



LEHIGH COUNTY AUTHORITY

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

Agendas & Minutes Posted:
www.lehighcountyauthority.org

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BOARD MEETING AGENDA – March 22, 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 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. 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

• *March 8, 2021 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

- *LCA Strategic Plan (Approval) (digital Board packet, page 6-60)*
- *Administration Division (Suburban): Supervisory Control and Data Acquisition System (SCADA) – Communication Upgrade Services to Existing Water Systems (Approval) (pink) (digital Board packet, page 61-64)*

WATER

- *Allentown Division – Water Filtration Plant: High Lift Pump VFD Replacements – Construction Phase Authorization (Approval) (gray) (digital Board packet, page 65-69)*

WASTEWATER

- *Suburban Division – Park Pump Station Phase 2 Upgrade: Design Authorization (Approval) (salmon) (digital Board packet, page 70-73)*
- *Allentown Division – Sanitary Sewer Collection System: I&I Source Reduction Program Plan (Year 2) (Approval) (blue) (digital Board packet, page 74-82)*

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

7. Monthly Financial Review (2nd Board meeting per month) – **February 2021 report attached** (digital Board packet, page 83-92)

8. Monthly System Operations Overview (2nd Board meeting per month) – **February 2021 report attached** (digital Board packet, page 93)

9. Staff Comments

10. Solicitor's Comments
11. Public Comments / Other Comments
12. Executive Sessions
13. Adjournment

UPCOMING BOARD MEETINGS		
April 12, 2021	April 26, 2021	May 10, 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

March 8, 2021

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:02 p.m. on Monday, March 8, 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. A Roll Call of Board members present was taken. Chairman Brian Nagle, Richard Bohner, Norma Cusick, Ted Lyons, Kevin Baker, Linda Rosenfeld, Jeff Morgan, and Amir Famili 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, Mark Bowen, Lisa Miller, and Todd Marion.

Chairman Nagle stated that the Board received their electronic copy of the Board packet in advance and asked if anyone did not receive their hard copy of the packet. All Board members indicated they had received their packet by mail.

REVIEW OF AGENDA

Liesel Gross stated there are no changes to the agenda and noted that the January Financial report will be presented at today's meeting and the February Financial report will be presented as regularly scheduled at the second meeting in March. Also, there will be a Strategic Planning subcommittee meeting after today's Board meeting.

APPROVAL OF MINUTES

February 22, 2021 Meeting Minutes

On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved the minutes of the February 22, 2021 Board meeting as written (8-0).

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

2022-2026 Capital Plan – Allentown Division

Liesel Gross reminded everyone of the Authority's capital planning and approval process, noting that the five-year capital plan is a conceptual plan detailing the work to be completed in the years ahead. Board approval of the capital plan does not indicate approval of any of the specific projects or associated costs. She explained the Allentown Division draft plan would be presented today, followed by a 30-day comment period with potential Board approval in April.

Chuck Volk reviewed the highlights of the 2022-2026 Allentown Division Capital Plan noting that the largest projects are the general improvements at the Water Filtration Plant and Wastewater Treatment Plant and the water main replacement program which started up again in 2021. These

projects are driven by asset management needs of the system. The large diameter valve replacement project is a new addition for the 2022-2026 capital plan. Mr. Volk noted that recent water main breaks have illustrated the critical nature of these valves. As result, a project to address inoperable valves or valves that do not seal properly has been added to the capital plan.

Ed Klein reviewed the financial analysis for the Allentown Division capital plan, noting that no new borrowing is needed for system improvements during the planning period of 2022-2026. All projects will be funded by operating revenues or reserves.

Ted Lyons asked where the funding would come from for any emergency situations that may occur. Ed Klein explained that the 180 days of cash on hand would be available for emergencies and there is also funding available in the restricted project reserves held by the bond trustee. Between these funds, approximately \$15-20 million dollars would be available. Amir Famili asked for a review of capital spending in 2020 as compared to what was budgeted. Liesel Gross noted that this information was provided in the financial review Ed Klein provided at the February 22nd Board meeting with very favorable results for 2020. Ed Klein added that capital spending in 2020 was favorable compared to both forecast and budget, showing strong completion of planned work for the year.

Brian Chamberlain, City of Allentown Office of Compliance, reported that the City will be submitting comments during the 30-day comment period.

MONTHLY PROJECT UPDATES / INFORMATION ITEMS

Liesel Gross highlighted items for the upcoming meeting on March 22nd. She noted an additional item for the next meeting agenda would be the SCADA system upgrade project, which is not shown in the monthly project update report.

MONTHLY FINANCIAL REVIEW

Ed Klein gave an overview of the January 2021 financial statements, highlighting variances between actual expenses and budgeted or forecasted expenses. Chairman Nagle commented that he would like to see a month by month forecast of capital spending so the Board can monitor monthly performance. Ed Klein stated that this will start with the March statements. Chairman Nagle asked that, in the future, this be done earlier than March. Ted Lyons asked why the changes in working capital are not captured in the January forecast. Mr. Klein commented that due to heavy staff workload in January, this data was not analyzed or a specific forecast developed for the first month of the year. Jeff Morgan asked if it would be better to forecast capital spending on a quarterly basis rather than monthly, as that may be more likely to be accurate. Mr. Klein said staff will consider this for future reporting.

STAFF COMMENTS

None.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

EXECUTIVE SESSION

None.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 12:54 p.m.

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
email: service@lehighcountyauthority.org

MEMORANDUM

TO: LCA Board of Directors
FROM: Liesel Gross, CEO
DATE: March 15, 2021
RE: Strategic Plan Update & Consultant Selection

REQUESTED: Professional Services Authorization – Raftelis – \$74,930

Project Background

LCA has undergone significant transformation since 2013 after taking on the operation of the City of Allentown water and sewer systems through a 50-year concession lease arrangement. Key elements of the major organizational changes we have faced during this time period:

- Employee growth from 37 employees to 164 employees
- Full-scale turnover of LCA staff leadership
- Board member expansion to nine members
- Significant financial challenge in the Allentown operation as a result of the Lease
- Significant cost increases due to aging infrastructure and increased attention to asset management / preventive maintenance strategies
- Introduction of two unions to the workforce (no unions prior to 2013)
- Recognition of the need for increased adoption of technology & process improvement

In 2014, LCA staff developed core elements of a strategic plan including an updated vision and mission statements, statement of values, and critical goal categories to support these core elements. In addition the plan included some basic communication of LCA's goal to become "One LCA" – meaning a consolidated and synergistic organization following this massive transformation brought on by the Allentown lease. However, the plan did not include detailed path forward on achieving the One LCA mindset and operation. Also, a system for developing and tracking goals, objectives and measures was not developed.

In 2016, LCA began using the Effective Utility Management (EUM) framework to assess the organization's performance and develop strategies for improvement in key areas. In 2017, three-year action plans were developed around four EUM attributes: Product Quality, Financial Viability, Infrastructure Stability, and Employee & Leadership Development. The plan was dubbed "LCA 2020" with a somewhat detailed progression of objectives for each year from 2018 to 2020. Tracking of performance on the LCA 2020 plan was completed and reported throughout the organization with some success. However, in 2019, performance slowed due to a variety of factors including:

- Long-lasting impacts of unresolved legal and financial issues with the Allentown lease
- Re-prioritization of work to address regulatory pressures and regional sewer capacity challenges

- Slow-down of work due to employee turnover and difficulty learning LCA’s vast array of manual, “legacy” processes
- Continued difficulty measuring results

As 2019 drew to a close, LCA staff leadership and Board of Directors began discussing “what’s next?” and concluded that a new approach to strategic planning was required. In particular, the Board desires to have more input in the planning process. The LCA staff recognizes the plan needs to include specific implementation strategies so that barriers to success are identified and addressed, and budgets developed to support achievement of goals. Both the Board and LCA staff desire to have more community and stakeholder input to ensure our plans align with the needs of our community and that rate impacts of LCA’s strategies are understood.

As we planned to begin a strategic planning initiative in early 2020, our best-laid plans were delayed with the onset of the global COVID-19 pandemic. LCA’s efforts over the past year have been focused more narrowly on system operations, managing employee safety, and adjusting to the evolving nature of the pandemic. Now, however, we find ourselves looking forward again.

Through this strategic planning project, we will develop:

1. Understanding and awareness of key community needs looking into the future that will shape LCA’s service offerings, strategies and relationships.
2. Updated core elements of vision, mission, values and strategic thrusts to support the community’s needs for water services now and in the future.
3. Implementation plans that include proper goal development and tracking tools, key performance metrics, budget, staffing and rate-setting strategies – to ensure successful implementation of the plan.

In addition to these deliverables, a 2022 Action Plan must be developed with sufficient detail to support LCA’s annual budget process which will occur in August and September 2021.

Based on internal staff discussion and review with the Board’s Strategic Planning Subcommittee (Brian Nagle, Amir Famili and Norma Cusick), the use of a consultant for this project is recommended to allow for a more collaborative input process and comprehensive plan to be developed.

Consultant Selection & Approval

A Request for Proposals (RFP) was issued to five pre-qualified consultants with a proven track record in strategic planning. While the RFP was specific in terms of the scope of work and key deliverables as summarized above, the consultants were tasked with describing their preferred methodologies for achieving these deliverables. Four responses were received, as listed below. Each consultant offered a variety of value-added services that could be added to the project scope if desired.

Consultant	Proposal Base Cost	Cost of Value-Added Services
Jim Ginley & Hazen	\$69,025	\$8,000 - 30,000
Raftelis*	\$74,930	\$9,510 - 59,510
Jacobs	\$115,139	\$60,000 - 86,000
Arcadis	\$160,000	cost not specified

** Consultant recommended for approval (see attached professional services authorization).*

Each proposal offered a unique, professional and thorough approach to addressing LCA’s strategic planning needs. However, the proposal offered by Raftelis is recommended for approval based on the following key features of the consultant’s offering:

- Customizable project approach based on discoveries made during project kickoff
- Extensive experience completing strategic plans on behalf of utilities across the nation
- Strong focus on synthesizing input from internal and external stakeholders, including the Board
- Development of actionable, implementable and measurable plans
- Depth and breadth of Raftelis resources available to support project or conduct additional analysis as may be needed / discovered along the way
- Special focus on employee engagement and communication to support change management

A copy of the proposal provided by Raftelis is attached to the professional services authorization that accompanies this memo. In the proposal you will see their specific proposed approach to this work, as well as a variety of examples provided of the consultant’s work with other water utilities across the nation on similar strategic planning projects.

In addition to staff review, the Board’s Strategic Planning Subcommittee reviewed the consultant proposals and conducted a brief interview with Raftelis on March 16, 2021. Staff conducted additional internal reviews as well as reference checks with other utilities that have used Raftelis for prior similar projects. We believe Raftelis will bring considerable experience and resources to bear on this project. Having a third-party consultant available to facilitate discussion with internal and external stakeholders and consolidate results into a workable plan will be exceptionally valuable in allowing LCA staff to focus energy on the strategic planning work itself.

Project Schedule & Value-Added Services

At the March 22, 2021 meeting of LCA’s Board of Directors, staff recommends approval of the professional services authorization for Raftelis to begin work on this project. Critical tasks and milestones included in the project schedule include:

Project Task	Schedule
Project Kickoff & Document Review	March – April
Stakeholder Engagement	April – June
Foundation Work (Vision, Core Purpose, Core Values)	April – June
Strategy Development (Goal Categories, Measures and Strategies)	June – July
Strategic Plan Document Preparation	July – August
Implementation Planning (Multi-Year Plan with 2022 Action Plan)	August – September

The project schedule above outlines the “base” proposal offered by Raftelis. Additional value-added services are included in the proposal including communications support and implementation tracking software implementation. Value-added services will be reviewed at later stages of the work to determine if these, or any other services, are necessary.

Critical Success Factors

Through the course of discussing LCA’s planned project with other utilities, a few key themes emerged as “lessons learned” that we can leverage to ensure a successful strategic plan is developed:

1. **Communication and Employee Engagement** – Utilities that were satisfied with the results of their strategic planning work noted that employees were involved in many aspects of the project, which generated buy-in for the results and commitment to achieving the goals that were developed as part of the process.
2. **Understanding of Board & Staff Responsibilities** – Developing an understanding early in the process of the Board’s role to set direction vs. the staff responsibility to develop strategies and implementation plans was helpful for some utilities who had not previously involved their Boards in the strategic planning process.
3. **Organizational / Leadership Readiness** – Some utilities noted that their strategic planning work kicked off at a time when the organization was already undergoing some significant change, or that the executive leadership team was not aligned on the goals of the project. These factors detracted significantly from the overall success of the project.
4. **Staff Time Commitment & “Ownership”** – The consultant can only provide so much expertise and facilitation skill to the project, and the remainder of the work must come from within the organization to develop specific strategies and plans that will work for the utility. Successful planning projects were those where the necessary staff time was dedicated to the work, increasing the organization’s ownership of the results.
5. **Realistic Goals & Careful Prioritizations** – Utilities that were able to sustain progress on their goals and action plans in the years after their initial strategic planning project were those who carefully prioritized the goals and set realistic expectations for achievement. Most utilities focused on three to six strategic priorities as a workable plan for a three- or five-year plan horizon.

In reviewing these critical success factors, the LCA staff believe we are well-positioned to develop a meaningful strategic plan with Raftelis.



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: Raftelis
227 W. Trade Street, Suite 1400
Charlotte, NC 28202

Date: March 22, 2021
Requested By: Liesel Gross

Approvals

Department Head: _____
Chief Executive
Officer: _____

Lehigh County Authority – Strategic Plan Development

Through this strategic planning project, we will develop:

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Strategic Plan Document Preparation	July – August
Implementation Planning (Multi-Year Plan with 2022 Action Plan)	August – September

Cost Estimate (not to be exceeded without further authorization): \$74,930

Time Table and Completion Deadline: See above

(For Authority Use Only)

Authorization Completion:

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

Lehigh County Authority





Diversity and inclusion are an integral part of Raftelis' core values.

We are committed to doing our part to fight prejudice, racism, and discrimination by becoming more informed, disengaging with business partners that do not share this commitment, and encouraging our employees to use their skills to work toward a more just society that has no barriers to opportunity.



Raftelis is registered with the U.S. Securities and Exchange Commission (SEC) and the Municipal Securities Rulemaking Board (MSRB) as a Municipal Advisor.

Registration as a Municipal Advisor is a requirement under the Dodd-Frank Wall Street Reform and Consumer Protection Act. All firms that provide financial forecasts that include assumptions about the size, timing, and terms for possible future debt issues, as well as debt issuance support services for specific proposed bond issues, including bond feasibility studies and coverage forecasts, must be registered with the SEC and MSRB to legally provide financial opinions and advice. Raftelis' registration as a Municipal Advisor means our clients can be confident that Raftelis is fully qualified and capable of providing financial advice related to all aspects of financial planning in compliance with the applicable regulations of the SEC and the MSRB.



March 1, 2021

Ms. Liesel Gross
Chief Executive Officer
Lehigh County Authority
P.O. Box 3348
Allentown, PA 18106

Subject: Proposal for Strategic Plan Development

Dear Ms. Gross:

For many utility service providers, 2020 was a challenging year, and it looks as though 2021 will be equally challenging. In working with hundreds of utilities during these unprecedented times, we have seen firsthand that an organization's focus on its strategic vision, coupled with and supported by a well-planned communications program, can make a significant difference in its ability to maintain progress on key organizational outcomes. Raftelis is pleased to present our proposal to assist Lehigh County Authority (LCA) with strategic planning services.

The use of strategy has always been an important management tool to engage stakeholders, identify priorities, align organizations, and channel resources. Successfully monitoring, measuring, and communicating organizational progress and performance against defined objectives is in large part the key to what makes organizations successful.

LCA has evolved at a rapid pace, significantly transforming the organization as the service area, board of directors, and employee base grew. Changes caused by the pandemic in work practices and communication protocols, the need to align the organization and modernize its legacy processes, and a desire to engage stakeholders and communicate outcomes means that having a strategic plan is perhaps more important now than ever before. As you read and reflect on our proposal, we hope that you will see that the Raftelis team offers more than just facilitating discussions around strategy development—that we have taken utility strategy development and execution to a new level. We've accomplished this by mastering the use of virtual engagement, developing new methods and tools necessary to enhance strategy execution, and utilizing strategic communication that accelerates employee and stakeholder understanding and acceptance of the organizational vision. Our focus is helping our country's public utilities achieve a higher level of success with strategy development, execution, and communications.

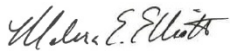
Our team has spent our entire careers working with public service providers, like LCA. We recognize that it can be difficult to select a single firm from a group of highly respected and skilled organizations. For LCA's strategic planning engagement, we believe our team offers several differentiators:

- Our proposed Raftelis core team has conducted similar utility strategic planning projects for utilities across the country, including: Charlotte Water; Greater Cincinnati Waterworks; Louisville Water Company; DC Water; City of Baltimore Department of Public Works; Des Moines Water Reclamation Authority; Nashville Metro Water Services; Metro Wastewater Reclamation District in Denver, CO; Montgomery County Environmental Services, OH; Sanitation District No. 1 of Northern Kentucky (SD1); Capital Region Water in Harrisburg, PA; City of Wilmington Utilities, DE; Mount Pleasant Waterworks, SC; Newport News Waterworks, VA; Central Arkansas Water; and many others.

- Our approach to utility organization strategic planning uses unique and innovative methods and techniques for both strategic planning and critical implementation management activities, as described in this proposal.
- Our strategic planning deliverables are designed to be concise and highly engaging internal- and external-facing communication documents, and our team is composed of skilled public utility communications professionals.

We are excited about the opportunity to work with LCA. The energy we bring to strategic planning is recognizable and contagious. Our clients often tell us that our passion helps energize, engage, and motivate their leadership and employees. We're confident that our project team, approach, and expertise will bring maximum value to LCA. If you have any questions or would like more information, please contact me directly at 303-305-1141 or by email at melliott@raftelis.com. We look forward to the opportunity to work with you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Melissa E. Elliott'.

Melissa Elliott, APR
Vice President

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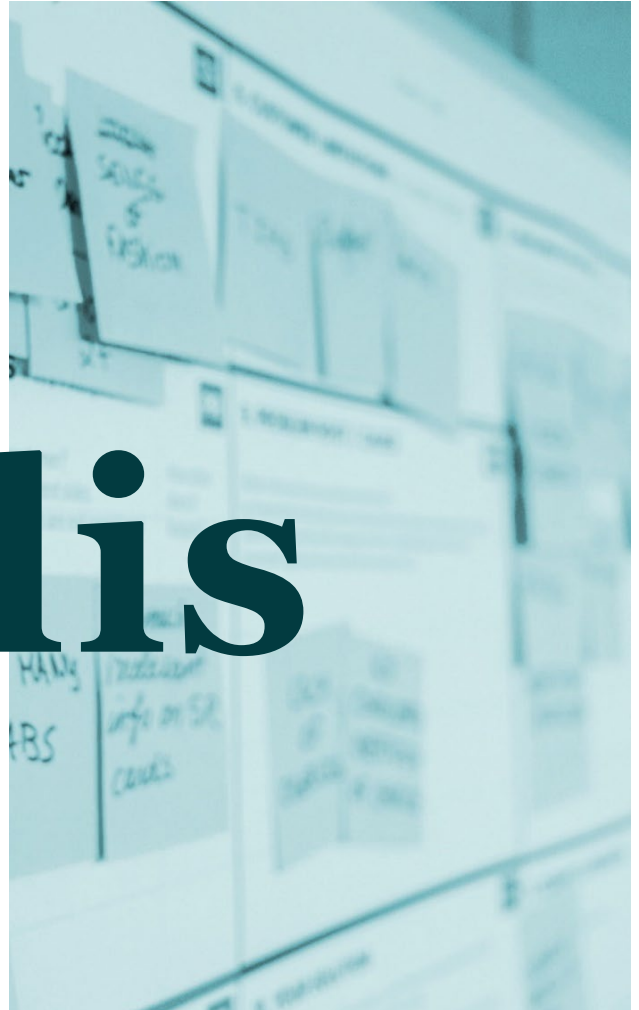
Additional Recommended Services

WHO IS

Raftelis

**RAFTELIS IS THE TRUSTED
ADVISOR TO UTILITIES AND
LOCAL GOVERNMENTS.**

+ VISIT [RAFTELIS.COM](https://raftelis.com) TO LEARN MORE



Raftelis provides utilities and local governments with insights and expertise to help them operate as high-performing, sustainable entities providing essential services to the people who rely on them. We help our clients solve their financial, organizational, technology, and communication challenges, achieve their objectives, and make their communities better places to live, work, and play.

The Right Fit

We believe that Raftelis is the right fit for this project. Here are several key factors that will benefit Lehigh County Authority and help make this project a success.



PEOPLE

We believe that we have the best strategic planning team in the industry.

Melissa Elliott's reputation and experience as a consultant who offers practical and implementable recommendations is grounded in 20 years of utility experience as the public relations director of two large utilities and her strategy and communications work with utilities of all sizes including: Louisville Water Company, KY; WSSC Water, MD; Marin Municipal Water District, CA; and Daphne Utilities, AL. Melissa is a skilled facilitator and is currently President of the American Water Works Association (AWWA).

Catherine Carter has a background in public administration and environmental management and has served as a strategic planning project manager for many of the largest utilities in the United States. Her expertise lies in the areas of strategic planning, assessing organizational effectiveness practices, policies, governance, and facilitation. Catherine has recently managed strategic planning engagements for Charlotte Water, NC; Fairfax Water, VA; Capital Region Water, PA; Greater Cincinnati Water Works, OH; and several others.

Our consultant team has worked together through many similar strategic planning projects and has a wide array of expertise in organizational assessment, process improvement, financial management, strategic planning, and leadership development.



PROCESS

We will implement a proven and unique facilitation process that engages internal and external stakeholders, links strategy to performance, and sets the utility up for effective implementation.

We will use several techniques, some of which are innovative and others that are more classic approaches, including the following:

- Project charter
- Strengths, opportunities, aspirations, and results (SOAR)
- Ten trends analysis
- Anonymous participant polling
- Goal teams
- Briefing books
- One-page strategic framework
- Strategy Blocks
- Lean/Six-Sigma
- Process mapping
- Multi-voting
- Critical analysis
- Force field analysis
- Fishbone analysis



RESOURCES & EXPERTISE

Our project team is passionate about utility strategic planning. Each member of our team specializes in strategic planning and has devoted their career to the industry and assisting with strategic and organizational challenges in particular.

This passion is exemplified by the following:

- Our experience with very successful public utilities of all sizes.
- Our book, entitled *Water and Wastewater Finance and Pricing: The Changing Landscape*, which includes chapters on public utility management and a chapter on strategic planning.
- The development of comprehensive materials that have been helpful to the industry related to different elements of the strategic planning process, such as an innovative workshop that addresses stakeholder engagement and setting community values, which has been presented for several years at various conferences.

In summary, our team loves strategic planning, we are very good at it, and we help our clients achieve strategic success.

27 years
serving the
public sector

OUR TEAM INCLUDES

120+ consultants focused on
finance/management/communication/
technology for the public sector

5 chairs & **20** members of
AWWA and WEF utility finance and
management committees and subcommittees

& the
President of AWWA

RAFTELIS HAS PROVIDED ASSISTANCE FOR

1,200+ public agencies
and utilities

that serve more than

25% of the
U.S. population

including the agencies serving

38 of the nation's
50 largest cities

In the past year alone, we worked on

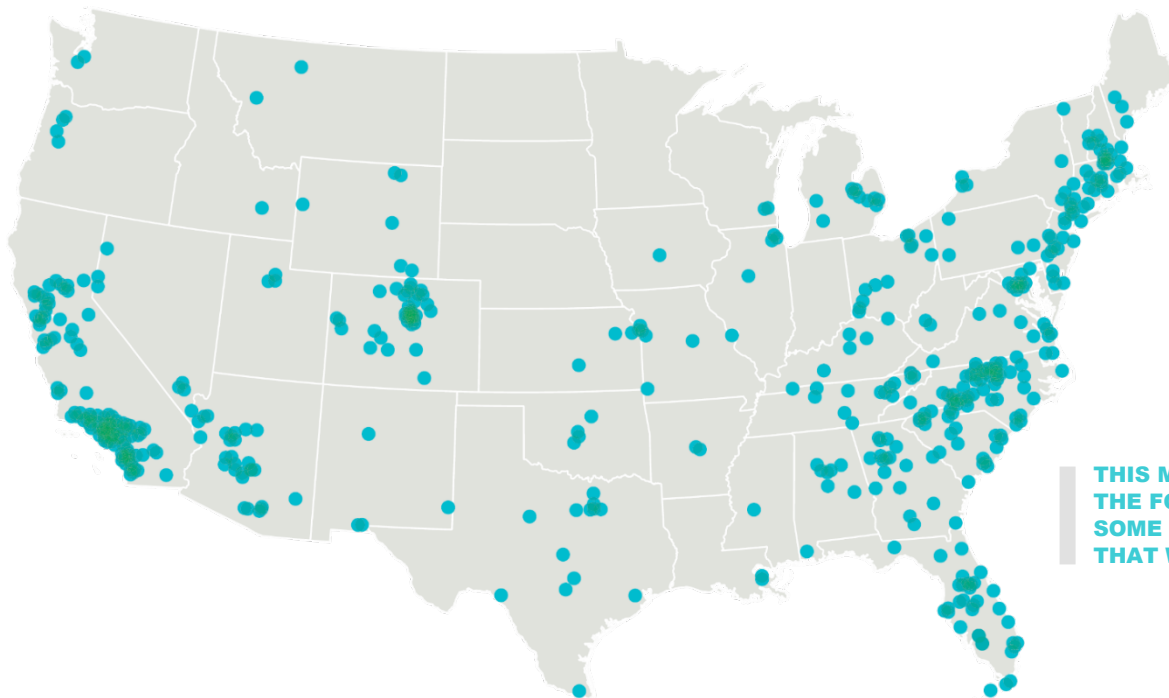
900+ projects for **600+** agencies in **44** states

How
we
stack
up

Experience

RAFTELIS HAS THE MOST EXPERIENCED UTILITY FINANCIAL AND MANAGEMENT CONSULTING PRACTICE IN THE NATION.

Our staff has assisted more than 1,200 public agencies and utilities across the U.S., including some of the largest and most complex agencies in the nation. In the past year alone, Raftelis worked on more than 900 financial/organizational/technology consulting projects for over 600 agencies in 44 states, the District of Columbia, and Canada.



THIS MAP AND THE MATRIX ON THE FOLLOWING PAGES SHOW SOME OF THE UTILITY CLIENTS THAT WE HAVE ASSISTED.

