BOARD MEETING AGENDA – December 12, 2016

1. Call to Order
   - Public Participation Sign-In Request

2. Review of Agenda / Executive Sessions

3. Approval of Minutes
   - November 28, 2016 Board meeting minutes

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION
   - 2017 Meeting Schedule (yellow)
   - Resolution #12-2016-1- A Resolution Specifying Particular Employees as Authorized Persons to Perform Authority Financial Transactions Functions (blue)

WATER
   - Water Supply / Drought Planning Update - Discussion

WASTEWATER
   - Review of Administrative Order Improvements - Discussion
   - Allentown Division – Kline’s Island WWTP Phase 1 AO Improvements – Conceptual Design Development (grey)

6. Monthly Project Updates / Information Items (1st Board meeting per month) – December Board Notes attached

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

8. Monthly System Operations Overview (2nd Board meeting per month) – November 2016 report – distributed under separate cover

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.

January 9, 2017
January 23, 2017
February 13, 2017

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.
The Regular Meeting of the Lehigh County Authority was called to order at 12:13 p.m. on Monday, November 28, 2016, Vice Chairman Scott Bieber presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Kevin Baker, Richard Bohner, Norma Cusick, Ted Lyons and Deana Zosky. Authority Staff present were Liesel Gross, Frank Leist, Ed Klein, Pat Mandes, Brad Landon, John Parsons, Chuck Volk, and Lisa Miller.

REVIEW OF AGENDA

Liesel Gross recommended the order of the agenda be adjusted to begin with the Drought Status Report. Ms. Gross stated there are three items for Executive Session regarding property acquisition, personnel, and litigation.

APPROVAL OF MINUTES

October 24, 2016 Regular Meeting Minutes

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved the Minutes of the October 24, 2016 meeting (6-0). Richard Bohner abstained.

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

Drought Status Report

Liesel Gross gave a PowerPoint presentation on the Drought Status with an overview of the data. Lehigh County is currently under a Drought Watch issued by Delaware River Basin Commission (DRBC) and a Drought Warning issued by Department of Environmental Protection (DEP). Some residents were present with questions and concerns.

Deana Zosky commented that the Little Lehigh Creek by her house dries up then seems to recharge overnight.

Scott Bieber asked if the Authority is pulling water from all of its wells. Liesel Gross stated not all wells need to run all the time and that some wells are only used depending on the amount of capacity needed. Ted Lyons questioned if the Authority has data regarding the Lehigh River and the drought. Ms. Gross stated the Authority does have data on all wells as well as the Little Lehigh Creek and the Lehigh River. Ms. Gross announced the quarterly meeting with the Industrial users on December 7, 2016 will discuss what they can do in order to assist with conservation without actually stopping production. It was also noted that the industrial customers are primarily using water drawn from the interconnection with the City of Allentown, which we know because of testing done on fluoride levels.

The Board discussed an additional study that would be required to better understand how groundwater and surface water sources are being impacted by the drought and water usage rates, and also discussed how to get the community partners and municipalities involved. Liesel Gross stated that the Authority is dedicating a page on the website that would capture and share information with the community and educate customers on conservation.

Scott Alderfer, Geologist and Lower Macungie Township resident, stated that we don’t have enough data currently to solve the mystery of why we had lower groundwater levels in 2002 without seeing the surface water impacts we are seeing today. We need additional data points and stream gages to capture knowledge. The Little Lehigh Creek should have an additional 2 gages installed to obtain key data.
Art Persing questioned how the Authority would penalize customers if water usage restrictions are put in place.

Claudia Steckel asked that in the event of a water emergency, will businesses be restricted as well? Liesel Gross responded that specific kinds of usages are typically excluded from water use restrictions during a Drought Emergency. Restrictions are typically based on eliminating non-essential uses like watering lawns, filling pools, and washing cars at home. If water supplies decline to the point that service to the community would be impacted, the Authority could implement its own Drought Emergency declaration and could declare other water use restrictions up to and including a water rationing plan that would impose penalties for water waste, or implementation of water rationing rates to promote conservation. However, water supplies have not reached this level and the Authority is not recommending this action at this time. Ms. Steckel also asked if the Authority could make a statement to stop development. Ms. Gross said that the Authority does not control or approve development plans, as the municipalities have the authority to control development.

