



LEHIGH COUNTY AUTHORITY

January 27, 2014

BOARD MEETING AGENDA

1. Call to Order
2. Review of Agenda
 - *Public Participation Sign-In Request*
3. Executive Sessions
4. Approval of Minutes
 - *November 25, 2013 Regular Meeting Minutes*
 - *December 9, 2013 Regular Meeting Minutes*
5. Public Comments
6. Action / Discussion Items

FINANCE AND ADMINISTRATION

- *Appointment of Nomination Committee – Board Officer Election*

WATER

- *None*

WASTEWATER

- *Lynn Township – WWTP Improvements- Final Design Phase (Approval)*

7. System Operations Overview
8. Staff Comments
9. Solicitor's Comments
10. Other Comments
11. Adjournment

FEBRUARY MEETINGS

Workshop Meeting
Board Meeting

February 10 – 12:00 p.m.
February 24 – 12:00 p.m.

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.

FINANCE & ADMINISTRATION**ACTION ITEMS****1. Appointment of Nominating Committee – Board Officer Elections**

The Chairman must appoint a current Board member to handle nominations regarding 2014 Board Officer positions for election at the Regular Meeting in February.

DISCUSSION ITEMS**1. *None.*****INFORMATION ITEMS****1. Recently Purchased Investments – Certificates of Deposit (CDs)**

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
LLRI CR	PSDLAF Collateralized CD		400,000.00	12/17/2013	2/25/2014	0.10
Cons Wtr (2)	PSDLAF Collateralized CD		155,000.00	12/17/2013	2/25/2014	0.10
Cons LL2 (314)	PSDLAF Collateralized CD		245,000.00	12/17/2013	2/25/2014	0.10
WW Capac	PSDLAF Collateralized CD		600,000.00	12/17/2013	2/25/2014	0.10
2010 Wtr Cons A	PSDLAF Flex Pool		3,500,000.00	12/17/13	2/25/14	0.10
Wtr R&R	PSDLAF Collateralized CD		1,000,000.00	12/17/13	2/25/14	0.10
Cons Wtr (2)	The Brand Banking Company	Lawrenceville, GA	245,000.00	1/15/14	7/15/15	0.40

Fund Descriptions for Investments:

LLRI CR	Little Lehigh Relief Interceptor Capital Reserves
Cons Wtr (2)	Consolidated Water 2
Cons LL2 (314)	Consolidated Little Lehigh Relief Interceptor 2
WW Capac	Wastewater Capacity
2010 Wtr Cons A	Water Construction, Series A Bonds
Wtr R & R	Renewal and Replacement

WATER

ACTION ITEMS

1. *None.*

DISCUSSION ITEMS

1. *None.*

INFORMATION ITEMS

1. **Phase 2 Interconnection with Allentown**

We were informed by South Whitehall Township that the contractor had not removed in-flow inserts from sanitary sewer manholes prior to installation of paving riser rings when overlaying W. Walnut Street and Mertz Lane last fall. Livengood Excavators has completed this repair. Livengood will address restoration at Schantz Road this spring.

No Current Activity

2. **Arcadia West Pumping Station Modifications**

The general contractor is in the process of submitting shop drawings for review and approval.

3. **LCA Facilities Emergency Power Project**

Except for the LCA Office Operations Center, generators at all sites have been installed and are operable. The electrical contractor is currently working on the installation of both the automatic transfer switch and PLC control logic at the Office Operations Center we expect this work be completed shortly. However the delivery of the 500 KW generator for the Office Operations Center purchased by LCA through the Co-Stars program is expected in late February 2014.

4. **Allentown Division- Water Main Replacement Program**

City of Allentown has granted Conceptual Design approval of this Major Project. Preliminary meetings have taken place with Allentown Streets Department, PennDOT, UGI and other entities to introduce the program. Design work is underway. This project will be funded by LCA.

5. **Allentown Division- Coagulation Chemical Conversion**

In 2010 DEP approved the City to change the primary coagulant from Aluminum Sulfate (Alum) to Polyaluminum Chloride (PACL). This change has not been implemented due to change over in City personnel and the leasing of the City water system. A RFP for professional services to evaluate options for the implementation of this changeover was issued in late December 2013 with proposals due at the end of January. This project will be funded by LCA.

