

January 13, 2025

Greg Wilson  
City Manager  
City of Lock Haven  
20 E. Church Street  
Lock Haven, PA 17745

**Subject: City of Lock Haven's new water rates and customer bill impacts**

Dear Mr. Wilson:

As you know, Raftelis Financial Consultants, Inc. ("Raftelis") completed a water rate study for the City of Lock Haven ("City") in 2023 and, as the date of this letter, continues to assist the City with its ongoing rate case with the Pennsylvania Public Utilities Commission ("PUC"). Based on the City's objectives for the rate study, Raftelis recommended specific changes to the City's water rate structure and these changes have been reflected in the water rates that have been agreed to by the PUC. Therefore, the purpose of this letter is to document the recommended changes to the City's water rate structure, explain the rationale for the changes, and summarize the bill impact on the average customer within each customer class.

The City's existing water rates are comprised of class based quarterly minimum charges with consumption allowances, along with multi-tier volumetric rates, which also differ by customer class. For example, the residential volumetric rates have a six-tier inclining/declining block rate structure, while the commercial/industrial, educational, and public health classes each have a five-tier declining block rate structure. The quarterly minimum charges differ based on water meter size, with customers with larger water meters paying a higher minimum charge than those with smaller meters. The City's existing water rates are included as Attachment 1 to this letter.

The changes to the City's water rate structure were recommended by Raftelis to accomplish three main pricing objectives. The objectives were identified by the City at the start of the rate study.

1. Improve rate equity by better aligning the water rates with cost of service results so that cross class subsidies are reduced and the rates for each customer class are designed to recover the estimated cost to serve each customer class.
2. Improve the affordability of water service for the average residential customer.
3. Improve the water rates' orientation toward conservation.

To meet these objectives, Raftelis completed a cost of service evaluation to estimate the cost to serve each of the City's major customer classes (residential, commercial/industrial, educational, and public health). Next, fixed quarterly service charges and volumetric rates were designed to better align the rates with cost of service results and to improve the affordability for residential customers. The existing minimum charges were eliminated and replaced with fixed quarterly service charges that varied by meter size. The service charges do not include consumption allowances and are the same for each customer class. The charges were designed to recover customer billing related costs and a portion of the system's fixed capacity costs. Therefore, a portion of the service charges were scaled based on the relative flow capacities of the various meters that have been or may be installed by the City (5/8" through 12").

Individual volumetric rates were then calculated for each class such that the annual revenues projected to be recovered from each class would approximate the estimated cost to serve each class. To improve affordability for the average residential customer, Raftelis designed a two-tier inclining block rate structure for residential customers. The first tier (0 to 12,000 gallons per quarter) would serve as an essential water use rate, with the width of the tier designed to approximate the quarterly indoor water use of a typical household. A discounted unit rate was then calculated for this tier to help reduce customer bills. The unit rate to be applied to consumption in the second tier was designed to be higher to generate sufficient revenues to offset lost revenues within the first tier and recover the annual cost to serve the residential customer class. The water rates under this rate structure alternative have been agreed to by the PUC and are included as Attachment 2 to this letter.

The new rate structure will also include a quarterly PENNVEST (“PV”) Surcharge. The purpose of the PV Surcharge is to recover the debt service costs associated with PENNVEST loans that have been and will be taken out by the City to fund water system capital projects. The surcharge was designed to be assessed based on the customer’s water meter size, with customers with larger water meters paying a higher surcharge than customers with smaller meters. The rationale for designing the surcharge to vary by meter size is generally the same as the rationale for scaling a portion of the fixed quarterly service charge. In other words, the purpose of the surcharge is to pay for water system capital projects and the system’s capital assets are generally designed to meet the current and future capacity needs of the system; therefore, those that have the highest potential capacity demands (customers with larger water meters) should pay proportionately more than customers with lower potential capacity demands (customers with smaller water meters).

Quarterly bill impacts for an average customer within each customer class are provided in Table 1. A summary of the changes is provided in the following paragraphs. Note that the new water rates reflect two changes.

1. The first change is the structure of the rates.
2. The second change is the amount of revenue to be recovered by the rates.
  - a. For example, excluding the PV Surcharge, the new rates are projected to provide \$552,254 in additional revenue.
  - b. The PV Surcharge is projected to provide \$151,765 in additional revenue.
  - c. On a combined basis, the new rates and PV Surcharge are projected to provide \$704,019 in additional revenue.

