



DATE: November 4, 2015

TO: NBCMA Board Members

FROM: Thomas A. Zeuner - Executive Director

RE: EXECUTIVE SUMMARY: 2016 Budget Narrative  
(Fiscal Year November 1, 2015 through October 31, 2016)

ADOPTED OPERATIONAL & CAPITAL BUDGETS  
FOR CONSIDERATION AT THE NOVEMBER 4, 2015 PUBLIC MEETING

**CONTENTS:**

- 2015 Year in Review
  - Environmental Stewardship
  - 2015 Sanitary Sewer Overview
  - Rapid Response ; Emergency Management
  - Muni-Link launch and implementation
  - 5 Year Strategic Plan
  - Sanitary Sewer Rates
  - Public Water
- Finances of the Authority
- 2016 Vision
  - Rate Study Analysis Proposed
  - 2016 Capital Budget (Schedule "A" & "B")
  - General Management
  - The Human Element
  - G.I.S Project
  - Rates Rules & Regulations "Regulation Rewrite Project"
  - Inflow & Infiltration Initiatives
  - Keeping in Touch with technology, regulations & trends
  - "Ease of Doing Business" program
  - Litigation & pending Issues of consideration regarding legal matters

## 2015 IN REVIEW

- **Environmental Stewardship**



The Authority team is committed to protecting the environment. As we work to provide water and wastewater services to our customers, we also work to prevent pollution, promote sustainability, and enhance the natural environment.

We have a consistent history of complying with, and in many cases surpassing, the standards set by environmental laws and regulations. In fact, this is the foundation on which we build our environmental performance. We strive to not just meet, but exceed the environmental expectations of our stakeholders and establish new benchmarks by which others in our industry will be measured. Our commitment to the environment extends to being stewards of the community we serve.

- **2015 SANITARY SEWER OVERVIEW**

On July 1, 2015, the Authority Board approved the Corrective Action Plan (CAP) for sanitary sewer flows that enter the sanitary sewer system. This very comprehensive plan provides the Authority with a roadmap of corrective action with timelines and performance metrics to meet our long term goals and expectations.

A settlement agreement was negotiated and entered into by the Pennsylvania Department of Environmental Protection (Pa DEP) and Bucks County Water and Sewer Authority (BCWSA) for flows entering the Neshaminy Interceptor. This settlement agreement did not include participation or signature of the tributary municipalities or authorities served by the Neshaminy Interceptor and BCWSA. A Connection Management Plan (CMP) was also submitted by Northampton Township to BCWSA by providing short term and long term planning needs analysis. The settlement agreement had the requirement that a new and updated CAP and CMP be provided. The settlement agreement additionally requires that tributary municipalities, such as Northampton Township, complete updates to the municipality's ACT 537 plan in conjunction with municipal authorities, where they exist, to serve that municipality, such as NBCMA, to complete a comprehensive inflow and infiltration (I/I) evaluation within a specified timeframe. The settlement agreement entered into solely by BCWSA and Pa DEP, also requires Neshaminy Interceptor customers to enter into

supplemental agreements with BCWSA in order to establish average annual flow, maximum daily and instantaneous peak flows as well as a timetable in which to achieve these limits.

Although NBCMA has acted with due diligence to provide the data required and comply with the timetable set as a result of the settlement agreement between BCWSA and Pa DEP, to date, the parties have not reached an understanding concerning many of the issues contained within the language of the supplemental agreement. NBCMA has communicated its concerns and questions to BCWSA. Those concerns remain unanswered by BCWSA.

In June 2015, the Upper Southampton Municipal Authority raised NBCMA's sanitary sewer rates an additional 235% for flows originating from Northampton. The Authority is in dispute with the method and calculations utilized by the USMA.

- **RAPID RESPONSE : EMERGENCY MANAGEMENT**

In 2015, the Authority engaged GeoDecisions® to develop an effective and rapid system of customer notification. The system will be used for main breaks, advisories, hydrant flushing schedules and other communication needs of the Authority. Full implementation of the system is expected to occur in the 1<sup>st</sup> quarter of the Authority's 2016 fiscal year.

The Rapid Response System is an advanced high-speed alert notification system designed to deliver 120,000 phone, email, or text messages per hour. Rapid Response extends Esri's ArcGIS for Local Government Solution and is essential for emergency response. The Rapid Response System has the ability to contact thousands of citizens within minutes, when it matters most.

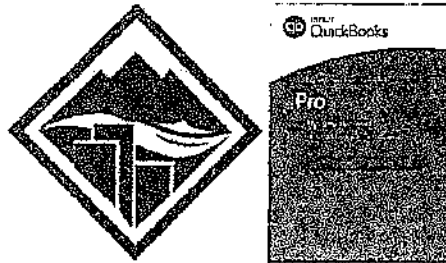
The patent-pending Rapid Response System allows the Authority to generate precise alert lists and send automated messages from computers and mobile devices. Real-time live web reports and detailed call summary reports provide critical information to ensure maximum system effectiveness. The Rapid Response works directly from a high-resolution map, providing flexibility for defining contact areas.

