2025 Geothermal Rate Study

Town of Pagosa Springs

Pagosa Springs, CO

Prepared by:

Roaring Fork Engineering
592 Hwy 133
Carbondale, CO 81623

September 2025

TABLE OF CONTENTS

1.0 Project and System Background 3

2.0 Study Purpose and Assumptions 4

3.0 Current Rate Evaluation and Comparison 6
3.1 Financial Evaluation 6
3.2 Town of Pagosa Springs Current Rates 6
3.3 Reykjavík, Iceland Geothermal Rates 7
3.4 Similar Hot Spring Communities 7

4.0 Revenue Requirements 9

5.0 Proposed Rate Changes 11
5.1 Proposed Rate Structure 11
5.1.1 Scenario 1 11
5.1.2 Scenario 2 12
5.2 Customer Class Rate Adjustments 13
5.3 Mineral Fee 14
5.3.1 Scenario 1 Mineral Fee 14
5.3.2 Scenario 2 Mineral Fee 14
5.4 Tap Fee Adjustments 15
5.5 Reserve Fund Payments 15
5.5.1 O&M Reserve Fund 15
5.5.2 Debt Service Reserve Fund 15
5.5.3 Capital Reserve Fund 15
5.6 Alternative Revenue Sources 16

6.0 Recommendations and Future Studies 17

TABLES

Table 1 – Historical Revenues and Expenditures 6
Table 2 – 2025 User Fees 6
Table 3 – Calculated Cost of Distribution System Replacement 9
Table 4 – Scenario 1: Proposed User Fees 11
Table 5 – Scenario 2: Proposed User Fees 12
Table 6 – Adjusted Prices Under Scenario 2 15

FIGURES

Figure 1 – Process Flow Diagram (Plummer Geothermal Assessment) 3
Figure 2 – Scenario 1: Geothermal Income and Reserves. 12
Figure 3 – Scenario 2: Geothermal Income and Reserves 13

APPENDICIES

Appendix A 20-Year Cash Flows
Appendix B Plummer – Pagosa Geothermal Assessment

1.0 PROJECT AND SYSTEM BACKGROUND

The Town of Pagosa Springs (Town) geothermal water system, installed in 1981, operates as a closed-loop system consisting of Transite piping, two distribution loops with multiple air release valves (ARVs), and a distribution pump with a current operating capacity of 375 gallons per minute (GPM) and a total capacity of 700 GPM. **Figure 1** is a Process Flow Diagram (PFD) from Plummer's Geothermal Assessment, illustrating the system's operational flow and major equipment components. It should be noted that this PFD includes a process for potential geothermal electric generation installation, which is not currently in place.

The system sources water from two wells, Well 3 and Well 5. Well 5 is the primary well, and under normal operations Well 3 is not in use. A third well, the Rumbaugh Well, is leased to Overlook Hot Springs, which uses its raw geothermal water. The system supports both residential and commercial building heating with geothermally heated water and hot spring mineral soaking with raw geothermal water.

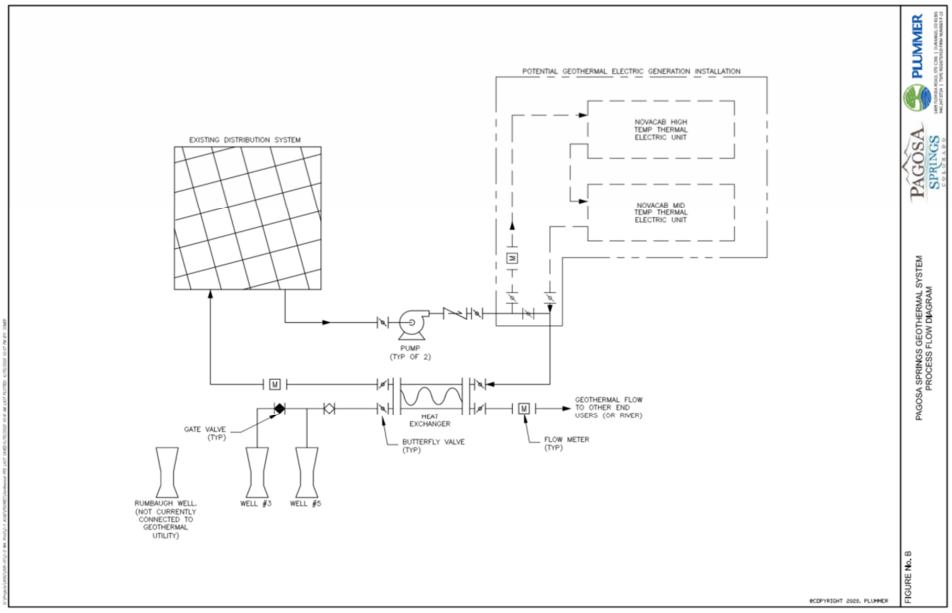

Figure 1 – Process Flow Diagram (Plummer Geothermal Assessment)

A technical memorandum completed by Plummer in 2020, reviewed existing conditions, existing demands and capacity for system expansion, and recommended major capital improvements. Plummer's assessment outlined three key recommendations for system improvements: maintenance and cleaning of the heat exchanger, replacement and insulation of the distribution system, and reinstating meter-based usage calculations for billing. The Town is working towards completing the two capital improvement recommendations. This study is evaluating the best rate structure, billing method, and identifying the necessary revenue requirements for the Town's system to continue to operate.

2.0 STUDY PURPOSE AND ASSUMPTIONS

The Town would like to identify the revenue requirements to operate and maintain the geothermal system, given the recently identified capital projects. All the identified capital projects in the 2020 Assessment completed by Plummer are being pursued as the system has largely reached the end of its useful life. The financial goal is to self-fund a majority of the projects, however, the larger distribution system replacement project will likely need to be funded with a low-interest loan given the high cost of a complete replacement.

To determine the required revenue to fund the identified capital projects, cost estimates calculated in the Plummer Assessment were adjusted to account for inflation and recent upgrades conducted since 2020. Additional capital projects, such as well replacement and rehabilitations, were identified and planned to occur over the next 20 years of operation.

Typical of future cash flow analyses, several critical assumptions were made. These assumptions should be reviewed annually, and the study updated if any assumption changes. All assumptions apply to both proposed rate structures. The key assumptions used in the rate structure calculations include:

1. Using historical audit and budget data, the operating expenses remain relatively consistent. These expenses were extrapolated with a 3% annual increase to account for inflation, increasing demand in limited labor, and shortage of industrial construction materials.