**Table 1. Change in Quarterly Water Bill for the Average Customer within each Customer Class**

<b>Customer Class</b>	<b>Quarterly Bill Existing Rates</b>	<b>Quarterly Bill New Rates</b>	<b>\$ Difference</b>	<b>% Difference</b>
<b>Residential</b>	\$100.46	\$90.42	-\$10.04	-10.0%
<b>Commercial</b>	\$260.72	\$312.13	\$51.41	19.7%
<b>Education</b>	\$767.97	\$1,202.61	\$434.64	56.6%
<b>Public Health</b>	\$332.41	\$425.02	\$92.60	27.9%

Residential:

- The average residential customer was assumed to have a 5/8-inch water meter and use 13,500 gallons of water per quarter. The quarterly bill under the City’s existing water rates was calculated to be \$100.46, while the quarterly bill under the City’s new water rates was calculated to be \$90.42. This is a

decrease of \$10.04, or 10.0 percent, per quarter. The decrease reflects the lower quarterly service charge as compared to the existing minimum charge (\$46.16 versus \$51.40) and lower volumetric charges under the discounted essential water use rate, net of the new PV Surcharge (\$9.06).

Commercial:

- The average commercial customer was assumed to have a 1-inch water meter and consume 47,300 gallons per quarter. The quarterly bill under the City's existing water rates was calculated to be \$260.72, while the quarterly bill under the City's new water rates was calculated to be \$312.13. This is an increase of \$51.41, or 19.7 percent, per quarter. In general, the increase reflects an increase in the new quarterly service charge as compared to the existing minimum charge (\$101.21 as compared to \$71.00), the assessment of the PV Surcharge (\$22.65), and the elimination of the volumetric allowance.

Educational:

- The average educational customer was assumed to have a 1-inch water meter and consume 244,200 gallons per quarter. The quarterly bill under the City's existing water rates was calculated to be \$767.97, while the quarterly bill under the City's new water rates was calculated to be \$1,202.61. This is an increase of \$434.64, or 56.6 percent, per quarter. In general, the increase reflects an increase in the new quarterly service charge as compared to the existing minimum charge (\$101.21 as compared to \$72.50), the assessment of the PV Surcharge (\$22.65), and additional volumetric charges due to the elimination of the declining block rate structure and transition to a uniform volume rate.

Public Health:

- The average public health customer was assumed to have a 1-inch water meter and use 78,200 gallons per quarter. The quarterly bill under the City's existing water rates was calculated to be \$332.41, while the quarterly bill under the City's new water rates was calculated to be \$425.02. This is an increase of \$92.60, or 27.9 percent, per quarter. In general, the increase reflects an increase in the new quarterly service charge as compared to the existing minimum charge (\$101.21 versus \$66.00), the assessment of the PV Surcharge (\$22.65), and additional volume charges due to the elimination of the declining block rate structure and transition to a uniform volume rate.

We appreciate the opportunity to assist the City with the execution of its water rate pricing objectives, to advise the City on the implementation of these changes to its water rates, and to assist with its current rate case with the PUC. If you have any questions about the information contained in this letter, please feel free to contact me directly at 704.771.3998 or [rcrealey@raftelis.com](mailto:rcrealey@raftelis.com).

Sincerely,



**Rocky Craley**  
*Vice President*

## Attachment 1 - City of Lock Haven Existing Water Rates

Description	Existing Water Rates
<b>RESIDENTIAL:</b>	
<i>Quarterly Minimum-</i>	
5/8" or 3/4"	\$51.40
1"	\$61.90
1-1/4"	\$71.25
1-1/2"	\$81.95
2"	\$103.70
3"	\$116.00
4"	\$164.00
6"	\$217.90
8"	\$348.25
10"	\$436.50
12"	\$604.00
<i>Rate per 1,000 gal.-</i>	
0-2,000	\$0.00
Next 2,000	\$4.16
Next 21,000	\$4.28
Next 35,000	\$3.45
Next 140,000	\$2.30
Next 2,800,000	\$1.57
Over 3,000,000	\$1.26

