

LINCOLN BOARD OF SELECTMEN'S

PUBLIC BOND HEARING

MEETING MINUTES

FEBRUARY 4, 2021 – 5:00PM

LINCOLN TOWN HALL - 148 MAIN STREET, LINCOLN, NH

(THE RECORDING OF THIS MEETING CAN BE FOUND ON YOUTUBE)

APPROVED

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**Board of Selectmen Present via Zoom:** Chairman OJ Robinson, Vice Chair, Tamra Ham, and Selectman Jayne Ludwig

**Budget Committee Members Present via Zoom:** Tracy Brumlik, Lutz Wallem, Susan Chenard, Dennis Ducharme, Cindy Lloyd, Mike Simon, Paul Beaudin, Jack Daly, Al Poulin, Jim Spanos, and Ray D'Amante

**Staff Present via Zoom:** Town Manager Burbank, Fire Chief, Ron Beard, Finance Director, Johnna Hart, Police Chief, Chad Morris, Sergeant Mike Steven, and Administrative Assistant Jane Leslie.

**Public Present via Zoom Video Conferencing:** Dave Beaudin, Chet Yacek

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**I. CALL TO ORDER**

Chairman Robinson called the Selectmen's meeting to order at 5:05 pm.

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**II. PUBLIC HEARING – WATER METER BOND ISSUE**

***“The issuance of a bond in the amount of \$1,600,000. This bond amount will be used for purchase and installation of water meters throughout the Town of Lincoln.”***

Chairman Robinson opened up the Selectmen's meeting and explained that they are meeting tonight to hold a public hearing to discuss the \$1.6M Water Meter Bond article. Robinson explained that the Budget Committee voted during their last meeting to *not recommend* this article, and they will be taking a final vote tonight after the Budget Committee's Public Hearing (and then prepare to hand over the final budget for Town Meeting).

Budget Committee Chairman, Mike Simon commented on the *10% limitation* and noted that even if the Budget Committee does *not recommend* a bond article, the legislative body of any municipality may approve a bond request despite the 10% limitation. Robinson responded that he was not aware of this, and thanked Chairman Simon for sharing this information.

**The 10% Limitation:**

*In towns with an official budget committee, the total amount appropriated by the meeting, including amounts appropriated in separate and special warrant articles, cannot exceed the total recommended by the budget committee by more than 10 percent. RSA 32:18. The 10 percent calculation is computed on the total amount recommended by the budget committee (including separate warrant articles), less that part of any appropriation item which constitutes “fixed charges.” Fixed charges include appropriations for principal and interest payments on bonds and notes, as well as mandatory assessments imposed on towns by the county, state or federal governments.*

***Exceptions to the 10% Limitation:*** *Vote to override, RSA 32:18-a. If a warrant article for a bond is not recommended in its entirety by the budget committee, the governing body may vote to place the article on the warrant with the phrase “passage of this article shall override the 10 percent limitation imposed on this appropriation due to the non-recommendation of the budget committee.”*

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Robinson summarized the history of water meters over the years, and detailed the work that the Water Committee has done in recent months discussing the various water issues, as well as compiling information on various rate structures and water meters. Robinson explained that the Water Committee did eventually vote to recommend the purchase and installation of water meters, as well as *Option 2* from the Raftelis Water Rate Structure study (*see attached*). Robinson discussed the conservation and ecological benefits of metering water, as well as how conservation efforts prolong the sustainability of the water and sewer infrastructure.

Selectman Ham added that water meters are important for several reasons: (1) conservation (for water resources and sewer infrastructure), and, (2) will enable the town to qualify for water/sewer grants. Ham feels it is imperative that the town implement water meters and begin charging for water usage.

Selectman Ludwig commented that she supports water meters for the future of the town, particularly in light of all of the building that has taken place over the course of her tenure (6-years) as Selectman. Ludwig feels that if the town allows the continued growth, they must be prepared to sustain this growth.

**MOTION: “To open up the Public Bond Hearing.”**

**Motion: OJ Robinson**

**Second: Tamra Ham**

**All in favor.**

**Public Participation**

Budget Committee member, Cindy Lloyd asked if someone could explain the current water supply, and where the town stands as far as the current “demand” for water resources, and how conservation can extend this. Town Manager Burnbank deferred to Water Plant Operator, Dave Beaudin to respond to this question. Dave explained that the town currently has the capacity to make 1.75M gallons of water per day. At the present time, they are making between 500k-800k gallons a day, and noted that the capacity is there to make water, however, the issue is during peak season (busy times) when they are up over 1M-1.2M gallons and growing (during normal, non-Covid times). As an example, Beaudin explained that this past January he made 20-million gallons for the entire town, and two-years ago, the month of January was up to 22 million gallons. Beaudin explained that the capacity is there, but the resource (water) is really what’s driving this, and you need to have water availability in the first place. Beaudin further explained that if the town is going to continue to allow building and expansion, they are going to have to implement water meters.

