



GreenvilleWater

**MINUTES OF REGULAR MEETING
COMMISSIONERS OF PUBLIC WORKS
407 West Broad Street
Commission Room, Level Two
Greenville, South Carolina
October 7, 2014
8:15 a.m.**

Commissioners of Public Works in attendance:

Chairman Phillip A. Kilgore, Debra M. Sofield and J. David Sudduth. Absent: Vice-Chairman James W. Bannister, Mayor Knox H. White. A quorum was present.

Greenville Water Staff in attendance:

Chief Executive Officer David H. Bereskin, Chief Operations Officer Murray Dodd, Chief Financial Officer Phil Robey, Chief Administrative Officer Dennis Porter, Director of Engineering Mike Sharpless, Director of Water Resource K.C. Price, Director of Business Services David Hughey, Controller Jondia Berry, Information Technology Director Joe Beineke and Commission Attorney David Ward.

The Regular Meeting of the Commissioners of Public Works was called to order at 8:15 a.m. by the Chairman, Commissioner Kilgore.

1. WELCOME

2. COMMISSION DISCUSSION OF AGENDA FORMAT

Chairman Kilgore queried thoughts on adding a Consent Agenda to the Commissioners of Public Works agenda format to package routine committee reports, meeting minutes, and other non-controversial items not requiring discussion or independent action as one agenda item. Commissioner Sudduth stated saving time on the meeting agenda would be great. Commissioner Sofield agreed. Chairman Kilgore then authorized moving forward with adding a Consent Agenda to Commission Meeting Agendas in the future.

3. PUBLIC COMMENT

No comments were presented.

4. APPROVAL OF MINUTES

Commissioner Sofield moved, seconded by Commissioner Sudduth, to approve the regular meeting minutes of September 9, 2014. The motion carried unanimously.

5. WATER RESOURCES UPDATE

Director of Water Resources K.C. Price reported Table Rock reservoir is a little over 2.5 feet down and North Saluda reservoir is 1.3 feet down. These levels are still above where they would normally be for this time of year. Production levels were 44 million gallons per day (MGD) for Stovall and 17 MGD for Adkins which is in line with production levels in 2013. Rainfall is a few inches below normal for this time of year. October is traditionally the driest month, so a lot of change is not expected.

Mr. Price shared highlights of the latest Keowee-Toxaway Drought Management Advisory group. Stage 1 of the Low Inflow Protocol has been declared, based on the Corps of Engineers being in Stage 1, and the stream flow being less than 75% of its annual long term level for this time of

year. Mr. Bereskin added the early drought level warning monthly meeting of the advisory group is set up because of the Low Inflow Protocol and the Duke Relicensing Agreement. The Stage 1 drought declaration is an early warning device to start people thinking about conservation. The advisory group has expanded to include entities all along the Savannah River Basin.

6. FINANCIAL UPDATE

Chief Financial Officer Phil Robey reported on the first month of the short year budget in transition to the fiscal year of January to December. There were no significant variances or negative trends to report on at this point. Mr. Robey brought to attention the expenses, where salary and benefits are only at 9%, which is a factor of an accounting issue where the first payroll of the year actually paid was attributable to the prior year. Accounting rules require the accrual be charged against the prior year budget.

Commissioner Sudduth requested an update on the response to Greenville Water's policy change on residential irrigation meters in 2013. Chief Operations Officer Murray Dodd responded there have been just over 250 meters set thus far. In the previous six years there were nowhere near 250 residential irrigation meters set.

7. ECONOMIC DEVELOPMENT PARTNERSHIP

Mr. Bereskin asked the Commission to approve the language enhancements which were made to the original Economic Development Partnership policy with The City of Greenville. The issue has been worked through with the Finance Committee and the City of Greenville to clarify the intent of the budgeting process. Chairman Kilgore summarized the request by stating there may have been some lack of clarity in terms of how the policy operated, the policy was reviewed in detail with City Manager John Castile and he is comfortable with the clarifying revisions of the policy. Mr. Bereskin reviewed the four distinct items revised and asked for approval by the Commission. Commissioner Sudduth moved, seconded by Commissioner Sofield, to approve the enhancements to the Economic Development Partnership between Greenville Water and The City of Greenville. The motion carried unanimously.

