

Howard J. Woods, Jr. & Associates, L.L.C.

February 16, 2021

Mr. Richard Calbi, Jr., P.E., P.P.
Director of Operations
Ridgewood Water
131 North Maple Avenue
Ridgewood, N.J. 07450

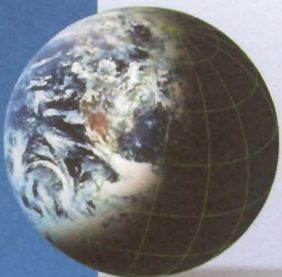
Re: Proposed 2020 Budget

Dear Mr. Calbi:

I've reviewed the proposed budget for Ridgewood Water and it is my opinion that you have properly allocated shared Village expenses to the Water budget. The method you have used is consistent with the recommendations in my Water Utility Rate Study dated November 17, 2017 and my Supplemental Rate Study 2013-2016 dated December 29, 2017. In addition to the allocations of shared expenses, I have also reviewed your revenue calculations and the calculation of the available surplus revenue transfer up to 5% to the general fund. Here is a summary of my review and conclusions.

Your proposed 2021 budget segregates costs associated with the impact of the detection of polyfluoroalkyl substances (PFAS) from your base rates. Some of these expenses are direct charges incurred only because of your response to the PFAS issue but others are expenses that must be allocated between base water charges and charges necessary to recover the PFAS costs. It is important to note that this is an internal water utility cost allocation that has nothing to do with the allocations of shared expenses from the Village General Fund. The PFAS costs are costs incurred by the water utility to produce water that complies with new regulatory standards. Had you not taken the step to segregate these costs from base rates, your base rates would be higher to allow for this cost recovery. It is important to segregate these costs from the basic cost of providing water service as you pursue cost recovery against those who may be responsible for the presence of these compounds in your source water. I have reviewed the PFAS allocations you have made and found these to be reasonable and appropriate. The result of these calculations is a PFAS related revenue requirement of approximately \$1.8 million dollars. The majority of this cost is being recovered in current base rates, which do not segregate the PFAS expenses.

The internal allocations for base and PFAS costs will change as you implement the PFAS remediation program. You will be constructing additional treatment works and systems



to remove PFAS from your source water. As a result, you will incur addition operation and maintenance expense and greater portions of your direct labor charges will be associated with the maintenance and operation of these facilities. As a result, these allocations will need to be reviewed and revised at least annually.

I have taken the PFAS revenue requirement for your proposed budget and developed three alternative tariff designs for your consideration. In addition, my analysis also forecasts the new capital and operating expenses you will incur as you implement the PFAS remediation plan. This analysis projects costs forward for the next 45 years and calculates potential rates under each tariff design scenario. For the calculations beyond the budget year, this provides a general sense of the potential impact of the PFAS issue. Actual rates should not be set using these forward-looking calculations. Instead, as you make progress in implementing the remediation plan, you should revisit these calculations to reflect what has actually been accomplished and the costs you are actually incurring. In addition, these calculations do not reflect any potential results of the Village's efforts to recover these costs from third parties or through grants, which would mitigate the impact of the PFAS issue on your customers and the rates they would pay.

The first approach calculates a fixed service charge that will recover the revenue requirement using a quarterly service charge. The recommended rates are based on the total number of meter-equivalents in service throughout the water utility. The use of the meter-equivalents to calculate the charge is appropriate because this allows the rates to reflect the relative demand that can be placed on your system by the capacity of the meter serving each individual customer. Larger size meters can exert greater demands on the system. Regardless of the volume actually consumed by each individual customer, your response to the PFAS issue will need to provide adequate capacity to meet the potential peak demands of your service area. The meter-equivalent calculation recognizes this and provides a transparent way of recovering the costs you will incur to construct new treatment systems and place these systems in operation. This method is similar to the Distribution System Improvement Charge ("DSIC") used by the New Jersey Board of Public Utilities to allow investor-owned water utilities to recover ongoing distribution system infrastructure improvements.

