was not budgeted, the Board is being requested to approve the Budget Amendment to accommodate the total forecasted cost of \$2,211,510. The Budget Amendment is attached.

With the effects of the WLI Emergency Project included, the capital spending for 2019 in the Suburban Wastewater Fund has been re-forecasted. The new forecast is attached.

The \$2.2 million of unbudgeted costs are currently being paid from existing operating and capital reserves. As noted in the 2020-2024 Capital Plan, a drawdown on these reserves was anticipated for certain key projects, with larger infrastructure upgrades to be paid from borrowing. The impact of this additional work will be a faster draw on those reserves and may require an increase in future borrowing for other projects in the plan. However, because this work impacts the Western Lehigh communities, who reimburse LCA for such project expenses, we expect revenue increases will offset this impact to some degree. LCA will discuss the impact on Western Lehigh sewer rates for 2019 in a municipal meeting planned for July. Future financial forecasts will be adjusted based on this budget addition and any resulting revenue offsets that will be experienced in 2019.



Lehigh County Authority

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

BUDGET AMENDMENT REQUEST
Budget Year - 2019

Date: 06/28/2019

Type: Transfer _____
 Addition X
 Deletion _____

Requested By: _____

Approved By: _____

Budget \$0
Amount \$2,211,510

	<u>Budget</u>	<u>Spending YTD May</u>	<u>Forecast Jun-Dec</u>	<u>Total Forecast</u>	<u>Variance</u>
WLI EMERGENCY					
Phase 1, Phase 2, Phase 4 CCTV	-	421,510	-	421,510	(421,510)
Phase 2 Remediation	-	-	350,000	350,000	(350,000)
Phase 3 Bypass/CCTV	-	-	727,180	727,180	(727,180)
Phase 3 Remediation	-	-	350,000	350,000	(350,000)
Phase 4 Remediation	-	-	362,820	362,820	(362,820)
TOTAL WLI EMERGENCY	<u>-</u>	<u>421,510</u>	<u>1,790,000</u>	<u>2,211,510</u>	<u>(2,211,510)</u>

Budget Amendment is requested for the costs of exploring and remediating the WLI Interceptor as a result of sanitary sewer overflows and surcharge in the system. This project was not in the 2019 Budget. The work commenced in November 2018 after an Emergency declaration. Spending through May and spending for the remainder of the year is in the table above.

SUBURBAN WW CAPEX FORECAST
06/28/2019

	<u>Budget</u>	<u>Spending YTD May</u>	<u>Forecast June-December</u>	<u>Total Forecast</u>	<u>Variance</u>
Spring Creek	-	89,842	-	89,842	(89,842)
Park Pump Station Improvements	4,100,000	287,061	3,800,000	4,087,061	12,939
Wynnewood I&I	50,000	1,801	15,000	16,801	33,199
WW Capacity Program	50,000	3,203	14,000	17,203	32,797
Wynnewood WWTP	2,000,000	300,675	1,800,000	2,100,675	(100,675)
Sand Spring WWTP	800,000	15,553	255,000	270,553	529,447
HH WWTP	40,000	13,760	190,000	203,760	(163,760)
HH I&I Removal	250,000	31,232	290,000	321,232	(71,232)
S CM	7,500	2,167	3,500	5,667	1,833
Lynn I&I	30,000	26,152	40,000	66,152	(36,152)
Trexlertown Interceptor	100,000	14,765	50,000	64,765	35,235
Spring Creek FM ARV	40,000	5,242	23,000	28,242	11,758
Asset Management	100,000	-	12,000	12,000	88,000
Park Pump PS FM Rehab	100,000	12,111	74,000	86,111	13,889
Other Equipment	200,000	24,424	115,500	139,924	60,076
Mobile Equipment	94,000	-	31,000	31,000	63,000
Interceptor Access	-	-	-	-	-
Signatory I&I	500,000	187,847	310,000	497,847	2,153
Lynn WWTP Expansion	20,000	-	20,000	20,000	-
Pretreatment	700,000	248,500	450,000	698,500	1,500
Developer Review/Miscellaneous	13,000	15,867	-	15,867	(2,867)
SUBTOTAL	9,194,500	1,280,204	7,493,000	8,773,204	421,296
WLI EMERGENCY					
Phase 1, Phase 2, Phase 4 CCTV	-	421,510	-	421,510	(421,510)
Phase 2 Remediation	-	-	350,000	350,000	(350,000)
Phase 3 Bypass/CCTV	-	-	727,180	727,180	(727,180)
Phase 3 Remediation	-	-	350,000	350,000	(350,000)
Phase 4 Remediation	-	-	362,820	362,820	(362,820)
TOTAL WLI EMERGENCY	-	421,510	1,790,000	2,211,510	(2,211,510)
GRAND TOTALS	9,194,500	1,701,715	9,283,000	10,984,715	(1,790,215)