Mike Siegel commented that this problem is not just a precipitation problem. The problem lies in the cone of depression for well withdrawals. Drought indicators will be out of line and wells may need to be shut down to prevent creeks from drying out. Mr. Siegel provided some Board members with copies of pages excerpted from the WRIR 90-4076 US Geological Survey and advised the Board to read the report. Mr. Siegel also stated the Authority needs a USGS gaging system at the Spring Creek pumping station to gather proper data, which could also be used as an early warning system for flooding during peak rain events for traffic safety.

There was some discussion regarding taking some of the Authority’s wells offline with the idea that the wells could recharge the base flow. Liesel Gross explained that the Authority need to balance the operation of the system among all its supplies including the wells and the interconnection with Allentown. Further study and additional data points may be needed to understand current impacts to the Little Lehigh regarding water withdrawals, limestone geology, dam removals, etc. She explained that staff has scheduled a meeting with a hydrogeologist for later in the week to discuss potential data collection efforts to gather more meaningful monitoring data which could be used to inform operational decisions.

Jan Keim encouraged the Authority to forget about another study and take action.

Residents also voiced their concern about the safety of Spring Creek Road during flooding and suggested that Lower Macungie Township may be willing to partner with the Authority to install proper stream gages to determine if the road needs to be closed and assist with the cost of implementing these devices.

Deana Zosky left the meeting at 1:30 p.m.

Vice Chairman Bieber called a break at 1:30 p.m. The meeting reconvened at 1:34 p.m.

**2017 Water & Sewer Rates**

Liesel Gross offered to the Board the 2017 Water & Sewer rates as presented in the agenda packet.

On a motion by Norma Cusick, seconded by Kevin Baker, the Board approved the 2017 Water & Sewer rates (7-0).

**Suburban Division – Asset Management Facility Upgrades**

Chuck Volk gave an overview of the project which is part of the Suburban Division Facility Condition Assessment Report. Based on the report, nine water and two wastewater facilities were selected for upgrade based on a high risk assessment rating. Those facilities are: Beverly Hills, NL 15-16 (Heidelberg Hts.), NL-19 (Heidelberg Hts.), Clearview Farms, WL-6, WL-10, WL-11, WL-13, WL-16, Lynn Township WWTP, and WLI siphon chambers.
Mr. Volk is requesting approval of the Capital Project Authorization – Design & Build Phase in the amount of $110,000.00 which includes the Professional Services Authorization to D’Huy Engineering, Inc. in the amount of $79,500.00.

On a motion by Norma Cusick, seconded by Linda Rosenfeld, the Board approved the Capital Project Authorization – Design & Build Phase in the amount of $110,000.00 which includes the Professional Services Authorization to D’Huy Engineering, Inc. in the amount of $79,500.00 (7-0).

Suburban Division – Water Main Replacement Program Amendment to Design Phase Cycles 1 - 3

Frank Leist gave an overview of the project. The amendment to the project is requested due to the 1.7 miles of additional water main added to the project scope. The additional miles consists of replacing the water mains between intersections, rather than ending a replacement mid-block, thus allowing future replacements to be easily extended with lessened interruptions in service to customers in the area. Mr. Leist is requesting approval of the Capital Project Authorization – Amendment No. 2 of the Design Phase in the amount of $60,000.00 which includes the Professional Services Authorization to Gannett Fleming, Inc.

On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved the Capital Project Authorization – Amendment No. 2 of the Design Phase in the amount of $60,000.00 which includes the Professional Services Authorization to Gannett Fleming, Inc. (7-0).

Allentown Division – Schantz Spring Main Replacement Design Phase

Frank Leist gave an overview of the project which consists of replacing approximately 2,000 linear feet of 1903 vintage 30” water main from Schantz Spring to the Water Filtration Plant. It also includes addressing approximately 15 leaks, located at various areas from Schantz Spring to Schreibers Bridge, as identified during the SmartBall leak detection work by the City of Allentown prior to the lease. This project is a Schedule-7 project and will be funded by the LCA Allentown Division. Mr. Leist is requesting approval of the Capital Project Authorization – Design Phase in the amount of $187,635.00 which includes the Professional Services Authorization to Gannett Fleming, Inc. in the amount of $127,635.00.

On a motion by Norma Cusick, seconded by Ted Lyons, the Board approved the Capital Project Authorization – Design Phase in the amount of $187,635.00 which includes the Professional Services Authorization to Gannett Fleming, Inc. in the amount of $127,635.00 (7-0).