Raftelis has provided financial/organizational/technology assistance to utilities serving more than

25% of the U.S. population

For almost three decades, Raftelis has worked exclusively with utilities and local governments providing management and financial consulting services. **The following list of clients are all utility and/or local government organizations where Raftelis has assisted in the areas of strategic planning, organizational optimization, or human resources consulting.**

AL	Birmingham Water Works Board	CA	San Gabriel	CT	Meriden
AK	Municipality of Anchorage	CA	San Luis Obispo	CT	Windsor
AR	Central Arkansas Water	CA	San Marino	DC	DC Water
AR	El Dorado	CA	Santa Barbara	DC	District of Columbia Department of Public Works
AR	Little Rock Wastewater	CA	Seaside	DE	Kent County
AZ	Alliance for Innovation	CA	Yountville	DE	Lewes
AZ	Avondale	CO	Adams County	DE	Milford
AZ	Bullhead	CO	Aspen	DE	Milton
AZ	Central Arizona Project	CO	Aurora	DE	Rehoboth Beach
AZ	Clarkdale	CO	Boulder	DE	Wilmington
AZ	Cottonwood	CO	Boulder County	DE	Wilmington Utilities
AZ	Goodyear	CO	Brighton	FL	Deerfield Beach
AZ	Oro Valley	CO	Centennial	FL	Palmetto Bay
AZ	Payson	CO	Denver Wastewater	FL	Palmetto County
AZ	Peoria	CO	Elbert County	FL	Pinellas County
AZ	Scottsdale	CO	Erie	FL	Pompano Beach Utility Department
AZ	Sierra Vista	CO	Evans	FL	Sanford
AZ	Yuma	CO	Fort Collins	FL	Tampa Water Department
CA	Central Contra Costa Sanitary District	CO	Golden	FL	Winter Haven
CA	Delta Diable Sanitation District	CO	Greeley	GA	Decatur
CA	Fullerton	CO	La Plata County	GA	Roswell
CA	Gilroy	CO	Lafayette	IL	Carbondale
CA	Hanford	CO	Louisville	IL	DuPage County
CA	Hayward	CO	Loveland	IL	Evanston
CA	Hollister	CO	Metro Water Reclamation District	IL	Geneva
CA	Huntington Beach	CO	Routt County	IL	Gurnee
CA	Long Beach Transit Authority	CO	Thornton	IL	Lisle
CA	Manhattan Beach	CO	Timnath	IL	Peoria County
CA	Malibu	CO	Westminster	IL	Schaumburg
CA	Oceanside Water Utilities	CO	Windsor	IL	Warrenville
CA	Palo Alto	CT	Connecticut Town & City Management Association	IL	Woodridge
CA	Placer County	CT	Enfield	IN	Bloomington
CA	Roseville	CT	Greenwich	IN	Indianapolis
CA	Sacramento Area Sewer District/ Sacramento Regional County Sanitation District	CT	Groton	IN	Monroe County
		CT	Manchester	IN	Munster
		CT	Mansfield	IA	Cedar Rapids

KS	Baldwin City	MA	Franklin County	NY	Oneonta
KS	Bonner Springs	MA	Lexington	NY	Rochester
KS	Edgerton	MA	Nantucket	NY	Wainscott
KS	Edwardsville	MA	Pioneer Valley Planning Commission	NJ	Jersey Water Works
KS	Eudora	MA	Sherborn	NJ	New Jersey Health Initiative
KS	Garden City	MA	Westborough	NC	Albemarle
KS	Gardner	MI	Ada	NC	Asheville
KS	Johnson County	MI	Ann Arbor	NC	Brevard
KS	Lawrence	MI	Ann Arbor Transportation Authority	NC	Cary
KS	Merriam	MI	Ferndale	NC	Charlotte Water
KS	Olathe	MI	Holland	NC	GoTriangle Transit
KS	Roeland Park	MI	Jackson County	NC	Greensboro
KS	Shawnee	MI	Midland	NC	Lowell
KS	Tonganoxie	MI	Midland Community Foundation	NC	Onslow Water & Sewer Authority (ONWASA)
KS	United Government of Wyandotte County & Kansas City	MI	Novi	NC	Orange County
KY	Lexington-Fayette Urban County Government	MI	Rochester Hills	NC	Raleigh
KY	Louisville Water Company	MI	Saline	NC	Raleigh Public Utilities Department
KY	Paducah	MI	Three Rivers	NC	Rolesville
KY	Sanitation District #1 of Northern Kentucky	MN	Cloquet	NC	Swansboro
LA	New Orleans	MN	Edina	NC	Wake County
LA	Orleans Parish School Board	MN	Minnesota Municipal League	NC	Wilmington
MD	Aberdeen	MN	Northfield	NC	Winston-Salem/Forsyth County Utilities
MD	Baltimore Department of Public Works	MO	Chesterfield	OH	Beavercreek Township
MD	Berwyn Heights	MO	Clayton	OH	Blendon Township
MD	Cambridge	MO	Lee's Summit	OH	Blue Ash
MD	Charles County	MO	Maryville	OH	Centerville
MD	College Park	MO	Metropolitan St. Louis Sewer District	OH	Cincinnati
MD	Gaithersburg	MO	Missouri Municipal League	OH	Clearcreek Township
MD	Garrett Park	MO	North Kansas City	OH	Cleveland Heights
MD	Greenbelt	MO	Parkville	OH	Dayton
MD	La Plata	MO	Platte City	OH	Delaware
MD	Maryland Municipal League	MO	Sikeston	OH	Delaware County
MD	Maryland State Judiciary	MO	St. Joseph	OH	Delaware County EMS
MD	Mount Rainier	MO	St. Louis County	OH	Dublin
MD	New Carrollton	MO	University City	OH	Gahanna
MD	Ocean City	MT	Helena	OH	Georgetown
MD	Ocean Pines Association	NE	Hastings	OH	Granville
MD	Riverdale Park	NE	La Vista	OH	Greater Cincinnati Water Works
MD	Rockville	NE	Reno	OH	Greene County
MD	Sykesville	NH	Keene	OH	Hilliard
MD	Takoma Park	NM	Las Cruces	OH	Hudson
MD	University Park	NY	Batavia	OH	Jackson Township
MD	Westminster	NY	Edgemont	OH	Miami Township
MD	Worcester County	NY	Ithaca	OH	Miami University

OH	Miami Valley Risk Management Authority	PA	Duquesne	VA	Alexandria
OH	Montgomery County Environmental Services	PA	East Buffalo	VA	Appomattox River Water Authority
OH	Monroe	PA	East Whiteland Township	VA	Arlington County
OH	Moraine	PA	Exeter Township	VA	Ashland
OH	National Association of State & Local Equity Funds	PA	Farrell	VA	Bedford County
OH	Newark	PA	Ford City Borough	VA	Charlottesville
OH	Oberlin	PA	Harrisburg	VA	Fairfax
OH	Ohio City/County Management Association	PA	Hazleton	VA	Fairfax County
OH	Owens-Corning	PA	Lancaster County	VA	Fairfax County Water Authority
OH	Piqua	PA	Lewisburg	VA	Fredericksburg
OH	Portsmouth	PA	Nanticoke	VA	Gloucester County
OH	Powell	PA	Pittsburgh Water & Sewer Authority	VA	Hampton
OH	Prairie Township	PA	Reading	VA	Harrisonburg
OH	Preservation Parks of Delaware County	PA	St. Marys	VA	Leesburg
OH	Sandusky	PA	State College	VA	Loudoun County
OH	Sharonville	RI	Westerly	VA	Newport News Waterworks
OH	Solid Waste Authority of Central Ohio (SWACO)	SC	Charleston	VA	Purcellville
OH	Solon	SC	Hilton Head	VA	Rivanna Water & Sewer Authority
OH	The Port, an Ohio Port Authority	SC	Mount Pleasant Waterworks	VA	Suffolk
OH	Toledo	SC	Renewable Water Resources (ReWa)	VA	Vienna
OH	Troy	TN	Farragut	VA	Virginia Retirement System
OH	Union County	TN	Johnson City	VA	Warrenton
OH	Upper Arlington	TN	Metro Water Services of Nashville and Davidson County	VA	Washington County Service Authority
OH	Washington Township	TX	Abilene	WA	Bellevue
OH	West Chester Township	TX	Allen	WA	Camas
OH	Westerville	TX	Austin	WA	Mercer Island
OH	Worthington	TX	Brownsville Public utilities Board	WA	Richland
OH	Xenia	TX	Cedar Hill	WA	Sammamish
OK	Lawton	TX	Cedar Park	WA	Sequim
OK	Norman	TX	Dallas	WA	Shoreline
OR	Bend	TX	Lancaster	DC	International City/County Management Association
OR	Gresham	TX	League City	DC	National League of Cities
OR	Hillsboro	TX	North Texas Municipal Water Department	DC	USAID - Moldova
OR	Hood River	TX	Pearland	WV	Monongalia County
OR	Lane County	TX	Plano	WV	Morgantown
OR	Salem	TX	Prosper	WI	Eau Claire
OR	Washington County	TX	Temple	WI	Central Brown County Water Authority
OR	Wilsonville	TX	The Woodlands	WI	Green Bay/Central Brown County
PA	Allentown	TX	University Park	WI	Mequon
PA	Association for Pennsylvania Municipal Management (APMM)	UT	Murray	WI	Milwaukee Metropolitan Sewerage District
PA	Bethel Park	UT	South Jordan	WI	Oak Creek
PA	Breakneck Creek Regional Authority	VT	Burlington Water Resources	WI	Shorewood
PA	Capital Region Water	VT	Montpelier	WI	Washington County
PA	Carlisle Borough	VA	Albemarle County	PR	Puerto Rico Aqueduct & Sewer Authority (PRASA)

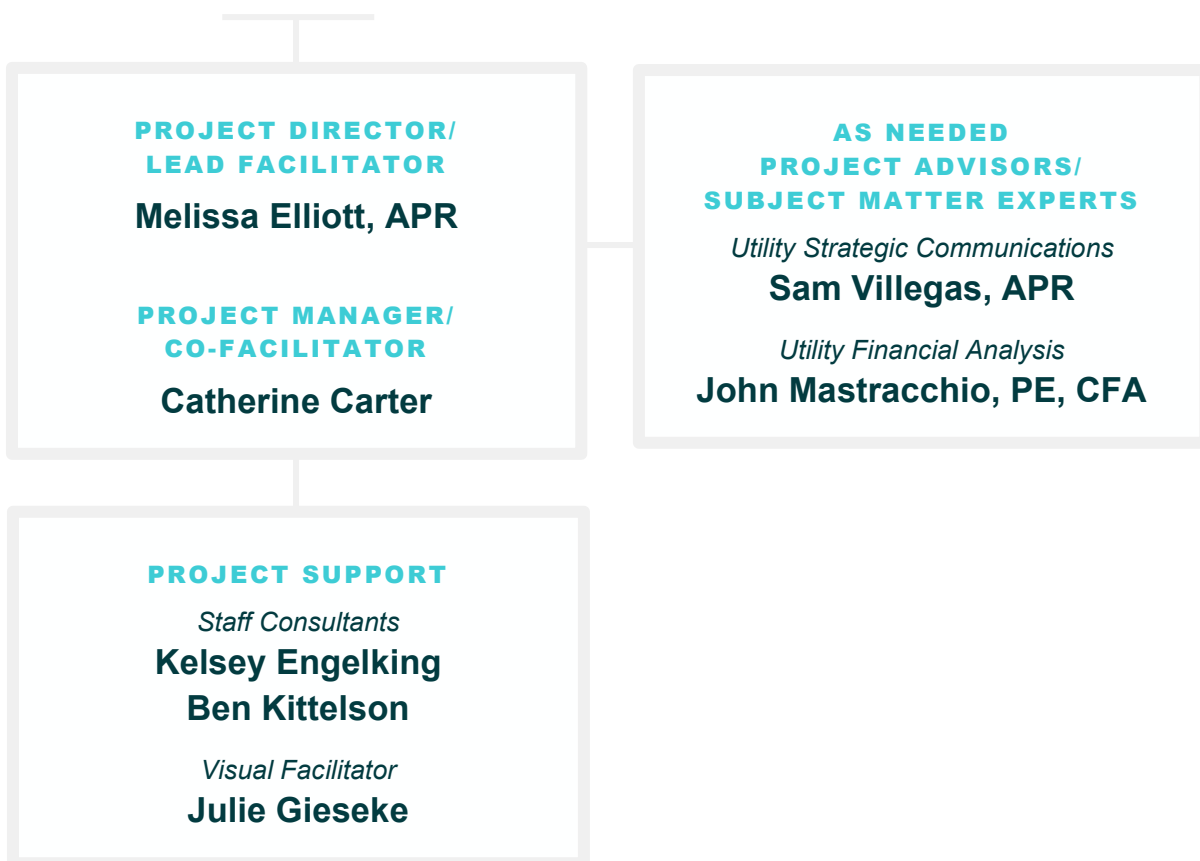
Project Team/ Qualifications

WE HAVE DEVELOPED A TEAM OF CONSULTANTS WHO SPECIALIZE IN THE SPECIFIC ELEMENTS THAT WILL BE CRITICAL TO THE SUCCESS OF LCA'S PROJECT.

Our team includes senior-level professionals to provide experienced project leadership with support from talented consultant staff. This close-knit group has frequently collaborated on similar successful projects, providing LCA with confidence in our capabilities.

Here, we have included an organizational chart showing the structure of our project team. On the following pages, we have included concise resumes for each of our team members and a description of their role on the project.

Lehigh County Authority



Melissa Elliott APR

PROJECT DIRECTOR/LEAD FACILITATOR

Vice President

ROLE

Melissa will be responsible for overall project accountability and will provide quality assurance and control, industry perspective, and insights into the project. She will also lead facilitation for workshops and meetings.

PROFILE

Melissa's 25+ year public relations career is focused on helping water and wastewater utilities and municipalities tell their stories. She provides strategic communication planning, stakeholder engagement, and risk communication strategies for Raftelis. She also provides strategic counsel and facilitates public involvement efforts and public meetings. Melissa has extensive experience working with elected officials, stakeholders, and the public on issues as diverse as drought, water quality, potable reuse, affordability, rate structure change, impactful construction projects, rate increases, customer assistance programs, and demand management. Highly active in the water industry, Melissa is President of the American Water Works Association, is a former chair of AWWA's Public Affairs Council, and a regular volunteer for The Water Research Foundation. She has an M.S. in technical communication and a B.A. in journalism and is Accredited in Public Relations (APR) from the Public Relations Society of America. Prior to joining Raftelis, Melissa directed the public affairs efforts at Denver Water, which included creating public engagement strategies for massive infrastructure projects, developing a nationally recognized lead service line replacement program, and leading conservation outreach efforts through the innovative "Use Only What You Need" campaign.

KEY PROJECT EXPERIENCE

Louisville Water Company (KY)

Louisville Water Company developed a strategic business plan and wanted to ensure that employees were engaged and inspired by the plan. Melissa developed an internal communications plan to roll out the strategic business plan to employees that included a "first six months" timeline and task list to keep the plan at the forefront of employee communication.

American Water Works Association

American Water Works Association (AWWA) looked to Raftelis to develop a comprehensive risk communication guide for utilities: *Trending in an Instant*. Melissa served as principal investigator and key author for this guidance document, which helps utilities enhance their ability to communicate effectively when they find themselves unexpectedly in the traditional and social media spotlight. The guide provides research into the psychology and behavior behind consumer response to media-driven community fears and, more importantly, deliver targeted tools and action steps to help utilities respond effectively before, during, and after a high-profile communications issue in their service area. The



Specialties

- Strategic communication planning
- Stakeholder engagement
- Public involvement
- Community outreach
- Crisis & risk communication
- Reputation management
- Strategic planning

Professional History

- Raftelis: Vice President (2021-present); Director of Strategic Communication Services (2018-2020)
- Denver Water: Director of Public Affairs (2012-2018); Manager of Water Conservation (2008-2012)
- Aurora Water: Manager of Public Relations (2000-2008)

Education

- Graduate, Water & Wastewater Leadership Center - University of North Carolina, Kenan-Flagler Business School (2016)
- Master of Science in Technical Communication (Public Relations) - Colorado State University (2005)
- Bachelor of Arts in Technical Journalism (Public Relations) - Colorado State University (1991)

Professional Memberships

- AWWA: President; Former Public Affairs Council Chair; Former Strategic Planning Committee Chair
- AWWA/WEF Transformative Issues Symposium on Affordability: Former Chair
- WEF
- NACWA
- Public Relations Society of America: Accredited in Public Relations (APR)

guide describes proven risk communication techniques, such as how to return to productive conversation when people are communicating in a perceived high-risk environment and offers social media strategies to employ during crisis, such as how to prepare, how to react, and what to do after the crisis ends.

Green Bay Water Utility/Central Brown County Water Authority (WI)

In an effort to improve efficiency and reduce costs, Green Bay Water Utility and Central Brown County Water Authority joined together to develop a shared services approach with assistance from Raftelis. Melissa led the strategic communications program for this regional effort, working with communication professionals from both the utility and the authority to ensure that all parties stayed on message, internal communication was prioritized, and that the effort had a brand that could live beyond the initial first year of work. Branded SPLASH (Sustainable Partnership Linking Area Services and H2O) the successful effort is now a role model for other agencies looking to share services or move into a regional structure.

City of Lakewood (OH)

The City of Lakewood (City) is working through a regulatory response and developing an infrastructure plan to address combined sewer overflows. Melissa developed an extensive community engagement program to demonstrate that the City is advocating on behalf of their citizens in terms of an affordable plan to address regulatory concerns. The engagement efforts implemented by Melissa and City staff included facilitated round table discussions, electronic voting at a large public meeting and a community open house to gather public input. The engagement effort touched hundreds of residents on a topic that is typically difficult to get community traction on.

Birmingham Water Works Board (AL)

Birmingham Water Works Board (BWVB) is redesigning its website and has asked Melissa to help provide strategy and guidance on the look, feel, and content of the new site, which is being developed with in-house resources. In addition, during BWVB's cost-of-service study, the utility made recommendations for changes needed to recover costs to serve customers in proportion to their use of the water system. Melissa worked hand-in-hand with BWVB staff and rate consultants to implement a communications strategy that built public trust in the cost-of-service study decision-making process through a variety of community outreach tactics.

Mount Pleasant Waterworks (SC)

Mount Pleasant Waterworks sought assistance from Raftelis for strategic communication services. As the project manager, Melissa provided strategic counsel, the development of an annual strategic communications plan, a communications review and brand assessment, and a communications plan for capital improvements.

Sacramento Utility Collaboration and Integration Study (CA)

The Sacramento Region Water Utility Collaboration/Integration Study is designed as an opportunity for collaboration to help address water resource issues. Seven participating water supply agencies in the Sacramento Region are seeking to build successful collaborative efforts to benefit all agencies and their customers. Melissa is providing facilitation and strategic communications planning to help the partners determine how best to talk about the study, its benefits, and their relationship to each other.

Northwestern Water and Sanitation District (OH)

The growing Northwestern Water and Sanitation District (NWWSD) now serves dozens of townships and communities within its service area. In many of these cases, expansion occurred at the request of federal and state regulators (EPA/Ohio EPA), asking that they step in and "adopt" poor performing water and/or sewer utilities in the area. Raftelis assisted NWWSD with developing and modernizing their rate structure approach for the future, and Melissa worked with district staff to develop the best way to communicate this change.

Catherine Carter

PROJECT MANAGER/CO-FACILITATOR

Manager



ROLE

Catherine will manage the day-to-day aspects of the project, ensuring it is within budget, on schedule, and effectively meets LCA's objectives. Catherine will serve as co-facilitator for meetings and workshops. She will also lead the consulting staff in conducting analyses and preparing deliverables for the project.

PROFILE

Catherine has a background in public administration and environmental management and possesses extensive research and analytical skills. Her expertise lies in the areas of strategic planning, conducting assessments of organizational effectiveness practices, compiling and analyzing data, and benchmarking. Catherine has participated in numerous financial and management studies for water, wastewater, and stormwater utilities and other public sector organizations across the country. Catherine is active in the water and wastewater utility industry, having presented at several conferences and co-authored two recent articles on long-term rate increases in *Journal AWWA*. Catherine also co-authored a chapter entitled "Public Outreach and Gaining Stakeholder Commitment" for the Fourth Edition of the industry guidebook, *Water and Wastewater Finance and Pricing: The Changing Landscape*. Prior to working at Raftelis, Catherine was a senior fellow at the Institute for Sustainable Development.

KEY PROJECT EXPERIENCE

Charlotte Water (NC)

Equity. Sustainability. Resilience. As the main focus areas of the City of Charlotte's (City) 2020 Budget, these goals are critical as Charlotte continues to grow and flourish as a richly diverse community. Very few services provided by the City have as much influence as water service, and it was critical that Charlotte Water's strategic plan both reflect and advance these goals. Raftelis was engaged to facilitate Charlotte Water's strategic plan through an inclusive process that was designed to build on and amplify the voices of its customers, through listening and public engagement sessions; its region, through interviews with each of the municipalities served by the utility; and its employees, through focus groups, interviews, a survey, and active participation in different aspects of the process. Catherine managed this project, led the Raftelis team, and participated in all aspects of process, from plan development to communicating the vision to strategy implementation.

Fairfax Water (VA)

Fairfax Water is Virginia's largest water utility and one of the 25 largest water utilities in the country, serving one out of every five Virginians who obtain their water from public utilities. Building on a strong legacy of strategic planning, Fairfax Water engaged Raftelis in 2020 to capture the progress made against its existing strategic plan, facilitate an update, and assist with planning and structuring the organization's implementation efforts. Fairfax Water was also

Specialties

- Strategic planning
- Facilitation
- Organizational assessment
- Staffing analysis
- Strategy monitoring and implementation
- Risk and resiliency assessment
- Business process improvement
- Comparative industry analyses

Professional History

- Raftelis: Manager (2019-present); Senior Consultant (2016-2018); Consultant (2013-2015); Associate Consultant (2011-2012)
- Mecklenburg County Waste Management Advisory Board (appointed term: 2019-2021)
- The Institute for Sustainable Development (2009-2011)

Education

- Master of Public Administration - University of North Carolina Charlotte (2017)
- Master of Environmental Management - Duke University (2011)
- Bachelor of Science in Business/Economics, Biology, Environmental Studies - Randolph-Macon College (2009)

Certifications

- Change Management & Leadership Certification - Cornell University (2019)
- American Water Works Association Risk & Resiliency Certification (2019)

Professional Memberships

- AWWA
- Solid Waste Association of North America

interested in whether its organizational structure supported its achievement of target service levels, and so incorporated an organizational structure review within the strategic planning process. Catherine served as the project manager for both the strategic plan and the organizational structure review. This engagement was completed partially in-person and partially remotely in response to COVID-19 restrictions.

Louisville Water Company (KY)

Catherine served as the lead consultant for Louisville Water Company's (Louisville Water) recently completed strategic plan. Raftelis was engaged by Louisville Water in 2018 to facilitate the leadership team's development of a five-year strategic plan. The most critical success factors for this engagement were Louisville Water's desire to incorporate previous strategic planning efforts, be consistent with industry trends, and use existing measurement and reporting frameworks as a means to deeply engage the organization and to move forward. As lead consultant, Catherine interviewed stakeholders, facilitated employee focus groups, managed an employee survey, co-facilitated workshops with the Core Strategic Planning Team, and developed content for the final strategic planning document. Additionally, Catherine assisted in developing materials to support an organizational communication plan focused on releasing the strategic plan internally, which included a brief video, posters, and an anniversary party for Louisville Water.

Milwaukee Metropolitan Sewerage District (WI)

Catherine served as the project manager for the Milwaukee Metropolitan Sewerage District's (MMSD) strategic plan, which is on track to be adopted by the end of 2018. MMSD is required by charter to complete a new strategic plan every three years, and the several strategic plans prior to the 2019-2021 plan had been completed internally. As project manager, Catherine facilitated employee focus group sessions; co-led workshops with MMSD's Project Steering Team to conduct an environmental scan of external trends impacting MMSD and its service area; helped refine MMSD's vision, mission, and values and goals; created the content for MMSD's final strategic plan; and assisted in delivering an implementation planning workshop to help institutionalize the strategic planning process at MMSD.

Des Moines Metropolitan Wastewater Reclamation Authority (IA)

Catherine served as the lead consultant/co-facilitator for the Des Moines Metropolitan Wastewater Reclamation Authority's (WRA) recently completed strategic plan. In this role, she facilitated employee focus groups; interviewed the organization's leadership, members of the WRA Board, and other stakeholders to provide feedback for the Foundation and Strategy Workshops; developed materials and interim deliverables to support project milestones; and developed the content for the WRA's final strategic planning document. This strategic planning process incorporated significant collaboration between members of the WRA Board of Directors and the WRA's leadership team, with comprehensive input from both employees and outside stakeholders. The plan serves as a blueprint for future decision-making, and lays out a structure to ensure that goals and objectives retain relevance over time. By laying out a course of action, the plan represents a disciplined process to make fundamental decisions that will shape the WRA's future.

Greater Cincinnati Water Works (OH)

Raftelis was engaged by Greater Cincinnati Water Works (GCWW) in 2017 to build on a long history of organizational strategic planning and facilitate the creation of a new plan for 2018-2022. Catherine served as the project manager for this effort. To ensure engagement with internal and external stakeholders, the Raftelis team interviewed GCWW leadership, facilitated employee focus groups with each division, released and analyzed an employee survey with more than 450 responses, and conducted external interviews with more than 30 stakeholders. The resulting strategic plan highlights a revised vision and mission, as well as the six goal areas that GCWW has chosen to focus on for the next five years. Each goal area has assigned metrics, strategies, and key action items, which were developed by cross-divisional, multi-level Goal Teams.

Ben Kittelson

STAFF CONSULTANT

Consultant

ROLE

Ben will serve in a project support role assisting the project team with stakeholder data collection and analysis. Ben will also provide virtual workshops design, briefing book development, and deliverables management for the project.

PROFILE

Ben began consulting in 2019 after seven years of direct service to local governments on the East and West Coast. Most recently, Ben worked for the Budget and Management Services Department in the City of Durham, North Carolina. He worked on the annual budget and the community-wide strategic plan. He completed revenue projections for sales tax and water sales, assisted with financial planning for affordable housing, and led community engagement efforts designed to inform the City's budget process. Ben also started an innovation partnership program with local technology startup companies, which was awarded the J. Robert Havlick Award for Innovation in Local Government from the Alliance for Innovation.

As a consultant, Ben has been involved with organizational assessments for a broad range of departments – from emergency communications to human resources. He has analyzed staffing levels and organizational structure, created process maps, and developed actionable recommendations for improvement. Ben has also leveraged his experience to explore unique challenges for local governments. For example, he worked with the City of Fort Collins, Colorado, to conduct a cultural assessment of the Light and Power Utility, analyzing workplace climate and management practices.

Ben began his career in the Portland, Oregon region, where he served the Cities of Beaverton, West Linn, and Gresham, as well as Metro, the regional government for the Portland area. In those roles, he focused on community engagement, outreach, and communications initiatives. Ben expanded his experience in the Budget, Management, and Evaluation Department in Guilford County, North Carolina, where he analyzed government services such as jail operations and education funding. He also managed the County's social media and internal employee newsletter.

In addition to his work for local governments, Ben is a founding member of Engaging Local Government Leaders (ELGL). Since 2013, ELGL has grown from a few hundred members in Oregon to over 4,800 across the nation. He produces and co-hosts ELGL's GovLove Podcast, which discusses topics ranging from innovation and performance to equity and workforce development. He has led planning for the organization's annual conference and written articles for the website. He currently serves as the Chair of the ELGL Board of Directors.

Ben earned a master's degree in public administration from Portland State University



Specialties

- Budgeting and financial analysis
- Organizational assessment
- Strategic planning
- Innovation
- Staffing analysis

Professional History

- Raftelis: Consultant (2019-present)
- City of Durham, North Carolina: Senior Budget and Management Analyst (2016-2019)
- Guilford County, North Carolina: Budget and Management Analyst (2014-2016)
- City of Gresham, Oregon: Intern (2014)
- Oregon Metro: Intern (2014)
- City of West Linn, Oregon: Intern (2013-2014)
- City of Beaverton, Oregon: Intern (2012-2013)

Education

- Master of Public Administration - Portland State University (2014)
- Bachelor of Arts in Politics and Economics - Willamette University (2012)

Professional Memberships

- Engaging Local Government Leaders (ELGL)
- North Carolina Local Government Budget Association (NCLGBA)

Kelsey Engelking

STAFF CONSULTANT

Associate Consultant



ROLE

Kelsey will serve in a project support role assisting the project team with stakeholder data collection and analysis. Kelsey will also provide virtual workshops design, briefing book development, and deliverables management for the project.

PROFILE

Kelsey has a background in physics, chemistry, and sustainability as well as experience providing residential energy efficiency consulting. She also has experience working with local governments and the public. Kelsey has worked on strategic planning and organizational assessment projects across the country.

KEY PROJECT EXPERIENCE

Fairfax Water (VA)

Fairfax Water engaged Raftelis in early 2020 to facilitate a strategic planning update and conduct an organizational structure review to aid in building a strong foundation for future employees and customers. The strategic plan, built on stakeholder input and considerable employee involvement, leverages the success and the structure developed in Fairfax Water's 2020 Strategic Plan. Kelsey's role has involved assisting with both in-person and virtual workshops and focus groups, conducting interviews, identifying industry key performance indicators, analyzing benchmarking comparisons, and the creation of all deliverables and materials.

Charlotte Water (NC)

Raftelis was engaged by Charlotte Water in 2019 to assist with the development of an updated five-year strategic plan and ongoing support during the first year of implementation. Charlotte Water provides water and wastewater services to the Mecklenburg County area in North Carolina. This engagement is designed to engage both the employees and a large number of Charlotte Water's key stakeholders and customers. Major activities include leadership interviews, online employee surveys, employee focus groups, and external interviews with key regional stakeholders. The resulting strategic plan highlights a revised vision and mission, as well as the priority areas that Charlotte Water will focus on for the next five years. Kelsey has assisted with workshops and focus groups, conducting stakeholder interviews, evaluating survey results, creating deliverables, and developing implementation workplans.

Brownsville Public Utilities Board (TX)

In early 2019, Raftelis was retained by the Brownsville Public Utility Board (BPUB) to assist their organization with the development of an updated five-year strategic plan. BPUB is a large publicly owned electric, water, and wastewater service provider to over 180,000 customers in their service area. This engagement is a multi-year, designed to engage both the employees and a large number of the BPUB's key stakeholders and customers. Major activities include leadership interviews, online stakeholder surveys, employee focus groups, and Board workshops. Raftelis is also tasked with

Specialties

- Project management
- Data analysis
- CRM (salesforce.com)

Professional History

- Raftelis: Associate Consultant (2019-present)
- CLEAResult: Associate Program Manager (2015-2019); Energy Advisor (2013-2015)

Education

- Bachelor of Arts in Physics, University of Colorado at Boulder
- Bachelor of Arts in Chemistry, University of Colorado at Boulder
- certifications
- Building Analyst Professional Certification, Building Performance Institute (BPI)
- Undergraduate Energy Certificate, Renewable & Sustainable Energy Institute

Certifications

- AWWA Risk & Resiliency Certification (2020)

Professional Memberships

- AWWA

developing and delivering an online strategy management system that will allow the organization to continuously measure, monitor, and report organizational progress and performance as it implements its new strategic plan. Kelsey has been involved in building the dashboards for the online strategy management system, developing plans and tactics for the first year of implementation, and facilitating conversations to update progress on the strategic plan.