Chairman Kilgore noted this fund is mutually beneficial. The intent behind the fund is to promote the kind of economic development that would increase the number of customers for Greenville Water.

8. NORTH SALUDA RELIABILITY STUDY UPDATE

Mr. Bereskin introduced Mr. J.D. Solomon, P.E. with CH2M Hill to report on a study done of the pros and cons of a pipeline from North Saluda or improving the pumping stations. Mr. Solomon began by explaining CH2M Hill's role as a strategic consultant, which includes master planning, asset management, operations and maintenance consulting and financial management. This particular study involved deciding which capital improvement, pumps or pipes should be done and when. Summary recommendations were broken up into short-term, intermediate and longer-term needs. Short-term recommendations are preventative maintenance and mitigation plan for sleeve valve, mitigation plan for motor control centers, condition assessment and mitigation plan for intake to the pump station. Intermediate recommendations are a portable generator hook-up, preventative maintenance plan and mitigation plan for pumps and motors, and a mitigation plan for difficult transmission areas. Long term recommendations are motor control center replacement, standby generator and parallel transmission line. Mr. Solomon then reviewed the evaluation process used by CH2M Hill as provided in the Commissioner's Agenda package. The next steps are to work with Greenville Water Staff to further develop actions associated with the

desired recommendations, submit a draft and final technical memorandum, complete a similar analysis for the Table Rock segment and conduct a summary workshop. Mr. Bereskin advised Greenville Water will be able to defer budgeting for the higher dollar improvements until the first half of 2020. Plans will be put in place to ensure immediate response to emergencies for the pumps and motor control centers, to have the spare parts in place and then the big item of preventative maintenance for the sleeve valve. Commissioner Sofield asked if it would be wise for Greenville Water to set aside money, knowing these items are coming. Mr. Bereskin answered money has been set aside and added the important point to take from this is money set aside is being spent wisely. For example, between five to eight million dollars was called out in the 2009 Master Plan for a project that was recommended for the immediate future. This project has not been done yet and may not be a concern until 2020-2023 or if the pumping time run hours goes up then it will move up in rank of need. The money is being used on replacement needs as necessary for our customers.

9. ALKALINITY STUDY REPORT BY HDR, INC.

Mr. Price introduced Mr. Peter D'Adamo of HDR, Inc., an engineering firm hired to evaluate cost effective options to increase alkalinity in the distribution system. Mr. D'Adamo acknowledged Greenville Water's pristine raw water supplies are low in alkalinity. Low alkalinity in the distribution system causes wide fluctuations in pH, which can create chemical reactions and impact water quality. Another concern is operator safety. Currently, sodium hydroxide/caustic soda is used which is a fairly dangerous chemical for operators, particularly if it gets on skin or in eyes. Instability of the caustic market is another concern, which makes budgeting difficult. The reason for the instability is caustic is a byproduct of PVC manufacture which is driven by oil prices and in turn creates volatility. The corrosion inhibitor is phosphate based and the primary use for phosphate is fertilizer which drives that production. Even though these are water treatment chemicals, things that are going on in the global marketplace can impact costs.

Mr. D'Adamo shared a plot of average pH in the distribution system between April and June 2014. The pH ranges from 6.00 to greater than 9.50. Water released into the system is usually at a pH of 7.60. These ranges cause concern about water quality, impact on lead and copper and red water issues with iron. This is why Greenville Water is looking into other options.

