

DRAFT REPORT FOR REVIEW



TOWN OF HOT SULPHUR SPRINGS

**WATER & SEWER SERVICE FEE
& PLANT INVESTMENT FEE STUDY**

May 2016

Prepared by:

ED DUERR, INC.
Water & Wastewater Consultant

TOWN OF HOT SULPHUR SPRINGS SERVICE AND PLANT INVESTMENT FEES

INTRODUCTION

The Town of Hot Sulphur Springs (Town) commissioned Ed Duerr, Inc. to develop a rate study to update water and sewer quarterly base rates and capital replacement fees for the Town's Water and Wastewater Utilities. Concurrently, the Town has also commissioned Ed Duerr, Inc. to develop a Water and Wastewater Facility Plan Update to develop a summary roadmap for prioritizing outstanding project needs and summarizing upcoming near term projects. The results of this study and the facility planning report will provide an engineering basis for opinions of probable costs for construction. This information can be used for budgeting purposes and for obtaining water and wastewater loans and grants.

During the course of this study, the Town is pursuing grant funding for a wastewater collection system project to supplement a grant that they have recently received. If successful, the grants will provide capital funding to complete needed improvements that otherwise would not be possible in the near term.

In addition, the Town also contemplates applying for a future grant to add a second membrane filter to its Water Treatment Plant to provide system redundancy.

These projects as well as other needs are discussed in more detail within the concurrent Facility Plan Update.

For purposes of this study, the following references were utilized:

1. Town of Hot Sulphur Springs Water and Wastewater 2016 Proposed Budget
2. Town of Hot Sulphur Springs: Resolution No. 2011 3 1, Fee Schedule for Metered Water.
3. Town of Hot Sulphur Springs: Ordinance No. 2012-5-1-384, New Sewer Base Rates.
4. Town of Hot Sulphur Springs Financial Statements for 2012 – 2014.
5. Town of Hot Sulphur Springs Rate Table Summary Report, 2015
6. Water & Wastewater Facility Plan Update (Draft), Ed Duerr, Inc., April 2016

Contributors to this report include:

- Jack Zielinski, Water and Wastewater Operations
- Sandy White, Town Clerk
- Jessie Schultz, Town Administration Support

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WATER AND WASTEWATER FACILITIES DEVELOPMENT

The following is a brief overview of recent facility developments, which are highlighted in greater detail in the Town's facility plan:

A few years ago, the Town completed the development of a new raw water intake, modified the old filter plant to function as a pretreatment facility, added a new membrane filter treatment plant, and more than doubled treated water storage. The Town took advantage of zero interest loans and principle forgiveness through the American Recovery and Reinvestment Act of 2009 (ARRA). The new water treatment and storage capacity can serve the community through projected build-out. Further improvements to modify and improve the raw water intake have been completed this past fall and the addition of pre-oxidation to the pretreatment system will be brought on line soon.

With the wastewater system, the Town coupled a State Revolving Fund (SRF) low interest loan with grants from the Colorado Division of Local Affairs (DOLA) to upgrade the existing lagoon treatment facilities, headworks, and related components. The Town was under a consent decree from the Colorado Department of Public Health and Environment (CDPHE) to meet effluent discharge requirements, and their existing aeration equipment was non-functional. In addition, the wastewater facilities did not meet current building and fire codes. Those deficiencies have been rectified, and the wastewater facility discharge now meets permit conditions.

Additionally, the Town is beginning a sewer collection system investigation and upgrade program to reduce infiltration and inflow, which is also required under their current wastewater discharge permit. This program is to be funded through CDPHE Small Community Grant Program with matching DOLA grant funds.

Current and Projected SFE Growth

With the recent economic downturn, the communities within Grand County have experienced a declining growth rate over the past few years. State projections are for about 3% growth overall. Within the Town, growth has been significantly less.

The current total number of active single family equivalent (SFE) taps for the water system is tabulated at 464, based on normalizing in town and out of town taps on a fee basis. Likewise, the normalized wastewater SFE count is currently 462. For this report, a growth rate of 1 SFE tap per year is utilized for water and sewer fee analyses. While this number represents only about 0.2% growth per year, it reflects the actual addition of new taps in Town for recent years. The Town staff estimate that there are about 45 developable lots remaining within the Town limits.

It is also understood that the Town does not plan to service developments outside the current Town limits and, furthermore, has no plans to annex new areas into the Town. If

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any of these assumptions change over time, the base rate and fee methodology applied can be easily updated to accommodate new assumptions and new data.

REVENUE SOURCES AND COSTS

The three main sources of revenue for the Town consist of: (1) water and sewer plant investment and tap fees, (2) quarterly water and sewer base rate service fees, and (3) quarterly water and sewer capital replacement fees. Also, there is a quarterly quantity charge for water consumed above the allotted 15,000 gallons per SFE per quarter. The quantity charge income can be highly variable, depending on the season, the weather and customer use habits, and it is expected to decline over time, as customers become more water-conserving.