Allentown Division – PA Rapid Bridge Replacement Project of the Hamilton Street Bridge crossing Cedar Creek

Frank Leist gave an overview of the project which consists of relocating approximately 500 linear feet of 6” diameter water main due to the replacement of the Cedar Creek Bridge on Hamilton Street. The project is currently listed to be funded by the LCA Allentown Division, however, based on current bridge design, 100% of the costs are anticipated to be reimbursed by PennDOT because the facilities are located in a private easement. Mr. Leist is requesting approval of the Capital Project Authorization – Design Phase in the amount of $124,500.00 which includes the Professional Services Authorization in the amount of $97,000.00 to Gannett Fleming, Inc.

On a motion by Norma Cusick, seconded by Richard Bohner, the Board approved the Capital Project Authorization – Design Phase in the amount of $124,500.00 which includes the Professional Services Authorization in the amount of $97,000.00 to Gannett Fleming, Inc. (7-0).

2017 Arcadis SCARP Program Management Services

Pat Mandes gave an overview of the project for Arcadis for work related to the Sewer Capacity Assurance and Rehabilitation Program (SCARP). The work includes Program Management for 2017.
Ms. Mandes is requesting approval for the Capital Project Authorization – Amendment No. 25 in the amount of $125,000.00 which includes the Professional Services Authorization to Arcadis.

On a motion by Norma Cusick, seconded by Linda Rosenfeld, the Board approved the Capital Project Authorization – Amendment No. 25 in the amount of $125,000.00 which includes the Professional Services Authorization to Arcadis (7-0).

**PROJECT UPDATES/INFORMATION ITEMS**

Liesel Gross brought to the attention of the Board items listed in the report. There were no questions or comments.

**MONTHLY FINANCIAL REVIEW**

Ed Klein reviewed the 2016 Q4 Forecast report as attached and presented to the Board.

**SYSTEM OPERATIONS OVERVIEW**

John Parsons reviewed the October 2016 Operations report that was attached to the Board agenda.

**STAFF COMMENTS**

None.

**SOLICITOR’S COMMENTS**

None.

**PUBLIC COMMENTS / OTHER COMMENTS**

None.

**EXECUTIVE SESSION**

Vice Chairman Bieber called an Executive Session at 2:02 p.m. to discuss property acquisition, personnel, and litigation.

The Executive Session ended at 2:35 p.m.

**ADJOURNMENT**

There being no further business, the Vice Chairman adjourned the meeting at 2:35 p.m.

__________________________
Richard H. Bohner
Secretary
LEHIGH COUNTY AUTHORITY
2017 MEETING SCHEDULE

Meetings are typically held on Mondays beginning at 12:00 p.m.,
in the LCA Office, Main Conference Room

**Board Meetings**

January 9, 23
February 13, 27
March 13, 27
April 10, 24
May 8, 22
June 12, 26
July 10, 24
August 14, 28
September 11, 25
October 9, 23
November 13, 27
December 11

BRIAN NAGLE
Chair
RESOLUTION NO. 12-2016-1
(Duly adopted 12 December 2016)

A RESOLUTION SPECIFYING PARTICULAR EMPLOYEES AS AUTHORIZED PERSONS TO PERFORM AUTHORITY FINANCIAL TRANSACTIONS FUNCTIONS

WHEREAS, Lehigh County Authority (hereinafter the “Authority”) Board of Directors (the “Board”) periodically takes action designating particular staff positions to fulfill certain responsibilities under Authority policies, procedures, rules, etc.; and

WHEREAS, to reflect the retirement of the present Chief Capital Works Officer, Frank Leist, and appointment of his replacement, the Board wishes to update its standing resolution naming specific persons as the Authorized Persons for financial transactions with banks and other financial institutions;

NOW THEREFORE, it shall be resolved that the following persons are duly appointed Authorized Persons or otherwise authorized to act on behalf of the Authority in the capacities set forth below and that the following original signatures are genuine in all respects:

AUTHORIZED PERSONS

<table>
<thead>
<tr>
<th>Name of Authority Employee</th>
<th>Title/Position</th>
<th>Specimen Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liesel M. Gross</td>
<td>Chief Executive Officer</td>
<td></td>
</tr>
<tr>
<td>Edward C. Klein</td>
<td>Chief Financial Officer</td>
<td></td>
</tr>
<tr>
<td>Linda M. Eberhardt</td>
<td>Accounting Supervisor</td>
<td></td>
</tr>
<tr>
<td>Charles E. Volk</td>
<td>Chief Capital Works Officer</td>
<td></td>
</tr>
<tr>
<td>John W. Parsons</td>
<td>Chief Operations Officer</td>
<td></td>
</tr>
</tbody>
</table>

