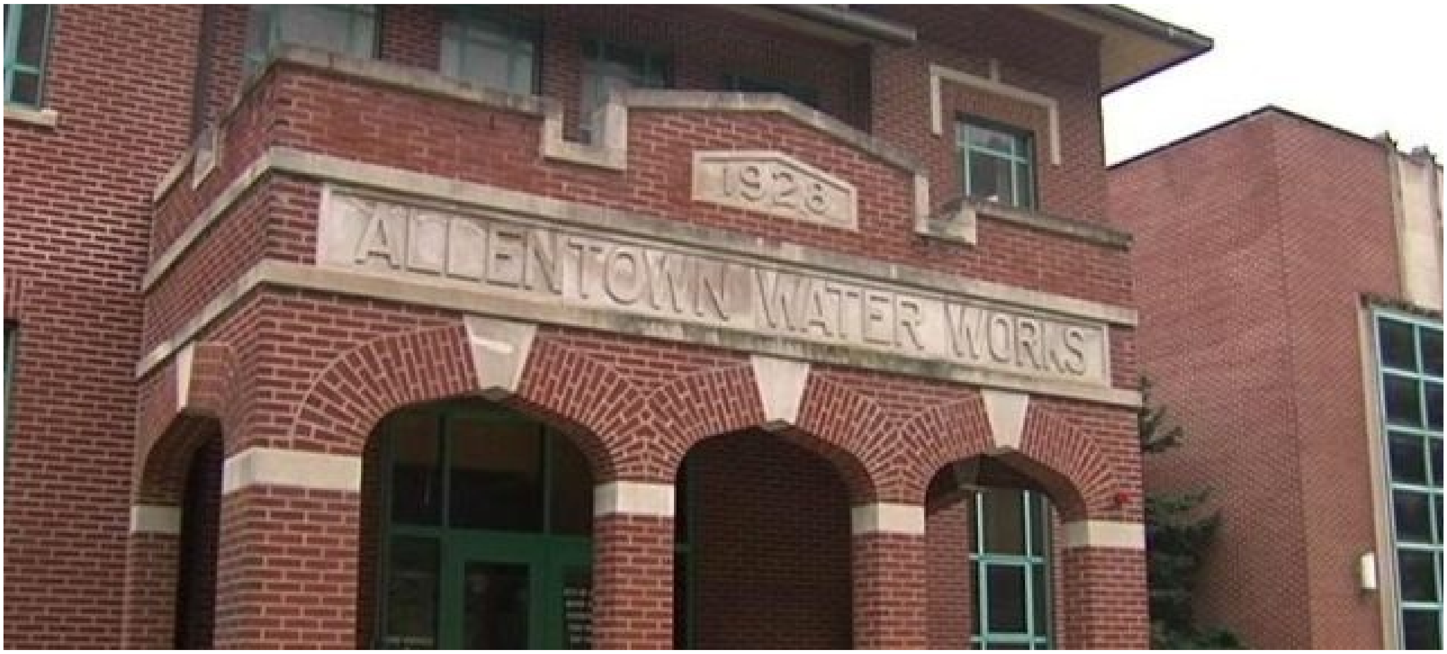
Allentown Water and Wastewater Utility Concession



A public to public partnership between the City of Allentown and the Lehigh County Authority led to a more integrated regional utility system. At the same time, the partnership generated a large initial payment that helped Allentown meet non-utility financial obligations.

The City of Allentown entered into a concession with the Lehigh County Authority (LCA) to operate Allentown's water and wastewater system. This allowed Allentown to tap into water system equity and future customer revenues in order to cover other essential, non-utility costs, such as pension liabilities. At the same time, the deal created a larger consolidated utility system that was able to achieve operating savings through increased efficiency and economies of scale. LCA relied on the tax-exempt bond market to raise the funds it needed to make the initial concession payment and seed several reserve funds. For the citizens of Allentown, this arrangement resulted in converting a very sizable general government pension liability to long-term LCA debt that will be repaid by water revenue collected in the future from utility customers. For LCA, a desirable, highly predictable future revenue stream provided the ability to pay the initial upfront concession payment, assure high quality service, and make planned capital investments. However, by early 2016, LCA had found project cash flows less predictable than expected and it called into question the accuracy of some of the cost information provided by Allentown that LCA used to develop its financial projections. Allentown has refuted LCA's claim.[1]