Budget Committee member, Jack Daly commented that he strongly believes in the water conservation factor, and understands that the town will be eligible for grants once they begin *charging* for water (without water meters). Daly noted that he is a firm believer in charging for water usage, however, he does not believe the town should be spending \$2M on the installation of water meters. Daly pointed out that this past summer when the town asked the community to conserve on water due to the drought conditions, the gallonage went down by 100k gallons. Daly suggested beginning this process by educating the community and charging customers a flat rate of \$100 per year which could consequently be dedicated to the water system and infrastructure improvements.

There was a brief discussion on various rate structures, and Chairman Robinson reviewed the Raftelis *option 2* from the proposed rate structure analysis (*see attached*). Selectman Ham explained that the water and sewer budgets will come out of the general fund (sewer = \$0.31 per \$1,000; water = \$0.48 per \$1,000). Robinson clarified that the water rates are designed to raise \$1.3M per year, which should fully cover the water operating budget; sewer operating budget, the water capital reserve budget, and the sewer capital reserve budget (along with the bond payment). Robinson went on to explain that if you take \$100 per

meter, this will be \$900k less than what the water meters per *option 2* are going to raise, and that amount would remain within the regular operating budget. Robinson further explained that regardless of whether or not the water meters pass, the water/sewer operating budgets and water/sewer capital reserve budgets are projected to be in the \$1.3M range annually over the course of the next five (5) years, and the water rates are designed to raise this amount of money, therefore, if \$400k is deducted (if charging \$100 flat rate charge per water meter) the remaining balance will remain in the budget because the \$100 does not cover all of the expenses. Selectman Ham pointed out that the \$100 per household (\$400k) does *not* qualify the town for any grant programs which is the problem that Woodstock ran into because they were not charging an adequate amount of money to cover their water expenses.

Budget Committee member, Dennis Ducharme commented that he understands the importance of charging for water, as this will pay the water and sewer departments, and subsequently reduce property taxes. More importantly Ducharme noted, is that the town's ability to be grant-eligible will enable substantial financial savings for the town's major projects in the future (e.g., water/sewer treatment plants).

Budget Committee member, Cindy Lloyd asked for clarification on the process for rate increases, and mentioned that some people have expressed concerns over the Board of Selectmen's level of transparency, and whether or not public hearings would be held prior to any changes being implemented. Robinson responded that the way that they currently charge for water is by putting together a water and sewer budget, and capital reserve budget which is then submitted to the Budget Committee, and then to the Town where it is vetted, questioned, and ultimately voted upon. Robinson explained that if they charge for water, it would be up to the Selectmen to set the rate, which would be done through a similar process that would include public hearings prior to any changes.

Budget Committee member, Paul Beaudin asked if the town would be metering and charging the school for their water (and sewer) usage, as well as the Kanc Rec and other combined facilities. Robinson responded that this would be a Board of Selectmen's decision that he would want public input on. Paul referenced the Raftelis study which indicated that within the first five (5) years there would be multiple increases/rate changes. Paul also asked if the labor and/or employee costs that are involved with implementing and maintaining the water meters and a billing system were included in the Raftelis study, and if Town Hall staff would be overseeing the administrative billing and record keeping. Robinson responded that he was not certain if these costs were a consideration or not in the Raftelis report, and he was not certain at this point who would be physically sending out the bills (either current staff or contracting out to a third-party). Paul explained that he is in favor of implementing water meters, however, he is concerned with the adjustments and the billing, as well as the fixed charges versus the volumetric charges that will be regulated by the Board of Selectmen. Paul noted that if the volume that households are using goes down, the fixed costs will either stay the same or rise, and if there is not enough money to cover the fixed costs, the town will have to figure out where to pull the money from.

Robinson responded to the comments that the Selectmen can *freely* regulate the water rates, and clarified that they need to raise \$1.35M a year regardless, and the board is taking their best guess as to a rate structure that will accomplish this. Robinson noted that hopefully as water is conserved, the water usage will go down, and if the targeted revenue comes in lower than anticipated, the board will then have to make adjustments. Robinson noted that on the other hand, if they over-estimate and bring in above the \$1.35M annually, that money cannot be spent on random items, but rather *must* be earmarked for water and sewer as appropriated at Town Meeting.

