



## LEHIGH COUNTY AUTHORITY

**LCA Main Office:**  
1053 Spruce Road  
Wescosville, PA 18106  
610-398-2503

**Agendas & Minutes Posted:**  
[www.lehighcountyauthority.org](http://www.lehighcountyauthority.org)

Published: January 18, 2021

### BOARD MEETING AGENDA – January 25, 2021 – 12:00 p.m.

**Notice of COVID-19 Pandemic Meeting Format:** Effective March 23, 2020 and until further notice, meetings of the LCA Board of Directors will be held virtually using the Zoom Meetings application, to avoid risk of infection during the national COVID-19 pandemic emergency. Public participation is welcomed via Zoom, and instructions for joining the meeting online or by phone are posted on the LCA website in the morning on the day of the meeting, prior to the start of each meeting. You may also issue comment to LCA via email to [LCABoard@lehighcountyauthority.org](mailto:LCABoard@lehighcountyauthority.org) in advance of any meeting, or view the meeting at a later time by visiting the LCA website. Please visit <https://www.lehighcountyauthority.org/about/lca-board-meeting-videos/> for specific instructions to join the meeting.

#### 1. Call to Order

##### • NOTICE OF MEETING RECORDINGS

Meetings of Lehigh County Authority's Board of Directors that are held at LCA's Main Office at 1053 Spruce Road, Wescosville, PA, may be recorded for viewing online at [lehighcountauthority.org](http://lehighcountauthority.org). Recordings of LCA meetings are for public convenience and internal use only and are not considered as minutes for the meeting being recorded, nor are they part of public record. Recordings may be retained or destroyed at LCA's discretion.

##### • *Public Participation Sign-In Request*

#### 2. Review of Agenda / Executive Sessions

#### 3. Approval of Minutes

##### • *January 11, 2021 Board meeting minutes*

#### 4. Public Comments

#### 5. Action / Discussion Items:

#### **FINANCE AND ADMINISTRATION**

- *Resolution 01-2021-01 Authorizing LCA Customer Hardship Fund (Approval) (purple)*

#### **WATER**

- *Retroactive Emergency Declaration – 36" Main Break Devonshire & Mack (Approval) (yellow)*

#### **WASTEWATER**

- *Kline's Island Sewer System – Act 537 Planning: 2021 Flow Data QA/QC (Approval) (blue)*
- *Sand Spring Wastewater Treatment Plant Upgrade – General Contract Change Order No. 1 (Approval) (salmon)*

#### 6. Monthly Project Updates / Information Items (1<sup>st</sup> Board meeting per month)

#### 7. Monthly Financial Review (2<sup>nd</sup> Board meeting per month) – **December 2020 unaudited report will be available for the February 22, 2021 meeting**

#### 8. Monthly System Operations Overview (2<sup>nd</sup> Board meeting per month) – **December 2020 report attached**

#### 9. Staff Comments

#### 10. Solicitor's Comments

#### 11. Public Comments / Other Comments

#### 12. Executive Sessions

13. Adjournment

UPCOMING BOARD MEETINGS		
February 8, 2021	February 22, 2021	March 8, 2021

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. During the Public Comment portions of 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.

## **REGULAR MEETING MINUTES**

### **January 11, 2021**

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The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:01 p.m. on Monday, January 11, 2021, Chairman Brian Nagle presiding. The meeting was held via video and audio advanced communication technology ("ACT"), using the Zoom internet application including telephone option, due to the COVID-19 pandemic emergency. Each Board member and other attendees of the meeting were able to hear each other attendee and be heard by each other attendee. The public could also participate in the meeting via ACT, using the Zoom internet application including telephone option. Chairman Nagle announced that the Board received their packet via mail the previous week. A Roll Call of Board members present was taken. Chairman Brian Nagle, Richard Bohner, Norma Cusick, Ted Lyons, Kevin Baker, Linda Rosenfeld, Jeff Morgan, Amir Famili, and Scott Bieber were present for the duration of the meeting.

Solicitor Michael Gaul of KingSpry was present along with Authority Staff, Liesel Gross, Ed Klein, John Parsons, Chris Moughan, Chuck Volk, Susan Sampson, Andrew Moore, Phil DePoe, Lisa Miller, and Todd Marion.

#### **REVIEW OF AGENDA**

Liesel Gross stated there are no changes to the agenda as presented and there will be additional comments under the Staff Comments portion of the meeting regarding the main break on Devonshire Road in the City of Allentown during the week of December 27, 2020. There will also be an Executive Session after the regular meeting to discuss matters of potential litigation.

#### **APPROVAL OF MINUTES**

##### **December 14, 2020 Meeting Minutes**

Richard Bohner noted some grammatical errors. On a motion by Richard Bohner, seconded by Linda Rosenfeld, the Board approved the minutes of the December 14, 2020 Board meeting as corrected (8-0). Scott Bieber abstained.

#### **PUBLIC COMMENTS**

None.

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

##### **Union Contract & Employee Manual Update**

Liesel Gross reviewed the memo regarding the draft Collective Bargaining Agreement between the Authority and the Service Employees International Union (SEIU) and the recommended updates to the Employee Manual. The SEIU contract expired on December 31, 2020 and through negotiations the parties agreed to many revisions to more accurately reflect the Authority's mission, work environment, and culture. Also, three modifications to the Employee Manual are recommended to apply certain benefits more uniformly across the Authority's employee base.

Ms. Gross reviewed key highlights of the revised SEIU contract relating to hours of work, overtime and emergency work. The contract terms were updated to reflect the 24/7 operation of the Authority facilities, and several provisions were added to address the work environment for the Authority's employees who must be available to work on an emergency basis to respond to system failures

such as main breaks. Regarding employee benefits, the proposed contract includes several terms that are focused on controlling costs during the four-year contract period. Health insurance benefits and premiums are pre-determined with an average annual premium increase of 4.5 percent, which is far below the national average of 8 percent. It was also noted that the Life Insurance benefit provided to employees is through the union and not the Authority.

Norma Cusick asked about the Authority's retiree health insurance program, and what happens when retirees reach age 65 and become eligible for Medicare. Liesel Gross explained retirees may opt into the retiree health insurance benefit for a maximum of three years and is only available to retirees until they reach age 65.

Ms. Gross reviewed the paid time off benefits to be offered under the terms of the revised contract with SEIU. The most significant change in the contract relates to sick time, with a reduction of days offered and revisions to the contract terms regarding how sick time is managed. Also, the provisions for employees to carry over unused vacation time has been updated to state that those days carried over must be used within the next calendar year. She noted this change is recommended to be reflected in the Employee Manual as well to ensure consistency for both union and non-union employees.

Ms. Gross reviewed wage provisions and other miscellaneous changes captured in the revised SEIU contract, as outlined in the memo distributed to the Board prior to the meeting. She noted that the Authority representatives and SEIU representatives negotiated in good faith. Discussions included a review of key issues of importance to the Authority, including potential financial difficulties in the years ahead as the pandemic situation is resolved over time. She also noted the Authority staff's overarching goal of creating more consistency among policies and benefits provided to all union and non-union employee groups.

Scott Bieber referred to a comment in the memo provided to the Board about positions that are difficult to fill and asked what those specific positions are. Ms. Gross explained that the treatment plant operator's positions have been challenging to fill at times due to the specific qualifications required and the night-shift work.

Amir Famili asked if the health care costs are negotiated annually or only during the contract negotiations. He also asked if employees pay all or a portion of the annual price increase each year, which is a common cost-sharing structure he is familiar with. Ms. Gross explained that for this SEIU contract, the cost is pre-determined for the first three years of the contract and the parties have agreed that benefit costs for the final year of the contract will be capped. Because the union administers the benefits and has a large pool of members in their health-insurance fund, the costs paid by the Authority are significantly lower than costs paid for its non-union employees. The benefit costs are pre-determined and capped, as outlined within the proposed SEIU contract, so there will be no additional cost increases beyond those listed in the contract.

Mr. Famili asked if the Authority had considered a wage program that is tied to safety performance. Mr. Gross noted that the Authority staff have discussed performance-based wage incentives or bonuses, but applying this kind of compensation program is not possible within the Authority's current union environment whereby all employees are treated the same from a pay perspective. Incorporating incentives for safety performance would need to occur outside the union contract terms and could be explored further.

Jeff Morgan asked if the Authority pays for licensing for its system operators and whether any incentives are offered to employees who achieve their operator's license. Ms. Gross said that the

Authority does pay for licensing as well as continuing education that is required for employees to maintain their licenses. While no direct incentives are offered for employees who achieve their licenses, the achievement of the licenses does qualify employees to advance into higher-paid positions either automatically or when new positions become available.

Ted Lyons commented that with 25 days of vacation time and 15 holidays, an employee with only 15 years of service has eight weeks or 40 days of paid time off each year, which is a lot. Ms. Gross agreed it is a generous amount of paid time off, but is generally in line with other municipalities and water utilities.

Liesel Gross then reviewed the proposed changes to the Employee Manual, including the addition of Martin Luther King Jr. Day as a paid company holiday, revision of the terms related to how unused vacation time may be carried over into the next calendar year, and the addition of a program to provide prescription safety glasses to those employees who are required to wear eye protection on the job. Ms. Gross noted that the SMART union employees who operate the Authority's Suburban Division systems fall under a separate collective bargaining agreement that expires in 2022. She recommended that the Employee Manual changes be reviewed with SMART and a side letter agreement developed to incorporate these changes into the SMART contract. These changes are being recommended to provide more consistent application of policies and benefits to all employees.

Ms. Gross explained that the contract before the Board is in final draft format and is being reviewed by the SEIU union representatives for completeness. No substantive changes are expected. The union membership will be voting on the contract as well, and the new contract will not go into effect until both the Authority and union have approved it. The union's ratification vote is expected to be taken by January 15, 2021.

Solicitor Mike Gaul recommended that the proposed Collective Bargaining Agreement between the Authority and SEIU be approved in the substantial form as presented, with any minor revisions as may be approved by the Chief Executive Officer in consultation with the Solicitor. He also recommended the Employee Manual changes be approved in the substantial form presented, with any minor revisions as may be approved by the Chief Executive Officer in consultation with the Solicitor.

On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved the new Collective Bargaining Agreement with SEIU for the years 2021 through 2024 in the substantial form presented, with such minor revisions, if any, as approved by the Chief Executive Officer in consultation with the Authority Solicitor (9-0).

On a motion by Norma Cusick, seconded by Scott Bieber, the Board approved the proposed changes to the Employee Manual in the substantial form presented, with such minor revisions, if any, as approved by the Chief Executive Officer in consultation with the Authority Solicitor (9-0).

### **MONTHLY PROJECT UPDATES / INFORMATION ITEMS**

Liesel Gross highlighted items for the January 25, 2021 meeting, including a staff proposal for the Customer Relief Fund. Richard Bohner commented that the Mayor of Allentown recently stated in the newspaper that the City will be receiving \$400,000.00 annually from the Authority due to the settlement of the lease dispute in 2020. He suggested the Authority request that some of this money be offered to assist with the elimination of customer overdue bills. Liesel Gross said that the Authority can discuss this with the City Compliance Office.

Jeff Morgan asked if the Allentown Division Water Main Replacement program will be looked at differently due to the recent main breaks that occurred on 17<sup>th</sup> Street and most recently on Devonshire Road. Liesel Gross said the Authority is waiting for a final report from Gannett Fleming regarding pipe condition assessment undertaken as a result of the main break on 17<sup>th</sup> Street, and that the results can be incorporated into the prioritization program for future main replacements. Chuck Volk added that, in the meantime, the 2021 main replacement program is moving forward and has been approved by the City.

### **STAFF COMMENTS**

Liesel Gross commented on the main break on Devonshire Road that occurred on December 27, 2020. The event was significant, causing a boil advisory for the south side of Allentown and significant property and public infrastructure damage. A retroactive emergency declaration will be requested at the next meeting. The emergency response was quite challenging due to the size of the main, the number of valves that needed to be turned to isolate the leak, and the fact that a significant number of employees were on a quarantine order due to exposure to the COVID-19 virus. Ms. Gross offered recognition to John Parsons, Susan Sampson, Andrew Moore, Mark Bowen, and the D&C Department under the leadership of Jason Gruber and his three supervisors, as well as many others who participated in the response during the holiday season. Chairman Nagle asked if the staff will be reviewing the safety protocols used during the emergency response. Ms. Gross stated that an internal meeting is scheduled for the following week to discuss the emergency responses, lessons learned, and safety will be part of that discussion.

Jeff Morgan asked what type of pipe was involved in the main break. John Parsons replied that the pipe was cast iron installed in 1936 and was not the same as the pipe on 17<sup>th</sup> Street that broke earlier in the year.

### **SOLICITOR'S COMMENTS**

Solicitor Mike Gaul asked about the appointment or re-appointment of members to the Board for the year 2021. Liesel Gross stated that she will reach out to the Lehigh County Executive regarding reappointments. Chairman Nagle noted the Board reorganization meeting typically takes place in February as well and asked Norma Cusick to serve as the Nominating Committee to poll the Board members for their interest in serving in various positions on the Board. Ms. Cusick noted that due to the pandemic, some boards she is familiar with are maintaining their current Board officers in order to ensure continuity during the emergency. Richard Bohner offered to remain as Secretary.

### **PUBLIC COMMENTS / OTHER COMMENTS**

Jennifer McKenna, City of Allentown Office of Compliance, noted that the Authority's response to the main break on Devonshire Road was excellent, especially in light of the holiday schedule and the impact of the pandemic on the Authority's workforce. She also asked if the Customer Relief Fund will be extended to the Suburban ratepayers as well. Liesel Gross replied that the proposed Customer Relief Fund would be available to all customers.

### **EXECUTIVE SESSION**

Chairman Nagle announced that an Executive Session will be held after the regular meeting to discuss matters of potential litigation.