FINANCE & ADMINISTRATION

ACTION ITEMS

1. Budget Amendment Request – WLI Emergency Project - July 8, 2019

A Budget Amendment related to capital spending on the Western Lehigh Interceptor (WLI) Emergency project will be presented to the Board for approval of spending through May of this year along with forecasted spending for the remainder of 2019. Additionally, the capital spending forecast by project for the entire year will be presented and reviewed.

2. Suburban Division Water & Wastewater Tapping Fees – July 22, 2019

A Resolution will be presented for Board consideration to update certain tapping fees related to the Suburban Water and Suburban Wastewater Divisions. Upon adoption, these fees will be effective August 1, 2019. Resolution and Exhibits will be provided in advance of the July 22, 2019 Board meeting.

DISCUSSION ITEMS

1. LCA 2020 Goals – 2019 Action Plan: Mid-Year Update – July 22, 2019

Staff will review progress on LCA’s 2019 Action Plan, which is part of the three-year “LCA 2020” strategy.

INFORMATION ITEMS

1. Recently Purchased Investments – Certificates of Deposit (CDs)

25-Jun-19						
Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
LLRI CR	PSDLAF Flex Pool		400,000.00	6/11/19	7/9/19	2.300
Cons Wtr (2)	PSDLAF Flex Pool		155,000.00	6/11/19	7/9/19	2.300
Cons LL2 (314)	PSDLAF Flex Pool		245,000.00	6/11/19	7/9/19	2.300
WW Capac	PSDLAF Flex Pool		600,000.00	6/11/19	7/9/19	2.300
Wtr R&R	PSDLAF Flex Pool		1,000,000.00	6/11/19	7/9/19	2.300
LLRI CR	Envision CU	Tallahassee, FL	248,000.00	6/7/19	6/7/21	2.500

Cons Wtr (2) Consolidated Water (2)
 LLRI CR Little Lehigh Relief Interceptor Capital Reserves
 Cons LL2 (314) Consolidated Little Lehigh Relief Interceptor 2
 WW Capac Wastewater Capacity
 2010 Wtr Cons A 2010 Water Construction, Series A Bond
 Wtr R&R Renewal and Replacement

2. Developments

Water system construction is occurring in the following developments:
 5354 Hamilton Blvd., 1 commercial lot, LMT – No Change

Air Products & Chemicals, 1 commercial lot, UMT
Kohler Tract, 123 residential lots (sfa), UMiIT, water and sewer – No Change
Lower Macungie Twp. Community Center Expansion, 1 institutional lot, LMT – No Change
Stone Hill Meadows, Phase 2, 85 residential units (sfd), LMT – No Change
Trexler Business Center, 1 lot with 6 commercial buildings, LMT – No Change
Trexler Fields, Phase 1B/8/9, 100 residential lots (sfa), UMT – No Change

Water system plans are being reviewed for the following developments:

5329-5347-5357 Hamilton Blvd., 1 commercial lot, LMT – No Change
5374/5392 Hamilton Blvd., 1 commercial lot, LMT – No Change
5420 Crackersport Road, 1 commercial lot, UMT
8615/8783 Congdon Hill Drive, 2 industrial lots with warehouses, LMT – No Change
Cedarbrook Road Industrial Park, 2 industrial lots, LMT – No Change
Estates at Maple Ridge, 30 residential units (sfd), UMiIT
Lehigh Hills, Lot 5, Phase 1, 273 apartments & clubhouse, UMT – No Change
Madison Village at Penn's View, 66 manufactured homes, 1 lot, LynnT, water and sewer –
No Change
Mill Creek Hotel, 1 commercial lot with 205 room hotel & restaurant, UMT – No Change
Mountain View Estates, 27 residential units (sfd), LMT
Ridings at Parkland, 53 residential units (sfd), NWT
Schoeneck Road, Lot 1, 1 lot warehouse, LMT – No Change
Towneplace Suites by Marriott, 91-room hotel, UMT – No Change
Weilers Road Twins, 82 residential lots (sfa), UMT – No Change
Woodmont Ridge, Phase II, 30 apartment units, UMT – No Change

Sewage Planning Modules Reviewed in Prior Month:

None.

WATER**ACTION ITEMS**

DISCUSSION ITEMS

INFORMATION ITEMS

1. Allentown Division – Hamilton Street Cedar Creek Bridge Water Main Relocation Project

As part of the Pennsylvania Rapid Bridge Replacement Program, the replacement of the Cedar Creek Bridge on Hamilton Street has required the relocation of approximately 500 linear feet of water main. The construction phase was approved at the December 2016 Board meeting and the construction phase at the January 2018 meeting. As of February 22, 2018, the contractor has completed a majority of the relocation work for LCA's facilities; however, they were pulled off the site due to construction conflicts. As of March 22, 2019 the original LCA water line relocation scope of work has been completed, however an additional relocation of a LCA sanitary sewer line has been added to the original scope and agreement as of April 15, 2019 with an anticipated completion of April 26, 2019. LCA anticipated submitting all final paper work to the state for reimbursement in the very near future. It is anticipated that this work will be reimbursed 100% by the state and that the construction related activities. **(No Change)**

2. Allentown Division – Water Main Replacement Program Cycle 4

The project is the replacement of 0.97-mile of aged and/or failing cast iron water main in multiple locations throughout the City, in accordance with our prioritization protocol. We propose to utilize the 1.1-mile credit of excess water main replacement length accumulated from previous years in order to satisfy the 2.0 miles of annual pipe replacement as outlined in the lease. This Project is required under the Operating Standards in the Concession Agreement and will be funded by the LCA Allentown Division. The reduced-scale project was re-bid following rejection of the bids for the original 2.2-mile project. The project was authorized by the Board on 9/10/18 and will be completed by December 2018. On October 30, 2018 the contractor (Doli Construction) began water main installation. As of January 4, 2019 all water main construction, prelease valve and meter replacement was completed. As of April 2019, Doli began final restoration throughout the project with an anticipated completion by mid-Summer 2019. **(No Change)**

3. Allentown Division – Water Main Replacement Program Cycle 5

The project is the replacement of 2-mile of aged and/or failing cast iron water main in multiple locations throughout the City, in accordance with our prioritization protocol. Currently Gannett Fleming is designing the 2-miles of required water main replacement. At this time, the construction phase of this project is not budgeted for unless monies become available in 2019. **(No Change)**

4. Allentown Division – Water Filtration Plant: SCADA System Replacement

The project consists of the replacement of the existing SCADA System at the Water Filtration Plant. The purchase and installation of new servers, new control panel cabinets, new cabling, and new programming software will encompass this project. Board approval to purchase this equipment was granted at the August 27, 2018 Board Meeting. Replacement will be completed by late 2019. This project will be funded by LCA Allentown Division. **(No Change)**

5. Suburban Division - Water Main Replacement Program Cycle 5

The project consists of the replacement of approximately 1.4 miles of aged and/or failing Cast Iron water mains throughout multiple location in the Suburban Division. The

construction phase of this project was approved at the May 20, 2019 meeting. This project will be funded by the LCA Suburban Division and construction will break ground in early July 2019. **(No Change)**