[1] Opilo, Emily. *Lehigh County Authority Feeling Strain of Water-Sewer Deal; Blames Allentown Numbers.* The Morning Call. March 14, 2016. http://www.mcall.com/news/local/allentown/mc-lehigh-county-authority-allentown-legal-dispute-lease-20160314-story.html

Table 1. Key Project Details

Project Title:	Allentown Water and Wastewater Concession and Lease[2]
Primary Facility:	Entire water and wastewater system including distribution, collection, and treatment facilities
Local Government Entity:	City of Allentown
Primary Partner(s):	Lehigh County Authority
Delivery Model:	Concession
Contract Period:	50 years
Population Served:	34,000 water connections (180,000 individuals including residents of Allentown and neighboring communities) and 190,000 wastewater customers
Major Initial Outlays:	LCA issued $307 million in bonds to cover the upfront concession payment to Allentown ($211 million), fund deposits to key operating and reserve funds, and fund transaction costs
Flow of Revenues:	LCA collects revenue directly from customers based on rates that are determined by a schedule set out in the contract

Background

The City of Allentown, Pennsylvania owns (and, until recently, operated) a large water and wastewater utility that provides retail service to Allentown residents and wholesales treated water and wastewater services to neighboring communities. The system includes treatment facilities with 30 MGD of water capacity and 40 MGD of wastewater capacity in addition to an expansive regional water distribution and wastewater collection network. The utility is under an USEPA Administrative Order to eliminate sanitary sewer overflows. The system has some deferred maintenance, but is reported to be technically sound and financially secure.

Allentown decided to enter into a concession for the operation of the City's water and wastewater system because of financial needs that were unrelated to the system. In 2012, Allentown had been facing pension funding shortfalls for many years. Even after reducing staff and cutting costs, the City forecast that required annual contributions to its pension plan would take 30 percent of general fund revenues by 2015. The City's political leaders decided to enter into a concession for Allentown's financially sound water and wastewater system to pay down pension obligations.

> **"We can monetize the system, which we are doing through the lease, to use that revenue to pay for this unfunded pension liability, which if we don't do it will crush us financially."**
>
> - *Ed Pawlowski, Mayor of Allentown*

[2] The contract between LCA and the City of Allentown refers to the agreement as a concession and lease; however, for clarity the word "concession" is used throughout the rest of this profile.

Project Development and Procurement

Over the course of eight months, Allentown staff worked extensively with a group of advisors to carefully construct a concession model that would generate a large upfront payment while assuring high quality service. This large upfront payment would be used immediately to pay down the City's pension obligations. The resulting concession terms, which were included as bidding documents, covered a variety of key issues such as stipulations for hiring current workers, operating criteria, and rate schedules.[3] Nine entities responded to the Request for Qualifications (RFQ), and of these, Allentown qualified seven. Qualified entities were eligible to submit bids once Allentown issued a formal Request for Bids (RFB). After the bidders were qualified, Allentown conducted a series of reviews and discussions with prospective bidders to identify problematic terms and refine the concession documents to enhance the workability of the concession.

Four of the seven qualified entities submitted six separate bids on the project (two entities submitted two bids each – one bid conforming exactly to the RFB terms and one non-conforming bid). The terms of the concession were clearly spelled out in a draft agreement that was part of the RFB. The key terms to be submitted by the bidders were the magnitude of the upfront concession fee, with a floor of $150 million, and the size of the annual concession fee. Since two of the bidders upfront payments were within 10 percent of one another, under the terms of the RFB the City requested a best and final offer (BAFO) to allow bidders to increase their bids if desired.