2. No grant funding was assumed to be awarded for any planned short-term capital or ongoing maintenance projects. This is a conservative assumption, so the Town does not rely on external funding sources, which are out of the Town's control.

3. It is assumed that the Overlook Hot Springs uses 35 GPM and The Springs Resort uses 350 GPM.

4. Given the recent East Loop distribution pipeline replacement of 260 LF and the upcoming CDOT project, which includes approximately 1,000 LF of distribution line replacement, Plummer's cost estimate of $3,962,000 for the distribution system replacement should be lowered to account for work completed to date. Using a price per linear footage the cost was adjusted to account for the 1,000 LF of replacement and previous 260 LF of replacement.

5. The cost for the distribution system project is assumed to be paid for using a municipal bond, at a 5.5% interest rate and a 30-year term. It is assumed that the work will take place in 2031, and as such a 3% inflation rate per year was added to the original adjusted cost estimate.

6. A debt service reserve will be required for any loan taken to complete the project and is included in the 20-Year Cash Flow.

7. No new customers are expected to tap into the system and no existing customers are expected to cease their usage.

8. The Town's current (2025 Budget) Reserve balance is $188,718.

9. The recommended O&M, capital, and debt service reserves are noted each year in the cash flow. Final details on creating new reserve accounts for these intended purposes should be discussed with the Town's legal and financial team.

10. The Electric Generation Installation illustrated in **Figure 1** and explored in Plummer's Geothermal Assessment is not being pursued by the Town at this time. This would have a large impact on the Rate Study. The Rate Study should be reevaluated if this assumption changes.

11. The Springs Resort has recently added 78 hotel rooms and 75,000 square feet, with 24 new hot springs pools. The Rate Study has includes these recent additions and the appropriate fees have been incorporated into the proposed Mineral Fee under Scenario 2.

3.0 CURRENT RATE EVALUATION AND COMPARISON

3.1 FINANCIAL EVALUATION

An overview of the Town of Pagosa Spring's financial evaluation is summarized below. It should be noted that the Town received a $140,390 grant in 2024 with a 1-to-1 spending match. That money was not spent in 2024, and therefore the 2025 budget also includes the grant funding under Revenue as a carryover.

Table 1 – Historical Revenues and Expenditures

Functional Cost Group	2023 (Audit)	2024[1] (Estimate)	2025[1] (Budget)
Total Revenue	$61,485	$247,639	$252,390
Total Expenditures	$41,304	$47,325	$314,081
Net Income	$20,181	$200,314	($61,691)
Ending Reserve Balance	$50,095	$250,409	$188,718

NOTES:

1. The 2024 and 2025 revenues and expenditures were shared from Town staff. Audit data for 2024 is not yet available, and a detailed 2025 budget has not been published as of April 2025.

3.2 TOWN OF PAGOSA SPRINGS CURRENT RATES

The Town of Pagosa Springs provides geothermal water to several main customer types: residential, commercial, and hot springs resorts. There are 34 total customers, and each customer type pays a flat monthly rate depending on the classification. Currently, all residential customers are billed the same flat monthly fee. Commercial users are billed a flat monthly rate which is based on square footage. The Springs Resort and The Overlook are each charged a flat monthly rate which is dependent on the flow and assumes heat consumption (per Therm) that each resort uses.

In 2009, Resolution 2009-16 was passed, establishing rates for geothermally heated water and raw geothermal water at $0.60 per Therm and $0.10 per Therm, respectively. The resolution states that Pagosa will provide geothermally heated water at a 30% discount from the "prevailing prices for residential, commercial, and large volume users for comparable natural gas service". The Resolution also stated that raw geothermal water will be provided at a 90% discount from natural gas prices.

Historically, residential users were charged based on actual heat usage. However, in 2014, the Town transitioned to a flat-rate system, calculated based on the past eight years of usage data. Currently, residential users pay a fixed monthly rate of $62.42, while commercial rates are based on square footage using a tiered structure. Current (2025) user fees are shown in **Table 2**.

Table 2 – 2025 User Fees

User	Fee
Residential Rate	$62.42/month
Commercial Rate	
<2000 sf	$107.10/month
2001-5000 sf	$267.75/month
5001-9000 sf	$749.70/month

>9000 sf	$1071.00/month
The Springs Resort Usage (350 GPM)	$2084/month
The Springs Resort Mineral Fee	$1675/month
The Overlook Usage (35 GPM)	$299.18/month
The Overlook Mineral Fee	$390/month
Tap Fee	$6,000

It is important to note that the total water rights for the Town's geothermal system is 450 GPM. The Springs Resort uses approximately 78% of the system's water rights. The Overlook uses 100% of the water right from Rumbaugh Well.

3.3 REYKJAVÍK, ICELAND GEOTHERMAL RATES

Geothermal energy has provided many communities with district heating and mineral soaking benefits. Pagosa Springs explored similar communities for guidance in setting rates. Like Pagosa Springs, Reykjavik, Iceland, utilizes direct-use geothermal heating for residential purposes and soaking pools. According to Reykjavik's 2024 geothermal pricing, billing is based on water flow (m^3), with rates set at approximately $1.29 per m^3 for urban residential use and $0.65 per m^3 for pools—offering about a 50% discount for pool heating[1].

Veitur, Reykjavik's energy provider, confirmed that along with swimming pools, hot spring spas in Iceland similar to The Springs Resort and Overlook Hot Springs are given about a 50% discount on their geothermal water compared to residential and commercial rates for geothermal water. It is important to note that these spas receive electric generation plant discharge water, where revenue is generated for the community by selling the water for thermal use. The Pagosa Geothermal System does not generate electricity, so this rate model and geothermal system is not exactly comparable but does recognize the importance of generating revenue for the system.

For example, the Blue Lagoon Hot Springs, is downstream of a large electrical generation plant, where the water used to be discharged back to a river without any downstream use. Therefore, the Blue Lagoon concept provided a use for an otherwise by-product of an industrial process. HS Orka, the geothermal plant extracting the geothermal water, was unable to share their rates for the Blue Lagoon.

3.4 SIMILAR HOT SPRING COMMUNITIES

Additionally, several US based communities were also contacted regarding the geothermal water rate structures used. Glenwood Springs geothermal pools are operated completely privately, therefore rates are set based on their cost and operations. Ouray Colorado operates a municipal hot spring pool. Since the Town operates the system internally, there is no fee or rate structure involved with the delivery of the geothermal water to the pools. Lastly, Boise Idaho was also contacted regarding their hot springs rate structure. Boise bills based on water metered at each residential home and at the hot springs pools. The Boise system encompasses hundreds of users and therefore capital and operating costs have a larger customer base to spread out costs than the Pagosa Springs system has.