An alternative to the fixed service charge approach would be to recover the revenue requirement through a volumetric rate. I have also developed rates using this approach. While this method produces a rate that would encourage conservation (i.e., customers using larger volumes of water would pay larger PFAS surcharges), revenue recovery would vary with use. Given that most of the PFAS expenses you are now incurring are associated with fixed cost improvements, a system based solely on volumetric charges could create a mismatch between your revenue requirement and the revenues you actually collect. In years where customer use is up (e.g., in hot dry years) you may over-collect but in years where use is down (e.g., wet and cool years) you would likely under-collect. This method

of recovering costs is similar in nature to the Purchased Water Adjustment Clause ("PWAC") charges allowed by the New Jersey Board of Public Utilities. The PWAC charge is a volume only charge used by investor-owned water utilities to recover the cost of purchased water.

I have also calculated a set of rates that merges the concept of the DSIC and PWAC charges. In this method, a fixed rate would be set to recover the capital costs associated with your PFAS response and a volumetric charge would be set to recover the ongoing operation and maintenance costs. Using this method, you would recover about three-quarters of the PFAS cost through the fixed charge and the remaining one quarter through the volumetric rate. The tariff design using this approach would be similar to the existing base rate tariff that you already have in place. Each quarter, a customer would pay a fixed service charge to recover the cost of PFAS related capital improvements and a volume variable charge for PFAS operation and maintenance expenses.

With regard to the base rate budget, I've focused my attention on the overall revenue requirement and the allocations of Village costs to Water. As a municipal water department, you have the advantage of being able to share certain expenses with the Village. These costs must be allocated equitably between the general fund and the water fund. In the Water Utility Rate Study, I developed fourteen allocation factors using the guidelines detailed in Seventh Edition of the Manual of Water Supply Practice M-1: Principles of Water Rates, Fees and Charges prepared by the American Water Works Association. In both the Water Utility Rate Study and the Supplemental Rate Study 2013-2016, I used these factors to allocate actual and budgeted general fund expenses to the water fund. The allocated expenses include the cost of the Village Central Garage, the water utility office space located in the Village Hall, property and casualty insurance, administrative support, governance and asset protection. In addition, a portion of the utility director's salary and benefits were allocated from the water fund to the general fund, recognizing that this position supports Village functions not related to water operations. In your 2021 proposed budget, I see that you have also allocated costs from the Water Utility IT function to the General Fund for support services that the water utility provides to the Village.

In developing your 2021 Water Fund budget, you used the 2019 audited expenses for the Village as the basis of your allocations. The audit represents the final statement of actual expenses for shared costs that must be allocated to the water budget. The 2019 actual expenses are the most recent expenses that have been subjected to a financial audit, so these expenses form the most recent and reliable test period on which you can base your pro forma budget estimates. For each of the line items in your calculations, you used the appropriate allocation factor developed in the Water Utility Rate Study. The resulting allocation of approximately \$2.52 million is reasonable and appropriate. The Village expenses that are being allocated among the General Fund, the Parking Fund and the Water Fund amount to approximately \$47.1

million.¹ Therefore, only 5.3% of the General Fund expenses are being allocated to Water and 94.7% of those costs are retained in the General Fund or allocated to Parking.

The principal category of allocated expenses is insurance and pension benefits. This includes health insurance, workers compensation insurance, pensions and general liability insurance. Collectively, these expenses account for 61.2% of the total amount allocated to the Water Fund from the General Fund. Employee insurance and pension expenses are allocated based on the relative labor expense directly assigned to or shared with the Water Utility. Casualty and liability insurance is allocated on the basis of the relative value of Village and Water Utility fixed asset values and on the basis of the relative value of the Water Utility above ground assets and the assessed property values in the Village.

The next largest category of allocated expenses included salaries and wages. This accounts for another 30% of the total allocations to the Water Fund. Within this group, salaries and wages for direct support of the water utility operations from Engineering, Streets & Roads and the Central Garage, for example, are accounted for. The amount allocated to Water is \$759,037. This reflects an allocation of a portion of the Utility Director's salary and the Utility IT support back to the General Fund.

The remaining shared expenses are for materials, supplies and services provided to support water utility operations and collectively, this accounts for only 8.6% of the total allocated to water.