Paul Beaudin commented that he feels that the town should have a designated Water Commission that acts as an independent board comprised of business owners, taxpayers, and some administration members.

Paul noted that with a Water Commission in place, he would more prone to fully supporting this endeavor.

Budget Committee member, Ray D'Amante asked if the town has a requirement that each household certifies how many bathrooms are within the home? Robinson responded that this is supposed to be done during the assessing process (revaluation) which is currently taking place now, and noted that pre-Covid, the assessors would go into the home to conduct an interior site visit, however, they are currently doing this over the telephone with the property owners. Ray D'Amante commented that he was concerned with the short-term rental units that have 6-7 + bathrooms, and questioned whether or not there was a way to send short-term rental properties an inquiry to confirm the number of bathrooms within the home. There was a brief discussion on determining whether or not property owners are being honest when speaking with assessors over the phone, and Robinson responded that we have to take the homeowner at their word until such time the assessors are able to conduct an actual visual site visit.

Water Plant Operator, Dave Beaudin commented that now that short-term rental properties are required to register with the town, the town should have an idea of how many rooms/bathrooms are in the home, as the registration process enables the town's Compliance Officer to inspect the rental property and ensure that the fire codes are current. Dave also commented on Paul Beaudin's remarks about implementing a Water Commission, and noted that Water Commission's are comprised of elected officials that do not have to answer to the town, and are regulated by the Utilities Commission and set their own rates. Paul Beaudin disagreed, and feels that a water and sewer commission will be very beneficial to the town.

Budget Chairman, Mike Simons asked if there was an overwhelming consensus on the Water Committee vote for *option 2* of the rate structure study, and questioned if there was, why then would they change this if it has already been settled. Robinson responded that there was an overwhelmingly vote for *option 2*, and if this article passes, this would be the option that is adopted. Robinson noted that the question remains, do they elect three (3) officials to a Water Commission, or allow the current three (3) elected officials to oversee it. Mike responded that it is his viewpoint to *not* have a Water Commission, as he feels this would add a new level of complications and opinions that would not fall under the purview of the town, and he has complete trust in the Selectmen overseeing this process, however, he also supports the continuation of the Water Committee.

Budget Committee member, Jim Spanos asked what happens if a homeowner refuses access to the water meter installers due to the current Covid situation. Selectman Ham responded that this is a valid question that the board cannot answer at this time.

**MOTION: "To close the Public Hearing."**

**Motion: Tamra Ham**

**Second: Jayne Ludwig**

**All in favor.**

Public Hearing closed at 6:17 pm

Chairman Robinson asked the Selectmen if they were in support of putting this article on the town warrant with the preface that the Budget Committee did *not recommend* this (unless the Budget Committee changes their vote) and to add the verbiage that *this will override the 10% limitation* rule. Selectman Ham was in favor of putting this article on the warrant, and appealed to the Budget Committee to please reconsider their vote tonight during their public hearing.

***"The issuance of a bond in the amount of \$1,600,000. This bond amount will be used for purchase and installation of water meters throughout the Town of Lincoln."***

**MOTION: "To put the Water Meter Bond article on the town warrant with the preface that the Budget Committee did *not recommend* this (unless the Budget Committee changes their vote) and to add the verbiage that *this will override the 10% limitation rule.*"**

**Motion: Tamra Ham**

**Second: Jayne Ludwig**

**All in favor.**

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### **III. ADJOURNMENT**

With no further business to attend to, the Board made the following motion and turned the meeting over to Budget Committee Chairman, Mike Simon:

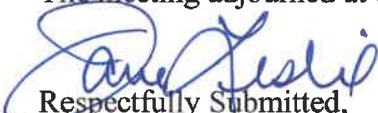
**MOTION: "To adjourn."**

**Motion: OJ Robinson**

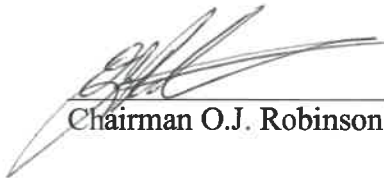
**Second: Tamra Ham**

**All in favor.**

The meeting adjourned at 6:19 p.m.

