# LEHIGH COUNTY AUTHORITY

# ALLENTOWN, PA

FINAL 5-YEAR CAPITAL PLAN

ADMINISTRATION

2022-2026 FEBRUARY 2021

**LEHIGH COUNTY AUTHORITY**
**5-YEAR CAPITAL PLAN**
**2022-2026**

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**2022-2026 Capital Plan**

**Glossary of Acronyms & Terms**

The following is a listing of acronyms and terms used in the Capital Plan Summary and Project Detail Sheets.

## LCA Water and/or Wastewater Divisions/Systems

| | LCA Water and/or Wastewater Divisions/Systems | Water | Wastewater |
|---|---|---|---|
| AD | Allentown Division | X | X |
| AWD | Arcadia West Division | X | X |
| BHD | Beverly Hills Division | X | |
| CLD | Central Lehigh Division | X | |
| CFD | Clear View Farms Division | X | |
| ECD | Emmaus Consecutive Division | X | |
| HHD | Heidelberg Heights Division | X | X |
| LLRI-1 | Little Lehigh Relief Interceptor, Phase 1 | | X |
| LLRI-2 | Little Lehigh Relief Interceptor, Phase 2 | | X |
| LTD | Lynn Township Division | | X |
| MCD | Mill Creek Division | X | |
| MND | Madison Park Division | X | |
| NWD | North Whitehall Division | X | |
| PLD | Pine Lakes Division | X | |
| SSD | Sands Spring Division | | X |
| UMD | Upper Milford Division | X | X |
| UMCD | Upper Central Milford Division (Buss Acres) | X | |
| WLI | Western Lehigh Interceptor | | X |
| WTD | Washington Township Division | X | X |
| WWD | Wynnewood Division | | X |

## Project Type

| Project Type | Description |
|---|---|
| AO | Administrative Order |
| UW | Uncompleted Work [1] |
| S-7-MCI | Schedule-7 *(Lease Required)* Major Capital Improvement[2] |
| LCA-MCI | LCA Developed Major Capital Improvement[2] |
| COL | Change of Law[3] |
| Regular | A project that does not fit in any of the aforementioned special categories |

(1) *Uncompleted Work: City Projects that were supposed to be complete by the time of settlement. The City and LCA have reached an agreement for LCA to execute them.*

(2) *Major Capital Improvement: In accordance with the Lease, all Major Capital Improvements must be approved by the City.*

(3) *Change of Law: In accordance with the Change of Law Memorandum of Understanding*

## Project Funding

| Project Funding | Description |
|---|---|
| LCA | Funded by LCA |
| 100% Reimb | All costs are 100% reimbursable by fees charged |
| Fees & LCA | Costs partly recovered through fees charged and partly funded by LCA |
| Allentown | Funded by the City of Allentown |
| CCRC | Capital Cost Recovery Charge[1]; Applies only to City approved MCI |

> (1) Capital Cost Recovery Charge: An on-going user fee that is above the rate caps set forth in the Lease to allow the recovery of the cost of an MCI. Rate payers are charged based upon usage.

## Project Category

Projects have been categorized to identify the primary and secondary reasons for the need. In some cases there is no secondary reason that would be applicable.

| Project Category | Description |
|---|---|
| Regulatory | Required to meet Regulatory requirements |
| New Cust | New Customers |
| CA/OS | Concession Lease/Operating Standards |
| Master Plan | Master Plan |
| AM - Low | Asset Management - Low Risk |
| AM - Med | Asset Management - Medium Risk |
| AM - High | Asset Management - High Risk |
| AM - Varies | Asset Management - Varies[1] |
| Efficiency | Efficiency |
| Sys Imp | System Improvement |
| Rev Opprt | Revenue Opportunity |
| Planning | Planning |
| N/A | Not Applicable |

> (1) Applies to Asset Management Projects, where there are multiple standalone sub-projects of varied levels of "risk".

## Approval Stage

| Approval Stage | Description |
|---|---|
| A | Annual Project, no approvals required |
| S | Study/Planning Phase |
| D | Design Phase |
| C | Construction/Implementation Phase |
| E | Entire Project |
| V | Various Phases |
| P | Pending Board approval |

# ADMINISTRATION
## 5-YEAR CAPITAL PLAN
## 2022-2026

## CAPITAL FINANCING JUSTIFICATION

The Administrative projects of the Authority are funded through charge-backs to the various operating and capital budgets.

The Administrative projects are either a strictly Suburban Division (SD) project or a project which benefits both the City and Suburban Division (CON). In the case of the multi-division projects in 2021, the total costs have been apportioned 50% to the Suburban Division and 50% to the Allentown Division.