LCA, a publicly owned water and wastewater utility in close proximity to Allentown, was one of the entities qualified to submit a bid and ultimately was selected as the lessee. During the bidding and negotiation process, LCA advocated for Allentown to do a full sale of the system instead of a concession, which would have allowed LCA to pay a higher upfront payment.[4] Allentown preferred to maintain ownership, and in the end the arrangement went forward as a 50-year concession, not a sale. While this was the first venture of this magnitude for LCA, it had completed 30 smaller acquisitions during its 50-year history. Allentown chose LCA as the concessionaire because LCA offered the highest upfront bid[5] and because LCA successfully highlighted its knowledge of the area and proximity to the City of Allentown. LCA had been Allentown's largest water and wastewater customer for over 40 years, and it bid on the concession partly to protect its own interests.[6] The process took a year and one month from the release of the RFQ to the awarding of the concession.

As part of the procurement process, Allentown prepared and shared with bidders detailed estimates of existing costs and revenue flows from both retail customers and wholesale customers. At the time of the concession, Allentown had a number of water and wastewater sales agreements with neighboring communities. These wholesale relationships were transferred to LCA under the concession agreement. LCA used the information provided by Allentown to construct and run financial models of the financial impact of the concession agreement. One of the key requirements established by the LCA governing board for moving forward with the deal was that the transaction would not place any additional financial burden on LCA's current customers.

While the Allentown City Council was very supportive of the agreement, it was a contentious decision. Allentown residents and members of LCA's own Board of Directors voiced numerous concerns. Allentown residents showed the greatest concern over potential rate increases, lack of local control, and whether the decision was fiscally sound.[7]

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[3] *How Allentown Leased Its Utilities to Fund Pensions.* Governing: The States and Localities. September 9, 2013. http://www.governing.com/blogs/view/gov-how-allentown-sold-its-utilities-to-fund-its-pensions.html
[4] Aurel Arndt (Former Chief Executive, Lehigh County Authority), phone correspondence with author. March 09, 2016.
[5] *City of Allentown Water and Sewer Utility System Request for Bids.* Lehigh County Authority to City of Allentown. March 27, 2013.
[6] Aurel Arndt (Former Chief Executive, Lehigh County Authority), phone correspondence with author. March 09, 2016.
[7] *Council Meeting Minutes.* Allentown City Council. Allentown, PA. April 17, 2013.

Table 2. Select Project Milestones[8]

Date	Milestone
July 2012	The Mayor and City Council of the City of Allentown release a RFQ for a long-term concession of the City's water and sewer system
August 2012	Nine companies respond to the RFQ. Allentown qualifies seven respondents
November 1, 2012	Detailed draft agreement is structured as a RFB is issued
March 2013	Four of the seven qualified entities submit six bids
April 2, 2013	LCA is awarded the water and wastewater concession
July 2013	LCA issues tax-exempt and taxable revenue bonds to raise funds to enter into the agreement
August 7, 2013	Concession and related Financing Settlement; all contracts are signed and required documents are provided by Lease parties; Lease commences at midnight
March 2016	LCA claims Allentown provided inaccurate cost and revenue information during the process

Key Financial Features and Outcomes

While the contractual details of the arrangement are complicated, the conceptual framework is fairly simple. The City of Allentown granted LCA the right to operate the water and wastewater system for 50 years in exchange for an upfront payment of $211.3 million and an annual concession fee of $500,000. LCA is responsible for managing all aspects of the system, including customer service and billing. Both parties agreed to a long-term schedule of steady rate/revenue adjustments that were designed to recover the cost of the initial upfront payment, retirement of outstanding Allentown utility debt, and a series of initial capital investments. The concession documents also state the terms for additional rate adjustments that may be required to cover additional capital investments or unexpected events such as a sudden loss of a wholesale customer.[9] See Appendix A for schematics that describe the initial outlays and recurring expenditures associated with the agreement.

Allentown used the proceeds of the transaction to contribute $158 million to fund pension obligations[10] and to pay down $30 million in debt on the water and wastewater system so that the title was clear.[11] The remaining $23 million was used to cover the cost of the transaction, staff and equipment for a new stormwater department (since stormwater services had previously been provided by staff who moved over to LCA), and to fill other City staffing vacancies.[12]

LCA issued a series of bonds to meet its obligations to the City under the terms of the agreement. According to former LCA CEO Aurel Arndt,[13] the use of capital appreciation bonds ($44 million of the priced issue) was important because it allowed LCA to get the overall funding it needed while minimizing bond interest payments during the early years of the transaction. Use of capital appreciation bonds allowed scheduled rate increases to be lower in these early years than would otherwise have been possible. The bond offering included three series of bonds with a stated par of $307,684,000.