### **ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 1:01 p.m.

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Richard Bohner  
Secretary



**LEHIGH COUNTY AUTHORITY**

1053 SPRUCE ROAD \* P.O. BOX 3348 \* ALLENTOWN, PA 18106-0348  
610-398-2503 \* FAX 610-398-8413 \* [www.lehighcountyauthority.org](http://www.lehighcountyauthority.org)  
email: [service@lehighcountyauthority.org](mailto:service@lehighcountyauthority.org)

## **MEMORANDUM**

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**TO:** LCA Board of Directors  
**FROM:** Liesel Gross, CEO  
**DATE:** January 18, 2021  
**RE:** LCA Customer Hardship Fund

**ATTACHED:** Resolution 01-2021-01 Authorizing LCA's Customer Hardship Fund (and exhibits)

### **Overview:**

Since March 2020, utilities across the nation have faced significant challenges brought on by the global COVID-19 pandemic. First, the abrupt shift in water usage patterns brought on by sweeping economic shut-downs was felt in the form of declining commercial water sales. Next, the ongoing impact of these business shutdowns has been felt in the form of customers being unable to pay their utility bills. As part of the response to the situation, water utilities everywhere, including Lehigh County Authority (LCA), prioritized their public health mission and have continued serving non-paying customers.

As the economy slowly begins to recover, utilities like LCA are beginning to reinstate collections programs to encourage customers to pay their water and sewer bills. This includes resuming penalties and service terminations for non-paying customers. Still, we recognize the hardships many of our customers are facing, and the staff sought to develop a program to help ease the burden for those customers who are most severely harmed economically.

In the Resolution and attached exhibits that accompany this memo, the LCA Board of Directors will find details of a proposed Customer Hardship Fund that would provide small customer assistance grants to eligible customers. The development of this program follows more than a year's worth of research and discussions with agencies that support low-income populations and other utilities that already provide similar support to their customers. LCA staff are recommending approval of the LCA Customer Hardship Fund as a means to supporting our community as we all work together to recover from the effects of the pandemic.

Importantly, the proposed Customer Hardship Fund serves a larger purpose: preservation of service for all LCA customers. Establishment of the Fund is expected to result in one or more of the following benefits:

- i. Retention of customers on the system
- ii. Reduced cost of utility uncollectibles
- iii. Improved bill payment ratios
- iv. Reduced foreclosure, condemnation, unoccupancy and abandonment of property
- v. Stable level of affordability for low-income households
- vi. Equitable payment / distribution of infrastructure costs
- vii. Continued provision of life-sustaining water and sewer services to customers in need

*Every drop matters. Every customer counts.*



### **Customer Hardship Fund Concepts:**

In a nutshell, the proposed LCA Customer Hardship Fund is a simple tool utilizing available funds to support customers who need assistance the most. The following concepts establish the framework for LCA's recommended program:

**Appropriate Funding Source** – The recommended funding of \$500,000 is available to LCA primarily as a result of the pandemic. In September 2020, LCA took advantage of the pandemic-driven, near-historic low interest rates to favorably refinance a portion of our Lease bonds.

**Separation of Funds** – While the initial funding would be derived from LCA's Allentown Division debt service savings, any funds distributed to Suburban Division customers will be reimbursed to the Allentown Division.

**Targeting the Greatest Need** – While the appropriate mechanisms will be put in place to address the necessary Separation of Funds noted above, by far the greatest need for customer support is within our Allentown Division. Of particular note is the widely disparate collections experience between LCA's Allentown and Suburban customer bases. In our Suburban Division, past-due receivables have risen by approximately \$81,000 (or 29 percent) since March 2020. Conversely, in our Allentown Division, past-due receivables have risen by approximately \$931,000 (or 124 percent) during this same time period. Therefore, we expect the vast majority of the funds to be distributed to our Allentown Division customers.

**Keep it Local** – While LCA does not have internal expertise or systems in place to properly evaluate or protect customers' private tax records and income data to determine eligibility, many community-based organizations (CBOs) are already providing similar services to citizens in our service area every day. LCA's program administrator will develop a network of these local CBOs so customers can visit the local organization that best meets their needs and apply for LCA assistance along with other forms of assistance (such as LIHEAP and food assistance) at the same time.

**Keep it Simple** – A Customer Hardship Fund will be relatively simple to administer through the use of a third-party administrator and established eligibility guidelines. The process includes:

1. Establishing customer eligibility guidelines;
2. Pre-funding the program with LCA funding sources;
3. Directing customers to an application procedure administered by local CBOs; and
4. Funds distributed back to LCA on behalf of the customers who are determined to be eligible for assistance grants through the program.

### **Customer Eligibility Guidelines:**

A recommended set of program guidelines is attached to Resolution 01-2021-01. They are designed to ensure customers who need support the most will receive it, while also encouraging customers to participate in their own return to good standing with LCA. Highlights of the guidelines:

- Maximum customer assistance grant amount will be \$300 or the amount needed to avoid service termination at the property, whichever is less. (Note, the average past-due LCA water/sewer bill is approximately \$400)
- In order to be eligible for a grant, the customer must have made a “sincere effort” to pay some portion of their bill, which is a minimum of \$100 toward their LCA bill within the past two months.
- Customers must be at or below 200 percent of Federal Poverty Income Guidelines to qualify for an assistance grant.
- Customers may receive an assistance grant through this program no more than once per year.

These guidelines are a starting point, and LCA may need to adjust the parameters moving forward in order to reach customers who truly need the support.

*Note: An important goal of this program is to reduce the number of customers that face service termination due to non-payment of their utility bill. These program guidelines may require some adjustment after three months or so of experience, since this is the first time LCA has offered a program like this.*

### **Third-Party Administrator – Dollar Energy Fund:**

LCA is recommending contracting with a third-party program administrator for several important reasons. Most importantly is the need for a neutral and secure process for screening customer income data to determine eligibility. In addition, having a 501(c)3 organization administering the program allows us to maintain the option for charitable donations being offered to sustain the program beyond LCA’s initial block of funding. Finally, other organizations that specialize in delivering services to low-income households are in a stronger position to successfully implement LCA’s Customer Hardship Fund.

Over the past several months, LCA reviewed options for contracting with a third-party administrator and discussed the program with several local, state and private agencies. The staff recommendation following this investigation is to contract with Dollar Energy Fund. Key benefits that set Dollar Energy Fund apart from other organizations we spoke with include:

- Ability to network with as many local CBOs that may be needed to properly serve LCA’s customer base
- Additional support provided via a 175-seat customer call center
- Excellent technology support, including real-time web-based platform, which allows LCA, Dollar Energy Fund and the local CBOs to track customer application status and report on fund performance
- Non-profit, 501(c)3 organization focused solely on utility customer assistance program (since 1975)
- Excellent references from a variety of very large utilities including Pa. American Water, Pittsburgh Water & Sewer Authority and others

- Long history of successful fundraising efforts to support utilities that wish to extend the reach of their customer assistance programs
- Flexibility to administer different types of programs, if additional features are added or a different approach is required

Representatives from Dollar Energy Fund will be available at the January 25, 2021 Board meeting to present their organization's details and answer questions.

**Summary:**

Over the past several months, LCA has discussed the need to provide support to customers who are experiencing economic hardship as a result of the pandemic. LCA has faced significant financial challenges too, primarily as a result of customers' inability to pay their utility bills. The recommended approach discussed in this memo is a way to provide support both to LCA and our customers at the same time. The proposed Customer Hardship Fund will provide small customer assistance grants to customers who truly need it and allow LCA to move forward with our normal collections procedures. We expect this will result in modest financial recovery as we begin to improve our collections performance, and at the same time provide much-needed support for our low-income customers.

To move forward, Board approval of Resolution 01-2021-01 will be requested at the January 25, 2021 meeting. Thereafter, if the program is approved, LCA will work with Dollar Energy Fund to develop the implementation details of the program and begin communicating with customers about the availability of customer assistance for their water/sewer bills. The program will roll out in March or April 2021, pending preparation of an implementation plan. Water service terminations will begin at the same time.

# RESOLUTION No. 01-2021-01

(Duly adopted 25 January 2021)

***A RESOLUTION ESTABLISHING THE LEHIGH COUNTY AUTHORITY CUSTOMER  
HARDSHIP FUND; ESTABLISHING A BUDGET FOR THE HARDSHIP FUND;  
AUTHORIZING THE APPROPRIATION OF AUTHORITY FUNDS TO THE  
HARDSHIP FUND; ESTABLISHING INITIAL CRITERIA FOR CUSTOMER  
ELIGIBILITY TO RECEIVE ASSISTANCE THROUGH THE HARDSHIP FUND;  
AUTHORIZING THE USE OF A THIRD PARTY ADMINISTRATOR FOR  
IMPLEMENTATION OF THE HARDSHIP FUND; APPROVING A SERVICE  
CONTRACT FOR ADMINISTRATION OF THE HARDSHIP FUND, AND PROVIDING  
FOR OTHER MISCELLANEOUS MATTERS.***

WHEREAS, Lehigh County Authority ("Authority") is a Pennsylvania municipal authority incorporated by the County of Lehigh in accordance with the Municipality Authorities Act (the "Act") to provide, among other services, wastewater and water services;

WHEREAS, the Authority owns and/or operates water and wastewater systems throughout the Lehigh Valley of Pennsylvania, which systems are divided between its City of Allentown and Suburban Divisions;

WHEREAS, pursuant to § 5610 of the Act, the Authority Board shall have full authority to manage the properties and business of the Authority and to prescribe, amend and repeal bylaws, rules and regulations governing the manner in which Authority's business may be conducted, and the Authority's powers may be exercised and embodied;

WHEREAS, the Authority Board finds, based on Authority financial reporting, that a significant portion of the Authority's customers have been adversely affected by the COVID-19 pandemic, and are experiencing financial hardship in the payment of Authority water and wastewater utility bills, and are expected to continue experiencing such hardship for a period of time into the future;

WHEREAS, the Authority Board desires to establish a Customer Hardship Fund to assist low-income customers who are delinquent on their water and sewer utility charges during the period of the COVID-19 pandemic, with additional assistance provided to low-income customers thereafter so long as such funds remain available;

WHEREAS, the Authority Board finds that a Customer Hardship Fund would be beneficial to the entire Authority system, for one or more of the following reasons, which will assist in the preservation of service for all customers:

- i. Retention of customers on the system
- ii. Reduced cost of utility uncollectibles
- iii. Improved bill payment ratios
- iv. Reduced foreclosure, condemnation, unoccupancy and abandonment of property
- v. Stable level of affordability for low-income households

- vi. Equitable payment / distribution of infrastructure costs
- vii. Continued provision of life-sustaining water and sewer services to customers in need

WHEREAS, while some customers have experienced financial hardship as a result of COVID-19 pandemic, the Authority has and/or will received reduced borrowing costs as a result of the economic consequences of the pandemic; and

WHEREAS, the Authority Board finds that the use of an experienced, professional non-profit third-party administrator to manage and administer the Fund, in accordance with the Authority's guidelines, would be the most effective manner in which to implement the Fund.

NOW THEREFORE, the Lehigh County Authority Board, pursuant to powers invested in it by the Pennsylvania Municipality Authorities Act, as amended, hereby resolves that:

1. The Lehigh County Customer Hardship Fund (the "Fund") is hereby established to assist low-income customers who are delinquent on their Authority water and sewer utility charges, subject to eligibility requirements pertaining to participation in the program. The Fund shall remain in effect until terminated by further Board Resolution, or the exhaustion of funding authorized by this Resolution. Re-authorization of the Program on an annual basis shall not be required so long as the funding authorized by the Resolution has not been exhausted; however, authorization of additional funding to replenish the Fund will require Board approval. The establishment of the Fund shall not constitute an entitlement for any customer to receive assistance from the Fund.

2. A budget of \$500,000.00 is established for the Fund, inclusive of both financial assistance provided to customers and expenses required to administer the program.

3. The Board hereby authorizes the appropriation of \$500,000.00 of Authority monies to the Fund. The appropriated money shall come from the Authority's City of Allentown and Suburban Divisions in proportion to the customers of those Divisions who participated in the Program, as measured by the amount of financial assistance provided.

4. The initial criteria for customer eligibility to participate in the Fund is set forth on Exhibit "A" hereto. The Chief Executive Officer, in consultation with the Chief Financial Officer, is authorized to modify the eligibility criteria after three months of Fund operation, or any time thereafter so long as the Fund remains in force, in the event that the Chief Executive Officer finds that the initial eligibility criteria does not meet the needs of customers the Authority intends to assist through this program.

5. The Board authorizes the use of a third-party administrator for implementation of the Fund, including, without limitation, processing of customer grant assistance applications, customer eligibility determination, and custody and distribution of Authority funds, provided that all funds for assistance are distributed solely to the Authority, as assistance to an eligible customer.

6. The Board approves a Service Contract with Dollar Energy Fund for administration of the Program in the substantial form attached hereto as Exhibit "B", with such additions and revisions as deemed appropriate by the Chief Executive Officer, in consultation with the Chief

Financial Officer and the Authority Solicitor. The Board approves the compensation to be paid to Dollar Energy, and the participating Community Based Organizations, as provided in the Agreement. Service Contracts with Dollar Energy Fund related to future Program years, if any, shall not require further Board approval, provided overall program expenses are within the approved budget established for the Fund.

7 . The Board approves the disbursement of \$500,000.00 to Dollar Energy Fund, for deposit in the Authority's Fund.

8 . The Board's officers, and the Authority's Chief Executive Officer, the Chief Financial Officer and Solicitor, individually and collectively, are hereby authorized, directed and empowered on behalf of the Authority to execute any and all papers, documents, agreements, deposit account agreements, and to do or cause to be done any and all acts and things necessary or proper for the carrying out of the provisions of this Resolution.

9 . All resolutions or parts of resolutions inconsistent herewith be and the same hereby are rescinded, canceled and annulled.

10 . This Resolution shall take effect immediately.

[Remainder of page intentionally left blank]

On motion of \_\_\_\_\_, seconded by \_\_\_\_\_, this  
Resolution was adopted the \_\_\_\_\_ day of \_\_\_\_\_ 2021.

Tally of Votes:                      Yeas \_\_\_\_\_    Nays \_\_\_\_\_



I, Michael A. Gaul, Esquire, of King, Spry, Herman Freund & Faul, LLC, Solicitor of  
Lehigh County Authority, do hereby certify that the foregoing is a true, correct and complete  
copy of a resolution which was duly adopted by the Authority at a public meeting of the  
Authority held on \_\_\_\_\_, after notice thereof had been duly given as required by  
law, at which meeting a quorum was present and voting and which resolution No. \_\_\_\_\_ is  
now in full force and effect on the date of this certification.