The Rapid Response System's interface provides leading-edge functionality including:

- **Web Mapping** - select one or multiple alert areas and view citizen information via online aerial, street, or hybrid maps
- **Answering Machine Detection** - leaves messages on answering machines and voice mail systems
- **Repeat Message Option** - ability for live call recipients to replay messages at the touch of a button
- **Advanced Reporting** - access to real-time call statistics and detailed call reports
- **Advanced Email Module** - supports attachments and custom themes (great for newsletters, water quality reports, etc.)
- **Caller ID** - custom caller ID number (e.g. customer service center) can be entered and displayed on a call recipient's device
- **Call Scheduling** - alerts can be scheduled in advance to be sent at a designated time
- **Call Repeat/Redial** - multiple attempts ensure the maximum number of citizens are contacted
- **Technical Support** - knowledgeable toll-free technical support on a 24/7 basis.

Rapid Response leverages the ArcGIS for Local Government Solution. It effectively notify citizens in Northampton Township of public water and sanitary sewer issues.

- **MUNI-LINK / QUICKBOOKS® LAUNCH AND IMPLEMENTATION**



After considerable research and analysis earlier in 2015, the Authority engaged Link Computer Corporation as the platform software provider to replace our antiquated computer software and internal data server system. Link Computer Corporation has been developing software for over 35 years for companies, schools, state and local government, hospitals and other organizations throughout the Mid-Atlantic and Northeast Regions.

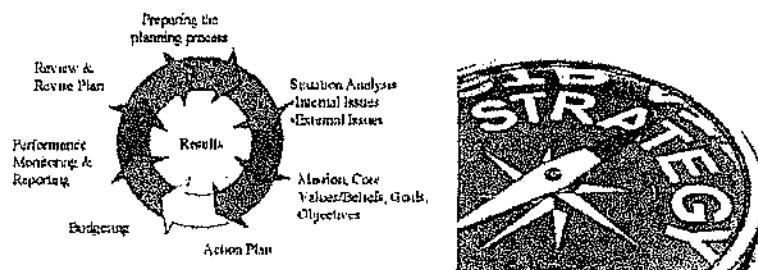
Muni-Link is the only municipal billing software on the market with the unique distinction of being designed with input from four municipal water & sewer authorities. All information we need access to for a customer account, including all billing and accounting information, historical data, records, permits work orders, is available from one screen provides the Authority's customer service team immediate access to important customer accounts.

Another issue that needed to be addressed was the ability to access the data base from other locations and not just from the office computer. Another point that needed to be addressed was that constant interruptions for software updates cost time and money. Muni-Link a cloud-based solution with updates provided on a continual basis. The Authority's data is now more secure than ever before.

For conventional accounting, the Authority switched over to the standard of the industry QuickBooks® Professional. Both programs were successfully launched and implemented in May 2015.

All customer files (+14,000) have been scanned into the Muni-Link data base and are able to be retrieved, viewed and printed from any of the Authority's desktops computers, laptops and mobile devices. These documents include permits, letters, e-mails, liens, drawings, work orders and historical documents retained in the customer file. The ability to search for pertinent documents in electronic format sorted by the customer database aides in greater efficiency and time management of our administrative staff.

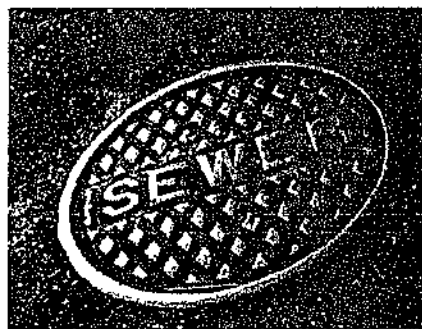
- **5 YEAR STRATEGIC PLAN**



At the end of the 2012 fiscal year, a "5 Year Strategic Plan" was presented and adopted by the Authority Board. The purpose of the Authority's 5 year strategic plan (Plan) is to provide a long range forecast of necessary sanitary sewer / water improvements, maintenance activities and staffing requirements to meet the needs of our community. The Plan provides policy makers and maintenance projects and staffing requirement to meet those objectives. Decisions about improving the Authority's infrastructure must be made not only on the basis of need, but also on the basis of availability of resources, and long-term impact on the community. The Plan identifies the Authority's infrastructure, establishes priorities and provides for an allocation of resources to meet those objectives. The Plan is a living document, subject to amendment based upon the objectives outlined and the strategy of the Authority Board.

The 2016 fiscal year operational and capital plans as presented are focused to achieve the results as outlined in the adopted "Strategic Plan" as originally adopted in 2013. An update to the 5 Year Strategic Plan is scheduled for Board consideration at the January 2016 Authority public meeting.

- **SANITARY SEWER RATES**



Historically, the Authority has been adversely impacted by significant wholesale sanitary sewer rates imposed by Bucks County Water and Sewer Authority (BCWSA). Since BCWSA rates remain unpredictable and volatile, future rate increases imposed by BCWSA, must be analyzed fully by this Authority and an appropriate rate adjustment, if warranted, implemented in a timely manner. Repetitive and unpredictable rate increases in the cost of wastewater treatment by BCWSA have resulted in more than doubling of the Authority's costs in just seven years time. It is anticipated that BCWSA will have another rate increase within our 2016 fiscal year. This Authority has not amended its sanitary sewer rate structure in over four years.

BCWSA rate increases have consistently reduced our available operating dollars for operations, and improvements in the Authority's sewage system. The shortfall in operating income resulting from these escalating rate charges has traditionally been accommodated by prudent and fiscally sound management, cost reduction initiatives in other areas, use of capital reserves to reduce ratepayer impact, and the use of water revenue surpluses.