On motion of __________________, seconded by ________________, this Resolution was adopted the 14th day of December 2015.
MEMORANDUM

Date: December 12, 2016

To: Liesel Gross, C.E.O.
From: Phil DePoe
Subject: Allentown Division

Kline’s Island WWTP Phase 1 AO Improvements: Conceptual Design Phase 1

MOTIONS / APPROVALS REQUESTED:

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Professional Services Authorization – Kleinfelder (1)</td>
<td>$149,820</td>
</tr>
</tbody>
</table>

(1) Does not include design, bid or construction phase related engineering services.

PROJECT OVERVIEW

Lehigh County Authority (LCA) and City of Allentown (COA) have submitted a preliminary schedule to the U.S. Environmental Protection Agency (EPA) and Pennsylvania Department of Environmental Protection (DEP) for a phased program of improvements to mitigate sanitary sewer overflows (SSOs). Phase 1 includes improvements to the KIWWTP to increase its ability to manage peak wet weather flows from 87 (million gallons per day) MGD to approximately 120 MGD utilizing one of two different alternatives. Phase 2 includes a further increase in the KIWWTP’s ability to manage peak wet weather flows from approximately 120 MGD to approximately 160 MGD. This project is identified as an Administrative Order (AO) project.

FINANCIAL

The project is an Administrative Order (AO) Project and it will be funded by the City.

PROJECT STATUS

Pending Board approval of the Conceptual Design Phase 1 Improvements.

THIS APPROVAL - CONCEPTUAL DESIGN PHASE

Lehigh County Authority (LCA) intends to retain the services of an engineering consulting firm to provide the conceptual design related services. Approval for the design, bid and construction related engineering services will be requested at a later date. The following table summarizes the professional services to be performed under this approval:

<table>
<thead>
<tr>
<th>Professional Services (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Provide conceptual design of common improvements</td>
</tr>
<tr>
<td>2. Provide conceptual design of Alternative #1</td>
</tr>
<tr>
<td>3. Prepare conceptual design of Alternative #2</td>
</tr>
<tr>
<td>4. Evaluate impact of planned electrical distribution system improvements</td>
</tr>
<tr>
<td>5. Prepare conceptual design report</td>
</tr>
<tr>
<td>6. Attend meetings and prepare presentations</td>
</tr>
<tr>
<td>7. Assist in the RFP preparation</td>
</tr>
<tr>
<td>8. Provide project administration</td>
</tr>
</tbody>
</table>

(1) For Conceptual Design Development Phase Only
CONSULTANT SELECTION PROCESS
The COA has instructed LCA to utilize Kleinfelder for this conceptual design phase of the project. Kleinfelder has been retained by the City to develop these concepts to comply with the EPA’s Administrative Order.

PROJECT SCHEDULE
The project is anticipated to begin design by June of 2017. The project is anticipated to be bid ready by the beginning of August 2018 with an anticipated project completion date of October 2020.

FUTURE AUTHORIZATIONS – DESIGN, BID AND CONSTRUCTION PHASE
After this conceptual design is approved, a Request for Proposal (RFP) for full engineering design services will be sent to numerous firms in March of 2017. A Capital Project Authorization (CPA) will be presented to the Board in June of 2017 for approval of the Design and Bid Phase; and will include a professional services award, staff costs and other related components. A Capital Project Authorization (CPA) Amendment will be presented to the Board in August of 2018 for approval of Construction Phase; and will include a construction contract award, a construction services award, staff costs and other related components.
Allentown Division – Kline’s Island WWTP Phase 1 AO Improvements – Conceptual Design Development Phase

KLEINFELDER will develop conceptual designs for the Phase 1 Administrative Order (AO) alternative improvements to the Kline’s Island Wastewater Treatment Plant (KIWWTP). Phase 1 includes improvements to the KIWWTP to increase its ability to manage peak wet weather flows from 87 million gallons per day (MGD) to 120 MGD utilizing one of two different alternatives. This conceptual design concept will be utilized in the Request for Proposals (RFP) for full Engineering design services.

### Professional Services (1)

1. Provide conceptual design of common improvements
2. Provide conceptual design of Alternative #1
3. Provide conceptual design of Alternative #2
4. Evaluate impact of planned electrical distribution system improvements
5. Prepare conceptual design report
6. Attend meetings and prepare presentations
7. Assist in the RFP preparation
8. Provide project administration

(1) For Conceptual Design Development Phase Only.