_____ Michael A. Gaul, Esquire King, Spry, Herman Freund & Faul, LLC Lehigh County Authority Solicitor	_____ Date
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Attest:

_____ Lisa J. Miller Executive Administrative Support Specialist	_____ Date
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# Hardship Program Guidelines Exhibit A | 2021

Lehigh County Authority's Hardship Program guidelines for program year 2021 and outlined below and will be in force from the date of inception until December 31, 2021. However, at any time during the program year, these guidelines may be reviewed by the Authority or Dollar Energy and adjusted to improve program performance to meet the Authority's goals of providing assistance to low-income customers.

## Income Level

Please select the maximum gross household income allowable for applicants. The income level is based on the Federal Poverty Income Guidelines (FPIG).

1. 150% FPIG
2. 175% FPIG

**3. 200% FPIG – the Authority's selection**

4. 250% FPIG
5. Other \_\_\_\_\_

The 2020 Federal Poverty Income Guidelines will be in effect until February 1, 2021. The 2021 FPIG amounts will take effect on February 1, 2021 and will remain in effect for the remainder of the program year.

## Low Funding Threshold

The low funding threshold will determine when your company will only accept applications for customers whose service is off. This threshold can be set at a percentage of the starting balance for your utility or at a specific dollar amount.

The low funding threshold may be set to \$0.00 if you do not want to limit eligibility to customers whose service is off.

1. Percentage of funds \_\_\_\_\_  
Or

2. Specific dollar amount **\$50,000 – the Authority's low-funding threshold** \_\_\_\_\_



# Hardship Program Guidelines Exhibit A | 2021

## Service Status

Please choose the service status setting for your company for each month of the program year.

The service status may be tailored to accommodate seasonal requirements that apply to your company or may be set to remain at the same service status for the entire program year.

The service status settings are Off Only, Off or In Threat of Termination, Open (customers do not need to be off or have an active termination notice) or Closed.

January	A. Off Only	<b>B. Off/Term</b>	C. Open	D. Closed
February	A. Off Only	<b>B. Off/Term</b>	C. Open	D. Closed
March	A. Off Only	<b>B. Off/Term</b>	C. Open	D. Closed
April	A. Off Only	<b>B. Off/Term</b>	C. Open	D. Closed
May	A. Off Only	<b>B. Off/Term</b>	C. Open	D. Closed
June	A. Off Only	<b>B. Off/Term</b>	C. Open	D. Closed
July	A. Off Only	<b>B. Off/Term</b>	C. Open	D. Closed
August	A. Off Only	<b>B. Off/Term</b>	C. Open	D. Closed
September	A. Off Only	<b>B. Off/Term</b>	C. Open	D. Closed
October	A. Off Only	<b>B. Off/Term</b>	C. Open	D. Closed
November	A. Off Only	<b>B. Off/Term</b>	C. Open	D. Closed
December	A. Off Only	<b>B. Off/Term</b>	C. Open	D. Closed

**The Authority's selection is that customers must be in service termination status or be under threat of termination in order to be eligible to apply for assistance for any month of the year.**

## Customer Assistance Program Eligibility

Many utility companies offer a customer assistance program to their low-income customers. This program can provide the customer with a rate discount, a fixed monthly credit or a fixed monthly payment that may be less than the amount of gas, water or electric that the household used.

If you have a Customer Assistance Program, you have the option to allow enrolled customers to receive a hardship grant.

My company has a program to assist low-income customers on a monthly basis.

1. Yes

**2. No – the Authority does not currently have an additional customer assistance program.**

**If you answered yes, you must make a selection for the next requirement.**

Customers enrolled in the CAP are eligible to apply for a hardship grant.

1. Yes

2. No

# Hardship Program Guidelines Exhibit A | 2021

If you permit customers enrolled into a customer assistance program to apply for a grant, you must choose whether you want someone at your company to review the grant before Dollar Energy Fund completes the final processing of the application.

We want to review grants for customers enrolled in our customer assistance program.

1. Yes
2. No

## Maximum Grant Amount

The maximum grant amount can be tailored to any dollar amount. You should take into account the average monthly bill for your customers as well as the total dollars available for your customers during the program year.

1. Dollar amount of maximum grant:

**Lesser of \$300 or the customer's outstanding balance minus sincere effort payment**

## Grant Frequency

This will determine when a customer becomes eligible to apply for another grant.

Customers may apply for a hardship grant:

1. **Once per program year beginning January 1, 2021 – the Authority's selection**
2. Once every 12 months
3. Once every 6 months
4. Once every \_\_\_\_\_ months

## Sincere Effort of Payment

Dollar Energy Fund believes that customers need to make a sincere effort to pay their utility bills on a regular basis. In keeping with this philosophy, applicants should be required to make a payment before applying for a grant. Your company will determine the amount of the sincere effort of payment that is required as well as the timeframe for that amount.

You may set the sincere effort of payment to \$0.00.

1. **Sincere Effort of Payment amount** \$100
2. **Sincere effort of payment time frame** Last 2 months

# Hardship Program Guidelines Exhibit A | 2021

You may reduce the sincere effort of payment for senior citizens 62 years of age or older.

Reduce the sincere effort of payment for applicants 62 years of age or older

1. Yes

2. **No – the Authority’s selection**

If you have chosen to reduce the sincere effort of payment for applicants 62 years of age or older, you must choose the amount of their payment

1. Senior sincere effort of payment amount \_\_\_\_\_

## Minimum Balance Requirement

You determine the balance that a household must owe to be eligible to apply for a grant. You may want to take into consideration the average monthly bill for your company as well as the minimum amount that would generate a termination notice to your customers.

You may set the minimum balance requirement to \$0.00.

1. **Applicants must have a balance on their utility bill of at least \$200**

You can also choose to allow seniors, 62 years of age or older, to have a lower balance to be eligible to apply.

Reduce the balance requirement for seniors.

1. Yes

2. **No – the Authority’s selection**

If you have chosen to reduce the balance requirement for applicants 62 years of age or older, you must choose the minimum balance amount.

1. Seniors must have a balance on their utility bill of at least \_\_\_\_\_

## Additional Requirements

**Tailoring options are not available for these requirements.**

- In order to be eligible to apply, the ratepayer must be an adult currently living in the household.
- Applications for assistance will not be considered if the bill is in the landlord’s name or the name of an individual who does not live at the service address. This applies even if the person living at the address is responsible for paying the bill. The bill must be changed to the name of an adult living at the service address for the household to be eligible.

- The account must be residential and for a single family home or apartment. Apartments with a shared utility service are not eligible to apply.
- Accounts that are commercial, industrial or cooking only are not eligible to apply for assistance.
- If the Federal LIHEAP and Crisis programs are open **and** a customer is eligible, they must apply for these programs before applying for a Dollar Energy Fund grant. If the customer is not eligible, or LIHEAP and Crisis are not open, the customer does not need to apply prior to completing an application for assistance from Dollar Energy Fund.
- Dollar Energy Fund grants cannot be used to cover security deposits or reconnection fees.
- If a customer's utility service is off or in threat of termination when they apply and the maximum grant amount will not restore service or stop the termination, the application will be denied. The amount needed to restore service or stop a termination is determined by utility review.
- Notification will be sent to the customer advising them that their application was denied and that an additional payment is required in order to be considered for assistance.
- Applications may be reconsidered if the additional payment is made and funds are still available for that utility company. The applicant must meet all other eligibility requirements at the time that the application is reconsidered.

## Exhibit B

Box 42329  
Pittsburgh, PA 15203



Lehigh County Authority  
1053 Spruce Road  
Allentown, PA 18106  
Authority



21

## Table of Contents

General Information .....	5
Lehigh County Authority's Hardship Program .....	6
Program Administrator's Role .....	7
Application Process .....	8
Program Guidelines.....	8
Application and Data Management .....	8
Reporting .....	8
Public Education and Outreach.....	9
Community Based Organizations Network.....	9
Authority Applications Submitted Online & Call Center Support.....	9
Dollar Energy will provide customer access to a web application for customers to submit application for assistance grants electronically for those customers who do not wish to apply via a Community Based Organization. ....	9
Electronic Funds Transfer of Grants to the Authority.....	9
Fundraising Efforts .....	10
Allocation of Funds Raised by Dollar Energy .....	10
Program Year Financial Summary Worksheet .....	10
The Authority's Role.....	11
Collection of Customer Donations .....	11
The Add a Buck Program.....	11
On-Line Bill Payment Initiative.....	11
Authority Fundraising .....	11
Administrative Fees & Application Fees .....	11
Authority Funding Questionnaire, Program Guidelines, and Financial Worksheet.....	12
Authority Funding Questionnaire .....	12
Program Guidelines.....	13
Indemnity.....	15
Rights in Data; Copyrights; Disclosure.....	15
Dissemination of Information.....	15
Confidentiality.....	15
Anti-Discrimination.....	16



Termination.....	16
Subcontracted Services.....	16
Independent Contractor.....	16
Taxes.....	16
Assignment.....	17
Notices.....	17
Binding Agreement; Successors.....	17
Governing Law, Disputes and Controversies.....	17
Waiver.....	17
Severability.....	17
Entire Agreement; Amendment.....	18
Audit.....	18
Counterparts; Facsimile.....	18
Survival.....	18
The confidentiality provisions of the Agreement shall survive the term of this agreement and exist into perpetuity .....	18
Authority Funding Disclosure.....	18
<b>Error! Hyperlink reference not valid.</b> General Information.....	<b>Error! Bookmark not defined.</b> 3
<b>Error! Hyperlink reference not valid.</b> Program Administrator’s Role.....	<b>Error! Bookmark not defined.</b> 4
<b>Error! Hyperlink reference not valid.</b> Application Process.....	<b>Error! Bookmark not defined.</b> 6
<b>Error! Hyperlink reference not valid.</b> Program Guidelines.....	<b>Error! Bookmark not defined.</b> 6
<b>Error! Hyperlink reference not valid.</b> Application and Data Management.....	<b>Error! Bookmark not defined.</b> 6
<b>Error! Hyperlink reference not valid.</b> Reporting.....	<b>Error! Bookmark not defined.</b> 6
<b>Error! Hyperlink reference not valid.</b> Public Education and Outreach.....	<b>Error! Bookmark not defined.</b> 7
<b>Error! Hyperlink reference not valid.</b> Community-Based Organizations Network ...	<b>Error! Bookmark not defined.</b> 7
<b>Error! Hyperlink reference not valid.</b> Electronic Funds Transfer of Grants to the Authority.....	<b>Error! Bookmark not defined.</b> 7
<b>Error! Hyperlink reference not valid.</b> Fundraising Efforts .....	<b>Error! Bookmark not defined.</b> 8
<b>Error! Hyperlink reference not valid.</b> Allocation of Funds Raised by Dollar Energy.....	<b>Error! Bookmark not defined.</b> 9
Program Year Financial Summary Worksheet.....	6



<u>Error! Hyperlink reference not valid.</u> Authority's Role.....	<u>Error! Bookmark not defined.</u> 10
<u>Error! Hyperlink reference not valid.</u> Collection of Customer Donations .....	<u>Error! Bookmark not defined.</u> 10
<u>Error! Hyperlink reference not valid.</u> The Add a Buck Program .....	<u>Error! Bookmark not defined.</u> 10
<u>Error! Hyperlink reference not valid.</u> On-Line Bill Payment Initiative...	<u>Error! Bookmark not defined.</u> 10
<u>Error! Hyperlink reference not valid.</u> Authority Fundraising.....	<u>Error! Bookmark not defined.</u> 10
<u>Error! Hyperlink reference not valid.</u> Operating Costs .....	<u>Error! Bookmark not defined.</u> 10,8
<u>Error! Hyperlink reference not valid.</u> Authority Funding Questionnaire, Program Guidelines, and Financial Worksheet .....	<u>Error! Bookmark not defined.</u> 12, 10
<u>Error! Hyperlink reference not valid.</u> Authority Funding Disclosure .....	11
Exhibit A – 2020-2021 Program Guidelines.....	Attachment







## General Information

This Letter of Agreement (the Agreement) made between the **Dollar Energy Fund, Inc.** (Dollar Energy) and **Lehigh County Authority** (the Authority) sets forth the operating parameters of the Authority's Hardship Program (Hardship Program) for the 2021 program year (January 1, 2021, to December 31, 2021), to be administered by Dollar Energy.

As described below, both parties will abide by the parameters described, intending to be legally bound, and will only deviate from these parameters by mutual agreement confirmed in writing. The written communication should be directed to the individual whose signature appears on this document and should be sent to the following address:

**If to Authority:**

Liesel Gross  
Chief Executive Officer  
Lehigh County Authority  
1053 Spruce Road  
Allentown, PA 18106

Authority

**If to Dollar Energy Fund:**

Dan Caponi, CFO  
Dollar Energy Fund, Inc.  
P.O. Box 42329  
Pittsburgh, PA 15203



## Lehigh County Authority's Hardship Program

The Authority is a Pennsylvania municipal authority incorporated by the County of Lehigh in accordance with the Pennsylvania Municipality Authorities Act to provide, among other services, wastewater and water services. The Authority owns and/or operates water and wastewater systems throughout the Lehigh Valley of Pennsylvania.

The Authority believes, based on its financial reporting, that a significant portion of its low-income customers have been adversely affected by the COVID-19 pandemic. The Authority desires to establish a Hardship Program to assist low-income customers who are delinquent on their water and sewer utility charges during the period of the COVID-19 pandemic, with additional assistance provided to low-income customers thereafter so long as such funds remain available.

The Authority will contribute \$500,000 to its Hardship Program to pay the costs of assistance grants and administration expenses. The Authority desires to use an experienced, professional non-profit third-party administrator to manage and administer the Program, in accordance with the Authority's guidelines. The Program shall continue to exist while such funds are available, unless terminated earlier in accordance with this Agreement. The Authority's contributed funds shall be placed in the custody of Dollar Energy, in trust, solely for purposes of implementation of the Program, until distributed to the Authority's eligible customers, or the earlier termination of the Program by the Authority, in which case, all remaining funds shall be returned to the Authority, less expenses due and owing to Dollar Energy.

