

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

<b>PRIORITY*</b>	<b>PROJECT/ISSUE</b>	<b>TYPE OF ACTION</b>	<b>TIMING**</b>
<i>AS NEEDED</i>			
<b>H</b>	Update on wastewater treatment capacity evaluation/steering committee	Status Report	As needed
<b>H</b>	Acquisition/Growth Strategy Activities	Status Report	As needed
<b>H</b>	Jordan Creek Wastewater Plant – Conditional Use Hearing	Status Report	As needed

*WITHIN 45 DAYS*

<b>H</b>	LCA- Wastewater Treatment Plant – Digester Mixers Procurement. <i>Project Authorization Amendment, Contract Award</i>	Approval	Apr (B)
<b>H</b>	2011 Financial Statements	Approval	Apr (B)
<b>H</b>	PADOT RT 309 & Sand Spring Improvements-Water Main Relocations- Design Phase <i>Project &amp; Professional Services Authorizations.</i>	Approval	May (W)
<b>H</b>	Emergency Power Capability Design Phase <i>Project &amp; Professional Services Authorizations</i>	Approval	May (W)

*WITHIN 75 DAYS*

<b>H</b>	Western Weisenberg WTP (re-bid ) <i>Project Authorization Construction, Contract Awards</i>	Approval	May (W) or (B)
<b>H</b>	Park Pump Station- Fuel Tank Replacement <i>Project &amp; Professional Services Authorization Amendments-for Construction phase &amp; Contract Award</i>	Approval	May(B)
<b>H</b>	Wastewater Capacity Act 537 Planning <i>Professional Services Authorizations</i>	Approval	June (B)

**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)*

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1. **Identify items for April Board Meeting**

- Review Board Discussion items, April 2012 – June 2012

**ACTION/DISCUSSION ITEMS**

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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**

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1. **Education and Training**

Linda Eberhardt	GFOA-PA Conference – State College, PA	4/30-5/2; \$955
Doug Young Linda Eberhardt	GFOA East Seminar – “Knowledge Management” – Towamencin Township	4/19; \$40

**OTHER ITEMS**

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*None.*



**Lehigh County Authority**

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

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**MEMORANDUM**

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**Date:** April 2, 2012

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

**Approvals Requested**

<b>Approvals Requested</b>	<b>Brief Description</b>	<b>Amount</b>
Professional Services Authorization ( <i>I</i> )	Consulting Services Malcolm Pirnie	\$38,000

**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 Alburdis/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.



Lehigh County Authority

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**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.

**(For Authority Use Only)**

**Authorization Completion:**

**Approval:** \_\_\_\_\_ **Actual Cost:** \_\_\_\_\_ **Date:** \_\_\_\_\_



Ms. Pat Mandes  
Wastewater Services Director  
Lehigh County Authority  
P.O. Box 3348  
Allentown, PA 18106

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King of Prussia  
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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 that 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.

Date:  
February 28, 2012

Contact:  
Tony Dill

Phone:  
484.688.0380

Email:  
[Anthony.Dill@arcadis-us.com](mailto:Anthony.Dill@arcadis-us.com)