Please reference the cover Memo for additional information.

**Conceptual Design Phase:**
Cost Estimate (not to be exceeded without further authorization): $149,820

**Time Table and Completion Deadline:** As required to meet various critical deadlines as set forth in the proposal.
FINANCE & ADMINISTRATION

ACTION ITEMS

1. **2017 Meeting Schedule**

   The 2017 Board meeting schedule is included for approval.

2. **Resolution #12-2016-1**

   The Board has routinely passed a resolution appointing particular management staff to be Authorized Persons for signing with financial transaction with banks and other financial institutions. The last such resolution was Resolution No. 12-2015-4 reflecting Aurel Arndt’s retirement and change of certain management positions. The staff recommends the Board pass a similar resolution reflecting Frank Leist’s retirement as Chief Capital Works Officer as of December 16th and the appointment of Chuck Volk to that position.

DISCUSSION ITEMS

INFORMATION ITEMS

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

   **CERTIFICATES OF DEPOSIT**

<table>
<thead>
<tr>
<th>Fund</th>
<th>Bank</th>
<th>Location</th>
<th>Gross Amount</th>
<th>Date of Purchase</th>
<th>Date Due</th>
<th>Net Rate</th>
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<tbody>
<tr>
<td>LLRI CR</td>
<td>Merrick Bank</td>
<td>South Jordan, UT</td>
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<td>4/30/18</td>
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<tr>
<td>WW Capac</td>
<td>DMB Community Bank</td>
<td>De Forest, WI</td>
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<td>11/30/17</td>
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<tr>
<td>WW Capac</td>
<td>Safra National Bank of New York</td>
<td>New York, NY</td>
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<td>11/1/16</td>
<td>10/31/17</td>
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<tr>
<td>Cons Wtr (2)</td>
<td>Midland States Bank</td>
<td>Effingham, IL</td>
<td>245,000.00</td>
<td>11/2/16</td>
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<td>LLRI CR</td>
<td>Discover Bank</td>
<td>Greenwood, DE</td>
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<td>11/2/16</td>
<td>11/2/18</td>
<td>1.2</td>
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<tr>
<td>WW Capac</td>
<td>Santander Bank NA</td>
<td>Wilmington, DE</td>
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<td>11/9/16</td>
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<td>0.75</td>
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<td>WW Capac</td>
<td>Smartbank</td>
<td>Pigeon Forge, TN</td>
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<td>Triumph Bank</td>
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<tr>
<td>LLRI CR</td>
<td>Investors Community Bank</td>
<td>Manitowoc, WI</td>
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<tr>
<td>Cons Wtr (2)</td>
<td>Union Bank &amp; Trust Company</td>
<td>Oxford, NC</td>
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<td>11/15/16</td>
<td>5/15/18</td>
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</table>

   **Fund Descriptions for Investments:**
   - 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
WATER

ACTION ITEMS

DISCUSSION ITEMS

1. **Water Supply / Drought Planning Update**
   Subsequent to the November 28, 2016 Board meeting, staff met with Al Guiseppe, a hydrogeologist from Spotts, Stevens & McCoy who is familiar with the Authority’s water supplies and characteristics of the limestone aquifer and the Little Lehigh Creek. During the discussion, several ideas were generated regarding developing a more robust measure of the Authority’s water supply sustainability for purposes of establishing local drought triggers, and additional monitoring that would be helpful in characterizing the creek and groundwater flows. Mr. Guiseppe will attend the December 12, 2016 Board meeting to review his recommendations for additional study.

INFORMATION ITEMS

1. **Suburban Division – CLD Auxiliary Pump Station Project**
   The project will feature the installation of a new booster station and water main extension to pump water from the Lower System to the Upper System. The project will also involve installation of a SCADA system. We returned comments on the Public Water Supply (PWS) permit application. (No Change)

2. **Suburban Division – Crestwood Alternate Water Supply**
   The project consists of abandonment of existing wells and storage tank currently serving higher elevation customers and a connection of the pumping station to the main North Whitehall Division System. The project will also involve installation of a SCADA system. The design phase is underway. We are reviewing the 100% design plans and specifications. A grant application for the construction costs has been submitted to the Commonwealth Finance Authority (CFA). Bidding and construction of the project will be delayed until after grant awards are announced, which is expected to be March 2017. (No Change)