[1] Verðskrá Fyrir Heitt Vatn á Veitusvæði Veitna - Veitur. (2024b, August 1). https://www.veitur.is/sites/veitur.is/files/atoms/files/heildarverdskra_hitaveitu_01.01.2020_0.pdf

Because of the unique structure of geothermal resources for each community, it is hard to define a standard rate practice. Instead, it is clear that each community must assess the system's users and needs to develop the most practical and meaningful long-term rate structure and rates.

4.0 REVENUE REQUIREMENTS

The first step to setting rates for any utility is identifying the anticipated expenditures that will take place over a defined period of time. Using the recommended projects from Plummer's report and existing operating expenditures, RFE calculated the total annual expenditures over a 20-year period in a cash flow spreadsheet. The total annual expenditures are referred to as the "revenue requirement" for a utility, which *Principles of Water Rates, Fees, and Charges* defines as "the summation of the operation, maintenance, and capital costs that a utility must recover".

In their Geothermal Assessment, Plummer identified two major capital projects: heat exchanger maintenance ($35,032) and distribution system replacement and insulation ($3,962,000). The distribution piping has been in use for nearly 45 years and is approaching the end of its life. Because of the high mineral content and high temperature, the pipeline condition deteriorates much more quickly than typical water utilities.

In 2020 the total cost of all materials and work for the recommended pipe replacement and insulation was estimated at $3,962,000. Approximately 260 linear feet of 6-inch distribution line was replaced in 2025 and approximately 1,000 linear feet of 6-inch distribution and return line will be replaced as part of an upcoming CDOT project. These lines are part of the overall distribution system replacement cost calculated by Plummer in 2020. Therefore, to adjust for remaining pipe replacement, the cost of 1,260 linear feet of pipe ($90/LF as determined by Plummer) was removed from Plummer's original construction cost. Additionally, based on current market volatility and rates, a 20% inflation adjustment was made to account for the potential impact increased inflation, which may increase the cost of raw materials. This adjusted cost was then increased 3% annually from 2025 to 2031, when the project is expected to take place. A summary of these assumptions and changes is included in **Table 3**.

Table 3 – Calculated Cost of Distribution System Replacement

Item	Unit Cost	Total Cost
Cost of Distribution System Replacement (Plummer)		$3,962,000
Previously Replaced Parts – East Side Loop	260 LF @ $90/LF	-$23,400
Previously Replaced Parts – CDOT Project	1,000 LF @ $90/LF	-$90,000
Assumed Inflation Adjustment	20%	$769,720
Adjusted Cost of Distribution System Replacement (2020)		$4,618,320
Adjusted Cost of Distribution System Replacement (2031)		$6,782,850

The cash flow calculations assume pipe replacement will be funded through a 30-year loan at 5.5% with a monthly payment of $38,512.30. Additionally, if a loan is not pursued, then portions of the system could be replaced over time, assuming a similar annual expenditure. The heat exchanger maintenance is planned for 2025 and is included in system maintenance cost in the cash flow. Additional maintenance projects each year are lumped into a defined $30,000 amount to account for ongoing work needed within the system. Each year the $30,000 cost is increased by 3% to cover for inflation and rising cost of materials and labor.

Although the Plummer Geothermal Assessment found that the wells are in good working condition, RFE conservatively estimates that significant maintenance or complete redrilling of all wells will be required over the next 15 years. A conservative estimate of $175,000 (approximately $50,000 per well) was included to cover the cost of three well replacements. All current operating expenditures - including administrative costs, and professional fees - are projected to increase by 3% per year with inflation.

Annual expenditures vary from 2025 onward depending on the capital projects planned for the year. The 20-Year Cash Flow tables report the anticipated expenditures to complete these planned projects. It should be noted that the debt service estimated for the distribution system replacement includes $462,100, which could also be restructured to replace components of the system over time if a loan is not pursued or awarded.

Several reserves were established and used to set goals during the rate-setting process: an Operation and Maintenance (O&M) Reserve Fund, a Debt Service Reserve Fund, and a Capital Reserve Fund.

The amount that should be saved in each reserve was set based on following benchmarks:

1. **Operation and Maintenance Reserve:** Six months of O&M expenses in the O&M Reserve Fund, which increases annually as the expected O&M expenses increase with inflation. The O&M Reserve Fund balance is approximately $25,000 to $100,000. As O&M expenses vary under the circumstances explored in this study, the required O&M Reserve Fund balance adjusts accordingly.
2. **Debt Service Reserve**: One year of debt service payments should be kept in the Debt Service Reserve Fund, which is approximately $462,100. This is typically required by loan or bond agencies as an agreement with the loan awarded.
3. **Capital Reserve:** The Capital Reserve Fund should have the ability to cover the replacement of several major pieces of equipment in the event of unexpected failure. The amount estimated to cover major components of the system is $265,000. It is assumed that equipment costs will increase at 10% per year. This cost would cover one pump replacement, one well replacement, emergency heat exchanger repair, and 300 linear feet of piping replacement if a failure were to occur.

5.0 PROPOSED RATE CHANGES

Two scenarios were explored as part of this rate study and are explored further below. Scenario 1 assumes that all required revenue must be generated solely from the geothermal customers. Due to the relatively small number of customers, this results in significant rate increases across all customer groups.

Scenario 2 assumes a portion of the required revenue will be generated directly from ticket sales as small percentage fee charged with each ticket sold. This scenario directs the cost towards visitors of the hot springs who value, benefit from, and enjoy the resource. The alternative revenue stream from ticket sale fees can also be labeled as the geothermal longevity fee, increasing awareness and education on the importance of maintaining and protecting this valuable resource. Public outreach and resources can also be developed for the Overlook and The Springs Resort to share with customers.

5.1 PROPOSED RATE STRUCTURE

5.1.1 SCENARIO 1

Under Scenario 1, a large rate increase is proposed for the largest users of the system in 2027 as this will have the greatest net impact on revenue generation. This will assist the Town in reaching a new baseline operating level from which smaller incremental increases can be adopted each year to help support system maintenance.