  
Respectfully Submitted,  
Jane Leslie

Approval Date: February 12, 2021

  
Chairman O.J. Robinson

  
Tamra Ham

  
Jayne Ludwig



# MEMO

**To:** Lincoln Water and Sewer Commissioners  
**From:** Dave Fox, Manager, Raftelis  
**Date:** May 8, 2020  
**Re:** Water and Sewer Rate Study – Preliminary Results

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## Introduction

Raftelis Financial Consultants, Inc. (Raftelis) was engaged by the Town of Lincoln, New Hampshire (Town or Lincoln) to conduct a Water and Sewer Rate Study in order to assess the financial situation of the Town's Water and Sewer utilities, and to develop water and sewer rates and subsequent customer impacts of changing the Town's existing methodology for billing water and sewer. This memo will serve as a project update as to the work that we have completed, assumptions made, and the analyses that we have completed thus far. Raftelis has developed a Rate and Financial Model that projects revenue and revenue requirements to fiscal year (FY) 2050, as well as an affordability dashboard that calculates the financial burden of customers who fall into the lowest quintile, or the bottom 20% of the range of household incomes in the Town, and median household income brackets.

## Data Collected and Model Assumptions

When designing new water and sewer rates for the Town, Raftelis received relevant information that aided in calculating new rates, which included revenue requirements, Capital Improvement Plans (CIP), and the number of accounts in the Town. Our findings and calculations, as well as assumptions made to complete the calculations, are outlined below.

### Revenue Requirements

Raftelis received information regarding the annual revenue requirements for the Town, starting with FY 2016 to FY 2019. To project the future revenue requirements of the Town, Raftelis assumed a 3% increase per year for total revenue requirements, which is consistent with the national standard of inflation.

The CIP for the Town consists of several For CIP and financing, it was assumed that the repayment period for all proposed debts would be a 20-year period, with a 2-4% interest rate, depending on the source of the loan to fund capital projects. Revenue-backed loans for all water- and sewer-related capital projects were assumed to take on a 4% interest rate, while state-revolving fund loans for water and sewer capital projects were assumed to take on a 2% interest rate.

Existing debt service payments were logged into the model based on the debt service information received by Raftelis from the Town. We assumed the debt schedule would be paid in full each year from FY 2020 and beyond based on each issuances repayment schedule.

After establishing these assumptions, Raftelis forecasted the revenue requirements for each year until FY 2050. Although our model is forecasted 30 years, we focused our attention on the first five. The next five projected fiscal years of estimated revenue requirements can be seen in Table 1.

*Table 1. Forecasted Revenue Requirements, FY 2021 - FY 2025*

	FY 2021 <i>Projected</i>	FY 2022 <i>Projected</i>	FY 2023 <i>Projected</i>	FY 2024 <i>Projected</i>	FY 2025 <i>Projected</i>
<b>Water Cashflow</b>					
<u>Revenue Requirements</u>					
Operating Expenses	\$ 382,704	\$ 394,185	\$ 419,510	\$ 418,191	\$ 430,736
Existing Debt Service	223,220	125,638	104,900	-	-
Proposed Debt Service	-	36,694	36,694	36,694	36,694
Cash-Funded (PAYGO)	200,000	216,000	216,000	212,000	206,000
<i>Subtotal: Water Revenue Requirements</i>	<i>\$ 805,924</i>	<i>\$ 772,516</i>	<i>\$ 777,104</i>	<i>\$ 666,885</i>	<i>\$ 673,430</i>
<b>Sewer Cashflow</b>					
<u>Revenue Requirements</u>					
Operating Expenses	\$ 265,490	\$ 273,455	\$ 281,659	\$ 290,108	\$ 298,812
Existing Debt Service	-	-	-	-	-
Proposed Debt Service	-	36,694	36,694	36,694	36,694
Cash-Funded (PAYGO)	285,000	285,000	135,000	135,000	120,000
<i>Subtotal: Sewer Revenue Requirements</i>	<i>\$ 550,490</i>	<i>\$ 595,149</i>	<i>\$ 453,353</i>	<i>\$ 461,802</i>	<i>\$ 455,506</i>
<b>Total: Water &amp; Sewer Revenue Requirements</b>	<b>\$ 1,356,414</b>	<b>\$ 1,367,665</b>	<b>\$ 1,230,457</b>	<b>\$ 1,128,687</b>	<b>\$ 1,128,936</b>

## Revenues

Raftelis used the projected revenue requirements to construct water and sewer rates to fully recover the projected revenue requirement from FY 2021 for both water and sewer and apply these rates to future fiscal years. To calculate the financial potential of generating revenues from water and sewer rates, we made several assumptions regarding water consumption, the number of water accounts, and the structure of both volumetric and fixed charges for water and sewer. Fire charges were not included in this study, as it was assumed that public and private fire charges would not be used to recover the projected revenue requirements.