3. **Suburban Division – Route 309 Crossing at Sand Spring Road**
   A 12” water line will cross Route 309 through a previously installed 24” casing. Completion of this line will bring public water to the property line of Lehigh Carbon Community College. The design phase is under way. Penndot Highway Occupancy Permits have been obtained. An easement agreement was sent to LCCC for their signatures. (No Change)

4. **Allentown Division – Prelease Valve Replacements**
   The project is the replacement of approximately 55 inoperable valves in multiple locations throughout the City that existed prior to the lease settlement. Design is currently under way. This project is identified as Un-Completed Work and will be funded by the City. (No Change)

5. **Suburban Division - Water Main Replacement Program Cycles 1 & 2**
   The project consists of the replacement of 2.85 miles of aged and/or failing Cast Iron water main. The Construction phase was approved at the 4/11/16 Board meeting. Anrich Inc., our contractor is progressing according to schedule. (No Change)

6. **Allentown Division – Water Main Replacement Program- Cycle 3**
The project is the replacement of 4.39 miles of aged and/or failing Cast Iron water main in multiple locations throughout the City. The Construction phase was approved at the 4/11/16 Board meeting. JOAO & Bradley, Inc. our contractor has completed construction according to schedule and are currently in discussion with LCA for project documentation closeout and billing. This Project is identified as Schedule-7 Work and will be funded by LCA Allentown Division. (No Change)

7. **Allentown Division - Miscellaneous Water Filtration Plant / Water Distribution**
   - WFP Stormwater Pump/Control - Upgrades to the existing stormwater pump/control for the WFP and D&C parking lot is needed due to equipment age. Bids are due December 20th and Board Approval is requested in January of 2017.
   
   This capital project is funded by the LCA Allentown Division.

8. **Allentown Division – Water System Master Plan**
   
   This project involves the creation of a Master Plan for the Allentown Water Plant, water storage tanks, water storage reservoirs, pressure booster stations, raw water springs, and surface water intakes. The Master Plan will involve several key sections including, but not limited to: full-scale condition assessments, treatment process optimization, and development of short term/long term capital plans. The Master Plan is a requirement included within the City of Allentown lease, and it also needs to be updated every 5 years throughout the life of the lease. The project kick-off meeting with Arcadis was held on May 4, 2016. Multiple workshops have also been held. Condition Assessments and process control audits/optimizations are in-progress. The project is scheduled to be finished early in 2017. The project will be funded by the LCA Allentown Division.

9. **Developments**
   
   Water system construction is occurring in the following developments:
   - Grandview, 6 commercial units and 204 apartment units, LMT
   - Hidden Meadows, Phase 1B, 72 residential lots (sfa), UMT
   - West Hills Business Center, 2 industrial lots, WeisT, water & sewer

   Water system plans are being reviewed for the following developments:
   - 67 Werley Road, 112 apartments & clubhouse, UMT
   - Ciocca Subaru, 1 additional commercial building at existing business, LMT
   - Diocesan Pastoral Center, 2 commercial lots, 3 additional lots and residual lot for existing cemetery, LMT
   - Farr Tract, 17 residential lots (sfd), LMT
   - Grant Street Townes, 18 residential lots (sfa), WashT
   - Hickory Park Estates, 3 residential lots (sfd), UMT
   - Hillview Farms, 31 residential lots (sfd), LMT/SWT
   - Indian Creek Industrial Park, 6 commercial lots, UMilT, water and sewer
   - Kohler Tract, 125 residential lots (mfd), UMilT, water and sewer
   - Lehigh Hills, Lot 5, Phase 1, 273 apartments & clubhouse, UMT
   - Mary Ann’s Plaza, 1 lot with 12 commercial units, NWT
   - Morgan Hills, 40 residential lots (sfd), WeisT, water and sewer
   - North Whitehall Commercial Center (Walmart), 5 commercial lots, NWT, water & sewer
   - Shepherd’s Corner, 1 commercial lot, LMT
   - Stone Hill Meadows, 24 residential lots (sfd), LMT
   - Trexler Business Center, 1 Commercial Lot with 6 commercial buildings, LMT
   - Weilers Road Twins, 82 residential lots (sfa), UMT
   - Woodmere Estates, 60 residential units (sfd), UMT
10. **Suburban Division – Capece Tract, WL #20 and Res #3 Improvements**

WL #20 will be switched over to a variable frequency drive motor to better control power usage and maintain steady output. Reservoir #3 will receive a motor activated control valve to maintain filling capabilities and chlorine contact levels. Both facilities will receive an upgrade to their SCADA systems. The Notice to Proceed has been issued to Blooming Glen Contractors. Construction is tentatively set to begin in the second week of January.