The Authority has typically absorbed most, but not all, of the increased rates imposed by BCWSA. In the event that BCWSA imposes new rate increases that are determined to be justified and supported by sound economics, this Authority must take action by increasing its sanitary sewer retail rates to customers to insure compliance to our trust indenture covenants expected by our bond holders.

- Tapping fees

No new sanitary sewer tapping fees are included in the operating budget for fiscal year 2016.

- Forecasting method for sanitary sewer flows (fiscal year 2016)

The 2016 operational budgeted sanitary sewer flows are calculated based upon actual results through August 2015 (10 months of the fiscal year) with a forecast of flows anticipated in September and October of 2015.

- Buck County Water and Sewer Authority disputed sanitary sewer rates

Further justification and detail is required from BCWSA before this Authority can make a final determination on the rate increase notice provided by BCWSA as noted above. The Authority continues to segregate all sanitary sewer rate increases in lieu of making payment to BCWSA, but does recognize these monies as an expense on our P & L. Through September 2015, this Authority has placed in a segregated account \$2.21 million. The Authority has engaged the professional services of Herbert, Rowland & Grubic, Inc. of Harrisburg, PA for analysis concerning wholesale sanitary sewer rates by the BCWSA.

- Upper Southampton disputed sanitary sewer rates

A 9% rate increase was imposed by the Upper Southampton Municipal Authority with an effective date of July 2014. In June 2015, USMA raised our sanitary sewer rates an additional 235% for flows originating from Northampton. The Authority is in dispute with the method and calculations utilized by the USMA and passed Resolution 2015-1160 in September 2015 at its public meeting.

#### Resolution No. 2015-1160

*WHEREAS, Northampton, Bucks County, Municipal Authority ("Northampton Authority") is successor in interest to an Agreement between Northampton Township and Upper Southampton Sewer Authority dated October 27, 1961 ("Agreement") to provide sanitary sewer collection services to portions of Northampton Township; and*

*WHEREAS, the Northampton Authority has been duly paying to Upper Southampton Sewer Authority and its successor in interest, Upper Southampton Municipal Authority ("Municipal Authority"), for services rendered pursuant to the terms of the Agreement; and*

*WHEREAS, on or about June 1, 2015, the Northampton Authority received notice that the Municipal Authority increased Northampton Authority's sanitary sewer rates by approximately Two-Hundred Thirty-Five Percent (235%) in violation of the terms of the Agreement; and*

*WHEREAS, on or about June 2015, Northampton Authority paid the Municipal Authority sewer bill under dispute of the increased sanitary sewer collection rate unilaterally imposed by the Municipal Authority as memorialized in correspondence from Northampton Authority to the Municipal Authority dated July 2, 2015 attached hereto as Exhibit "A"; and*

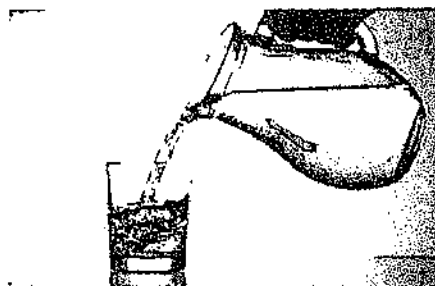
*WHEREAS, the Northampton Authority has tasked its professionals to review and investigate the Municipal Authority's increase of the sanitary sewer collection rate.*

*BE IT RESOLVED, that until such time as a determination is made by this Board of the Northampton Authority ("Board") as to the Municipal Authority's increase of the sanitary sewer collection rate and the appropriate payment thereof, this Board hereby directs and authorizes the Northampton Authority staff, specifically, the Executive Director, to place disputed monies into an escrow or segregated account of the Northampton Authority*

At the July 2015 Authority Board public meeting, we engaged the professional services of Ebert Engineering of Skippack, PA to evaluate and make recommendations to this Authority in order to determine the appropriate sanitary sewer collection rate the USMA should be charging this Authority. The Authority will segregate the disputed amount as directed, but will show the amount as an expense on its P & L. Alternatives will also be evaluated to ensure a long term stable rates for our customers.

At the October 2015 Board meeting, Ebert Engineering presented its recommendation for temporary flow metering to accurately define the amount of sanitary sewer flow originating from Northampton. The cost of this metering and engineering professional services is included in the Authority's 2016 Operational Budget.

- **PUBLIC WATER**



The Authority has not imposed any consumer rate increases for public water since December 2010 (5 years).

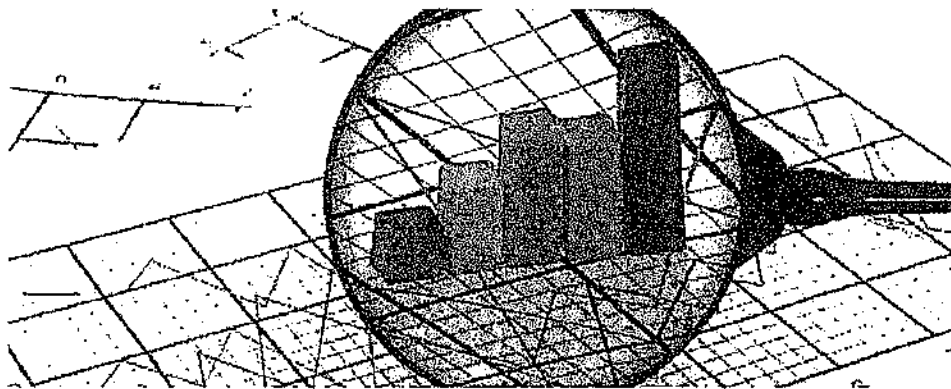
Acceptance by dedication of the public water infrastructure (Churchville TCE Project) from Northampton Township to the Authority is expected to occur in fiscal year 2016 resulting in a positive value of approximately \$800,000 to the Authority's balance sheet.