[8] Lehigh County Authority Water and Sewer Sale| InfraDeals "Project History". Infra-Deals.com.
[9] Allentown Water and Sewer Utility System Concession and Lease Agreement. 2013. http://www.allentownpa.gov/Portals/0/files/PublicWorks/Compliance/LCAConcessionLeaseAgrmt.pdf
[10] Burton, Paul. As Pension Woes Hover, Allentown Oks Water Deal. The Bond Buyer. April 26, 2013. http://www.bondbuyer.com/issues/122_81/allentown-pennsylvania-city-council-approves-220-million-water-sewer-deal-1051084-1.html
[11] LCA's Water Lease Agreement Explained. Lehigh County Authority. http://www.allentownpa.gov/Portals/0/files/PublicWorks/Compliance/LCAs%20Water%20lease%20agreement%20explained.pdf
[12] Aurel Arndt (Former Chief Executive, Lehigh County Authority), phone correspondence with author. March 09, 2016.
[13] Ibid.

Most of the bonds issued were tax-exempt with an effective interest rate of 5.4486 percent and an average life of 28.7 years. Approximately $18 million of the bonds were slated to seed operation and maintenance reserves and were issued as taxable securities. The taxable debt is retired first, which has the effect of minimizing the impact the taxable rate can have on the annual debt service requirement. In aggregate, the bonds were sold at a discount and resulted in $296,760,141 in proceeds. The table below shows the sources and uses of funds.

Table 3. Detailed sources and uses of LCA funds[14]

Sources:	
2013 Bond Proceeds (net of original issue discount[15])	$296,760,141
Uses:	
Upfront concession payment	$211,332,217
Capital improvement fund	$31,850,565
Debt service reserve fund	$28,090,273
Capitalization interest account	$3,450,000
Operations and maintenance reserve fund	$9,199,515
Major maintenance reserve fund	$7,500,000
Cost of issuance	$5,337,569
Total:	$296,760,141

The core cost recovery mechanism of the agreement rests on a long-term schedule of rate adjustments beginning in 2016 that includes a 2.5% adjustment (“margin change”) plus the annual change in the consumer price index for urban customers (CPI-U) for the first 20 years of the contract. Thereafter rates change based on a two percent margin change plus the CPI-U for the following 10 years.

The revenue from existing Allentown water and wastewater customers goes to LCA during the concession period (50 years) and is used to cover contractually-required future capital expenditures, operation and maintenance costs, an annual payment to the City and LCA’s debt service for the bonds it issued at the outset of the concession agreement. In the latter years of the concession, LCA is also required to begin depositing revenues into various funds to be used for future capital investments and other purposes.

A number of events could trigger additional rate increases beyond the indexed schedule. These include loss of a major wholesale customer, regulatory changes and “major capital expenditures” above preset limits and schedules. The agreement sets out a schedule for required capital investments. These costs are to be covered through the scheduled rate adjustments. For example, the agreement requires that LCA replace four miles of water lines each year. The agreement also specifies the cost recovery terms for additional “major capital improvements (MCI).” These improvements include adding capacity to the wastewater plant or new investments that exceed $1 million, adjusted for inflation. Under the agreement, LCA may pass these costs on to customers using the interest rate on LCA’s financing when MCI is financed from LCA debt, or LCA may use the same rate of return on equity allowed to investor-owned

[14] Arndt, Aurel. *Case Study - WIFIA Financing of a P3 Like Infrastructure Project.* Lecture, P-3 Connect: Defining the Future of P3 in the US. Denver, Colorado. July 29, 2014.

