BOARD MEETING AGENDA – MARCH 14, 2016

1. Call to Order
   - Public Participation Sign-In Request
2. Review of Agenda / Executive Sessions
4. Approval of Minutes
   - February 22, 2016 Board Meeting Minutes
5. Public Comments
6. Action / Discussion Items:
   **FINANCE AND ADMINISTRATION**
   - January Financials (pink)
   **WATER**
   - Allentown Division – Water System Master Plan (blue)
   - Allentown Division – Design Phase, Water Main Replacement Program – Cycles 4-6 (yellow)
   **WASTEWATER**
   - Lowhill Township – Sewer System Acquisition (green)
7. Monthly Project Updates / Information Items (1st Board meeting per month)
8. Monthly Financial Review (2nd Board meeting per month)
9. Monthly System Operations Overview (2nd Board meeting per month)
10. Staff Comments
11. Solicitor’s Comments
12. Other Comments
13. Executive Sessions
14. Adjournment

UPCOMING BOARD MEETINGS
Meetings begin at Noon at LCA’s Main Office, unless noted otherwise below.

March 28, 2016
April 11, 2016
April 25, 2016

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. 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.
## Lehighton Authority
### Comparative Statement of the City Division

#### Operating Revenues

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual 2016</th>
<th>Budget 2016</th>
<th>Prior Yr</th>
<th>2016 YTD</th>
<th>Annual Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer Charges</strong></td>
<td>2,448,804</td>
<td>2,627,425</td>
<td>2,140,774</td>
<td>2,448,804</td>
<td>2,627,425</td>
</tr>
<tr>
<td><strong>Rental Income</strong></td>
<td>2,448,804</td>
<td>2,627,425</td>
<td>2,140,774</td>
<td>2,448,804</td>
<td>2,627,425</td>
</tr>
<tr>
<td><strong>Other Operating Income</strong></td>
<td>24,308</td>
<td>25,233</td>
<td>41,556</td>
<td>24,308</td>
<td>25,233</td>
</tr>
<tr>
<td><strong>Total Operating Revenues</strong></td>
<td><strong>2,473,418</strong></td>
<td><strong>2,892,888</strong></td>
<td><strong>2,182,330</strong></td>
<td><strong>2,473,418</strong></td>
<td><strong>2,892,888</strong></td>
</tr>
</tbody>
</table>

#### Operating Expenses

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual 2016</th>
<th>Budget 2016</th>
<th>Prior Yr</th>
<th>2016 YTD</th>
<th>Annual Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Salaries &amp; Wages</strong></td>
<td>476,807</td>
<td>427,631</td>
<td>436,481</td>
<td>476,807</td>
<td>427,631</td>
</tr>
<tr>
<td><strong>Overhead</strong></td>
<td>52,210</td>
<td>62,796</td>
<td>51,763</td>
<td>52,210</td>
<td>62,796</td>
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<tr>
<td><strong>Employee Benefits</strong></td>
<td>215,361</td>
<td>197,420</td>
<td>192,154</td>
<td>215,361</td>
<td>197,420</td>
</tr>
<tr>
<td><strong>Utilities</strong></td>
<td>139,863</td>
<td>178,368</td>
<td>154,049</td>
<td>139,863</td>
<td>178,368</td>
</tr>
<tr>
<td><strong>Insurance</strong></td>
<td>99,850</td>
<td>90,952</td>
<td>85,655</td>
<td>99,850</td>
<td>90,952</td>
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<tr>
<td><strong>Maintenance</strong></td>
<td>28,178</td>
<td>69,442</td>
<td>12,257</td>
<td>28,178</td>
<td>69,442</td>
</tr>
<tr>
<td><strong>Engineering</strong></td>
<td>1,917</td>
<td>-</td>
<td>-</td>
<td>1,917</td>
<td>-</td>
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<tr>
<td><strong>Legal</strong></td>
<td>2,754</td>
<td>6,035</td>
<td>2,261</td>
<td>2,754</td>
<td>6,035</td>
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<tr>
<td><strong>Lab Analysis</strong></td>
<td>382</td>
<td>1,067</td>
<td>-</td>
<td>382</td>
<td>1,067</td>
</tr>
<tr>
<td><strong>Supplies &amp; Equipment</strong></td>
<td>27,560</td>
<td>144,829</td>
<td>23,486</td>
<td>27,560</td>
<td>144,829</td>
</tr>
<tr>
<td><strong>Other Outside Services</strong></td>
<td>90,331</td>
<td>77,673</td>
<td>106,644</td>
<td>90,331</td>
<td>77,673</td>
</tr>
<tr>
<td><strong>Treatment &amp; Transportation</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Miscellaneous Operating Expenses</strong></td>
<td>18,632</td>
<td>51,285</td>
<td>29,808</td>
<td>18,632</td>
<td>51,285</td>
</tr>
<tr>
<td><strong>Depreciation &amp; Amortization</strong></td>
<td>450,030</td>
<td>450,000</td>
<td>441,144</td>
<td>450,030</td>
<td>450,000</td>
</tr>
<tr>
<td><strong>Total Operating Expenses</strong></td>
<td><strong>1,683,862</strong></td>
<td><strong>1,692,626</strong></td>
<td><strong>1,618,688</strong></td>
<td><strong>1,683,862</strong></td>
<td><strong>1,692,626</strong></td>
</tr>
</tbody>
</table>

#### Operating Income/(Loss)

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual 2016</th>
<th>Budget 2016</th>
<th>Prior Yr</th>
<th>2016 YTD</th>
<th>Annual Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Income</strong></td>
<td>890,246</td>
<td>958,842</td>
<td>883,781</td>
<td>890,246</td>
<td>958,842</td>
</tr>
<tr>
<td><strong>Total Non-Operating Income (Expenses)</strong></td>
<td><strong>3,442</strong></td>
<td>23,095</td>
<td>44,186</td>
<td>3,442</td>
<td>23,095</td>
</tr>
</tbody>
</table>

**Total Net Income**

**886,804**

#### Interest Income (Expenses)

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual 2016</th>
<th>Budget 2016</th>
<th>Prior Yr</th>
<th>2016 YTD</th>
<th>Annual Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interest Income</strong></td>
<td>444</td>
<td>36,833</td>
<td>49</td>
<td>444</td>
<td>36,833</td>
</tr>
<tr>
<td><strong>Interest Expense</strong></td>
<td>(1,314,816)</td>
<td>(985,779)</td>
<td>(1,001,146)</td>
<td>(1,314,816)</td>
<td>(985,779)</td>
</tr>
<tr>
<td><strong>Total Interest Income (Expenses)</strong></td>
<td><strong>(1,314,372)</strong></td>
<td><strong>(958,946)</strong></td>
<td><strong>(1,001,195)</strong></td>
<td><strong>(1,314,372)</strong></td>
<td><strong>(958,946)</strong></td>
</tr>
</tbody>
</table>