The first assumption made was that the billing cycles for the Town would be on a quarterly basis; customers would be billed every three months for their water and sewer consumption. Since the Town has not read meters for ten years, making previous consumption data relatively unreliable, we assumed that each year, the Town of Lincoln would consume 192,136 thousand gallons (Kgals), or 192,136,000 gallons of water. This number was contrived from a recent pumping study performed for the Town. The study looked at seasonal water production, which yielded the water consumption assumption of 192,136 Kgals, as the study served as a reasonable estimate for customer water consumption. We also assumed that there were approximately 3600 active water and sewer accounts. Each individual customer account represented a water and sewer account.

When designing the water and sewer rates for the Town, we assumed both fixed and volumetric charges for water and sewer for all utility customers. Fixed charges are flat charges that are the same every quarter for a customer and are to help fund the costs associated with meter repairs, replacements, maintenance, and billing. Volumetric charges are charges based on water consumption. We made several assumptions when establishing water and sewer rates for the Town, which include:

- Billed sewer consumption would be based on billed water consumption. This assumption is in line with many billing practices of other municipalities: other municipalities bill sewer consumption as a portion of or equal to metered water consumption.
- 20% of revenues generated from the established rates would come from fixed charges, while the remaining 80% of revenues would come from volumetric charges. This is for revenue stability purposes, as the portion of revenue coming from fixed charges will be consistent and steady each year, while volumetric charge revenues are much more volatile, as they are based on customer consumption behaviors;
- Fixed charges would be constructed so that they follow the American Water Works Association Industry Standards. These standards are ratios that scale the fixed charge prices based on the size of the meter; this means that, the larger the meter size, the higher the fixed charge would be for that customer.

Raftelis has provided within its Financial Model a tool that allows the Town to change these assumptions and recalculate new water and sewer rates based on the applied changes to the assumptions made above. Water and sewer calculated fixed and volumetric charges are shown in Table 2, which is split by whether the charge is for water or for sewer.

*Table 2. Calculated Water and Sewer Rates to go into Effect FY 2021*

FY 2021	
Projected	
<b>Water Rates</b>	
<u>Fixed Charges (Quarterly)</u>	
5/8"	\$ 11.19
3/4"	16.79
1"	27.98
1.5"	55.97
2"	89.55
3"	167.90
4"	279.83
6"	559.67
<u>Volumetric Charges (per Kgal)</u>	
Tier 1	\$ 3.36

FY 2021	
<i>Projected</i>	
<b>Sewer Rates</b>	
<u>Fixed Charges (Quarterly)</u>	
5/8"	\$ 7.65
3/4"	11.47
1"	19.11
1.5"	38.23
2"	61.17
3"	114.69
4"	191.14
6"	382.28
<u>Volumetric Charges (per Kgal)</u>	\$ 2.29

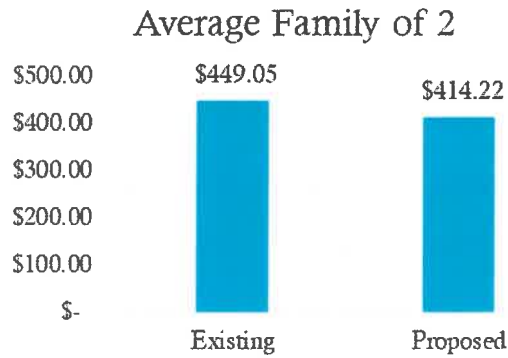
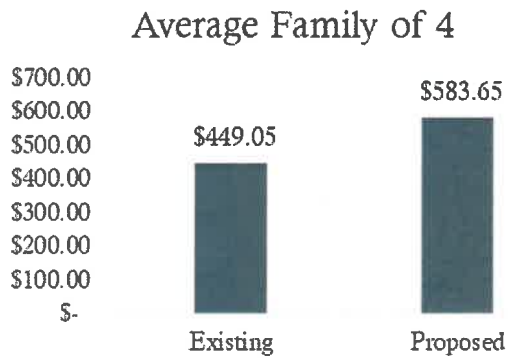
As of now, Raftelis has not calculated any charges for public and private fire protection, meaning all revenue requirements will be recovered with the calculated water and sewer rates seen in Table 2.