[15] While LCA’s total bond issuance was nearly $308 million, the proceeds were only $297 million because the bonds were sold at a discount, less than face value. The price for a bond sale will be less than the stated par amount when the bond issues’ weighted average coupon is less than the weighted average market yield.

utilities in Pennsylvania when MCI is financed from LCA revenues, which generally fluctuates between 7 and 11 percent over time depending on economic conditions.[16]

LCA also agreed to concession conditions that offered equivalent employment to every union employee of the system in good standing, approved a collective bargaining agreement for those employees, and accepted the union as the sole bargaining representative for union employees. Allentown was also able to select some employees as "key employees," and LCA was required to offer these employees, as well as any non-union operations employees, equivalent positions.[17] There were 10 to 15 employees not covered by either of these stipulations that LCA was obligated to interview but not hire (although LCA did end up hiring the majority of these workers).[18] Out of 100 existing Allentown workers, 84 chose to work for LCA. In addition, Allentown created a new compliance department that includes dedicated staff charged with managing and monitoring the concession contract. The department is funded through the payment of the annual concession fee so that it does not become a hidden, undocumented financial cost of the arrangement.[19]

Table 4. Project Risks for LCA, City of Allentown, and Ratepayers

Risk Category	Responsible Parties	Description
Operations and maintenance including costs associated with regulatory changes	LCA	LCA must follow a very detailed operations performance plan that encompasses wide variety of potential operating issues
	City of Allentown	Responsible for overseeing contract but otherwise has limited responsibility
	Ratepayers	Preapproved indexed retail rates and rate adjustments are designed to cover all operating costs. Other municipal customer rates are governed by separate municipal service agreements that generally provide LCA to pass on actual costs to wholesale customers.
Capital Needs	LCA	Responsibility for all capital improvements, including a set list of projects. Able to pass on costs related to Major Capital Improvements (>$1million, indexed) directly to ratepayers
	Ratepayers	Initial indexed retail rates and rate adjustments are designed to cover a relatively modest list of capital improvements. Future major capital improvements can be directly passed on to ratepayers
Revenue/Demand	LCA	LCA bears demand risk for any drop in retail sales since agreement is based on indexed rate increases, not revenue increases. LCA must absorb a portion of revenue loss linked to loss of municipal wholesale customers (up to 7 percent), after which ratepayers make up any drop in revenues over a three-year period.
	Ratepayers	Retail ratepayers are largely protected from having to meet revenue shortfalls due to retail demand drops but could absorb some risk if demand drops causing revenue loss to exceed 7%.
Financial/Debt	LCA	All debt for the system now rests with LCA. Under the agreement, LCA is allowed to recover a rate of return on any future capital investments but must decide how to finance those investments
	Ratepayers	Ratepayers carry responsibility for generating revenue to support existing LCA debt, but their contribution is limited to pre-set rate adjustment formulas
Catastrophic	LCA	Responsible for incurring costs related to catastrophic events but has authority to pass those on to customers
	Ratepayers	Ultimately the risk of carrying unforeseen catastrophic costs rests with ratepayers

[16] *Allentown Water and Sewer Utility System Concession and Lease Agreement.* City of Allentown and Lehigh County Authority. 2013. http://www.allentownpa.gov/Portals/0/files/PublicWorks/Compliance/LCAConcessionLeaseAgrmt.pdf

[17] Ibid.

[18] Arndt, Aurel. *Case Study - WIFIA Financing of a P3 Like Infrastructure Project.* Lecture, P-3 Connect: Defining the Future of P3 in the US. Denver, Colorado. July 29, 2014.

[19] McGimpsey, David. *How Allentown's Water Utility Saved the City with Mayor Ed Pawlowski.* The Water Values Podcast. http://www.thewatervalues.com/pod44

The arrangement had significant positive financial impacts for the City of Allentown. The City received a very large upfront payment that was used to pay off existing general government liabilities. The City also receives an annual payment commencing in 2016 (and indexed thereafter) that covers the management of the contract. Partially due to these benefits, the City's credit rating has improved since the transaction. Prior to the agreement, Standard & Poor's (S&P) assigned Allentown a BBB+ rating and stable outlook. As of February 19, 2015 (post-transaction), the City's S&P rating was upgraded from BBB+ to A+.[20] However, the new arrangement has put some financial restrictions on the City. Like many cities, prior to entering into the concession, the City of Allentown could use revenue collected by the utility to offset general city costs. For example, the utility was able to use water and wastewater revenues to cover stormwater services and to pay a portion of costs incurred in other City departments that may have indirectly supported utility services. Subsequent to entering into the agreement, the ability to make any annual direct or indirect transfers was lost beyond the $500,000 annual concession payment.