6. Suburban Division – Mechanical Asset Management Upgrade Project

This next phase of Asset Management upgrade work focuses on mechanical components, along with some HVAC and electrical system improvements at ten locations in the Suburban Division. The upgrade locations were determined from asset management data collected from internal interviews conducted by Capital Works with senior Operations staff, and based on risk rating. Also as part of the design phase of this project was the condition assessment of seven (7) hydropneumatic tanks that were placed into service in the 1970s and are reaching the end of their service lives. Design phase was authorized in April 2018, the project was advertised for bid in September 2018, bids were opened on October 11, 2018, and award of bids was authorized at the October 22, 2018 Board meeting. Construction will be finished by Summer 2019. **(No Change)**

7. Suburban Division – CLD Auxiliary Pump Station Project

The project consists of installation of a new booster pumping station with SCADA and water main extension to pump water from the Lower Pressure System to the Upper Pressure System. The LCA Suburban Division will fund the project. Bids for the project were received on 6/29/18. Board approval for the construction phase of the project was granted at the 7/23/18 meeting. A preconstruction meeting was held on August 28th and construction should be completed by Fall of 2019. **(No Change)**

8. Suburban Division – Upper Milford-CLD Interconnection Project (Kohler Tract)

The project will feature the installation of a new booster pumping station and water main extension to interconnect the Central Lehigh Division (CLD) with the Upper Milford Division (UMD) allowing the abandonment of the UMD water supply facilities, and to provide water service to the proposed 123-lot Kohler Tract subdivision in Upper Milford Township. Costs are being shared between the LCA Suburban Division and the developer of the Kohler Tract. Pumping station bids were opened on 4/25/19. Board approval for the construction phase of the project was granted at the 5/13/19 meeting. A preconstruction meeting was held on 6/25/19. Construction should be completed by May of 2020.

The remaining two permanent waterline easements were obtained from the Engelmans and Fosters. Legal counsel will be retained during the zoning process to assist with obtaining a “Special Exception” from Upper Milford Township to use the Kern Tract as a pumping station site.

9. Suburban Division – Buss Acres Pump Station Replacement

The project consists of the consolidation and replacement of two well stations with a single new pump station and a new water storage tank to replace two antiquated hydropneumatic pump stations. The new station will be a variable frequency drive controlled double pumping system with full SCADA control. The design will include radon reduction elements and also accommodate the future installation of additional radon removal equipment, to be implemented upon DEP’s mandate of a regulatory limit. Design phase was authorized at the August 28, 2017 Board meeting. The Public Water Supply Permit was received from DEP at the end of December 2018. Zoning approval from Upper Milford Township for a “Special Exception” use for the upgrade project was approved in June 2019. Plans and specifications are being finalized and bid phase will begin in August 2019.

10. Suburban Division – Water Meter Reading Equipment Upgrade

LCA's capital program includes the replacement of 20,000 transceiver units, and 10,000 units will be replaced in 2019 with the remaining to be replaced in 2020 under separate authorization. The new units have a 20-year battery life and are compatible with the new meter reading software purchased in 2017. This project will replace 100% of the remaining old style radio units over a two-year period. Construction phase services for the first round of 10,000 units was approved at the 5/13/19 Board meeting. Construction will begin in July 2019 and is expected to be concluded by December of 2019. This project will be funded by the LCA Suburban Division.

11. Suburban Division – Watershed Monitoring Program

The project will include setting up a surface water flow-monitoring network for the Little Lehigh Creek. The work is in response to the Watershed Monitoring Plan that was developed and reported to LCA by AI Guiseppe (SSM, Inc.) in 2017. Flow monitoring in 2019 will focus on the Little Lehigh Creek only. In 2019, LCA will develop plans for subsequent years to add new monitoring wells to supplement existing groundwater data that is being collected. Total daily flow recordings at Schantz Spring that will need to include the spring field bypass and the tank overflows as well. SSM will assist LCA in calibrating surface flows under the bridges based on the recorded stream elevations. Authorization for the award of the project was approved at the 3/26/2018 Board meeting. LCA and Fybr are currently gaining PennDOT and PPL approvals that will allow us to mount our equipment on their bridges and poles, which has turned out to be a very slow process. Agreement received from PPL on April 22, 2019. Equipment is to be mounted and flow data is to be received by late summer/early fall 2019. In 2018, USGS selected the Delaware River Basin to pilot the National Next Generation Integrated Water Observing System (NGWOS). The Little Lehigh Watershed was picked as a targeted area of the NGWOS Project and additional surface water and ground water monitoring stations will be developed. USGS and LCA are currently working together on new gaging locations in the LL watershed.