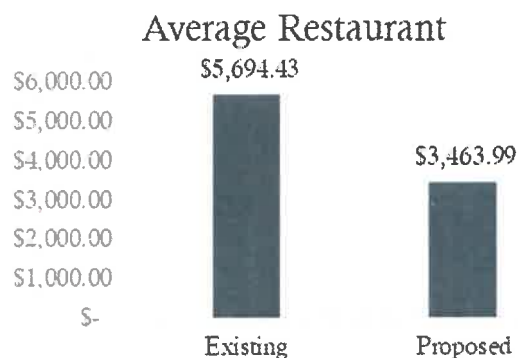
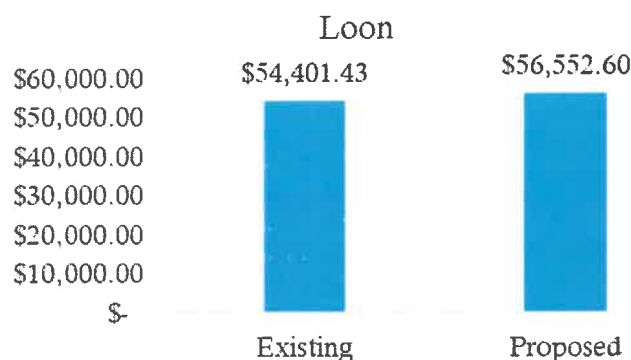
### Customer Impacts

To ensure that the calculated water and sewer rates do not significantly financially impact the customers of Lincoln, Raftelis conducted a customer impact survey using standard customer consumption information. We created five categories of customers to compare their existing utility billing method, which is based on property values, to the new billing method, which is using consumption and meter size information. The five categories included:

- A Household Family of 2, with an annual consumption amount of 60 Kgals, and assessed property value of \$203,100.00.
- A Household Family of 4, with an annual consumption amount of 90 Kgals, and assessed property value of \$203,100.00.
- A Motel, with an annual consumption of 1,000 Kgals, and assessed property value of \$1,701,800.00
- A Restaurant, with an annual consumption of 600 Kgals and assessed property value of \$2,575,500.00.
- The Loon property, with an annual consumption of 10,000 Kgals and assessed property value of \$24,604,900.00.

These 5 customer types were used to calculate utility bills under the current method of billing and compare the total annual bill to the new method of using water and sewer consumption. Figures 1-5 compare the annual utility bills based for each customer category using the existing and new billing methods. The "proposed" annual bills use the new fixed and volumetric water and sewer charges found in Table 2.