The recommendation of this study is to increase alkalinity to around 20 to 25 mg/L to create a buffer capacity. There needs to be enough alkalinity and the right kind of alkalinity out in the system so pH is not going to fluctuate either way too much and there is a nice consistent chemical equilibrium. Recommended pH range is 7.7 to 8.1 and still recommending a phosphate at 0.5 mg/L as ortho-phosphate. Pre and Post Lime with Post CO₂ yielded the lowest lead and copper concentrations in loop studies. The lime calcium carbonate helps protect the pipes and the CO₂ provides the right kind of alkalinity to limit the pH fluctuations. Commissioner Sofield clarified these chemicals are not as caustic so it is safer for the employees. Mr. D'Adamo affirmed. The recommended improvements to meet finished water quality goals is to implement pH adjustment with liquid lime and alkalinity supplementation with carbon dioxide addition and convert to ortho/polyphosphate blend corrosion inhibitor.

Mr. D'Adamo reviewed project cost opinions as provided in the Commissioner's Agenda packet. Commissioner Sofield asked how these costs compare to costs for currently used products. Mr. D'Adamo responded capital costs are new costs because facilities are already in place. From an operating standpoint, if you go back to the more historical highs paid for caustic and phosphorus the cost is very comparable. If you go back to the lower amounts paid for caustic and

phosphorus then the operating costs are higher. The proposed chemicals will be more stable and there are no external factors or drivers that would create the volatility of the current chemicals. Mr. Price added lime is a domestic product, it is not driven by the global economy where as the caustic is.

Project benefits would be to maintain consistent high quality water, minimize customer's complaints, maintain Safe Drinking Water Act compliance, protect the value of Greenville Water assets, maximize pipeline hydraulic capacity and enhance employee safety. Renewable Water Resources would also see the benefit of alkalinity supplementation for ammonia reduction and phosphorus reduction for Total Maximum Daily Loads compliance. Project risks would be potential for perception of spots on dishes, potential for "sudsing" differences and potential for impacts on other industrial practices (beverage, food processing, etc.). Commissioner Sofield asked if this change would alter the way the craft breweries in the area process their product. Chief Operations Officer Murray Dodd shared when Stone Brewery was looking at moving into Greenville, they wanted a higher alkalinity than what Greenville Water has. Mr. D'Adamo then reviewed steps to be taken if Greenville Water should decide to move forward with the alkalinity change.

Mr. Bereskin conveyed this presentation is only for informational purposes for the Commission. No action was taken. Mr. Bereskin also called attention to a piece of pipe present in the conference room. The pipe was the original transmission from the Enoree Pump Station. The line was hit causing it to break. This section was brought in to show the line is 100 years old and in Greenville Water's estimation is in very good condition.

10. FINANCIAL ADVISOR UPDATE

Financial Advisor Walter Goldsmith provided an overview of Greenville Water's existing debt portfolio. Future needs fit with the way current debt is structured. Mr. Goldsmith recapped outstanding debt, annual payments and timing of future needs and refunding of revenue bonds as provided in the Commissioner's Agenda package. Having all debt pay-off in eleven years is remarkable. The Rating Agencies will talk about the ten year pay-off ratio, which is if you look out over the next ten years what percentage of debt will be paid off, anything above 50% is considered good and Greenville Water is up in the 80% range.

Mr. Goldsmith shared thoughts about Rating Agencies, reviewing past meetings and ratings by all three agencies: Moody's, Standard & Poor's and Fitch. Some of Greenville Water's strengths pointed out by each agency were high debt service coverage ratio, strong reserves, a manageable capital program, strength of the local economy, and a solid history of increasing customer rates when needed. The benefit of the AAA rating from these agencies is better borrowing costs.

Mr. Goldsmith moved from existing debt, interest rate environment to the proposed 2015-2019 Capital Improvement Program (CIP). The proposed CIP is very modest for a AAA borrower of Greenville Water's size. With rates near all-time lows, Greenville Water could lock in interest rates of less than 3.00% for a 20 year borrowing. Alternatively, borrowing could be structured with a much shorter amortization (3-7 years) and aggressively repay the debt. In summary, Mr. Goldsmith conveyed there will be multiple financing options available for the CIP with minimal impact on key financial ratios.