12. Suburban Division - Additional (Redundant) Water Supply - Small Satellite Divisions

This Project addresses the needs of three satellite water systems that currently are operating on one source of supply and have no redundant water supply. The Madison Park North system has only one well, and an additional well is planned to be developed and constructed. The Clear View Farms and Mill Creek systems have one operating well each, but have at least one other existing well that has water supply or quality issues and cannot be presently utilized. An engineer has been retained to assist with the development of a second well for Madison Park North and the rehabilitation of an existing well at Clear View Farms. An agreement is in place with an adjoining property owner to Madison Park North to drill a test well on their property, in coordination with DEP guidelines. The "step drawdown test" was performed on 3/26/19 and indicated that the test well is a viable backup source to Well 1. A Pre-Drilling and Aquifer Test Plan will be prepared by our Engineer as required by DEP **(No Change)**.

WASTEWATER

ACTION ITEMS

DISCUSSION ITEMS

INFORMATION ITEMS

1. **Allentown Division – Kline’s Island WWTP: Phase 1 AO Design Improvements**

This project includes the design of the AO improvements at the wastewater treatment plant. This conceptual design concept was approved by the City and the relevant final deliverables were received by LCA. The City then directed LCA to proceed with the final design of improvements related to the blending alternative. Board approval for the Professional Services Authorization with Kleinfelder East, Inc. was granted at the September 11, 2017 Board Meeting. The project is identified as Administrative Order Work and will be funded by the City. The 30% design drawings and specifications have been received. The City directed to “pause” the design phase of the project. The City has now directed LCA to keep this project on indefinite hold. **(No Change)**

2. **Allentown Division – I&I Source Reduction Program Plan**

This project includes the design of the City of Allentown’s I&I Source Reduction Program Plan. In 2014, Video Pipe Services complete various CCTV inspections throughout twenty Primary and Secondary Basins. All pipe segments that called for complete pipe replacement have already been repaired. The remaining source reduction activities within the twenty Basins have been organized into a 5-Year Plan, with each year focusing on a different geographic region of the City’s sewer collection system. Design has been approved for all five years, with the first project commencing in 2020 and the last project finishing in 2024. Board approval for the construction of the “Year 1 Project” will be requested in Q1 of 2020. This project is considered an AO expense under terms of the Lease and is City funded. **(No Change)**

3. **Allentown Division – Kline’s Island WWTP: Electrical Substation Replacement**

This project involves the replacement of the existing Substation No. 2. The equipment was installed in 1977 and has reached the end of its useful life. The City has reviewed this and has approved this project as a Major Capital Project. Approval of the design engineer was granted at the May 8, 2017 Board Meeting. The project was advertised in early May 2018 and bids were due on June 8, 2018. Approval of the construction contract (Base Bid) was granted at the July 9, 2018 Board Meeting. The construction phase of the project began in August of 2018 and was completed in May 2019. Minor punchlist items remain. This Major Capital Project was funded by the LCA Allentown Division. **(No Change)**

4. **Allentown Division – Kline’s Island WWTP: Sodium Hypochlorite Disinfection**

This project involves the replacement of the existing gas chlorination system at the WWTP. The use of gas chlorination for sewage disinfection, while reliable, is outdated and contains inherent risks. In addition, the existing equipment has reached the end of its useful life. Switching to sodium hypochlorite was also identified in the recently completed WWTP Maser Plan. The design started in March of 2019. Approval of the construction contract will be requested at a Board Meeting in early 2020. The construction phase of the project will begin in Q1 of 2020 and will be completed by Q4 of 2020. This project will be funded by the LCA Allentown Division. **(No Change)**

5. **Allentown Division – Lehigh Street (Rte. 145) Water and Sewer Main Relocation Project**