Program funds shall only be used for customer assistance in paying the Authority's water and sewer utility charges, and not other utility charges.

Dollar Energy shall deposit and maintain the Authority's funds and interest earned thereon in a separate bank account identified for this purpose (the "Segregated Account") and held by an Eligible Bank (as defined below). The Segregated Account shall not be used for any other purpose.

As used herein, "Eligible Bank" means either a U.S. commercial bank or U.S. branch of a foreign bank, acceptable to the Authority in its sole discretion and possessing a Credit Rating of at least (a) "A-, with a stable designation" from Standard and Poor's (S&P) and "A3, with a stable designation" from Moody's, if such bank is rated by both S&P and Moody's; or (b) "A-, with a stable designation" from S&P or "A3, with a stable designation" from Moody's, if such bank is rated by either S&P or Moody's, but not both, even if such bank was rated by both S&P and Moody's as of the date of establishing the bank account but ceases to be rated by one but not both of those ratings agencies. "Credit Rating" means (a) the rating then assigned to a bank's unsecured senior long-term debt obligations (not supported by third party credit enhancements), or (b) if the bank does not have a rating for its unsecured senior long-term debt obligations, then the rating assigned as an issuer rating by S&P and/or Moody's. If the bank is rated by both S&P and Moody's and such ratings are not equivalent, the lower of the two ratings shall determine the Credit Rating. If the entity is rated by either S&P or Moody's, but not both, then the available rating shall determine the Credit Rating.



Dollar Energy will require the Eligible Bank which holds the segregated account for the Authority funds to provide a mechanism for a personnel member from the Authority with electronic access to view all deposits into and withdrawals from the Segregated Account. Authority personnel will not have authorization or access to view any other Dollar Energy accounts.

Dollar Energy acknowledges and agrees that all Authority funds are restricted to the charitable purpose of assisting low-income persons to pay their Authority utility bills or other uses as determined by the Authority, and Dollar Energy covenants that it shall not commingle Authority funds with any other funds or assets of Dollar Energy. Dollar Energy agrees to deposit all idle Authority funds in either FDIC-insured accounts, AAA-rated Treasury or U.S. Government money market funds or similar investments mutually agreed upon by both Dollar Energy Fund and the Authority.

The term of the Agreement shall be the 2021 program year, unless earlier terminated in accordance with this Agreement. Should funds remain available in the Authority's fund at the conclusion of the program year, this agreement shall be extended for an addition program year (or multiple program years) subject to any termination clauses as outlined in this agreement. At any time, the Authority or Dollar Energy may deposit additional funds into the Program in order to extend the reach of the program to additional customers or extend the program for a longer period of time, whether those funds are derived from Authority sources or charitable donations.

## **Program Administrator's Role**

In conjunction with the Authority, Dollar Energy will manage and administer all phases of the Hardship Program in order to provide utility grant assistance to the Authority's customers who meet grant guidelines.

Dollar Energy is responsible for administration of the application process, general guideline development, application and data management, reporting, training, education, and outreach. In addition, Dollar Energy will conduct fundraising efforts to raise additional funds for the Hardship Program in conjunction with any efforts provided by the Authority.

Dollar Energy has provided to the Authority a "Dollar Energy Fund Proposal" dated November 24, 2020, the provisions of which are incorporated herein by reference, except where inconsistent with this Agreement.

## **Standard of Care**

DEF shall perform its services with care, skill, due and reasonable diligence in accordance with practices and procedures accepted in the areas of services anticipated by this Agreement. DEF warrants that it shall use sound and professional principles and practices in accordance with normally accepted industry standards in the performance of the services furnished under this Agreement, and that its performance shall reflect its best professional knowledge, skill and judgment. DEF shall comply with all applicable Federal, state and local laws, ordinances, codes and regulations. If DEF fails to meet applicable professional standards, DEF shall, without additional compensation, correct or revise any errors or deficiencies in the services furnished under this Agreement. DEF shall immediately notify the Authority



of any notice of violation from and/or enforcement action instituted on behalf of any Federal, state and local entity.

## Application Process

Dollar Energy will act as the primary agent for the gathering, processing and approving applications for the Hardship Program.

## Program Guidelines

Dollar Energy has established a basic set of Hardship Program guidelines by which the Authority's customers qualify for assistance. All utility companies are required to select the guideline options that best meet their program needs on an annual basis. The Hardship Program Guidelines selected by the Authority for use during the 2021 program year are highlighted in the attached [Exhibit A](#) document. However, the Authority reserves the right to adjust these guidelines at any time based on the needs of the program, which adjustment shall not be deemed to be a change in this Agreement.

## Application and Data Management

The Authority is granted access to Dollar Energy's *iPartner® Grant Management System* to review information regarding fund balances, application processing, application status, and standard reports. Access to iPartner® is granted only to named users.

It will be the responsibility of Dollar Energy to continue to maintain and upgrade the *iPartner® Grant Management System*. Dollar Energy will also provide and govern system access to all other parties involved in the application process.

Dollar Energy will take all necessary steps to hold non-public customer information and Authority information in strict confidence. No information will be released or disclosed to any third party without the express written consent of the party(ies) involved. Dollar Energy will treat non-public information collected from applicants and the Authority with the highest level of security at its disposal in order to prevent any improper or unauthorized use of the information.

Dollar Energy shall maintain cyber liability insurance, in form satisfactory to the Authority, in an amount not less than \$3 million, and add the Authority as an additional insured under the policy. Dollar Energy shall indemnify and save harmless the Authority from any claims, injuries, loss, damage, or expense (including reasonable attorney fees and litigation expense) resulting or arising from the unauthorized disclosure, use or breach of non-public customer information and Authority information, or third-party access to such information through Dollar Energy's systems. DEF's insurance shall be primary and non-contributory, and any insurance or self- insurance maintained by the Authority shall be excess of DEF's insurance and not contribute with it.

## Reporting

Reports will be available on all application and grant activities through standard reporting procedures. This will be done through the standard set of reports available through the use of the iPartner® system.

The Authority may request reports other than the standard iPartner® reports. Additional fees may be associated with the production of additional reports. Fees for additional reports will be negotiated on a per case basis.



## Public Education and Outreach

Dollar Energy will provide public education about the program through public service announcements, press releases, community speaking engagements, networking, and other methods deemed effective in alerting the public about the availability of the program as well as how the community can contribute to the Hardship Program.

## Community Based Organizations Network

Dollar Energy will recruit, manage and train a network of Community Based Organizations (CBOs) to work directly with customers to receive and process applications for grant assistance. The CBOs will be locally based within the Authority's service area with at least two (2) CBOs located directly within the City of Allentown. Additional CBOs will be recruited as needed to ensure adequate coverage and support for the program. The Authority will refer inquiring customers to the CBOs to process applications, in effect removing the Authority staff from the process of obtaining and reviewing sensitive customer income data.

This CBO training and administration program will entail:

- Quality assurance activities to ensure proper administration of applications. This will include an annual audit of client files and intake procedures.
- Consistent updates on relevant state and federal program and utility programs.
- Annual training and as needed training on program guidelines.
- Annual feedback sessions with CBO representatives to gain insights on program changes and improvements.
- Needs assessments, in conjunction with the Authority, to determine accessibility of the program to customers. When and where necessary, Dollar Energy will recruit, train and manage new CBOs. It is a requirement that at least one CBO provide bilingual (English and Spanish) support for Authority customers seeking assistance.
- Consulting with agencies on problem solving and other related management issues.
- Referral to LIHEAP, Crisis, and other information and referral activities.

## Authority Applications Submitted Online & Call Center Support

Dollar Energy will provide customer access to a web application for customers to submit application for assistance grants electronically for those customers who do not wish to apply via a Community Based Organization.

Dollar Energy shall maintain a fully-staffed call center to provide additional support to CBOs and direct customer inquiries regarding the Program. The customer call center will be available via a toll-free number for customers during \_\_\_\_\_ hours. **Note: additional detail regarding call center to be added after discussion between DEF and Authority.**

## Electronic Funds Transfer of Grants to the Authority

As an integral part of the basic Hardship Program management, Dollar Energy will make available the option to execute Electronic Funds Transfer (EFT) for the accounting of Hardship Program grants and credits to customer accounts. There are two options available to the Authority to enact EFT. (An EFT worksheet will be provided upon request). Any programming to the EFT process outside of the normal scope may result in an extra charge to the Authority.



## Fundraising Efforts

Dollar Energy Fund, Inc. is a 501(c) (3) non-profit organization and is chartered as a charitable organization in all states in which we are conducting fundraising activities. Dollar Energy complies with all regulations and statutes governing non-profit organizations and maintains registrations with all government bodies as required.

At the Authority's request, Dollar Energy will make all due efforts to raise funds for the program through a variety of measures including, but not limited to, the Add a Buck program, special events, direct appeals, grant funding, and membership drives.

## Allocation of Funds Raised by Dollar Energy

Prior to the start of the program year, Dollar Energy projects the amount of money it believes it will be able to raise for the Hardship Program during the program year. A portion of these funds may be added to the pool of grant funds available to the Authority's customers. This decision will be based on a formula using the following factors:

- Customer contributions
- Other Authority funds committed to the Hardship Program
- Operating funds for program administration
- Authority donated facilities, equipment, materials or other forms of support for fundraising activities
- Proceeds from Authority sponsored fundraising events
- Other programs or service contracted between the Authority and Dollar Energy (gross annual receipts)
- Miscellaneous Authority contributions to Dollar Energy

Allocations of Dollar Energy funds are subject to change based on changes in overall Hardship Program funding. Throughout the year, Dollar Energy will make every effort to match all available Authority matching funds, if any.

Notwithstanding any other provision of this Agreement, the Authority is not obligated to undertake any such fundraising activities.

The amount of funding available to the Authority is estimated in the Financial Worksheet on Page \_\_\_\_.

## Program Year Financial Summary Worksheet

At the end of Dollar Energy's program year, a Program Year Financial Summary Worksheet will be provided to the Authority. The Program Year Financial Summary will summarize the Authority's contributions, customer contributions, and Dollar Energy fundraising contributions to the Hardship Program. The Program Year Financial Summary will also summarize grants to the Authority's customers and the related Operating and Community Based Organization (CBO) fees earned by Dollar Energy. Remaining Authority funding for grants from the program year, and any balance due from/to the Authority for Operating Fees and CBO fees, will also be displayed.

If the Authority elects to have remaining Authority contributions, including remaining Operating Fees and Agency Remuneration Fees, rolled over to next year's program, any remaining dollars will be carried

forward to the next program year. If the Authority elects to have remaining contributions, including Operating Fees and Agency Remuneration Fees, returned to the Authority, any remaining dollars will be paid back by Dollar Energy to the Authority via check. If the Authority owes Dollar Energy for any Operating Fees or Agency Remuneration Fees at the end of the program year, Dollar Energy will invoice the Authority for the amount due when sending the Program Year Financial Summary Worksheet. All amounts due to Dollar Energy shall be paid by the Authority within 45 days.

## **The Authority's Role**

### **Collection of Customer Donations**

The Authority may, but is not required to, provide the mechanism for the collection, accounting, and reporting of customer donations garnered through the use of utility bill check-offs or other measures used to collect funds for the Hardship Program. If the Authority elects to provide such mechanism, at least monthly, the Authority will remit to Dollar Energy the entire amount of customer donations gathered from the previous period.

### **The Add a Buck Program**

The Authority may, but is not required to, institute a bill check off system that allows each customer to elect to give at least one dollar per month to Dollar Energy. In order to maintain and recruit new Add a Buck donors, the Authority will provide a minimum of 2 bill inserts or other similar customer communications during the program year promoting Dollar Energy and asking customers to financially support Dollar Energy through the program. Dollar Energy's experience shows these inserts to be most effective when delivered to customers between September and March.

Dollar Energy believes that the support from the Add a Buck donors is the most consistent and reliable source of funding for the program. The Authority is encouraged, but is not required to, assist in these efforts by holding at least one public opportunity to raise additional awareness for the Hardship Program. Dollar Energy will provide resources and technical assistance as needed for these activities.

### **On-Line Bill Payment Initiative**

Customers who receive and pay their utility bills online are more likely to miss Dollar Energy Hardship Program appeals ordinarily mailed with monthly bills. Dollar Energy Fund has created a donor portal available at [www.dollarenergyfund.org](http://www.dollarenergyfund.org). The Authority is encouraged to direct customers to the donor portal.

### **Authority Fundraising**

The Authority is encouraged to raise additional funds for its low-income customers by organizing a fundraising event. Funds raised through these efforts are reserved solely for the grant activities of customers of the Authority.

### **Administrative Fees & Application Fees**

The Authority will provide operating funds to cover the management costs of the Hardship Program. The operating funds are comprised of 2 components, Community Based Organization (CBO) / Application fees (Application Fee), and Operating Funds for administrative oversight of the program (Administrative Fee). In total, the Application and Administrative fees combined are expected to equal approximately 10







percent of all grants issued. Fees may be reviewed annually via the Program Year Financial Summary Worksheet described above.

The Application Fee will be equal to \$9 per application processed by a Community Based Organization or via Dollar Energy's web application. The fee covers the CBOs' expenses for preparing, reviewing and submitting applications to Dollar Energy, and has been proven to be an effective method to engage CBOs and encourage full participation in the program. In cases where the grant application is submitted electronically to Dollar Energy via the web application, the Application Fee covers Dollar Energy's staff time required to review eligibility and communicate directly with customers about their grant application status. Dollar Energy will be responsible for tracking applications received via the CBOs and submitting payment of Application Fees to the CBOs directly from the Authority's fund.