There are three major categories of costs the Town faces: (1) system-upgrade project costs, (2) capital improvement project costs, and (3) utility operation and maintenance costs. While the revenue sources are self-explanatory, the definitions of the costs may not be readily evident. For the purpose of this report, the cost categories are defined as follows:

- (1) **System Upgrade Project Costs:** These costs are associated with system maintenance and upgrades that are necessary to maintain the existing system's operational performance and condition.
- (2) **Capital Improvement Project Costs:** These costs are associated with capital projects to improve the system either to meet new regulatory requirements or to replace failing components. Generally costs exceed \$40,000 for capital projects.
- (3) **Utility Operation and Maintenance Costs:** These costs are associated with ongoing utility operations and maintenance including power costs, labor for operations and repairs, meter reading, office expenses, administration, vehicle costs, and other related items.

As facilities age and new regulations are put into place by the CDPHE, existing facilities need to be upgraded. New facility upgrades benefit both existing customers and new customers. Since the Town has a customer base not expected to grow quickly, and most of the customers are already on line, quarterly base rate service and capital recovery fees are the only reliable source of income to construct the facilities. As a result, new customers need to pay tap fees to buy into the existing systems and to contribute towards upcoming capital project costs. The tap fees provide payback for items including water supply as well as water and wastewater systems infrastructure.

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QUARTERLY SERVICE & CAPITAL REPLACEMENT FEE METHODOLOGY

For the purpose of this report, the basis of the opinions for operation and maintenance costs and expenditures were derived from actual Town costs, projected budgets, and annual audits, which were developed by others.

Costs for recent capital projects funded through the State Revolving Loan Fund bond program are included as the annualized cost for bond repayment. The basis for developing future upgrade and capital cost expenditures comes from Town planning documents, Town staff, and Town consultants.

In the past few years, construction costs have been very competitive, as the country and the state were coming out of the recent recession. Currently, Colorado is poised as one of the leading states with respect to annual net population growth. As a result of lower than usual housing vacancies and increasing construction of public facilities throughout the Front Range of Colorado, capital cost projections need to account for higher construction costs than have recently been the norm. Factors impacting the volatility of construction costs include, but are not limited to fuel pricing, material costs, local labor costs, and equipment costs. Other potential factors include local and nation-wide construction demands, world market conditions for raw materials, and regional supply and demand impacts. As a result, it is recommended that the variables and cost factors in the rate and fee projections are periodically reviewed and updated.

For the purposes of this report, annual inflation and subsequent annual increases in operations and maintenance costs are projected at 3%. For Colorado and the nation, non-housing construction costs are projected as increasing 4% to 5% per year, but energy costs are now low and are expected to rise at a much slower rate.

Notably, local communities such as Winter Park are seeing an uptick in development and increasing inquiries as to housing availability. In Hot Sulphur Springs, the organization Habitat for Humanity is commencing a project to develop affordable housing units along east Nevada Street.

Findings of the water and wastewater fee analyses are presented in the following section.

Quarterly Service Fee & Capital Cost Recovery Analysis & Results

Spreadsheets were developed to project the base rate service and capital replacement fees needed to support the water and sewer systems ongoing maintenance and future development needs. The water rate spreadsheet validates the applicability of the current Town water rate and provides guidance for future rate adjustments to keep pace with anticipated inflationary costs related to utility operations and maintenance.

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The spreadsheet for the sewer system indicates that an adjustment is needed to keep pace with current expenses.

At the top of the each spreadsheet, variables are shown including the interest rate, an inflation factor, an average annual increase in O&M costs, and new tap sales of 1 SFE per year. Also included at the top of each spread sheet are the projected 2016 operational costs and the number of active SFEs currently served by the water and wastewater utilities.

Water Fee Projections

Current quarterly water fees are as follows:

Water Base Rate and Capital Replacement Fee

Category	Base Rate	Cap. Replacement Fee	Total Quarterly Cost
Per SFE in Town	\$137.22	\$21.00	\$158.22
Per SFE out of Town	\$274.44	\$42.00	\$316.44

In addition, a quantity charge of \$10.55 per 1,000 gallons for water use exceeding 15,000 gallons per quarter per SFE functions to collect additional revenues from high water use customers and to provide a strong water conservation incentive.

Based on review of the water base rate and capital replacement fee structure, no adjustment is needed for this year. There is a capital reserve of approximately \$300,000 in the water utility funds. Some of that reserve may be used to provide matching funds for the addition of a membrane filter at the Water Treatment Plant.