As reported in the 2015 budget narrative, wholesale water purchases through BCWSA originated from the Forest Park Water Treatment Plant in Chalfont, PA beginning July 1, 2014 instead of the former interconnection with the Philadelphia Water Department (PWD) Baxter Water Treatment facility. Ongoing chronic operational issues remain outstanding at both our Antler Drive Pump Station and Bristol Road Pump Station due to pressure and flow rate fluctuations originating from BCWSA since the date of transition. It was our expectation that BCWSA would have resolved these outstanding issues, but no "corrective action plan" was provided. Notice was received from BCWSA in October 2015 of a pending rate increase for water. The actual percentage of the increase is unknown at the time of this writing.

No new water tapping fees are included in the operating budget for fiscal year 2016.

The Authority took new water samples in February 2015 to test for unregulated contaminants as determined by the United States Environmental Protection Agency (EPA). The Authority completed all of the testing requirements in accordance with the federal directive.

**FINANCES OF THE AUTHORITY (Fiscal year Nov 1<sup>st</sup> - Oct. 31<sup>st</sup>)**



• REVENUES

Fiscal year unaudited revenues through August 2015 received from water and sanitary sewer service exceeded the 2015 adopted budget through that date. Revenues from water and sanitary sewer service is expected to be stable for 2016 fiscal year.

2015 Budget through August 2015	\$10,837,000
2015 Unaudited Actual through August 2015	\$10,939,000



- CASH RESERVES

The Authority has cash reserves for operation, debt service, and capital expenditure of \$5.05 million as compared with 2014 \$5.6 million as of the period ending August 31, 2015

- PERFORMANCE TO BUDGET

Operational Budget for fiscal year 2015 projected profit before depreciation of \$110,000 for the full year. Unaudited year to date (YTD) results through August 2015 show a profit before depreciation of \$467,000. This included projected funds are being segregated due to our dispute with BCWSA as an expense on our P&L. That forecast did not include the unexpected USMA rate increase for sanitary sewer services effective June 1, 2015 as the Authority was not forewarned of this event.

- 2016 Operation Budget is projected to have a profit of \$36,000 before depreciation.

- AUTHORITY DEBT

- In fiscal year 2015, the Authority reduced principal debt by \$1.3 million.
- In fiscal year 2016, the Authority has budgeted reducing principal debt by \$1.4 million.
- New debt for the 2016 fiscal year will be dependent upon the strategy of implementing the upcoming Five Year Strategic Plan, Rate Study Analysis and funding mechanism as determined by the Board in the 1<sup>st</sup> quarter of the 2016 fiscal year.

- MOODY'S

On March 23, 2015 MOODY'S Rating Service has re-rated the Authority to A2 on the Authority's water and sewer revenue bonds. The downgrade reflects the weaker debt service coverage ratio over the last several years. The rating of A2 is considered Upper Medium /Investment Grade. The following from the Moody's report summarizes the current basis for the rating reduction:

*"The Authority is subject to rate increases from the Bucks County Water and Sewer Authority (BCWSA) and expenditures have been continuously increasing because of these rate increases. The Authority does have the ability to raise customer rates, and very often it has passed the increased cost to customers. However, the Authority is currently in dispute with BCWSA to determine if the 2012 rate increases are justified. The Authority did increase customer rates by 25% in 2012 to partially offset the BCWSA rate increase; however, the Authority is refraining from increasing rates further the dispute is settled. The Authority is not paying the full amount of the 2012 increase to BCWSA but is accruing the full amount charged in its financial statements, and has set aside disputed monies in a restricted fund.*

*Favorably, the Authority's water and sewer bonds have a debt service reserve fund that is cash-funded a maximum annual debt service. The Authority's \$8.6 million of water and sewer bond debt is equal to 1.6 times water and sewer revenue, which is low."*

The last time the Authority was rated was 2005.

## 2016 VISION

- **RATE STUDY ANALYSIS PROPOSED**

Once the Authority 5 Year Strategic Plan has been adopted (anticipated early 2016 fiscal year), the administration is recommending that the Board engage the professional services of HRG of Harrisburg, PA for purposes of conducting a comprehensive financial rate study analysis. Any revision to user rates ultimately needs to be approved and implemented by the Authority Board by Resolution. Having a professional expert in the financial aspects of a water and wastewater rate-setting will provide the necessary value and expertise necessary for the Board to make sound business decisions.

- **Considerations in Setting Revenue Requirements**

There are a multitude of considerations, ranging from financial to legal, which must be analyzed or discussed during the revenue requirements process of a rate analysis. Capital Budgeting and Financing Capital needs will be defined by Authority's 5 year Strategic Plan before the board in January 2016. As part of that planning process, the Authority identifies capital improvements that are necessary for the continued delivery of clean, safe, drinking water and treatment of wastewater in accordance with increasingly stringent standards. The Capital Improvement Plan can be funded by a variety of sources including system water and sewer rates, debt, connection (tapping) fees, and capital reserves.