#### Capital Contributions

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual 2016</th>
<th>Budget 2016</th>
<th>Prior Yr</th>
<th>2016 YTD</th>
<th>Annual Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capital Grants</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Capital Assets Provided</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Capital Contributions</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Increase (Decrease) in Net Position

**(418,225)**

#### Capital Expenditures

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual 2016</th>
<th>Budget 2016</th>
<th>Prior Yr</th>
<th>2016 YTD</th>
<th>Annual Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LCA Costs</strong></td>
<td>51,677</td>
<td>(358,031)</td>
<td>51,677</td>
<td>(358,031)</td>
<td>51,677</td>
</tr>
<tr>
<td><strong>Total Capital Expenditures</strong></td>
<td><strong>(568,441)</strong></td>
<td><strong>(393,426)</strong></td>
<td><strong>(412,831)</strong></td>
<td><strong>(568,441)</strong></td>
<td><strong>(393,426)</strong></td>
</tr>
</tbody>
</table>

**Total Principal Reduction**

**(70,236)**

#### Key Metrics

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual 2016</th>
<th>Budget 2016</th>
<th>Prior Yr</th>
<th>2016 YTD</th>
<th>Annual Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Income (Expense) Before Depreciation</td>
<td>1,340,249</td>
<td>1,408,842</td>
<td>1,104,887</td>
<td>1,340,249</td>
<td>1,408,842</td>
</tr>
<tr>
<td>Operating Income (Expense) Before Depreciation / Operating Revenues (%)</td>
<td>54.2%</td>
<td>53.0%</td>
<td>50.8%</td>
<td>54.2%</td>
<td>53.0%</td>
</tr>
<tr>
<td>Operating Income (Expense) / Operating Revenues (%)</td>
<td>36.0%</td>
<td>36.1%</td>
<td>30.4%</td>
<td>36.0%</td>
<td>36.1%</td>
</tr>
<tr>
<td>Net Position Before Interest &amp; Capital Costs / Operating Revenues (%)</td>
<td>36.4%</td>
<td>38.9%</td>
<td>32.6%</td>
<td>36.4%</td>
<td>38.9%</td>
</tr>
<tr>
<td>Interest Coverage Ratio</td>
<td>0.684</td>
<td>0.904</td>
<td>0.707</td>
<td>0.684</td>
<td>0.904</td>
</tr>
<tr>
<td>Debt Service Coverage Ratio</td>
<td>0.684</td>
<td>0.904</td>
<td>0.707</td>
<td>0.684</td>
<td>0.904</td>
</tr>
<tr>
<td>Debt Service Coverage Ratio (excluding depreciation)</td>
<td>1.026</td>
<td>1.435</td>
<td>1.148</td>
<td>1.026</td>
<td>1.435</td>
</tr>
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</table>

(1) Capital costs budgeted as total LCA and Contractor Costs
<table>
<thead>
<tr>
<th></th>
<th>January-16</th>
<th></th>
<th>2016 YTD</th>
<th></th>
<th>Annual</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual</td>
<td>Budget</td>
<td>Prior Yr</td>
<td>Actual</td>
<td>Budget</td>
<td>Prior Yr</td>
</tr>
<tr>
<td><strong>OPERATING REVENUES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Charges</td>
<td>2,171,968</td>
<td>2,025,134</td>
<td>2,147,608</td>
<td>2,171,968</td>
<td>2,025,134</td>
<td>2,147,608</td>
</tr>
<tr>
<td>Rental Income</td>
<td>6,986</td>
<td>10,877</td>
<td>6,926</td>
<td>6,986</td>
<td>10,877</td>
<td>6,926</td>
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<tr>
<td>Other Operating Income</td>
<td>1,772</td>
<td>20,709</td>
<td>2,666</td>
<td>1,772</td>
<td>20,709</td>
<td>2,666</td>
</tr>
<tr>
<td><strong>Total Operating Revenues</strong></td>
<td>21,656,425</td>
<td>2,026,810</td>
<td>2,157,620</td>
<td>21,656,425</td>
<td>2,026,810</td>
<td>2,157,620</td>
</tr>
<tr>
<td><strong>OPERATING EXPENSES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries &amp; Wages</td>
<td>144,754</td>
<td>141,840</td>
<td>139,425</td>
<td>144,754</td>
<td>141,840</td>
<td>139,425</td>
</tr>
<tr>
<td>Overtime</td>
<td>6,291</td>
<td>9,217</td>
<td>9,157</td>
<td>6,291</td>
<td>9,217</td>
<td>9,157</td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>65,825</td>
<td>64,250</td>
<td>65,816</td>
<td>65,825</td>
<td>64,250</td>
<td>65,816</td>
</tr>
<tr>
<td>Utilities</td>
<td>81,645</td>
<td>64,250</td>
<td>85,899</td>
<td>81,645</td>
<td>64,250</td>
<td>85,899</td>
</tr>
<tr>
<td>Insurance</td>
<td>27,710</td>
<td>19,053</td>
<td>20,587</td>
<td>27,710</td>
<td>19,053</td>
<td>20,587</td>
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<tr>
<td>Maintenance</td>
<td>7,745</td>
<td>75,432</td>
<td>75,352</td>
<td>7,745</td>
<td>75,432</td>
<td>75,352</td>
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<tr>
<td>Engineering</td>
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<td>15,458</td>
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<td>-</td>
<td>15,458</td>
<td>-</td>
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<tr>
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<td>2,967</td>
<td>843</td>
<td>1,059</td>
<td>2,967</td>
<td>843</td>
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<tr>
<td>Lab Analysis</td>
<td>388</td>
<td>12,933</td>
<td>465</td>
<td>388</td>
<td>12,933</td>
<td>465</td>
</tr>
<tr>
<td>Supplies &amp; Equipment</td>
<td>3,892</td>
<td>65,709</td>
<td>8,678</td>
<td>3,892</td>
<td>65,709</td>
<td>8,678</td>
</tr>
<tr>
<td>Other Outside Services</td>
<td>808,812</td>
<td>630,960</td>
<td>512,903</td>
<td>808,812</td>
<td>630,960</td>
<td>512,903</td>
</tr>
<tr>
<td>Treatment &amp; Transportation</td>
<td>458,720</td>
<td>444,321</td>
<td>536,074</td>
<td>458,720</td>
<td>444,321</td>
<td>536,074</td>
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<tr>
<td>Miscellaneous Operating Expenses</td>
<td>27,947</td>
<td>35,423</td>
<td>30,040</td>
<td>27,947</td>
<td>35,423</td>
<td>30,040</td>
</tr>
<tr>
<td>Depreciation &amp; Amortization</td>
<td>572,918</td>
<td>672,926</td>
<td>581,210</td>
<td>572,918</td>
<td>672,926</td>
<td>581,210</td>
</tr>
<tr>
<td><strong>Total Operating Expenses</strong></td>
<td>21,656,425</td>
<td>2,026,810</td>
<td>2,157,620</td>
<td>21,656,425</td>
<td>2,026,810</td>
<td>2,157,620</td>
</tr>
</tbody>
</table>