The Town staff requested a recommendation for increasing the rates on an annual basis. Initial calculations from the Water Rate Spreadsheet in Attachment 1 indicated that rates could be lowered but the annual increase would need to be approximately 2.2% per year. Alternately, the staff asked how keeping the current rate with a 1% increase per year would pan out. Looking at several variables and projections, it can be recommended that rates can be increased by at least 1% per year to offset increasing costs for operations and maintenance. This is based on the following facts:

- The costs of operating the water system line up well with the current rates.
- There is approximately a \$300,000 reserve fund for the water utility.
- The projections include a \$10,000 additional contribution to the reserve fund, which is quite low but accounts for the existing reserves.
- Straight projections on the Water Rate spreadsheet in Attachment 1 would indicate with these assumptions that the water rate could be reduced, but annual increases would be about 2.2%.
- Maintaining the current rate, a secondary table at the bottom of the spreadsheet shows the projections with rates increasing at 1% per year.

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- Comparing the two results shows that either approach could work for the next few years.

As a result of the comparison, the following are the recommended rate projections for the Water Utility rounded to the nearest nickel.

Projected Water Base Rate and Capital Replacement Fee

Year	Category	Base Rate	Cap. Replace. Fee	Total Qtrly. Cost
2017	SFE in Town	\$138.60	\$21.20	\$159.80
	SFE out of Town	\$277.20	\$42.40	\$319.60
2018	SFE in Town	\$141.00	\$21.40	\$161.40
	SFE out of Town	\$282.00	\$42.80	\$322.80
2019	SFE in Town	\$141.40	\$21.60	\$163.00
	SFE out of Town	\$282.80	\$43.20	\$326.00
2020	SFE in Town	\$142.80	\$21.90	\$164.70
	SFE out of Town	\$285.60	\$43.70	\$329.30

It is highly recommended that the rate projections and expenses be periodically checked to confirm the projections meet the costs.

Sewer Fee Projections

Current quarterly sewer fees are as follows:

Current Sewer Base Rate and Capital Replacement Fee

Category	Base Rate	Cap. Replacement Fee	Total Quarterly Cost
Per SFE in Town	\$136.32	\$12.00	\$148.32
Per SFE out of Town	\$272.64	\$24.00	\$296.64

Based on review of the sewer base rate, no adjustment is needed for this year. There is, however, no capital reserve shown on the books for the sewer utility. That will need to be rectified over time. Ideally, there should be approximately \$200,000 to \$300,000 in reserves. Understanding that there have been major wastewater expenses in recent years, that sum will need to be accrued over many years.

The Town staff requested a recommendation for increasing the rates on an annual basis. Initial calculations from the Sewer Rate Spreadsheet in Attachment 1 indicated that rates were close to the projected costs, but would need to be approximately 2.2% per year. Alternately, the actual current rate was projected using a 2% increase per year. Looking at several variables and projections, it can be recommended that sewer rates can be increased by at least 2% per year to offset increasing costs for operations and maintenance. This is based on the following facts:

- The costs of operating the sewer system line up well with the current rates.

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- There is no reserve at current time, due to the improvements that had to be made to the wastewater treatment facility.
- The projections include a \$20,000 annual contribution to the reserve fund, which is low but reasonable, accounting for the recent project expenditures.
- Straight projections on the Sewer Rate spreadsheet in Attachment 1 would indicate with these assumptions that the sewer rate is slightly higher than the projected need, but annual increases would need to be about 2.2%.
- With the current rate, a secondary table at the bottom of the spreadsheet shows the projections keeping the current rate and increasing at 2% per year.
- Comparing the two results shows that either approach could work for the next few years.

As a result of the comparison, the following are the recommended rate projections for the Sewer Utility rounded to the nearest nickel.

Projected Sewer Base Rate and Capital Replacement Fee

Year	Category	Base Rate	Cap. Replace. Fee	Total Qtrly. Cost
2017	SFE in Town	\$136.20	\$15.10	\$151.30
	SFE out of Town	\$272.40	\$30.20	\$302.60
2018	SFE in Town	\$138.90	\$15.40	\$154.30
	SFE out of Town	\$277.80	\$30.80	\$308.60
2019	SFE in Town	\$141.70	\$15.70	\$157.40
	SFE out of Town	\$283.40	\$31.40	\$314.80
2020	SFE in Town	\$144.60	\$16.00	\$160.60
	SFE out of Town	\$289.20	\$32.00	\$321.10

In the above table, the approximate portion of the sewer fees delegated to Capital Replacement is about 10% of the total to expedite calculations. In the past, it was about 8%. The calculated percent is around 13% for the water fees.

It is highly recommended that the rate projections and expenses be periodically checked to confirm the projections meet the costs.

Concluding Remarks

Since we are rapidly approach mid-year, the discussions reviewing the findings and either enacting the rates during the last quarter of this year or beginning next year. By incorporating the 1% annual increase for water and the 2% annual increase for sewer, the impacts are incremental, yet it should help the Town keep pace with the increasing costs of providing water and sewer services to its constituents.

The Town has done well with respect to obtaining and managing low interest loans and grants to deal with major utility needs as well as meeting State and Federal requirements. Without those loans and grants, the impacts to rate payers would be much higher.