Project SD-A-1 is an Information Technology (IT) project to upgrade the Suburban SCADA capabilities. Water fund operating reserves will be used to finance the projects with partial recovery through charge-backs to Authority wastewater funds.

Project CON-A-1 is an organization-wide project related to the annual upgrades of computer hardware and software.

Project CON-A-2 is an organizational-wide upgrade to the Geographic Information System (GIS).

Project CON-A-3 is an organization-wide update and implementation of the LCA IT Master Plan.

Project CON-A-4 is an organization-wide project to develop an electronic document management system.

Project CON-A-5 is an organization-wide project to add additional security and disaster recovery tools to the existing IT system.

Project CON-A-6 is an organization-wide project to upgrade the existing CMMS system.

Funding Sources for each project are shown below.

| ADMINISTRATION | 2022 | 2023 | 2024 | 2025 | 2026 | TOTAL |
|---|---|---|---|---|---|---|
| Project Costs | $1,100,000 | $1,050,000 | $1,025,000 | $725,000 | $175,000 | $4,075,000 |
| Funding Sources: | | | | | | |
| Operating/Capital Reserves | $1,100,000 | $1,050,000 | $1,025,000 | $725,000 | $175,000 | $4,075,000 |
| New Borrowing | - | - | - | - | - | - |
| Total Funding | $1,100,000 | $1,050,000 | $1,025,000 | $725,000 | $175,000 | $4,075,000 |

# ADMINISTRATION

**LEHIGH COUNTY AUTHORITY**
**ADMINISTRATION**
**2022-2026 CAPITAL PROGRAM**

| Project # | Name or Title of Proposal | Prj. Category | Approvals Stage (1) | Plan Total Cost | This Capital Program | | | | | | | Prior Project Cost (2) | Future Project Cost (2) | Total Project Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 2021 *Budget Approved* | 2022 *Year 1* | 2023 *Year 2* | 2024 *Year 3* | 2025 *Year 4* | 2026 *Year 5* | 2022-2026 Total | | | |
| | **Operating/Capital Reserve Funds** | | | | | | | | | | | | | |
| SD-A-1 | SCADA Programming, Hardware Upgrades, Software & Training | AM - Varies | A | $ 3,100,000 | $ 300,000 | $ 750,000 | $ 750,000 | $ 750,000 | $ 500,000 | $ 50,000 | $ 2,800,000 | | | $3,100,000 |
| CON-A-1* | Computer System Hardware & Software Upgrades | AM - High | A | $ 390,000 | $ 140,000 | $ 50,000 | $ 50,000 | $ 50,000 | $ 50,000 | $ 50,000 | $ 250,000 | $40,000 | | $430,000 |
| CON-A-2* | GIS Upgrades & Application Development | Efficiency | V | $ 350,000 | $ 50,000 | $ 75,000 | $ 50,000 | $ 50,000 | $ 75,000 | $ 50,000 | $ 300,000 | $46,000 | | $396,000 |
| CON-A-3* | Information Technology Master Plan Update | Planning | P | $ 475,000 | $ 125,000 | $ 100,000 | $ 100,000 | $ 100,000 | $ 50,000 | $ - | $ 350,000 | $85,000 | | $560,000 |
| CON-A-4* | Document Management | Efficiency | V | $ 275,000 | $ 200,000 | $ 75,000 | $ - | $ - | $ - | $ - | $ 75,000 | $2,000 | | $277,000 |
| CON-A-5* | Disaster Recovery/Security Upgrades | Sys Imp | A | $ 150,000 | $ 25,000 | $ 25,000 | $ 25,000 | $ 50,000 | $ 25,000 | $ - | $ 125,000 | $18,000 | | $168,000 |
| CON-A-6* | CMMS Upgrades | Sys Imp | A | $ 275,000 | $ 100,000 | $ 25,000 | $ 75,000 | $ 25,000 | $ 25,000 | $ 25,000 | $ 175,000 | $21,000 | | $296,000 |
| | **GRAND TOTAL** | | | $ 5,015,000 | $ 940,000 | $ 1,100,000 | $ 1,050,000 | $ 1,025,000 | $ 725,000 | $ 175,000 | $ 4,075,000 | $ 212,000 | $ - | $ 5,227,000 |