Table 4 – Scenario 1: Proposed User Fees

User	2025 (Current)	2026	2027	2028	2029
Residential Rate	$62.42/mo	$62.42/mo	$68.67/mo	$75.53/mo	$83.09/mo
Commercial Rate					
<2000 sf	$107.10/mo	$107.10/mo	$117.81/mo	$129.59/mo	$142.55/mo
2001-5000 sf	$267.75/mo	$267.75/mo	$294.53/mo	$323.98/mo	$356.38/mo
5001-9000 sf	$749.70/mo	$749.70/mo	$824.67/mo	$907.14/mo	$997.85/mo
>9000 sf	$1,071.00/mo	$1,071.00/mo	$1,178.10/mo	$1,295.91/mo	$1,425.50/mo
The Springs Resort	$2,084.00/mo	$2,084.00/mo	$14,100.00/mo	$15,510.00/mo	$17,061.00/mo
The Springs Resort[1]	$0.21/Therm	$0.21/Therm	$1.41/Therm	$1.56/Therm	$1.71/Therm
The Springs Resort Mineral Fee	$20,100/year	$20,100/year	$20,703/year	$21,324/year	$21,964/year
The Overlook	$299.18/mo	$299.18/mo	$1,410.00/mo	$1,551.00/mo	$1,706.10/mo
The Overlook[1]	$0.30/Therm	$0.30/Therm	$1.41/Therm	$1.56/Therm	$1.71/Therm
The Overlook Mineral Fee	$4,680/year	$4,680/year	$4,820/year	$4,965/year	$5,114/year
Tap Fee	$6,000	$6,000	$6,000	$6,000	$6,000

NOTES:

1. The fee per Therm was calculated based on an assumed flow of 350 GPM for The Springs Resort and 35 GPM for The Overlook and an assumed heat consumption of 327.86 Therms/day for The Springs Resort and 32.78 Therms/day for The Overlook. The purpose of this calculation is to allow for the comparison to natural gas prices.

The projected income and reserves balances for Scenario 1 are shown in **Figure 2**. Although net income is expected to dip below zero for several years, rates were set to ensure minimum reserve balances are

maintained. The total reserves balance includes the capital reserve, O&M reserve, and debt service reserve. The O&M and debt service reserves are not plotted in this figure because the balances are the same or nearly the same year to year.

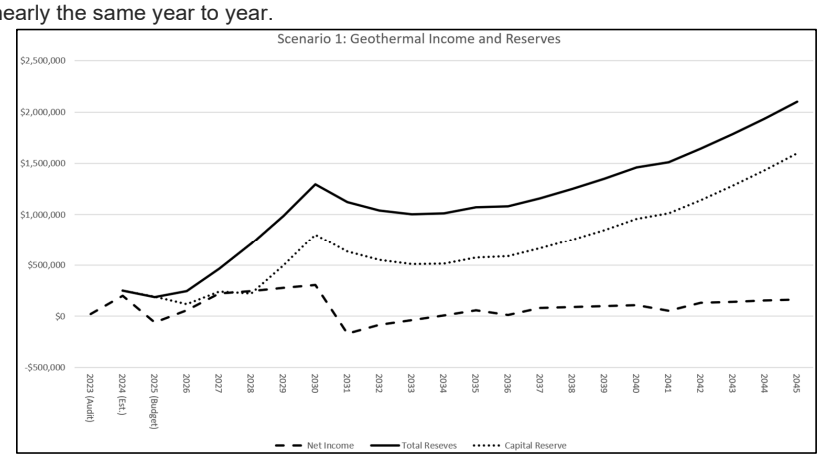

Figure 2 – Scenario 1: Geothermal Income and Reserves.

5.1.2 SCENARIO 2

As an alternative to a large rate increase for the two largest users of the system, an increased Mineral Fee is proposed. This fee would be paid directly to the Town at a rate of 2.75% of current ticket prices at the Overlook and Springs Resort. The revenue generated from this fee would employ a full-time geothermal aquifer expert to be employed by the Town to maintain, monitor, and assess the health of the Geothermal aquifer. Additionally, this fee will be used to fund the required ongoing maintenance projects for the system. As a result of the fee, the user rates are not required to increase to the levels described in Scenario 1. This helps spread the cost out of the Geothermal resource on those who utilize the benefits from the system. The proposed rates when implementing a 2.75% surcharge results in significantly lower user fees, which are summarized in **Table 5**.

Table 5 – Scenario 2: Proposed User Fees

User	2025 (Current)	2026	2027	2028	2029
Residential Rate	$62.42/mo	$62.42/mo	$63.67/mo	$64.95/mo	$66.24/mo
Commercial Rate					
<2000 sf	$107.10/mo	$107.10/mo	$109.24/mo	$111.43/mo	$113.66/mo
2001-5000 sf	$267.75/mo	$267.75/mo	$273.11/mo	$278.57/mo	$284.14/mo
5001-9000 sf	$749.70/mo	$749.70/mo	$764.69/mo	$779.99/mo	$795.59/mo
>9000 sf	$1,071.00/mo	$1,071.00/mo	$1,092.42/mo	$1,114.27/mo	$1,136.55/mo
The Springs Resort	$2,084.00/mo	$2,084.00/mo	$2,125.68/mo	$2,168.19/mo	$2,211.56/mo
The Springs Resort[1]	$0.21/Therm	$0.21/Therm	$0.21/Therm	$0.22/Therm	$0.22/Therm
The Overlook	$299.18/mo	$299.18/mo	$212.57/mo	$216.82/mo	$221.16/mo
The Overlook[1]	$0.30/Therm	$0.30/Therm	$0.21/Therm	$0.22/Therm	$0.22/Therm
Tap Fee	$6,000	$6,000	$6,000	$6,000	$6,000

NOTES:

1. The fee per Therm was calculated based on an assumed flow of 350 GPM for The Springs Resort and 35 GPM for The Overlook and an assumed heat consumption of 327.86 Therms/day for The Springs Resort and 32.78 Therms/day for The Overlook. The purpose of this calculation is to allow for the comparison to natural gas prices.

The projected income and reserves balance for Scenario 2 are shown in **Figure 3**. Due to the additional revenue from the Mineral Fee, the Town is expected to maintain a positive net income most years while keeping customer rates low. Net income will be negative for several years when the Town begins its loan payment for the distribution system replacement, however, minimum reserve balances will be maintained.