The Administrative Fee will be equal to 8.75 percent of all grants issued to customers and will also be paid directly from the Authority's fund. The Administrative Fee will cover the following expenses and activities of the Hardship Program for the program year:

- |  |                                 |
|--|---------------------------------|
| • Executive oversight                          | • Advertising and promotion     |
| • Accounting                                   | • Audit                         |
| • Human Resource management                    | • Insurance                     |
| • Fundraising and public relations             | • Office supplies and equipment |
| • Access to iPartner®                          | • Postage                       |
| • Technology management                        | • Printing and copying          |
| • Staff supervision                            | • Rent                          |
| • Hardship Program CBO management and training | • Utilities                     |
| • Material production and distribution         | • Information Technology        |
| •  | • Travel                        |
| • Utility training and communications          | • Contracted services           |
|  | • Miscellaneous expenses        |

## Authority Funding Questionnaire, Program Guidelines, and Financial Worksheet

Please complete the Funding Questionnaire, Program Guidelines, and Funding Worksheet (Page \_\_) below. By completing the Funding Questionnaire, Program Guidelines, and Funding Worksheet (Page \_\_), Dollar Energy can manage the Hardship Program in a manner that best fits the Authority's needs and expectations.

### Authority Funding Questionnaire

- 1) Will Authority funding for grants be transferred to Dollar Energy for cash management?

☒ Yes

☐ No

- 2) Does the Authority intend to use Electronic Funds Transfer (EFT) to receive payment for customer grants?

☒ Yes

☐ No







If the Authority has answered yes and EFT has not been used by the Authority in prior years, please provide the name, email, and phone number of the person at your Authority responsible for coordination EFT.

Name: Edward C. Klein, CFO

Email: EdwardKlein@LehighCountyAuthority.org Phone Number: 610-398-2503

- 3) Can Authority contributions that are not matched by customer contributions or Dollar Energy contributions be used unmatched?

☒ Yes

☐ No

- 4) If Authority contributions remain at the end of the fiscal year, the Authority:

☒ Elects to have remaining Authority contributions, including remaining operating fees, rolled over to next year's program, subject to termination provisions outlined in the agreement, which shall apply to the next year's program.

☐ Elects to have remaining Authority contributions, including remaining operating fees, returned to the Authority

## Program Guidelines

- 1) Does the Authority have changes to the proposed program guidelines as outlined in Exhibit A to this Letter of Agreement?

☐ Yes

☐ No

If yes, please make changes directly on Exhibit A and return to Dollar Energy Fund with the signed Letter of Agreement. **Insurance.** Prior to the beginning of any services under this Agreement, DEF shall deliver to the Authority certificates of insurance evidencing the following minimum coverages:

- a. Workers compensation insurance at statutory limits and employer's liability insurance with limits of one million (\$1,000,000.00) dollars. DEF will have attached to its policy an alternate employer endorsement naming the Authority and will provide a waiver of subrogation in favor of the Authority.
- b. Commercial general liability insurance with limits of one million dollars (\$1,000,000.00) each occurrence and two million dollars (\$2,000,000.00) in the aggregate and containing or endorsed to contain the following coverages: contractual liability; broad form property damage; personal advertising injury; an endorsement including the Authority as an additional insured and containing no special limitation on the scope of protection afforded the additional insured; waiver of subrogation to the benefit of all additional



insureds; no explosion, collapse or underground exclusion; and, for any claims related to the Services, provision that DEF's insurance shall be primary and non-contributory and any insurance or self- insurance maintained by the Authority shall be excess of DEF's insurance and not contribute with it.

- c. Automobile liability insurance with limits of one million dollars (\$1,000,000.00) per occurrence. Automobile liability insurance with limits of fifty thousand dollars (\$50,000.00) per occurrence and five hundred thousand dollars (\$500,000.00) in the aggregate for property damage. The policy shall be endorsed to include the Authority as an additional insured and to include waiver of subrogation to the benefit of additional insureds.
- d. Except where stated otherwise in Subsection 9.a above, the policies or coverages required by this Section shall be maintained during the term of this Agreement.
- e. All insurance coverages must be placed with insurance carriers having an  
AM Best rating of A- or equivalent rating.
- f. Each policy required by this Section 9 shall be endorsed to state that coverage shall not be suspended, voided, cancelled, reduced, or limits or certificate holder be deleted as an additional insured except after thirty (30) days' prior written notice, by certified mail, return-receipt requested, has been given to the Authority.
- g. All deductibles under policies required by this Section 9 shall be the responsibility of DEF.
- h. The failure of the Authority to pursue or obtain any certificate of insurance or endorsement or to point out any non-compliance of any certificate of insurance or endorsement shall not constitute a waiver of any of the insurance requirements of this Agreement or relieve DEF of any of its obligations hereunder.
- 1. Self-funded or other non-risk transfer insurance mechanisms are not acceptable to the Authority.
- J. These insurance provisions are intended to be a separate and distinct obligation on the part of DEF. The Authority's acceptance of insurance submitted by DEF does not relieve or decrease in any way the liability of DEF for performance under this Agreement.



## **Indemnity.**

To the fullest extent permitted by law, DEF shall indemnify, defend, and hold harmless the Authority, its officers, agents and employees, from and against claims, damages, losses and expenses for bodily injury, death or physical injury to tangible property, or the loss of use thereof, caused or allegedly caused by or arising from the performance of DEF under this Agreement. To the fullest extent permitted by law, DEF shall indemnify, save and hold harmless, and defend the Authority, its officers, agents and employees from all liens, charges, claims, demands, losses, costs, judgments, liabilities and damages of every kind and nature whatsoever, including, but not limited to, court costs and attorney's fees arising from or based upon any violation by DEF of any applicable laws, regulations, ordinances or codes. The defense and indemnification obligations accepted by DEF shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by DEF, or by DEF's subcontractors or permitted assigns, pursuant to any applicable workers' compensation statute or disability benefit statute or any other employee benefit law, rule or regulation.

## **Rights in Data; Copyrights; Disclosure.**

All Data (defined as written reports, studies, drawings, or other graphic, electronic, chemical or mechanical representations) developed pursuant to this Agreement shall be the property of the Authority and the Authority shall have the full right to use such Data for any official purpose and in whatever manner deemed desirable and appropriate, including making it available to the general public. Such use shall be without any additional payment to or approval by DEF. The Authority shall have unrestricted authority to publish, disclose, distribute and otherwise use, in whole or in part, any Data developed or prepared under this Agreement. However, any reuse of such Data by the Authority on any other project shall be at the sole risk of the Authority. No Data developed or prepared in whole or in part under this Agreement shall be subject to copyright in the United States of America or in any other country. DEF hereby relinquishes or shall cause to be relinquished any and all copyrights and/or privileges to Data developed or prepared under this Agreement without any additional payment to DEF therefor. However, DEF may use copies of DEF's work products prepared pursuant to this Agreement as part of its record of professional activity. DEF shall not include in the Data any copyrighted matter unless DEF obtains the written approval of the Authority.

## **Dissemination of Information.**

DEF agrees to not release any information related to the Services or the performance of Services under this Agreement, nor publish any reports or documents related to the Agreement with the prior written consent of the Authority. DEF agrees to hold all materials and information belonging to the Authority or the Authority's agents in the strictest confidence and not to make use thereof other than for the performance of its contractual obligations, to release it or to disclosure it to any other entity and/or individual. Any information of a restricted nature provided to DEF by the Authority in the course of implementation of this Agreement shall be handled in accordance with the restrictions placed thereon by the Authority. Information or documents given to or generated by DEF in the course of the Agreement shall be considered restricted information and subject to handling and dissemination restrictions as specified herein and/or as specified by the Authority.

## **Confidentiality.**

DEF agrees to not, either during or after performance of the Agreement, except as required in the performance of the Services or with the prior written consent of the Authority, communicate or divulge



to, or use for the benefit of DEF, or any other person, firm, association, or corporation, any confidential and/or proprietary information of the Authority, including but not limited to the deliverables of this Agreement and other data reviewed or developed during the course of the Agreement.

### **Anti-Discrimination.**

DEF shall not discriminate in its employment on the basis of race, color, religion, ancestry, national origin, place of birth, sex, age, disability, non-job related handicap or sexual orientation. DEF shall also comply with the applicable provisions of Title I and Title II of the Americans with Disabilities Act, any amendments thereto and any regulations issued thereunder. DEF shall incorporate in any subcontracts which may be permitted under the terms of this Agreement a requirement that said subcontractors also comply with the provisions of this Section.

### **Termination.**

Either party may terminate this Agreement at any time (i) upon mutual written agreement of the parties; (ii) upon the occurrence of any breach of this Agreement which breach is not cured within thirty (30) days after receipt of written notice thereof; or (iii) if either party is declared bankrupt or insolvent, or makes an assignment for the benefit of its creditors, or if a receiver is appointed or any proceedings are commenced, voluntarily or involuntarily, by or against either party under any bankruptcy or similar law. The Authority shall have the right to terminate this Agreement at any time whether for cause or convenience whenever the Authority determines such termination to be in its own best interest. In such event, the Authority shall pay DEF all billings for services satisfactorily completed through the date of termination, less the sums DEF shall have already been paid on account of the Services performed. In the event of a termination for convenience, DEF shall not be entitled to overhead or lost profits on any Services not performed. Notwithstanding the expiration or termination of this Agreement, the rights and obligations set forth in this Agreement shall continue in full force and effect.

### **Subcontracted Services.**

With the Authority's prior written consent, DEF may contract with a third party to provide certain of the Administration Services in furtherance of this Agreement. Such approval or consent will not relieve DEF of its obligations under this Agreement.

### **Independent Contractor.**

The relationship between the Parties is that of independent contracting parties. Nothing contained in this Agreement or the course of conduct between the parties will be considered to form a partnership, employment relationship, or any other relationship except that of independent contractor. In performance of the services under this Agreement, DEF is an independent contractor with the authority to control and direct the performance of the Services.

### **Taxes.**

DEF shall be solely responsible to pay all applicable federal, state and local taxes and to file all related returns and reports in connection with the performance of Services. DEF acknowledges that the Authority has no obligation to and shall not withhold taxes of any kind or nature with respect to the Services performed by DEF. DEF shall defend, indemnify and hold the Authority harmless to the



extent of any obligation of DEF to pay any taxes, whether income or otherwise, in connection with any payments made to DEF by the Authority.

### **Assignment.**

Neither Party may assign its rights hereunder without the prior written consent of the other.

### **Notices.**

DEF's insurance shall be primary and non-contributory and any insurance or self-insurance maintained by the Authority shall be excess of DEF's insurance and not contribute with it. Any notice required or permitted to be given under this Agreement must be in writing and may be delivered in person, by registered mail, facsimile or by overnight courier addressed to the respective Party at the address set forth in the introduction of this Agreement or such changed address as may be given by a Party to the other by such written notice. Any such notice will be considered to have been given when personally delivered or five (5) business days after the date of mailing or one (1) business day after the date of forwarding if sent by facsimile or overnight courier.

### **Binding Agreement; Successors.**

This Agreement will be binding upon, inure to the benefit of and be enforceable by, the successors and approved assigns of the parties hereto.

### **Governing Law, Disputes and Controversies.**

This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania without regard to any applicable principles of conflicts of laws. Should any dispute or controversy whatsoever arise between DEF and the Authority with respect to the Agreement or services performed by DEF or its subconsultants or permitted assigns pursuant to the Agreement, then the complaining Party shall give the other party thirty (30) days' written notice of the complaining Party's intent to resort to legal action. If DEF chooses to pursue legal action against the Authority, it must commence such legal action within one (1) year of the accrual of any such alleged claim. Any dispute resulting in legal action shall be adjudicated solely and exclusively within the jurisdiction of the Court of Common Pleas of Lehigh County, Pennsylvania.

### **Waiver.**

The failure of either Party to require the performance of any term or obligation of this Agreement, or the waiver by either Party of any breach of this Agreement, shall not prevent any subsequent enforcement of such term or obligation or be deemed a waiver of any subsequent breach.

### **Severability.**

If any provision of this Agreement shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable.



### **Entire Agreement; Amendment.**

This Agreement constitutes the entire agreement between the Parties with respect to its subject matter and supersedes all other agreements, whether oral or written, between the Parties with respect to such subject matter. This Agreement may be amended only by a written agreement executed by each of the Parties hereto.

### **Audit.**

At any time up to three years after the day of final payment, DEF will provide the Authority with access to its records related, in any way, to the Program and/or this Agreement for inspection and audit.

### **Counterparts; Facsimile.**

This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but all of which together shall constitute one and the same instrument. This Agreement may be executed and delivered by facsimile or electronic transmission, and a facsimile or electronic version of this Agreement or of a signature of a Party will be effective as an original.

### **Survival.**

The confidentiality provisions of the Agreement shall survive the term of this agreement and exist into perpetuity

### **Authority Funding Disclosure**

By executing this Letter of Agreement, the Authority is agreeing to provide a certain and definite amount of funding to the Hardship Program. Dollar Energy expects that the Authority will fully honor this agreement.

In the event that the Authority is not able to honor all parts of the agreement or becomes aware that it may not be able to fully meet its original monetary obligation, the Authority will immediately notify Dollar Energy. If the Authority has to reduce funds available to customers and Dollar Energy has expended funds in excess of the reduced amount, the Authority agrees to reimburse Dollar Energy fully for all amounts expended.

By signature below, I accept the terms of the Letter of Agreement, intending to be legally bound.

#### ***Executed on behalf of Authority by:***

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

#### ***Executed on behalf of Dollar Energy by:***

Signed: \_\_\_\_\_ Date: \_\_\_\_\_





Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_





1053 SPRUCE ROAD \* P.O. BOX 3348 \* ALLENTOWN, PA 18106-0348  
610-398-2503 \* FAX 610-398-8413 \* [www.lehighcountyauthority.org](http://www.lehighcountyauthority.org)  
email: [service@lehighcountyauthority.org](mailto:service@lehighcountyauthority.org)

## MEMORANDUM

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**TO:** LCA Board of Directors  
**FROM:** John Parsons, Chief Operating Officer  
**DATE:** January 25, 2021  
**RE:** Emergency Declaration: South Mountain Reservoir Feed Line Break 12/27/2020

On Sunday, December 27, 2020, the Distribution and Collection Department (D&C) was called to a water main break on Devonshire Avenue, just west of the intersection with Mack Boulevard. Upon arrival, it was apparent that a severe break had occurred on the 36" line that feeds South Mountain Reservoir. The line was installed in 1936 when the South Mountain Reservoir itself was built. The line is cast iron pipe, having been installed long before ductile iron pipe was introduced.