As part of the Pennsylvania Rapid Bridge Replacement Program, the proposed replacement of the Lehigh Street Bridge near the intersection with MLK Boulevard has required the relocation of existing City water and sewer lines that are located within the PennDOT right of way. PennDOT

initially indicated that LCA would be eligible for 75% reimbursement for all projects costs associated with the utility relocations, and the LCA board adopted Resolution No. 3-2019-1 in March 2019 to authorize the negotiation of the PennDOT cost reimbursement. Following the submission of project incorporation paperwork to PennDOT by LCA's design engineer, the local PennDOT office submitted the resolution and agreement to the Harrisburg office, and was later informed that this bridge is owned by Lehigh County and not the Commonwealth. Although PennDOT is handling all preconstruction activities and will administer the federal funding participation between the Commonwealth and the County, the cost reimbursement agreement with PennDOT does not apply. LCA's engineer is working on behalf of LCA on a final sewer relocation design that minimizes the extent of the relocation. There will be less water infrastructure relocation work required since the existing water main is attached under the bridge and will be reattached after the new bridge is constructed. LCA staff will pursue water and sewer relocation cost reimbursement from the County out of the federal (80%) and state (15%) funds being applied to this project. Design work will be finalized by early Summer 2019 **(No Change)**.

6. **Suburban Division – Park Pump Station Force Main Rehabilitation**

The Park Pump Station and Force Main line were constructed in 1980 to provide wet weather relief to the Little Lehigh Creek Interceptor, which conveys wastewater from ten municipalities from outlying areas to the Kline's Island Wastewater Treatment Plant (KIWWTP). The force main consists of 8,715 linear feet of prestressed concrete cylinder pipe (PCCP) of various sizes (2,615' of 24"; 2,695' of 30"; and 3,405' of 36"), and connects with the 54" sanitary sewer interceptor that runs to KIWWTP. PCCP is particularly sensitive to deterioration due to hydrogen sulfide gas from wastewater, and corrosion of exposed reinforcing steel can result in structural degradation and pipe failure. An internal investigation of the pipe is required to assess the condition of the PCCP pipe and identify damage areas, in order to determine the locations and extent of rehabilitation needed to restore the level of service, prolong service life, and mitigate the risk of failure. Capital Works is planning a limited manned inspection of the force main pipe at 5 air release valve (ARV) locations, 100 feet in both directions from the ARV manhole, which will be used as the initial evaluation of the representative condition of the pipe. Using this data, the need for performing a complete pipeline condition assessment will be determined, possibly utilizing a new electromagnetic technology for performing an internal pipe condition assessment that entails minimal interruption of operation of the pump station and force main. LCA and Arcadis are currently waiting for a "normal flow" dry weather period to use the PTP Flow Equalization Basin (FEB) at the pretreatment plant to hold back flow in order to perform a temporary shut-down of the Park Pump Station to perform the force main inspection. **(No Change)**

7. **Suburban Division – Park Pump Station Upgrade**

The Park Pump Station is to be upgraded to address mitigate risk of failure, restore station capacity, and prolong the service life of this critical facility. Design was completed in December 2017. The Park Pump Station Upgrade was advertised for bid in December 2017, pre-bid meeting was held on 1/4/18, and bids were opened 2/1/18. Construction phase was authorized at the 2/12/18 Board meeting. Notice to proceed for the construction contracts was issued dated 3/26/18. A pre-construction meeting was conducted in early April 2018, and construction is anticipated to be completed by late Summer 2019. **(No Change)**

8. **Suburban Division – Heidelberg Heights Wastewater Treatment Plant Improvements**

As part of an asset management approach to maintaining the level of service and mitigating risk of failure at the Heidelberg Heights Wastewater Treatment Plant, a condition assessment evaluation is being performed for the Equalization/Sludge Holding tank. The steel tank is part of the original plant, installed in the mid-1970s, and is compartmentalized to serve as both a raw sewage equalization tank (for sequenced pumping to the newer SBR tanks), and for storing

liquid sludge (for pump and haul removal). The exposed portions of this tank display areas of corrosion, and the tank was drained and cleaned and a thorough assessment was performed to determine structural integrity and remaining service life, and a study provided to LCA. Design phase services were completed in March 2019, the project was advertised for bid in early April, and a pre-bid meeting was held on 4/16/19. Bids will be opened on 5/2/19 and award of bid and construction phase services was authorized at the 6/10/19 meeting. The project is anticipated to be completed by early Fall 2019. **(No Change)**