11. REFINANCE 2013-2014 BONDS FROM TAXABLE TO 2014 TAX FREE

Mr. Robey began by calling attention to one of the features of low rate taxable 2013 refunding bonds was the ability to convert those bonds to tax exempt bonds at an even lower rate about a year after the issuance of those bonds. Greenville Water's bonds were issued in late May of 2013 and the system is now at a point where the conversion can be exercised. The refunding in 2013 saved about \$3 million, with this conversion to tax exempt bonds additional money will be saved. November 3rd is the date planned to convert the bonds. Mr. Robey asked the Commission to consider a resolution authorizing the Chief Executive Officer to proceed with this transaction. After a brief discussion, Commissioner Sudduth moved, seconded by Commissioner Sofield to approve the Chief Executive Officer to proceed with the reissuance of the 2013 bonds to 2014 tax exempt bonds. The motion passed unanimously. Mr. Bereskin added this reissuance may be the first actual reissuance of this type of bond in the Nation. Chairman Kilgore thanked Financial Advisor Walter Goldsmith for his guidance and wisdom.

12. WHOLESALE RATE UPDATE

Mr. Robey outlined a meeting held with the Finance Committee to go over the wholesale rate structure and to discuss the logic in what is being done and being proposed. The current wholesale rate structure is very complicated and falls short in the principals of rate setting where rates should be easily understood, easily communicated and easily administered. Mr. Robey provided the current wholesale rate structure, pointing out the two categories of rates and then further broken down into full service and supplemental supply. This structure makes it difficult for wholesale customers to understand and comprehend the rates and also difficult to budget, particularly the supplemental rate is unpredictable and hard to manage.

The last time wholesale rates were changed was in August of 2011. Since that time staff has been working towards developing a simplified rate structure. The objective in developing the new rate structure was simplicity, recover costs incurred to serve the wholesale customers and to the greatest extent possible minimize the impact on the wholesale customers. There will be an impact, but Greenville Water is being mindful to minimize it to the greatest degree to the point of phasing in the implementation to get to the rates the rate model is recommending. A by-product of this is it may incentivize some wholesale customers to enter into an agreement like Laurens County Water and Sewer Commission and buy an allocation of capacity, moving from a wholesale customer to more of a partner.

Mr. Robey explained the new structure for non-buy-in customers will have a meter charge, based on the size of the meter that serves the customer and a uniform volume rate. There would be a separate rate for Pickens County wholesale customers and non-Pickens County customers. The non-Pickens County rates are based on allocation costs of both Stovall and Adkins plants in recognition these customers can be served from the entire system. Pickens County rates are isolated to those costs associated with the Adkins Plant and the 72" transmission main that serves them. Greenville Water has had a rate consultant and an attorney help in developing this rate structure to ensure it is fair and equitable. Costs of service were identified and then a rate was generated allowing for recovery of those costs. Mr. Robey presented the proposed rates, the plan for phasing in the rates and projected impacts as provided in the Commissioner's Agenda package.

Mr. Bereskin explained one of the biggest complaints from Wholesale Customers is everyone pays a different rate. By changing the rate structure, everyone will pay the same rate. They will pay a meter and volume rate instead of dealing with peak hourly demands or peak day demands.

Mr. Bereskin asked Commissioners for approval to implement the new wholesale rate structure over a four year period to move to \$1.80/thousand gallons for Pickens County customers and \$2.81/thousand gallons for non-Pickens County customers. Commissioner Sudduth moved, seconded by Commissioner Sofield, to approve the implementation of the new wholesale rate structure. Chairman Kilgore noted these rates are supported not only by internal study but also external study as well. The motion carried unanimously.