City of Sanford Public Works and Utilities Department (FL)

The City of Sanford's Department of Public Works and Utilities (Department) engaged Raftelis in 2019 to assist their organization with the development of a five-year strategic plan and identification of key performance indicators. The Department provides the citizens of Sanford with water, wastewater, stormwater, solid waste, and street maintenance services as well as providing fleet and facilities maintenance for the city. The Public Works and Water and Wastewater Utilities were merged recently, and the organization hopes to develop a strategic plan that will move the Department forward towards a shared vision. Major activities of the strategic plan include leadership and employee interviews, external interviews with stakeholders, employee focus groups, and an employee survey. The feedback will be incorporated into the goals and strategies of the resulting strategic plan. As part of developing key performance indicators, Raftelis is interviewing leadership to understand key processes of each division within the Department and will also be leveraging the strategic plan to identify objectives. Kelsey's role involved assisting with workshops and focus groups, conducting interviews, evaluating survey results, identifying industry key performance indicators, and the creation of all deliverables and materials.

City of Tampa Water Department (FL)

Raftelis was engaged by the City of Tampa's Water Department (Department) to conduct an organizational assessment based on the effective utility management framework and then to use the results to inform a new organizational strategic plan. Major activities included attribute and goal team meetings; analyzing employee-provided data to support assessment of performance gaps across the Department's operation; employee engagement efforts, including focus groups, individual interviews, and an online survey; and creating assessment and strategic planning deliverables. Based on the results of the organizational assessment, the Department elected to make employee engagement and development, customer and stakeholder satisfaction, operational resiliency, process optimization, and infrastructure stability its core focus areas for the next five years and has initiated its strategic plan implementation effort. Raftelis also developed and delivered an online strategy implementation management model using the web-based Strategy Blocks system. Kelsey's role involved developing deliverables, including a workforce competency summary and the implementation plans for the first year of the strategic plan.

City of Roseville Environmental Utilities (CA)

In 2020, the City of Roseville's Water Utility (Water Utility) initiated a process to conduct an organizational assessment based on the Effective Utility Management framework and to use the results of the assessment to inform and develop a new strategic business plan for the Water Utility. This process was facilitated by Raftelis and driven by members of the Water Utility's leadership team. Stakeholder engagement and employee involvement are at the core of both phases of this project and includes involving subject matter experts on the Attribute and Goal Teams, soliciting employee feedback through an online survey, and conducting interviews and focus groups with key stakeholders. The organizational assessment was designed to evaluate the presence of best practices at the Water Utility using the framework in the EPA's Effective Utility Management (EUM) initiative. Based on the results of the organizational assessment and the strategic planning work, the Water Utility will identify a set of goals and a desired future state for the organization. Kelsey's role involves assisting with workshop facilitation, summarizing stakeholder feedback, identifying the Water Utility's current performance within each EUM attribute, and creating all deliverables.

and a bachelor's in politics and economics from Willamette University.

Julie Gieseke

VISUAL FACILITATOR

Visual Facilitator

ROLE

Julie will use visual facilitation during workshops to capture participants' dialogue, discussion, and ideation by drawing large visual maps in real time, which helps connect ideas, track content, and synthesize their work.

PROFILE

Julie collaborates on projects utilizing the tools of group process and design, such as visual facilitation, creative engagement, and storytelling, to bring strategy and tactics into clear focus. She also incorporates change methodologies such as Appreciative Inquiry, Positive Psychology, StrengthsFinder, and Neurolinguistics.

Julie's unique skill set combines facilitation, active listening, and visual facilitation to bring sense-making, consensus, energy, and vibrancy to each engagement. As a consultant with The Novak Consulting Group and now Raftelis, Julie has worked on a variety of strategic planning and facilitation projects.

Julie developed her group process design through a broad range of experience. She received her master's degree in Organizational Development and Management from Fielding Graduate University, is certified as a professional coach through The Coaches Training Institute and is a certified Master Practitioner of Neurolinguistics. Julie also received professional training through The Grove Consultants International and has been mentored by leaders in the fields of visual facilitation, facilitation, organizational development, coaching, storytelling, and performance. The result is a wide range of exposure to various approaches that culminates in a unique style that is customizable for each engagement.



Specialties

- Visual Facilitation
- Strategic Visioning/Planning
- Executive Coaching
- Facilitation
- Team Development

Professional History

- Raftelis: Visual Facilitator (2011-present)
- Map the Mind: Principal (2008-present) Visual Facilitation, Coaching, Consulting, Teaching

Education

- Master of Arts in Organizational Development and Management - Fielding Graduate University (2008)
- Professional Coaching Certification - Coaches Training Institute (2008)
- Bachelor of Arts in Film and Video Production/Theater Arts - University of California, Santa Cruz (1988)

Certifications

- Master Practitioner of Neurolinguistics
- Certified Professional Co-Active Coach

Professional Memberships

- International Forum of Visual Practitioners

Sam Villegas APR

PROJECT ADVISOR – UTILITY STRATEGIC COMMUNICATIONS Director of Strategic Communication Services

ROLE

Sam will be available on an as-needed basis to provide facilitation and, if desired, assistance with strategic communications consulting.

PROFILE

Sam is an award-winning communications and outreach strategist with more 25 years of experience conducting strategic communication and public outreach for public works in the areas of water, energy, solid waste, and recycling. Sam began her career helping municipalities and corporations increase their recycling rates. From there, she worked on a national campaign for EPA to promote energy efficiency investments to small businesses. After that, Sam turned her focus to water and wastewater, helping utilities and public works agencies build support for rate increases and infrastructure investments. Sam played the lead communications role at water and wastewater utility Loudoun Water and was part of the executive team at American Water, where she cultivated enterprise-wide understanding and support for proactive public outreach, and she executed successful education campaigns that raised awareness of issues and programs, changed behaviors and attitudes, and built trust in the organization. As an independent consultant (SaVi PR), Sam continued to advise water and wastewater utilities, as well several municipal solid waste and recycling offices with strategic communication and public engagement.

KEY PROJECT EXPERIENCE

National Association of Clean Water Agencies (DC)

Raftelis was hired by the National Association of Clean Water Agencies (NACWA) to develop, as part of their 50th anniversary, an inspirational and aspirational story about how clean water has transformed communities over the last 50 years. Deliverables include a printed book and website, plus more than 20 case studies nationwide from NACWA members. Sam worked with the members to develop 22 case studies, she conducted research for the book and website, she is the book's primary author, and Sam provided assistance in the management of the deliverables.

Water Environment Federation (VA)

WEF hired Raftelis to develop a communication toolkit to help wastewater agencies communicate confidently about biosolids. Sam led the design and copywriting team that researched biosolids media coverage and interviewed agencies with successful outreach programs; then wrote a comprehensive guide and training module that walks readers through the steps needed to develop and



Specialties

- Stakeholder engagement/public involvement programs
- Strategic communications planning & execution
- Crisis & risk communications planning, messaging & execution
- Community-based social marketing (behavioural change marketing)
- Outreach program assessment & measurement
- Development & oversight of paid (advertising), earned (stories placed), shared (social) & owned media
- Writing & copyediting
- Public speaking

Professional History

- Raftelis: Director of Strategic Communication Services (2021-present); Senior Consultant (2019-2020)
- SaVi PR, LLC: Owner
- American Water: Vice President
- Loudoun Water: Manager of Communications
- CEC: Public Affairs Specialist
- Lisboa: Senior Account Manager
- Mitchell Petersen: Account Executive

Education

- Accredited in Public Relations - The Public Relations Society of America
- Master of Science in Environmental Policy - Johns Hopkins University (1998)
- Bachelor of Science in Biology (Environmental Science) - Pennsylvania State University (1992)

Professional Memberships

- AWWA
- International Association of Public Participation
- NACWA
- Public Relations Society of America: Board Member
- Social Marketing Association of North America
- Water Environment Federation

execute a successful biosolids communication effort. The toolkit includes guidance for making the business case for proactive outreach. It covers best practices for handling a “hit piece,” for managing pushback from the community, using social media, and much more, including downloadable imagery, infographics, social media posts, and templates. The team also supported WEF with training on the use of the toolkit.

American Water Works Association (CO)

Guide to Risk Communication

American Water Works Association (AWWA) looked to Raftelis to develop a comprehensive risk communication guide for utilities: *Trending in an Instant*. Sam served as copyeditor for this guidance document, which helps utilities enhance their ability to communicate effectively when they find themselves unexpectedly in the traditional and social media spotlight. The guide provides research into the psychology and behavior behind consumer response to media-driven community fears and, more importantly, deliver targeted tools and action steps to help utilities respond effectively before, during, and after a high-profile communications issue in their service area. The guide describes proven risk communication techniques, such as how to return to productive conversation when people are communicating in a perceived high-risk environment, and offers social media strategies to employ during crisis, such as how to prepare, how to react, and what to do after the crisis ends.

Charlotte Water (NC)

Raftelis was hired by Charlotte Water to help them promote a new bill design. The goal of the campaign was to ensure no one was surprised. As project manager, Sam led the Raftelis team to create a six-week, measurable promotional campaign with tagline (*a bill as clear as the water we provide*) and graphics that included paid digital ads, social media, a video, billing inserts, bill and envelope messages, city newsletter articles, website, and staff newsletter article.

City of Cleveland (OH)

Sam developed a comprehensive engagement strategy to turn around public opinion of the City’s plan for sustainably managing its waste. The strategy spelled out specific tactics to achieve the City’s objectives that included a new message platform, a series of community meetings, partnership development, and a social media plan, which was intended to work in tandem with other efforts to reset the public discourse on the topic, educate stakeholders on the waste issues the City is seeking to solve, and meaningfully engage the community in a dialogue about solutions.

Metropolitan Washington Council of Governments (DC)

More than 15 different water and wastewater agencies serve the residents and businesses of the metropolitan Washington, DC region. With constant movement of customers across jurisdictional boundaries for work and play, it’s hard for any single utility to reach them well; having a shared media market doesn’t always help. Sam has been working with the group to elevate their communications coordination efforts to ensure these agencies coordinate their messaging to consumers and are as consistent as possible, focusing on the topics of greatest need and least public awareness.

Water Research Foundation (CO)

For this study, Sam developed and validated a series of messages to inform those that maintain building water systems about Opportunistic Pathogens in Premise Plumbing (OPPPs), with a focus on *Legionella*, and to offer proven steps they can take to protect themselves (and their tenants) from waterborne disease. More specifically, Sam was tasked with (1) identifying the target audiences, routes of communication, and messages based on a series of interviews, workgroups, and material review of existing guidelines; (2) hosting a workshop to elicit experts’ review and feedback on messaging materials; (3) refine the messages and routes of communication developed in the workshop. The final document was published by the Water Research Foundation and furnished to member water utilities.

John Mastracchio PE, CFA

PROJECT ADVISOR – UTILITY FINANCIAL ANALYSIS Vice President

ROLE

John will be available on an as-needed basis to assist with providing context related to the development of tools for LCA to use in budgeting and analyzing rate impacts associated with implementing action plans.

PROFILE

John is a Vice President serving in a national role and leading the Northeastern practice of Raftelis. His more than 24 years of experience as a financial and management consultant serving the utility, governmental, and private sectors. His extensive experience includes over 250 financial projects covering technical areas including financial planning and rate setting, capital financing, asset management, regionalization, valuation, litigation support, and transactional consulting, and spans several utility sectors including water, wastewater, electric, solid waste, and stormwater, along with consulting for federal and municipal general government, transportation, and ports.

John's business valuation experience includes appraisals for mergers and acquisitions, reorganizations (recapitalization and restructuring), eminent domain condemnation, real estate, tangible property valuation, cost to cure economic damages analyses, and litigation support. His valuation experience also includes providing acquisition and transactional advisory services to equity investors, business owners, and government officials on deals ranging in size from \$50 million to \$2.5 billion. He has provided other valuation-related services include due diligence investigations, development of financial projections, remaining useful life analyses, customer and supplier contracts, purchase price allocation, strategic investment decision-making, and deal structuring support.

John has earned the Chartered Financial Analyst (CFA) designation, is a Series 50 Municipal Advisor Representative, and is also a Licensed Professional Engineer. He is the chairperson of the Finance, Accounting and Management Controls committee and a member of the Rates and Charges committee of the American Water Works Association (AWWA).

John has authored manuals of practice and utility industry papers on valuation, infrastructure investment, capital financing, financial management practices, and rate-setting, including AWWA's *Manual of Practice M1, Principles of Water Rates, Fees, and Charges*; *Water Rates, Fees, and the Legal Environment*; *Manual of Practice M29, Water Capital Financing*; and *Financial Management for Water Utilities: Principles of Finance, Accounting, and Management Controls*, along with the textbook *The Effective Water Professional: Leadership, Communication, Management, Finance, and Governance*, published by the Water Environment Federation (WEF).



Specialties

- Financial analysis & modeling
- Financial planning, cost of service, rate design
- Bond feasibility studies
- Transactional due diligence support
- Government consolidation/regionalization
- Public-private partnerships
- Inter-municipal agreement support
- Valuation assessments
- Expert witness & litigation support
- Benchmarking
- Capital financing & project planning
- Business process improvement
- Asset management/business case evaluations

Professional History

- Raftelis: Vice President (2017-present)
- Arcadis, U.S., Inc. (2003-2017)
- Arthur Andersen (2001-2002)
- Parsons Corporation (1994-2000)

Education

- Master of Business Administration, Finance - Cornell University (2001)
- Master of Science, Civil & Environmental Engineering - Clarkson University (1994)
- Bachelor of Arts - State University of New York, College at Geneseo (1993)

Certifications

- Chartered Financial Analyst
- Professional Engineer (PA)
- Lean Six Sigma
- Series 50 Municipal Advisor Representative

Professional Memberships

- AWWA: Chair of Finance, Accounting, & Management Controls Committee
- CFA Institute
- WEF

KEY PROJECT EXPERIENCE

Lehigh County Authority (PA)

John provided technical and financial due diligence services for the Lehigh County Authority (Authority) to support the issuance of revenue bonds to fund the up-front concession payment for the utility assets associated with the concession agreement with the City of Allentown, PA. Reviewed and evaluated financial projections and cash flow forecasts, evaluated upside and downside financial scenarios, supported organizational due diligence, system condition assessment, and provided bond feasibility opinions related to the transaction.

John provided financial support to the Authority in their bid for the City of Allentown's water and wastewater concession. Reviewed and evaluated key financial forecast assumptions and projections supporting the cash flows associated with the concession. Identified key risk factors for consideration during the negotiation process. Developed a financial feasibility report to assist the Authority in issuing \$300 million in debt to finance the concession transaction. Continue to work with the Authority to optimize revenues and costs under the concession agreement.

PROJECT LIST

- Albany Water Board (NY) – Business case evaluations to support an asset management program
- Borough of Elmwood Park (NJ) – Water financial plan
- City of Bridgeport (CT) – Wastewater rate study
- Buncombe County MSD (NC) – Merger study
- Chesterfield County (VA) – Capacity fee evaluation and water and wastewater rate study
- City of Darien (CT) – Inter-municipal wastewater service agreement
- DC Water (DC) – Conveyance cost of service evaluation
- Delaware County (OH) – Capacity fee evaluation
- Department of the Public Advocate (NJ) – Valuation assessment
- City of East Providence (RI) – Water and wastewater rate study
- Erie County DEP (NY) – Merger feasibility studies
- City of Evanston (IL) – Water and wastewater rate study
- City of Fort Wayne (IN) – Water and wastewater valuation study
- Town of Greenburgh (NY) – Water rate study
- Greene County (OH) – Wastewater rate study
- City of Harrisburg (PA) – Asset transfer support
- City of Heath (OH) – Water and wastewater rate study
- Henrico County (VA) – Water and wastewater rate studies and capacity fee evaluation
- City of Hopewell (VA) – Wastewater bond feasibility study
- Isle of Wight County (VA) – Water and wastewater rate studies and financial planning
- City of Key West (FL) – Sewer, stormwater, solid waste, and marina rate studies and indirect cost study
- City of Kingston (NY) – Wastewater rate study
- City of Lancaster (OH) – Water and wastewater rate study and financial capability assessment
- City of Lansing (MI) – Wastewater rate study
- Town of Lincoln (RI) – Wastewater rate study
- City of Lorain (OH) – Wastewater regionalization study
- Macomb County (MI) – Wastewater acquisition evaluation and rate studies
- City of Marysville (OH) – Water and Wastewater rate studies and capacity fee analyses
- Metropolitan District Commission (CT) – Financial planning and acquisition support
- Miami-Dade County Seaport Department (FL) – Financial planning and bond consulting support
- City of Miamisburg (OH) – Water and wastewater rate studies and valuation assessment
- Milwaukee Metropolitan Sewer District (WI) – Owner's agent operations contracting assessment
- Monroe County Department of Environmental Services (NY) – Wastewater rate studies
- Montgomery County (OH) – Water and wastewater rate studies

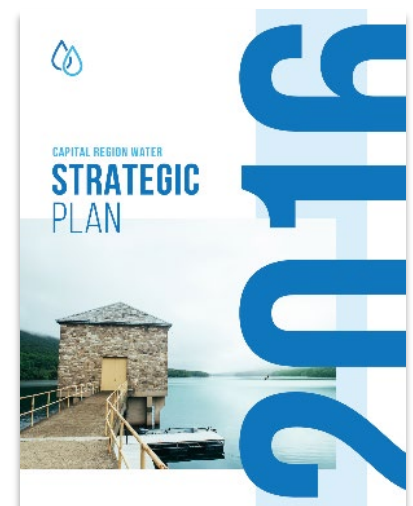
Project Understanding

Lehigh County Authority is almost unrecognizable from the utility it was just 10 years ago. New leadership, the addition of the City of Allentown's water systems, an expanded board, and nearly quintupling the number of employees mean LCA has proven it can adapt, flex, and grow to meet the needs of its customers. Today, LCA provides services to 17 municipalities in two counties and faces many of the challenges that are common to other utilities. However, rapid change has meant the merging of legacy processes and internal structures that other more static utilities are not wrestling with. The ability to propel an organization forward and achieve next-level performance takes leadership, planning, commitment, and communications. All of these attributes are present at LCA, which have led it from its entrepreneurial start to the well-established regional partner it is today.

LCA seeks the assistance of an outside consulting firm to help it develop a strategic plan to fit within a 5- or 10-year planning cycle. Although LCA has used strategic planning as a management tool in the past, which produced visions for *One LCA* and *LCA 2020*, the utility seeks to develop this plan in a more robust manner; including stakeholder input and using the plan to align the organization, channel resources, engage and communicate with key stakeholders, and measure organizational progress and performance. LCA has assessed its performance in key areas recently using the Effective Utility Management (EUM) attributes, which will be valuable in building a foundation for the strategic plan. LCA envisions its strategic planning process to include the following:

1. Understanding and awareness of key future community needs
2. Updated vision, mission, values, and strategic objectives that support current and future community needs for water services
3. Implementation plans that include goal development and tracking tools, performance metrics, staffing, and revenue needs

This engagement is intended to assist LCA in the development of a strategic plan and develop and drive a process that engages the organization to implement the plan. This project is an extension of LCA's evolving story. We are eager to engage with LCA to help you plan and continue to define LCA's future.



Shown here are snapshots of strategic planning documents that were developed by Catherine Carter and Kelsey Engelking.

Project Approach & Proposed Methodologies

Raftelis has reviewed LCA's Request for Proposals (RFP) thoroughly and is very familiar with, and fully capable of delivering, every work element identified within the Scope of Services. Each of our proposed project team members has performed the identical services requested by LCA for other public utilities. Our methodology and approach are provided in detail in the pages that follow.

PROJECT APPROACH (PROPOSED WORKPLAN)

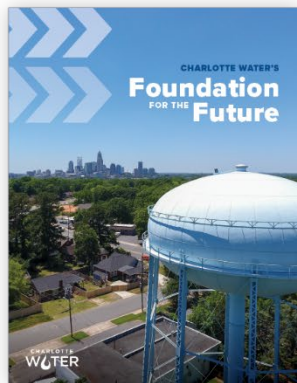
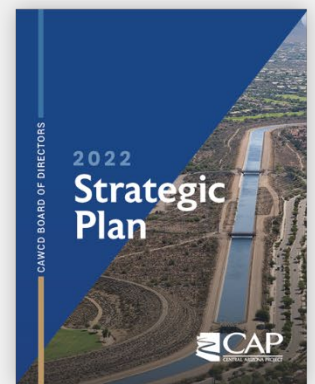
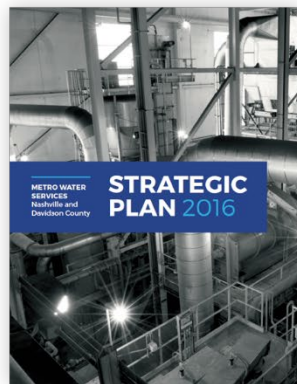
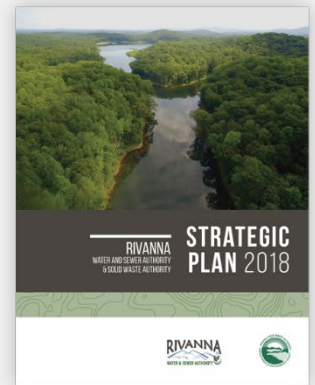
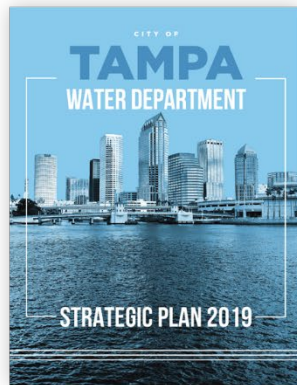
While the exact scope of services will ultimately be developed through additional conversations with LCA, the following work plan provides a detailed sequence of activities that addresses the desired scope of services described in the RFP. We appreciate LCA's encouragement to provide a project approach that is established and proven, even if it deviates from the RFP.

Raftelis has used a similar work plan successfully with dozens of public utilities of all sizes to develop, drive, monitor, measure, and report strategic plan implementation vertically and horizontally across utility organizations. In the past 10 years, we have used the methodology presented here for utility organizations like DC Water, Baltimore Department of Public Works, Tampa Water Department, Milwaukee Metropolitan Sewerage District, Denver Metro Wastewater Reclamation District, Brownsville Public Utility Board, Nashville Metro Water Services, and others. Our proposed methodology addresses specific requirements unique to public service organizations:

- Consideration of key internal and external stakeholder input, which often includes the need to successfully align to governing body priorities
- Highly collaborative and scalable techniques allowing for both broad and deep engagement across the utility organization
- Facilitation and delivery by experienced senior utility subject matter experts, which uniquely blends an in-depth knowledge of all aspects of utility planning, operations, customer service, and finance
- Actionable, implementable, and measurable plans that take planning down to the tactical level using cross-functional teams and a suite of software tools that allow the client to easily manage, monitor, and report strategic planning implementation progress and performance

Preferences for Virtual or In-person Meetings and Workshops

Raftelis can accommodate LCA's preferences for virtual or in-person meetings and workshops but noted that LCA recognizes the realities of operating in a virtual world due to COVID-19. All meetings detailed in this work plan are virtual and are subject to further discussion with LCA.



The strategic plan that we will develop for Lehigh County Authority won't be just another report to sit on your shelf. Our team of strategic planning experts and communicators develop plans that serve as tools to graphically communicate the organization's vision to both internal and external stakeholders.

Shown here are the front covers of several strategic plans that Raftelis has recently developed and designed.



CLICK ON THE COVER IMAGES TO ACCESS THE FULL STRATEGIC PLAN

The following work plan provides detailed task and sub-task activities along with the anticipated deliverables.

PHASE 1 – DEVELOPING THE FOUNDATION

Task 1: Project Kick-off and Document Review

It is useful to conduct a project kick-off as an important launch point for strategic planning projects. During this proposed kick-off event, we will collaborate with LCA's project sponsors to establish and engage a Core Strategic Planning Team (Core Team) and develop a project charter to ensure a solid foundation of understanding between LCA and the Raftelis project team.

Lehigh County Authority Requirements

For the project kick-off task, LCA's project sponsors (Core Team) will be requested to participate in a virtual half-day session.

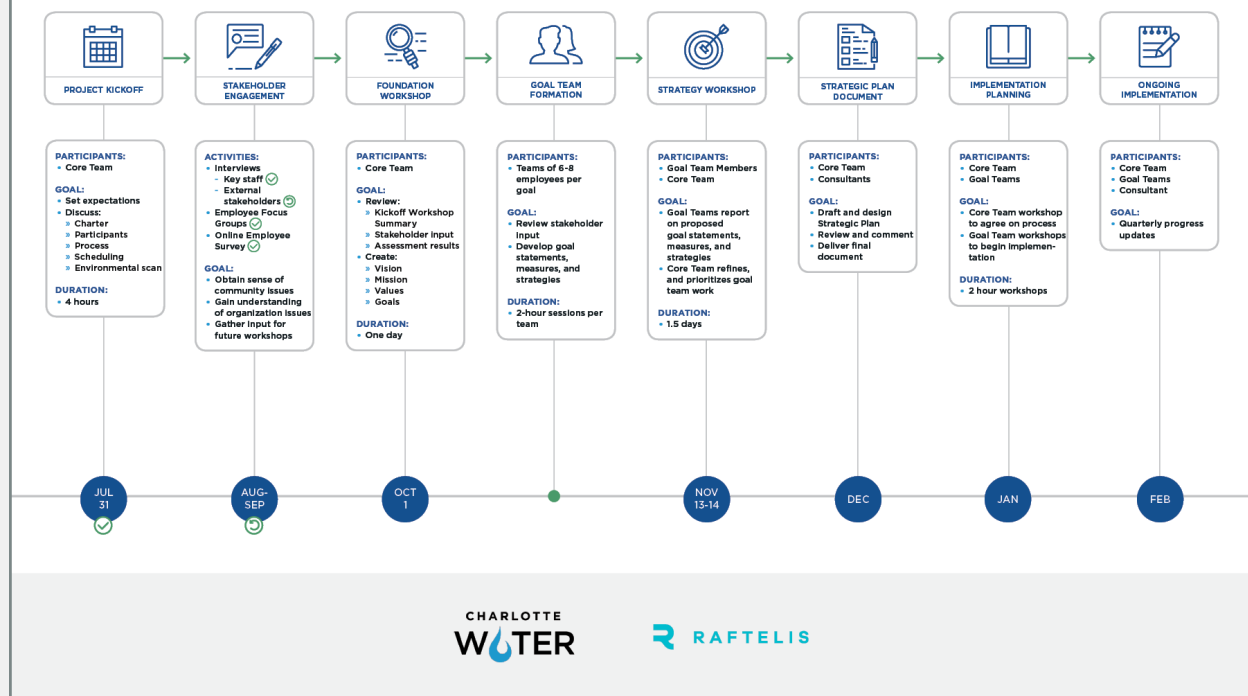
Sub-tasks

- a. Review existing documentation such as past strategic plans, capital improvement plans, any official statements, financial reports, previous EUM performance assessment materials, etc.
- b. Prepare and distribute kick-off workshop agenda
- c. Conduct a project kick-off event that will include the development of a project charter that will consider the following:
 - Objectives
 - Schedule
 - Success factors
 - Boundaries
 - Identification of key project participants
- d. Conduct an environmental scan that addresses key trends that are expected to impact LCA and potential responses that will be inputted into the strategic plan

DELIVERABLES

- Project charter
- Project schedule
- Trends analysis

Charlotte Water Flow Chart & Timeline



Examples of Task 1 deliverables, which help ensure that we understand the client's objectives and the client knows what to expect

STRATEGIC PLANNING KICK-OFF MEETING SUMMARY / 3

Project Charter

To begin the discussion of the Project Charter, the participants articulated their key goals for the strategic planning process. The strategic plan should:

- Identify a clear long-range vision and direction for STW
- Align with the goals and values of both the City of Charlotte and the Charlotte-Mecklenburg Storm Water Services utility
- Be relevant to the workforce and serve as a framework upon which to determine resource needs
- Achieve true engagement in the process as well as an understanding of community and stakeholder experiences and expectations
- Resonate with employees, be genuine, and be easy to communicate
- Be reasonably implemented and not overly complex

PROJECT SUCCESS FACTORS

With these goals in mind, the Core Team identified the following as activities that must be done exceedingly well. The process should:

- Ensure open-minded and non-defensive idea sharing
- Consistently message the importance of this project to our workforce and encourage them to have a voice in the process
- Manage logistics and communicate expectations clearly
- Define and understand our boundaries
- Stay committed and focused to the project and prioritize work accordingly
- Understand our framework for collaborative decision making

SCHEDULE

TASKS	PROPOSED DATES
Kick-off Workshop	August 28th
Stakeholder Engagement	August - September
Foundation Workshop	September 30th
Strategy Workshop	October 9th
Draft Strategic Plan Framework	October 16th
Strategic Plan Roll-out	November - December

PARTICIPANTS

At an appropriate level of involvement, the following stakeholders should all provide input and/or participate in the strategic planning process:

- Employees (at all levels of the organization)
- City Manager's Office
- Storm Water Advisory Committee (SWAC)
- Mecklenburg County Land Development and Storm Water Services
- Other City Departments or Divisions, including
 - Planning
 - Engineering Services
 - Charlotte Water
 - Charlotte Department of Transportation (CDOT)
- Development Services Technical Advisory Committee (DSTAC)
- Environmental groups
- Citizens

BOUNDARIES

This project will demand substantial time and resources. Key boundaries for this effort include the organization's employee and funding capacity, the project schedule, regulatory obligations, and that STW is a subdivision of the City of Charlotte.