Our ref:  
0247

**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.

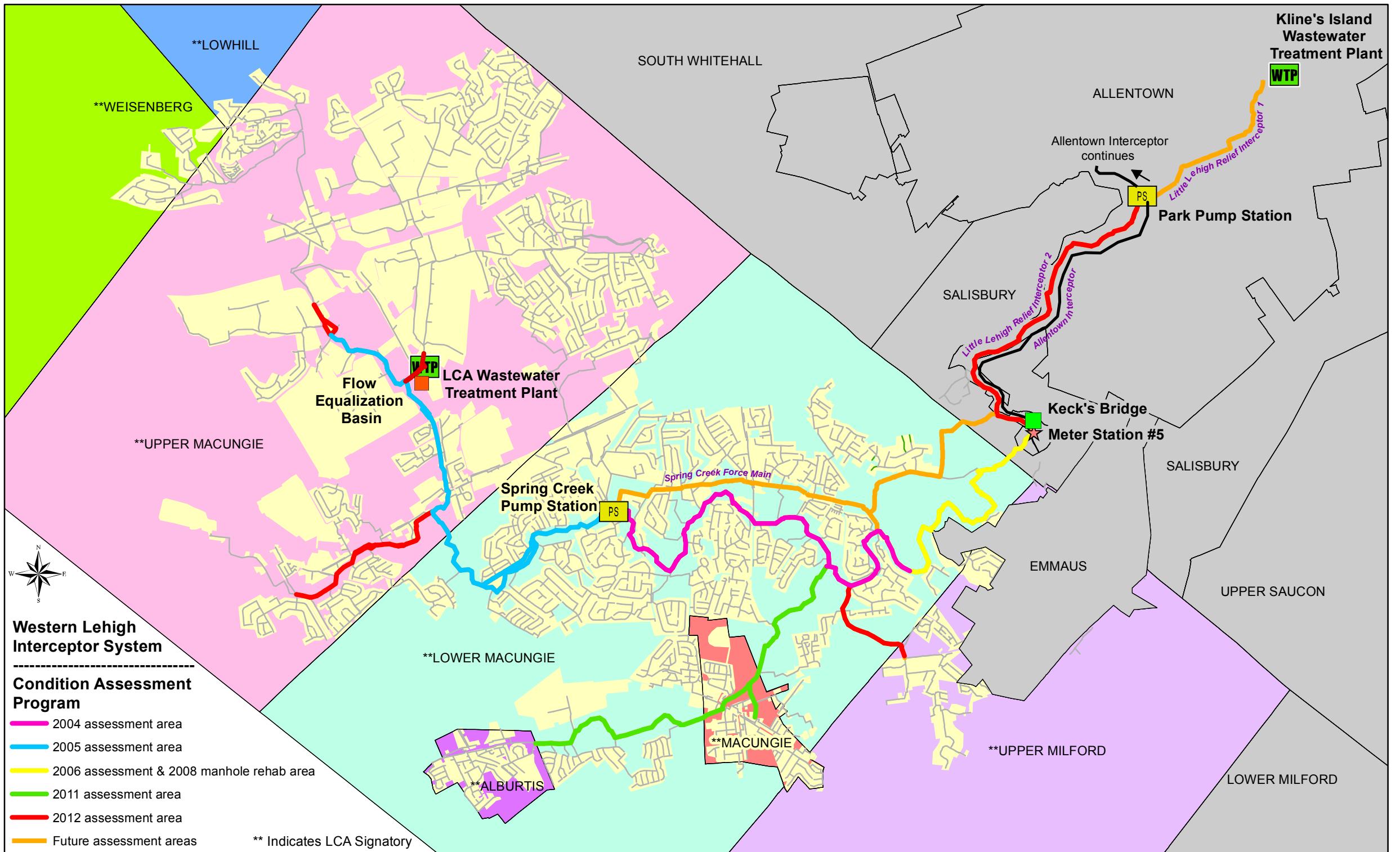
A handwritten signature in blue ink that reads "Tony Dill". The signature is written in a cursive, flowing style.

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

C: Jim Shelton, Malcolm Pirnie  
Craig Murray, Malcolm Pirnie

Lehigh County Authority Physical Condition Assessment History/Schedule

<u>WLI Branch</u>	<u>Pipe Assessment</u>				<u>Manhole Assessment</u>		
	<u>Footage</u>	<u>Segments</u>	<u>Completed</u>	<u>Scheduled</u>	<u>Manholes</u>	<u>Completed</u>	<u>Scheduled</u>
L67 - L256	23,080	89	2004	2013	89		2013
L256 - U108	31,167	138	2005	2014	138		2013
L1 - LCA-66	17,640	66	2006	2013 rehab	67	2007	
Alburtis/Macungie	23,000	91	2011	2018	91		2013
U108 - U1R	3,800	15		2012	16		2013
1 - 7, 5A - 8, 5A - U084-7	2,900	13		2012	12		2013
Breinigsville	10,774	45		2012	46		2013
Rt 29 UMiT	5,500	23		2012	23		2013
LLRI	20,217	80		2012			
SCFM				2014			
PPSFM				2014			



**Western Lehigh Interceptor System**

**Condition Assessment Program**

- 2004 assessment area
- 2005 assessment area
- 2006 assessment & 2008 manhole rehab area
- 2011 assessment area
- 2012 assessment area
- Future assessment areas

\*\* Indicates LCA Signatory