**(*)** CON =  a Project that benefits both the Allentown and Suburban Divisions. All projects are LCA funded.

**(1)** Reference Glossary of Acronyms & Terms found immediately after the Table of Contents

**(2)** If blank project cost is not applicable (annual project) or to be determined

# LEHIGH COUNTY AUTHORITY
## ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
## PROJECT DETAIL SHEET

| Project Name | SUPERVISORY CONTROL & DATA ACQUISTION (SCADA) PROGRAMMING, HARDWARE UPGRADES, SOFTWARE & TRAINING | | | | | | |
|---|---|---|---|---|---|---|---|
| Budget Area | Administration | Department | IT | Date | 1/15/2021 | Project No. | SD-A-1 |
| Location | Various LCA Divisions located in multiple municipalities | | | Prj. Type | Regular | Prj. Funding | LCA |
| Prj. Category | Primary | AM - Varies | Secondary | Efficiency | | Preparer | CM |

| Purpose of Expenditure *(check all that apply)* | | | |
|---|---|---|---|
| | New Facility | | Correct Known or Potential Safety Issue |
| X | Existing Facility - Rehabilitation/Upgrade | X | Equipment Obsolete |
| | Scheduled Replacement | | Comply with Regulatory Requirements |
| | Improved Service | X | Equipment/Infrastructure at End of Useful Life |
| | Study | X | Other (explain): Improve Operational Efficiencies |

| Additional Information | | | |
|---|---|---|---|
| Expected Useful Life (Years) | 5 | **Project inception date** | |
| Approx. No. of Customers Benefitted | *Varies | | **2010** |
| Is this System part of a Common User Rate? | Yes | **Anticipated Project completion date** | 2035 |
| Will the Project Require Obtaining Land Rights | No | | |

*Dependent upon the system

| Detailed Project Description |
|---|
| This annual on-going project includes both programming and hardware enhancements to the SCADA system to provide reliable telemetry and effective/proactive/flexible control of our facilities. It also includes an upgrade to SCADA & Telog communications and radio replacement of Telco lines to reduce monthly Telco charges to resolve ongoing communication problems with critical facilities. Training on the Historian software package is also included. The larger scope of this project will include a study and design project that will result in a project plan to upgrade all of our Suburban SCADA stations. |

| Project Drivers and Needs to be Met by the Project |
|---|
| The SCADA system currently provides real-time data and control for CLD water facilities and WLI related wastewater facilities and must be updated. The Telog system provides real-time data (no control) for satellite water and wastewater systems. Both are necessary to allow efficient operation of the water and wastewater system facilities. |

| Project Status - Describe what work, if any has been completed or underway for this project |
|---|
| SCADA upgrades have been completed at Pine Lakes and Crestwood water systems in 2017 and 2018. |

| Annual Cost Impact | |
|---|---|
| Operating - *Increase/(Decrease)* | N/A |
| Debt Service | $    - |
| **Net** | **$    -** |

| Revenue Impact | |
|---|---|
| *Gain/(Loss )* in Annual Revenue | N/A |
| Assessment, Contribution in Aid-of-Construction | N/A |
| Other | |

| Borrowing Information | |
|---|---|
| Interest Rate | 5.5000% |
| Term (Years) | 30 |

| Explanation if Necessary |
|---|
| |

| Project No. | SD-A-1 |
| --- | --- |
| Project Name | SUPERVISORY CONTROL & DATA ACQUISTION (SCADA) PROGRAMMING, HARDWARE UPGRADES, SOFTWARE & TRAINING |

| Prior Project Cost | | $42,000 |
| --- | --- | --- |
| **Estimated Project Costs:** | **2022-2026** | |
| LCA Staff | $ | 225,000 |
| Land Acquisition | $ | - |
| Construction/Equipment | $ | 2,000,000 |
| Professional Services | $ | 800,000 |
| Other | $ | - |
| Contingencies | $ | 33,000 |
| **Total Project Cost** | **$** | **3,100,000** |

| Project Estimate Level | |
| --- | --- |
| | Conceptual Estimate |
| | Preliminary Estimate |
| x | Budget Estimate |
| | Definitive Estimate |

| Requested in this Capital Program | $ | 2,800,000 |
| --- | --- | --- |

| | | **Need** | **Phase of Work** |
| --- | --- | --- | --- |
| 2021 Budget | | $ 300,000 | $250k for Keystone Eng Study for subsequent years, $50k for general support |
| 1st Year | 2022 | $ 750,000 | Multi year project upgrading Suburban SCADA stations |
| 2nd Year | 2023 | $ 750,000 | Multi year project upgrading Suburban SCADA stations |
| 3rd Year | 2024 | $ 750,000 | Multi year project upgrading Suburban SCADA stations |
| 4th Year | 2025 | $ 500,000 | Multi year project upgrading Suburban SCADA stations |
| 5th Year | 2026 | $ 50,000 | Multi year project upgrading Suburban SCADA stations |