D/C crews immediately began shutting down adjacent valves to isolate the leak. Between the size of the main, the amount of water being discharged, and the amount of road damages already apparent due to the break, Joao Bradley was called to assist with heavy equipment. Once the local valves were closed, there was still significant water going through the break from an unidentified source. Because of the additional water source which has yet to be identified, Garrison Enterprises was called to mobilize and provide line stops so the break could be fully dewatered and repairs could be made.

On Tuesday, December 29, a secondary incident occurred prior to full repair. A significant section of macadam roadway fell into the pit and onto the 36" line. This caused a second break to occur, but this time it was a 16' longitudinal crack on the bottom of the line compared to the first break that was a bell joint failure. Both breaks were repaired by December 30, 2020. A boil water advisory had been declared on December 29, 2020 for a section of the Allentown system. Fortunately, all water associated with the second break was isolated and as a result, there was no need to extend the 48 hours of sampling that were required to be done prior to lifting the Boil Water Notice. The Boil Water Notice was lifted on December 31, 2020.

Below is the list of repair costs that were incurred:

Core and Main	Pipe, clamps, valves, etc	\$101,684.00
Joao Bradley, Inc.	Heavy equipment and labor	\$209,050.95
Garrison Enterprises	Line Stops	\$105,000.00

Total Expenses	\$415,704.95
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With the total repair and/or replacement costs of this event above \$50,000, we are seeking a retroactive emergency declaration to cover the expenditures for repairing the break. Costs to fix the main break totaled \$415,704.95. This figure doesn't include final road restoration that will take place in the Spring of 2021. Typical purchasing guidelines were not used during this event, both for materials and contractor services.



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## MEMORANDUM

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**Date:** January 18, 2021

**To:** LCA Board of Directors  
Liesel Gross, CEO

**From:** Phil DePoe, Senior Planning Engineer

**Subject:** Kline's Island Sewer System – Regional Sewer Capacity & Wet-Weather Planning: 2021 KISS Flow Characterization Study (Flow Data QA/QC)

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
A	Professional Services Authorization – Flow Assessment Services – Flow Metering Contract Year 2 ( <i>previously approved</i> )	<i>Unit Prices*</i>
B	Professional Services Authorization – Arcadis – KISS 2021 Flow Data QA/QC	\$250,000

*\*Year 2 estimated cost is \$476,550*

### **Introduction & Background**

*NOTE: This section is being provided to offer the Board and public with the historical context of the events and actions that have led to the authorization requested on January 25, 2021.*

In 2008, the Pa. Department of Environmental Protection (DEP) required Lehigh County Authority (LCA) and the Western Lehigh sewer signatories to generate a corrective action plan for the areas identified as having significant infiltration and inflow (I&I) conditions. The municipalities formed the Western Lehigh Sewerage Partnership (WLSP) and developed the Sewer Capacity Assurance & Rehabilitation Program (SCARP) to provide a formalized and planned method of evaluating the LCA and signatory sewer systems, prioritizing and conducting sewer rehabilitation by all WLSP communities – LCA, Upper Macungie, Lower Macungie, Weisenberg, Lowhill and Upper Milford townships, and Macungie and Alburtis boroughs.

To support this work, flow metering was conducted in 2008 and a hydraulic model was developed in 2009. At the same time, in 2009, the U.S. Environmental Protection Agency issued an Administrative Order for all municipalities served by the Kline's Island Wastewater Treatment Plant to eliminate sanitary sewer overflows and bypasses at the plant during wet-weather events.

From 2009 through 2018, the WLSP group completed significant projects to address sources of I&I in the Western Lehigh service area. In 2014, the WLSP hydraulic model was recalibrated using data gathered for adjoining sewer systems in the City of Allentown and surrounding communities. At that time, all communities began considering developing a regional Act 537 Plan (Sewage Facilities Plan) to address long-term sewer capacity requirements for the region. This work was halted in 2016 after receiving direction from DEP that the region should focus first on addressing the system's wet-weather challenges prior to submitting an Act 537 Plan to address future capacity requirements. From 2016 through 2017, a comprehensive plan was developed focusing on I&I source removal, conveyance system upgrades, and expansion of the KIWWTP's capacity to handle peak flows during wet-weather events. Early estimates of the cost to complete these upgrades was in the range of \$300 million.

In late 2017, the USEPA provided direction to the region that this capital-intensive program was not warranted to meet the requirements of the Administrative Order, and the region should refocus its efforts on flow characterization and I&I source removal. Therefore, in 2018, LCA and all the municipalities in the Kline's Island Sewer System submitted a Regional Flow Management Strategy to the USEPA and to DEP which included commitment to conduct flow monitoring and additional flow characterization work in the years ahead, along with each municipality's individual I&I source removal plans for the next five to seven years. In March 2019, the USEPA withdrew the Administrative Order and transferred oversight of the plan back to DEP.

In the intervening time period while the region sought to meet USEPA's shift in scope for addressing wet-weather challenges, the Lehigh Valley experienced an unprecedented prolonged period of excessive rainfall totaling 67 inches in 2018 and 61 inches in 2019. In particular, during the 12-month period of August 2018 through July 2019, the region received 80 inches of precipitation. Normal precipitation for our area is about 45 inches per year. As a result of this weather pattern and the ongoing leakage in the region's sewer system, sewer flows increased significantly during this time period and exceeded the KIWWTP's permitted capacity limit of 40 million gallons per day on several occasions.

**Important Note:** While the KIWWTP exceeded its hydraulic capacity limit of 40 MGD on a monthly basis several times in 2018 and 2019, the discharge of treated effluent from the plant met every effluent quality permit requirement during this time period so that environmental quality was not impacted by the higher flows.

Beginning in August 2019, LCA, the City of Allentown and the 13 other municipalities served by the Kline's Island Sewer System (KISS) began discussing the situation with DEP representatives. These discussions have been focused on evaluating and documenting the KIWWTP's capacity to address continued higher flows if wet-weather patterns continue, illustrating the region's commitment to cooperative management of the KISS, and to develop a plan to address the long-term capacity requirements of the system to meet the economic and environmental needs of the region. Through these discussions, a three-phase approach has been developed as follows:

#### **Phase 1 – 2020 Corrective Action & Connection Management Plan (Completed)**

In 2020, new connections to the KISS were managed under the terms of regional corrective action plan managed by LCA and under the requirement that an "Interim" Act 537 Plan be developed and submitted to DEP by September 2020. The primary thrust of the corrective action plan was the development of the Interim Act 537 Plan, quarterly progress reporting to DEP, and new developments requiring sewer service approved in accordance with a formal allocation request to DEP.

#### ***Phase 2 – Interim Act 537 Plan, Corrective Action & Connection Management Plan (Current Phase – In Progress)***

From 2021 to 2025, the KISS municipalities will work cooperatively to develop a Regional Long-Term Act 537 Plan. This plan will evaluate all municipalities' dry-weather and wet-weather flows projected for the next 20 to 30 years, including peak flows and anticipated changes in regional weather patterns, and develop the facilities plan and other actions required to address those needs. DEP's requirements for the Act 537 Sewage Facilities Plan include an evaluation of flows that can be removed by I&I programs in addition to construction of new facilities such as upsized parallel interceptors, pump stations, storage tanks and treatment plant expansion/upgrades. This work will include extensive flow monitoring and an update to the KISS hydraulic model to support the revised analysis of options previously evaluated, such as expansion of the KIWWTP, upgrade of LCA's pretreatment plant to provide full treatment, and construction of parallel

interceptors and a new regional pump station to address peak flows, in addition to I&I removal estimates. The plan that is ultimately developed by 2025 will include a financial and organizational / legal analysis to determine appropriate cost-sharing and intermunicipal agreement structures.

While this critical planning work is being completed, all KISS municipalities will complete I&I source removal programs within their municipal sewer collection systems. LCA also expects to move forward on design and construction of facilities to address the hydraulic bottleneck in the system located in the Trexlertown area to improve service to customers in this area. This project was kicked off in 2019 with a feasibility study being conducted by HDR Engineering and hydraulic modeling by Arcadis.

New sewer connections during the time period of 2021 to 2025 will be contingent on DEP's approval of the region's Interim 537 Plan (submitted to DEP on September 4, 2020) and the region's satisfactory progress on this work as reported in quarterly reports to DEP. As of mid-January 2021, no response has been received by DEP on the Interim 537 Plan.

### **Phase 3 – Regional Act 537 Plan Implementation (2025 and beyond)**

Following the comprehensive planning to be completed by 2025 as described in Phase 2 above, the region will begin implementing the plan upon approval by DEP. Approval of new connections to the sewer system after 2025 will be based on details of the plan and plan approval by DEP.

## **Moving Forward on Phase 2**

LCA staff have outlined two critical authorizations in 2021 that will allow the KISS System to move forward on the work described above. The professional services authorizations described in subsections A (previously approved) and B below will be reviewed with the LCA Board of Directors at the January 25, 2021 Board meeting, and represent the next steps in the process toward addressing these important regional sewer capacity and wet-weather challenges.

### **A. Flow Metering Contract Year 2 (previously approved)**

#### **AUTHORIZATION OVERVIEW:**

LCA previously contracted with a flow metering company for various sewer flow metering projects from 2009 to 2019. The contract ended in 2019 with the completion of flow metering work in October 2019. In 2020, the Western Lehigh group conducted flow metering to gather additional data on inflow and infiltration and the impact of prior rehabilitation work. As part of the Flow Characterization Study (FCS), flow metering will be required in 2021 to develop a long-term Act 537 plan for the regional system. To ensure cost-effective and professional data management services are available for this work as well as other flow metering projects that will arise over the next several years, LCA invited three leading flow metering companies to submit a proposal for a three-year assignment in late 2019. Flow Assessment Services (FAS) was subsequently selected and a three-year contract approved in early 2020.

#### **FINANCIAL:**

Costs associated with the implementation of the 2021 Flow Characterization Study (Year 2) will be paid by the City of Allentown and reimbursed through existing intermunicipal agreements and by City customers through the use of the Administrative Order Fee.

**CURRENT STATUS:**

The three-year contract with FAS was approved by the LCA Board on February 10, 2020. Unit prices did not change from Year 1 to Year 2, and FAS will complete the work in 2021 according to the terms of the existing contract.

The Year 2 temporary meter installations started to occur in early January and will be concluded by February 13<sup>th</sup>. The temporary meters are slated to be removed in the October or November timeframe.

**PROFESSIONAL SERVICES (FLOW MONITORING SERVICES) SELECTION PROCESS:**

Lehigh County Authority (LCA) retained the services of a contractor to provide the flow monitoring services. The following table summarizes the professional services to be performed under the prior approval:

<b>Professional Services</b>
<ul style="list-style-type: none"><li>• Flow meter installation and telemetry installation</li></ul>
<ul style="list-style-type: none"><li>• Flow meter monthly maintenance</li></ul>
<ul style="list-style-type: none"><li>• Flow meter and related equipment rental</li></ul>
<ul style="list-style-type: none"><li>• Data reduction and presentation</li></ul>
<ul style="list-style-type: none"><li>• Rain gauge installation and data collection</li></ul>
<ul style="list-style-type: none"><li>• Flow meter installation and telemetry installation</li></ul>

**SCHEDULE – YEAR 2:**

For Year 2, FAS will install approximately 64 meters within the KISS sewer collection systems. All meters will be installed by February 13<sup>th</sup>. In addition, the contractor will install approximately 25 temporary rain gauges throughout the KISS System. The meters and rain gauges will be tentatively removed in the middle of November, for a total of nine full months of data collection. Final data will be presented to the KISS Municipalities in early 2022.

**FUTURE PHASES:**

Additional flow metering may be required in 2022 (Year 3) under the terms of this three-year contract to complete tasks related to the Regional (Long-Term) Act 537 Plan.

**B. Kline’s Island Sewer System – 2021 Flow Data Quality Assurance & Quality Control (QA/QC)****AUTHORIZATION OVERVIEW:**

As part of the Interim Act 537 Plan, the municipalities served by the Kline’s Island Sewer System have committed to completing a flow metering and modeling project beginning in 2021. The goal of this work is to ensure the data collected from nine months of flow and rainfall data collected in 2021 are accurate and valid using quality control data review steps.

**FINANCIAL:**

Costs associated with the implementation of the 2021 Flow Characterization Study will be paid by the City of Allentown and reimbursed through existing intermunicipal agreements and by City customers through the use of the Administrative Order Fee.

**CURRENT STATUS:**

Pending Board approval of these services.

**THIS APPROVAL – 2021 FLOW DATA QA/QC:**

Lehigh County Authority (LCA) intends to retain the services of an engineering consulting firm to provide the review and validation of flow and rainfall data. These services will include the following:

<b>Professional Services</b>
<ul style="list-style-type: none"><li>• Meter installation performance QA review</li></ul>
<ul style="list-style-type: none"><li>• Data quality assurance reviews</li></ul>
<ul style="list-style-type: none"><li>• Deliver results to LCA staff and stakeholders</li></ul>
<ul style="list-style-type: none"><li>• Meet with LCA staff and stakeholders</li></ul>

**CONSULTANT SELECTION PROCESS:**

In addition to serving as LCA's engineering consultant for annual ongoing sewer program support services, Arcadis has worked with the City and their signatories since the 2009 Administrative Order. In addition, Arcadis has extensive knowledge of the KISS partners' sewer systems, sewer billing meters, and was instrumental in creating the original KISS sewer model in 2014.

Prior data validation, hydraulic modeling and related work has been completed by Arcadis since 2008, most notably in 2019 (meter QA/QC and WLI model development) and 2020 (meter QA/QC).

**SCHEDULE:**

Arcadis will conduct data quality assurance reviews on the first (March), second (May), third (July), and last submittals (October) of flow data. All dates are approximate and will be determined upon receipt of data. If eight months of data is deemed to be enough information for model development, the meters may be removed in mid-October.

**FUTURE AUTHORIZATIONS:**

None anticipated.