- **Overview of the Rate Setting Process**

The scope of this study included the development of cost-based sewer user charges through a comprehensive cost of service and rate design analysis. Authority service rates must be set at a level where an Authority's operating and capital expenses are met with the revenues received from customers. This is a significant point, as failure to achieve this level could lead to a situation where insufficient funds are available to adequately maintain the system, meet contractual or environmental regulations. A comprehensive rate study would consist of following three interrelated analyses:

- **Financial Planning/Revenue Requirements Analysis:**

Creation of a multi-year plan to support an orderly, efficient program of on-going maintenance and operating costs, capital improvement and replacement activities, debt financing, and retirement of any outstanding debt. In addition, the long-term plan should fund and maintain reserve balances to adequate levels based on industry standards and Authority fiscal policies and strategy.

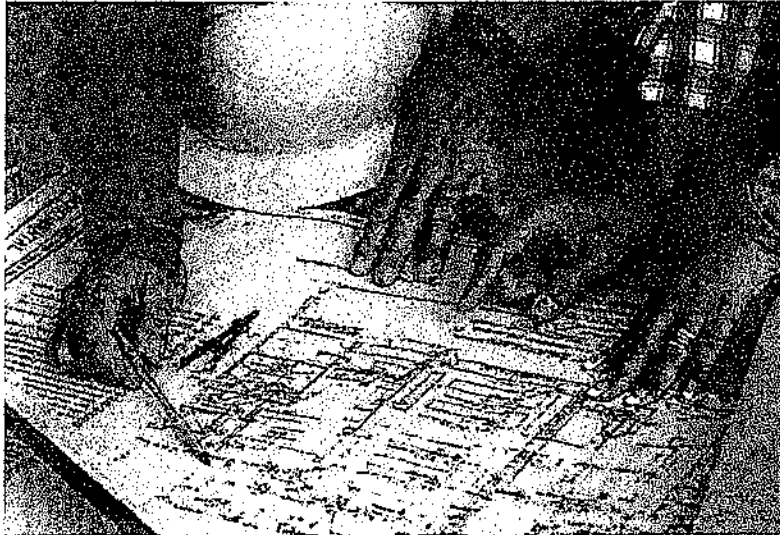
- Cost of Service Analysis:

Identifies and apportions annual revenue requirements to customers based on their demand on the Authority's system.

- Rate Design:

Develops an equitable and proportionate fixed/variable schedule of rates to recover the costs of the Authority. The policy objectives are harmonized with cost of service objectives to achieve the delicate balance of equity, financial stability and resource conservation goals. Rate Design Analysis considers both the level and structure of the rate design to collect the appropriate and targeted level of revenues to achieve those long term objectives.

- **2016 CAPITAL BUDGETS (Schedule "A" & Schedule "B")**



The 2016 fiscal year Capital Budget as presented is \$354,000 funded from existing reserves of the Authority (see Schedule "A") In order to be fiscally responsible, the capital budget as presented only includes funding of projects already committed within the 2015 fiscal year (Schedule "A"). The Executive Director is recommending that (Schedule "B") items be deferred until adoption of the Five Year Strategic Plan, completion of a Rate Study Analysis and confirmation of a funding mechanism to support the plan and Board endorsement of the program.

- Schedule "A": Capital projects funded from Reserves
- Schedule "B": 2016 Capital projects. For approval consideration at a future date once funding sources have been confirmed.

The Capital Budget Schedules provides the following detailed information:

- Capital Project Number: alpha-numeric tracking number

- Project: brief description of project
- Department: Water, Sewer, Water and Sewer Combined and Administration
- Monetary Fund Requirements: Anticipated dollars budgeted for each respective category.
- Funded: Is the monetary amount previously approved (YES / NO)
- Target Period: Of when the funds will be required.
- Life Years: Useful life used in the Authority's schedule.
- Life Cycle: Anticipated replacement for asset planning purposes.
- Schedule Class: Category of Release
- Method: Process used in the acquisition process
- Lead-time: timeframe from order placement to anticipated delivery or start date
- Acquisition Planned Method: Public Bid, Quote or Co-Stars
- Professional Services: Identifies the type of professional services required

#### GENERAL MANAGEMENT:

Administrative employee count was reduced by one in 2015.

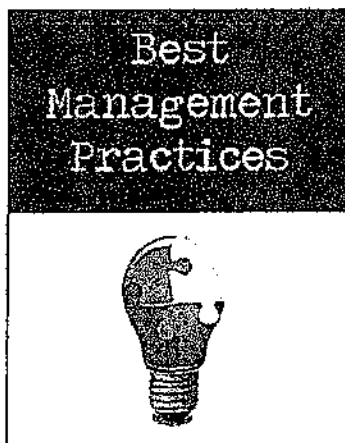
Operational head count is expected to be increase by two (2) in fiscal year 2016. One in the 1<sup>st</sup> quarter of the fiscal year and one in the 4<sup>th</sup> quarter. These planned additions are in anticipation of retirement of operational employees in the coming years. Proactively hiring prior to the anticipated retirement dates will provide a sound knowledge transfer.

A 2% wage increase in administrative salaries is budgeted for fiscal year 2016 with an effective date of November 1, 2015.