**NON-OPERATING INCOME/(LOSS)**

- 4,782
- (4,056)

**NON-OPERATING REVENUES/(EXPENSES)**

- Water Tapping Fees
- WW Capacity & Capital Recovery Fees
- Meter Sales
- Inspection & Plan Reviews
- Other Non-Operating income
- Other Non-Operating Expenses

**INCREASE/DECREASE IN NET POSITION BEFORE INTEREST AND CAPITAL CONTRIBUTIONS**

- 98,857
- 71,482
- 292,900

**INTEREST INCOME/(EXPENSES)**

- Interest Income
- Interest Expense

**CAPITAL CONTRIBUTIONS**

- Capital Grants
- Capital Assets Provided
- Total Capital Contributions

**INCREASE/DECREASE IN NET POSITION**

- 3,892
- 105,905
- 130,414

**CAPITAL EXPENDITURES**

- LCA Costs
- Total Capital Expenditures

**PRINCIPAL REDUCTION**

- (222,523)
- (152,405)
- (200,652)

**KEY METRICS**

- Operating Income (Expense) Before Depreciation
- Operating Income (Expense) Before Depreciation / Operating Revenues (%)
- Operating Income (Expense) / Operating Revenues (%)
- Net Position Before Interest & Capital Contrib. / Operating Revenues (%)
- Interest Coverage Ratio
- Debt Service Coverage Ratio
- Debt Service Coverage Ratio (excluding depreciation)

(1) Capital costs budgeted as total LCA and Contractor Costs.
MEMORANDUM

Date: March 11, 2014

To: Authority Board
From: John Parsons
Subject: Allentown Water System Master Plan

MOTIONS / APPROVALS REQUESTED:

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Capital Project Authorization</td>
<td>$295,000</td>
</tr>
<tr>
<td>2 (1)</td>
<td>Professional Services Authorization – Arcadis U.S., Inc.</td>
<td>$235,000</td>
</tr>
</tbody>
</table>

(1) Included in the Capital Project Authorization.

PROJECT OVERVIEW:

The Project provides for an engineering study that will produce a Master Plan for the Allentown Water System. The Master Plan will include analyses on the water plant, all storage tanks and reservoirs, all pressure booster stations and both surface water intakes. The only part of the water system that will not be included in this project is the water distribution network which is being dealt with as part of other capital projects.

The Master Plan is a requirement of the lease with the City of Allentown, and it must be updated every five (5) years throughout the lifetime of the lease. This initial project and subsequent reports will serve as a basis for the future updates. The Master Plan will address the following areas:

- Full-scale condition assessments of all facilities
- Process audits and optimization
- Short-term and long-term capital plans
- Safety, security, and building code audits.
The condition assessments will be very timely as we develop an asset management plan which is a major LCA goal for 2016. Many of the water assets are very old. The water plant was built in 1928, although other than the structure itself, very little is still used from the 1928 plant with the exception of the Crystal Spring clearwell. The vast majority of the current water plant was built in 1953. Two of our large reservoirs, namely South Mountain (30 MG) and East Side (10 MG) were both built in 1937. Schantz Spring and its transmission line were built in 1903. Most of our steel and concrete water storage tanks along with their pressure booster stations were built in the 1950s. It was made very clear to the consultants proposing on the Master Plan that they should be looking at the water system in terms of what the current status is, and also what structures/equipment/facilities may not have an expected lifetime that will last throughout the remainder of the lease with the City of Allentown.

The condition assessments will be a major part of this project. Among other tasks, the consultant will provide specialists to perform detailed evaluations in the following areas:

- Structural
- HVAC
- Electrical
- Security
- SCADA/Instrumentation Control

Short-term and long-term capital plans will also be developed as part of this project.

**FINANCIAL:**
This Project is will be funded by LCA. It is not a Major Capital Improvement Project. No Labor Stabilization Agreement will be required.

**CONSULTANT SELECTION PROCESS:**
Four engineering firms including Arcadis, CH2M, Hazen & Sawyer, and AECOM were invited to attend a site visit where they were able to tour the facilities, access the conditions and ask questions related to the proposed work. All four firms have vast experience in the preparation of Master Plans for large utilities.
Proposals were received from each and the results are summarized below:

<table>
<thead>
<tr>
<th>Consultant</th>
<th>Cost (^{(1)})</th>
<th>Man-hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arcadis U.S., Inc.</td>
<td>$235,000</td>
<td>1,518</td>
</tr>
<tr>
<td>CH2M</td>
<td>$276,808</td>
<td>1,324</td>
</tr>
<tr>
<td>Hazen and Sawyer</td>
<td>$278,862</td>
<td>1,504</td>
</tr>
<tr>
<td>AECOM</td>
<td>$299,942</td>
<td>2,000</td>
</tr>
</tbody>
</table>

\(^{(1)}\) Total Proposal Cost

Based upon our review of all aspects of proposals submitted by the four firms, we recommend award of the Design Phase services to Arcadis U.S., Inc. Their proposal is on scope and represents what we believe is the best overall value for the Authority. Arcadis U.S., Inc. will perform the services outlined in their proposal dated January 22, 2016.

**PROJECT SCHEDULE:** The Request for Proposals (RFP) had a requirement that all project tasks were to be completed within fifteen (15) months of the Notice to Proceed (NTP). Arcadis proposes to complete the entire project within nine (9) months from the NTP. This will be very timely to LCA as the project will be completed well in advance of the preparation timeframe that will be needed for the 2018-2027 Capital Plan.