6. **Allentown Division- Schantz Spring Cl2 Booster Station**

Construction of a chlorine feed station at a midway point of the transmission main from Schantz Spring to the Water Filtration Plant to increase the reliability of the source. Quite a few months ago we requested conditional approval from Director of Parks for the proposed location of the facility because it is in City Park system, to date there has been very little if any movement. This Project is identified as Un-Completed Work and will be funded by the City. ***No current activity.***

7. **Allentown Division- WFP Chemical Building Roof Replacement**

The Project includes modifications to the roof of WFP chemical storage area (i.e. installation of hatches), removal and replacement of (2) 8,000 gallon chemical storage tanks; and replacement of the 20-year old rubber membrane roof system. The project has been bid by the City and a contract has been awarded. Work is expected to start early spring. This project is identified as Un-Completed Work and will be funded by the City.

No current activity

8. **Developments**

Water system construction is occurring at the following developments:

Valley West Estates, Phases 4, 5 & 6, 46 residential lots (sfd), UMT.

Water system plans are being reviewed for the following developments:

Above & Beyond (personal care facility), 2 commercial lots, UMT

Diocesan Pastoral Center, 2 commercial lots, 3 additional lots and residual lot for existing cemetery, LMT

Grant Street Townes, 18 residential lots (sfa), WashT

Hamilton Crossings, 2 commercial lots with 20 buildings having retail, financial, convenience and restaurant uses, LMT

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

Lehigh Hills, 247 residential lots (sfa/sfd), UMT

Liberty at Mill Creek, 2 industrial lots, UMT

Morgan Hills, 40 residential lots (sfd), WeisT, water and sewer

North Whitehall Commercial Center (Walmart), 5 commercial lots, NWT, water and sewer

Route 100 Bypass & Cetronia Road Proposed Commercial Development, 1 commercial lot with 4 buildings having auto, convenience, financial and day care uses, UMT

Shepherd's Corner, 1 commercial lot, LMT

Spring Creek Properties Settlement Subdivision (formerly Spring Creek Properties Subdivision I), 16 commercial and industrial lots, 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

Woodmont at Upper Macungie (formerly Rabenold Farms II), 288 apartment units and clubhouse, (Portion north of I-78), UMT

WASTEWATER

ACTION ITEMS

1. **Lynn Township – WWTP Improvements- Final Design Phase** (Approval)

Approval is requested for final design, permitting and bidding of the improvements for Phase 1 that will include only the essential components of the plant expansion to increase hydraulic capacity, address immediate DEP concerns to avoid bypassing, and to provide ultraviolet disinfection, and for Phase 2 that will address specific operational issues that have plagued the plant since its inception including excessive corrosion and insect issues in electrical equipment, excessive wear on return activated sludge pumps due to no screening, and valve accessibility for influent pumping equipment. Phase 3 improvements will be dependent upon future customer growth justifying the need for a plant expansion to increase the treatment capacity of the plant from the current 80,000 gallons per day (GPD) to the permitted 160,000 GPD. The Capital Project Authorization, Professional Services Authorization (Gannett Fleming, Inc.) and cover Memo are attached for Board approval (**green**).

DISCUSSION ITEMS

1. **None.**

INFORMATION ITEMS

1. **Infiltration and Inflow (I&I) Program Update**

The following is work planned for 2014:

- Submission of reports to EPA and DEP.
- Rehab effectiveness metering in Phase 1 pipe lining project areas to determine the reduction in peak flows as a result of the rehab work.
- Phase 2 of Signatory pipe lining projects as determined by KCE.
- Rehab effectiveness metering in Phase 2 pipe lining project areas.
- WLI Manhole Inspections'
- Test and Seal project for branches of the WLI that were CCTVed in 2011 – 2012.
- Long term flow meters will continue on a limited basis. Two rain gauges and meters remain in the system.
- Alternative Modeling and feasibility analysis to evaluate the various alternatives to achieve the preliminary objectives. The alternatives will include various combinations of I & I elimination, storage and capacity increases.
- Preliminary Program Objectives Evaluation Report will be submitted to DEP by the end of 2014. This document will define the current system performance and assess what it will take to achieve the system preliminary objectives. The report will include a discussion of the investigation and evaluation work completed including flow evaluation, SSES prioritization, modeling, current and future level of service, current and future system sizing requirements, and will propose the Level of Control for system operation.