The Authority's three year Collective Bargaining Agreement ("CBA") with the Teamsters Local 107 for maintenance employees was ratified on April 3, 2013 with an ending date of December 31, 2015 Negotiations between the Authority and the Union will began in the Fall of 2015.

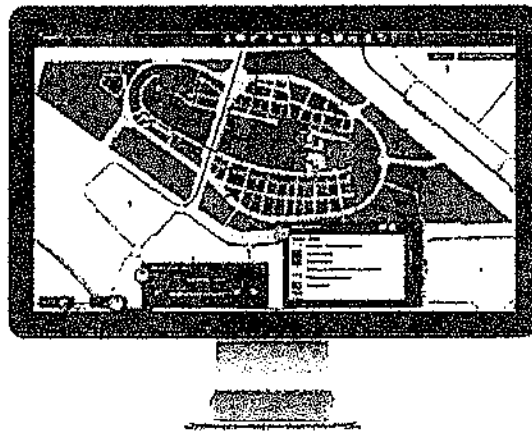
Wages of Authority hourly operations employees will be determined by agreement between the Authority and the Union currently under negotiation. Members represented under the CBA have their healthcare currently administered by the Teamsters Health and Welfare Fund.

- **The Human Element:**



Our continued Best Management Practice (BMP) strategy of promoting skill set education of our operations team is essential to providing an increase level of effectiveness. The goal is to increase the individuals' core competency and provide cross training to maximize our operational effectiveness. This vision is to promote leadership development and team building, for the purpose of helping individuals and the operations team maximize their effectiveness and value to the organization. The mission being to philosophically transform a traditional organization into a high performance metric based organization.

- **GIS PROJECT**



The 2015 Capital Budget included a \$150,000 investment in intellectual property known as GIS. Geographic Information System (GIS) is designed to store, retrieve, manage, display, and analyze all types of geographical and spatial data.

GIS can produce maps and other graphic displays of geographic information for analysis and presentation.

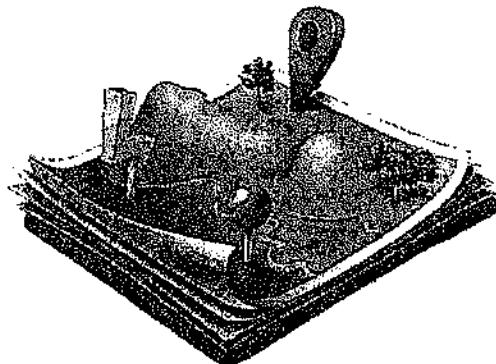
A GIS stores data on geographical features and their characteristics. On a map, township data water and sanitary sewer infrastructure can be stored, and boundaries stored as areas, while aerial photos, scanned maps, TMP locations, addresses, as-built drawings could be stored as well in layer format.

Launch of the GIS System is anticipated for the first quarter of the 2016 fiscal year.

- **Background and implementation:**

The Authority provides services to over 11,000 water customers and more than 13,000 sewer customers in Northampton Township. The Authority receives approximately twenty PA One Call (PA #1 CALL) requests each day. Each One Call request requires research of utility plans and may also require a site visit to mark the location of the existing facilities. Some requests come in the form of a plan request for utility information. The Authority utilizes thousands of paper documents to find information on their water and sewer infrastructure within the township, adding a considerable amount of time to their operations to provide the required responses and to perform requested utility mark-outs.

In an effort to synchronize more than 3,500 project record plans, update existing project documentation and track all past and future utility information, the Authority determined that creating and implementing an internet based GIS map was the most effective solution. The GIS map will contain information for approximately 4,600 sanitary sewer manholes and 193 miles of associated mains, 3,250 water valves, 1,300 fire hydrants and 187 miles of associated water mains in the township.



When completed, the GIS map will have the capability to display and link all of the Authority's water and sewer mains overlaid on a Google® Earth map. By clicking on a manhole or water main on the GIS map, the system will provide specific utility data such as the type of pipe, manhole rim elevation, diameter of pipe, downstream and upstream manholes, sanitary sewer basin name, as well as linking the users to the associated record plans for that utility. This makes finding plans and similar records easier, without the need to pull plans from plan rooms or file cabinet drawers.

The GIS map will be accessible with multiple devices, including personal computers, tablets and mobile devices. Specific areas or utilities, including street addresses, TMP numbers, manhole numbers, fire hydrant locations, etc., will be searchable for 'zoom to' viewing and data query. This web interface will be available December 2015. NBCMA will have the ability to respond to PA One Call requests more accurately and more efficiently. Obtaining information or responding to plan requests will be as easy as going to the GIS map, clicking on a sewer main or water main and printing or sending electronically any of the record plans that are available.

A GIS is essentially the creation (or re-use) of a spatial map or other spatial graphic information that is linked to additional information, or data about the spatial mapping, hence the name Geographic Information System.

For this project, we started with data collection. Utilizing the various system maps and record plans. We started locating all visible sanitary sewer and water structures. Our goal was to verify the information collected in the field with all available plans and maps.

Through the use of survey grade GPS instrumentation, the locations of the sewer manhole covers, water valves, hydrants and any visible water/sewer structure was accurately collected in the

Pennsylvania State Plane Coordinate System. These points were categorized in the field using predetermined raw descriptions. Data collection was aided through the use of the Authority's 3,500 record plans as a guide for physical structure location. Preparation of an accurate survey and coordinately correct base plan is essential for the GIS.