9. **Suburban Division – Wynnewood WWTP Upgrade Project**

Wynnewood Terrace WWTP was constructed in 1980 by the developer to serve the Wynnewood Terrace subdivision, located in the Laury's Station area in North Whitehall Township. Sewer service is provided to approximately 217 residential and 2 commercial properties. LCA acquired the system in 2003.

The plant, while meeting effluent limits, has reached the end of its useful life. The plant is constructed of in-ground steel tanks that are in poor condition, with areas of corrosion and loss of structural integrity. The mechanical and electrical systems are also at the end of their service life and in need of replacement. The proposed project includes replacement of the existing treatment facility in entirety with new technology and concrete tanks appropriate for the wastewater flows and loading characteristics. The new facility shall meet the effluent limits criteria established in the respective DEP and DRBC permits, including new or additional limits that may be imposed during the permitting process. Design phase was authorized in February 2017 and was concluded in late Summer 2018. The DEP Part 2 Water Quality Management Permit was received in March 2018. The project was advertised for bid in August 2018, bids were opened in September 2018, and bids were authorized for award at the October 22, 2018 Board meeting. Construction work mobilized in early 2019 and is anticipated to finish in early 2020. **(No Change)**

10. **Suburban Division – Sand Spring WWTP Upgrade Project**

The Sand Spring WWTP was constructed in 1972 by the developer to serve the Sand Spring development, located in the Schnecksville area in North Whitehall Township. Sewer service is provided to approximately 248 apartment units, 8 commercial properties, and an elementary school. Lehigh County Authority (LCA) acquired the system in 2005.

The plant, while meeting effluent limits, has reached the end of its useful life. The plant is constructed of in-ground steel tanks that are in poor condition, with areas of corrosion and loss of structural integrity. The mechanical and electrical systems are also at the end of their service life and in need of replacement. The proposed project includes replacement of the existing treatment facility in entirety with new technology and concrete tanks appropriate for the wastewater flows and loading characteristics. The new facility shall meet the effluent limits criteria established in the respective DEP and DRBC permits, including new or additional limits that may be imposed during the permitting process. Design phase was authorized in February 2017 and should be concluded by late 2018; progress has been delayed due to DEP Part 2 Water Quality Management and NPDES permitting issues. DEP approval of the Water Quality Management Permit was received in late December 2018, and the project will proceed to bid phase in Summer 2019. **(No Change)**

11. **Suburban Division – SCARP**

On December 21, 2018, LCA and all of the municipalities named in the AO received a detailed letter from DEP requesting additional information about the Regional Flow Management Strategy (RFMS) including more specifics related to schedules for system characterization, sewer flow metering and monitoring, and other details related to each municipality's operations and maintenance program and inflow and infiltration source removal program. LCA led the effort to develop a full response to DEP, which was submitted on March 8, 2019. On April 25, 2019, DEP

submitted a letter asking for some additional information and maps. The information was forwarded to DEP. DEP recently requested some additional information on the interceptor work and bypassing from LCA and we will provide it.

Among the commitments made by the municipalities in the response to DEP included submission of RFMS updates and information on system hydraulic restrictions within the annual Chapter 94 submissions, and other scheduled commitments related to system characterization work, sewer flow metering and monitoring.

For the Western Lehigh Sewerage Partnership, the closeout of the EPA Administrative Order has no significant impact as the group remains committed to implementing the SCARP plan including inflow and infiltration source removal and conveyance capacity improvements to address dry-day and wet-weather flows for current and future customers.

12. Sanitary Sewer System Flow Metering for WLI

The installation of the 35 flow meters began in mid-December and was completed in January and is on-going. All meters were installed and operating properly by the end of February. Results of the flow monitoring are being observed by Arcadis.