**FUTURE AUTHORIZATIONS:**
None at this time.
CAPITAL PROJECT AUTHORIZATION

PROJECT NO.: AD-W-9                                      BUDGET FUND: Allentown Div\Wastewater\Capital

PROJECT TITLE: Allentown Water System Master Plan

THIS AUTHORIZATION: $ 295,000

PROJECT TYPE:

☐ Construction
☒ Engineering Study
☐ Equipment Purchase

DESCRIPTION AND BENEFITS:

The Project provides for an engineering study that will create a Master Plan for the Allentown Water System. The Master Plan will include analyses on the water plant, all storage tanks and reservoirs, all pressure booster stations and both surface water intakes. The only part of the water system that will not be included in this project is the water distribution network which is being dealt with as part of other capital projects. The Master Plan is a requirement of the lease with the City of Allentown, and it must be updated every five (5) years throughout the lifetime of the lease. This initial project and subsequent reports will serve as a basis for the future updates.

The Master Plan will address the following areas of concern: full-scale condition assessments, process audits and optimization, short-term and long-term capital plans, and safety, security, and building code audits.

The anticipated schedule for this project provides for completion of all tasks within nine (9) months of the Notice To Proceed.

Authorization Status:

<table>
<thead>
<tr>
<th>Previous Authorizations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>$0</td>
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</table>

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Staff</td>
<td>$40,000</td>
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<tr>
<td>Engineering Consultant</td>
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<tr>
<td>Miscellaneous</td>
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<td>Contingency</td>
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<table>
<thead>
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</thead>
<tbody>
<tr>
<td>None at this time</td>
<td>$0</td>
</tr>
</tbody>
</table>

REVIEW AND APPROVALS:

Project Manager ___________________________ Date ___________________________ Chief Executive Officer ___________________________ Date ___________________________

Chief Capital Works Officer ___________________________ Date ___________________________ Chairman ___________________________ Date ___________________________
PROFESSIONAL SERVICES AUTHORIZATION

Professional: ARCADIS U.S., INC.
1128 Walnut Street, 4th Floor
Philadelphia, PA 19107

Date: March 11, 2014
Requested By: John Parsons

Approvals
Department Head: ___________________  
Chief Executive Officer: _________________

Allentown Water System Master Plan

Arcadis will create a Master Plan for the Allentown Water Plant and all of the remote stations, reservoirs, pump stations, water tanks and surface water intakes. The Master Plan is a requirement of the lease with the City of Allentown, and it must be updated at five (5) year intervals throughout the lifetime of the lease. Arcadis will provide the following services as part of the contract:

<table>
<thead>
<tr>
<th>Professional Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perform a full-scale condition assessment of all facilities</td>
</tr>
<tr>
<td>2. Complete Process Optimization to reduce operational costs</td>
</tr>
<tr>
<td>3. Prepare capital plans of 1-10, 10-25, and 25-50 years</td>
</tr>
<tr>
<td>4. Complete building code, safety and security audits</td>
</tr>
<tr>
<td>5. Provide appropriate reports and presentations on all findings</td>
</tr>
</tbody>
</table>

Please reference the cover Memo for additional information.

Design Phase:
Cost Estimate (not to be exceeded without further authorization): $235,000

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

Authorization Completion:
Approval: ___________________  Actual Cost: _______________  Date: _______________
PROFESSIONAL SERVICES AUTHORIZATION
INDEMNIFICATION
Allentown Water System Master Plan

(To be signed by Professional and returned to the Authority)

I am or represent the Professional indicated above, and as such I am authorized to:

☐ Accept the terms of the professional services authorization dated March 11, 2016, attached; and

__________________________  ____________________________
Name (signature):                      Name (printed)

Title: ______________________

L:\Public\Forms\PSASHORT.doc
MEMORANDUM

Date: March 7, 2016

To: Authority Board
From: Jason Peters, Frank Leist
Subject: Allentown Division- Water Main Replacement Program
        Design Phase & Pipe Prioritization Assessment Program for- Cycles 4-6

MOTIONS / APPROVALS REQUESTED:

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Capital Project Authorization – Design Phase &amp; Pipe Prioritization Assessment Program Cycles 4-6</td>
<td>$961,455</td>
</tr>
<tr>
<td>2</td>
<td>Professional Services Authorization – Gannett Fleming, Inc. (1), (2)</td>
<td>$601,455</td>
</tr>
</tbody>
</table>

(1) Included in the Capital Project Authorization.
(2) Does not include Construction phase related engineering services.

PROJECT OVERVIEW:
The Operating Standards of the Lease Agreement (Agreement) requires Lehigh County Authority (LCA) replace two-miles of aged spun and/or pit cast-iron water mains annually. This Project covers Cycles 4-6 which will address the Allentown Division (AD) main replacement requirements for years 2017 through 2019.

The Project includes approval for a total of seven- miles of water main to be designed and bid through the term of this authorization. The additional one- mile of water main requested beyond the required six-miles is necessary to allow the main replacements to be constructed from intersection to intersection thus allowing future replacements to be easily constructed without interruptions in service to customers in the area. This additional water main will then be credited to future cycle installation requirements allowed. Additionally the Project includes the Pipe Prioritization Assessment Program along with its projected 5 year plan also required by the Agreement.

Given the complex nature of this project, replacing mains in a highly populated urban area with many underground facilities, continuous traffic and work restrictions coordination with the City of Allentown (COA) and its many departments along with other outside agencies and private utilities such as UGI is critical to obtain the necessary approvals. As was the execution method for the previous Project for Cycles 1-3 that addressed the main replacement requirements for years 2014 through 2016 it is envisioned that all main replacements for a given year will be covered by a single construction contract.

FINANCIAL:
The Project will be funded by the LCA Allentown Division and has been approved by the COA as a Major Capital Improvement.
**PROJECT STATUS:**
Pending Board approval of the Design Phase for Cycles 4-6

**THIS APPROVAL—DESIGN PHASE—CYCLES 4-6**
To assure continued continuity and efficiencies that resulted an excellent product for LCA and the local community for the main replacement program; the LCA Staff recommends retaining the services of Gannett Fleming, Inc. (GF) to provide, design related services and the Pipe Prioritization Assessment Program for Cycles 4-6 Program. The following table summarizes the professional services to be performed:

<table>
<thead>
<tr>
<th>Professional Services&lt;sup&gt;(1)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Administer the Pipe Prioritization Assessment Program.</td>
</tr>
<tr>
<td>2. Prepare the Pipe Prioritization Assessment Report for the projected 5 year plan for compliance with the Agreement.</td>
</tr>
<tr>
<td>3. Coordinate with City Streets Program, other City departments, outside agencies and utilities.</td>
</tr>
<tr>
<td>4. Prepare plans and specifications for segments of main to be replaced.</td>
</tr>
<tr>
<td>5. Prepare and obtain regulatory and municipal permits as required.</td>
</tr>
<tr>
<td>6. Provide bidding services.</td>
</tr>
</tbody>
</table>

<sup>(1)</sup> **THE FOLLOWING SERVICES ARE NOT INCLUDED:** The design and permitting of ADA ramps at intersections pursuant to the Americans With Disabilities Act that may be required in some cases by street paving restoration; permitting for railroad borings, creek/river crossings; design of water mains that are affixed to bridges. If deemed necessary, a cost will be negotiated for the required service.