The impact on the system's water and wastewater customers is much more complex. Future rates are clearly laid out in the agreement, but it is impossible to accurately compare this outcome with what rates would have been if Allentown had not entered into the agreement. The agreement establishes a schedule of rate increases for retail customers according to the formula mentioned above. The Mayor of Allentown has repeatedly stated that he believes the rate increases under the concession agreement are reasonable and potentially lower than increases the City would have made. He cites recent increases over the previous 5 to 10 years that were actually higher than the indexed increases as evidence of the positive outcome.[21] The Mayor has also mentioned rate stability as a key benefit. However, future rate adjustments beyond the indexed increases are a risk given the terms of the contract, which state that future "major capital improvements" beyond a relatively short list can trigger cost recovery adjustments. One factor that has seemingly had a positive impact on the utility's customers (and an adverse impact on LCA) is continued low inflation rates, which have, to date, resulted in only small rate increases because the rate schedule is based on the CPI-U. According to Aurel Arndt, LCA modeled a variety of inflation scenarios in their projections, but did not expect that the CPI-U rate would be as low as it has been at the outset of the contract period.[22]

LCA was particularly willing to bid on the Allentown concession because Allentown's rates were relatively low compared to other rates in the area. LCA believed these original rates were not pushing the limits of affordability, and so the Allentown system represented an opportunity to generate future revenues in a way that may not be an option in many other systems.[23] LCA was clear that it was passing all the costs of the transaction on to customers, including the financing costs associated with raising the funds that went to non-utility purposes (i.e., pension funds). This, in effect, passes along the City's future pension liabilities as additional costs to system customers. At the same time, LCA believed that it could produce significant operational cost savings by running Allentown's system more efficiently.[24] The impact on taxpayers vs. ratepayers is complicated because many, but not all, of Allentown's water system ratepayers are also taxpayers. Conceptually, the impact of this arrangement appears as a net positive for the average family in Allentown, as most families saw extra costs on their utility bill, but a potentially larger general government financial burden was removed from their future tax bill. In addition, the project contributed to Allentown's stronger credit rating, which lowers current borrowing costs. The ultimate cost benefit ratio will depend on the combined tax and rate impact. It is clear that ratepayers who are not also taxpayers have less of a direct benefit from this arrangement. However, the impact to these ratepayers is tempered by the fact that none of this analysis takes into account the avoided potential consequences to the entire region if the City of Allentown had suffered catastrophic financial problems.

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[20] Kraft, Randy. *Standard and Poor's gives Allentown an upgraded A+ rating.* Lehigh Valley News. February 19, 2015. http://www.wfmz.com/news/news-regional-lehighvalley/Local/standard-and-poors-gives-allentown-an-upgraded-a-rating/31354928

[21] McGimpsey, David. *How Allentown's Water Utility Saved the City with Mayor Ed Pawlowski.* The Water Values Podcast. http://www.thewatervalues.com/pod44

[22] Aurel Arndt (Former Chief Executive, Lehigh County Authority), phone correspondence with author. March 09, 2016.

[23] Ibid.

[24] Ibid.

"For us it also was a stabilizing effect. It took that aspect out of politics, put it into the realm of contractual agreement, which I think is beneficial for our ratepayers … and gives them more stability in predicting rates for year-to-year-to-year to come in the future."

- Ed Pawlowski, Mayor of Allentown[25]

The impact on LCA and their customers is also complicated. LCA now benefits from a larger, more diverse customer base. And as a previous customer of the Allentown system, LCA has more control over the water and wastewater treatment plants that serve them because of the agreement. Allentown also provided water and wastewater service to other communities through service agreements, which with their pricing terms effectively transferred to LCA at the time the concession was signed. Most of these agreements allow LCA to recover documented operational costs and a cost-driven supplemental revenue.