804 Plumtry Drive · West Chester, PA 19382 · Phone: (610) 918-3857

Lehigh County Authority  
1053 Spruce Street  
Allentown, PA 18106  
Attn: Philip M. DePoe

January 5, 2021

Re: Confirmation of our Unit Pricing for 2021

Dear Phil:

Happy New Year. This proposal is an update of ours from October 26, 2020. The pricing table reflects the anticipated 64 FCS-2021 sites and up to 28 rain gauge sites. The number of scoping hours is estimated.

For flow monitoring, typically we break-out our pricing as follows:

- Flow meter installation: one-time charge, and includes rigorous site analysis
  - Flow meter removal is included in this cost
- Flow Meter Site Maintenance: each site will be visited for our crew to:
  - Enter the manhole to inspect, clean and adjust the sensor
  - Download the data and analyze the current period for data quality
  - Make any adjustments necessary to improve data quality
  - Communicate with our client on each site
- Flow meter rental: shown on a per-month basis
  - We offer constant pricing for area-velocity, flume, or combinations of these
- Flow data reduction & presentation: shown on a per-month basis. Raw/preliminary flow data will be posted ~2 weeks after installation. Final data and our final report will be available monthly.

**LEHIGH COUNTY AUTHORITY**  
**January 5, 2021**  
**Temporary Flow Monitoring – Confirmation of 2021 Pricing**  
**Flow Assessment Traditional Format**

Item #	Task Description	Quantity	Unit	Unit Cost	Total Cost
1	Flow Meter Installation and Telemetry Installation	64	Installations	\$1,250.00	\$80,000.00
2	Flow Meter Maintenance	576	Meter	\$175.00	\$100,800.00
	(64 Meters x 9 Months = 576 Meter Months)		Months		
3	Flow Meter + Telemetry + Ultra + Pressure Sensor Rental	576	Meter	\$225.00	\$129,600.00
	(64 Meters x 9 Months = 576 Meter Months)		Months		
4	Data Reduction & Presentation	576	Meter	\$200.00	\$115,200.00
	(64 Meters x 9 Months = 576 Meter Months)		Months		
A	Option - Logging Rain Gauge	252	Rain Gauge	\$100.00	\$25,200.00
	(28 Rain Gauges x 9 Months = 252 Rain Gauge Months)		Months		
B	Hourly Rate for Additional Field Services per RFP	103	Hours	\$250.00	\$25,750.00
	(additional hours pending)				
	<b>Total of Above:</b>				<b>\$476,550.00</b>

**LEHIGH COUNTY AUTHORITY**  
**January 5, 2021**  
**Temporary Flow Monitoring – Confirmation of 2021 Pricing**  
**LCA Format**

<b>Item #</b>	<b>Task Description</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total Cost</b>
1a.	Installation/Removal per Meter	64	\$1,250.00	\$80,000.00
1b.	Rain Gauge (per Installation/removal)	28	\$0.00	\$0.00
2a.	Meter Monitor Maintenance Including Data Exchange (per meter per month)	576	\$600.00	\$345,600.00
2b.	Rain Gauge (per gauge per month)	252	\$100.00	\$25,200.00
3	Hourly Rate for Additional Field Services per RFP - invoiced on 10/19/2020	41	\$250.00	\$10,250.00
3a.	Hourly Rate for Additional Field Services per RFP - continued evaluation of 2021 Sites	12	\$250.00	\$3,000.00
3b.	Hourly Rate for Additional Field Services per RFP - anticipated field visits with Arcadis	50	\$250.00	\$12,500.00
<b>Total:</b>				<b>\$476,550.00</b>

The two worksheets show an estimated number of meters and the number of hours to date we have spent on 2021 recon and scoping. They also show the number of hours we expect to use from the last invoice.

- B. Flow monitoring will be performed to obtain information necessary to accurately analyze the monitoring tributary areas for infiltration during high groundwater periods and for rainfall related inflow during wet weather periods. Continuous metering will be conducted for the designated time period as directed by the Client.

The flow monitoring will be accomplished by one of the following methods:

1. The use of continuous monitoring devices incorporating a velocity sensor combined With a depth sensor; or
2. Palmer Bowlus flumes, in conjunction with continuous depth recording (used for smaller pipes and lower flows).

- C. [option proposed] A minimum of one recording tipping bucket rainfall gauge will be installed at a central location within the study area. The rain gauge will be capable of recording rainfall data in 5-minute increments. The rainfall data will enable the correlation of metered flow rates to rainfall intensity, duration, and volume for the purpose of identifying inflow and its components.
- D. [option not proposed] Groundwater gauges will be installed in locations determined by the Client in an attempt to monitor groundwater levels throughout the flow monitoring period. Readings will be taken and will be incorporated into the flow monitoring report. Field reading of the gauges will be provided to the Client on a weekly basis.



- E. Flow monitoring data reduction and review will be performed on all data obtained each flow monitoring location. The data obtained will be reduced, evaluated, and presented in report form. One (1) copy of the completed report will be submitted to the Client. This will include, for each location, tabular reports based on 5-minute time increments.

The tabular report will be provided and will include:

A summary of daily flow information for a selected time period. The summary presents, for each day, the minimum flow rate, peak flow rate, total daily flow, total rain, peak hourly rain, and peak 5-minute rainfall, if applicable. The summary also included the total flow volume, average daily flow, and total rainfall quantity, if applicable, for the selected time period.

Detailed flow reports of the flow rate data in 5-minute time increments will also be prepared and submitted. The detailed report will include depth of flow, velocity of flow, incremental flow rate, cumulative flow rate and recorded rainfall. The report will also include the total daily flow volume and total daily rainfall quantity, if applicable.

In addition, flow hydrographs will be prepared for each flow monitoring location, which present a plot of the recorded flow rates for a selected time period. A bar graph of rainfall recorded during the selected time period is also plotted on the hydrograph.

Further, periodically data will be posted to a secure password protected web site that will allow project personnel (both city and consultant) access to flow, rainfall and groundwater recorded data. Users then can prepare and review detailed flow reports, graphs and tables. Comparison between wet and dry periods as well as net flows per sub system calculations is also capable. Online data export format capabilities included Excel, Access, and ASCII.

## **I. CLIENT RESPONSIBILITIES**

While developing this proposal, I have assumed that Lehigh County Authority (hereafter referred to as Client) or others would provide the following at no additional charge to Flow Assessment Services (hereafter referred to as sub-consultant):

- A. Furnish copies of the necessary plot maps of all sewers to be studied. The sewer lines and manholes should be clearly marked and labeled with a numbered reference system (provided).
- B. Make arrangements to provide traffic control and permitting as required by local public safety authorities; FAS will provide normal traffic control with our vans and cones. If police detail is required, we will pass that through at cost.
- C. Make arrangements to provide access to and exposure for entry those manholes within the study area which are buried, covered or otherwise not readily accessible.
- D. Provide free and legal access to all sites of work.
- E. Assure the prompt clearance of major blockages or obstructions in the sewer system, if any,

should such clearance be required for performance of the work.

- F. Provide the shutdown and startup of certain pump stations, upon prior request, should it become necessary for the satisfactory performance of the work.

## **II. MUTUAL AGREEMENTS**

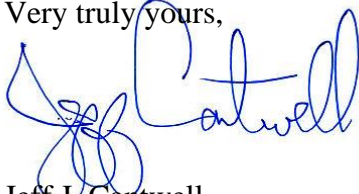
- A. Sub consultant shall not be held liable to the Client if delayed or prevented from performing the work as specified herein through any cause beyond the control of Sub consultant and not caused by his own fault or negligence, including acts of God, or the public enemy, weather conditions; acts of government, including changes in state and/or federal requirements governing sewer system evaluation surveys after the effective date of this contract; fires, floods, epidemics, strikes, jurisdictional disputes, lockouts, and freight embargoes. Sub consultant shall advise the Client, in writing, of any such delays
- B. Sub consultant is an equal opportunity employer.
- C. Sub consultant agrees to carry
  - a. Commercial General Liability, Personal & ADV Injury and Products, Comp/Op AGG.
  - b. Automobile Liability, Bodily Injury, Property Damage
  - c. Umbrella Liability
  - d. Workman's Compensation Insurance.
    - i. A sample certificate is available showing our standard coverage
    - ii. Coverage beyond our standard may require pass through cost beyond our proposed pricing
- D. The provisions of the Agreement may be revised upon written notice by either party, and the written acceptance of the revisions by both parties to this Agreement.
- E. Sub consultant shall not assign, sublet, or transfer his interest in this Agreement without the written consent of the Client.

## **III. METHOD OF PAYMENT**

The Method of Payment for Professional Services outlined above shall be in the form of progress invoices to be submitted to the Client for the items above as the fieldwork is actually completed. We request payment within 30 days of our invoice.

Thank you for the opportunity to offer our services.

Very truly yours,



Jeff J. Cantwell

Email: [jcantwell@flowassessment.com](mailto:jcantwell@flowassessment.com)

Mr. Philip DePoe  
Capital Works Program Manager  
Lehigh County Authority  
1053 Spruce Road  
Allentown, PA 18106-0348

Arcadis U.S., Inc.  
1128 Walnut Street  
Suite 400  
Philadelphia  
Pennsylvania 19107  
Tel 215 625 0850  
Fax 215 625 0172  
[www.arcadis.com](http://www.arcadis.com)

Subject:  
2021 KISS Flow Characterization Study  
Scope and Budget for 2021 Flow Data QA/QC

Date:  
December 15, 2020

Dear Mr. DePoe:

Arcadis is pleased to provide Lehigh County Authority (LCA) with this scope and budget for the review and validation of flow data that will be used for future model recalibration.

Contact:  
Tony Dill

Phone:  
215.931.4372

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

Our ref:

## **OBJECTIVES**

The goal of this work is to ensure the data collected from eight months of flow and rainfall data collected in 2021 are accurate and valid using quality control data review steps.

For the purposes of this scope and budget, we assume that 100 flow meters (including 24 SBMs and 11 other Signatory permanent meter sites) and 10-15 rain gauges will all be installed by February 20, 2021 and remain in service for approximately eight months.

## **SCOPE OF WORK**

### **Task 1 – Meter Installation Performance QA**

While it is assumed that the flow meter contractor (FAS) will provide typical data collection quality steps, these practices have in the past been insufficient to ensure the majority of collected data are usable. Given that these data will be used to recalibrate the entire KISS model, which will in turn drive multi-million dollar decisions regarding rehabilitation and infrastructure expansion, extra scrutiny is warranted to ensure this expensive and critical effort yield the highest reliable results. Teaming the QA effort between Arcadis and FAS will provide the level of effort needed for optimal results.

In accordance with the discussions had between LCA, Arcadis, and FAS, Arcadis proposes the following rigorous data quality assurance measures to maximize the accuracy and reliability of the model.

FAS will provide the first week's data from each meter as it is installed and Arcadis will conduct a preliminary data validation in the office. FAS must install the meters no later than February 20th. FAS may install meters as early as the first week of January 2021. FAS will provide Arcadis with an install schedule. A data review and site visit schedule will be worked out between the two firms with the goals of maintaining mobilization efficiencies and having the meters field verified by the first week of March. Arcadis will conduct a physical inspection of the meter installations to confirm site conditions, flow characteristics, and confirm that sensor placements at each location are optimized. The physical inspections will be site specific and will include most of the following steps:

- Pipe dimension measurements. Round pipe can have ovalities which can lead to inaccuracy in the data.
- Level confirmations using flow depth and air gap measurements.
- Velocity measurements using a portable velocity sensor.
- Velocity measurements using dye, measured distance between MH, and stopwatch.
- Manipulating flows within the pipe to change the flow characteristics to confirm meter response to changes in depth and velocity. This step will not be practical for pipes over 18 inches and average flows greater than 3/4 full.
- Insert temporary weir to measure flow rates and compare to the meter readings. This step will not be practical pipes over 18 inches or average flows greater than 1/2 full.

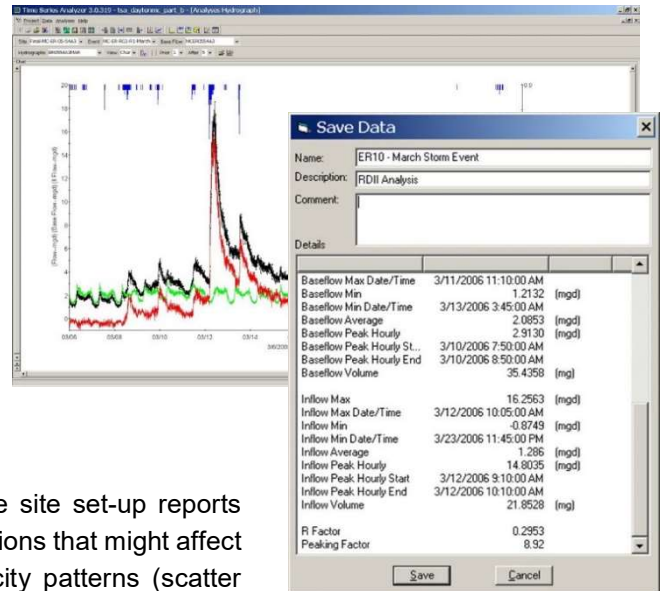
Arcadis will provide FAS with meter issues as they are identified. It will be assumed that 20% of the meters will need corrective action. FAS will address these recommendations within 2 weeks, at which point Arcadis will repeat the field effort at any corrected meter sites. These field verifications will inform all subsequent data reviews.

## **Task 2 – Data Quality Assurance Reviews**

While it is assumed that FAS will assess their data before submission, we have found that contractor QC'd data sets have a significant percentage (~20%) with defects in the data that, if used, would lead to erroneous findings. It is simply not in the flow meter contractor's best interests to self-identify defective data. Therefore, Arcadis will conduct 4 data quality assurance (QA) reviews on the first

(February-March), second (April-mid May), third (mid-May-July) and last (August-October) submittals of the flow data.

These QA reviews will check that the data being collected are valid and suitable for the proposed analyses and will provide recommendations for improving data suitability as needed. The Data Quality Objectives of these metering efforts are to ensure the delivery of data that are both valid (follow a logical depth:velocity profile) and true (consistently respond to rainfall, downstream flows appropriately higher than upstream flows, gallons per EDU reasonable, velocities and depths match field observations/measurements). The accuracy of the flow, depth, velocity, and rain data collected will be reviewed to ensure the data are valid, true, and suitable for RDII analysis, model calibration and verification, and catchment-wide rehabilitation effectiveness evaluations (were Signatories elect to perform such analyses).