Once all points were collected, they were uploaded into a CAD/GIS base file. Existing record plans were reviewed in conjunction with the data points collected. Lists were created to establish each structure's associated record plans. A spreadsheet was also created for each system (sewer and water) to add and track unique attributes for each data point. Selected attribute fields are based on the Authority's current and future needs. Some examples include pipe material, diameter of pipe, upstream and downstream manholes, basin names and manhole name. In the future, identifiers will be added to include fields such as previous maintenance of the pipe and inspection reports. Service locations, pipe slopes, pipe capacities and invert elevations may also be included at a future time. The amount of information that can be added seems endless, but the key is to first establish a geographically correct map.

After incorporation into the web-based GIS, the system map will provide the capability to link the user to the appropriate Authority record plans. The web interface design was then created and we were able to import the shapefiles and data to ArcGIS Server v. 10 (web-based with multiple concurrent users), employing an SQL database linked to the spatial graphics, with a new Google® Earth background application for "real world" spatial relationships. As the Authority's water and sewer system expands and rehabilitation occurs, additional data and hyperlinks to the associated record drawings will be added to the configured database for each point or pipe entity.

The web-based GIS implemented will be hosted on Pennoni servers and published to the internet. Individual Authority staff and operational personnel who have been granted access authority through secure usernames and passwords will be able to search for, identify, view, retrieve, and print associated record drawings of individual utility structures and mains. The web interface and programming design of the SQL database will link all 9,150 data points and roughly 380 miles of transport pipes to the shapefiles and display graphics and data in response to web-based queries. It will be scalable to allow for the Authority to have Pennoni configure and expand the system in the future to incorporate information for other user groups, and will be configured to require password security for various different levels of access to specific information. The GIS system will display graphics and data in response to NBCMA personnel web based questions. In addition, Northampton Townships existing parcel shapefile will be uploaded allowing the user to visually view the tax map parcel locations relative to the utility points and lines.

This GIS is being designed such that multiple additional levels of data and many different types of information can be incorporated into the NBCMA GIS as future needs dictate. In addition, through the use of the Townships existing GIS information and the Google® Earth map, tax map parcels, hydro lines, buildings and street right-of-way can be displayed.

This project is being developed through a collaborative effort between three separate divisions within Pennoni Associates.

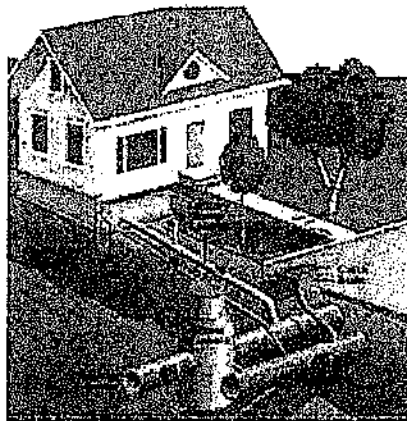
- **RATES, RULES & REGULATIONS: "Regulation Rewrite Project"**

The Authority is taking steps to make its Rates, Rules and Regulations easier for the public, professionals, contractors and project managers to understand. The project will be known as the

"Regulation Rewrite Project." Like most other government agencies many of the Authority's regulations reflect the very technical "government writing style". The Authority plan is to reorganize and rewrite our published regulations. Our goal is to rewrite these Rates, Rules and Regulations in a logical, user-friendly format, in order to help ratepayers, developers and professionals, clearly understand regulatory provisions, standards, drawings and procedures of the Authority and having them readily accessible on the internet

The "Regulation Rewrite Project" mission is to improve the clarity of existing Authority regulations in a coherent manner. Consistent with our effort to simplify material and write in plain language, our goal is simple: to write regulations that makes it easier to conduct business with the Authority. Although many of our rewritten regulations will entail no substantive changes, the intent is to amend the regulations as one revision and not amend the document on a regulation by regulation basis. Due to the comprehensive nature of the review being initiated, it is not anticipated the draft review would be available for Board review, comment and deliberation until February 2017. The Authority took on a similar initiative several years ago in rewriting its "Employee Policy Manual". That program was extremely successful in meeting clarity expectations of the Authority and its employees. The "Regulation Rewrite Project" is expected to provide the same success. The project will be led by the Executive Director with input and consultation of the solicitor and engineer.

- **INFLOW & INFILTRATION INITIATIVES**



The 2016 Capital Budget (Schedule "B") as presented includes \$500,000 of infrastructure improvements and rehabilitation to the Authority's sanitary sewer system. They include grouting of collection mains (\$200,000), manhole rehabilitation (\$50,000), cured in place pipe rehabilitation C.I.P.P. (\$200,000), and lateral rehabilitation (\$50,000). These programs will not only aide in our desire to reduce sanitary sewer flows and related costs, but also meet regulatory and contractual requirements of the Authority as supported in the Authority's adopted strategic plan.

In addition to the improvements noted above, capital improvements related to capacity, sanitary sewer overflows and infiltration reduction will be completed in 2015 in conjunction with a new land development and subdivision (Leehurst) in the Woods Basin. The economic value to the Authority of these improvements to the existing pump station and relocation of the sanitary sewer force main total \$863,000 which will be dedicated to the Authority by the developer. Dedication of this infrastructure to the Authority is expected to be completed in the 2016 fiscal year.