# LEHIGH COUNTY AUTHORITY
## ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
## PROJECT DETAIL SHEET

| Project Name | | COMPUTER SYSTEM HARDWARE & SOFTWARE UPGRADES | | | | | |
|---|---|---|---|---|---|---|---|
| **Budget Area** | Administration | **Department** | IT | **Date** | 1/15/2021 | **Project No.** | CON-A-1 |
| **Location** | Allentown & Suburban Divisions | | | **Prj. Type** | Regular | **Prj. Funding** | LCA |
| **Prj. Category** | **Primary** | AM - High | **Secondary** | Efficiency | **Preparer** | | PB |

| Purpose of Expenditure *(check all that apply)* | | |
|---|---|---|
| | New Facility | | Correct Known or Potential Safety Issue |
| | Existing Facility - Rehabilitation/Upgrade | | Equipment Obsolete |
| | Scheduled Replacement | | Comply with Regulatory Requirements |
| | Improved Service | X | Equipment/Infrastructure at End of Useful Life |
| | Study | | Other (explain): |

| Additional Information | | | |
|---|---|---|---|
| Expected Useful Life (Years) | 6 | **Project inception date** | **2010** |
| Approx. No. of Customers Benefitted | N/A | | |
| Is this System part of a Common User Rate? | N/A | **Anticipated Project completion date** | Ongoing |
| Will the Project Require Obtaining Land Rights | No | | |

| Detailed Project Description |
|---|
| This project includes both hardware and software costs for server replacements for units older than 6 years. |

| Project Drivers and Needs to be Met by the Project |
|---|
| Improved efficiencies will assist employees in becoming more productive. |

| Project Status - Describe what work, if any has been completed or underway for this project |
|---|
| Hardware replaced annually as needed. Software upgraded annually as needed. |

| Annual Cost Impact | |
|---|---|
| Operating - *Increase/(Decrease)* | N/A |
| Debt Service | $ - |
| **Net** | **$ -** |

| Revenue Impact | |
|---|---|
| *Gain/(Loss)* in Annual Revenue | N/A |
| Assessment, Contribution in Aid-of-Construction | N/A |
| Other | |

| Borrowing Information | |
|---|---|
| Interest Rate | 5.5000% |
| Term (Years) | 30 |

| Explanation if Necessary |
|---|
| |

| Project No. | CON-A-1 |
| --- | --- |
| Project Name | COMPUTER SYSTEM HARDWARE & SOFTWARE UPGRADES |

| Prior Project Cost | | $40,000 |
| --- | --- | --- |
| **Estimated Project Costs:** | **2022-2026** | |
| LCA Staff | $ | 40,000 |
| Land Acquisition | $ | - |
| Construction/Equipment | $ | 300,000 |
| Professional Services | $ | 20,000 |
| Other | $ | - |
| Contingencies | $ | 30,000 |
| **Total Project Cost** | **$** | **430,000** |

| Project Estimate Level | |
| --- | --- |
| | Conceptual Estimate |
| | Preliminary Estimate |
| x | Budget Estimate |
| | Definitive Estimate |

| Requested in this Capital Program | $ | 250,000 |
| --- | --- | --- |

| | | Need | Phase of Work |
| --- | --- | --- | --- |
| 2021 Budget | | $ 140,000 | |
| 1st Year | 2022 | $ 50,000 | |
| 2nd Year | 2023 | $ 50,000 | |
| 3rd Year | 2024 | $ 50,000 | |
| 4th Year | 2025 | $ 50,000 | |
| 5th Year | 2026 | $ 50,000 | |

# LEHIGH COUNTY AUTHORITY
## ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
## PROJECT DETAIL SHEET

| Project Name | GEOGRAPHIC INFORMATION SYSTEM (GIS) UPGRADES & APPLICATION DEVELOPMENT | | | | | | |
|---|---|---|---|---|---|---|---|
| Budget Area | Administration | **Department** | IT | **Date** | 1/15/2021 | **Project No.** | CON-A-2 |
| Location | Allentown & Suburban Divisions | | | **Prj. Type** | Regular | **Prj. Funding** | LCA |
| Prj. Category | **Primary** | Efficiency | **Secondary** | Sys Imp | **Preparer** | | PB |

| Purpose of Expenditure *(check all that apply)* | | | |
|---|---|---|---|
| | New Facility | | Correct Known or Potential Safety Issue |
| | Existing Facility - Rehabilitation/Upgrade | | Equipment Obsolete |
| | Scheduled Replacement | | Comply with Regulatory Requirements |
| X | Improved Service | | Equipment/Infrastructure at End of Useful Life |
| | Study | | Other (explain): |