N.J.S.A. 40A:4-35.1 permits the Water Utility to transfer surplus revenue collected to the General Fund. The amount cannot exceed 5% of the cost of operating the utility. This rule has been applied by the New Jersey Board of Public Utilities ("BPU") in regulating municipal utility rates. Every municipality supplying electricity, gas steam or other product beyond its corporate limits is subject to regulation by the BPU (N.J.S.A. 40:62-24). In its regulation of municipal water utilities, the BPU has applied the 5% transfer as a surrogate for the return on equity capital earned by investor-owned utilities. Unlike investor-owned utilities, municipal utilities have no equity capital in their debt structure. Only the debt service costs for bonds or notes exists and as a result, there is no direct method, using rate base rate of return regulation, to compensate the owners of such utilities for the risks and responsibilities they take on in raising capital and providing an essential service like potable water service. This transfer essentially becomes the replacement for the return on shareholder equity allowed in establishing investor-owned water utility rates. By way of comparison, I would like to note that the BPU is currently authorizing investor-owned utilities to

¹ In the Water Utility Rate Study and in the Supplemental Rate Study 2013-2016, all Village general fund allocations to Water and Parking were reversed to establish a complete picture of the budget and actual expenses incurred by the Village. These expenses were then allocated among the General Fund, the Water Fund and the Parking Fund using the fourteen allocation factors.

earn 9.60% on equity capital so, while the 5% rule offers a municipal owner some compensation for risk, it is not on par with what investor-owned utilities are able to include in the rates they charge for service. I have reviewed the calculation of the 5% transfer amount in your proposed budget, and it is my opinion that your calculation is consistent with reasonable interpretations of the BPU rule.

With respect to revenues, I developed a linear regression analysis to predict consumption for your future years. I looked at rainfall, temperature, cooling degree days and Palmer-Z Index as potential variables to predict future consumption. None of these alone or in combination produced a strong correlation, however, a trend forecast based on time, rainfall and cooling degree days provides a reasonable means of forecasting future water sales. With the exception of a peak in 2011, your water demands are trending down slightly. The downward slope is typical of what I see in other communities and it will likely continue into the future. More efficient appliances and plumbing devices are driving this and as customers replace older appliances or renovate kitchens and bathrooms, the trend will continue. The annual rate of decline I see over the 2005 through 2020 period for Ridgewood is a compound annual rate of 0.45% per year. The addition of new customers and, in some cases, repurposing of existing properties and connections offsets part or all of this decline. Given the consistent system send-out for your water utility year over year, your use of a budget sales volume of 5.77 million gallons per day, which is equal to the average for the last five years less a 5% factor of safety, is appropriate.

Your method of budgeting revenues for 2021 is also consistent with the Department of Community Affairs ("DCA") guidelines. You are limited to last year's revenues plus the retained anticipated surplus. Any additional revenues required to cover the water fund revenue requirement must come from rate adjustments. You have calculated a 3% adjustment to the volumetric rate for the second half of the year. The new volumetric rate you are proposing is \$5.37 per thousand gallons and this includes the \$0.01 per thousand gallons New Jersey water quality tax. You have not proposed a change in the base rate fixed service charges.

Your proposed rates compare favorably with the charges of other water utilities in the area and in New Jersey. I have attached a chart showing the current annual water charge to a residential customer served through a 5/8-inch meter using 7,820 gallons of water per month.² This is the average use for a customer served through a 5/8-inch meter in your system for the past five years. This chart also highlights the proposed charges with the recommended increase in base rates and the proposed PFAS surcharge in place. These charges are comparable to those charged by Passaic Valley Water Commission and Jersey City MUA and are much less than the charges

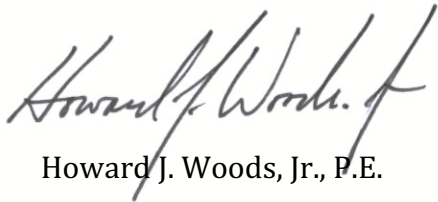
² By comparison, New Jersey American Water's average residential use is 5,631 gallons per month. The average use per residential customer for Passaic Valley Water Commission is 5,744 gallons per month.

levied by SUEZ Water New Jersey and New Jersey American Water. As you may know, SUEZ has applied for a 12% rate increase and this is not reflected in the chart.

In summary, it is my opinion that the budget that you have proposed has been developed in a way that is consistent with industry standards and sound rate setting principles. The budgeted level of revenues is consistent with DCA guidelines and provides the Water Utility an opportunity to recover the full projected cost of providing service.

If you have any questions about my analysis, please feel free to give me a call.

Regards,

A handwritten signature in dark ink, appearing to read "Howard J. Woods, Jr.", with a stylized flourish at the end.

Howard J. Woods, Jr., P.E.

Annual Charges of Select Water Utilities

Annual Charges Calculated for Average Monthly
Use of 7,820 gallons/month. Current Tariff as of February 16, 2021