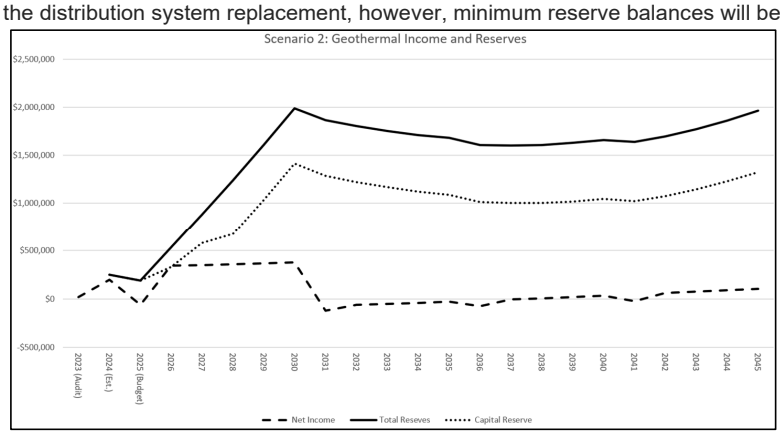

Figure 3 – Scenario 2: Geothermal Income and Reserves

Based on RFE's research into geothermal utilities in Iceland and in the US, it is common for commercial customers to pay a discounted rate for geothermal water. However, this occurs when the municipality is an owner or operator of those hot springs, electric generation is occurring, or a larger population is utilizing geothermal energy. The Pagosa Geothermal System serves a relatively small residential and commercial population, with the largest users receiving the geothermal waters to utilize for private businesses. The Town recognizes the importance of these businesses within the community but also acknowledges that due to the age of the system, value of the resources, and necessary cost to update and further maintain the system requires a more equitable rate structure. Scenario 2 offers a solution to minimize user rate increases and directly tie revenue generation to customer usage.

The Town of Pagosa Springs provides reliable energy and resource at a stable price, which is not subject to market volatility, or physical availability (e.g. non-renewable sources). However, this resource is lacking adequate funding to maintain, replace, monitor, and operate the system. Therefore, the cost necessary to maintain and protect this resource also presents a non-monetary value which cannot be replaced.

5.2 CUSTOMER CLASS RATE ADJUSTMENTS

The main objective for the Town over the next 20 years is to sustainably replace its aging equipment while providing affordable services to its customers. The Town currently utilizes a fixed usage rate for all customers.

To meet the calculated revenue requirement over the next 20 years, revenue will need to increase significantly. Typically, total revenue is approximately $60,000 per year. Once the distribution replacement debt payments begin in 2031, the required revenue increases to around $400,000 to $600,000 annually. This required revenue can be met by increasing user rates or using an alternative revenue source. Scenario 1 proposes significant direct rate increases, which must be paid regardless of revenue generated at the hot springs resorts and use of the resource. Rates can be increased at one large increase in 2027 or broken

up over the next six years to meet the 2031 goal. Currently, the cash flow for Scenario 1 assumes one large increase with smaller increases in subsequent years. Please see **Table 4** for the proposed increases through 2029, after which, rates will increase by 10% through 2035. Rates will then increase at 2% through 2045.

Alternatively, the required revenue can be achieved through applying a ticket fee associated with each ticket sold at the hot springs reports and hotel room rentals as described in Scenario 2. Please see **Table 5** for the proposed increases through 2029. Under Scenario 2, rates will increase by 2% through 2045.

The Town would like to continue charging residential users a flat monthly fee rather than returning to metered charges. The attached Cash Flow spreadsheet assumes flat monthly fees will continue with annual inflation increases. Given the relatively low geothermal usage by residential customers, revenue generated from residential users is proportionally low. Any rate adjustments will proportionally affect larger commercial users more than residential users.

5.3 MINERAL FEE

5.3.1 SCENARIO 1 MINERAL FEE

Scenario 1 proposes a Mineral Fee to help generate the required revenue for the system. As suggested in the September 19, 2024 Agenda Brief, charging both hot springs resorts a flat fee for mineral water would provide the Town with approximately $24,780 of revenue per year. This fee is based on the number of pools and the daily soaking rate, and it is proposed to increase at 3% per year with inflation but may be adjusted further based on the non-resident daily soaking rate.

The raw geothermal water has high mineral concentrations and is typically very hard. These healing properties of the geothermal water which attract customers at the hot springs resorts, also contribute to premature aging and scaling of the distribution equipment, which requires frequent maintenance and equipment replacement. This is defined as a cost-causative factor and is explored in *Principles of Water Rates, Fees, and Charges*, as it is typical for certain customers to have a larger impact on a treatment or distribution system for any utility. These customers should be charged more to recoup the additional cost incurred by the utility provider to provide them service. Typically, these charges are calculated and assigned directly to the customer receiving the unique service. At this time, the proposed Mineral Fee presents a solution, which is a small portion of revenue (one non-resident using each pool for one day of each month) to help cover this cost. Other methods of calculating Mineral Fees could include a proportional allocation of annual operating expenditures to each customer, which would result in likely a prohibitively high fee amount for hot springs users.

5.3.2 SCENARIO 2 MINERAL FEE

A Mineral Fee is also proposed under Scenario 2. Instead of charging the hot springs resorts directly, the cost is shifted to the hot springs customers as a “turnstile” fee. Specifically, the proposed Mineral Fee is a 2.75% surcharge on all tickets sold as well as a 2.25% surcharge on hotel rooms that include hot springs access.

The Mineral Fee was incorporated into the 20-Year Cash Flow based on the following assumptions:

1. The Springs Resort sells 122,240 day passes per year at $67 per pass.
2. The Springs Resort sells 160 local memberships per year at $480 per membership per year.
3. The Springs Resort sells approximately 25,000 rooms per year and an average cost of $389 per room.
4. The Overlook sells 18,250 day passes per year at $30/ticket per pass.

This fee is expected to provide an additional $460,000 in annual revenue. If implemented, the Town would be able to hire a full-time hydrogeologist and purchase equipment to monitor and maintain the health of the aquifer – an effort that benefits all customers. Hiring and retaining a staff hydrogeologist is estimated to cost $150,000 per year. The remaining revenue would support the Town's maintenance needs and upcoming capital projects. **Table 6** shows the adjusted day pass and hotel room rates based on the proposed Mineral Fee, which assumes a percentage of 2.75% on all soaking passes and 2.25% on hotel rooms that include hot springs access.

Table 6 – Adjusted Prices Under Scenario 2

Resort	Current Price	Projected Price
The Springs Resort Day Pass	$67	$68.84
The Springs Resort Local Membership	$480	$493.20
Hotel Room at The Springs Resort	$389	$397.75
The Overlook Day Pass	$30	$30.83

5.4 TAP FEE ADJUSTMENTS

No plant expansion is planned at the moment and the Town is not expecting any income from tap fees in the near future. As such, the change in tap fees was not investigated as part of this study. However, should expansion become viable a change in tap fee for new users buying into a new system should be discussed. If expansion is pursued, RFE recommends reevaluating tap fees, particularly if any large user is proposing to tap into the Town's system. In general, tap fees should increase annually or periodically with inflation.