**CONSULTANT PROJECT BACKGROUND:**
Among other projects, GF is currently our consultant for the first AD Main Replacement Project for Cycles 1-3 over the duration of which GF and LCA have established an excellent partnership working directly with the City of Allentown (COA) producing highly detailed and all-encompassing projects that have met and exceeded many goals. These goals include areas such as scheduling and planning, permitting approval, COA department approvals as well as cooperatively working with other agencies and utility owners. All of which have mitigated many potential costs and or delays to the design while providing minimal construction cost change orders during the respective construction phase of each project.

**FUTURE AUTHORIZATIONS:** Capital Project Authorization (CPA) Amendment(s) will be presented to the Board at a later date for:

*Construction Phase(s):* Approvals will be requested separately for each cycle on an annual basis in late March or early April after bids are received.
# CAPITAL PROJECT AUTHORIZATION

**PROJECT NO.:** AD-W-16-3  
**BUDGET FUND:** Allentown Div\Water\Capital

**PROJECT TITLE:** Allentown Division - Water Main Replacement Program Cycles 4-6

**PROJECT TYPE:**
- Construction
- Engineering Study
- Equipment Purchase
- Amendment

**THIS AUTHORIZATION:** $961,455

### DESCRIPTION AND BENEFITS:

Through the Operating Standards of the Lease Agreement (Agreement) Lehigh County Authority (LCA) is required to annually replace two-miles of aged spun and/or pit cast-iron water mains following a certain criteria as described in the Agreement. This work also not only has to be coordinated with the City of Allentown (COA) and its many departments but also with other outside agencies and private utilities such as UGI. In doing so it is critical in administering and maintaining the Pipe Prioritization Assessment Program along with its projected 5 year plan given the complex nature of this project replacing mains in a highly populated urban area, with many underground facilities and continuous traffic and work restriction.

The replacements of these mains are critical in meeting the requirements of the Lease Agreement but also will provide increased reliability of water service for our customers.

Please reference the cover Memo for additional information.

### Authorization Status:

+ REQUESTED THIS AUTHORIZATION

<table>
<thead>
<tr>
<th>Design Phase</th>
<th>Amount</th>
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<tbody>
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<td>Staff</td>
<td>$160,000</td>
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<tr>
<td>Engineering Consultant</td>
<td>$601,455</td>
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<td>Pipe Prioritization Program, Design, &amp; Bid phase Services</td>
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<td>Miscellaneous (1)</td>
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<td>Contingencies</td>
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<td><strong>Total This Authorization</strong></td>
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<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Construction Phase</td>
<td>$10,644,480</td>
</tr>
</tbody>
</table>

| **Total Estimated Project**         | **$11,605,935** |

(1) Includes subsurface investigations such as geo-tech work, soft digs, ground penetrating radar if required; also permit fees and other miscellaneous costs.

### REVIEW AND APPROVALS:

<table>
<thead>
<tr>
<th>Project Manager</th>
<th>Date</th>
<th>Chief Executive Officer</th>
<th>Date</th>
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<tbody>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Chief Capital Works Officer</th>
<th>Date</th>
<th>Chairman</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>
PROFESSIONAL SERVICES AUTHORIZATION

Professional: GANNETT FLEMING, INC.
P.O. Box 67100
Harrisburg, PA 17106

Date: March 7, 2016

Requested By: Jason Peters

Approvals
Department Head: 
Chief Executive Officer: 

Allentown Division – Design Phase - Water Main Replacement Program- Cycles 4-6-
Gannett Fleming, Inc. will perform the design and bid related service and a Pipe Prioritization Assessment Program for Cycles 4-6 of the Allentown Division – Water Main Replacement Program in the following Professional Services.

**Professional Services**

1. Administer the Pipe Prioritization Assessment Program
2. Prepare the Assessment Report for the projected 5 year plan for compliance with the Agreement.
3. Coordinate with City Streets Program, other City departments, outside agencies and utilities
4. Prepare plans and specifications for segments of main to be replaced
5. Perform permitting services (regulatory and municipal).
6. Perform bidding services.

*(1) THE FOLLOWING SERVICES ARE NOT INCLUDED: The design and permitting of ADA ramps at intersections pursuant to the Americans With Disabilities Act that may be required in some cases by street paving restoration; permitting for railroad borings, creek/river crossings; design of water mains that are affixed to bridges. If deemed necessary, a cost will be negotiated for the required service.*

Design Phase:
Cost Estimate (not to be exceeded without further authorization): $601,455

Time Table and Completion Deadline: As required to meet various critical deadlines.

Authorization Completion:

(For Authority Use Only)

Approval: __________________________ Actual Cost: ________________ Date: ________________
SEWAGE TRANSPORTATION AGREEMENT
(Lowhill Township Sewer System)

THIS AGREEMENT, made as of the _____ day of_________________________ 2016,
by and between

UPPER MACUNGIE TOWNSHIP, a Pennsylvania township, and UPPER
MACUNGIE TOWNSHIP AUTHORITY, a Pennsylvania municipal
authority, both with offices at 8330 Schantz Road, Breinigsville, Pennsylvania,
parties of the first part (both jointly hereinafter referred to as “Upper
Macungie”),

AND

LEHIGH COUNTY AUTHORITY, a Pennsylvania municipal authority with
offices at 1053 Spruce Road, Wescosville, Pennsylvania (hereinafter referred to
as the “Authority”), party of the second part.