| Additional Information | | | |
|---|---|---|---|
| Expected Useful Life (Years) | N/A | **Project inception date** | **1991** |
| Approx. No. of Customers Benefitted | N/A | | |
| Is this System part of a Common User Rate? | N/A | **Anticipated Project completion date** | Ongoing |
| Will the Project Require Obtaining Land Rights | No | | |

| Detailed Project Description |
|---|
| This project will continue to support the development of the Authority's GIS system. The project scope includes implementation of ESRI's event server which will allow SCADA integration with the GIS system, replacement of the existing GIS network/framework which will allow advanced hydraulic modeling and outage solutions, upgrades to the web and mobile GIS platforms to enhance usability and functionality for internal staff, completion and adoption of a GIS Strategic Plan to assist with the utilization of all software and integrations, and enhanced security updates to all GIS systems. |

| Project Drivers and Needs to be Met by the Project |
|---|
| Adoption of an integrated and complete GIS system is critical for asset management and facility management. Advancements in geospatial technologies require updates on an annual basis. As part of LCA's 2020 Goals, a complete GIS system will help support the implementation of a CMMS system. Applications covered under this project include easement mapping and access, as-built mapping and access, and various internal project based applications to support all Departments. |

| Project Status - Describe what work, if any has been completed or underway for this project |
|---|
| Transition to the new utility network is currently underway. The adoption of ESRI's event server is underway and being configured with LCA's CMMS system. Multiple applications to support the operations of LCA are also under development. |

| Annual Cost Impact | | |
|---|---|---|
| Operating - *Increase/(Decrease)* | | N/A |
| Debt Service | $ | - |
| **Net** | $ | - |

| Revenue Impact | | |
|---|---|---|
| *Gain/(Loss* ) in Annual Revenue | | N/A |
| Assessment, Contribution in Aid-of-Construction | | N/A |
| Other | | |

| Borrowing Information | |
|---|---|
| Interest Rate | 5.5000% |
| Term (Years) | 30 |

| Explanation if Necessary |
|---|
| |

| Project No. | CON-A-2 |
|---|---|
| Project Name | GEOGRAPHIC INFORMATION SYSTEM (GIS) UPGRADES & APPLICATION DEVELOPMENT |

| Prior Project Cost | | $46,000 |
|---|---|---|
| **Estimated Project Costs:** | **2022-2025** | |
| LCA Staff | $ | 50,000 |
| Land Acquisition | | |
| Construction/Equipment | $ | 250,000 |
| Professional Services | $ | 25,000 |
| Other | | |
| Contingencies | $ | 25,000 |
| **Total Project Cost** | **$** | **396,000** |

| | Project Estimate Level |
|---|---|
| | Conceptual Estimate |
| | Preliminary Estimate |
| x | Budget Estimate |
| | Definitive Estimate |

| Requested in this Capital Program | $ | 300,000 |
|---|---|---|

| | | Need | | Phase of Work |
|---|---|---|---|---|
| | 2021 Budget | $ | 50,000 | |
| 1st Year | 2022 | $ | 75,000 | |
| 2nd Year | 2023 | $ | 50,000 | |
| 3rd Year | 2024 | $ | 50,000 | |
| 4th Year | 2025 | $ | 75,000 | |
| 5th Year | 2026 | $ | 50,000 | |

# LEHIGH COUNTY AUTHORITY
## ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
## PROJECT DETAIL SHEET

| Project Name | | INFORMATION TECHNOLOGY MASTER PLAN UPDATE | | | | | |
|---|---|---|---|---|---|---|---|
| **Budget Area** | Administration | **Department** | IT | **Date** | 1/15/2021 | **Project No.** | CON-A-3 |
| **Location** | Allentown & Suburban Divisions | | | **Prj. Type** | Regular | **Prj. Funding** | LCA |
| **Prj. Category** | **Primary** | Planning | **Secondary** | Sys Imp | **Preparer** | | PB |

| Purpose of Expenditure *(check all that apply)* | | |
|---|---|---|
| | New Facility | Correct Known or Potential Safety Issue |
| | Existing Facility - Rehabilitation/Upgrade | Equipment Obsolete |
| | Scheduled Replacement | Comply with Regulatory Requirements |
| | Improved Service | Equipment/Infrastructure at End of Useful Life |
| **X** | Study | Other (explain): |