Task 2: Stakeholder Engagement

A key success factor in developing LCA's strategic plan will be to seek stakeholder input. This is critical to capture perspectives that are both deep and broad inside and outside of the organization. Our approach to stakeholder engagement is to work with the Core Team to identify important internal and external stakeholder groups. Engagement happens through one-on-one interviews, focus group meetings, and online survey tools. The proposed stakeholder engagement task includes engaging employees and the Board of Directors. Raftelis finds that conducting internal and external stakeholder engagement on a parallel track provides a more thorough look at the organization as we work to develop a sense of the stakeholders.

LCA is highly interested in the customer experience and understanding community needs. Although Raftelis has used customer surveys to provide input into these processes, we have found that these surveys can sometimes be a snapshot in time that may be deficient in the qualitative information needed for the development of a long-term strategic plan. In addition, given that Raftelis works so often with utilities that serve residential customers, we believe that together with LCA's own subject matter experts we can get enough data from select external interviews and in pulling industry research from appropriate water-sector organizations to understand these customer preferences. To ensure we are aligned, however, we propose that we host a virtual community meeting with an invited audience of critical customers such as municipal leaders, large industries, and institutional customers to introduce parts of the strategic plan and to allow for small group discussion around the focus areas. This virtual community meeting would be held following Task 3.

Lehigh County Authority Requirements

Stakeholder engagement would include both internal and external stakeholders. LCA staff may be asked to participate in one-on-one interviews, participate in a focus group, and/or fill out an online survey. Raftelis will also ask LCA staff to identify external stakeholders for interviews, identify critical customers for a virtual community meeting, and provide scheduling assistance. A separate Board of Directors workshop would also be held.



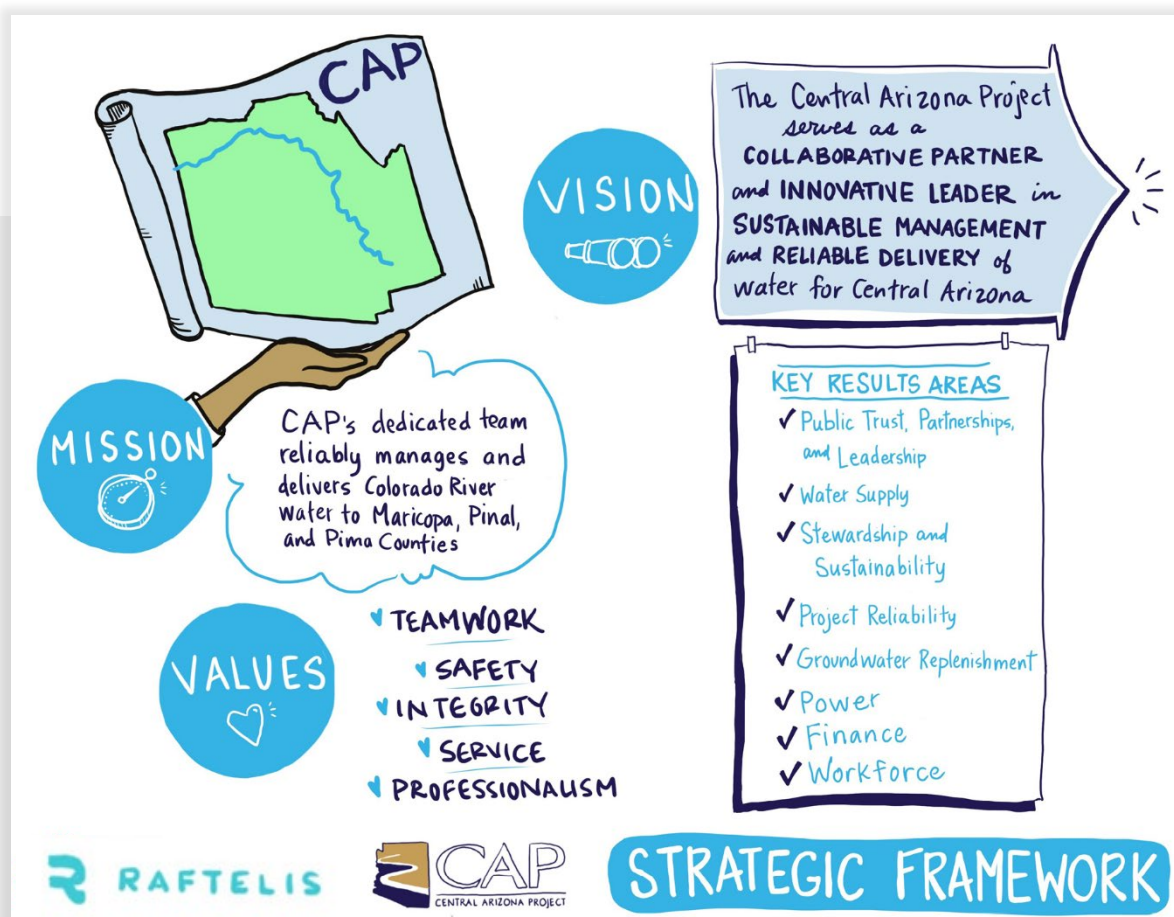
An example of a Sense of Stakeholder document for a Foundation Workshop for Fairfax Water and their staff participating in an Employee Focus Group

Sub-tasks

- Prepare interview guide
- Conduct a maximum of eight one-on-one interviews with internal leadership and external stakeholders
- Prepare and distribute online employee survey
- Prepare and facilitate up to three employee focus groups
- Summarize results
- Facilitate a virtual workshop for the LCA Board of Directors
- Facilitate a virtual community meeting that includes visual facilitation services

DELIVERABLES

- Sense of stakeholder information for consideration and discussion at the Foundation Workshop
- Presentation for the LCA Board of Directors workshop
- Presentation and discussion guide for facilitated virtual community meeting



- An example of a visual facilitation graphic created by Julie Gieseke during a recent strategic planning meeting

Task 3: Foundation Workshop

Prior tasks serve as inputs to the Foundation Workshop. During this workshop, participants will be provided a summary of all stakeholder input to date and engaged in a series of facilitated exercises that focus on the development of LCA's vision, core purpose, and core values. During this task, our planning and facilitation team will develop a customized briefing book that will be used to drive discussion on what the team has heard to date. The focus will be to consider important industry and regional trends, reveal critical stakeholder input, consider any new business drivers, and assess internal strengths and opportunities. To confirm direction, following the Foundation Workshop, a virtual workshop with the LCA Board of Directors will be held as will the virtual community meeting described in Task 2.

Lehigh County Authority Requirements

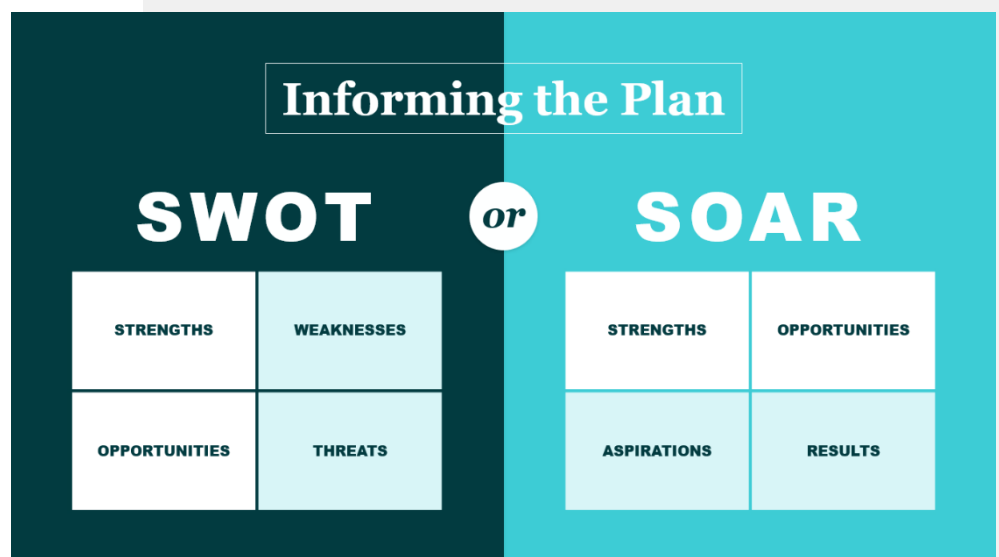
Core Team members will attend a virtual workshop, split over two days. Key staff will be asked to review, validate, and identify the high-level elements of the strategic framework. A separate virtual Board of Directors workshop will also be held.

Sub-tasks

- Develop process design and briefing book for the workshop, which will contain strategic planning input and exercises to drive discussion
- Facilitate the Foundation Workshop, which will include the following:
 - Presentation and discussion of information gathered from stakeholders
 - Enterprise-wide strengths, opportunities, aspirations, and results (SOAR) discussion (*Note that SOAR is Raftelis' preferred assessment method as it is geared for strategic planning and is forward-focused.*)
- Discussion and validation of the following:
 - Vision
 - Core purpose
 - Core values
 - Goal categories– Development of potential definitions of success
- Prepare presentation and participate in a virtual workshop with the LCA Board of Directors

DELIVERABLES

- Foundation Workshop briefing book and summary report
- Partial strategic framework presenting LCA's potential vision, core purpose, core values, and goal categories
- Presentation to the LCA Board of Directors in a virtual workshop



FOUNDATION WORKSHOP RESULTS

One of the main goals for the workshop was to consider, affirm, or change MWS' existing organizational vision, mission, and values, as well as to determine MWS' priority areas for the next 3-5 years. The results of those exercises are presented below.

VISION

The organizational vision describes what the organization wants to become, and shows a compelling, inspiring picture of a possible and preferred future state. It is aspirational.

MWS' existing vision is:

"To be the best and most trusted utility in the United States."

Working as a group, the participants considered the stakeholder input to develop a new draft Vision Statement, which was further refined through the work of a small group.

The revised draft Vision Statement for MWS is:

"To be a leading utility that positively influences our community's quality of life."

MISSION

The organizational mission describes what the organization does, and for whom. It is practical.

MWS' existing mission is:

"To competitively provide safe and dependable water services for our community while protecting the environment."

Working as a group, the participants considered the stakeholder input to develop a new draft Mission Statement, which was further refined through the work of a small group.

The revised draft Mission Statement for MWS is:

"We sustainably supply, treat, manage, and protect our water resources for the benefit of all who live, work, and visit our community."

VALUES

Values describe what the organization lives by and references during decision making – they are what the organization stands for. Upon group consideration, and further revision and clarification by the small group, MWS' draft organizational values are as follows:

- > Public Health
- > Safety
- > Customer Satisfaction
- > Trust
- > Openness
- > Teamwork
- > Accountability
- > Innovation

PRIORITY AREAS

MWS identified the following areas as its vital few issues of broad concern for the next 3-5 years:

- > Employee and Leadership Development
- > Stakeholder Understanding and Support
- > Financial Viability
- > Operational Resiliency
- > Product Quality
- > Infrastructure Stability

PARTIAL STRATEGIC PLAN FRAMEWORK

A preliminary partial strategic plan framework, presenting MWS' preliminary vision, mission, values, and priority areas is presented as Appendix B. This document will be reviewed, revised as necessary, and expanded to include priority statements, goals, and strategies during the Strategy Phase of the Strategic Planning Project.



Examples of Task 3 deliverables, which succinctly summarize the outcome from our Foundation Workshops

PARTIAL STRATEGIC PLAN FRAMEWORK

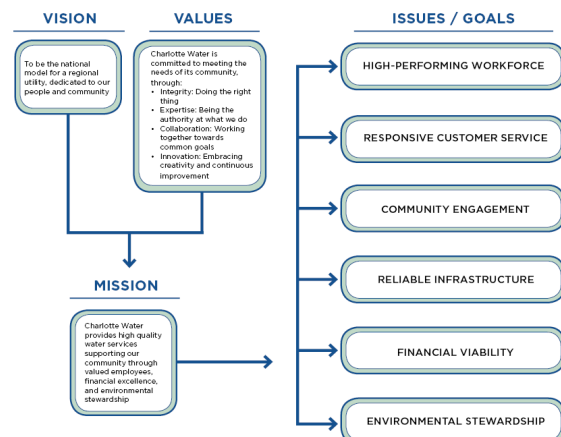
A preliminary partial strategic framework presenting Charlotte Water's preliminary vision, values, mission, and goals is shown below as Appendix A. This document will be reviewed, revised as necessary, and expanded to include measures and strategies during the Strategy Phase of the Strategic Planning Project.

NEXT STEPS

The immediate next steps are:

- > Review the contents of this report
- > Identify staff teams for each Goal area
- > Consider what success looks like, what measures are already in place, and what specific actions need to occur for each Goal area
- > Review, prioritize, and select the preliminary measures and strategies at the Strategy Workshop

APPENDIX A: PRELIMINARY PARTIAL STRATEGIC FRAMEWORK



Questions concerning this report or any aspect of Charlotte Water's strategic planning process should be addressed to Darin Thomas at 356.209.1347 or dthomas@raftellis.com, or Catherine Carter at 704.247.3220 or ccarter@raftellis.com.

PHASE TWO – DEVELOP LCA'S STRATEGIC PLAN

Task 4: Strategy Workshop

The combination of all prior tasks will culminate in the Strategy Workshop, which will be a one-day workshop, held virtually with the Core Team. The primary objective of this task will be to review, discuss, and select specific strategies to achieve the organization's vision, core purpose, and goal categories developed during the Foundation Workshop, thus finalizing the remaining elements of the strategic plan.

Lehigh County Authority Requirements

The Core Team will participate in a one-day virtual workshop. This will allow the organization to finalize the selection of LCA's strategic planning goals, objectives, and strategies.

Sub-tasks

- Prepare Strategy Workshop briefing materials that reflect appropriate stakeholder input and a summary report from the virtual community meeting described in Task 2 that is used to validate the initial strategic framework
- Facilitate the Strategy Workshop, which includes the following:
 - A high-level review of Phase One results
 - Evaluation, selection, and prioritization of LCA's goal categories, measures, and strategies

DELIVERABLES

- Final strategic framework that presents LCA's vision, core purpose, core values, goal categories, measures, and strategies

+ Examples of Task 4 deliverables, which show workshop briefing materials

CHARLOTTE
WATER

CHARLOTTE WATER
STRATEGY SESSION
NOVEMBER 13, 2019

HIGH-PERFORMING WORKFORCE
To attract, develop and retain a high performing, collaborative workforce that is engaged, motivated and dedicated.

RELIABLE INFRASTRUCTURE
Ensuring that Charlotte Water has the infrastructure to reliably serve the community today and into the future.

RESPONSIVE CUSTOMER SERVICE
Provide proactive, timely, equitable, and transparent customer service with consistency, convenience, and quality.

FINANCIAL VIABILITY
Create the utility of the future and ensure fiscal responsibility to achieve that goal.

COMMUNITY ENGAGEMENT
Charlotte Water aims to understand the people we serve and help them understand the vital role Charlotte Water plays in our community.

ENVIRONMENTAL STEWARDSHIP
To be a recognized leader in improving environmental quality.

FOUNDATION/STRATEGY WORKSHOP / 2

Goal 1: Quality Services

GOAL STATEMENT
Fairfax Water will be consistently recognized by its customers for providing an excellent customer experience with water quality, service reliability, and interactions with its employees.

PROPOSED GOAL STATEMENT
Fairfax Water will consistently provide excellent water quality, service reliability, and outstanding customer service interactions with our customers.

PROPOSED MEASURES

Metric	Target	Already Measured?	Data Available?
Compliance with water quality regulations	100%	Yes	Yes
Meeting service level goals	TBD (service level goals yet to be defined)	No	Partial
Meeting customer expectations	90% (may be high?)	Partial	Partial

PROPOSED STRATEGIES

Strategy	Impact	Difficulty	Timeframe	Already Doing?
Continue to meet current and monitor future regulations	Low	Low	Short - Medium	Yes
Define service level goals	High	Medium	Medium	No
Foster customer service culture across the organization	High	Medium	Medium	No
Provide appropriate technology tools, i.e. SAP and GIS integration, to enable more effective communication, both internally and externally	High	High	Medium	No

Task 5: Prepare Strategic Planning Document(s)

The Raftelis team develops and designs high-quality strategic planning documents for review, which will represent the 5- or 10-year LCA strategic plan. LCA's Divisions and Departments will be united through the engagement processes used to develop the plan, and the document will be a succinct deliverable, worthy of posting on LCA's website and providing to internal and external audiences. This document will be supplemented by the one-page strategic framework.

Lehigh County Authority Requirements

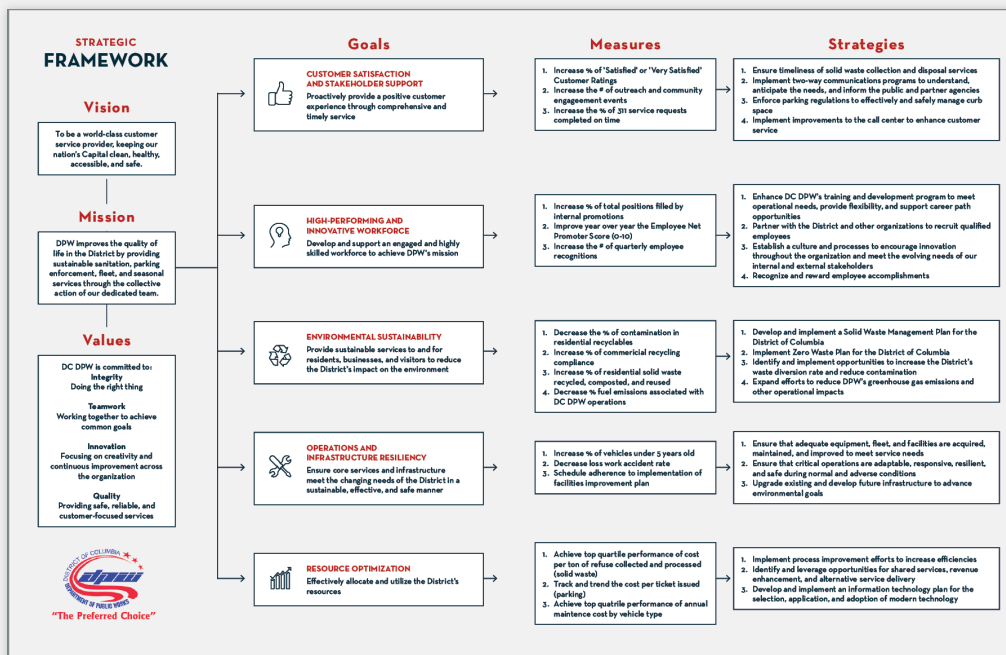
The Core Team will be asked to review and provide comments on the draft strategic planning document(s).

Sub-tasks

- Draft plan documents and review content and wording with the Core Team
- Make necessary revisions to documents
- Prepare draft graphics
- Finalize documents
- Make a formal presentation to LCA's Board of Directors

DELIVERABLES

- Final strategic plan documents
- Summary strategic framework



Example of Task 5 deliverables, which provide a one-page strategic framework

Task 6: Strategy Implementation Workshop(s)


Raftelis has found that our clients who use the strategic plan to conduct annual work planning can drive strategy implementation deeper into their organizations. Upon finalization of the strategic plan, Raftelis proposes to conduct goal-specific, tactical-level planning sessions with groups of subject matter experts that will focus on annual tactic work plans. For this task, the project team will facilitate formal planning sessions for cross-functional teams to identify the initial (2022) tactics (projects, programs, initiatives, or activities) required to drive each strategy forward for the respective goal categories.

A specific area that will be addressed is the development of the tools needed to determine appropriate staffing levels and budget and rate analysis associated with implementation of the action plans. Raftelis has noted that LCA must have the 2022 Action Plan developed with enough detail that the budget process can be accomplished in September 2021. To do this, we will use specialized strategy implementation planning templates that will help each team prioritize activities and assign accountability, inventory resources required, and establish realistic timeframes for completing tactic-level action plans.

Lehigh County Authority Requirements

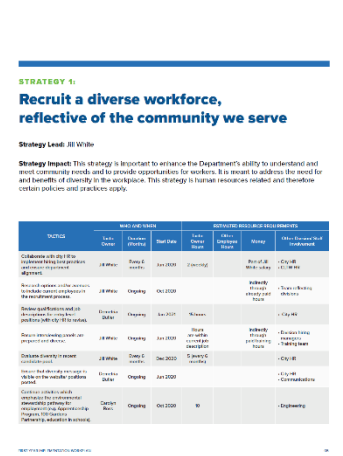
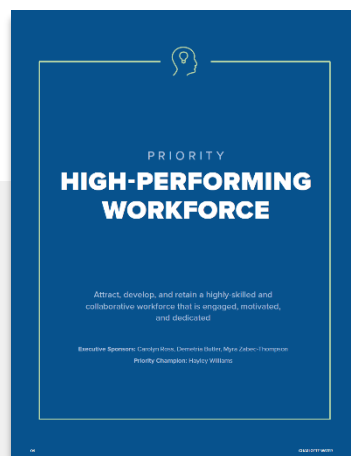
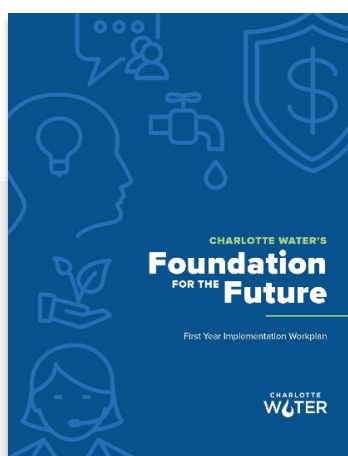
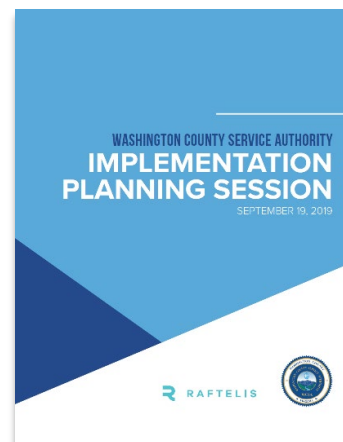
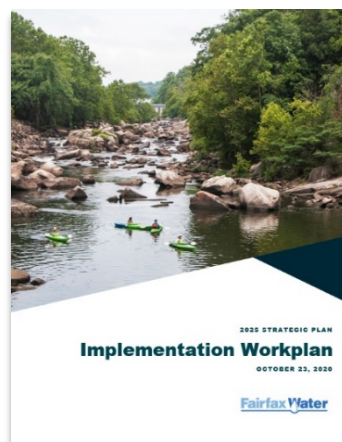
The original Core Team and subject matter experts (based on the Core Team's selected strategies) will be asked to participate in tactic-level planning and first-year implementation planning workshops and meetings.

Sub-tasks

- a. Prepare for each workshop, agenda development, and briefing materials development
 - b. Facilitate group work sessions to develop first-year strategy implementation plans
 - c. As needed assistance to teams as they work to complete their first-year strategy implementation plans
- 

DELIVERABLES

- Customized implementation planning briefing materials
- Digital templates in Word/Excel to accompany briefing materials
- Multi-year implementation plan that includes a 2022 Action Plan



**Sample
implementation
workbooks
designed and
developed by
Raftelis.**

Project Management Approach

The project team that Raftelis has established will be led by Project Director, Melissa Elliott, APR, who has 25 years of water-sector experience and communication and policy experience related to nearly every facet of utility administration. Melissa is a Vice President for Raftelis and is located in our Denver office. She is a master facilitator and has led internal and external stakeholder engagement efforts for utilities across the country.

Our Project Manager will be Catherine Carter, who is a Manager for Raftelis. Catherine has provided senior-level consulting on virtually every utility-focused strategic plan that Raftelis has engaged in for our utility clients over the past 10 years. She most recently was the Project Manager for our engagements with Charlotte Water, NC; Fairfax Water, VA; Capital Region Water, PA; and Milwaukee Metropolitan Sewerage District, WI.

All Raftelis projects include a Project Administration task. This task is typically customized to meet client-specific needs and the preferences of our clients, but it is generally executed as follows.

Task 0: Project Administration

Project administration activities ensure successful project communications, planning, scheduling, monitoring, bi-weekly status and progress reporting, billing, and ongoing interactions between the project team and the client. By establishing an effective and ongoing project administration process, Raftelis has found that project upsets, delays, and overruns can be avoided.

Objective

To maintain effective communication, ensure that the project tasks and sub-tasks are completed and delivered on time and within budget, and initiate corrective action if necessary.

Sub-Tasks

- a. The Project Manager will plan and monitor key activities and due dates.
- b. The Project Manager will conduct bi-weekly telephone progress reporting conversations with appropriate client personnel.
- c. The Project Manager will prepare a summary and progress report after each workshop/phase of work. The summary and progress report will be submitted to the client for review and comments.
- d. The Project Manager will submit monthly invoices for fees and expenses of completed tasks per the contract.

DELIVERABLES

- Detailed project plan and schedule that identifies major tasks and sub-tasks and tracks resources, action items, deliverables, decisions, issues, risks, dependencies, and any critical path timelines
- Ongoing communication with the client team and the client Project Officer, as appropriate
- Bi-weekly brief summaries and progress reports (written) submitted to the client Project Officer
- Bi-weekly, or as necessary, project schedule updates
- Correct monthly invoices submitted to the client Project Officer for completed deliverables

Case Examples/ References for Similar Work

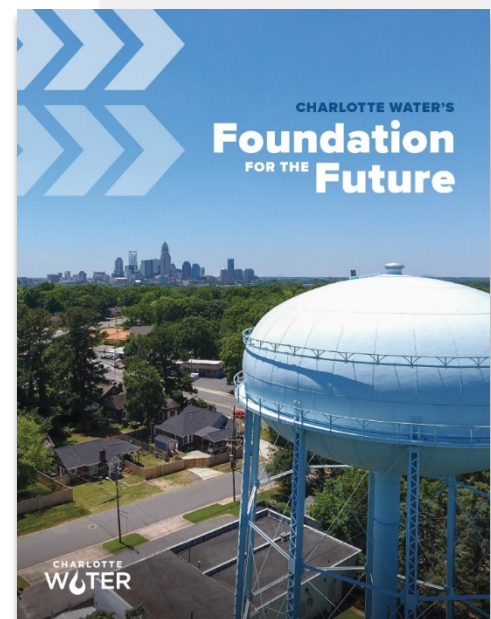
Below, we have provided descriptions of projects that we have worked on that are similar in scope to LCA's project. We have included references for each of these clients and urge you to contact them to better understand our capabilities and the quality of service that we provide.

Charlotte Water

NORTH CAROLINA

Reference: Chad Howell, Chief Financial Officer
4222 Westmont Drive, Charlotte, NC 28217
P: 704.336.2719 / E: chad.howell@charlottenc.gov

Equity. Sustainability. Resilience. As the main focus areas of the City of Charlotte's (City) 2020 Budget, these goals are critical as Charlotte continues to grow and flourish as a richly diverse community. Very few services provided by the City have as much influence as water service, and it was critical that Charlotte Water's strategic plan both reflect and advance these goals. Raftelis was engaged to facilitate Charlotte Water's strategic plan through an inclusive process that was designed to build on and amplify the voices of its customers, through listening and public engagement sessions; its region, through interviews with each of the municipalities served by the utility; and its employees, through focus groups, interviews, a survey, and active participation in different aspects of the process. Along the way, employees were kept up to date on the strategic plan progress, and the results of activities were shared at each step to keep the employees of this large organization engaged. The resulting strategic plan highlights a focused vision and mission as well as the priority areas that Charlotte Water will focus on for the next five years to move the organization forward. Clear communication of the strategic plan and successful implementation are both high priorities for Charlotte Water. Raftelis has assisted the organization through the communication roll-out of the plan and the first year of implementation to ensure the plan becomes part of day-to-day operations.



