

## **WORKSHOP MEETING MINUTES**

### **November 9, 2015**

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The Workshop Meeting of the Lehigh County Authority was called to order at 12:07 p.m., on Monday, November 9, 2015, Chairman Brian Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Emrich Stellar, Tom Muller, Richard Bohner, Norma Cusick, and Deana Zosky. Authority Staff present were Aurel Arndt, Liesel Adam, Brad Landon, Pat Mandes, Ed Klein, Frank Leist, John Parsons, Bob Kerchusky, Chuck Volk and Lisa Miller.

Also present were James Shelton of Arcadis, Bill Bohner of ARRO, and Ralph Eschborn of AECOM.

#### **REVIEW OF AGENDA**

Aurel Arndt stated that there will be one Executive Session regarding potential litigation at the end of the regular meeting agenda.

#### **PUBLIC COMMENT**

Chairman Nagle stated that he would like to revisit the Board Norms. He asked that Board members review the current Norms and have any comments back to him by November 20, 2015 for discussion at a later date.

Joe Hilliard of Allentown was present to discuss a written response he prepared to the Board's request of how he would make LCA more transparent. He read his list of responses but would not provide it to the office unless he was provided with the Board members email addresses.

#### **ACTION AND DISCUSSION ITEMS**

##### **EPA Administrative Order**

Pat Mandes presented a PowerPoint presentation for discussion regarding the EPA Administrative Order. The LCA Infiltration and Inflow (I&I) Program Consultant, Jim Shelton from Arcadis, also presented information on the final alternatives analysis for the Western Lehigh Interceptor System. The hydraulic model was utilized to cost out various alternatives to meet the level of service necessary to meet the EPA Administrative Order. Combinations of storage, conveyance upsizing, and I&I removal were evaluated. The lowest cost alternatives were discussed in more detail. The alternative favored by the Western Lehigh Sewerage Partners include I&I removal of over 60 miles of pipe in the Signatory systems. Discussion followed. No action was requested.

##### **Western Lehigh Interceptor 537 Plan Study Update**

Ralph Eschborn of AECOM presented a PowerPoint presentation and provided the background on the 537 Plan that was previously presented to the Board. He presented the cost estimates developed in 2013 for the four options to obtain 4 MGD of wastewater capacity which include the expansion of Kline's Island WWTP, upgrade and direct discharge from the Pretreatment Plant (PTP) to either the Lehigh River, Jordan Creek, or land application. Since 2013, the focus of the study has been to further evaluate the land application for cost savings and to develop hybrid scenarios for Kline's Island. The results of the various evaluations would be used to update the four costs estimates.

Previous evaluations on land application costs did not consider the Total Dissolved Solids (TDS) levels in the PTP effluent. DEP has established a standard of 500 mg/L for TDS for drinking water, which must be met by wastewater treatment for land application, or through proper dilution of land-applied effluent. Agricultural use of land-applied effluent is typically capped at 1000 mg/L. Characterization of the PTP effluent indicates TDS levels in excess of 1300 mg/L. An evaluation of potential land application sites in Western Lehigh County determined that year round land application of effluent was possible and could result in a significant reduction in costs. Mr. Eschborn explained that the limiting factor would be TDS in the PTP effluent. A source reduction evaluation was performed to determine if the source or sources of TDS in the PTP influent would be reduced to levels which would produce effluent that meet the DEP TDS standards for land application.

The wastewater discharge from the major industrial discharges into the PTP was characterized. The largest contributor of the PTP TDS was further evaluated. The conclusion of the study was that source reduction of

TDS is not possible with the conclusion that reverse osmosis (RO) would be required at the PTP to be able to meet the DEP TDS levels for land application. The additional costs of RO significantly increased the cost of the land application option

The hydraulic model was utilized to generate costs for conveyance improvements necessary for each of the four options for obtaining the additional 4 MGD of treatment capacity. The findings of the study were that full diversion of flow to the PTP would save no more than \$7 million dollars in conveyance relief piping rather than sending all flows to Kline's Island WWTP. This cost comparison includes all costs currently contemplated for remediation of I&I issues as presented in the earlier discussion about the USEPA Administrative Order.

AECOM evaluated previous cost estimates for upgrades at Kline's Island WWTP to determine if other technologies could reduce costs. The findings of the evaluation were that the midstream de-ammonification process and chemically enhanced primary treatment have cost savings benefits of \$10 million dollars. There is also a benefit of phasing the improvements.

In conclusion, Ralph Eschborn presented the economic summary of the future options. With the updated studies, a Kline's Island expansion is the least costly alternative. The recommendation made to the Board was to defer the pursuit of alternatives other than Kline's Island expansion and to integrate conveyance capacity increases with the future wet weather improvements related to the EPA Administrative Order. Some discussion followed. No action was requested.

#### **INFORMATION ITEMS**

None.

#### **SYSTEM OPERATIONS OVERVIEW**

None.

#### **STAFF COMMENTS**

None.

#### **SOLICITOR'S COMMENTS**

None.

#### **OTHER COMMENTS**

None.

#### **EXECUTIVE SESSION**

The Chairman called an Executive Session at 2:23 p.m. to discuss potential litigation.

Emrich Stellar left the meeting at 2:30 p.m.

The session ended at 2:50 PM.

#### **ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 2:55 p.m.

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Richard H. Bohner, Secretary