- **KEEPING IN TOUCH WITH TECHNOLOGY, REGULATIONS & TRENDS**





Also included in the 2016 operational budget is our ongoing membership and participation in the state conferences and regional meetings of the Pennsylvania Municipal Authorities Association (PMAA) and conference and educational forums organized by the Water Environment Federation (WEF) and the American Water Works Association (AWWA).

- **EASE OF DOING BUSINESS PROGRAM**

The Authority is committed to becoming easier to do business with:

The "*Ease of Doing Business Program*" is focused on changing Authority policy, process, and practices to make it simpler for our ratepayers to do business with us. Our goal is to deliver high-value customer experiences through simplified, successful interactions that:

Focus on Improvement of ratepayer experiences:

- Support long term economic vitality of the Authority
- Provide increased options for our ratepayers to interface with the Authority
- Reduce the administrative touch-points required to complete a task
- Increase and enhance ratepayer payment options and ability to interact with the Authority
- Provide for effective Website search, navigation, usability, and data exchange with our ratepayers

In order to fulfill our "Ease of Doing Business" with ratepayer experiences with Authority has:

- Provided a unified and consistent "Authority" theme for continuity
- A New modern Billing Software program was implemented
- New modern Accounting Software program was implemented
- Seamless integration of various forms of consumer payment services via internet based communication was implemented

- **LITIGATION & PENDING ISSUES OF CONSIDERATION REGARDING LEGAL MATTERS**

***Sewer District Number 3 Litigation Matters:*** The Authority is a party to several different legal proceedings which are related to the Western End, Sewer District No. 3, Public Sanitary Sewer Installation. Currently, these matters are docketed with the Court of Common Pleas of Bucks County. One of the actions involves a declaratory judgment complaint filed by the owner of several industrial properties and such action was joined by additional industrial properties affected by the public sanitary sewer installation. The Authority filed Petitions for Boards of View to determine the benefit assessment under the law against multiple property owners in Sewer District Number 3. In addition, there is a separate action filed by an industrial owner

concerning similar issues. The Authority's solicitor, Rudolph Clarke, LLC, represents the Authority in these matters.

***BCWSA Water Matters:*** The Authority is supplied with wholesale water by Bucks County Water and Sewer Authority. BCWSA filed suit in the Court of Common Pleas of Bucks County against the Authority for alleged failure to pay certain monies regarding the water rates pursuant to the terms of the Wholesale Water Agreement. The Authority's solicitor, Rudolph Clarke, LLC, represents the Authority in these matters.

***BCWSA Sewer Matters:*** The Authority continues its' investigation into the appropriate wholesale sanitary sewer rates charged by Bucks County Water and Sewer Authority. This matter is not currently in litigation, but rather, an investigation is being completed by Herbert Rowland & Grubic, Inc. of Harrisburg, Pennsylvania. Currently, the increase in wholesale sanitary sewer rates which is being disputed by the Authority, is being placed into a segregated account as authorized by the Authority's Board of Directors. The Authority's solicitor, Rudolph Clarke, LLC, represents the Authority in this matter.

***Upper Southampton Municipal Authority:*** Part of the Authority's public sanitary sewage is sent to USMA for treatment. Recently, USMA increased the Authority's sewer rate by approximately 235%. This matter is not currently in litigation but the Authority disputes the unilateral increase in sewer rates and sewer rate calculations imposed by USMA. By Board of Director action and authorization, the Authority is placing the monies which are alleged to be owed by the Authority to USMA in a segregated account and has authorized the Authority's engineer for this issue to install sanitary sewer meters to investigate and provide an opinion in this matter. The Authority's solicitor, Rudolph Clarke, LLC, represents the Authority in these matters.

***Overdue Customer Accounts:*** As is typical in municipalities, there are sometimes delinquent customer accounts for both water and sewer bills. These matters are handled in a variety of ways, including the filing of liens, the shut-off of service(s) and prosecuting the delinquency through court procedures, by both the Authority staff and the Authority's solicitor, Rudolph Clarke, LLC.

***Insurance Matters:*** The Authority currently is defending one insurance matter in the Court of Common Pleas of Bucks County. This matter is being handled by the Authority's Insurance Carrier's Counsel, Rawie & Henderson, LLP.

***Environmental Matters:*** The Authority has engaged Manko Gold Katcher and Fox to represent the Authority on environmental issues with the Pennsylvania Department of Environmental Protection and outstanding issues with the Bucks County Water and Sewer Authority's Neshaminy Interceptor Supplemental Agreement.

## **2014 OPERATIONAL & CAPITAL BUDGET**

Attachments:

2016 Capital Budget (Schedule "A" & Schedule "B")  
2016 Operational Budget

NBCMA 2016 Operating Budget  
ADOPTED: \_\_\_\_\_

OPERATING REVENUE	
WATER REVENUE	3,783,717
SEWER REVENUE	9,031,307
OTHER OPERATING REVENUE	84,299
TOTAL OPERATING REVENUE	12,899,323
OPERATING EXPENSES	
PAYROLL & BENEFITS	2,084,948
ADMINISTRATIVE EXPENSES	1,209,584
MAINTENANCE EXPENSES	624,927
WATER PURCHASE	1,745,723
SEWER RENTAL	6,336,608
TOTAL OPERATING EXPENSE	12,001,789
OPERATING INCOME (LOSS)	897,534
NON-OPERATING INCOME	8,854
NON-OPERATING EXPENSES	870,425
NET INCOME BEFORE DEPRECIATION	35,962