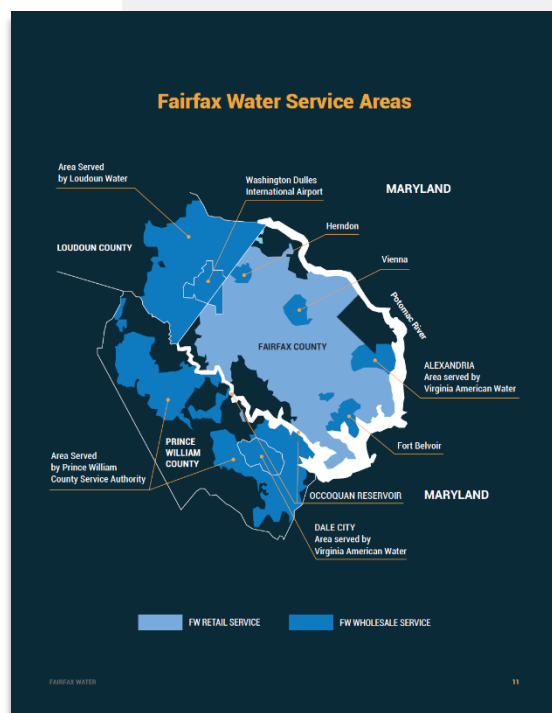
Fairfax Water

VIRGINIA

Reference: Brenda Creel, Manager,
Transition and Special Projects
8570 Executive Park Avenue, Fairfax, VA 22031
P: 571.550.8626 / E: bcreel@fairfaxwater.org

Fairfax Water is Virginia's largest water utility and one of the 25 largest water utilities in the country, serving one out of every five Virginians who obtain their water from public utilities. Building on a strong legacy of strategic planning, Fairfax Water engaged Raftelis in 2020 to capture the progress made against its existing strategic plan, facilitate an update, and assist with planning and structuring the organization's implementation efforts. Fairfax Water was also interested in whether its organizational structure supported its achievement of target service levels, so we incorporated an organizational structure review within the strategic planning process. This strategic plan was completed partially in-person and partially remotely in response to COVID-19 restrictions.

As a result of the facilitated efforts, Fairfax Water confirmed its vision, mission, and values and reviewed progress against its existing goal areas. Two goal areas were updated to reflect the organization's current focus on workforce development and incorporating innovative technologies and best practices into day-to-day operations. Raftelis then worked with Fairfax Water to identify appropriate strategies and measures to move the organization forward and collaborated with the organization to develop a video to share the updated strategic plan with employees and external stakeholders. Subsequently, Raftelis worked with groups of employee subject matter experts to develop a customized implementation process and plan for completing and reporting the first years' tactical activities.



Louisville Water Company

KENTUCKY

Reference: Kelley Dearing Smith, Vice-President - Communications and Marketing
550 South Third Street, Louisville, KY 40202
P: 502.569.3695 / E: ksmith@lwcky.com

In February 2018, Louisville Water Company (Louisville Water) initiated a process to create an updated vision and a plan to drive progress toward the organization's most important priorities. This effort built on a legacy of successful strategic planning, including Louisville Water's 2013-2018 Strategic Business Plan. The goals for the strategic planning process were myriad—the plan had to be clear, measurable, and implementable over a five-to-seven-year time horizon. It had to be inclusive of prioritized goals and metrics that cascaded throughout the organization and achieved alignment of overarching strategic objectives, departmental plans, and employee performance goals. Finally, in a departure from previous planning efforts, which had mostly occurred at Louisville Water's leadership level, the Louisville Water sought to engage employees and key external stakeholders during the process and launch and sustain a robust communication effort upon completion.

To assure success in each of these areas, Louisville Water partnered with Raftelis to design a process and facilitate its strategic plan. Ultimately, the organization followed a classic strategic planning approach, with several key milestones, including a project kick-off; stakeholder engagement; development of the foundational elements of the strategic plan, including vision, mission, values, and goal areas; development of the strategies and tactics necessary to support implementation efforts; and a communications roll-out of the finalized deliverable to employees, customers, and other stakeholders.

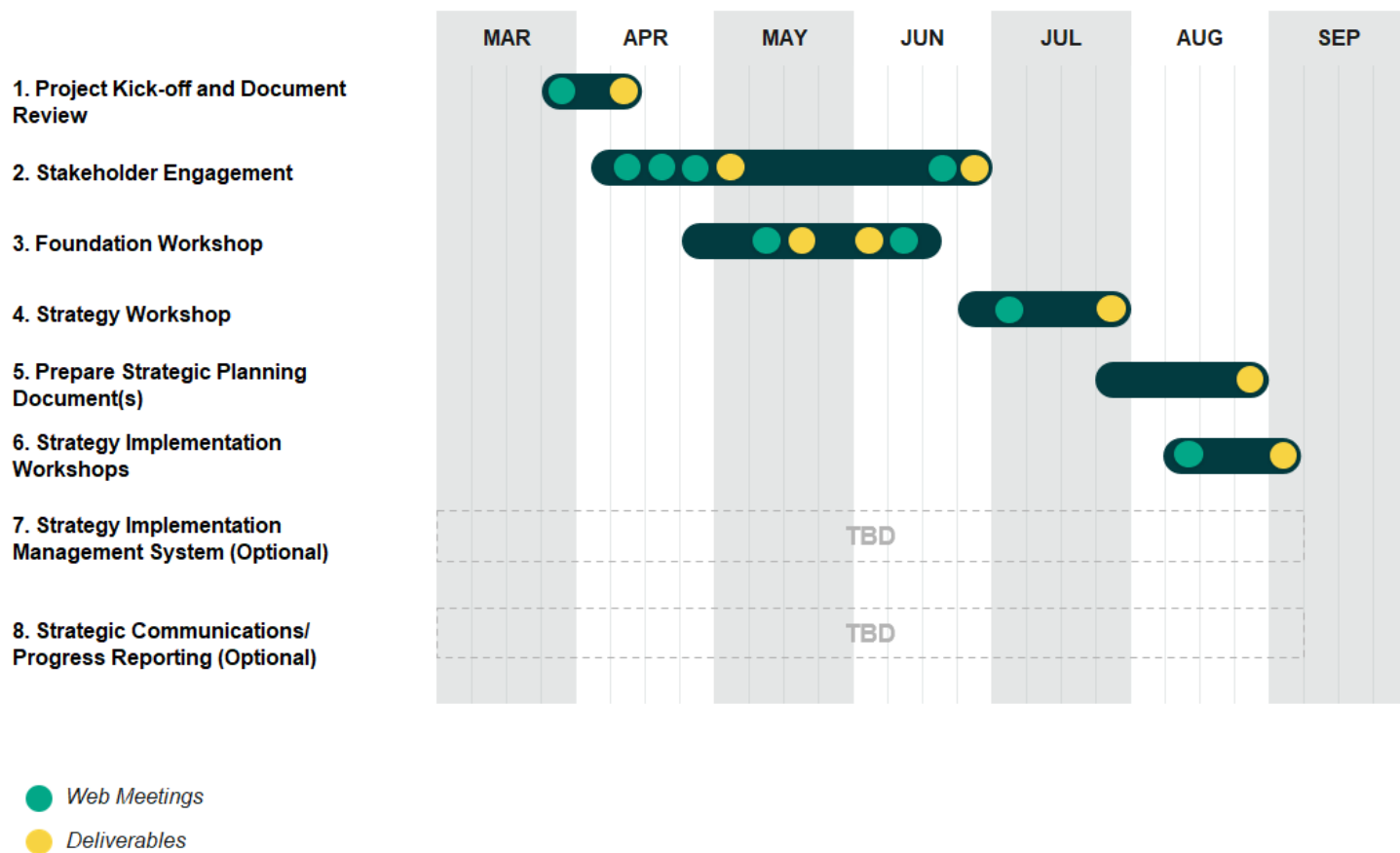
The Louisville Water strategic plan represents collective input from its leadership, employees, and stakeholders and includes cascading priorities, strategies, and tactics that will support organizational progress and future decision making. Building on its long tradition of planning, implementing the 2019-2025 Strategic Business Plan will allow Louisville Water to achieve its desired future state, as articulated in its organizational vision: "Louisville Water will lead the industry with superior quality, service, innovation and value."



+ Raftelis conducted an Industry Trends Analysis for Louisville Water and developed infographics to help tell the story of their operating environment.

Schedule

Raftelis will complete the scope of services within the timeframe shown in the schedule below. The proposed schedule assumes a notice-to-proceed by March 22, 2021 and that Raftelis will receive the needed data in a timely manner and be able to schedule meetings as necessary. Project completion is estimated for September 2021. As presented, this schedule is anticipated to be 100% virtual.



Cost Proposal

The following table provides a breakdown of our proposed fees for this project. This table includes required tasks with a total fee of \$74,930.

Tasks	Total Fees & Expenses
0. Project Administration	\$3,070
1. Project Kick-off and Document Review	\$4,810
2. Stakeholder Engagement	\$21,550
3. Foundation Workshop	\$10,850
4. Strategy Workshop	\$10,110
5. Prepare Strategic Planning Document(s)	\$8,420
6. Strategy Implementation Workshop(s)	\$16,120
Total Fees & Expenses	\$74,930

Additional Recommended Services

Below, we have included additional recommended value-added services with a separate scope and cost proposal.

Optional Task 7: Strategy Implementation Management System

A key element for effective and sustained strategy execution requires the active tracking and analysis of strategy implementation progress and performance measurement. This task will result in assisting LCA's Core Team with establishing the process of updating a web-based strategic plan implementation management tool. Raftelis uses both Strategy Blocks (www.strategyblocks.com) and/or Envisio (www.envisio.com), along with our own Headwaters online strategy implementation performance management platform, which make up a suite of tools used to establish a strategy implementation management environment. The use of these tools results in a strategic planning implementation and performance management program that will enable LCA to track implementation progress and share the organizational performance of the measures contained in the strategic plan to both internal and external stakeholders.

Lehigh County Authority Requirements

Upon the selection and adoption of a strategic planning implementation management platform, select LCA staff would become trained on how to use the selected platform. Most systems used across the industry are web based. Typically, these systems reside in an area of the organization tasked with ongoing management and administration of the organizational strategic plan. Providing an estimate of LCA requirements in terms of time is dependent on how LCA chooses to ultimately manage the development and implementation of the organization's strategic plan, so a range of costs has been provided for perspective.

Sub-tasks

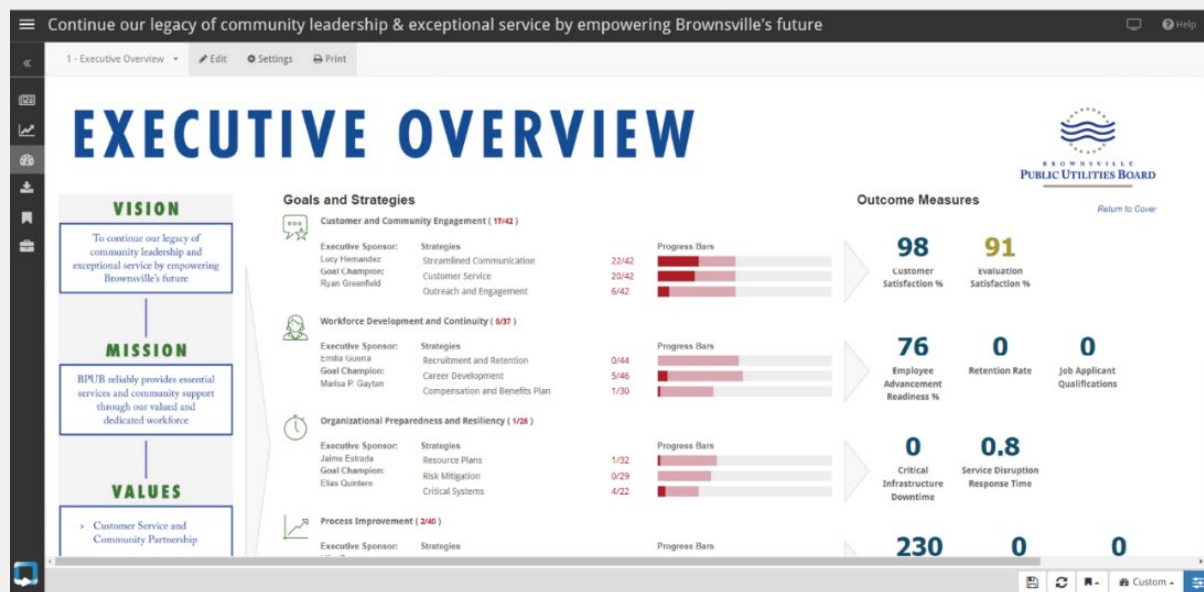
- a. Meeting with the Core Team to define strategy implementation management platform requirements
- b. Review and select a web-based strategy implementation management system and load the updated LCA strategic plan into the system

DELIVERABLE

- Delivery of a web-based strategy monitoring and reporting tool for ongoing LCA strategic plan implementation management



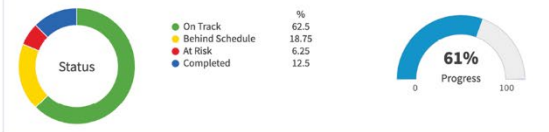
Screenshot of Strategy Blocks, which is a tool we use to manage, monitor, and report strategy implementation progress (click to view Strategy Blocks' website)



CLICK SCREENSHOT TO VIEW STRATEGY BLOCKS TOOL

1 Strategic Goal

Overall Summary



Strategic Goal 1 Progress 61%

Economic Vitality - We will continue to ensure the prosperity of our community by increasing the growth of our economy through diversity of industry, business investment, quality job creation, education, and tourism. To support this growing economy, we will invest in transportation and infrastructure and seek high-quality retail and entertainment opportunities.

Owner: Bert Harris

Objective: 4 Action: 16

Update provided by Bert Harris on Jun 26, 2020 01:55:04

Significant Accomplishment & Highlights:

- In collaboration with Economic Development several Zoning Text Amendments, such as the recent Large Retail User amendment and deletion of the City Centre Gateway Overlay District, have been approved by City Council and are being implemented to encourage development by streamlining the approval process for future development.
- In addition to continued collaboration with Economic Development, the continuum is researching the entire process (Hello to C of O) and also has proposed to streamline the preliminary approval process to continue to make the development process more effective for both internal and external customers.
- The Economic Development Department regularly works with educational institutions like Peace Mountain Community College, West-MEC, George Pierce University, Canyon University and others toward developing workforce programs to attract and retain companies. The department works with these institutions on a personal basis as well as through WESTMARC.
- The Economic Development Department has two methods for obtaining feedback. Staff works with new businesses through the development process as well as through new business visits to obtain information on their experience with the city and determine their needs for the future. The Economic Development Department regularly works with Boyleview businesses through events, visits and other communications to build relationships, advise of city activities and provide information to foster their growth.

Strategic Goal 1 > Performance Measure

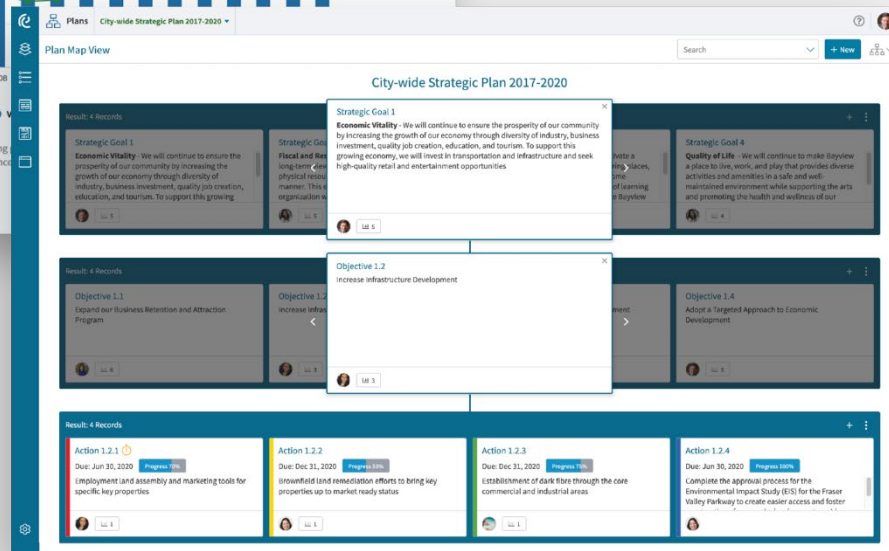
Econ - Amount and Value of Building Activities



Screenshots of Envisio, which is a tool we use to manage, monitor, and report strategy implementation progress



CLICK SCREENSHOTS TO VIEW ENVISIO TOOL




LOG IN

Organizational Goals





GOAL 1

Protect Public Health and the Environment

To protect and support the long-term health of our community and environment

The primary mission of any water and wastewater utility is to protect public health and the environment. Drinking water must meet all water quality standards when it leaves PWSA treatment facilities and arrives at a customer's tap. PWSA must ensure that wastewater is collected from customers without backups or spills. It must also ensure its transported through the wastewater collection system to the regional ALCOSAN treatment facility. The transmission process must be secure, and occur without sanitary sewer overflows (SSOs) that could damage the environment. Treatment then ensures the wastewater is safe, before it is returned back to the environment.

FOCUS AREAS

Deliver high quality drinking water


PWSA's goal is to always meet or exceed customer and regulatory standards for the water it provides. To do that, PWSA will pursue the following strategies:


- Perform regular tests at certified laboratories to ensure high water quality and service levels
- Report water quality results to customers in an annual Consumer Confidence Report
- Continue to actively manage and replace lead service lines


Safely and effectively convey wastewater and stormwater

PWSA's goal is to always meet or exceed customer and governing standards as it transports wastewater and stormwater to the ALCOSAN treatment facility. PWSA is committed to:

- Maintaining wastewater
- Routinely inspecting
- Monitoring and report
- Regularly performing

 Screenshots of Headwaters, which is a web-based performance dashboard that we developed for the Pittsburgh Water and Sewer Authority

 **CLICK SCREENSHOTS TO VIEW HEADWATERS**


LOG IN

Goals / Satisfaction
Organizational Goals

Average Speed of Answer, Dispatch

Assisting is one thing; doing so in a timely and efficient manner is PWSA's ever-present goal in Emergency Dispatch.

Exceeds Expectations
At or below target is better.
Benchmarked

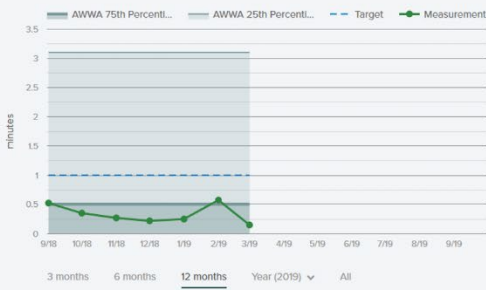
MARCH 2019

0.15

minutes

Notes

Customer Service created 2 positions for Dispatch services.
January 8, 2018



Date	Measurement (minutes)	Target (minutes)
9/18	0.5	1.0
10/18	0.4	1.0
11/18	0.3	1.0
12/18	0.2	1.0
1/19	0.3	1.0
2/19	0.5	1.0
3/19	0.2	1.0

© 2019 Raffellis

Optional Task 8: Strategic Communications and Strategy Progress Reporting Assistance

A strategy to effectively communicate the strategic plan to internal and external audiences is key to the successful implementation of the strategic plan. As a mechanism to assist in the broader LCA communications planning, Raftelis will work with the Core Team and the organization's strategic communications staff to discuss and develop a strategic communications framework. This effort will identify opportunities to successfully socialize LCA's updated strategic plan.

Part of this task is to establish a quarterly progress report. This keeps the focus on strategic plan implementation, allows for the celebration of milestone achievements, and establishes a reporting cadence of organizational performance against the measures contained within the strategic plan.

Lehigh County Authority Requirements

LCA's strategic communications staff will engage with the Raftelis team's communications subject matter experts. The level of engagement and support provided by Raftelis can vary significantly in the task area. Typically, Raftelis assists with overall strategic communications planning and is capable of complete communications program management in support of the organization's strategic and customer communications programs.

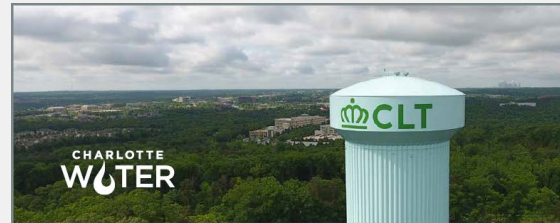
Sub-tasks

- Design and drive a strategic communications meeting/workshop with the Core Team
- Develop a strategic communication framework
- Develop a draft quarterly progress reporting template
- Meeting to discuss template
- Incorporation of comments

DELIVERABLES

- Strategic communication framework
- Delivery of quarterly reporting templates (includes first quarterly progress report)

- + Examples of communications and outreach materials that we have developed for our clients' use



» Vision

To be a leading water utility, recognized for excellence and dedicated to our people, community, region, and environment

» Mission

Charlotte Water provides reliable, high-quality services to our community through valued employees, financial stability, and environmental stewardship

» Values

Charlotte Water is committed to meeting the needs of its community through:

Innovation

Embracing creativity and continuous improvement

Expertise

Being the authority at what we do

Collaboration

Working together towards common goals

Integrity

Doing the right thing

FOUNDATION FOR THE FUTURE PRIORITY:

Financial Viability

Equitably manage financial resources, balancing affordability and growth



Cost Proposal for Optional Tasks

The following table provides a breakdown of our proposed fees for optional tasks we have recommended for this project.

Tasks	Total Fees & Expenses
7. Strategy Implementation Management System and Support (Optional)	\$10,000 - \$50,000
8. Strategic Communications and Strategy Progress Reporting Assistance (Optional)	\$9,510

MEMORANDUM

Date: March 15, 2021

To: LCA Board of Directors
Liesel Gross, CEO

From: Chris Moughan, Chief Information Officer

Subject: Administration Division (Suburban): Supervisory Control and Data Acquisition System (SCADA) – Communication Upgrade Services to Existing Water Systems

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization: Administration – SCADA System Upgrades	\$92,810
1A	Professional Services Authorization: Keystone – SCADA System Upgrades	\$77,810*

**Included in the Capital Project Authorization*

AUTHORIZATION OVERVIEW:

Several years ago, LCA set out to upgrade its Suburban Division Supervisory Control and Data Acquisition (SCADA) system with a plan to upgrade three remote facilities over a period of several years. This approach was somewhat successful, but staff have found that the slow pace of system upgrades led to additional challenges, especially in the areas of waning radio communications reliability and technology advancements in the intervening time periods between upgrades.

The current state of the existing SCADA system's communication reliability is problematic. Many of the remote stations reside on a licensed radio network with an obsolete Modicon Quantum PLC. The main goal of this project is to transfer radio communications for all remote stations to cellular-based Ethernet using the newly installed PLC at the main office. Testing on two sites was performed on two remote sites late last year and was successful; therefore, this project is recommended to enhance SCADA capabilities at the remaining sites as a single project.

FINANCIAL:

Costs associated with the project are funded by the Administration (Suburban) Division.

CURRENT STATUS:

Pending Board approval of these services.

THIS APPROVAL – SCADA SYSTEM UPGRADES:

Lehigh County Authority (LCA) intends to retain the services of an engineering consulting firm to provide the hardware and programming services. These services will include, but are not limited to, the following tasks:

Professional Services
<ul style="list-style-type: none">• Provide one Ethernet to serial conversion device at the remaining 26 remote sites
<ul style="list-style-type: none">• Provide two Ethernet network modules in the existing PLC at the LCA main office
<ul style="list-style-type: none">• Programming and testing services to ensure proper data transfer

CONSULTANT SELECTION PROCESS:

Keystone Engineering completed a pilot study of the 1st phase of upgrading our remote stations in the Suburban Division service area. The successful completion of the pilot study has given LCA staff the grounding to move forward with the rest of the communication upgrades. This project will address this issue by upgrading all stations to a set internal cellular standard. This is the first step in a more reliable communications network.

SCHEDULE:

The project will commence in early April of 2021 and will be completed by June of 2021.

FUTURE AUTHORIZATIONS:

None for this specific project.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	SD-A-1	BUDGET FUND:	Admin\Suburban\Capital
PROJECT TITLE:	Supervisory Control and Data Acquisition Systems (SCADA): Communication Upgrade Services to Existing Water Systems		PROJECT TYPE:
		<input checked="" type="checkbox"/>	Construction
		<input type="checkbox"/>	Engineering Study
		<input type="checkbox"/>	Equipment Purchase
		<input type="checkbox"/>	Amendment
THIS AUTHORIZATION:	\$92,810		
TO DATE (W/ ABOVE)	\$134,810		

DESCRIPTION AND BENEFITS:

This project falls under SD-A-1 (SCADA Programming, Hardware Upgrades, Software & Training) in the Administration Capital Plan.

This Authorization: Communication Upgrade Services to Existing Suburban Division Water Systems.

See attached Board Memo and PSA for further project details.

Authorization Status:

Requested This Authorization	
<i>Construction Phase</i>	
Staff	\$10,000
Contractor	\$0
Engineering Consultant	\$77,810
Contingency	\$5,000
Total This Authorization	\$92,810

Prior Authorizations (2020)	\$42,000
Subtotal	\$134,810
<i>Future Authorizations (2022-2026)</i>	<i>\$2,800,000</i>

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: KEYSTONE ENGINEERING GROUP
590 E. Lancaster Avenue, Suite 200
Frazer, PA 19355

Date: March 22, 2021

Requested By: Chris Moughan

Approvals

Department Head: _____

Chief Executive

Officer: _____

Suburban Division – Supervisory Control and Data Acquisition System (SCADA): Communication Upgrade Services to existing Water Systems

The state of the existing SCADA system's communication reliability is problematic. Many of the remote stations reside on a licensed radio network with an obsolete Modicon Quantum PLC. The main goal of this project is to transfer radio communications to cellular based Ethernet using the newly installed PLC at the main office. Testing on two sites was performed on two remote sites late last year and was successful. Therefore, in order to enhance the SCADA capability at the remaining sites, specific tasks that Keystone will perform include the following:

Professional Services ⁽¹⁾
1. Provide one Ethernet to serial conversion device at the remaining 26 remote sites
2. Provide two Ethernet network modules in the existing PLC at the LCA main office
3. Programming and testing services to ensure proper data transfer

(1) For Services relating to 2/24/21 Proposal Only

Please reference the cover Memo for additional information.

This Proposal: \$77,810

Cost Estimate (not to be exceeded without further authorization): \$77,810

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

(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

MEMORANDUM

Date: March 22, 2021

To: Authority Board

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

Subject: Allentown Division – High Service Pump VFD
Replacement Project Construction Phase

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization – Construction Phase</u>	\$1,374,227
2	<u>Construction Contract – General:</u> <u>Mohawk Contracting & Development</u>	\$70,775.00
3	<u>Construction Contract- Electrical:</u> <u>Albarell Electric, Inc.</u>	\$1,078,452.00
4	<u>Professional Services Authorization:</u> <u>Construction Phase Engineering – Borton-Lawson</u>	\$80,000

PROJECT BACKGROUND

LCA operates the Allentown Division Water Filtration Plant (WFP), located at 1300 Martin Luther King Jr. Drive in Allentown, Pennsylvania. The WFP supplies water to residential and commercial customers in the City of Allentown as well as wholesale water to surrounding communities. One of the critical elements at the WFP is the High Service Pumping System (HSPS), which is the primary means of conveying treated water into the distribution system.

The HSPS contains three High Service Pumps – two of which are controlled by Variable Frequency Drives (VFDs). High Service Pump No. 3 is currently not controlled by a VFD; it has a constant speed soft starter. This project will replace the two existing VFDs for pump Nos. 1 and 2, and replace the existing constant speed motor on Pump #3 with a new inverter duty motor and add a VFD for Pump #3.

PROJECT OBJECTIVE

The objective of this project is to restore system resiliency, extend service life and reliability for the critical High Service Pump system. This electrical equipment was originally installed in the late 1990s and has reached the end of its useful life, as determined by an electrical study performed by D'Huy Engineering in 2019. The equipment needs to be replaced, and the equipment manufacturer no longer stocks replacement parts or offers critical support services. This project was also identified in the 2017 AD Water System Master Plan as a near term essential project, as the equipment was indicated to be in very poor condition.

FINANCIAL

The Project was previously approved as a Major Capital Improvement, thereby allowing the cost to be recovered via Capital Cost Recovery Charge in the LCA Allentown Division. Project will be financed through a PennVEST loan.

PROJECT STATUS

Design phase was completed in late 2020, along with a funding application that was submitted to PennVEST in late November 2020. The project was advertised for bid on 2/4/21, the pre-bid meeting was held on 2/19/21, and bids were opened on 3/8/21.