- The development of the Capital Improvements Plan is scheduled to begin by the end of the year. This will identify the rehab needs, replacement needs, expansion requirements, costs of improvements and schedule for implementation to achieve the program objectives. **No Current Activity.**

2. **Wastewater Treatment Capacity**

The Memo of Understanding (MOU) regarding working together on a joint Act 537 Plan with the City was never executed with the City. The MOU was revised as a result of the Concession. It is in the Mayor's office for signature.

A Stakeholder's Advisory Committee (SAC) Meeting will be scheduled for early 2014.

DEP has indicated that a Jordan Creek study must be submitted to DEP prior to the issuance of final effluent standards. If we want to avoid the study, then water quality standards would be imposed for effluent limitations. There is no work currently being done on the Jordan Creek discharge option.

A meeting was held with the DRBC to discuss updating the prospective effluent limits for the various alternatives. The model will be refined and the grandfathered loads for Phosphorus and Ammonia will be updated based on the actual Kline's Island data. The results from the model run are expected in the near future.

Effluent sampling is being performed on the Pretreatment Plant effluent to determine the make-up of the total dissolved solids (TDS). The high TDS in the effluent will require a reverse osmosis process to treat the TDS to acceptable levels.

3. **Northern Lehigh Wastewater System**

The project is composed of the following:

Wastewater Treatment Plant (on a 5-acre tract at KidsPeace)

The North Whitehall Township (NWT) Board of Supervisors granted approval of the Conditional Use for the proposed WWTP. In late November 2012 the opposition, the Voice of the Jordan (Voice), appealed the NWT decision to Lehigh County Court of Common Pleas. On June 5, 2013 the Court ordered "that the decision of the NWT Board of Supervisors dated October 23, 2012 is hereby reaffirmed". On July 29, 2013 the Voice filed an appeal of the previous Court ruling to Commonwealth Court. Arguments in Harrisburg took place on December 11, 2013, a decision rendered by the Court on January 9, 2014 affirmed the lower Courts decision and Township approval. The only avenue left for the Voice is to appeal to the Pennsylvania Supreme Court. If there is any further league action by the Voice, the Authority will request that the Court require the Voice to post a bond.

The total cost of the WTP including soft costs and KidsPeace acquisition costs is estimated at \$4.69 million.

Wal-Mart

Wal-Mart has put the proposed store on-hold indefinitely. Wal-Mart was a key financial contributor to the offsite conveyance facilities, which includes gravity sewers, a pump station and force main to deliver the wastewater from their proposed development and other future wastewater customers to the proposed wastewater treatment facilities at the Kids Peace site. Cost-sharing negotiations are on hold. **No Current Activity.**

Kids Peace Agreement

A revised amendment to the Agreement has been sent to KidsPeace. It primarily focuses the financial impact on the Jordan Creek Wastewater system because of KidsPeace's sale of the 101 Acre parcel to Lehigh Carbon-Community College (LCCC). The 101 Acre parcel was an integral economic component for LCA in the 2006 Agreement. Kids Peace has filed for Chapter 11 Bankruptcy we are investigating how this may impact our Agreement. **No Current Activity**

Act 537 Plan (Plan) Revision

NWT continues to work on developing an alternate a solution for the wastewater treatment needs for a revised 1-5 year service area which would include a WTP located on the eastside of Route 309 that would discharge to the Coplay Creek. LCA met with NWT on November 21, 2013 to discuss the status of their efforts. NWT has requested that LCA work their engineer to obtain the information necessary to secure conceptual pricing for the WTP and to develop high level capital and operating cost estimates. **No Current Activity.**

4. Arcadia West WWTP Improvements

Construction is complete at the site. During December, vendor startup efforts began and were completed in January. Full startup date is January 10, 2014. Demolition of the old facilities should be completed by the end of February. The total project is about 45 days past schedule, primarily due to delays in Met-Ed initiation of power. The cost estimate of \$3,502,300 is still valid.

