**BOARD ACTION/DISCUSSION ITEMS**  
**APRIL 2012 – JUNE 2012**

<table>
<thead>
<tr>
<th>PRIORITY*</th>
<th>PROJECT/ISSUE</th>
<th>TYPE OF ACTION</th>
<th>TIMING**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H</strong></td>
<td>Update on wastewater treatment capacity evaluation/steering committee</td>
<td>Status Report</td>
<td>As needed</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>Acquisition/Growth Strategy Activities</td>
<td>Status Report</td>
<td>As needed</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>Jordan Creek Wastewater Plant – Conditional Use Hearing</td>
<td>Status Report</td>
<td>As needed</td>
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<tr>
<td><strong>AS NEEDED</strong></td>
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<tr>
<td><strong>H</strong></td>
<td>LCA- Wastewater Treatment Plant – Digester Mixers Procurement, <em>Project Authorization Amendment, Contract Award</em></td>
<td>Approval</td>
<td>Apr (B)</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>2011 Financial Statements</td>
<td>Approval</td>
<td>Apr (B)</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>PADOT RT 309 &amp; Sand Spring Improvements-Water Main Relocations- Design Phase <em>Project &amp; Professional Services Authorizations.</em>*</td>
<td>Approval</td>
<td>May (W)</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>Emergency Power Capability Design Phase <em>Project &amp; Professional Services Authorizations</em>*</td>
<td>Approval</td>
<td>May (W)</td>
</tr>
<tr>
<td><strong>WITHIN 45 DAYS</strong></td>
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<tr>
<td><strong>H</strong></td>
<td>Western Weisenberg WTP (re-bid ) <em>Project Authorization Construction, Contract Awards</em>*</td>
<td>Approval</td>
<td>May (W) or (B)</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>Park Pump Station- Fuel Tank Replacement <em>Project &amp; Professional Services Authorization, Amendments-for Construction phase &amp; Contract Award</em>*</td>
<td>Approval</td>
<td>May (B)</td>
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<tr>
<td><strong>H</strong></td>
<td>Wastewater Capacity Act 537 Planning <em>Professional Services Authorizations</em>*</td>
<td>Approval</td>
<td>June (B)</td>
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04/23/12  April Board Meeting  
05/07/12  May Workshop Meeting  

* H – High  
** M – Medium  
L – Low  

** (W) – Workshop  
(B) – Board  
(W/B) - Either
LEHIGH COUNTY AUTHORITY
WORKSHOP AGENDA
Monday, April 9, 2012 – 12:00 PM

INITIAL ITEMS (Collectively 5 Minutes)

1. **Identify items for April Board Meeting**
   - Review Board Discussion items, April 2012 – June 2012

ACTION/DISCUSSION ITEMS

1. **WLI Physical Condition Assessment** (Approval)
   A Professional Services Authorization for Malcolm Pirnie is being presented to the Board for consideration *(green)*. The work is for a physical condition assessment of 22,000 LF of the WLI in the areas shown on the attached map. LCA will complete the CCTV work in these areas identified and Malcolm Pirnie will provide the assessment including a report of the findings, recommended follow-up actions and a meeting to review the findings.

INFORMATION ITEMS

1. **Education and Training**

<table>
<thead>
<tr>
<th>Name</th>
<th>Event Description</th>
<th>Date</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Linda Eberhardt</td>
<td>GFOA-PA Conference – State College, PA</td>
<td>4/30-5/2</td>
<td>$955</td>
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<tr>
<td>Doug Young</td>
<td>GFOA East Seminar – “Knowledge Management” – Towamencin Township</td>
<td>4/19</td>
<td>$40</td>
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<tr>
<td>Linda Eberhardt</td>
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</table>

OTHER ITEMS

None.
MEMORANDUM

Date: April 2, 2012

To: Board of Directors & Management Staff
From: Pat Mandes
Re: WLI Physical Condition Assessment

Approvals Requested

<table>
<thead>
<tr>
<th>Approvals Requested</th>
<th>Brief Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Professional Services Authorization (1)</td>
<td>Consulting Services Malcolm Pirnie</td>
<td>$38,000</td>
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</tbody>
</table>

Background:

The Physical Condition Assessment (PCA) Program began in 2004. The purpose of the Program is to inspect the WLI pipe and assess the extent of the defects in order to reduce infiltration and extend the life of the pipe. The Program consists of in-pipe CCTV inspection of the pipe utilizing Pipeline Assessment Certification Program (PACP) ratings and a review of the inspection records by Malcolm Pirnie. The findings are presented along with any recommended follow-up actions.

To date, approximately 95,000 linear feet (LF) of the inspection of the WLI has been completed out of the 140,000 LF total. A map of the WLI is attached showing the history of the PCA Program. As a result of the assessment several projects were recommended. Rehabilitation by cured-in-place structural lining of 4,258 LF of pipe and seven point repairs was completed in 2008 as a result of the findings. Another 18,000 LF of 36” reinforced concrete pipe where internal corrosion will threaten the structural integrity of the pipe in the future is planned for lining in 2013.