11. **Suburban Division – Asset Management Facility Upgrades**

Project includes the design and construction of improvements that were identified and prioritized in the Building Condition and Assessment Study prepared by D’Huy Engineering in accordance with LCA’s asset management goal. The project scope includes structural, HVAC, and electrical/code improvements to be performed on facilities that were assigned a high risk score (high consequence and probability of failure). Nine (9) water facilities and two (2) wastewater facilities are part of the project scope. Design and bid phase services will be performed by D’Huy Engineering. The project is expected to be bid in spring 2017.
WASTEWATER

ACTION ITEMS

1. **Allentown Division – Kline’s Island WWTP Phase 1 AO Improvements: Conceptual Design Development**
   
   This portion of the Phase 1 Administrative Order project will develop conceptual designs for the blending and flow equalization alternatives at the wastewater treatment plant. This conceptual design concept has been approved by the City. The City has directed LCA to proceed with these alternatives pending a final determination in late May of 2017. Board approval is being requested for the development of this conceptual design (later to be included in the RFP for full design services). Board approval for the full engineering design phase of the project will be requested at the June 2017 Board Meeting. The project is identified as Administrative Order Work and will be funded by the City. Construction is expected to begin in late 2018 and is expected to be complete in late 2020.

DISCUSSION ITEMS

1. **Review of Administrative Order Improvements**
   
   Staff will provide a brief presentation of the status of current efforts to comply with the Administrative Order (AO) and the Authority’s roles and responsibilities related to sewer system improvements, regional infrastructure upgrades, and improvements at the Kline’s Island Wastewater Treatment plant. The Board of Commissioners for the County of Lehigh has requested a similar presentation at an upcoming meeting and the Authority Board’s review of the presentation is required to ensure proper communication of the Authority’s decision-making role is provided to the community.

INFORMATION ITEMS

1. **Wastewater Treatment Capacity**
   
   The PaDEP has suggested that a 537 Plan for the additional 4 MGD of capacity be submitted to them at the time when the 4 MGD is needed or after the SCARP improvements are made. They anticipate that if the 537 Plan is submitted in the near term, the Department will require a revised Plan prior to any capital improvements. The 537 planning process has currently been side-lined until such time as the wastewater capacity is limited or a 537 plan update is needed for an Administrative Order project must be submitted. A 537 Planning summary report has been completed by the engineering team and has been posted to the LCA website. *(No change)*

2. **Allentown Division – Sanitary Sewer Manhole Lining: Cycle 3**
   
   This annual project will install a lining system (to eliminate infiltration) in approximately 111 aged brick manholes identified by LCA staff. The City approved the Conceptual Design Report and the project was advertised on May 17, 2016. Board approval of the construction phase was granted at the 6/27/16 Board Meeting. The project is identified as Administrative Order Work and will be funded by the City. Construction began in mid-July and is expected to be fully completed in mid-December. Only minor punchlist items remain.

3. **Allentown Division – Manhole Collars with Water Tight Frame and Covers: Cycle 3**
   
   This project will permanently secure the frame and cover of approximately 57 aged brick manholes identified by current LCA staff. This work will eliminate inflow from entering these manholes and eliminate the potential for sanitary sewer overflows (SSO’s) from these manholes. The City approved the Conceptual Design Report and the project was advertised on May 17, 2016. Board approval of the construction phase was granted at the 6/27/16 Board Meeting. The project is identified as
Administrative Order and was funded by the City. Construction began in early August and was completed in mid-October. *(No change)*

4. **Allentown Division – WWTP: Replacement of Motor Control Centers**
   This Project replaced five aged motor control centers that provide power on a 24/7 basis to various parts of the WWTP. The project was approved by the City as a Major Capital Improvement (MCI). The project was 100% completed in late September. This Project is identified in the Lease as Schedule 7 (required) project and was funded by the LCA Allentown Division. *(No change)*

5. **Allentown Division – Wastewater Treatment Plant: Miscellaneous Improvements**
   - Main Pump Station Suction Piping – This project involves the replacement of the suction piping for Pump #1 at the Main Pumping Station. Holes have developed in the suction piping and without this repair, the ability to operate this pump properly may be compromised in the future. The piping will be replaced in early December.
   - Condition Assessment of Trickling Filters and Clarifiers – An onsite inspection will investigate the need to repair the exterior and interior components of the trickling filters and clarifiers. This inspection occurred in late September and the report is expected in mid-December.