5. Wynnewood Terrace Pump Station & Force Main Replacement

Design work is complete and regulatory submission for approvals was made in November. DEP has listed the application as "Administratively Complete." Plans and specifications, @ 90%, are being reviewed by staff for a below grade self-contained pump station with submersible pumps and a new 6" force main.

6. Park Pump Station Improvements

Fuel Tank Replacement – Staff has received and is reviewing the final specifications and plans for replacement of the fuel tank at the Park Pump Station. We expect to place the work to bid by early next year. **No Current Activity.**

7. LCA WTP- Truck Waste Receiving Station

Truck Waste Receiving Station (TWRS):

Construction is complete. Start-up of the facility took place on October 17, 2013. There are some minor punch list items. We expect operation of the station to start mid January 2014.

Digester Mixer Replacements:

The General contractor has completed the installation of mixers in the first digester and the digester is now operational. The 2nd digester is now drained and cleaned to and mixer installation is underway. Assuming no major difficulty in draining and cleaning the 3rd we expect the project will be completed in the 2st quarter of 2014.

PPL E-Power Customizable Energy Program:

PPL has accepted the E-power applications for energy savings rebates and verification methodologies for both the Digester Mixer Replacements and Truck Waste Receiving Station (TWRS). Monitoring of the electric usage of the remaining old mixers has been completed. Monitoring devices on the High Purity Oxygen system have been installed with monitoring extending to the end of January 2014.

8. **Allentown Division- WWTP-New Bar Rack at Headworks**

The Project includes the replacement of the existing screen equipment with new coarse bar screens to minimize potential for jamming or mechanical malfunctions experienced by the existing screening equipment, resulting in discharges from Outfall 003 during high flow events. The project has been bid by the City and a contract in the amount of \$737,000 has been awarded to Blooming Glenn Contractors. Given the long lead time for the equipment we expect the bulk of the work to start in June 2014. This Project is identified as Administrative Order / Un-Completed Work and will be funded by the City. **No Current Activity.**

9. **Allentown Division- WWTP-Other Work**

PPL Combined Heat & Power (CH&P) Facility:

In October the City of Allentown issued PPL Renewable Energy the building and electrical permits required for the construction of the new Combined Heat and Power (CH&P) facility at the Kline's Island WWTP. Since then Millennium Builders and Albarell Electric have mobilized and begun the construction of the infrastructure required to install the digester gas powered generator. To date the excavation for electrical duct banks and grounding wires has been completed. The project is projected to produce 50% of the electricity required to operate the wastewater plant from digester gas produced in the anaerobic digestion process. The terms of the contract assigned to LCA through the concession call for PPL to construct and maintain CH&P facility at no cost to LCA. LCA will provide the digester gas required to fuel the facility and will purchase the power produced at a discounted rate. In November, the electrical duct banks were completed and the pad for the generator was poured. During the month of December Millennium Builders and Albarell Electric continued to make significant progress on the construction of the new Combined Heat and Power (CH&P) facility at the Kline's Island WWTP. Most of the work that remains is for the electrical and plumbing disciplines. A G&W switch cutover plan has been developed and vetted by the plant staff. The tentative goal is to bring the CH&P facility on line by the end of February 2014.

No.1 Intermediate Settling Tank Wire Failure

The wiring powering No.1 Intermediate Settling Tank clarifier drive mechanism failed on December 25, 2013, cause of the failure appears to be poor workmanship during the 1999 plant upgrade of the treatment plant. Temporary power has been supplied to the equipment through the use of 480 V insulated power cord. The plant staff is working with Crowder Jr to restore permanent power, control, and alarm wiring to this equipment. Waiting on pushbutton start/stop station to be received.

MEMORANDUM

Date: January 20, 2014

To: Authority Board
From: Frank Leist, Ed Hoyle
Subject: Lynn Township Wastewater Treatment Plant Improvements
Phases 1 & 2 Planning, Final Design Phase and Other Studies

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Phases 1 & 2 Planning, Design Phase, Studies	\$198,080
2	Professional Services Authorization – Gannett Fleming, Inc. (1), (2)	\$90,080

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

PROJECT OVERVIEW:

Lehigh County Authority (LCA) acquired the Lynn Township Sanitary Sewer System in Lynn Township, Lehigh County, Pennsylvania from the Lynn Township Sewer Authority (LTSA) in February 2012. The WWTP currently serves approximately 1,405 residents (545 EDU's) with a current average daily flow of 52,000 GPD in 2012. The largest customer is Northwestern Lehigh School District complex accounting for approximately 20 % of the wastewater allocation. The wastewater treatment plant (WWTP) was constructed in the late 1970's and most of the equipment is either at or beyond its intended design life.