The Arcadis data quality assurance reviews will assess the site set-up reports prepared by the flow metering entity to identify any site conditions that might affect the normal depth:velocity profile, evaluate depth and velocity patterns (scatter graphs), and assess responses to rainfall. We will use data analysis software to address such issues as:

- Meter imbalance (upstream vs. downstream flow balances)
- Sensor failure
- Low flow/level situations
- Sediment buildup
- Velocity gain adjustments
- Changes in depth:velocity relationship
- Supercritical or subcritical flow issues
- Flow pattern issues that could affect data accuracy
- Upstream and downstream flow loss (SSO) or impediment issues
- Response to rainfall
- Loss of storm peaks.
- Siphon impacts
- Force main influences
- Pump station fill-drain influences

Arcadis' Time Series Analyzer (TSA) will be applied to automate much of this quality assurance process. We will work with LCA and FAS to resolve problems

with flow meter or rain gauge data, especially during the first 3-week period following meter installation to ensure data meet quality objectives. During the flow metering period, all data will be bvalidated to identify questionable flow meter and rain gauge data.

The deliverable from this effort will be the QAQC Summary Spreadsheet.

## **DELIVERABLES AND SCHEDULE**

The quality reviews of data will be completed within 30 days of receipt of data from FAS. Arcadis will deliver the results of the reviews in the form of tables and will meet with LCA staff and stakeholders as necessary to present the results. No written report will be provided.

## **BUDGET ESTIMATE**

We estimate the cost and level of effort of this work as shown in the below table.

Task	Hours	Cost	Cost per site (net + gross)	Cost per meter
Data Quality Assurance Reviews	1287	\$ 185,000	\$ 1,294	\$ 1,850
Meter Installation Performance QA	392	\$ 65,000		\$ 855
Total	1679	\$250,000		

We propose to complete these services on a time and materials basis in accordance with the current Summary of Standard Charges for Lehigh County Authority. Arcadis will track the costs associated with this work and report them to LCA monthly throughout the project; we will not exceed the authorized budget without written professional services authorization from LCA. Payment for services will be based upon the actual labor and expenses incurred. Invoicing will be completed monthly. The invoice will include the defined contract tasks listing the day by day personnel performing the task with hourly rate and hours worked. The invoice will provide total billed for month. Support documents will be provided if there are any expenses incurred.

Mr. Philip DePoe  
December 15, 2020

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.

Sincerely,

ARCADIS U.S., Inc.

A handwritten signature in blue ink, reading "Anthony J. Dill". The signature is written in a cursive, flowing style.

Anthony J. Dill, PE  
Project Manager



## CAPITAL PROJECT AUTHORIZATION

<b>PROJECT NO.:</b>	<u>AD-S-12</u>	<b>BUDGET FUND:</b>	<u>Allentown Div\Wastewater\Capital</u>
<b>PROJECT TITLE:</b>	<u>Kline's Island Sewer System – Regional Sewer Capacity &amp; Wet-Weather Planning: 2021 KISS FCS (Flow Data QA/QC)</u>		<b>PROJECT TYPE:</b>
<b>THIS AUTHORIZATION:</b>	<u>\$746,550</u>	<input type="checkbox"/>	Construction
<b>TO DATE (W/ ABOVE)</b>	<u>\$1,124,500</u>	<input checked="" type="checkbox"/>	Engineering Study
		<input type="checkbox"/>	Equipment Purchase
		<input type="checkbox"/>	<b>Amendment No. 1</b>

### DESCRIPTION AND BENEFITS:

As part of the Interim Act 537 Plan, the municipalities served by the Kline's Island Sewer System have committed to completing a flow metering and modeling project beginning in 2021. The goal of this work is to ensure the data collected from nine months of flow and rainfall data collected in 2021 are accurate and valid using quality control data review steps.

Flow Assessment Services (FAS) had a three year contract approved by the Board on 2/10/20. Year 1 (2020, Suburban funded) included temporary meters in the Western Lehigh Service Area only and the subsequent QA/QC, RDII analysis, and rehab effectiveness of that data. Year 2 (2021, City AO funded) will include temporary meters across the entire KISS Service Area and the subsequent QA/QC only of that data. There is no authorization anticipated for Year 3 at this time.

See attached Board Memo for further project details.

### Authorization Status:

Requested This Authorization (Year 2 Flow Monitoring and QA/QC)	
<i>Planning Phase</i>	
Staff	\$15,000
Metering Contractor	\$476,550
Engineering Consultant	\$250,000
Contingency	\$5,000
<b>Total This Authorization</b>	<b>\$746,550</b>

Prior Authorizations (Year 1)	\$377,950
Future Authorizations (Year 3)	\$0
<b>Total Estimated Project</b>	<b>\$1,124,500</b>

### REVIEW AND APPROVALS:

_____	_____	_____	_____
Project Manager	Date	Chief Executive Officer	Date
_____	_____	_____	_____
Chief Capital Works Officer	Date	Chairman	Date



**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

## PROFESSIONAL SERVICES AUTHORIZATION

**Professional:** ARCADIS U.S., INC.  
1128 Walnut Street, Suite 400  
Philadelphia, PA 19107

**Date:** January 25, 2021

**Requested By:** Phil DePoe

**Approvals**

**Department Head:** \_\_\_\_\_

**Chief Executive**

**Officer:** \_\_\_\_\_

**Kline's Island Sewer System – Regional Sewer Capacity & Wet-Weather Planning: 2021 KISS Flow Characterization Study (Flow Data QA/QC)**

As part of the Interim Act 537 Plan, the municipalities served by the Kline's Island Sewer System have committed to completing a flow metering and modeling project beginning in 2021. The goal of this work is to ensure the data collected from roughly nine months of metered flow and rainfall data collected in 2021 are accurate and valid using quality control data review steps. Specific tasks that Arcadis will perform, include but are not limited to, the following:

Professional Services <sup>(1)</sup>
1. Meter Installation Performance QA (initial data review and potential physical inspections)
2. Data Quality Assurance Reviews (four separate QA reviews in total) using data analysis software
3. Meet with LCA staff and stakeholders as needed
4. Deliver final results to LCA staff and stakeholders

*(1) For 2021 FCS Flow Data QA/QC Only*

Please reference the cover Memo for additional information.

**QA/QC Proposal:** \$250,000

**Cost Estimate (not to be exceeded without further authorization):** \$250,000

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

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(For Authority Use Only)

**Authorization Completion:**

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

**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:** January 25, 2021

**To:** Lehigh County Authority Board of Directors

**From:** Charles Volk, P.E., Chief Capital Works Officer

**Subject:** Suburban Division – Sand Spring Wastewater Treatment  
Plant Upgrade: Construction Phase Change Order

**MOTIONS /APPROVALS REQUESTED:**

No.	Item	Amount
1	<u>Capital Project Authorization Amendment No. 1 – Construction Phase</u>	\$39,920
2	<u>General Contract Change Order:</u> <u>Lobar, Inc.</u>	\$34,920

*Note: Capital Project Authorization includes all construction and engineering contracts*

**PROJECT OVERVIEW**

Sand Spring WWTP is located along Sand Spring Road in Schnecksville PA. The facility was constructed and put into operation in 1972 by the developer to serve the Sand Spring Development in North Whitehall Township, Lehigh County. LCA took over ownership and operations of the WWTP in 2005. There sewer service area includes approximately 248 apartment units, 8 commercial properties, and an elementary school. The plant, while meeting effluent limits, has reached the end of its useful life, and the project to replace and update the facility is nearing the end of construction. Construction phase was authorized in August 2019.

**SCOPE OF WORK – CAPITAL PROJECT AUTHORIZATION AMENDMENT NO. 1**

The scope of work for the upgrade project included the drilling and development of a new well on site to supply utility water to the plant, as the existing well capacity is inadequate to serve the needs of the new plant. During construction phase it became apparent that the prospect of development of a new well would result in excessive costs, from initial investigations in the immediate vicinity and based on discussions with the property owner concerning historical well development initiatives in the area and low yields. Capital Works investigated

connecting with the existing LCA water system on Park View Drive at the Sand Spring Apartment complex, which is part of LCA's North Whitehall Division. Suburban Operations performed pressure and flow testing of the system near the proposal connection point and Capital Works determined that the supply conditions are adequate for the new plant. A proposal was requested from the General Contractor to connect to the LCA water system on Park View Drive, and a change order was drawn up. The scope of the change order includes 700 linear feet of horizontal directional drilled 3-inch HDPE waterline with associated valves and fittings.

This represents a value-added feature for the facility with a lower overall life cycle cost, as long term operation and maintenance of a well pump, pressure tanks, and assorted controls will no longer be required, and potable water at adequate pressure will be provided. Approval of this Change Order is requested at the 1/25/21 board meeting.

#### **FINANCIAL**

The Project is funded by the LCA Suburban Division.

#### **PROJECT STATUS**

Construction phase was authorized in August 2019. The project to replace and update the facility is over 90% complete, and the new plant will be started up this quarter.

#### **THIS APPROVAL**

Capital Project Authorization Amendment No. 1.

#### **MATERIAL PROCUREMENT**

N/A

#### **SCHEDULE**

Assuming approval at the January 25, 2021 board meeting, the new waterline should be installed within two weeks.

#### **FUTURE AUTHORIZATIONS**

None

# CAPITAL PROJECT AUTHORIZATION – Amendment No. 1

**PROJECT NO.:** SD-S-13 **BUDGET FUND:** Suburban Div\Wastewater\Capital

**PROJECT TITLE:** Sand Spring Wastewater Treatment Plant Upgrade – Construction Phase **PROJECT TYPE:**

**THIS AUTHORIZATION:** \$ 39,920 ☒ Construction

**TO DATE (W/ ABOVE)** \$ 4,588,344 ☐ Engineering Design

☐ Equipment Purchase

☒ Amendment

## DESCRIPTION AND BENEFITS:

### Sand Spring WWTP Upgrade - Construction Phase General Contract Change Order:

The scope of this General Contract change order consists of connecting with the existing LCA water system on Park View Drive at the Sand Spring Apartment complex. This is in lieu of drilling a new well on site, which was discontinued due to probable excessive cost and yield issues. This represents a value-added feature for the facility with a lower overall life cycle cost, as long term operation and maintenance of a well pump, pressure tanks, and assorted controls will not be required, and potable water will be provided at adequate pressure.

Previous Authorizations	
Design and Construction Phase	\$4,548,424

REQUESTED THIS AUTHORIZATION	
Construction Phase Change Order	
General Contract Change Order – Lobar, Inc.	\$34,920
Staff	\$1,500
Contingency	\$3,500
Total This Authorization	\$39,920

Future Authorization	
none	

Total Estimated Project	\$4,588,344
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## REVIEW AND APPROVALS:

Project Manager	Date	Chief Executive Officer	Date
Chief Capital Works Officer	Date	Chairman	Date

Presented: January 25, 2021

Critical Activities	System	Description	Dec-20	2020 Totals	2019 Totals	Permit
			Daily Avg (MGD)	Daily Avg (MGD)	Daily Avg (MGD)	Daily Max (MGD)
Water Production	Allentown	Total	20.14	21.37	21.51	39.0
		Schantz Spring	7.33	7.31	7.77	9.0
		Crystal Spring	3.69	3.80	3.88	4.0
		Little Lehigh Creek	9.12	10.17	9.85	30.0
		Lehigh River	0.00	0.09	0.01	28.0
	Central Lehigh	Total	9.22	10.24	9.75	19.04 MGD Avg
		Feed from Allentown	5.40	6.71	6.93	7.0 MGD Avg 10.5 MGD Max
		Well Production (CLD)	3.82	3.53	2.80	8.54 MGD Avg
		Sum of all (12) other Suburban Water Systems	0.15	0.15	0.17	1.71 Sum of all wells
Wastewater Treatment		Kline's Island	35.10	32.27	37.63	40.0
		Pretreatment Plant	4.44	4.94	5.88	5.75 (design capacity)
		Sum of all (5) other Suburban WW Systems	0.24	0.21	0.19	0.36
			Dec-20	2020 Totals	2019 Totals	2018 Totals
Precipitation Totals (inches)			4.75	49.57	60.66	66.96
Compliance Reports Submitted to Allentown			17	275	278	285
Notices of Violation (NOVs)		(Allentown + Suburban)	0	2	1	1
Sanitary Sewer Overflows (SSOs)/Bypasses		(Allentown + Suburban)	3	44	37	78
Main Breaks Repaired		Allentown	4	19	20	33
		Suburban	3	17	12	23
Customer Service Phone Inquiries		(Allentown + Suburban)	1,635	16,772	22,992	26,440
Water Shutoffs for Non-Payment		(Allentown + Suburban)	0	280	1,956	1,838
Injury Accidents		(Allentown + Suburban)	0	10	10	14
Emergency Declarations		Allentown	(1) \$415,704	(3)@\$334,354	(2)@ \$152,053	(5) @ \$76,469
		Suburban	0	(1)@\$110,000	(1) @ \$19,335	(1) @ \$21,197
Significant Repairs/Upgrades: Nothing to report.						
Description of NOVs and/or SSOs: There were two (2) bypasses during December. The first bypass occurred at KIWWTWP on 12/25/2020, resulting from heavy localized rainfall. The other bypass, also caused by heavy rainfall, occurred at Heidelberg Heights WWTP and lasted from 12/25/2020 through 12/29/2020. A single SSO occurred on December 1-2. The SSO occurred at the Sand Spring WWTP, resulting when a pipe ruptured within the plant and caused a small release of sewage, estimated to be 20 gallons. There were no (0) NOVs issued to any LCA system during December, 2020.						
Other Highlights: Xylem Inc and Gannett Fleming Inc completed the condition assessment of 1.1 miles of 36" and 30" DI on December 14-15, 2020. The pipeline being studied was a 36" line on 17th Street, running from Union St to Chew St. Also studied was a 30" DI line running along Chew Street from 17th to 22nd. Both of the lines were installed in 1983, and were the site of (2) large main breaks in 2020. A full report from Xylem and GF is expected ASAP.						