| Additional Information | | | |
|---|---|---|---|
| Expected Useful Life (Years) | 10 | **Project inception date** | **2016** |
| Approx. No. of Customers Benefitted | N/A | | |
| Is this System part of a Common User Rate? | N/A | **Anticipated Project completion date** | Ongoing |
| Will the Project Require Obtaining Land Rights | No | | |

| Detailed Project Description |
|---|
| This project will provide the guidance for update and implementation of the technology systems currently residing (or new systems) for LCA. It contains funding for investigation, purchase, implementation and support. |

| Project Drivers and Needs to be Met by the Project |
|---|
| The 2019 update identified needs in both technology and software support for LCA's employee base. Moving forward IT and supporting technology in a secure fashion is paramount. This project will support those needs. |

| Project Status - Describe what work, if any has been completed or underway for this project |
|---|
| IT Master Plan began in 2019 and will be finished in 2020. |

| Annual Cost Impact | |
|---|---|
| Operating - *Increase/(Decrease)* | N/A |
| Debt Service | $ - |
| **Net** | **$ -** |

| Revenue Impact | |
|---|---|
| *Gain/(Loss* ) in Annual Revenue | N/A |
| Assessment, Contribution in Aid-of-Construction | N/A |
| Other | |

| Borrowing Information | |
|---|---|
| Interest Rate | 5.5000% |
| Term (Years) | 30 |

| Explanation if Necessary |
|---|
| |

| Project No. | CON-A-3 |
|---|---|
| Project Name | INFORMATION TECHNOLOGY MASTER PLAN UPDATE |

| Prior Project Cost | | $85,000 |
|---|---|---|
| **Estimated Project Costs:** | **2022-2026** | |
| LCA Staff | $ | 225,000 |
| Land Acquisition | $ | - |
| Construction/Equipment | $ | 50,000 |
| Professional Services | $ | 150,000 |
| Other | $ | - |
| Contingencies | $ | 50,000 |
| **Total Project Cost** | **$** | **560,000** |

| Project Estimate Level | |
|---|---|
| | Conceptual Estimate |
| | Preliminary Estimate |
| x | Budget Estimate |
| | Definitive Estimate |

| Requested in this Capital Program | $ | 350,000 |
|---|---|---|

| | | Need | Phase of Work |
|---|---|---|---|
| 2021 Budget | | $ 125,000 | |
| 1st Year | 2022 | $ 100,000 | |
| 2nd Year | 2023 | $ 100,000 | |
| 3rd Year | 2024 | $ 100,000 | |
| 4th Year | 2025 | $ 50,000 | |
| 5th Year | 2026 | $ - | |

# LEHIGH COUNTY AUTHORITY
## ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
## PROJECT DETAIL SHEET

| Project Name | | DOCUMENT MANAGEMENT | | | | | |
|---|---|---|---|---|---|---|---|
| **Budget Area** | Administration | **Department** | IT | **Date** | 1/15/2021 | **Project No.** | CON-A-4 |
| **Location** | Allentown & Suburban Divisions | | | **Prj. Type** | Regular | **Prj. Funding** | LCA |
| **Prj. Category** | **Primary** | Efficiency | **Secondary** | Sys Imp | **Preparer** | | PB |

| Purpose of Expenditure *(check all that apply)* | | |
|---|---|---|
| | New Facility | | Correct Known or Potential Safety Issue |
| | Existing Facility - Rehabilitation/Upgrade | | Equipment Obsolete |
| | Scheduled Replacement | | Comply with Regulatory Requirements |
| | Improved Service | | Equipment/Infrastructure at End of Useful Life |
| | Study | X | Other (explain): Increase Efficiencies |

| Additional Information | | | |
|---|---|---|---|
| Expected Useful Life (Years) | 10 | **Project inception date** | |
| Approx. No. of Customers Benefitted | N/A | | **2008** |
| Is this System part of a Common User Rate? | N/A | **Anticipated Project completion date** | 2022 |
| Will the Project Require Obtaining Land Rights | No | | |

| Detailed Project Description |
|---|
| This project provides for an Electronic Document Management System (EDMS) to store, search and share documents. This project does not plan for the imaging of existing paper documents. |

| Project Drivers and Needs to be Met by the Project |
|---|
| Readily available access to plans, reports and past correspondence will reduce research time. Storage space, files and cabinets for maintaining hard-copy documents will be minimized or eliminated. Digital, cross-referenced documents will improve accessibility and ease workflow. |

| Project Status - Describe what work, if any has been completed or underway for this project |
|---|
| Preliminary stages of this project began in 2018 and 2019. |

| Annual Cost Impact | | |
|---|---|---|
| Operating - *Increase/(Decrease)* | N/A | |
| Debt Service | $ | - |
| **Net** | **$** | **-** |