THIS APPROVAL: Construction Phase

BID SUMMARY

One bid was received for the General Construction Contract, summarized in Table No. 1 as follows:

Table 1 – Bid Results	
GENERAL CONSTRUCTION – Contract No. 1	
Contractor	Total Bid
Mohawk Construction & Development	\$70,775

The General Contract consists of building renovations to accommodate the new equipment, which is to be furnished and installed under Contract No. 2. The engineer's construction cost opinion for the General Contract (GC) is \$69,000. The sole GC bidder is Mohawk Construction & Development (Mohawk), from Allentown, PA. Mohawk's bid documents are satisfactory and complete. The firm's qualifications and experience statement indicates similar project experience, and the project references provided positive feedback. Capital Works recommends authorization to award the General Contract to Mohawk.

Four (4) bids were received for the Electrical Construction Contract, summarized in Table No.2 as follows:

Table 2 – Bid Results	
ELECTRICAL CONSTRUCTION – Contract No. 2	
Contractor	Total Bid
Albarell Electric, Inc.	\$1,078,452
Phillips Bros. Electrical Contractors, Inc.	\$1,079,000
Brendon Stanton, Inc. (BSI)	\$1,152,800
North End Electric	\$1,314,630

The engineer's construction cost opinion for the Electrical Contract (EC) is \$1,462,000. As the majority of the EC contract is based on major equipment, the cost difference between the low bid and engineer's estimate is attributed to competing major equipment manufacturers (multiple "or equal" manufacturers provided pricing to bidders). The low bidder is Albarell Electric, Inc. from Bethlehem, PA. Albarell's bid documents are satisfactory and complete. The firm specializes in institutional and commercial electrical work. We reviewed their qualifications and experience documents, and the firm appears qualified for the work and has performed numerous projects of similar size and nature. Albarell has a history with LCA and city, and has performed the following work for LCA and the City: 1) currently provides annual generator maintenance services for LCA Suburban Division; 2) currently provides annual generator and switchgear maintenance services for LCA Allentown Division; 3) completed the last large electrical upgrade at the Water Filtration Plant (1995); and 4) completed the electrical contract for the KIWWTP Turbine project. Capital Works recommends authorization to award the Electrical Contract to Albarell Electric, Inc.

MATERIAL PROCUREMENT: N/A

PROFESSIONAL SERVICES

Professional Services will be required for construction engineering and construction inspection services. The design engineer, Borton-Lawson is intimately familiar with the project and will provide construction phase engineering and part-time inspection services (see attached Professional Services Authorization).

SCHEDULE

Assuming approval at the March 22, 2021 Board meeting, the Notice to Proceed is anticipated to be issued in May 2021 following the PennVEST loan settlement, with construction completion anticipated in Q1 of 2022.

FUTURE AUTHORIZATIONS

None

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	<u>AD-W-19-2</u>	BUDGET FUND:	<u>Allentown Div\Water\Capital</u>
PROJECT TITLE:	<u>Allentown Division – WFP High Service Pump VFD Replacement: Construction Phase</u>	PROJECT TYPE:	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment No. 1
THIS AUTHORIZATION:	<u>\$1,374.227</u>		
TO DATE (W/ ABOVE)	<u>\$1,530,913</u>		

DESCRIPTION AND BENEFITS:

The Allentown Water Filtration Plant (WFP) contains three High Service Pumps – two of which are controlled by Variable Frequency Drives (VFDs). High Service Pump #3 is currently not controlled by a VFD. This project will replace the two existing VFDs and add a third VFD and inverter duty motor for Pump #3. This electrical equipment was originally installed in the late 1990s, has reached the end of its useful life (as documented by the Master Plan and feasibility study) and needs to be replaced (as the equipment manufacturer no longer offers critical support services). Borton-Lawson will be used for the construction phase engineering and inspection services. The project is anticipated to be completed in Q1 of 2022. Please see attached Board Memo for further project details.

Authorization Status:

Prior Authorizations	
<i>Design Phase – Borton Lawson</i>	<i>\$156,686</i>
Requested This Authorization – Construction Phase	
Construction Contracts:	
General Contract: Mohawk Construction	\$70,775
Electrical Contract: Albarell Electric	\$1,078,452
Construction Phase Engineering Services:	
Borton-Lawson	\$80,000
Staff	\$40,000
Other – Permits, etc.	5,000
Contingencies	\$100,000
Total This Authorization	\$1,374,227

REVIEW AND APPROVALS:

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



Lehigh County Authority

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

PROFESSIONAL SERVICES AUTHORIZATION

Professional: Borton-Lawson
3897 Adler Place
Bethlehem, PA 18017

Date: March 15, 2021
Requested By: Charles Volk

Approvals
Department Head: _____
Chief Executive
Officer: _____

Subject: Allentown Division – WFP High Service Pump VFD Replacement Project

Previous Authorizations – Design Phase & Arc-Flash Study: \$156,686

This Authorization: Construction Phase Services

Borton-Lawson will provide the following construction phase services for the aforementioned project:

Professional Services
1. Attend pre-construction and progress meetings; prepare meeting minutes
2. Review & execute shop drawing submittals for conformance with the specifications
3. Respond to contractor Requests for Information
4. Review & approve monthly contractor payment applications
5. Perform part-time construction inspection services and visits to project as required by engineer
6. Process change order requests
7. Perform substantial design completion inspection & issue punchlist to contractors
8. Witness start up and commissioning of project
9. Perform final design completion inspection
10. Provide post-construction DEP certification
11. Correspondence with PennVEST as required
12. Contract closeout, record drawings and O&M manual review

Cost Estimate (not to be exceeded without further authorization): **\$ 80,000**

Time Table and Completion Deadline: As required to meet design timeline requirements

(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

MEMORANDUM

Date: March 22, 2021

To: Lehigh County Authority Board of Directors
From: Charles Volk, P.E. Chief Capital Works Officer
Subject: Suburban Division – Park Pump Station Phase 2 Upgrade

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization – Design Phase</u>	\$248,454
2	<u>Professional Services Authorization:</u> <u>Design Phase – Whitman, Requardt, and Associates, LLP (WRA)*</u>	\$198,454

**Included in the Capital Project Authorization*

PROJECT BACKGROUND:

The Park Pump Station was constructed in the early 1980s and is located in Little Lehigh Parkway within the City of Allentown. The station conveys wastewater from ten municipalities to just upstream of Kline’s Island Wastewater Treatment Plant and is a critical component of the sewerage infrastructure network. The Phase 1 Upgrade project was completed in early 2020 and consisted of replacement of the pumps, motors, pump control system, and other mechanical, electrical, structural, and HVAC upgrades. The Phase 2 Upgrade project consists of the replacement of the original backup generator, which is nearing the end of its useful life.

PROJECT OBJECTIVE:

A third party generator load test was performed in early 2020 following substantial completion of the Phase 1 Upgrade project, which revealed that the existing generator output was slightly below the original design rating of the equipment and undersized for conveying station design flow capacity. The unit has also started to incur increased maintenance costs. The objective of this project is to replace the original station generator and associated backup power equipment in order to allow the station to convey the full pump design capacity in the event of a power outage, thereby enhancing station reliability and resiliency in order to prevent sanitary sewer overflows in the Little Lehigh Parkway.

FINANCIAL:

The Project will be funded by the LCA Suburban Division.

PROJECT STATUS:

A Request for Proposal was issued in December 2020 to Whitman, Requardt & Associates, LLP (WRA), the design engineer of record for Phase 1 Upgrade project. A proposal was received in February 2021 and reviewed by LCA staff.

THIS APPROVAL: Design Phase**PROPOSAL:**

A proposal was received from WRA in the amount of \$198,454 for design phase services. As engineer of record for design and construction phases of the Phase 1 Upgrade, WRA is most familiar with the operation, controls and power system at Park Pump Station, and provided excellent service to LCA on Phase 1 with minimal change orders. WRA has extensive experience in the design of emergency power generation, evaluations of existing systems, and determination of new service. WRA has performed generator upgrades and replacements for many water and wastewater facilities. The recommendation of this memorandum is authorization to award the work to Whitman, Requardt, & Associates, LLP.

MATERIAL PROCUREMENT: N/A**PROFESSIONAL SERVICES :**

WRA's services consist of the following scope:

Task 1 – Preliminary Design Concept

- Attend kickoff and progress meetings with LCA
- Conduct field investigations and review as-built information and applicable reports
- Confirm load requirements of generator, calculate appropriate sizing, evaluate diesel versus natural gas generators, enclosure/building requirements, and proposed locations of new external generator
- Prepare technical memorandum of above evaluations
- Attend concept review meeting with LCA

Task 2 – 60% Design Submission

- Prepare Basis of Design report
- Prepare technical specifications for major equipment
- Prepare 60% level drawings and cost estimate

Task 3 – 90% Design Submission

- Prepare complete draft project specifications
- Design of generator
- Design foundation slab suitable for generator and enclosure
- Instrumentation and process control equipment design
- Development of detailed sequence of construction specifications

Task 4 – Final Design Submission

- Front end specifications preparation; prepare final contract documents
- Incorporate all LCA technical review comments
- Opinion of probable cost

Task 5 – Permitting Services

- Prepare DEP Air Quality Permit
- Prepare Lehigh County Conservation District E&S application
- Comply with City of Allentown local noise and park ordinances

SCHEDULE:

Assuming approval at the March 22, 2021 Board meeting, the Work is anticipated to be started in April 2021 with design completion scheduled for January 2022. Bid phase will commence following design completion.

FUTURE AUTHORIZATIONS:

Construction phase.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	SD-S-21-1	BUDGET FUND:	Suburban Div\Wastewater\Capital
PROJECT TITLE:	Park Pump Station Phase 2 Upgrade Project	PROJECT TYPE:	<input type="checkbox"/> Construction <input checked="" type="checkbox"/> Engineering Design <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
THIS AUTHORIZATION:	\$ 248,454		
TO DATE (W/ ABOVE)	\$ 248,454		

DESCRIPTION AND BENEFITS:

Park Pump Station Phase 2 Upgrade Project - Design Phase:

This contract consists of providing design services for the replacement of the original backup generator system. This design includes, but is not limited to, evaluation of diesel versus natural gas generators, sizing and design of generator, site/civil layout and design (and coordination with City Parks Department), permitting, and preparation of bid level documents and drawings. Detailed construction sequencing protocol will be included in the specifications (maintenance of operation plan). The objective of the project is to enhance station reliability and resiliency in the event of a power outage and enable the station to run at full design capacity during a power outage.

Previous Authorizations - Phase 2 Upgrade	
none	

REQUESTED THIS AUTHORIZATION	
Design Phase	
Staff	\$30,000
Professional Services:	
Design Phase Services - WRA	\$198,454
Contingency	\$20,000
Total this Authorization	\$248,454

Future Authorization	
Construction Phase	\$1,151,546

Total Estimated Project	\$1,400,000
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REVIEW AND APPROVALS:

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



Lehigh County Authority

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

PROFESSIONAL SERVICES AUTHORIZATION

Professional: Whitman, Requardt and
Associates, LLP
1500 Market Street
Suite W2750
Philadelphia, PA 19102

Date: March 15, 2021

Requested By: Charles Volk

Approvals

Department Head:

Chief Executive

Officer:

Suburban Division - Park Pump Station Phase 2 Upgrade

Previous Authorization Phase 2 Upgrade: none

This Authorization: Phase 2 Upgrade Project – Design Phase: \$198,454

Whitman Requardt and Associates, LLP (WRA) will provide engineering related services for the aforementioned project.

Professional Services
1. Attend Kickoff and Progress meetings
2. Prepare technical memorandum evaluating size, type and location of generator
3. Prepare design drawings and specifications of new generator system
4. Prepare and submit relative permits
5. Prepare opinion of probable construction cost

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

\$ 198,454

Time Table and Completion Deadline: As required to meet design timeline requirements

(For Authority Use Only)

Authorization Completion:

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

MEMORANDUM

Date: March 15, 2021

To: LCA Board of Directors
Liesel Gross, C.E.O.
From: Phil DePoe, Senior Planning Engineer
Subject: Allentown Division: I&I Source Reduction Improvements – Construction Phase Year 2

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Construction	\$986,837
2 (a)	Professional Services Authorization – Kleinfelder (1)	\$161,800

(a) Included in the Capital Project Authorization

PROJECT OVERVIEW:

The City's 2018 I&I Source Reduction Program identified specific improvements to be implemented each year of a five-year plan. As described in Kleinfelder's proposal dated May 1, 2019, the improvements to be implemented are the remaining I&I source reduction measures identified within the Primary and Secondary Basins, as well as additional areas identified by LCA and City staff during the ongoing CCTV program. Accordingly, Kleinfelder (KLF) recently completed the design documents for the pipes to be rehabilitated during Year 2 of the five-year plan, which includes heavy cleaning, grout sealing, and full cured-in-place-pipelining (CIPP). The remaining three projects will occur in 2022-2024.

FINANCIAL:

The project is an Administrative Order (AO) Project and it will be funded by the City. The terms of the concession lease agreement between LCA and the City specify that the City will directly fund projects associated with the AO, and LCA will collect fees from City customers to pay any associated debt service for these projects. The City determines the projects to be completed and directs LCA to complete the projects in the manner desired by the City.

PROJECT STATUS:

Pending Board approval of this I&I Source Reduction Improvement Project - Construction Phase Year 2.

BIDDING SUMMARY – CONSTRUCTION CONTRACT:

This project requires a General Construction contract. The project was advertised for bid on January 26, 2021. A mandatory prebid meeting was held virtually on February 16, 2021. Bids were received on March 3, 2021.

The bidding results are as follows:

Contractor	Base Bid	Base Bid + Alt. A	Base Bid + Alt. B
<i>Standard Pipe Services, LCC</i>	\$574,477.00	\$587,637.00	<i>\$785,037.00</i>
SAK Construction, LCC	\$838,276.75	\$856,700.75	\$1,240,972.75
Mobile Dredging and Video Pipe, Inc.	\$714,668.99	\$830,476.99	\$1,256,860.99
Insituform Technologies, LLC	\$815,371.30	\$981,187.30	\$1,268,628.02
North American Pipeline Services, LCC	\$797,885.99	\$850,525.99	\$1,347,973.99
Spinello Companies	\$888,520.00	\$1,020,120.00	\$1,388,600.00

The base bid of this project is: (a) heavy cleaning 8" (6,721'), 10" (738'), 12" (1,106') sewer main; (b) grout sealing of 8" (985), 10" (163), 12" (119), 24" (95) sewer main joints; (c) CIPP lining of 8" (2,515'), 10" (308'), 12" (1,086'), 18" (2,632'), 24" (324') sewer main. The location of this project is primarily located on the eastern side of the City and was identified as a priority area. Alternative A is located near the KIWWTP and consists of 18" sewer main CCTV (2,632') investigation. Alternative B includes this CCTV work plus full lining (2,632'). The City has elected to award the Base Bid + Alternative B.

Standard Pipe Services recently completed extensive rehabilitation work in the Western Lehigh Interceptor and the Year 1 City I&I Project. That work was found to be satisfactory; therefore, we recommend awarding the General Construction contract to Standard Pipe Services subject to receipt of the necessary Performance Bonds, insurance, and other required documentation.

PROFESSIONAL SERVICES – CONSTRUCTION PHASE:

The City has instructed LCA to utilize Kleinfelder for the construction administration phases of the project. Also, at the request of the City, Kleinfelder was asked to subcontract with Barry Isett & Associates (BIA) for the construction inspection services related to this project. BIA completed the construction inspection services of prior manhole rehabilitation projects in the City. BIA also completed the construction inspection services for the Year 1 project.

PROJECT SCHEDULE:

Assuming Board approval of the Construction Phase Year 2 at the March 22, 2021 meeting, Notice to Proceed will be issued by late April 2021 with an estimated completion date of early October 2021.

FUTURE AUTHORIZATIONS – CONSTRUCTION PHASE YEARS 3-5:

A Capital Project Authorization (CPA) will be presented to the Board in March of 2022 (Year 3), March of 2023 (Year 4), and March of 2024 (Year 5) for approval of the remaining construction phases. This will also include a professional services award, staff costs, and other related components.



March 9, 2021

VIA EMAIL

Philip M. DePoe
Lehigh County Authority
P.O. Box 3348
1053 Spruce Street
Allentown, PA 18106

**RE: PROPOSAL FOR I&I SOURCE REDUCTION IMPROVEMENTS PROJECT – YEAR 2
CONSTRUCTION OBSERVATION AND CONTRACT ADMINISTRATION SERVICES**

Dear Mr. DePoe:

We have prepared this proposal for construction observation and contract administration services for the Lehigh County Authority (LCA) I&I Source Reduction Year 2 Project. Background information is presented below followed by the Scope of Work and Cost Proposal.

BACKGROUND

The City of Allentown's Source Reduction Plan is a key element of its Regional Flow Management Strategy which was accepted by the U.S. Environmental Protection Agency. The I&I Source Reduction Program identified specific improvements to be implemented each year of the five-year plan. The improvements for Year 1 of the program have been successfully implemented, the I&I source reduction measures identified within the Primary and Secondary Basins, as well as additional areas identified by LCA and City staff during the ongoing CCTV program are included in year 2 are to be implemented. Accordingly, Kleinfelder (KLF) recently completed the design documents for the pipes to be rehabilitated during Year 2 of the five-year plan, which includes heavy cleaning and full cured-in-place-pipelining (CIPP).

This proposal includes the following construction observation and contract administration services:

- Conduct full-time inspection and monitor the heavy cleaning operation, initial and final CCTV, testing and installation of CIPP for conformance to the drawings and specifications.
- Review contractor submittals containing technical information on the materials the contractor proposes to procure for the project.
- Respond to contractor requests for clarification or interpretation.
- Review and evaluate the merits of potential change orders.
- Review, negotiate and recommend change orders.
- Assist and review procedures for testing and commissioning.
- Project management: review and make recommendations on payment applications, review and recommend substantial completion, and complete final project closeout.

SCOPE OF WORK

Kleinfelder's proposed Scope of Work consists of the following tasks.

- Task 1 – Inspection/Observation Services
- Task 2 – Submittal Review
- Task 3 – Clarifications and Interpretations
- Task 4 – Meetings
- Task 5 – Change Order Assistance
- Task 6 – System Testing and Commissioning
- Task 7 – Project Administration

The scope of each task is described below.

Task 1 – Inspection/Observation Services

KLF will subcontract the project inspection task to Barry Isset and Associates (BIA). Mr. Louis Stalsitz of BIA is very familiar with LCA procedures and will provide full-time observation services to monitor the contractor's compliance with the contract drawings and specifications, for an estimated 160 hours during construction. In addition to inspecting and monitoring activities, KLF will:

- Review contractor payment requests.
- Participate in the resolution of issues involving unforeseen field conditions.
- Compile punchlists of remaining work items.
- Evaluate substantial and final completion and issue certificates of substantial or final completion as appropriate.

It is assumed that BIA will be on site during the entire pipe segment cleaning, CCTV inspection, installation of the CIPP, testing, and final CCTV review. KLF will assist during specific events such as initiation of bypassing, testing, and initiation of operation.

In performing inspection/monitoring services, KLF and BIA will not be responsible for the contractor's means, methods, or techniques, or for the contractor's safety procedures or practices.

Task 2 – Submittal Review

The objective of this task is to review shop drawings and other submittals as required to evaluate that the materials the contractor proposes to purchase conform to the contract documents.

KLF will maintain a log of all submittals indicating the date received, date transmitted to the reviewer, date returned to the contractor and the action code. Review of submittals will generally be limited to fourteen (14) working days after receipt. Submittal review will be performed in accordance with Section 01300 of the Specifications. Each submittal will be coded with one of the following action codes:

1. No exceptions taken.
2. Make corrections noted.
3. Amend and resubmit.

4. Rejected.
5. Noted – no action required.

For developing the level of effort required, the following number of initial and re-submittals have been assumed:

Specification Sections	Number of Initial Submittals	Number of Re-submittals
01005: Maintenance of Sanitary Sewer Operations	1	1
01500: Temporary Facilities	1	
02130: Erosion, Sedimentation and Noise Controls	1	1
02670: Traffic Control	1	1
02760: Pipeline Cleaning and Internal Inspection	4	1
02761: Bypass Flow Handling	3	1
02763: Chemical Root Control of Sanitary Sewer System	1	
02767: CIPP-Full and Sectional (Cured-in-Place Pipelining)	3	1
Total Contract Submittals	15	6

The required effort to review submittals can vary depending upon a number of factors, such as the quality and thoroughness of the contractor's submittals, and the percentage of items that are by specified manufacturers versus "or equals."

Task 3 – Clarifications and Interpretations

KLF will review and provide written responses to contractor requests for information (RFIs), and will maintain a log of all RFIs, indicating the date received and the date of response. To estimate the corresponding level of effort, it has been assumed that a total of five (5) RFIs will require a written response. KLF will respond to contractor RFIs within five (5) working days following receipt.

Task 4 – Meetings

KLF will participate in and lead the following meetings which will be attended by KLF's Project Manager.

- Preconstruction conference
- Five (5) construction progress meetings

KLF will prepare an agenda for each meeting and will prepare and distribute minutes following each meeting.

Task 5 – Change Order Assistance

KLF will review potential change orders (PCOs) and negotiate and recommend final change orders. When advised of a PCO by the contractor, KLF will review and evaluate the issues surrounding the PCO and advise LCA of its merit. For the purposes of establishing a level of effort, it is assumed that a total of three (3) PCOs will be evaluated.

When LCA authorizes a change order, KLF will negotiate the cost and schedule impacts (if any) of the change order and prepare a Supplemental Agreement for execution by LCA and the Contractor. It is assumed that one (1) change order will be authorized.

Task 6 – System Testing and Commissioning

A representative from KLF will be on site for the initial testing and commissioning of the system, and to instruct LCA staff on the operation and routine testing of the system. A commissioning report will be prepared and submitted to LCA to present the test data and provide testing/monitoring instructions.

Task 7 – Project Administration

In this task, KLF will:

1. Provide general communication with LCA and the contractor throughout the duration of construction regarding such issues as progress, submittal status, construction challenges and their resolution.
2. Provide internal coordination between the team members and on-site representative regarding issues such as submittals, RFIs, and PCOs.
3. Perform the internal project administrative functions required to effectively manage the project.

It has been assumed that the effort required under this task will average five (5) hours per week for the duration of the construction contract.

COST PROPOSAL

KLF proposes to perform the Scope of Work described above on a time-charged-plus-expense basis. The estimated cost per task and resulting total cost are presented in the following table.

Task	Cost
1 – Inspection/Observation Services	\$76,800
2 – Submittal Review	\$20,800
3 – Clarifications and Interpretations	\$15,800
4 – Meetings	\$15,100
5 – Change Order Assistance	\$8,400
6 – System Testing and Commissioning	\$8,300
7 – Project Administration	\$16,600
Total	\$161,800

The total cost presented above will not be exceeded without prior approval of the LCA. The Scope of Work will be executed on a time-and-materials basis in accordance with our attached Client Professional Services Agreement and Kleinfelder's Standard Billing Rates. It is noted that the total amount for construction inspection and contract administration services is less than the budget previously estimated.

We look forward to assisting you with this important project. If you have any questions, please contact me at (609) 454-4568 or via email at FSCcontreras@Kleinfelder.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Felipe S. Contreras', with a stylized flourish at the end.

Felipe S. Contreras, P.E.
Principal Engineer

Enclosures

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	AD-S-11	BUDGET FUND:	Allentown Div\Wastewater\Capital
PROJECT TITLE:	Allentown Division: I&I Source Reduction Improvements - Construction Phase Year 2		PROJECT TYPE:
THIS AUTHORIZATION:	\$986,837	<input checked="" type="checkbox"/>	Construction
TO DATE (W/ ABOVE)	\$1,765,532	<input type="checkbox"/>	Engineering Study
		<input type="checkbox"/>	Equipment Purchase
		<input checked="" type="checkbox"/>	Amendment

DESCRIPTION AND BENEFITS:

The base bid of this project is: (a) heavy cleaning 8" (6,721'), 10" (738'), 12" (1,106') sewer main; (b) grout sealing of 8" (985), 10" (163), 12" (119), 24" (95) sewer main joints; (c) CIPP lining of 8" (2,515'), 10" (308'), 12" (1,086'), 18" (2,632'), 24" (324') sewer main. The location of this project is primarily located on the eastern side of the City and was identified as a priority area. Alternative A is located near the KIWWTP and consists of 18" sewer main CCTV (2,632') investigation. Alternative B includes this CCTV work plus full lining (2,632').

This is considered an Administrative Order (AO) project and will be funded by the City of Allentown. Due to expenditure requirements associated with a prior AO bond, the City had all five years designed in 2019. The Year 1 project was completed in 2020, Year 2 will be completed in 2021, and the final three projects in 2022-2024.

Please see attached Board Memo for further project details.

Authorization Status:

Requested This Authorization	
<i>Design Phase</i>	
Staff	\$30,000
Construction Contractor	\$785,037
Engineering Consultant	\$161,800
Contingency	10,000
Total This Authorization	\$986,837

Prior Authorizations	\$778,695
Future Authorizations (Years 3-5)	TBD
Total Estimated Project (to date)	\$1,765,532

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
AMENDMENT NO. 4**

Professional: KLEINFELDER
150 College Road West, Suite 100
Princeton, NJ 08540

Date: March 22, 2021

Requested By: Phil DePoe

Approvals

Department Head: _____

Chief Executive

Officer: _____

Allentown Division: I&I Source Reduction Improvements – Construction Phase Year 2

The I&I Source Reduction Program identified specific improvements to be implemented each year of the five-year plan. As described in Kleinfelder's proposal dated May 1, 2019, the improvements to be implemented are the remaining I&I source reduction measures identified within the Primary and Secondary Basins, as well as additional areas identified by LCA and City staff during the ongoing CCTV program. Accordingly, Kleinfelder (KLF) recently completed the design documents for the pipes to be rehabilitated during Year 2 of the five-year plan, which includes heavy cleaning, grout sealing, and full cured-in-place-pipelining (CIPP). This proposal includes the following construction observation and contract administration services:

Professional Services ⁽¹⁾
1. Inspection and Observation Services
2. Submittal Review
3. Clarifications and Interpretations
4. Meetings
5. Change Order Assistance
6. System Testing and Commissioning
7. Project Administration

(1) For Construction Phase Only.

Please reference the cover Memo for additional information.