   These capital projects are funded by the LCA Allentown Division.

6. **Allentown Division – Wastewater Treatment Plant: Digester Cover Replacements**
   This project involves the cover replacement of both the Primary Digester No. 1 and the Secondary Digester (the cover for Primary Digester No. 2 was previously replaced in 2010). A Major Capital Improvement (MCI) Conceptual Design has been approved by the City. Board approval of the construction phase was received at the 2/8/16 Board Meeting. The new Secondary Digester cover was installed in late October 2016 and the new Primary No. 1 Digester is expected to be installed by October 2017. This Project is identified in the Lease as a Schedule 7 (required) project and will be funded by the LCA Allentown Division. *(No change)*

7. **Consolidated Systems - SharePoint**
   SharePoint made available to plant and customer service. Not tracking any usage at this time. Waiting for feedback on problems. *(No Change)*

8. **Suburban Division – Spring Creek Pump Station**
   This project involves the following upgrades to the existing pumping station: Evaluate the feasibility of installing a comminutor to reduce buildup of debris on the bar screens, replace the manually operated weir gates with new motorized weir gates, and upgrades to the SCADA system. The project has been identified as a Major Capital Improvement (MCI). An Alternatives Evaluation Report was prepared by the Engineer and is under review by LCA staff. *(No Change)*

9. **Suburban Division – Western Weisenberg Wastewater Treatment Plant Improvements**
   This project includes the improvements necessary to rectify the cold weather nitrification issue at the WWTP. The Board approved the construction phase of the project at the May 9, 2016 meeting. Notices to Proceed have been issued to both the general and electrical contractors. Work started in October. The winterization of SBR #2 is complete and the reactor is back in service, with SBR #1 on schedule for completion on time before December 11. This project will be funded by the LCA Suburban Western Weisenberg Division.

10. **Suburban Division – Test & Seal Project, Western Lehigh Interceptor Service Area**
    Project consists of sanitary sewer cleaning, inspections via CCTV, cured-in-place point repairs, pressure testing and chemical grout sealing of joints, and post construction inspection for sanitary
sewer lines located in western and central Lehigh County previously identified as areas subject to leakage. This project is part of the SCARP program. Construction began in August 2016 and is expected to finish by Spring 2017. No change.

11. **Suburban Division – Test & Seal Project, Wynnewood Terrace**

Project consists of sanitary sewer cleaning, inspections via CCTV, cured-in-place point repairs, pressure testing and chemical grout sealing of joints, and post construction inspection for sanitary sewer lines located in the Wynnewood Terrace development in North Whitehall Township, previously identified as areas subject to leakage. This project is part of the single contract Test & Seal project. Construction began in August 2016 and is expected to finish by the end of 2016. No change.

12. **Suburban Division – SCARP**

Monthly meetings with the LCA Suburban Division Signatories began in January to negotiate a Memo of Cooperation for completion of the SCARP Capital Improvements Plan. Cash flow plans prepared by the Program Consultant have been presented to the Signatories so they can begin analyzing their borrowing needs and schedule. A communications plan has been developed to help the Signatories with discussions with their Boards and the public. The LCA AO Program Consultant will be making a presentation at both LMT and Macungie Borough at their request.

A follow-up meeting was held at the EPA Office in the City of Philadelphia. Representatives from DEP, the City of Allentown and LCA were present as well as the consultants from Allentown and LCA. The objective for LCA and the City was to receive a response from the regulators on the City and LCA plan presented in June. The regulators provided us with positive feedback on both the City and LCA plans, the phasing of the plans and the timing of the phases. EPA and PADEP sent a letter reflecting the consensus of the meeting and accepting the plans presented. (No change)

13. **Wynnewood and Sand Spring Wastewater Treatment Plant Replacement**

These facilities were investigated in 2015 as part of a wastewater treatment plant condition assessment and found to be in urgent need of replacement, due to impending equipment and tank failure and high consequence of risk. Both facilities are aging developer-installed plants, consisting of steel tanks utilizing extended aeration process technology. Based on the similarities between the sites, LCA may realize some economy of scale in having a single consultant design both projects. The request for proposals was issued in November, with consultant(s) selection in January 2017. (No change)