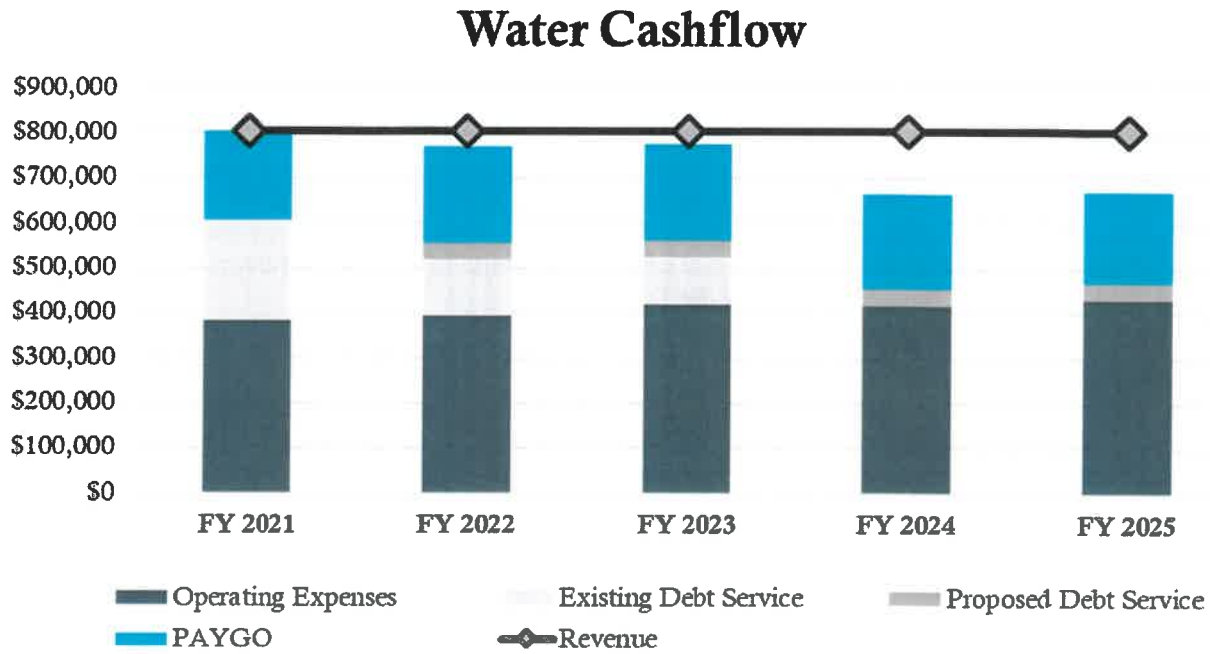
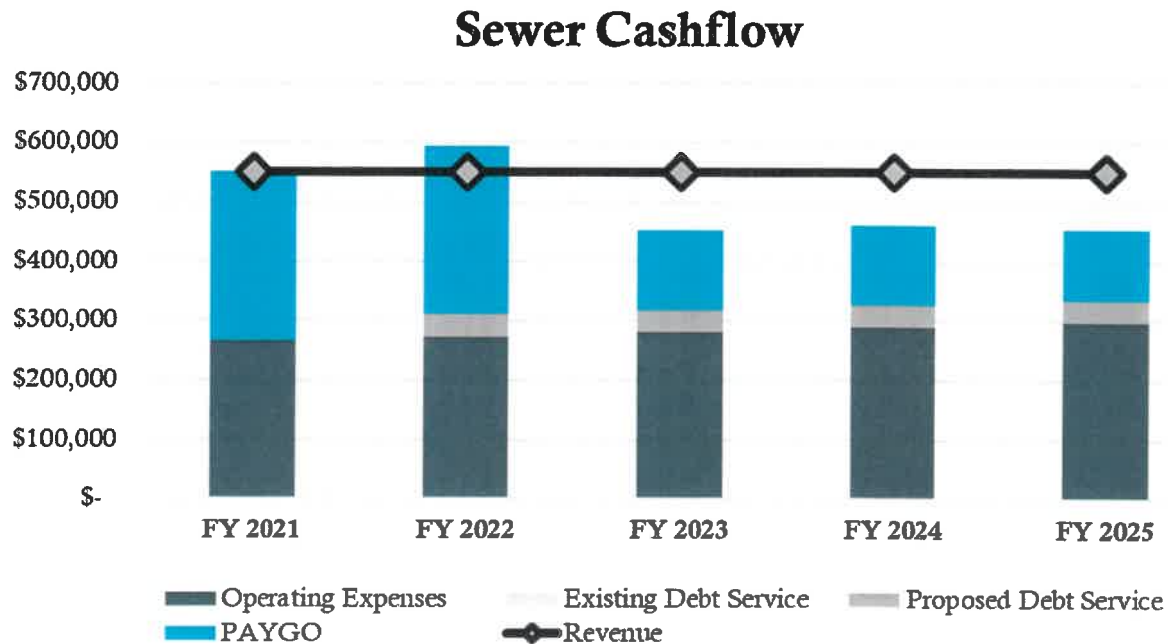
*Figure 1. Bill Comparison of Average Family of 2**Figure 2. Bill Comparison for Average Family of 4**Figure 3. Bill Comparison for Average Motel*

*Figure 4. Bill Comparison for Average Restaurant**Figure 5. Bill Comparison for Average Loon*

As the customer impacts show, the bills for the customer categories created, on average, increase by 8%. While this may seem problematic at first, it is important to observe the customer categories that have an increased utility bill under the new billing structure are customers that already use large quantities of water a year in comparison to their property values; loons, households of four, and motels. Although this change in billing methodology would have adverse impacts on some properties, it could be argued that this shift is just remedying a current inequity in the Town's cost structure.

### Financial Analysis

In addition to the customer impacts analysis, Raftelis also conducted a high-level financial analysis to see the five-year impacts on switching to a water and sewer consumption billing structure. Figures 6 and 7 show the cashflow of the water and sewer financial aspects of the utility.

*Figure 6. Water Cashflow Under Consumption-Based Billing Structure**Figure 7. Sewer Cashflow Under Consumption-Based Billing Structure*

The figures show that, if the Town were to consume the same amount of water each year, and not change nor increase the new billing rate structure, the town would meet and exceed the revenue requirements from FY 2023 onward. In addition to these figures, Raftelis has constructed a financial model tool that allows

for the Town to increase or decrease water and sewer rates based on the forecasted revenue requirements, as well as the number years that display on the charts.

### Affordability Analysis

After the financial analysis was completed, Raftelis also conducted an affordability analysis to see the impacts of the new water and sewer billing structure on low-income and median-income residential families in Lincoln. Using Census information, Raftelis found that, based on a 20-kgal per quarter consumption amount, a household making approximately \$43,000 would only use 1.2% of their total annual salary to pay their annual utility bill. Households that make approximately \$22,000 would use only 2.3% of their total annual income to pay their utility bills for the entire year. Both percentages are considered low, and thus, Raftelis concluded that the new water and sewer rates would not provide a financial burden on both median- and low-income households within the Town.