Construction Phase Year 2 (This PSA Amendment #4): \$161,800

Total Year 2 Cost Estimate (not to be exceeded without further authorization): \$986,837

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

(For Authority Use Only)

Authorization Completion:

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

**LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS
FEBRUARY 2021**

LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS - SUMMARY
For the Period Ended February 28, 2021

	Consolidated Financial Statements														
	Month					Year To Date					FULL YEAR				
	Actual	Q1 FC	Prior Year	FC Var	PY Var	Actual	Q1 FC	Prior Year	FC Var	PY Var	Q1 FC	Budget	Prior Year	Bud Var	PY Var
Income Statement															
Suburban Water	(118,579)	(139,000)	(8,906)	20,421	(109,673)	(20,695)	(40,000)	127,441	19,305	(148,136)	308,000	183,548	1,001,264	124,452	(693,264)
Suburban Wastewater	314,630	322,000	2,875,168	(7,370)	(2,560,538)	528,359	532,000	2,977,634	(3,641)	(2,449,275)	1,313,000	1,175,879	3,914,463	137,121	(2,601,463)
City Division	587,170	541,500	46,857	45,670	540,313	1,020,513	976,500	80,880	44,013	939,633	1,019,414	865,692	(1,104,731)	153,722	2,124,145
Total LCA	783,221	724,500	2,913,119	58,721	(2,129,898)	1,528,177	1,468,500	3,185,955	59,677	(1,657,778)	2,640,414	2,225,119	3,810,996	415,295	(1,170,582)
Cash Flow Statement															
Suburban Water	530,120	521,241	(583,701)	8,879	1,113,821	282,146	273,267	(583,701)	8,879	865,847	(3,369,800)	(3,490,153)	(3,945,823)	120,353	576,023
Suburban Wastewater	974,727	978,729	1,494,886	(4,002)	(520,159)	(14,661)	689,341	1,494,886	(704,002)	(1,509,548)	2,377,166	2,321,828	409,330	55,338	1,967,836
City Division	1,625,104	1,661,500	1,830,583	(36,396)	(205,479)	3,296,425	3,196,500	1,830,583	99,925	1,465,842	4,698,288	4,663,547	2,118,999	34,740	2,579,289
Total LCA	3,129,951	3,161,470	2,741,768	(31,519)	388,182	3,563,910	4,159,108	2,741,768	(595,198)	822,141	3,705,653	3,495,222	(1,417,494)	210,431	5,123,148
Debt Service Coverage Ratio															
Suburban Water	0.69	0.66	1.06	0.03	(0.37)	1.06	1.05	1.29	0.01	(0.22)	1.23	1.20	1.33	0.03	(0.10)
Suburban Wastewater	11.68	11.75	55.61	(0.07)	(43.93)	10.86	10.87	32.08	(0.01)	(21.22)	8.36	8.17	12.34	0.19	(3.98)
City Division	1.82	1.79	2.02	0.03	(0.20)	1.77	1.75	2.02	0.02	(0.25)	1.72	1.71	1.64	0.01	0.08

LEHIGH COUNTY AUTHORITY
CONSOLIDATED FINANCIAL STATEMENTS
For the Period Ended February 28, 2021

STATEMENTS OF ACTIVITIES	Consolidated Financial Statements															
	Month				Year To Date				Q1 FULL YEAR FORECAST				Full Year Budget			
	Sub W	Sub WW	City	LCA	Sub W	Sub WW	City	LCA	Sub W	Sub WW	City	LCA	Sub W	Sub WW	City	LCA
Operating Revenues:																
User Charges	831,752	1,480,955	3,309,376	5,622,083	1,783,549	2,798,875	6,532,073	11,114,498	11,793,000	18,959,000	41,810,000	72,562,000	11,799,441	19,166,369	41,996,514	72,962,324
Connection & System Charges	31,323	84,344	463,136	578,803	64,486	200,222	599,853	864,562	926,000	972,000	3,991,000	5,889,000	912,039	865,588	3,947,981	5,725,607
Other Miscellaneous Revenues	1,185	75	3,390	4,650	4,440	105	7,980	12,525	32,000	-	59,000	91,000	30,944	628	59,249	90,821
Total Operating Revenues	864,260	1,565,374	3,775,902	6,205,536	1,852,475	2,999,203	7,139,907	11,991,584	12,751,000	19,931,000	45,860,000	78,542,000	12,742,423	20,032,585	46,003,744	78,778,752
Operating Expenses:																
Personnel	266,319	112,785	769,496	1,148,600	535,980	220,436	1,549,216	2,305,632	3,306,000	1,731,000	11,467,000	16,504,000	3,289,603	1,760,954	11,561,494	16,612,051
Shared Services - General & Administrative	41,147	17,207	127,888	186,242	65,065	26,751	192,745	284,561	629,000	153,000	1,660,000	2,442,000	663,734	155,415	1,739,417	2,558,565
Utilities	39,641	28,318	183,999	251,957	72,380	49,311	369,353	491,044	528,000	428,000	2,165,000	3,121,000	543,917	449,484	2,156,620	3,150,021
Materials and Supplies	31,305	22,485	113,454	167,244	35,901	28,542	127,587	192,030	532,000	601,000	1,828,000	2,961,000	547,582	649,208	1,932,267	3,129,057
Miscellaneous Services	283,990	438,540	112,594	835,124	519,878	888,321	121,009	1,529,207	3,459,000	6,137,000	1,773,500	11,369,500	3,518,076	6,209,376	1,813,371	11,540,823
Treatment and Transportation	-	231,849	-	231,849	-	461,849	-	461,849	-	3,981,000	11,000	3,992,000	-	3,977,539	12,000	3,989,539
Depreciation and Amortization	217,141	384,727	491,154	1,093,022	434,282	769,454	982,308	2,186,044	2,604,000	4,619,000	5,892,000	13,115,000	2,605,699	4,616,783	5,893,862	13,116,343
Major Maintenance Expenses	54	4,805	7,930	12,789	999	7,337	12,788	21,124	1,000	916,000	500,000	1,417,000	3,400	1,000,000	542,924	1,546,324
Other Miscellaneous	-	-	-	-	-	-	-	-	66,000	44,000	2,121,000	2,231,000	74,864	46,422	2,123,972	2,245,258
Total Operating Expenses	879,597	1,240,716	1,806,514	3,926,827	1,664,485	2,451,999	3,355,006	7,471,490	11,125,000	18,610,000	27,417,500	57,152,500	11,246,874	18,865,181	27,775,926	57,887,982
Net Operating Profit	(15,337)	324,658	1,969,387	2,278,708	187,990	547,204	3,784,900	4,520,094	1,626,000	1,321,000	18,442,500	21,389,500	1,495,549	1,167,404	18,227,817	20,890,770
Non-Operating Income (Expense)																
Interest Income	1,136	8,937	518	10,591	2,501	18,953	1,082	22,536	81,000	176,000	112,000	369,000	94,327	190,471	172,960	457,758
Interest (Expense)	(103,318)	(12,436)	(1,382,735)	(1,498,489)	(206,689)	(25,301)	(2,765,470)	(2,997,460)	(1,398,000)	(178,000)	(17,535,086)	(19,111,086)	(1,406,328)	(181,995)	(17,535,086)	(19,123,409)
Other Miscellaneous	(1,061)	(6,529)	-	(7,590)	(4,497)	(12,496)	-	(16,993)	(1,000)	(6,000)	-	(7,000)	-	-	-	-
Net Non-Operating Income (Expense)	(103,243)	(10,028)	(1,382,217)	(1,495,488)	(208,685)	(18,844)	(2,764,388)	(2,991,917)	(1,318,000)	(8,000)	(17,423,086)	(18,749,086)	(1,312,001)	8,475	(17,362,125)	(18,665,651)
Net Income (Loss)	(118,579)	314,630	587,170	783,221	(20,695)	528,359	1,020,513	1,528,177	308,000	1,313,000	1,019,414	2,640,414	183,548	1,175,879	865,692	2,225,119
CASH FLOW STATEMENT																
Cash Flows From Operating Activities																
Operating Revenues	864,260	1,565,374	3,775,902	6,205,536	1,852,475	2,999,203	7,139,907	11,991,584	12,751,000	19,931,000	45,860,000	78,542,000	12,742,423	20,032,585	46,003,744	78,778,752
Operating Expenses (ex D&A)	(662,456)	(855,989)	(1,315,360)	(2,833,805)	(1,230,203)	(1,682,545)	(2,372,698)	(5,285,446)	(8,521,000)	(13,991,000)	(21,525,500)	(44,037,500)	(8,641,176)	(14,248,398)	(21,882,064)	(44,771,639)
Non-Cash Working Capital Changes	423,371	404,465	(513,246)	314,590	(159,305)	(353,544)	(1,058,746)	(1,571,595)	9,346	3,995	(67,119)	(53,778)	3,418	(0)	50,001	53,419
Net Cash Provided by (Used in) Operating Activities	625,176	1,113,850	1,947,295	3,686,321	462,967	963,114	3,708,462	5,134,543	4,239,346	5,943,995	24,267,381	34,450,722	4,104,666	5,784,186	24,171,680	34,060,532
Cash Flows From Financing Activities																
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	2,000,000	2,000,000	-	-	2,000,000	2,000,000
Interest Payments	(3,734)	(12,439)	-	(16,172)	(7,523)	(25,307)	-	(32,829)	(1,406,328)	(181,995)	(11,565,086)	(13,153,409)	(1,406,328)	(181,995)	(11,565,086)	(13,153,409)
Principal Payments	-	(45,485)	-	(45,485)	(31,228)	(90,881)	-	(122,109)	(2,092,818)	(549,034)	(2,660,831)	(5,302,683)	(2,092,818)	(549,034)	(2,660,831)	(5,302,683)
Net Cash Provided by (Used in) Financing Activities	(3,734)	(57,924)	-	(61,658)	(38,751)	(116,187)	-	(154,938)	(3,499,146)	(731,029)	(12,225,917)	(16,456,092)	(3,499,146)	(731,029)	(12,225,917)	(16,456,092)
Cash Flows from Capital and Related Activities																
Non-Operating Income (Expenses)	(1,061)	(6,529)	-	(7,590)	(4,497)	(12,496)	-	(16,993)	(1,000)	(6,000)	(1,230,600)	(1,237,600)	-	-	(1,230,600)	(1,230,600)
Capital Expenditures, net	(91,397)	(83,607)	(322,709)	(497,713)	(140,074)	(125,045)	(413,120)	(678,238)	(4,190,000)	(3,005,800)	(6,224,576)	(13,420,376)	(4,190,000)	(2,921,800)	(6,224,576)	(13,336,376)
Net Cash Provided By (Used In) Capital and Related Activities	(92,458)	(90,136)	(322,709)	(505,303)	(144,571)	(137,540)	(413,120)	(695,231)	(4,191,000)	(3,011,800)	(7,455,176)	(14,657,976)	(4,190,000)	(2,921,800)	(7,455,176)	(14,566,976)
Cash Flows From Investing Activities																
Investments Converting To Cash	-	-	-	-	-	743,000	-	743,000	-	-	-	-	-	-	-	-
Purchased Investments	-	-	-	-	-	(1,486,000)	-	(1,486,000)	-	-	-	-	-	-	-	-
Interest Income	1,136	8,937	518	10,591	2,501	18,953	1,082	22,536	81,000	176,000	112,000	369,000	94,327	190,471	172,960	457,758
Net Cash Provided By (Used In) Investing Activities	1,136	8,937	518	10,591	2,501	(724,047)	1,082	(720,464)	81,000	176,000	112,000	369,000	94,327	190,471	172,960	457,758
FUND NET CASH FLOWS	530,120	974,727	1,625,104	3,129,951	282,146	(14,661)	3,296,425	3,563,910	(3,369,800)	2,377,166	4,698,288	3,705,653	(3,490,153)	2,321,828	4,663,547	3,495,222
DEBT SERVICE RATIO																
Debt Service Ratio (Indenture Based)																
Total Operating Revenues	831,752	1,480,955	3,309,376	5,622,083	1,783,549	2,798,875	6,532,073	11,114,498	11,793,000	18,959,000	41,810,000	72,562,000	11,799,441	19,166,369	41,996,514	72,962,324
Total Operating Expenses (Cash Based)	(662,456)	(855,989)	(1,315,360)	(2,833,805)	(1,230,203)	(1,682,545)	(2,372,698)	(5,285,446)	(8,521,000)	(13,991,000)	(21,525,500)	(44,037,500)	(8,641,176)	(14,248,398)	(21,882,064)	(44,771,639)
Interest Income	1,136	8,937	518	10,591	2,501	18,953	1,082	22,536	81,000	176,000	112,000	369,000	94,327	190,471	172,960	457,758
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-Operating Revenues (Expenses)	31,447	77,890	466,526	575,863	64,429	187,832	607,833	860,093	957,000	966,000	4,050,000	5,973,000	942,983	866,216	4,007,230	5,816,428
Cash Available For Debt Service	201,879	711,793	2,461,059	3,374,731	620,275	1,323,115	4,768,291	6,711,681	4,310,000	6,110,000	24,446,500	34,866,500	4,195,575	5,974,657	24,294,640	34,464,871
Interest Paid	117,194	15,166	1,144,745	1,277,105	234,388	30,333	2,289,489	2,554,210	1,406,328	181,995	11,565,086	13,153,409	1,406,328	181,995	11,565,086	13,153,409
Debt Retirement (Principal Payments)	174,402	45,753	205,124	425,278	348,803	91,506	410,248	850,557	2,092,818	549,034	2,660,831	5,302,683	2,092,818	549,034	2,660,831	5,302,683
Total Debt Service	291,596	60,919	1,349,869	1,702,383	583,191	121,838	2,699,737	3,404,766	3,499,146	731,029	14,225,917	18,456,092	3,499,146	731,029	14,225,917	18,456,092
Debt Service Ratio	0.69	11.68	1.82	1.98	1.06	10.86	1.77	1.97	1.23	8.36	1.72	1.89	1.20	8.17	1.71	1.87

LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS - SUBURBAN WATER
For the Period Ended February 28, 2021

STATEMENTS OF ACTIVITIES	Suburban - Water														
	Month					Year To Date					Full Year				
	Actual	Q1 FC	Prior Yr	FC Var	PY Var	Actual	Q1 FC	Prior Yr	FC Var	PY Var	Q1 FC	Budget	Prior Yr	Bud Var	PY Var
Operating Revenues:															
User Charges	831,752	822,000	753,944	9,752	77,809	1,783,549	1,773,000	1,626,696	10,549	156,853	11,793,000	11,799,441	10,876,328	(6,441)	916,672
Connection & System Charges	31,323	33,000	30,692	(1,677)	631	64,486	66,000	43,468	(1,514)	21,018	926,000	912,039	860,600	13,961	65,400
Other Miscellaneous Revenues	1,185	1,000	960	185	225	4,440	4,000	3,435	440	1,005	32,000	30,944	26,350	1,056	5,650
Total Operating Revenues	864,260	856,000	785,596	8,260	78,665	1,852,475	1,843,000	1,673,599	9,475	178,876	12,751,000	12,742,423	11,763,278	8,577	987,722
Operating Expenses:															
Personnel	266,319	251,000	110,870	(15,319)	(155,449)	535,980	521,000	270,562	(14,980)	(265,419)	3,306,000	3,289,603	2,776,020	(16,397)	(529,980)
Shared Services - General & Administrative	41,147	55,000	82,818	13,853	41,671	65,065	79,000	119,163	13,935	54,098	629,000	663,734	301,192	34,734	(327,808)
Utilities	39,641	45,000	28,693	5,359	(10,948)	72,380	78,000	59,576	5,620	(12,804)	528,000	543,917	419,492	15,917	(108,508)
Materials and Supplies	31,305	26,000	18,994	(5,305)	(12,311)	35,901	30,000	29,777	(5,901)	(6,124)	532,000	547,582	278,738	15,582	(253,262)
Miscellaneous Services	283,990	293,000	216,895	9,010	(67,095)	519,878	529,000	401,235	9,122	(118,642)	3,459,000	3,518,076	2,954,193	59,076	(504,807)
Treatment and Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depreciation and Amortization	217,141	217,000	220,000	(141)	2,859	434,282	434,000	440,000	(282)	5,718	2,604,000	2,605,699	2,650,715	1,699	46,715
Major Maintenance Expenses	54	-	701	(54)	647	999	1,000	969	1	(30)	1,000	3,400	13,768	2,400	12,768
Other Miscellaneous	-	6,000	-	6,000	-	-	6,000	-	6,000	-	66,000	74,864	-	8,864	(66,000)
Total Operating Expenses	879,597	893,000	678,972	13,403	(200,625)	1,664,485	1,678,000	1,321,283	13,515	(343,202)	11,125,000	11,246,874	9,394,119	121,874	(1,730,881)
Net Operating Profit	(15,337)	(37,000)	106,624	21,663	(121,960)	187,990	165,000	352,316	22,990	(164,326)	1,626,000	1,495,549	2,369,159	130,451	(743,159)
Non-Operating Income (Expense)															
Interest Income	1,136	13,000	10,675	(11,864)	(9,539)	2,501	14,000	23,231	(11,499)	(20,730)	81,000	94,327	74,594	(13,327)	6,406
Interest (Expense)	(103,318)	(115,000)	(127,680)	11,682	24,362	(206,689)	(218,000)	(255,484)	11,311	48,796	(1,398,000)	(1,406,328)	(1,439,847)	8,328	41,847
Other Miscellaneous	(1,061)	-	1,475	(1,061)	(2,536)	(4,497)	(1,000)	7,378	(3,497)	(11,876)	(1,000)	-	(2,641)	(1,000)	1,641
Net Non-Operating Income (Expense)	(103,243)	(102,000)	(115,530)	(1,243)	12,287	(208,685)	(205,000)	(224,875)	(3,685)	16,190	(1,318,000)	(1,312,001)	(1,367,895)	(5,999)	49,895
Net Income (Loss)	(118,579)	(139,000)	(8,906)	20,421	(109,673)	(20,695)	(40,000)	127,441	19,305	(148,136)	308,000	183,548	1,001,264	124,452	(693,264)
CASH FLOW STATEMENT															
Cash Flows From Operating Activities															
Operating Revenues	864,260	856,000	785,596	8,260	78,665	1,852,475	1,843,000	1,673,599	9,475	178,876	12,751,000	12,742,423	11,763,278	8,577	987,722
Operating Expenses (ex D&A)	(662,456)	(676,000)	(458,972)	13,544	(203,484)	(1,230,203)	(1,244,000)	(881,283)	13,797	(348,920)	(8,521,000)	(8,641,176)	(6,743,404)	120,176	(1,777,596)
Non-Cash Working Capital Changes	423,371	423,372	(78,852)	(0)	502,223	(159,305)	(159,908)	(973,734)	604	814,430	9,346	3,418	(574,363)	5,928	583,709
Net Cash Provided by (Used in) Operating Activities	625,176	603,372	247,772	21,804	377,404	462,967	439,092	(181,418)	23,875	644,386	4,239,346	4,104,666	4,445,511	134,680	(206,165)
Cash Flows From Financing Activities															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Payments	(3,734)	(3,734)	-	-	(3,734)	(7,523)	(7,523)	(8,852)	-	1,330	(1,406,328)	(1,406,328)	(1,756,050)	-	349,722
Principal Payments	-	-	(30,620)	-	30,620	(31,228)	(31,228)	(61,183)	-	29,954	(2,092,818)	(2,092,818)	(2,081,390)	-	(11,428)
Net Cash Provided by (Used in) Financing Activities	(3,734)	(3,734)	(30,620)	-	26,886	(38,751)	(38,751)	(70,035)	-	31,284	(3,499,146)	(3,499,146)	(3,837,440)	-	338,294
Cash Flows from Capital and Related Activities															
Non-Operating Income (Expenses)	(1,061)	-	1,475	(1,061)	(2,536)	(4,497)	(1,000)	7,378	(3,497)	(11,876)	(1,000)	-	(2,641)	(1,000)	1,641
Capital Expenditures, net	(91,397)	(91,397)	(315,003)	-	223,606	(140,074)	(140,074)	(362,857)	-	222,784	(4,190,000)	(4,190,000)	(5,030,164)	-	840,164
Net Cash Provided By (Used In) Capital and Related Activities	(92,458)	(91,397)	(313,528)	(1,061)	221,070	(144,571)	(141,074)	(355,479)	(3,497)	210,908	(4,191,000)	(4,190,000)	(5,032,805)	(1,000)	841,805
Cash Flows From Investing Activities															
Investments Converting To Cash	-	-	245,000	-	(245,000)	-	-	743,000	-	(743,000)	-	-	2,382,000	-	(2,382,000)
Purchased Investments	-	-	(743,000)	-	743,000	-	-	(743,000)	-	743,000	-	-	(1,977,682)	-	1,977,682
Interest Income	1,136	13,000	10,675	(11,864)	(9,539)	2,501	14,000	23,231	(11,499)	(20,730)	81,000	94,327	74,594	(13,327)	6,406
Net Cash Provided By (Used In) Investing Activities	1,136	13,000	(487,325)	(11,864)	488,461	2,501	14,000	23,231	(11,499)	(20,730)	81,000	94,327	478,911	(13,327)	(397,911)
FUND NET CASH FLOWS	530,120	521,241	(583,701)	8,879	1,113,821	282,146	273,267	(583,701)	8,879	865,847	(3,369,800)	(3,490,153)	(3,945,823)	120,353	576,023
DEBT SERVICE RATIO															
Debt Service Ratio (Indenture Based)															
User Charges	831,752	822,000	753,944	9,752	77,809	1,783,549	1,773,000	1,626,696	10,549	156,853	11,793,000	11,799,441	10,876,328	(6,441)	916,672
Operating Expenses (Cash Based)	(662,456)	(676,000)	(458,972)	13,544	(203,484)	(1,230,203)	(1,244,000)	(881,283)	13,797	(348,920)	(8,521,000)	(8,641,176)	(6,743,404)	120,176	(1,777,596)
Interest Income	1,136	13,000	10,675	(11,864)	(9,539)	2,501	14,000	23,231	(11,499)	(20,730)	81,000	94,327	74,594	(13,327)	6,406
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	31,447	34,000	33,127	(2,553)	(1,680)	64,429	69,000	54,281	(4,571)	10,148	957,000	942,983	884,308	14,017	72,692
Cash Available For Debt Service	201,879	193,000	338,774	8,879	(136,895)	620,275	612,000	822,925	8,275	(202,650)	4,310,000	4,195,575	5,091,826	114,425	(781,826)
Interest Paid	117,194	117,194	146,338	-	(29,144)	234,388	234,388	292,675	-	(58,287)	1,406,328	1,406,328	1,756,050	-	(349,722)
Debt Retirement (Principal Payments)	174,402	174,402	173,449	-	952	348,803	348,803	346,898	-	1,905	2,092,818	2,092,818	2,081,390	-	11,428
Total Debt Service	291,596	291,596	319,787	-	(28,191)	583,191	583,191	639,573	-	(56,382)	3,499,146	3,499,146	3,837,440	-	(338,294)
Debt Service Ratio	0.69	0.66	1.06	0.03	(0.37)	1.06	1.05	1.29	0.01	(0.22)	1.23	1.20	1.33	0.03	(0.10)

LEHIGH COUNTY AUTHORITY
VARIANCE ANALYSIS - MONTH
For the Period Ended February 28, 2021

STATEMENTS OF ACTIVITIES

Operating Revenues:

User Charges
Connection & System Charges
Other Miscellaneous Revenues

Total Operating Revenues

Operating Expenses:

Personnel
Shared Services - General & Administrative
Utilities
Materials and Supplies
Miscellaneous Services
Treatment and Transportation
Depreciation and Amortization
Major Maintenance Expenses
Other Miscellaneous

Total Operating Expenses

Net Operating Profit

Non-Operating Income (Expense)

Interest Income
Interest (Expense)
Other Miscellaneous

Net Non-Operating Income (Expense)

Net Income (Loss)

CASH FLOW STATEMENT

Cash Flows From Operating Activities

Operating Revenues
Operating Expenses (ex D&A)

Non-Cash Working Capital Changes

Net Cash Provided by (Used in) Operating Activities

Cash Flows From Financing Activities

Capital Contributions
Proceeds New Borrowing
Interest Payments
Principal Payments

Net Cash Provided by (Used in) Financing Activities

Cash Flows from Capital and Related Activities

Non-Operating Income (Expenses)
Capital Expenditures, net

Net Cash Provided By (Used In) Capital and Related Activities

Cash Flows From Investing Activities

Investments Converting To Cash
Purchased Investments
Interest Income

Net Cash Provided By (Used In) Investing Activities

FUND NET CASH FLOWS

Suburban - Water			
Actual	Q1 FC	FC Var	Comments
831,752	822,000	9,752	
31,323	33,000	(1,677)	
1,185	1,000	185	
864,260	856,000	8,260	Higher user charges offset partly by lower system & connection charges
266,319	251,000	(15,319)	
41,147	55,000	13,853	
39,641	45,000	5,359	
31,305	26,000	(5,305)	
283,990	293,000	9,010	
-	-	-	
217,141	217,000	(141)	
54	-	(54)	
-	6,000	6,000	
879,597	893,000	13,403	Higher employee and spending on materials & supplies more than offset by lower G&A, lower utilities, and lower services spending
(15,337)	(37,000)	21,663	Higher operating revenues along with lower lower operating expenses
1,136	13,000	(11,864)	
(103,318)	(115,000)	11,682	
(1,061)	-	(1,061)	
(103,243)	(102,000)	(1,243)	Lower interest expense more than offset by lower interest income and other investment losses
(118,579)	(139,000)	20,421	Higher operating income with some negative offset from unfavorable non-operating activity
864,260	856,000	8,260	Higher user charges offset partly by lower system & connection charges
(662,456)	(676,000)	13,544	Higher employee and spending on materials & supplies more than offset by lower G&A, lower utilities, and lower services spending
423,371	423,372	(0)	
625,176	603,372	21,804	Higher operating revenues along with lower operating expenses
-	-	-	
-	-	-	
(3,734)	(3,734)	-	
-	-	-	
(3,734)	(3,734)	-	No variance
(1,061)	-	(1,061)	
(91,397)	(91,397)	-	
(92,458)	(91,397)	(1,061)	Unfavorable investment losses
-	-	-	
-	-	-	
1,136	13,000	(11,864)	
1,136	13,000	(11,864)	Lower interest income
530,120	521,241	8,879	Higher cash from operating activities partially offset by investment losses and lower interest income

LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS - SUBURBAN WASTEWATER
For the Period Ended February 28, 2021

STATEMENTS OF ACTIVITIES	Suburban - Wastewater														
	Month					Year To Date					Full Year				
	Actual	Q1 FC	Prior Yr	FC Var	PY Var	Actual	Q1 FC	Prior Yr	FC Var	PY Var	Q1 FC	Budget	Prior Yr	Bud Var	PY Var
Operating Revenues:															
User Charges	1,480,955	1,702,000	1,391,921	(221,045)	89,034	2,798,875	3,019,000	2,624,688	(220,125)	174,187	18,959,000	19,166,369	15,962,987	(207,369)	2,996,013
Connection & System Charges	84,344	85,000	2,658,751	(656)	(2,574,407)	200,222	201,000	2,718,264	(778)	(2,518,041)	972,000	865,588	3,638,462	106,412	(2,666,462)
Other Miscellaneous Revenues	75	-	15	75	60	105	-	30	105	75	-	628	22,440	(628)	(22,440)
Total Operating Revenues	1,565,374	1,787,000	4,050,687	(221,626)	(2,485,313)	2,999,203	3,220,000	5,342,982	(220,797)	(2,343,779)	19,931,000	20,032,585	19,623,889	(101,585)	307,111
Operating Expenses:															
Personnel	112,785	134,000	56,818	21,215	(55,968)	220,436	242,000	128,178	21,564	(92,258)	1,731,000	1,760,954	1,309,472	29,954	(421,528)
Shared Services - General & Administrative	17,207	13,000	45,575	(4,207)	28,369	26,751	23,000	71,433	(3,751)	44,682	153,000	155,415	142,031	2,415	(10,969)
Utilities	28,318	37,000	22,630	8,682	(5,688)	49,311	58,000	45,990	8,689	(3,322)	428,000	449,484	296,419	21,484	(131,581)
Materials and Supplies	22,485	54,000	25,517	31,515	3,033	28,542	61,000	39,452	32,458	10,911	601,000	649,208	376,802	48,208	(224,198)
Miscellaneous Services	438,540	517,000	411,787	78,460	(26,753)	888,321	967,000	846,296	78,679	(42,024)	6,137,000	6,209,376	6,042,129	72,376	(94,871)
Treatment and Transportation	231,849	341,000	240,000	109,151	8,151	461,849	571,000	480,000	109,151	18,151	3,981,000	3,977,539	2,868,051	(3,461)	(1,112,949)
Depreciation and Amortization	384,727	379,000	383,460	(5,727)	(1,267)	769,454	764,000	766,920	(5,454)	(2,534)	4,619,000	4,616,783	4,603,995	(2,217)	(15,005)
Major Maintenance Expenses	4,805	3,000	2,790	(1,805)	(2,016)	7,337	6,000	4,592	(1,337)	(2,745)	916,000	1,000,000	64,750	84,000	(851,250)
Other Miscellaneous	-	4,000	-	4,000	-	-	4,000	-	4,000	-	44,000	46,422	-	2,422	(44,000)
Total Operating Expenses	1,240,716	1,482,000	1,188,577	241,284	(52,139)	2,451,999	2,696,000	2,382,861	244,001	(69,138)	18,610,000	18,865,181	15,703,648	255,181	(2,906,352)
Net Operating Profit	324,658	305,000	2,862,109	19,658	(2,537,452)	547,204	524,000	2,960,121	23,204	(2,412,917)	1,321,000	1,167,404	3,920,241	153,596	(2,599,241)
Non-Operating Income (Expense)															
Interest Income	8,937	32,000	20,491	(23,063)	(11,554)	18,953	42,000	43,192	(23,047)	(24,239)	176,000	190,471	185,407	(14,471)	(9,407)
Interest (Expense)	(12,436)	(15,000)	(16,733)	2,564	4,297	(25,301)	(28,000)	(34,036)	2,699	8,735	(178,000)	(181,995)	(199,654)	3,995	21,654
Other Miscellaneous	(6,529)	-	9,301	(6,529)	(15,829)	(12,496)	(6,000)	8,357	(6,496)	(20,853)	(6,000)	-	8,469	(6,000)	(14,469)
Net Non-Operating Income (Expense)	(10,028)	17,000	13,058	(27,028)	(23,086)	(18,844)	8,000	17,513	(26,844)	(36,357)	(8,000)	8,475	(5,778)	(16,475)	(2,222)
Net Income (Loss)	314,630	322,000	2,875,168	(7,370)	(2,560,538)	528,359	532,000	2,977,634	(3,641)	(2,449,275)	1,313,000	1,175,879	3,914,463	137,121	(2,601,463)
CASH FLOW STATEMENT															
Cash Flows From Operating Activities															
Operating Revenues	1,565,374	1,787,000	4,050,687	(221,626)	(2,485,313)	2,999,203	3,220,000	5,342,982	(220,797)	(2,343,779)	19,931,000	20,032,585	19,623,889	(101,585)	307,111
Operating Expenses (ex D&A)	(855,989)	(1,103,000)	(805,117)	247,011	(50,872)	(1,682,545)	(1,932,000)	(1,615,941)	249,455	(66,604)	(13,991,000)	(14,248,398)	(11,099,654)	257,398	(2,891,346)
Non-Cash Working Capital Changes	404,465	407,465	(803,958)	(3,000)	1,208,423	(353,544)	(385,188)	(885,480)	31,644	531,936	3,995	(0)	(788,323)	3,995	792,318
Net Cash Provided by (Used in) Operating Activities	1,113,850	1,091,465	2,441,611	22,385	(1,327,761)	963,114	902,812	2,841,561	60,302	(1,878,447)	5,943,995	5,784,186	7,735,913	159,808	(1,791,918)
Cash Flows From Financing Activities															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Payments	(12,439)	(15,166)	-	2,728	(12,439)	(25,307)	(30,333)	(28,270)	5,026	2,964	(181,995)	(181,995)	(164,692)	-	(17,304)
Principal Payments	(45,485)	(45,753)	(44,417)	267	(1,068)	(90,881)	(91,506)	(93,025)	625	2,144	(549,034)	(549,034)	(542,065)	-	(6,969)
Net Cash Provided by (Used in) Financing Activities	(57,924)	(60,919)	(44,417)	2,995	(13,507)	(116,187)	(121,838)	(121,295)	5,651	5,108	(731,029)	(731,029)	(706,757)	-	(24,272)
Cash Flows from Capital and Related Activities															
Non-Operating Income (Expenses)	(6,529)	-	9,301	(6,529)	(15,829)	(12,496)	(6,000)	8,357	(6,496)	(20,853)	(6,000)	-	8,469	(6,000)	(14,469)
Capital Expenditures, net	(83,607)	(83,817)	(434,099)	210	350,492	(125,045)	(127,633)	(541,928)	2,589	416,884	(3,005,800)	(2,921,800)	(8,316,702)	(84,000)	5,310,902
Net Cash Provided By (Used In) Capital and Related Activities	(90,136)	(83,817)	(424,799)	(6,319)	334,663	(137,540)	(133,633)	(533,571)	(3,907)	396,031	(3,011,800)	(2,921,800)	(8,308,232)	(90,000)	5,296,432
Cash Flows From Investing Activities															
Investments Converting To Cash	-	-	-	-	-	743,000	-	498,000	743,000	245,000	-	-	5,156,000	-	(5,156,000)
Purchased Investments	-	-	(498,000)	-	498,000	(1,486,000)	-	(1,233,000)	(1,486,000)	(253,000)	-	-	(3,653,000)	-	3,653,000
Interest Income	8,937	32,000	20,491	(23,063)	(11,554)	18,953	42,000	43,192	(23,047)	(24,239)	176,000	190,471	185,407	(14,471)	(9,407)
Net Cash Provided By (Used In) Investing Activities	8,937	32,000	(477,509)	(23,063)	486,446	(724,047)	42,000	(691,808)	(766,047)	(32,239)	176,000	190,471	1,688,407	(14,471)	(1,512,407)
FUND NET CASH FLOWS	974,727	978,729	1,494,886	(4,002)	(520,159)	(14,661)	689,341	1,494,886	(704,002)	(1,509,548)	2,377,166	2,321,828	409,330	55,338	1,967,836
DEBT SERVICE RATIO															
Debt Service Ratio (Indenture Based)															
User Charges	1,480,955	1,702,000	1,391,921	(221,045)	89,034	2,798,875	3,019,000	2,624,688	(220,125)	174,187	18,959,000	19,166,369	15,962,987	(207,369)	2,996,013
Operating Expenses (Cash Based)	(855,989)	(1,103,000)	(805,117)	247,011	(50,872)	(1,682,545)	(1,932,000)	(1,615,941)	249,455	(66,604)	(13,991,000)	(14,248,398)	(11,099,654)	257,398	(2,891,346)
Interest Income	8,937	32,000	20,491	(23,063)	(11,554)	18,953	42,000	43,192	(23,047)	(24,239)	176,000	190,471	185,407	(14,471)	(9,407)
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	77,890	85,000	2,668,066	(7,110)	(2,590,176)	187,832	195,000	2,726,651	(7,168)	(2,538,819)	966,000	866,216	3,669,372	99,784	(2,703,372)
Cash Available For Debt Service	711,793	716,000	3,275,361	(4,207)	(2,563,568)	1,323,115	1,324,000	3,778,590	(885)	(2,455,475)	6,110,000	5,974,657	8,718,112	135,343	(2,608,112)
Interest Paid	15,166	15,166	13,724	-	1,442	30,333	30,333	27,449	-	2,884	181,995	181,995	164,692	-	17,304
Debt Retirement (Principal Payments)	45,753	45,753	45,172	-	581	91,506	91,506	90,344	-	1,161	549,034	549,034	542,065	-	6,969
Total Debt Service	60,919	60,919	58,896	-	2,023	121,838	121,838	117,793	-	4,045	731,029	731,029	706,757	-	24,272
Debt Service Ratio	11.68	11.75	55.61	(0.07)	(43.93)	10.86	10.87	32.08	(0.01)	(21.22)	8.36	8.17	12.34	0.19	(3.98)