In early 2016, LCA claimed that the documentation that the City prepared outlining the costs and revenues associated with serving the system's suburban customers were inaccurate. The claim indicates this arrangement has a potentially negative financial impact for LCA when compared to prior expectations. At the time this document was written, it remains to be seen how the disagreement will be resolved.

From a strict water and wastewater delivery perspective, this arrangement has resulted in a more integrated utility, effectively consolidating (at least for the next 50 years) the operations of two utilities into one system. Initial progress in identifying economies of scale has been positive.[26] In addition, this arrangement allowed a local government in financially difficult circumstances to leverage the equity it had in its water and wastewater assets to address financial challenges.

[25] McGimpsey, David. *How Allentown's Water Utility Saved the City with Mayor Ed Pawlowski.* The Water Values Podcast. http://www.thewatervalues.com/pod44

[26] Aurel Arndt (Former Chief Executive, Lehigh County Authority), phone correspondence with author. March 09, 2016.

Appendix A. Simplified Project Financial Flows

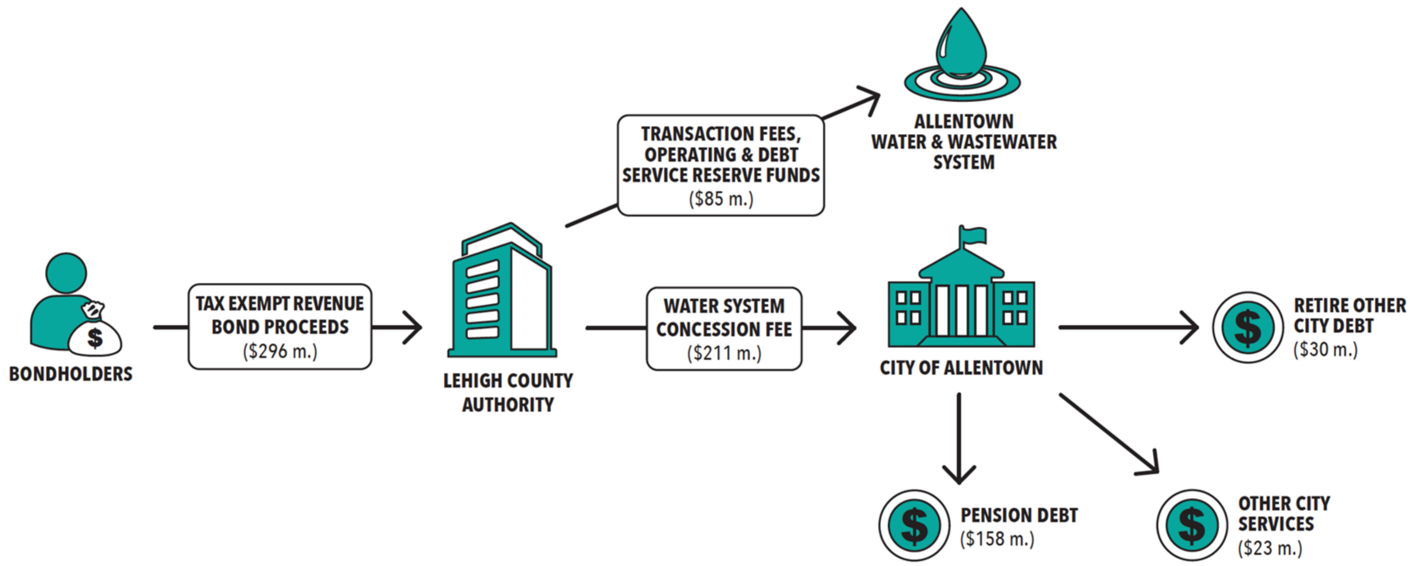

Figure 1. Flow of Initial Project Outlays

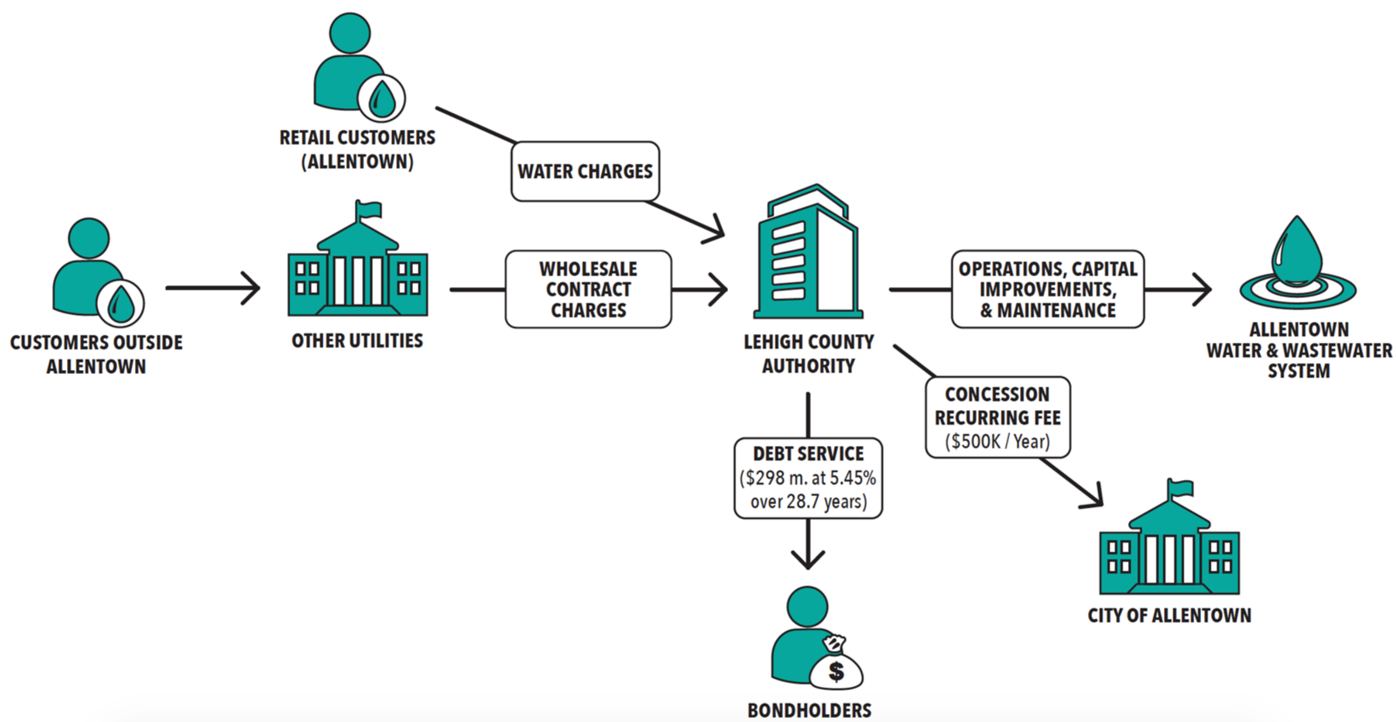

Figure 2. Recurring Financial Flows

Acknowledgements
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Cover photo from WFMZ: http://www.wfmz.com/news/news-regional-lehighvalley/Local/lca-officially-assumes-control-of-allentowns-water-sewer-systems/21391660

† Jeff Hughes is a member of the United States Environmental Protection Agency's Environmental Finance Advisory Board.

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The Environmental Finance Center at the University of North Carolina, Chapel Hill is part of a network of university-based centers that work on environmental issues, including water resources, solid waste management, energy, and land conservation. The EFC at UNC partners with organizations across the United States to assist communities, provide training and policy analysis services, and disseminate tools and research on a variety of environmental finance and policy topics.

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About the Water Infrastructure Resiliency Finance Center
The Water Infrastructure and Resiliency Finance Center identifies financing approaches to help communities make better informed decisions for drinking water, wastewater, and stormwater infrastructure that are consistent with local needs.
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