WITNESSETH:

WHEREAS, Lowhill Township (“Lowhill”) is presently a relatively rural township
located in northwestern Lehigh County but in which a large housing development extended from
neighboring townships into the very southeastern corner of the township, which housing
development has a central sewer system; and

WHEREAS, this Lowhill sewer system is in a drainage basin that flows towards the
Western Lehigh Interceptor for transportation of sewage to the City of Allentown wastewater
treatment plant for treatment; and

WHEREAS, it is necessary for this central sewer system to flow through the neighboring
Upper Macungie sewer system to get to the Western Lehigh Interceptor (for purposes of this
agreement that central sewer system will be called the “Lowhill System”); and

WHEREAS, the Upper Macungie Township Authority and Lowhill Township entered
into an agreement dated 12 December 1989 whereby the parties agreed to terms to allow the
Lowhill System to flow through Upper Macungie’s sewer system and also to provide for Upper
Macungie to operate and maintain the Lowhill System; and

WHEREAS, the Authority was formed by the Commissioners of Lehigh County, in part,
to provide public water and sewer service in the Lehigh Valley; and

WHEREAS, the Authority and Lowhill have agreed for Lowhill to convey the Lowhill
System to the Authority and the Authority will thenceforth own the Lowhill System and provide
all public sewer service to customers in Lowhill, no longer needing Upper Macungie to operate
and maintain the Lowhill System; and
WHEREAS, the 12 December 1989 Agreement does not have an assignment clause and therefore Upper Macungie has requested a new transportation agreement with the Authority;

NOW THEREFORE, in consideration of the promises and mutual covenants made herein, and expressing the intent to be legally bound hereby, the parties agree that the above recitals do form a part of this agreement and it is further agreed as follows:

1. Upper Macungie agrees, where feasible, to assist the Authority in providing sewer service in Lowhill Township by providing transportation of the wastewater from the Lowhill System to the Western Lehigh Interceptor system, which shall include use of the Applewood Pump Station, or any subsequent modification or replacement thereof.

2. The Authority covenants to require construction of all wastewater facilities in compliance with the Lowhill Township official sewage facilities plan, as amended from time to time, and in compliance with the Authority's general specifications for sanitary sewer construction, including any future revisions thereof. Upper Macungie shall have the right to review the said new sewer installations in Lowhill Township that flow through the Upper Macungie’s system for the purpose of ascertaining that such construction complies with the prevailing specifications and requirements of the Authority.

3. It is understood the allocation for wastewater conveyed from the Lowhill System through Upper Macungie’s system shall be allocated to Lowhill, and not Upper Macungie.

4. The Authority agrees to maintain the Lowhill System in good repair and operating condition and to make all repairs, renewals, replacements and improvements thereto as required to maintain adequate sanitary sewer service, which includes the Authority repairing and/or eliminating, at its own expense, any infiltration/inflow entering Upper Macungie’s system from the Lowhill System that exceeds engineering standards for allowable infiltration/inflow.

5. The Authority hereby agrees to indemnify and hold Upper Macungie harmless from any and all liability arising out of the Authority's performance and obligations under the terms of this Agreement. The Authority shall not, however, be liable for any portion of a judgment nor associated litigation expenses, including attorney's fees, ultimately determined to be the result of the negligence or willful misconduct of Upper Macungie, or any of its employees, agents and officials.

Upper Macungie hereby agrees to indemnify and hold the Authority harmless from any and all liability arising out of Upper Macungie's performance and obligations under the terms of this Agreement. Upper Macungie shall not, however, be liable for any portion of a judgment nor associated litigation expenses, including attorney's fees, ultimately determined to be the result of the negligence or willful misconduct of the Authority, or any of its employees, agents and officials.

6. The Authority and Upper Macungie agree to review the terms and conditions of this Agreement periodically to determine the need for change or modification of any of the provisions set forth in this Agreement, including increasing the scope of the Lowhill
system and/or increasing sewage capacity to the Upper Macungie system as well as the termination of the Agreement, if deemed by either party to be in its best interests. Should the Agreement be terminated, the Authority shall be responsible to pay to Upper Macungie any and all non-contested outstanding invoices due Upper Macungie as of the date of such termination.

7. The Authority shall pay a transportation charge to Upper Macungie quarterly in the amount of $0.025 per thousand gallons of sewage.

8. The Authority shall pay a pump station charge to Upper Macungie quarterly in the amount of $0.63 per thousand gallons of sewage.

9. The volume of sewage billable for all customers of the Lowhill System shall be based on the volume of water supplied to those customers; all properties within the Lowhill System shall have water meters.

10. The Authority shall pay its quarterly share of the operating expenses of the Applewood sewage pumping station, said payment being in proportion to the volume of sewage flowing from the Lowhill System to the total flow into the said pumping station. The Authority shall be supplied with Upper Macungie's rate schedules for wastewater service applicable to the Lowhill System, which shall be kept current, and shall also be notified by Upper Macungie sixty (60) days in advance of any proposed rate changes to such schedules.

11. The Authority shall collect from any new connections to the Lowhill System, and pay to Upper Macungie, any tapping fees or other fees that an Upper Macungie customer that utilizes the Applewood Pump Station would pay for a new connection in Upper Macungie.

12. All costs associated with Upper Macungie's engineer's review of Upper Macungie's system's capacity to accommodate the new connections to the Lowhill System shall be the sole responsibility of the Authority.

13. In the event of the need for a major capital expenditure to renovate or preserve the capacity of the Applewood Pump Station or any facility within Upper Macungie’s system and utilized by the Lowhill System, the Authority agrees to make a contribution thereto in direct proportion to the volume of sewage flowing from the Lowhill System in relation to the then total current sewage flows through the said station.

14. This Agreement shall inure to the benefit of and shall be binding upon the parties hereto and their respective successors and assigns. The parties agree that if Upper Macungie Township dissolves the Upper Macungie Township Authority, it shall assume all of Upper Macungie Township Authority’s rights and responsibilities under this Agreement with no further action necessary to effectuate that assumption. Upper Macungie Township shall then solely be the party of the first part.
15. This Agreement may be amended at any time by mutual agreement in writing, executed by all parties hereto.

16. If any provisions of this Agreement are held to be invalid or unenforceable, such invalidity will not affect any other provision hereof, and the remaining provisions hereof shall be construed and enforced as if such invalid provisions had not been contained herein.

17. This Agreement may be executed in multiple counterparts, each of which shall be regarded for all purposes as an original, and such counterparts shall constitute but one and the same instrument.

18. This Agreement will be governed by and constructed under the laws of the Commonwealth of Pennsylvania. Any action or proceeding seeking to enforce any provision of, or based on any right arising out of this Agreement may be brought against any of the parties in the Court of Common Pleas of the County of Lehigh, and each party consents to the jurisdiction of such court (and of the appropriate appellate courts) in any such action or proceeding and waives any objection to venue made therein.

IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be duly executed and attested by its proper officers, pursuant to proper action of its governing body, all as of the day and year first above written.