In 2011, the Board approved a PCA for 23,000 LF of Alburtis/Macungie Branch of the WLI. The LCA staff provided the in-pipe CCTV inspection and completed the work in February 2012. Malcolm Pirnie is providing the assessment and follow-up. The findings report is expected within the next month.

Engineering Consulting Services:

A recommended schedule for continuation of the PCA has been developed for 2012. A Professional Services Authorization is attached for Malcolm Pirnie in the amount of $38,000 for the assessment of four areas of the WLI. The LCA staff will provide the in-pipe CCTV inspection. Malcolm Pirnie will provide the evaluation consisting of the rating, assessment, and recommended follow-up actions.

The attached Table provides a history of the WLI PCA completed to date, planned for 2012 and beyond. As shown, the PCA of the Little Lehigh Relief Interceptor (LLRI) is also planned for 2012. The PSA for that work will be provided to the Board at a later date.
PROFESSIONAL SERVICES AUTHORIZATION

AMENDMENT NUMBER 1

Professional: Malcolm Pirnie, Inc.
Jim Shelton
824 Market St., Suite 820
Wilmington, DE

Date: 4/02/12
Requested By: Pat Mandes

Approvals
Department Head:
General Manager: 

Description of Services (Work Scope, Steps, Check Points, etc.):

Western Lehigh Interceptor; Physical Condition Assessment

Provide a physical condition assessment report for the following portions of the Western Lehigh Interceptor (WLI): Breinigsville Branch (10,774 LF); Upper WLI upstream of Schantz Rd. (3,800 LF), UMiT Interceptor (5,500 LF); and LCA WTP Interceptor (2,900 LF) totaling 22,000 LF.

An assessment report shall include records of in-pipe video inspection provided by the Lehigh County Authority, a rating of each pipe segment in accordance with industry standards and recommended follow-up activities. The scope also includes a site visit to the various sections to determine site access issues for rehabilitation work if necessary. Work shall be accomplished in accordance with the attached scope of work and budget estimate dated February 28, 2012.

This is a continuation of the assessment of the Western Lehigh Interceptor that began in 2004. A map showing the areas of the WLI where the physical condition assessment has been completed is attached. Future areas are also shown.

Cost Estimate (not to be exceeded without further authorization): Not to exceed $38,000. The Authority's WLI budget for 2012 includes $157,000 for this work.

Time Table and Completion Deadline:
It is anticipated that this work will be completed by the end of 2012.

Authorization Completion:

(For Authority Use Only)

Approval: ___________________________ Actual Cost: _______ Date: _______
Ms. Pat Mandes  
Wastewater Services Director  
Lehigh County Authority  
P.O. Box 3348  
Allentown, PA  18106

Subject:  
WLI Physical Condition Assessment – 2012

Dear Ms. Mandes:

In accordance with a request by Lehigh County Authority (LCA), Malcolm Pirnie, the Water Division of ARCADIS, is pleased to provide you with this scope and budget for a physical condition assessment (PCA) on the Breinigsville Branch, Upper WLI, Upper Milford Interceptor, and LCA Wastewater Treatment Plant (WTP) Interceptor reaches of the Western Lehigh Interceptor (WLI). In accordance with the ongoing inspection program, we propose to rate, assess, and recommend follow-up actions, if required, for the following sections comprising approximately 96 segments and 22,000 LF of pipe:

MH U-49 to MH U-6 (Breinigsville Branch)
Upstream of MH U-108 (Upper WLI)
MH L83 to MH R6 (Upper Milford Interceptor)
MH 1 to MH 7, MH 5A to MH 8, MH 5A to MH U084-7 (LCA WTP Interceptor)

**SCOPE OF WORK**

LCA will perform the CCTV inspections and provide a hard drive with CCTV inspections and PACP-certified database.

Malcolm Pirnie will review the inspection records and prepare PCA figures showing the findings and any recommended follow-up actions regarding cleaning and rehabilitation.

One site will be performed to assess site access issues. It is assumed than an LCA staff person will accompany Malcolm Pirnie staff on this site visit to assist in locating manholes.

Malcolm Pirnie will conduct a meeting at LCA to review the findings with LCA staff.
BUDGET ESTIMATE

We estimate that the cost of these services will be $38,000. We propose to complete these services on a time and materials basis in accordance with the Agreement between LCA and Malcolm Pirnie, Inc., dated June 17, 1997, and the current Summary of Standard Charges for Lehigh County Authority. We will not exceed this budget without prior authorization from LCA. Payment for services will be based upon the actual labor and expenses incurred.

Please contact me with your authorization to proceed if this scope and budget are acceptable to you. If you have any questions please do not hesitate to call me at 484-688-0380 or 610-761-3253 (mobile).

Sincerely,

ARCADIS U.S., Inc.

Tony Dill, PE, BCEE
Program Manager – Buried Infrastructure Team

C: Jim Shelton, Malcolm Pirnie
   Craig Murray, Malcolm Pirnie
<table>
<thead>
<tr>
<th>WLI Branch</th>
<th>Footage</th>
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