| Revenue Impact | |
|---|---|
| *Gain/(Loss)* in Annual Revenue | N/A |
| Assessment, Contribution in Aid-of-Construction | N/A |
| Other | |

| Borrowing Information | |
|---|---|
| Interest Rate | 5.5000% |
| Term (Years) | 30 |

| Explanation if Necessary |
|---|
| |

| Project No. | CON-A-4 |
|---|---|
| Project Name | DOCUMENT MANAGEMENT |

| Prior Project Cost | | $2,000 |
|---|---|---|
| **Estimated Project Costs:** | **2022-2026** | |
| LCA Staff | $ | 125,000 |
| Land Acquisition | $ | - |
| Construction/Equipment | $ | 30,000 |
| Professional Services | $ | 100,000 |
| Other | $ | - |
| Contingencies | $ | 20,000 |
| **Total Project Cost** | **$** | **277,000** |

| | Project Estimate Level | |
|---|---|---|
| | Conceptual Estimate | |
| | Preliminary Estimate | |
| x | Budget Estimate | |
| | Definitive Estimate | |

| Requested in this Capital Program | $ | 75,000 |
|---|---|---|

| | | Need | Phase of Work |
|---|---|---|---|
| 2021 Budget | | $ 200,000 | |
| 1st Year | 2022 | $ 75,000 | |
| 2nd Year | 2023 | $ - | |
| 3rd Year | 2024 | $ - | |
| 4th Year | 2025 | $ - | |
| 5th Year | 2026 | $ - | |

# LEHIGH COUNTY AUTHORITY
## ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
## PROJECT DETAIL SHEET

| Project Name | | DISASTER RECOVERY/SECURITY UPGRADES | | | | | |
|---|---|---|---|---|---|---|---|
| **Budget Area** | Administration | **Department** | IT | **Date** | 1/15/2021 | **Project No.** | CON-A-5 |
| **Location** | Allentown & Suburban Divisions | | | **Prj. Type** | Regular | **Prj. Funding** | LCA |
| **Prj. Category** | **Primary** | Sys Imp | **Secondary** | Efficiency | **Preparer** | | CWM |

| Purpose of Expenditure *(check all that apply)* | | | |
|---|---|---|---|
| | New Facility | X | Correct Known or Potential Safety Issue |
| X | Existing Facility - Rehabilitation/Upgrade | | Equipment Obsolete |
| | Scheduled Replacement | | Comply with Regulatory Requirements |
| X | Improved Service | | Equipment/Infrastructure at End of Useful Life |
| | Study | | Other (explain): |

| Additional Information | | | |
|---|---|---|---|
| Expected Useful Life (Years) | 5 | **Project inception date** | **2018** |
| Approx. No. of Customers Benefitted | N/A | | |
| Is this System part of a Common User Rate? | N/A | **Anticipated Project completion date** | Ongoing |
| Will the Project Require Obtaining Land Rights | NO | | |

| Detailed Project Description |
|---|
| This project will cover several areas to increase or add security, as well as improve our disaster recovery options for catastrophic failure. |

| Project Drivers and Needs to be Met by the Project |
|---|
| This project will provide on-site back up as well as unlimited cloud storage of all back-ups. It will also encompass spam filters, real time anti virus scanning, as well as Exchange backup. As part of the disaster recovery, a large room scaled UPS system to ensure server uptime will be incorporated. |

| Project Status - Describe what work, if any has been completed or underway for this project |
|---|
| Project commenced in 2019. |

| Annual Cost Impact | |
|---|---|
| Operating - *Increase/(Decrease)* | N/A |
| Debt Service | $        - |
| **Net** | **$        -** |

| Revenue Impact | |
|---|---|
| *Gain/(Loss)* in Annual Revenue | N/A |
| Assessment, Contribution in Aid-of-Construction | N/A |
| Other | |

| Borrowing Information | |
|---|---|
| Interest Rate | 5.5000% |
| Term (Years) | 30 |

| Explanation if Necessary |
|---|
| |

| Project No. | CON-A-5 |
|---|---|
| Project Name | DISASTER RECOVERY/SECURITY UPGRADES |

| Prior Project Cost | | $18,000 |
|---|---|---|
| **Estimated Project Costs:** | **2022-2026** | |
| LCA Staff | $ | 25,000 |
| Land Acquisition | $ | - |
| Construction/Equipment | $ | 50,000 |
| Professional Services | $ | 25,000 |
| Other | $ | - |
| Contingencies | $ | 50,000 |
| **Total Project Cost** | **$** | **168,000** |

| | Project Estimate Level |
|---|---|
| | Conceptual Estimate |
| | Preliminary Estimate |
| x | Budget Estimate |
| | Definitive Estimate |

| Requested in this Capital Program | $ | 125,000 |
|---|---|---|

| | | Need | Phase of Work |
|---|---|---|---|
| 2021 Budget | | $ 25,000 | |
| 1st Year | 2022 | $ 25,000 | |
| 2nd Year | 2023 | $ 25,000 | |
| 3rd Year | 2024 | $ 50,000 | |
| 4th Year | 2025 | $ 25,000 | |
| 5th Year | 2026 | $ - | |