5.5 RESERVE FUND PAYMENTS

5.5.1 O&M RESERVE FUND

RFE recommends depositing funds into an O&M reserve, which should have the ability to cover 6 months of total O&M expenses. This reserve allows the town to Town to maintain operations for 6 months should payment from customers not be collected for any purpose (natural disaster, etc.). It is assumed that only operating system, administrative, and professional fee expenditures are covered for 6 months. Capital project work would cease under this emergency scenario.

5.5.2 DEBT SERVICE RESERVE FUND

In addition to debt service payments, RFE recommends having a debt service reserve fund, which will be required for any loan agency providing money to the Town. The debt service reserve fund level is typically established as one year's principal and interest payment on all current debt service payments. Since debt service payments are not expected to fluctuate, the reserve fund should be built up now and finalized by 2031 when the Town applies for a new loan for the distribution system.

5.5.3 CAPITAL RESERVE FUND

RFE recommends that the remaining net income be added to the Capital Reserve Fund. It is beneficial to have a healthy reserve to fund large capital improvement projects, so that the Town can respond to any unforeseen construction or project costs. This fund should have the ability to cover the replacement of several major pieces of equipment. This cash flow uses approximately $265,000 as a minimum balance, which would cover one pump replacement, emergency heat exchanger repair, and 300 LF of distribution piping replacement if a leak was discovered. This calculation assumes that equipment costs increase at 10% per year.

Advice from financial advisors and a legal team should be sought to understand if there are any limitations on creating separate reserve funds for each purpose mentioned above. For loan funds, it may be required that a separate reserve is created and is only allowed to be used for debt service payments.

5.6 ALTERNATIVE REVENUE SOURCES

Given the high revenue requirement expected over the next 20 years, the Town is exploring alternative revenue streams to help fund system maintenance. A hot spring pass surcharge was analyzed in this study, but it is possible that a sales fee could be implemented to help fund the system and fund critical aquifer health studies.

6.0 RECOMMENDATIONS AND FUTURE STUDIES

Geothermal water and energy usage is a resource which many communities are not privileged to utilize and benefit from like Pagosa Springs. The current market volatility of energy prices, and decline of natural resources, specifically groundwater aquifer health, makes the Town of Pagosa Springs' Geothermal System a valuable resource which needs to be properly maintained, protected, and sustainably operated. While historic pricing agreements have provided large discounts to users, the Town has identified that this financial model is no longer sustainable to maintain and operate the system. The cost to replace the distribution system, mechanical equipment, and wells requires significant investment from all users to keep utilizing the resource. As such, while the changes are stark to what has been historically charged, the proposed rate structures set a new trajectory for ensuring that the system can be sustainably operated for the next 20 years and beyond. The lack of maintenance and funds to improve or maintain the system could result in a loss of resource to all customers.

The required revenue needed to sustainably support upcoming major capital projects was identified and summarized in previous sections. The proposed rates for each customer class to support these requirements through 2029 can be found in **Table 4** and **Table 5** for Scenarios 1 and 2. The proposed user rates for both scenarios are summarized in the attached 20-Year Cash Flow, which gives a detailed look at the necessary revenue needed to update and maintain the aging geothermal system. Under Scenario 1, significant increases are proposed in 2027 which will be crucial to funding the necessary system upgrades and several recommended and required reserve funds. Scenario 2 relies heavily on the Mineral fee as an alternative source of revenue. Several assumptions were made regarding number of ticket sales, hotel room sales, types of tickets, and ticket prices. These assumptions should be reviewed, and the 20-Year Cash Flow and user rates should be reevaluated to account for any change. Additional sources of revenue should be further investigated. It is recommended that the Town adopt either of the proposed rate structures for the next five years, with the ability to maintain or increase at a lower percentage should assumptions change from this study.

Scenario 2 will be further discussed and investigated between Town staff and all stakeholders. Should the decision to move with Scenario be agreed upon by all stakeholders, that rate structure will be adopted for 2027 and forward. If not, Scenario 1 rates will be adopted on an annual basis.

APPENDIX A

20-Year Cash Flows

20-yr Cash Flow Summary Table - Scenario 1

9/12/2025

Assumptions: See report for detailed assumptions

Monthly User Fees																							
Fee Increase (31 Total)			**2.0%**	**0.0%**	**10.0%**	**10.0%**	**10.0%**	**10.0%**	**10.0%**	**10.0%**	**10.0%**	**10.0%**	**10.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**
Residential Monthly Rate Per Tap	$61.20	$61.20	$62.42	$62.42	$68.67	$75.53	$83.09	$91.39	$100.53	$110.59	$121.65	$133.81	$147.19	$150.14	$153.14	$156.20	$159.33	$162.51	$165.76	$169.08	$172.46	$175.91	$179.43
Commercial Monthly Rate (<2,000 sf)	$105.00	$105.00	$107.10	$107.10	$117.81	$129.59	$142.55	$156.81	$172.49	$189.73	$208.71	$229.58	$252.54	$257.59	$262.74	$267.99	$273.35	$278.82	$284.40	$290.08	$295.89	$301.80	$307.84
Commercial Monthly Rate (2,001-5,000 sf)	$262.50	$262.50	$267.75	$267.75	$294.53	$323.98	$356.38	$392.01	$431.21	$474.34	$521.77	$573.95	$631.34	$643.97	$656.85	$669.98	$683.38	$697.05	$710.99	$725.21	$739.72	$754.51	$769.60
Commercial Monthly Rate (5,001-9,000 sf)	$735.00	$735.00	$749.70	$749.70	$824.67	$907.14	$997.85	$1,097.64	$1,207.40	$1,328.14	$1,460.95	$1,607.05	$1,767.75	$1,803.11	$1,839.17	$1,875.95	$1,913.47	$1,951.74	$1,990.78	$2,030.59	$2,071.20	$2,112.63	$2,154.88
Commercial Monthly Rate (>9,000 sf)	$1,050.00	$1,050.00	$1,071.00	$1,071.00	$1,178.10	$1,295.91	$1,425.50	$1,568.05	$1,724.86	$1,897.34	$2,087.08	$2,295.78	$2,525.36	$2,575.87	$2,627.39	$2,679.93	$2,733.53	$2,788.20	$2,843.97	$2,900.85	$2,958.86	$3,018.04	$3,078.40
Fee Increase			**2.0%**	**2.0%**	**576.6%**	**10.0%**	**10.0%**	**10.0%**	**10.0%**	**10.0%**	**10.0%**	**10.0%**	**10.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**
Raw Geothermal Water Monthly Rate (The Springs Resort)		$0.10	$2,084.00	$2,084.00	$14,100.00	$15,510.00	$17,061.00	$18,767.10	$20,643.81	$22,708.19	$24,979.01	$27,476.91	$30,224.60	$30,829.09	$31,445.68	$32,074.59	$32,716.08	$33,370.40	$34,037.81	$34,718.57	$35,412.94	$36,121.20	$36,843.62
Raw Geothermal Water Rate per Therm (The Springs Resort)		$0.10	$0.21	$0.21	$1.41	$1.56	$1.71	$1.88	$2.07	$2.28	$2.50	$2.76	$3.03	$3.09	$3.15	$3.22	$3.28	$3.35	$3.41	$3.48	$3.55	$3.62	$3.69
Raw Geothermal Water Monthly Rate (The Overlook)		$0.10	$299.18	$299.18	$1,410.00	$1,551.00	$1,706.10	$1,876.71	$2,064.38	$2,270.82	$2,497.90	$2,747.69	$3,022.46	$3,082.91	$3,144.57	$3,207.46	$3,271.61	$3,337.04	$3,403.78	$3,471.86	$3,541.29	$3,612.12	$3,684.36
Raw Geothermal Water Rate per Therm (The Overlook)		$0.10	$0.30	$0.30	$1.41	$1.56	$1.71	$1.88	$2.07	$2.28	$2.50	$2.76	$3.03	$3.09	$3.15	$3.22	$3.28	$3.35	$3.41	$3.48	$3.55	$3.62	$3.69
Tap Fee			$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000