ATTEST: LEHIGH COUNTY AUTHORITY

By: ________________________________
    Bradford E. Landon:
    Solicitor

By: ________________________________
    Liesel M. Gross
    Chief Executive Officer

ATTEST: UPPER MACUNGIE TOWNSHIP

By: ________________________________
    Name (Printed):
    Title:

By: ________________________________
    Name (Printed):
    Title:

ATTEST: UPPER MACUNGIE TOWNSHIP AUTHORITY

By: ________________________________
    Name (Printed):
    Title:

By: ________________________________
    Name (Printed):
    Title:
Monthly Project Update: Report to the LCA Board of Directors
March 14, 2016

FINANCE & ADMINISTRATION

ACTION ITEMS

DISCUSSION ITEMS

1. **January Financials – March 14**
   In order to get on the established schedule of presenting monthly financial statements with the second Board meeting each month, the January 2016 financials will be presented at the March 14 meeting, followed by February 2016 financials prepared for the March 28 meeting. This will complete the transition into the new established schedule.

2. **Financial Health / Goals – March 28**
   Presentation and discussion of the Authority’s 2016 financial goal statements and revenue models / options.

INFORMATION ITEMS

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

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<thead>
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<th>Fund</th>
<th>Bank</th>
<th>Location</th>
<th>Amount</th>
<th>Date of Purchase</th>
<th>Date Due</th>
<th>Net Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLRI CR</td>
<td>Banco Popular North America</td>
<td>New York, NY</td>
<td>245,000.00</td>
<td>2/10/16</td>
<td>2/9/18</td>
<td>1.25</td>
</tr>
</tbody>
</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**

1. **Allentown Division – Water System Master Plan – March 14**

   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. RFPs were distributed to consultants in December 2015. The project will be funded by the LCA Allentown Division. Board approval to award the professional services contract is requested.

2. **Allentown Division – Water Main Replacement Program – Cycles 4-6 – March 14**

   LCA Staff has negotiated a price to renew our Professional Services Agreement with Gannett Fleming, Inc. to provide design and construction phase services for next three cycles (4-6) of water main replacements in the Allentown Division. Unless otherwise directed by the City of Allentown, the Lease requires LCA replace at minimum 2-miles of aged cast iron mains per year for the life of the Lease. LCA Staff and Gannett Fleming have established a highly effective and cooperative working relationship with the City Compliance Office, City Engineering and Streets departments for Cycles 1 through 3 of the main replacements of which construction has been completed in Cycles 1 and 2; and Cycle -3 (currently out to bid) will be completed in late October 2016. This project will be funded by the LCA Allentown Division and has been approved by the City as a Major Capital Improvement. Board approval for the Design Phase for Cycles 4-6 is requested.

3. **Suburban Division – Water Line Replacement Easement, Spring Creek Rd/Rte. 100 – March 28**

   Because of reconstruction of the intersection of Spring Creek Road and Route 100, the Authority water main will need to be relocated as two-feet deep curbing would be placed directly over the water line. The Authority wants the relocated water line to be in private easement, especially since there is an advantage to Authority costs being covered if the state should expand that intersection again in the future. The Authority has been asked to file a condemnation action for this easement because otherwise the Act 515P tax status of the property will be effected and the property owner, Ronald Muse, will be responsible for roll-back taxes. It is proposed to have the Board take action on a resolution at the second meeting in March.

4. **Allentown Division – Water Filtration Plant: 20 Ton A/C and 40 Ton Chiller Replacement – March 28**

   This project involves the installation of the LCA purchased equipment listed above. The installation of this equipment will be advertised and posted to PennBID. Delivery and installation is expected in April of 2016 and construction phase approval will be requested at the 3/28/16 Board Meeting.

5. **Allentown Division – Water Filtration Plant: Painting Phase II – March 28**

   This project involves the painting of the filter gallery piping at the Water Filtration Plant. This project has been advertised and posted to PennBID with bids due on 3/8/16. Construction phase approval will be requested at the 3/28/16 Board Meeting. Phase I of this project involved the painting of the finished water piping at the Water Filtration Plant and was completed in December of 2015.
DISCUSSION ITEMS

INFORMATION ITEMS

1. **Suburban Division - Water Main Replacement Program Cycle 1**
   The project consists of the replacement of 1.73 miles of aged and/or failing Cast Iron water main. As of February 23, 2016 the project is out for construction bids.

2. **Suburban Division - Water Main Replacement Program Cycle 2**
   The project consists of the replacement of 1.5 miles of aged and/or failing Cast Iron water main. As of February 23, 2016 the project is out for construction bids.

3. **Suburban Division – Pumping Station Projects**
   This project will involve upgrades at two existing small system booster stations and the installation of one new major booster station in the Central Lehigh Division (CLD). The Pine Lakes Project will feature the conversion of the existing hydro-pneumatic station to a variable frequency drive controlled double pumping system (along with other miscellaneous improvements). The Crestwood 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 CLD Auxiliary Pump Station Project will feature the installation of a new booster station and main extension to pump water from the Lower to the Upper System. The projects will also involve installation/conversion to a SCADA system at each of the sites. The design for all three projects commenced in June. The PADEP Public Water Supply (PWS) Permit applications were submitted for the Crestwood and Pine Lakes Projects. Comments were returned to our consultant on the CLD Auxiliary Pump Station Project application. *(No Change)*

4. **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 design phase is under way. *(No Change)*

5. **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. A Penndot Highway Occupancy Permit for a temporary access drive was submitted.

6. **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)*

7. **Allentown Division – Water Main Replacement Program- Cycle 2**
   The project is the replacement of 2-miles of aged and/or failing Cast Iron water main in multiple locations throughout the City. Construction is currently complete and project close out is under way. This Project is identified as Schedule-7 Work and will be funded by LCA Allentown Division. *(No Change)*
8. **Allentown Division – Water Main Replacement Program- Cycle 3**

The project is the replacement of 4-miles of aged and/or failing Cast Iron water main in multiple locations throughout the City. As of February 23, 2016 the project is out for construction bids. Construction phase approval is expected no later than the 2nd Board meeting in April. This Project is identified as Schedule-7 Work and will be funded by LCA Allentown Division.

9. **Allentown Division - Miscellaneous Water Filtration Plant / Water Distribution**

- Upgrades to the existing stormwater pump/control for the WFP, Distribution & Collection parking lot. Design is currently underway with a likely Fall 2016 construction start date. *(No Change)*
- WFP High Filter Ceiling Rehabilitation - Design is underway with a likely Fall 2016 construction start date. *(No Change)*
- WFP Schantz Spring/Crystal Spring Permanent Generator - A study will be conducted to provide different permanent power solutions to the Spring pumps and is expected to be complete by June of 2016 *(No Change)*
- D&C Parking Lot Paving Modifications - The work is necessary to alleviate ponding water. LCA staff is currently soliciting construction prices for the work.