13. CHIEF EXECUTIVE REPORT

Mr. Bereskin introduced Government Liaison Bob Knight who provided the Commission with an update on the Legislature.

Mr. Bereskin shared Duke Energy's announcement of \$10 million for a grant program for water resources. This grant applies to non-profit and government agencies. The grant focus areas are improving water quality, quantity and conservation; enhancing fish and wildlife management habitats; expanding public use and access to waterways; or increasing citizen's awareness about their roles in protecting water resources. Greenville Water has met once already internally to develop a grant application based on conservation and enhancing the website for self-assessment tool for both business and residents. In coming weeks, application will be made. Duke Energy has a conference scheduled in two weeks to talk about the application process. There is a lot of interest for these monies.

Mr. Bereskin announced Greenville Water is moving forward with the Black & Veatch Facilities Master Plan as the pricing and the scope of work have been renegotiated.

14. COMMISSION COMMENTS

Chairman Kilgore recognized former Commissioner Bob Howard who served in the year 2006, and thanked him for his service to the Commission and Community and his presence at the meeting.

15. ADJOURNMENT

There being no further business, the meeting was adjourned at 10:03 a.m.


Phillip A. Kilgore, Chairman


Kimberly J. Haulter, Executive Assistant

A SERIES RESOLUTION MAKING PROVISION FOR THE TERMS AND CONDITIONS OF AN ISSUE OF WATERWORKS SYSTEM REFUNDING REVENUE BONDS, SERIES 2014, OF THE CITY OF GREENVILLE, SOUTH CAROLINA.

WHEREAS, by Ordinance No. 97-8 entitled "An Ordinance Providing for the Issuance and Sale of Waterworks System Revenue Bonds of the City of Greenville, South Carolina, and Other Matters Relating Thereto" (the "**Bond Ordinance**"), adopted on February 10, 1997, the City Council of the City of Greenville, South Carolina (the "**City Council**"), the governing body of the City of Greenville, South Carolina (the "**City**"), made provision for the issuance from time to time of Waterworks System Revenue Bonds of the City payable from revenues derived from the operation of the Waterworks System of the City (the "**System**"); and

WHEREAS, by resolution adopted October 24, 2011, the Commissioners of Public Works (the "**Commissioners**") requested City Council approve the issuance of such Waterworks System Refunding and Capital Improvement Revenue Bonds; and

WHEREAS, as so requested and pursuant to the Bond Ordinance, City Council adopted on November 28, 2011, Ordinance No. 2011-94 entitled "An Ordinance Providing for the Issuance and Sale of Waterworks System Refunding and Capital Improvement Revenue Bonds of the City of Greenville in One or More Series in the Aggregate Principal Amount of Not Exceeding \$95,000,000 and Other Matters Relating Thereto" (the "**Series Ordinance**"); and

WHEREAS, the Series Ordinance recites the determination of the Commissioners that "a savings may be achieved through the refunding of certain debt of the System and have advised City Council that refunding bonds should be issued to provide the funds necessary to effect the payment of principal and interest on certain of the maturities of the outstanding, as of February 1, 2012, \$64,985,000 of an original issue of \$85,790,000 Waterworks System Refunding and Capital Improvement Revenue Bonds, Series 2005, dated February 8, 2005, as determined by the Commissioners (the "**Refunded Bonds**")"; and

WHEREAS, the Series Ordinance provides that "the aggregate principal amount of not exceeding \$95,000,000...may be issued in one or several Series of Bonds as determined by the Commissioners...no later than December 31, 2016" for the purposes set forth at Section 2.03 therein; and

WHEREAS, pursuant to the Series Ordinance, the Commissioners issued \$15,500,000 Waterworks System Refunding Revenue Bonds, Series 2012 of the City (the "**Series 2012 Bonds**"), dated April 17, 2012 to refund \$15,275,000 of the \$51,525,000 outstanding principal amount maturing in the years 2016 to 2025 of the Refunded Bonds; and