Proposed Cash Flow	**2023 (Audit)**	**2024 (Est.)**	**2025 (Budget)**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**
Operating Revenues:																							
Charges for Services (Residential, Commercial, School, Sidewalk)	$61,485	$63,197	$82,205	$82,205	$90,426	$99,468	$109,415	$120,357	$132,392	$145,632	$160,195	$176,214	$193,836	$197,712	$201,667	$205,700	$209,814	$214,010	$218,291	$222,656	$227,109	$231,652	$236,285
Raw Water To The Springs Resort			$25,008	$25,008	$169,200	$186,120	$204,732	$225,205	$247,726	$272,498	$299,748	$329,723	$362,695	$369,949	$377,348	$384,895	$392,593	$400,445	$408,454	$416,623	$424,955	$433,454	$442,123
Mineral Water Fee (The Springs Resort)			$20,100	$20,100	$20,703	$21,324	$21,964	$22,623	$23,301	$24,000	$24,720	$25,462	$26,226	$27,013	$27,823	$28,658	$29,518	$30,403	$31,315	$32,255	$33,222	$34,219	$35,245
Raw Water To The Overlook			$3,590	$3,590	$16,920	$18,612	$20,473	$22,521	$24,773	$27,250	$29,975	$32,972	$36,270	$36,995	$37,735	$38,490	$39,259	$40,044	$40,845	$41,662	$42,496	$43,345	$44,212
Mineral Water Fees (The Overlook)			$4,680	$4,680	$4,820	$4,965	$5,114	$5,267	$5,425	$5,588	$5,756	$5,928	$6,106	$6,290	$6,478	$6,673	$6,873	$7,079	$7,291	$7,510	$7,735	$7,967	$8,206
Rumbaugh Well Lease			$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,198	$1,199	$1,200
Miscellaneous Revenues	$0	$44,052		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Op. Revenue	**$61,485**	**$107,249**	**$136,780**	**$136,780**	**$303,266**	**$331,686**	**$362,895**	**$397,169**	**$434,814**	**$476,165**	**$521,591**	**$571,497**	**$626,329**	**$639,155**	**$652,248**	**$665,612**	**$679,253**	**$693,178**	**$707,393**	**$721,903**	**$736,715**	**$751,836**	**$767,272**
External Funding																							
Transfer from General Fund			-	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Federal/State Grants		$140,390	$140,390	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total External Assistance	**$0**	**$140,390**	**$140,390**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Total Revenues	**$61,485**	**$247,639**	**$252,390**	**$136,780**	**$303,266**	**$331,686**	**$362,895**	**$397,169**	**$434,814**	**$476,165**	**$521,591**	**$571,497**	**$626,329**	**$639,155**	**$652,248**	**$665,612**	**$679,253**	**$693,178**	**$707,393**	**$721,903**	**$736,715**	**$751,836**	**$767,272**
Operating Expenditures:																							
Operating System	$37,249	$42,828	-	$45,436	$46,800	$48,204	$49,650	$51,139	$52,673	$54,253	$55,881	$57,558	$59,284	$61,063	$62,895	$64,782	$66,725	$68,727	$70,788	$72,912	$75,100	$77,353	$79,673
Administrative	$1,000	$1,150	-	$1,220	$1,256	$1,294	$1,333	$1,373	$1,414	$1,457	$1,500	$1,545	$1,592	$1,639	$1,688	$1,739	$1,791	$1,845	$1,900	$1,957	$2,016	$2,077	$2,139
Professional Fees	$2,911	$3,347	-	$3,551	$3,657	$3,767	$3,880	$3,997	$4,116	$4,240	$4,367	$4,498	$4,633	$4,772	$4,915	$5,063	$5,215	$5,371	$5,532	$5,698	$5,869	$6,045	$6,226
Total Operating Ex.	**$41,160**	**$47,325**	**$33,301**	**$50,207**	**$51,713**	**$53,265**	**$54,863**	**$56,509**	**$58,204**	**$59,950**	**$61,748**	**$63,601**	**$65,509**	**$67,474**	**$69,498**	**$71,583**	**$73,731**	**$75,943**	**$78,221**	**$80,568**	**$82,985**	**$85,474**	**$88,038**
Capital Debt Service:																							
Existing Debt Service	$72		-	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Distribution System Replacement Loan - 3.85%			-	$0	$0	$0	$0	$0	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148
Total Capital Ex.	**$72**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**
Capital Expenditures																							
Well Maintenance and Replacement	$0		-	$0	$0	$0	$0	$0	$50,000	$0	$0	$0	$0	$57,964	$0	$0	$0	$0	$67,196	$0	$0	$0	$0
Capital and Maintenance Projects	$0		$280,780	$30,000	$30,900	$31,827	$32,782	$33,765	$34,778	$35,822	$36,896	$38,003	$39,143	$40,317	$41,527	$42,773	$44,056	$45,378	$46,739	$48,141	$49,585	$51,073	$52,605
Total Capital Ex.	**$0**	**$0**	**$280,780**	**$30,000**	**$30,900**	**$31,827**	**$32,782**	**$33,765**	**$84,778**	**$35,822**	**$36,896**	**$38,003**	**$39,143**	**$98,281**	**$41,527**	**$42,773**	**$44,056**	**$45,378**	**$113,935**	**$48,141**	**$49,585**	**$51,073**	**$52,605**
Total Expenditures	**$41,232**	**$47,325**	**$314,081**	**$80,207**	**$82,613**	**$85,092**	**$87,644**	**$90,274**	**$605,130**	**$557,919**	**$560,792**	**$563,752**	**$566,800**	**$627,903**	**$573,173**	**$576,504**	**$579,934**	**$583,468**	**$654,303**	**$590,856**	**$594,718**	**$598,695**	**$602,791**
Net Income	**$20,253**	**$200,314**	**-$61,691**	**$56,573**	**$220,653**	**$246,594**	**$275,250**	**$306,895**	**-$170,315**	**-$81,754**	**-$39,201**	**$7,745**	**$59,530**	**$11,253**	**$79,075**	**$89,108**	**$99,319**	**$109,710**	**$53,089**	**$131,046**	**$141,998**	**$153,142**	**$164,481**
Operating Reserve		$0	$0	$25,104	$25,857	$26,632	$27,431	$28,254	$29,102	$29,975	$30,874	$31,800	$32,754	$33,737	$34,749	$35,792	$36,865	$37,971	$39,111	$40,284	$41,492	$42,737	$44,019
Debt Service Reserve		$0	$0	$100,000	$200,000	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148
Capital Reserve		$250,409	$188,718	$120,187	$240,087	$223,758	$498,210	$804,282	$633,119	$550,492	$510,391	$517,210	$575,786	$586,056	$664,119	$752,184	$850,429	$959,033	$1,010,984	$1,140,857	$1,281,646	$1,433,543	$1,596,741
Total Reseves		$250,409	$188,718	$245,291	$465,944	$712,538	$987,789	$1,294,684	$1,124,369	$1,042,615	$1,003,413	$1,011,158	$1,070,688	$1,081,941	$1,161,015	$1,250,123	$1,349,442	$1,459,152	$1,512,242	$1,643,288	$1,785,286	$1,938,427	$2,102,908