Description	Existing Water Rates
<b>COMMERCIAL/INDUSTRIAL:</b>	
<i>Quarterly Minimum-</i>	
5/8" or 3/4"	\$63.90
1"	\$71.00
1-1/4"	\$81.65
1-1/2"	\$94.00
2"	\$119.00
3"	\$133.00
4"	\$188.00
6"	\$250.00
8"	\$400.00
10"	\$500.00
12"	\$692.00
<i>Rate per 1,000 gal.-</i>	
0-4,000	\$0.00
Next 21,000	\$4.88
Next 35,000	\$3.91
Next 140,000	\$2.60
Next 2,800,000	\$1.78
Over 3,000,000	\$1.42

Description	Existing Water Rates
<b>EDUCATIONAL:</b>	
5/8" or 3/4"	\$65.25
1"	\$72.50
1-1/4"	\$84.00
1-1/2"	\$96.00
2"	\$121.00
3"	\$136.00
4"	\$192.00
6"	\$256.00
8"	\$408.00
10"	\$511.00
12"	\$707.00
<i>Rate per 1,000 gal.-</i>	
0-4,000	\$0.00
Next 21,000	\$4.99
Next 35,000	\$3.99
Next 140,000	\$2.65
Next 2,800,000	\$1.81
Over 3,000,000	\$1.45

Description	Existing Water Rates
<b>PUBLIC HEALTH:</b>	
<i>Quarterly Minimum-</i>	
5/8" or 3/4"	\$59.40
1"	\$66.00
1-1/4"	\$76.00
1-1/2"	\$87.00
2"	\$110.00
3"	\$124.00
4"	\$175.00
6"	\$233.00
8"	\$371.00
10"	\$465.00
12"	\$644.00
<i>Rate per 1,000 gal.-</i>	
0-4,000	\$0.00
Next 21,000	\$4.54
Next 35,000	\$3.63
Next 140,000	\$2.42
Next 2,800,000	\$1.65
Over 3,000,000	\$1.32

## Attachment 2 - City of Lock Haven New Water Rates

Description	New Water Rates
<b>RESIDENTIAL:</b>	
<i>Quarterly Service Charge-</i>	
5/8" or 3/4"	\$46.16
1"	\$101.21
1-1/4"	\$147.09
1-1/2"	\$192.97
2"	\$303.07
3"	\$651.73
4"	\$1,165.55
6"	\$2,395.03
8"	\$5,147.61
10"	\$7,716.69
12"	\$9,735.24
<i>Rate per 1,000 gal.-</i>	
0-12,000	\$2.34
Over 12,000	\$4.68

Description	New Water Rates
<b>COMMERCIAL/INDUSTRIAL:</b>	
<i>Quarterly Service Charge-</i>	
5/8" or 3/4"	\$46.16
1"	\$101.21
1-1/4"	\$147.09
1-1/2"	\$192.97
2"	\$303.07
3"	\$651.73
4"	\$1,165.55
6"	\$2,395.03
8"	\$5,147.61
10"	\$7,716.69
12"	\$9,735.24
<i>Rate per 1,000 gal.-</i>	
All	\$3.98

Description	New Water Rates
<b>PUBLIC HEALTH:</b>	
<i>Quarterly Service Charge-</i>	
5/8" or 3/4"	\$46.16
1"	\$101.21
1-1/4"	\$147.09
1-1/2"	\$192.97
2"	\$303.07
3"	\$651.73
4"	\$1,165.55
6"	\$2,395.03
8"	\$5,147.61
10"	\$7,716.69
12"	\$9,735.24
<i>Rate per 1,000 gal.-</i>	
All	\$3.85

Description	New Water Rates
<b>EDUCATIONAL:</b>	
<i>Quarterly Service Charge-</i>	
5/8" or 3/4"	\$46.16
1"	\$101.21
1-1/4"	\$147.09
1-1/2"	\$192.97
2"	\$303.07
3"	\$651.73
4"	\$1,165.55
6"	\$2,395.03
8"	\$5,147.61
10"	\$7,716.69
12"	\$9,735.24
<i>Rate per 1,000 gal.-</i>	
All	\$4.42

Description	New Water Rates
<u>QUARTERLY PENNVEST SURCHARGE:</u>	
5/8" or 3/4"	\$9.06
1"	\$22.65
1-1/4"	\$33.98
1-1/2"	\$45.30
2"	\$72.48
3"	\$158.56
4"	\$285.41
6"	\$588.94
8"	\$1,268.48
10"	\$1,902.73
12"	\$2,401.06