WHEREAS, following the issuance of the Series 2012 Bonds, the principal amount of \$45,435,000 of the Refunded Bonds remained outstanding, of which \$36,250,000 was subject to redemption prior to maturity; and

WHEREAS, pursuant to the Series Ordinance, the Commissioners issued a \$37,205,000 Waterworks System Refunding Revenue Bond, Series 2013 of the City (the "**Series 2013 Bond**"), dated May 29, 2013 to refund \$36,250,000 of the \$45,435,000 outstanding principal amount maturing in the years 2016 to 2022 of the Refunded Bonds; and

WHEREAS, the Commissioners are now minded to cause to be refunded the Series 2013 Bond, currently outstanding in the principal amount of \$36,365,000, in order to achieve further savings; and

WHEREAS, pursuant to the Series Ordinance, the Commissioners are authorized to cause to be issued a City of Greenville, South Carolina, Waterworks System Refunding Revenue Bond, Series 2014 (the "**Series 2014 Bond**"), the proceeds of which will be used to currently refund the Series 2013 Bond; and

WHEREAS, the Series Ordinance provides that the Commissioners are authorized to adopt a Series Resolution relating to the Series 2014 Bond (the "**Series Resolution**") which Series Resolution shall express the approval of the Commissioners to the issuance of the Series 2014 Bond and the Commissioners' agreement to abide by the terms, provisions and agreements set forth in the Bond Ordinance and the Series Ordinance and which shall specify and determine those items specifically set forth at Section 4.01(B) of the Series Ordinance including but not limited to the principal amount of the Series of Bonds, the purpose for which the proceeds of such Series will be used, the interest rate or rates, or the manner of determining such rate or rates, of the Bonds of such Series, and any other provisions deemed advisable by the Commissioners not in conflict with the Bond Ordinance and the Series Ordinance.

NOW, THEREFORE, BE IT RESOLVED BY THE COMMISSIONERS IN MEETING DULY ASSEMBLED:

1. Provided that the total principal amount of the borrowing does not exceed \$36,365,000 and provided further that the interest rate for the borrowing does not exceed 1.40% per annum, the Chief Executive Officer is authorized to specify and determine the information required by Section 4.01(B) of the Series Ordinance.
2. Such information shall be set forth in a certificate to be executed by the Chief Executive Officer (the "**Certificate of the Chief Executive Officer**"), a copy of which will be attached as **Exhibit A** to this Resolution, which will be approved by the Chair of the Commissioners as well as the Mayor of the City.
3. The Chair, the Vice Chair, the Secretary or the Acting Secretary, the Chief Executive Officer, the Chief Financial Officer and such additional authorized officers as set forth in the Certificate of the Chief Executive Officer are authorized to execute such documents as are required to effect the issuance and delivery of the Series 2014 Bond and to give full effect to the intent and meaning of this Series Resolution, the Bond Ordinance and the Series Ordinance. Such execution shall be conclusive evidence of approval of such documents.

DONE IN MEETING ASSEMBLED this 7th day of October, 2014.



Chair, Commissioners of Public Works of the City
of Greenville, South Carolina

Attest:



Secretary, Commissioners of Public Works
of the City of Greenville, South Carolina

STATE OF SOUTH CAROLINA)
)
COUNTY OF GREENVILLE)


CERTIFICATE OF RESOLUTION

I, the undersigned, Secretary of the Commissioners of Public Works of the City of Greenville, South Carolina (the "*Commissioners*"), **DO HEREBY CERTIFY:**

That the foregoing constitutes a true, correct and verbatim copy of a Resolution adopted by said Commissioners on October 7, 2014. A quorum of the Commissioners was present and remained present throughout the meeting.

The Resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my Hand this 7th day of October, 2014.



Secretary, Commissioners of Public Works of the
City of Greenville, South Carolina