At the time of the acquisition, LTSA's Engineer, Gannett Fleming, Inc., completed design plans that meet the level of detail required for permitting the upgrades to the WWTP that would increase capacity from 80,000 GPD to 160,000 GPD in accordance with the Lynn Township Act 537 Sewage Facilities Planning document dated January 28, 2009. A DRBC Docket, NPDES permit for effluent discharge limits/reporting and Water Quality Part II (construction) permit for the WWTP expansion have been issued.

The project will be executed in three phases classified generally as improvements or future treatment capacity expansion:

- Phase 1 Improvements: will include only the essential components of the plant expansion to increase hydraulic capacity, address immediate DEP concerns to avoid bypassing and to provide ultraviolet disinfection.
- Phase 2 Improvements: will address specific operational issues that have plagued the plant since its inception, including excessive corrosion and insect issues in electrical equipment, excessive wear on return activated sludge pumps due to no screening, and valve accessibility for influent pumping equipment.

- Phase 3 – Future Treatment Capacity Expansion: will include the remaining upgrades to increase the treatment capacity of the plant from the current 80,000 GPD to the permitted 160,000 GPD. This phase will be dependent upon future customer growth justifying the need for expansion.

Currently there is a connection cap imposed by the Pennsylvania Department of Environmental Protection (PADEP) that limits the number of new Equivalent Dwelling Unit (EDU) connections to the system. This 50 EDU cap was in place prior to LCA's acquisition of the system and at present approximately 32 EDU's remain available.

FINANCIAL:

For the Phase 1 and 2 improvements LCA will provide short-term financing estimated at \$874,300 at an interest rate of 2% per annum amortized over 30 years until such time as the Phase 3 expansion is necessary where long-term financing estimated at \$2,600,000 will be provided and will include the then outstanding principal balance of the short term financing being rolled into this long-term financing. The long-term financing is likely to be a 30-year Bond issue.

PROJECT STATUS:

Pending Board approval.

THIS APPROVAL-FINAL DESIGN PHASE, PHASES 1 & 2 AND OTHER STUDIES:

Lehigh County Authority (LCA) intends to retain the services of Gannett Fleming, Inc. (GF) to provide design related services for Phases 1 and 2 of the Lynn Township WWTP Improvements for the not-to-exceed sum of \$90,080. In addition this authorization includes staff costs, miscellaneous costs and past planning costs. Phase 1 and 2 construction related engineering services, as well as Phase 3 engineering services to expand the plant to 160,000 GPD are not requested at this time. The services do not include a Phase I Environmental Site Assessment of hazardous wastes, wetlands mitigation, design or permitting, application for a NPDES permit, threatened or endangered species studies above those detailed herein, archaeological studies or associated other cultural resources work or any other quantitative or qualitative assessments not specifically mentioned in the GF Proposal, which could result in significantly increased costs that are not anticipated based on past conversations GF has had with PADEP.

GF was serving as the LTSA engineer when LCA acquired the sewer system and, as previously mentioned, designed and permitted the WWTP expansion. Their knowledge of wastewater treatment systems in general and the Lynn Township WWTP specifically makes them well suited to continue to work with DEP and to complete the design of the phased improvements already begun. The following is a summary of professional services tasks in the current authorization:

Scope of Work

Task 1: Study-Determine Excess Capacity in the Existing 0.080 MGD Plant. Includes a review of recent flow and loading data and estimates current hydraulic and organic capacity.

Provide summary in terms of EDU's to show how anticipated development may be phased into the system.

Task 2.0: Prepare Bid-Ready Plans and Specifications. Includes developing an overall project schedule (including permitting, design and construction tasks), updating the drawings and specifications, and associated quality assurance/quality control.