# LEHIGH COUNTY AUTHORITY
## ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
## PROJECT DETAIL SHEET

| Project Name | | CMMS UPGRADES | | | | | |
|---|---|---|---|---|---|---|---|
| **Budget Area** | Administration | **Department** | IT | **Date** | 1/15/2021 | **Project No.** | CON-A-6 |
| **Location** | Allentown & Suburban Divisions | | | **Prj. Type** | Regular | **Prj. Funding** | LCA |
| **Prj. Category** | **Primary** | Sys Imp | **Secondary** | Efficiency | **Preparer** | | CWM |

| Purpose of Expenditure *(check all that apply)* | | |
|---|---|---|
| | New Facility | | Correct Known or Potential Safety Issue |
| | Existing Facility - Rehabilitation/Upgrade | | Equipment Obsolete |
| X | Scheduled Replacement | | Comply with Regulatory Requirements |
| X | Improved Service | X | Equipment/Infrastructure at End of Useful Life |
| | Study | | Other (explain): |

| Additional Information | | | |
|---|---|---|---|
| Expected Useful Life (Years) | 5 | **Project inception date** | **2017** |
| Approx. No. of Customers Benefitted | N/A | | |
| Is this System part of a Common User Rate? | N/A | **Anticipated Project completion date** | 2025 |
| Will the Project Require Obtaining Land Rights | NO | | |

| Detailed Project Description |
|---|
| This project will upgrade multiple modules of the existing CMMS application, Cityworks. The modules include implementation of a complete inventory system, API integrations with the GIS system, development of an asset strategy plan, site upgrades, and additional security enhancements. This project will also provide more opportunities for automation of vertical asset management through the use of ESRI's Geoevent server and SCADA information. |

| Project Drivers and Needs to be Met by the Project |
|---|
| As part of LCA's 2020 Goals, this project will support the need for additional integrations, automation, and security to increase availability and reliability of the software. The project will also help initiate the development and adoption of an asset strategy through the identification and interpretation of multiple data integrations. |

| Project Status - Describe what work, if any has been completed or underway for this project |
|---|
| This project commenced in 2019 with development of the existing Cityworks system and adoption of preventive maintenance practices in the City and Suburban Division. Multiple integrations have been completed; MUNIS integration, WINCAN integration, Customer Records Integration. |

| Annual Cost Impact | |
|---|---|
| Operating - *Increase/(Decrease)* | N/A |
| Debt Service | $ - |
| **Net** | **$ -** |

| Revenue Impact | |
|---|---|
| *Gain/(Loss)* in Annual Revenue | N/A |
| Assessment, Contribution in Aid-of-Construction | N/A |
| Other | |

| Borrowing Information | |
|---|---|
| Interest Rate | 5.5000% |
| Term (Years) | 30 |

| Explanation if Necessary |
|---|
| |

| Project No. | CON-A-6 |
|---|---|
| Project Name | CMMS UPGRADES |

| Prior Project Cost | | $21,000 |
|---|---|---|
| **Estimated Project Costs:** | **2022-2025** | |
| LCA Staff | $ | 25,000 |
| Land Acquisition | $ | - |
| Construction/Equipment | $ | 175,000 |
| Professional Services | $ | 50,000 |
| Other | $ | - |
| Contingencies | $ | 25,000 |
| **Total Project Cost** | **$** | **296,000** |

| | Project Estimate Level |
|---|---|
| | Conceptual Estimate |
| | Preliminary Estimate |
| x | Budget Estimate |
| | Definitive Estimate |

| Requested in this Capital Program | $ | 175,000 |
|---|---|---|

| | | Need | Phase of Work |
|---|---|---|---|
| 2021 Budget | | $ 100,000 | |
| 1st Year | 2022 | $ 25,000 | |
| 2nd Year | 2023 | $ 75,000 | |
| 3rd Year | 2024 | $ 25,000 | |
| 4th Year | 2025 | $ 25,000 | |
| 5th Year | 2026 | $ 25,000 | |