LEHIGH COUNTY AUTHORITY
VARIANCE ANALYSIS - MONTH
For the Period Ended February 28, 2021

STATEMENTS OF ACTIVITIES

Operating Revenues:

User Charges
Connection & System Charges
Other Miscellaneous Revenues

Total Operating Revenues

Operating Expenses:

Personnel
Shared Services - General & Administrative
Utilities
Materials and Supplies
Miscellaneous Services
Treatment and Transportation
Depreciation and Amortization
Major Maintenance Expenses
Other Miscellaneous

Total Operating Expenses

Net Operating Profit

Non-Operating Income (Expense)

Interest Income
Interest (Expense)
Other Miscellaneous

Net Non-Operating Income (Expense)

Net Income (Loss)

CASH FLOW STATEMENT

Cash Flows From Operating Activities

Operating Revenues
Operating Expenses (ex D&A)
Non-Cash Working Capital Changes

Net Cash Provided by (Used in) Operating Activities

Cash Flows From Financing Activities

Capital Contributions
Proceeds New Borrowing
Interest Payments
Principal Payments

Net Cash Provided by (Used in) Financing Activities

Cash Flows from Capital and Related Activities

Non-Operating Income (Expenses)
Capital Expenditures, net

Net Cash Provided By (Used In) Capital and Related Activities

Cash Flows From Investing Activities

Investments Converting To Cash
Purchased Investments
Interest Income

Net Cash Provided By (Used In) Investing Activities

FUND NET CASH FLOWS

Suburban - Wastewater			
Actual	Q1 FC	FC Var	Comments
1,480,955	1,702,000	(221,045)	Lower municipal revenues and lower hauler revenues offset somewhat by higher penalties
84,344	85,000	(656)	
75	-	75	
1,565,374	1,787,000	(221,626)	Lower user charges and slightly lower system & connection charges
112,785	134,000	21,215	
17,207	13,000	(4,207)	
28,318	37,000	8,682	
22,485	54,000	31,515	
438,540	517,000	78,460	
231,849	341,000	109,151	
384,727	379,000	(5,727)	
4,805	3,000	(1,805)	
-	4,000	4,000	
1,240,716	1,482,000	241,284	Lower expenses across personnel, utilities, materials & supplies, and services partially negated by higher G&A and higher Depreciation
324,658	305,000	19,658	Lower operating revenues favorably offset by lower operating expenses
8,937	32,000	(23,063)	
(12,436)	(15,000)	2,564	
(6,529)	-	(6,529)	
(10,028)	17,000	(27,028)	Lower interest and investment income
314,630	322,000	(7,370)	Higher net operating profit more than offset by unfavorable non-operating activity
1,565,374	1,787,000	(221,626)	
(855,989)	(1,103,000)	247,011	
404,465	407,465	(3,000)	
1,113,850	1,091,465	22,385	Higher net operating profit from lower operating expenses against lower operating revenues with a slightly unfavorable working capital movement
-	-	-	
-	-	-	
(12,439)	(15,166)	2,728	
(45,485)	(45,753)	267	
(57,924)	(60,919)	2,995	No major variance
(6,529)	-	(6,529)	
(83,607)	(83,817)	210	
(90,136)	(83,817)	(6,319)	No major variance
-	-	-	
-	-	-	
8,937	32,000	(23,063)	
8,937	32,000	(23,063)	Lower interest income
974,727	978,729	(4,002)	Higher cash from operations turned negative by lower interest income

LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS - SUBURBAN WASTEWATER
For the Period Ended February 28, 2021

STATEMENTS OF ACTIVITIES	City Division														
	Month					Year To Date					Full Year				
	Actual	Q1 FC	Prior Yr	FC Var	PY Var	Actual	Q1 FC	Prior Yr	FC Var	PY Var	Q1 FC	Budget	Prior Yr	Bud Var	PY Var
Operating Revenues:															
User Charges	3,309,376	3,525,000	3,095,037	(215,624)	214,339	6,532,073	6,747,000	6,071,120	(214,927)	460,953	41,810,000	41,996,514	37,983,675	(186,514)	3,826,325
Connection & System Charges	463,136	273,000	139,993	190,136	323,143	599,853	410,000	258,808	189,853	341,046	3,991,000	3,947,981	2,768,044	43,019	1,222,956
Other Miscellaneous Revenues	3,390	4,000	3,990	(610)	(600)	7,980	9,000	8,025	(1,020)	(45)	59,000	59,249	51,620	(249)	7,380
Total Operating Revenues	3,775,902	3,802,000	3,239,020	(26,098)	536,882	7,139,907	7,166,000	6,337,953	(26,093)	801,954	45,860,000	46,003,744	40,803,339	(143,744)	5,056,661
Operating Expenses:															
Personnel	769,496	771,000	437,692	1,504	(331,804)	1,549,216	1,551,000	1,045,592	1,784	(503,625)	11,467,000	11,561,494	10,745,135	94,494	(721,865)
Shared Services - General & Administrative	127,888	145,000	504,535	17,112	376,647	192,745	210,000	809,744	17,255	616,999	1,660,000	1,739,417	1,575,917	79,417	(84,083)
Utilities	183,999	180,000	127,172	(3,999)	(56,827)	369,353	365,000	297,232	(4,353)	(72,120)	2,165,000	2,156,620	1,815,047	(8,380)	(349,953)
Materials and Supplies	113,454	124,000	106,162	10,546	(7,292)	127,587	137,000	156,483	9,413	28,896	1,828,000	1,932,267	1,464,251	104,267	(363,749)
Miscellaneous Services	112,594	120,500	108,156	7,906	(4,438)	121,009	128,500	146,364	7,491	25,355	1,773,500	1,813,371	1,794,424	39,871	20,924
Treatment and Transportation	-	1,000	-	1,000	-	-	1,000	-	1,000	-	11,000	12,000	11,926	1,000	926
Depreciation and Amortization	491,154	491,000	490,000	(154)	(1,154)	982,308	982,000	980,000	(308)	(2,308)	5,892,000	5,893,862	5,756,210	1,862	(135,790)
Major Maintenance Expenses	7,930	45,000	25,670	37,070	17,741	12,788	50,000	45,425	37,212	32,636	500,000	542,924	2,208,837	42,924	1,706,837
Other Miscellaneous	-	1,000	-	1,000	-	-	1,000	-	1,000	-	2,121,000	2,123,972	-	2,972	(2,121,000)
Total Operating Expenses	1,806,514	1,878,500	1,799,387	71,986	(7,127)	3,355,006	3,425,500	3,480,840	70,494	125,834	27,417,500	27,775,926	25,369,748	358,426	(2,047,752)
Net Operating Profit	1,969,387	1,923,500	1,439,633	45,887	529,754	3,784,900	3,740,500	2,857,113	44,400	927,787	18,442,500	18,227,817	15,433,590	214,683	3,008,910
Non-Operating Income (Expense)															
Interest Income	518	1,000	60,507	(482)	(59,990)	1,082	2,000	123,018	(918)	(121,936)	112,000	172,960	162,074	(60,960)	(50,074)
Interest (Expense)	(1,382,735)	(1,383,000)	(1,453,283)	265	70,548	(2,765,470)	(2,766,000)	(2,906,566)	530	141,096	(17,535,086)	(17,535,086)	(14,701,033)	-	(2,834,053)
Other Miscellaneous	-	-	-	-	-	-	-	7,315	-	(7,315)	-	-	(1,999,362)	-	1,999,362
Net Non-Operating Income (Expense)	(1,382,217)	(1,382,000)	(1,392,776)	(217)	10,559	(2,764,388)	(2,764,000)	(2,776,233)	(388)	11,845	(17,423,086)	(17,362,125)	(16,538,321)	(60,960)	(884,765)
Net Income (Loss)	587,170	541,500	46,857	45,670	540,313	1,020,513	976,500	80,880	44,013	939,633	1,019,414	865,692	(1,104,731)	153,722	2,124,145
CASH FLOW STATEMENT															
Cash Flows From Operating Activities															
Operating Revenues	3,775,902	3,802,000	3,239,020	(26,098)	536,882	7,139,907	7,166,000	6,337,953	(26,093)	801,954	45,860,000	46,003,744	40,803,339	(143,744)	5,056,661
Operating Expenses (ex D&A)	(1,315,360)	(1,387,500)	(1,309,387)	72,140	(5,973)	(2,372,698)	(2,443,500)	(2,500,840)	70,802	128,142	(21,525,500)	(21,882,064)	(19,613,539)	356,564	(1,911,961)
Non-Cash Working Capital Changes	(513,246)	(514,208)	(91,062)	962	(422,184)	(1,058,746)	(1,048,417)	(2,031,354)	(10,329)	972,607	(67,119)	50,001	(2,404,261)	(117,120)	2,337,142
Net Cash Provided by (Used in) Operating Activities	1,947,295	1,900,292	1,838,570	47,003	108,725	3,708,462	3,674,083	1,805,759	34,379	1,902,703	24,267,381	24,171,680	18,785,539	95,701	5,481,842
Cash Flows From Financing Activities															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	2,000,000	2,000,000	-	-	2,000,000
Interest Payments	-	-	-	-	-	-	-	-	-	-	(11,565,086)	(11,565,086)	(10,651,666)	-	(913,420)
Principal Payments	-	-	-	-	-	-	-	-	-	-	(2,660,831)	(2,660,831)	(1,149,035)	-	(1,511,796)
Net Cash Provided by (Used in) Financing Activities	-	-	-	-	-	-	-	-	-	-	(12,225,917)	(12,225,917)	(11,800,701)	-	(425,216)
Cash Flows from Capital and Related Activities															
Non-Operating Income (Expenses)	-	-	-	-	-	-	-	7,315	-	(7,315)	(1,230,600)	(1,230,600)	(1,999,362)	-	768,762
Capital Expenditures, net	(322,709)	(239,792)	(68,495)	(82,917)	(254,214)	(413,120)	(479,583)	(105,510)	66,464	(307,610)	(6,224,576)	(6,224,576)	(3,028,551)	-	(3,196,025)
Net Cash Provided By (Used In) Capital and Related Activities	(322,709)	(239,792)	(68,495)	(82,917)	(254,214)	(413,120)	(479,583)	(98,194)	66,464	(314,925)	(7,455,176)	(7,455,176)	(5,027,913)	-	(2,427,263)
Cash Flows From Investing Activities															
Investments Converting To Cash	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Purchased Investments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income	518	1,000	60,507	(482)	(59,990)	1,082	2,000	123,018	(918)	(121,936)	112,000	172,960	162,074	(60,960)	(50,074)
Net Cash Provided By (Used In) Investing Activities	518	1,000	60,507	(482)	(59,990)	1,082	2,000	123,018	(918)	(121,936)	112,000	172,960	162,074	(60,960)	(50,074)
FUND NET CASH FLOWS	1,625,104	1,661,500	1,830,583	(36,396)	(205,479)	3,296,425	3,196,500	1,830,583	99,925	1,465,842	4,698,288	4,663,547	2,118,999	34,740	2,579,289
DEBT SERVICE RATIO															
Debt Service Ratio (Indenture Based)															
User Charges	3,309,376	3,525,000	3,095,037	(215,624)	214,339	6,532,073	6,747,000	6,071,120	(214,927)	460,953	41,810,000	41,996,514	37,983,675	(186,514)	3,826,325
Operating Expenses (Cash Based)	(1,315,360)	(1,387,500)	(1,309,387)	72,140	(5,973)	(2,372,698)	(2,443,500)	(2,500,840)	70,802	128,142	(21,525,500)	(21,882,064)	(19,613,539)	356,564	(1,911,961)
Interest Income	518	1,000	60,507	(482)	(59,990)	1,082	2,000	123,018	(918)	(121,936)	112,000	172,960	162,074	(60,960)	(50,074)
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	466,526	277,000	143,983	189,526	322,543	607,833	419,000	274,148	188,833	333,685	4,050,000	4,007,230	820,301	42,770	3,229,699
Cash Available For Debt Service	2,461,059	2,415,500	1,990,140	45,559	470,919	4,768,291	4,724,500	3,967,446	43,791	800,845	24,446,500	24,294,640	19,352,512	151,860	5,093,988
Interest Paid	1,144,745	1,144,745	887,639	-	257,106	2,289,489	2,289,489	1,775,278	-	514,212	11,565,086	11,565,086	10,651,666	-	913,420
Debt Retirement (Principal Payments)	205,124	205,124	95,753	-	109,371	410,248	410,248	191,506	-	218,742	2,660,831	2,660,831	1,149,035	-	1,511,796
Total Debt Service	1,349,869	1,349,869	983,392	-	366,477	2,699,737	2,699,737	1,966,784	-	732,954	14,225,917	14,225,917	11,800,701	-	2,425,216
Debt Service Ratio	1.82	1.79	2.02	0.03	(0.20)	1.77	1.75	2.02	0.02	(0.25)	1.72	1.71	1.64	0.01	0.08

LEHIGH COUNTY AUTHORITY
VARIANCE ANALYSIS - MONTH
For the Period Ended February 28, 2021

STATEMENTS OF ACTIVITIES

Operating Revenues:

User Charges
Connection & System Charges
Other Miscellaneous Revenues

Total Operating Revenues

Operating Expenses:

Personnel
Shared Services - General & Administrative
Utilities
Materials and Supplies
Miscellaneous Services
Treatment and Transportation
Depreciation and Amortization
Major Maintenance Expenses
Other Miscellaneous

Total Operating Expenses

Net Operating Profit

Non-Operating Income (Expense)

Interest Income
Interest (Expense)
Other Miscellaneous

Net Non-Operating Income (Expense)

Net Income (Loss)

CASH FLOW STATEMENT

Cash Flows From Operating Activities

Operating Revenues
Operating Expenses (ex D&A)
Non-Cash Working Capital Changes

Net Cash Provided by (Used in) Operating Activities

Cash Flows From Financing Activities

Capital Contributions
Proceeds New Borrowing
Interest Payments
Principal Payments

Net Cash Provided by (Used in) Financing Activities

Cash Flows from Capital and Related Activities

Non-Operating Income (Expenses)
Capital Expenditures, net

Net Cash Provided By (Used In) Capital and Related Activities

Cash Flows From Investing Activities

Investments Converting To Cash
Purchased Investments
Interest Income

Net Cash Provided By (Used In) Investing Activities

FUND NET CASH FLOWS

City Division			
Actual	Q1 FC	FC Var	Comments
3,309,376	3,525,000	(215,624)	Lower industrial/commercial revenues
463,136	273,000	190,136	Higher distribution tapping fees
3,390	4,000	(610)	
3,775,902	3,802,000	(26,098)	Lower user charges helped a little by higher system & connection charges
769,496	771,000	1,504	
127,888	145,000	17,112	
183,999	180,000	(3,999)	
113,454	124,000	10,546	
112,594	120,500	7,906	
-	1,000	1,000	
491,154	491,000	(154)	
7,930	45,000	37,070	
-	1,000	1,000	
1,806,514	1,878,500	71,986	Lower G&A along with lower spending on materials and supplies, services, and major maintenance projects
1,969,387	1,923,500	45,887	Lower operating revenues more than offset by lower operating expenses
518	1,000	(482)	
(1,382,735)	(1,383,000)	265	
-	-	-	
(1,382,217)	(1,382,000)	(217)	No major variance
587,170	541,500	45,670	Higher net operating income
3,775,902	3,802,000	(26,098)	
(1,315,360)	(1,387,500)	72,140	
(513,246)	(514,208)	962	
1,947,295	1,900,292	47,003	Higer net operating income with a slightly favorable working capital movement
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
(322,709)	(239,792)	(82,917)	
(322,709)	(239,792)	(82,917)	Higher capex
-	-	-	
-	-	-	
518	1,000	(482)	
518	1,000	(482)	No major variance
1,625,104	1,661,500	(36,396)	Higher capex partially offset by higher cash from operations

LEHIGH COUNTY AUTHORITY
CASH & INVESTMENT SUMMARY
For the Period Ended February 28, 2021

	Suburban Water				Suburban Wastewater				City Division				Total			
	2/28/2021 Actual	2021 Forecast	2021 Budget	2020 Actual	2/28/2021 Actual	2021 Forecast	2021 Budget	2020 Actual	2/28/2021 Actual	2021 Forecast	2021 Budget	2020 Actual	2/28/2021 Actual	2021 Forecast	2021 Budget	2020 Actual
Cash																
Operating																
Unrestricted	7,377,171	3,820,666	1,173,430	5,472,832	(2,799,742)	(407,888)	4,315,728	(124,835)	8,228,814	10,517,808	19,638,366	1,461,088	12,693,891	13,930,587	25,127,525	6,809,085
Restricted	-	-	2,532,181	-	-	272	0	272	13,286,593	12,907,766	1,614,754	23,992,617	-	-	-	-
Total Operating	7,377,171	3,820,666	3,705,611	5,472,832	(2,799,742)	(407,616)	4,315,728	(124,563)	21,515,406	23,425,574	21,253,120	25,453,705	12,693,891	13,930,587	25,127,525	6,809,085
Capital																
Unrestricted	319,614	319,614	2,037,248	2,037,248	10,332,238	10,332,238	7,672,019	7,672,019	6,138,031	6,138,031	169,980	169,980	16,789,883	16,789,883	9,879,247	9,879,247
Restricted	95,416	-	-	-	338,231	337,932	337,932	337,932	7,500,064	7,500,064	7,500,000	7,500,000	7,933,711	7,837,996	7,837,932	7,837,932
Total Capital	415,031	319,614	2,037,248	2,037,248	10,670,469	10,670,170	8,009,951	8,009,951	13,638,095	13,638,095	7,669,980	7,669,980	24,723,594	24,627,879	17,717,179	17,717,179
Other Restricted																
Debt Reserves	1,499,845	1,499,820	1,043,094	1,499,820	-	-	-	-	29,721,277	29,212,973	37,684,197	28,454,669	31,221,122	30,712,793	38,727,291	29,954,489
Escrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Restricted	1,499,845	1,499,820	1,043,094	1,499,820	-	-	-	-	29,721,277	29,212,973	37,684,197	28,454,669	31,221,122	30,712,793	38,727,291	29,954,489
Total Cash	9,292,046	5,640,100	6,785,954	9,009,900	7,870,726	10,262,553	12,325,679	7,885,388	64,874,779	66,276,642	66,607,297	61,578,354	68,638,608	69,271,258	81,571,995	54,480,754
Investments																
Operating																
Unrestricted	1,737,002	1,742,749	2,136,930	1,742,749	-	5,387,745	6,757,276	5,387,745	-	-	-	-	1,737,002	7,130,494	8,894,206	7,130,494
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating	1,737,002	1,742,749	2,136,930	1,742,749	-	5,387,745	6,757,276	5,387,745	-	-	-	-	1,737,002	7,130,494	8,894,206	7,130,494
Capital																
Unrestricted	1,000,000	1,000,000	1,000,000	1,000,000	6,900,250	1,000,000	1,000,000	1,000,000	-	-	-	-	7,900,250	2,000,000	2,000,000	2,000,000
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital	1,000,000	1,000,000	1,000,000	1,000,000	6,900,250	1,000,000	1,000,000	1,000,000	-	-	-	-	7,900,250	2,000,000	2,000,000	2,000,000
Other Restricted																
Debt Reserves	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Escrow	4,499,728	4,499,724	4,236,279	4,499,724	-	-	-	-	-	-	-	-	4,499,728	4,499,724	4,236,279	4,499,724
Total Other Restricted	4,499,728	4,499,724	4,236,279	4,499,724	-	-	-	-	-	-	-	-	4,499,728	4,499,724	4,236,279	4,499,724
Total Investments	7,236,729	7,242,473	7,373,209	7,242,473	6,900,250	6,387,745	7,757,276	6,387,745	-	-	-	-	14,136,979	13,630,219	15,130,485	13,630,219
Total Cash and Investments	16,528,776	12,882,574	14,159,163	16,252,373	14,770,976	16,650,299	20,082,955	14,273,133	64,874,779	66,276,642	66,607,297	61,578,354	82,775,586	82,901,477	96,702,480	68,110,972
Summary																
Cash																
Unrestricted	7,696,785	4,140,280	3,210,679	7,510,080	7,532,495	9,924,350	11,987,747	7,547,184	14,366,845	16,655,840	19,808,346	1,631,068	29,483,774	30,720,470	35,006,772	16,688,333
Restricted	1,595,261	1,499,820	3,575,275	1,499,820	338,231	338,204	337,932	338,204	50,507,934	49,620,802	46,798,951	59,947,286	52,441,426	51,458,826	50,712,158	61,785,310
Total Cash	9,292,046	5,640,100	6,785,954	9,009,900	7,870,726	10,262,553	12,325,679	7,885,388	64,874,779	66,276,642	66,607,297	61,578,354	81,925,200	82,179,295	85,718,930	78,473,642
Investments																
Unrestricted	2,737,002	2,742,749	3,136,930	2,742,749	6,900,250	6,387,745	7,757,276	6,387,745	-	-	-	-	9,637,251	9,130,494	10,894,206	9,130,494
Restricted	4,499,728	4,499,724	4,236,279	4,499,724	-	-	-	-	-	-	-	-	4,499,728	4,499,724	4,236,279	4,499,724
Total Investments	7,236,729	7,242,473	7,373,209	7,242,473	6,900,250	6,387,745	7,757,276	6,387,745	-	-	-	-	14,136,979	13,630,219	15,130,485	13,630,219
Total Cash and Investments	16,528,776	12,882,574	14,159,163	16,252,373	14,770,976	16,650,299	20,082,955	14,273,133	64,874,779	66,276,642	66,607,297	61,578,354	96,062,179	95,809,514	100,849,415	92,103,861

Presented: March 22, 2021

Critical Activities	System	Description	Feb-21	2021 Totals	2020 Totals	Permit
			Daily Avg (MGD)	Daily Avg (MGD)	Daily Avg (MGD)	Daily Max (MGD)
Water Production	Allentown	Total	21.27	21.32	21.37	39.0
		Schantz Spring	7.38	7.58	7.31	9.0
		Crystal Spring	3.65	3.67	3.80	4.0
		Little Lehigh Creek	10.21	9.99	10.17	30.0
		Lehigh River	0.03	0.07	0.09	28.0
	Central Lehigh	Total	9.91	9.80	10.24	19.04 MGD Avg
		Feed from Allentown	6.92	6.72	6.71	7.0 MGD Avg 10.5 MGD Max
		Well Production (CLD)	2.99	3.08	3.53	8.54 MGD Avg
		Sum of all (12) other Suburban Water Systems	0.12	0.13	0.15	1.71 Sum of all wells
Wastewater Treatment		Kline's Island	32.78	32.63	32.27	40.0
		Pretreatment Plant	5.10	4.89	4.94	5.75 (design capacity)
		Sum of all (5) other Suburban WW Systems	0.18	0.20	0.21	0.36
			Feb-21	2021 Totals	2020 Totals	2019 Totals
Precipitation Totals (inches)			5.21	7.2	49.57	60.66
Compliance Reports Submitted to Allentown			18	47	275	278
Notices of Violation (NOVs)		(Allentown + Suburban)	0	0	2	1
Sanitary Sewer Overflows (SSOs)/Bypasses		(Allentown + Suburban)	1	1	44	37
Main Breaks Repaired		Allentown	7	13	19	20
		Suburban	2	3	17	12
Customer Service Phone Inquiries		(Allentown + Suburban)	1,411	3,014	16,772	22,992
Water Shutoffs for Non-Payment		(Allentown + Suburban)	0	0	280	1,956
Injury Accidents		(Allentown + Suburban)	2	4	10	10
Emergency Declarations		Allentown	0	0	(4)@\$750,058	(2)@ \$152,053
		Suburban	0	0	(1)@\$110,000	(1) @ \$19,335
Significant Repairs/Upgrades: Nothing to report.						
Description of NOVs and/or SSOs: There was one bypass during February, occurring at the Heidelberg Heights WWTP. The bypass started on 2/28/2021 and lasted until 3/4/2021. A total of approximately 274,000 gallons was bypassed during this event, which was caused by heavy rain and snow melt runoff.						
Other Highlights: It should be noted that Allentown's Distribution and Collection Department has had to deal with (13) water main breaks so far in 2021. This has taken its toll on the department, unfotunately, but we still need to acknowledge all of the jobs well done by the supervisors and union staff. Hopefully warmer weather is here to stay!						