Task 2.1: Erosion & Sedimentation (E&S), Post Construction Stormwater Management (PCSM) Plan Design and Permitting. Includes updating the topographical survey and wetlands delineation and an update of the Phase II Bog Turtle Study if required by DEP, regulatory reviews and finalizing E&S and PCSM plans and notes. Includes a meeting with DEP and the Conservation District once an evaluation of Phase 3 components (Task 3.0) is completed. Fully understanding the impacts of Phase 3 prior to meeting with these entities will verify aspects of the E&S and PCSM design and permitting efforts to ensure the entire project is covered appropriately.

Task 2.2: Water Quality Management Part II Permit Amendment. After preliminary discussions with DEP, they may require a formal permit amendment due to the length of time since the previous Water Quality Management Part II permit was issued. The relevant DEP modules would be extracted from the original Water Quality Management Part II permit. Most of the effort for this task is associated with revising the engineers report to attach to the permit amendment. LCA will pay any permit review fees.

Task 2.3: PennVEST Application Preparation. If LCA decides that PennVEST funding is worth pursuing, this task includes effort to update the application LTSA authorized Gannett Fleming, Inc. to prepare with the original design.

Task 2.4: Bid Phase Services. Includes bidding assistance such as advertising, request for information responses, pre-construction meeting, bid evaluation and shop drawing review. LCA will pay advertising costs.

Task 3.0: Phase 3 Study-Construction Savings Estimate. Includes a report summarizing the construction cost impacts for reducing the size of the plant expansion as a result of the recent I&I reduction. This report will contain an Updated Phase 3 construction cost as currently designed, as well as a summary of anticipated cost savings with the new hydraulic conditions. The report will summarize descriptions of proposed plant changes and include an estimate of additional costs to design and permit a downsized plant. In addition, estimates will be provided for operating costs at 80,000, 120,000 and 160,000 GPD.

GANNETT FLEMING, INC. COMPANY INFORMATION:

Gannett Fleming, Inc. was founded in 1915 and is headquartered in Camp Hill Pennsylvania. Gannett Fleming is a global infrastructure firm that provides planning, design, technology, and construction management services for a diverse range of markets and disciplines. With nearly 2,000 highly qualified individuals across a global network of 60 offices, including a dozen offices in Pennsylvania, Gannett Fleming is united in its passion to deliver excellence.

Gannett Fleming's quality policy is to "provide professional services that meet the requirements of clients and involve all personnel in continually improving work processes." As part of that commitment, Gannett Fleming has successfully achieved their goal of obtaining ISO 9004:2008

certification. This internationally recognized quality certification helps Gannett Fleming to conduct services in a manner consistent with ISO 9001:2008 standards and requirements that enhances their efficiencies and effectiveness to provide quality service and deliverables to meet their clients' requirements.

Gannett Fleming, Inc. previously created the LCA Central Lehigh Division Hydraulic Model and was recently authorized to provide design services and to develop a pipe prioritization assessment program for the water main replacement program in the City of Allentown. Gannett Fleming has the skills and manpower necessary to perform the work.

PROJECT SCHEDULE:

A proposed schedule for Phases 1 and 2 of the project has been developed by LCA and Gannett Fleming and assumes Board approval of this authorization at the January 2014 Board meeting.

Authorize Design	1/27/14
Complete Design & Permitting (1)	4/20/2014
Invitation to Bid (2)	7/23/2014
Notice of Award	8/27/2014
Notice to Proceed	10/2/2014
Substantial Completion	1/6/2015
Final Payment	2/5/2015

- (1) *Mid-June if a Bog Turtle study is required.*
- (2) *If LCA pursues PennVEST funding, we anticipate PennVEST consideration of the project for approval at its Board meeting scheduled for 7/15/14. The project would not be contingent on PennVEST funding.*

FUTURE AUTHORIZATIONS:

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

Phases 1 & 2 Construction Phase: Approvals will be requested after bids are received.

Phase 3 Design & Construction Phases: Prior to commencing design phase services, a technical assessment will be conducted of potential growth patterns in the portion of the township tributary to the WWTP. Design efforts should be commenced approximately two years prior to placing the expanded plant into service.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	S-SD-14-2	BUDGET FUND:	Sewer\Capital\LT\
PROJECT TITLE:	Lynn Township Wastewater Treatment Plant Improvements, Phases 1 & 2	PROJECT TYPE:	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
THIS AUTHORIZATION:	\$198,080		

DESCRIPTION AND BENEFITS:

The project presents a phased approach to upgrade the wastewater treatment plant (WWTP) in Lynn Township, Lehigh County, Pennsylvania. The WWTP was constructed in the late 1970's and most of the equipment is either at or beyond its intended design life.