### Conclusion

Raftelis has calculated new water and sewer fixed and volumetric charges for the Town of Lincoln based on the projected revenue requirements for FY 2021 and onward. The calculated water and sewer rates can be found in Table 2. Switching to a billing structure that revolves around metered consumption has several benefits, including:

- Conservation promotion. Billing customers based on their water consumption will help to incentivize customers to reduce their water use as the cost of using water from the utility for each customer will be based on the amount of water they consume in each quarter.
- Changing revenue requirements. Revenue requirements differ between whether they are coming from water or sewer. Having a billing system in place that separates revenue generated from water use and sewer use allows for the utility to more easily adjust their rates to conform to upcoming utility projects or expenses that may fall into a water or sewer category.
- Customer equity. Billing customers based on their water consumption, rather than their property value, provides for a more equitable cost structure. By billing customers based on the demand they're placing on the system, rather than on property value which has no direct correlation with demand, customers will receive bills which are much more equitable and explainable.
- Better ability to perform long-term financial planning. By generating each utilities' revenues from user charges, rather than taxes, it will be easier to do more proactive and long-term financial planning to ensure financial sustainability of the funds.
- Apply for grants and low-interest loans. Under the current billing system, Lincoln is unable to apply for utility-related grants and loans, as the billing structure is based on property values and not consumption. By moving to a billing system based on consumption, Lincoln can additionally apply for loans and grants to fund future capital projects.



# Town of Lincoln, NH

## Water and Sewer Rate Options

*Draft and For Consideration Purposes Only*

### Assumptions

- 1) Rates are designed to be sufficient for a 5-year period, but should be analyzed annually to ensure sufficiency.
- 2) Water capital improvements are approximately \$330,000 annually.
- 3) Sewer capital improvements are approximately \$1.12 million annually, including the financing of a WWTP upgrade.
- 4) Given that recent detailed customer consumption data is unavailable, assumptions had to be made with regard to the distribution of consumption, and should be revisited once actual consumption records are available.

### Rate Option Descriptions

- Option 1:** Quarterly fixed charge, recovering 20% of revenues, with no usage allowance; volumetric rate per Kgal
- Option 2:** Quarterly fixed charge, recovering 20% of revenues, with 9,000 gallons per quarter usage allowance; volumetric rate per Kgal
- Option 3:** Quarterly fixed charge, recovering 50% of revenues, with no usage allowance; volumetric rate per Kgal
- Option 4:** Quarterly fixed charge, recovering 50% of revenues, with 9,000 gallons per quarter usage allowance; volumetric rate per Kgal

		<u>Option 1</u>		<u>Option 2</u>		<u>Option 3</u>		<u>Option 4</u>	
<u>Water Rates</u>									
Fixed Charge (quarterly)	\$	10.27	\$	10.27	\$	25.67	\$	25.67	
Usage Allowance (gallons, quarterly)		-		9,000		-		9,000	
Volumetric Charge (per Kgal)	\$	3.08	\$	3.85	\$	1.92	\$	2.40	
<u>Sewer Rates</u>									
Fixed Charge (quarterly)	\$	9.03	\$	9.03	\$	22.57	\$	22.57	
Usage Allowance (quarterly)		-		9,000		-		9,000	
Volumetric Charge (per Kgal)	\$	2.71	\$	3.38	\$	1.69	\$	2.11	
<u>Combined Annual Customer Impacts</u>									
5 Kgals	} Seasonal	\$	106.10	\$	77.18	\$	211.02	\$	192.95
10 Kgals		\$	135.02	\$	84.41	\$	229.10	\$	200.18
15 Kgals		\$	163.94	\$	120.56	\$	247.17	\$	236.33
25 Kgals		\$	221.78	\$	192.86	\$	283.32	\$	308.63
50 Kgals		\$	366.39	\$	373.62	\$	373.70	\$	489.39
25 Kgals	} Year-round	\$	221.78	\$	77.18	\$	283.32	\$	192.95
50 Kgals		\$	366.39	\$	178.40	\$	373.70	\$	256.21
75 Kgals		\$	511.00	\$	359.16	\$	464.08	\$	369.19
100 Kgals		\$	655.61	\$	539.92	\$	554.46	\$	482.16
1000 Kgals		\$	5,861.45	\$	7,047.22	\$	3,808.11	\$	4,549.22
10000 Kgals		\$	57,919.88	\$	72,120.26	\$	36,344.63	\$	45,219.87

### Customer Notes

- 1) Seasonal Customers are assumed to be present for only one billing cycle.
- 2) Typical Year-round Residential customers use between 50 and 75 Kgals per year.