All of these capital projects will be funded by the LCA Allentown Division.

10. **Developments**

Water system construction is occurring in the following developments:
- Hamilton Crossings, 2 commercial lots with 20 buildings having retail, financial, convenience and restaurant uses, LMT
- Liberty at Mill Creek, 2 industrial lots, UMT
- Spring Creek Settlement Properties, 14 commercial/industrial lots, LMT
- Valley West Estates, Phases 4, 5 & 6, 46 residential lots (sfd), UMT (currently on hold)

Water system plans are being reviewed for the following developments:
- Bortz Tract, 14 commercial units, UMT/SWT
- Diocesan Pastoral Center, 2 commercial lots, 3 additional lots and residual lot for existing cemetery, LMT
- Farr Tract, 94 residential lots (sfd), LMT
- Grandview, 6 commercial units and 204 apartment units, 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, UMiT, water and sewer
- Lehigh Hills, Lot 5, Phase 1, 273 apartments & clubhouse, UMT
- 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
- Trexler Business Center, Lot 1, 1 commercial building, LMT
- Weilers Road Twins, 82 residential lots (sfa), UMT
- Woodmere Estates, 60 residential units (sfd), UMT
WASTEWATER

ACTION ITEMS

1. **Lowhill Township – Sewer System Acquisition – March 14**
   The Board approved this acquisition earlier in 2015, but there are a number of items that need to be completed before settlement can take place, particularly an agreement with Upper Macungie Township for use of its system to transport waste from the Lowhill sewer system to the Western Lehigh Interceptor. The original transportation agreement with Lowhill Township is not assignable, so Upper Macungie has asked that the agreement be revised. Agreement has been reached on the language of this new agreement and it is recommended for approval by the Board.

2. **Allentown Division – Roof Rehabilitation and Replacements: Phase 2 – March 28**
   The Project consists of replacing 13 facility roofs that were identified as in need of “Phase 2” replacement in the Roof Evaluation report performed by D’Huy Engineering. This project has been advertised and posted to PennBID with bids due on 3/8/16. Construction phase approval will be requested at the 3/28/16 Board Meeting. The project will be funded by the LCA Allentown Division.

DISCUSSION ITEMS

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 is being drafted by our consultant and will be distributed to the Board.

2. **Suburban Division -Wynnewood Terrace Pump Station and Force Main Replacement**
   Work started on April 13, 2015 and was Substantially Complete on October 12, 2015. Contractors are working towards final completion of punch lists and restoration. (No Change)

3. **Suburban Division -Lynn Township – WWTP Improvements, Phases 1 & 2**
   The project will upgrade the WWTP head works. Comments were sent to Gannett Fleming on the 100% design specifications. (No Change)

4. **Allentown Division – Sanitary Sewer Manhole Lining: Cycle 3**
   This annual project will install a lining system (to eliminate infiltration) in approximately 100 aged brick manholes identified by LCA staff. Board approval of the construction phase will be requested at one of the two June Board Meetings. The project is identified as Administrative Order Work and will be funded by the City. (No Change)

5. **Allentown Division – Manhole Collars with Water Tight Frame and Covers: Cycle 3**
   This project will permanently secure the frame and cover of approximately 60 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. Board approval of the construction phase will be requested at one of the two June Board Meetings. The project is identified as Administrative Order and will be funded by the City. (No Change)

6. **Allentown Division – WWTP: Replacement of Motor Control Centers**

This Project will replace five aged motor control centers that provide power on a 24/7 basis to various parts of the WWTP. The project has been approved by the City as a Major Capital Improvement (MCI). The project completion is expected by the middle of March 2016. This Project is identified in the Lease as Schedule 7 (required) project and will be funded the LCA Allentown Division.

7. **Allentown Division – Roof Rehabilitation and Replacements: Phase 1**

The Project consists of replacing 26 facility roofs that were identified as in need of immediate replacement in the Roof Evaluation report performed by D’Huy Engineering. The design of these replacements are proceeding. The project was presented to the City for review/approval as a Major Capital Improvement (MCI), but the city rejected it as such. Construction began in October and will be complete by the middle of March 2016. The project will be funded by the LCA Allentown Division.

8. **Allentown Division- SCADA System Installation –Wastewater Treatment Plant:**

Existing network equipment was transferred to new rack system. PLC panel installation is complete. System cutover is nearly complete. Operator training is expected to begin after cutover is completed. Project is on schedule for completion by the end of March. Configuration of historical data, trending and reports are progressing. The project is being funded by the City.

9. **Allentown Division – Wastewater Treatment Plant: Miscellaneous Improvements**

- Main Pump Station Suction Piping – LCA staff is in the process of acquiring quotes from contractors to repair this piping. This project involves either the lining or 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. (No Change)
- Main Pump Station Locker Room Renovation – Construction is expected to be complete by April of 2016
- Chlorine Building Permanent Generator – Construction is expected to be complete by May of 2016
- Trickling Filter Odor Control Tower Repairs – Construction is expected to be complete by August of 2016
- Locker Room Phase II Renovation – A study is currently underway and is expected to be complete by May of 2016

All of these capital projects will be funded by the LCA Allentown Division.

10. **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 submitted to the City and has been approved. Board approval of the construction phase was received at the 2/8/16 Board Meeting. This Project is identified in the Lease as Schedule 7 (required) project and will be funded by the LCA Allentown Division.
11. **Consolidated Systems – SharePoint:**

    GHD is developing SharePoint sites for 4 applications, (1 & 2) Team sites – Plant services, customer service; (3) Workflow – Board/Staff notes, New employee orientation; (4) KPI/Dashboard – Employee safety, Bond coverage. Current schedule calls for delivery during March 2016.

12. **Suburban Division – Western Weisenberg Wastewater Treatment Plant Improvements**

    This project includes: (1) the improvements necessary to rectify the cold weather nitrification issue at the WWTP, and (2) the installation of additional equipment to enhance operation. This project will be funded by the LCA Suburban Western Weisenberg Division. LCA Staff returned 90% review comments to the design engineer. The project is expected to be bid in late March.

13. **Suburban Division – SCARP**

    Monthly meetings with the LCA Suburban Division Signatories began in January to negotiate a Memo of Understanding for completion of the SCARP Capital Improvements Plan. Our Program Consultant is currently working on costs, cost allocation, and cash flow plans for each of the Signatories.

    The “Order Extension on Consent” was executed by all City Signatories and signed by EPA. The test and seal project for a portion of the Western Lehigh Interceptor will be bid in the near future.