Phase 1 improvements will include only the essential components of the plant expansion to increase hydraulic capacity, address immediate DEP concerns to avoid bypassing and to provide ultraviolet disinfection. Phase 2 improvements will address specific operational issues that have plagued the plant since its inception, including excessive corrosion and insect issues in electrical equipment, excessive wear on return activated sludge pumps due to no screening, and valve accessibility for influent pumping equipment. Phase 3 improvements will expand future treatment capacity and include the remaining upgrades to increase the treatment capacity of the plant from the current 80,000 gallons per day (GPD) to the permitted 160,000 GPD.

Final design, permitting and bidding of the improvements for Phases 1 and 2, as well as supplementary studies, will be undertaken in this current CPA. The CPA includes past planning costs. Phase 3 improvements will be dependent upon future customer growth justifying the need for plant expansion. Please reference the cover Memo for additional information.

Authorization Status:

REQUESTED THIS AUTHORIZATION	
Planning	\$17,000
Phases 1 & 2 – Final Design	
Staff	\$56,000
Engineering Consultant	\$90,080
Miscellaneous	\$10,000
Contingencies	\$25,000
Total This Authorization	\$198,080

Future Authorization	
Phases 1 & 2 - Construction	\$676,200
Phase 3 – Design & Construction	\$2,600,000

Total Estimated Project	\$3,474,280
--------------------------------	--------------------

REVIEW AND APPROVALS:

Project Manager	Date	CEO	Date
Capital Works Manager	Date	Chairman	Date



Lehigh County Authority

1053 Spruce Street * P.O. Box 3348 * Allentown, PA 18106-0348
(610)398-2503 * FAX (610)398-8413

PROFESSIONAL SERVICES AUTHORIZATION

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

Professional: Gannett Fleming, Inc.
PO Box 80794
Valley Forge, PA 19484-0794

Date: January 20, 2014

Requested By: Edward Hoyle, Jr.

Approvals
Department Head: _____
CEO: _____

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

Provide design, bidding and permitting engineering services for Phases 1 & 2 of the "Lynn Township Wastewater Treatment Plant Improvements" in Lynn Township, Lehigh County, PA, as identified in the Proposal by Gannett Fleming, Inc. dated December 5, 2013, and accompanying schedule dated 12/18/13. The Gannett Fleming, Inc. Standard Terms and Conditions for professional services, as revised per comments by the Authority, is also attached by reference.

Cost Estimate *(not to be exceeded without further authorization):*

Tasks No. 1, 2.0, 2.1, 2.2, 2.3 (limited to \$4,000 for PennVEST application preparation only), 2.4 and 3.0 in the above-mentioned Proposal will be performed under this PSA for the total not-to-exceed fee of \$90,080.00. Services will be paid for based on the Rate Schedule provided.

Timetable and Completion Deadline *(either party may terminate upon thirty days written notice):*

The preparation of Contract Documents and permitting shall be completed by 4/20/14, unless a Bog Turtle study delays permitting until mid-June. A PennVEST application shall be submitted by the 5/14/14 cutoff date. Bidding shall commence by 7/23/14.

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

- Accept the terms of the professional authorization set forth above; and
- Agree to indemnify, hold harmless and defend the Authority, its employees, agents, officials, successors and assigns (hereinafter all jointly referred to as "Authority"), from any and all loss and liability for claims, demands, suits or causes of action at law or in equity for damages and injuries (including death of every kind and nature) to persons (including employees of the Professional) and property arising out of error, omission or negligent act of Professional, or any person under contract to it, in rendering professional services under this authorization. The indemnification shall include, but not be limited to, payment of reasonable attorney fees and reasonable incidental litigation expenses of the Authority. Professional 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 of the Authority.

Name (Signature)

Name (printed):

Title: _____

(For Authority Use Only)

Authorization Completion:

Approval: _____ **Actual Cost:** _____ **Date:** _____