13. WLI High Flow Emergency Declaration

LCA began the Emergency Response protocol to deal with the high flows within the Western Lehigh Interceptor (WLI) on November 28, 2018. The Emergency Declaration was presented to and approved by the Board on December 10, 2018, retroactive to November 29, 2018. Through December 28, 2018, the entire Iron Run Trunk Line (IRTL) has been televised from outside the Pretreatment Plant (PTP) down to the confluence with the Breinigsville Line, which is south of Hamilton Boulevard. This area is referred to as Phase 1 and the total distance televised in this reach was 7,115', and includes 93 manholes. In this section, LCA has identified 18 defects within that reach, the majority of which are joint leaks, along with heavy sediment in several areas. Once repaired, staff expects to have eliminated approximately 500,000 gallons per day of infiltration from the interceptor based on estimates. Repair work will begin while additional downstream inspection is ongoing. Phase 2 will include the WLI from where the IRTL and the Breinigsville lines meet down to the point where the relief line ends. Phase 3, which will include a major long-term bypass, will start at the end of the relief line and go to the Spring Creek Pump Station. Phases 4-6 will be the WLI from Spring Creek Pump Station down to Park Pump Station. A pre-bid meeting was held for Phase I on 1/29/2019 and bids were due on 2/15/2019. Standard Pipe Services (SPS) out of Delaware was awarded the contract. The Phase I pre-construction meeting was held on 3/25/2019. Construction on Phase 1 was completed on 5/24/2019. Phases 2 and 3 construction services will be added to the SPS contract via change orders. Bypass bids were due on 4/26/2019. Only one bid was received for \$483,000 and it was rejected. A re-bid was due on May 10, 2019 and the low bid this round was \$374,400. CCTV work is continuing downstream and has reached in to Phase 4 and with the intention of reaching the PPS (end of Phase 6) in Q3. Phase 2 construction is to begin in July 2019. Phase 3 construction and bypassing is expected to begin in August/September.

14. Suburban Division - Heidelberg Heights and Lynn Township Sewer System Updates

Excessive inflow and infiltration (I&I) and high wet-weather flows into the Heidelberg Heights and Lynn Township sewer systems have been ongoing and increasingly challenging to address. As noted in LCA's monthly operations report, treatment plant bypasses and sanitary sewer overflows have occurred more frequently in these systems and must be addressed. Staff have developed corrective action plans (CAPs) that include structural and non-structural initiatives and involves coordination with the host municipality. The framework for the CAPs was shared with the Board in February and are being developed further for submission to DEP. A meeting has been scheduled with DEP in early June 2019 to discuss the Lynn Township CAP and Township

sewer planning/growth issues, and updated CCTV work is being performed for the entire Lynn Township sanitary sewer system. **(No Change)**

15. **Suburban Division - Heidelberg Heights Sanitary Sewer Rehabilitation Project**

High wet-weather flows caused by excessive inflow and infiltration into the sewage collection system have challenged the Heidelberg Heights sanitary sewage system and has been the cause of numerous wastewater treatment plant bypasses over the past two years. This project includes the replacement of approximately 1,100 lf of VCP sewer main and 26 residential sewer laterals to address high priority areas of the system to continue to work toward eliminating leakage. The pre-bid meeting was held on 3/28/19, bids were opened on 4/9/19, and award of bid and construction phase services was requested at the 4/22/19 Board meeting. Construction is anticipated to begin in early Summer 2019. **(No Change)**

16. **Suburban Division - Heidelberg Heights Corrective Action Plan**

On February 11, 2019, the Pa. Department of Environmental Protection (DEP) submitted a notice of violation to LCA regarding bypasses and permit exceedances at the Heidelberg Heights wastewater treatment plant. As discussed with the LCA Board during several meetings in 2018, this small satellite system is challenged by high groundwater levels and significant infiltration and inflow (I&I) of clear water into the sewer system during rain events. LCA staff met with DEP officials on March 6, 2019 to discuss the problems and, as a result, LCA is preparing a comprehensive corrective action plan (CAP) for submission to DEP by May 5, 2019. A draft of the plan was attached for Board review at the April 22, 2019 Board meeting. The final CAP was submitted to DEP on 4/29/19. **(No Change)**