20-yr Cash Flow Summary Table - Scenario 2

9/12/2025

Assumptions: See report for detailed assumptions

Monthly User Fees																							
Fee Increase (31 Total)			**2.0%**	**0.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**
Residential Monthly Rate Per Tap	$61.20	$61.20	$62.42	$62.42	$63.67	$64.95	$66.24	$67.57	$68.92	$70.30	$71.71	$73.14	$74.60	$76.09	$77.62	$79.17	$80.75	$82.37	$84.01	$85.69	$87.41	$89.16	$90.94
Commercial Monthly Rate (<2,000 sf)	$105.00	$105.00	$107.10	$107.10	$109.24	$111.43	$113.66	$115.93	$118.25	$120.61	$123.02	$125.48	$127.99	$130.55	$133.17	$135.83	$138.55	$141.32	$144.14	$147.03	$149.97	$152.97	$156.02
Commercial Monthly Rate (2,001-5,000 sf)	$262.50	$262.50	$267.75	$267.75	$273.11	$278.57	$284.14	$289.82	$295.62	$301.53	$307.56	$313.71	$319.99	$326.39	$332.91	$339.57	$346.36	$353.29	$360.36	$367.56	$374.91	$382.41	$390.06
Commercial Monthly Rate (5,001-9,000 sf)	$735.00	$735.00	$749.70	$749.70	$764.69	$779.99	$795.59	$811.50	$827.73	$844.28	$861.17	$878.39	$895.96	$913.88	$932.16	$950.80	$969.82	$989.21	$1,009.00	$1,029.18	$1,049.76	$1,070.76	$1,092.17
Commercial Monthly Rate (>9,000 sf)	$1,050.00	$1,050.00	$1,071.00	$1,071.00	$1,092.42	$1,114.27	$1,136.55	$1,159.28	$1,182.47	$1,206.12	$1,230.24	$1,254.85	$1,279.94	$1,305.54	$1,331.65	$1,358.29	$1,385.45	$1,413.16	$1,441.42	$1,470.25	$1,499.66	$1,529.65	$1,560.24
Fee Increase			**2.0%**	**0.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**
Raw Geothermal Water Monthly Rate (The Springs Resort)			$2,084.00	$2,084.00	$2,125.68	$2,168.19	$2,211.56	$2,255.79	$2,300.90	$2,346.92	$2,393.86	$2,441.74	$2,490.57	$2,540.38	$2,591.19	$2,643.02	$2,695.88	$2,749.79	$2,804.79	$2,860.89	$2,918.10	$2,976.47	$3,035.99
Raw Geothermal Water Rate per Therm (The Springs Resort)		$0.10	$0.21	$0.21	$0.21	$0.22	$0.22	$0.23	$0.23	$0.24	$0.24	$0.24	$0.25	$0.25	$0.26	$0.27	$0.27	$0.28	$0.28	$0.29	$0.29	$0.30	$0.30
Raw Geothermal Water Monthly Rate (The Overlook)			$299.18	$299.18	$212.57	$216.82	$221.16	$225.58	$230.09	$234.69	$239.39	$244.17	$249.06	$254.04	$259.12	$264.30	$269.59	$274.98	$280.48	$286.09	$291.81	$297.65	$303.60
Raw Geothermal Water Rate per Therm (The Overlook)		$0.10	$0.30	$0.30	$0.21	$0.22	$0.22	$0.23	$0.23	$0.24	$0.24	$0.24	$0.25	$0.25	$0.26	$0.27	$0.27	$0.28	$0.28	$0.29	$0.29	$0.30	$0.30
Tap Fee			$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000

Proposed Cash Flow	**2023 (Audit)**	**2024 (Est.)**	**2025 (Budget)**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**
Operating Revenues:																							
Charges for Services (Residential, Commercial, School, Sidewalk)	$61,485	$63,197	$82,205	$82,205	$83,849	$85,526	$87,237	$88,982	$90,761	$92,576	$94,428	$96,317	$98,243	$100,208	$102,212	$104,256	$106,341	$108,468	$110,637	$112,850	$115,107	$117,409	$119,758
Raw Water To The Springs Resort			$25,008	$25,008	$25,508	$26,018	$26,539	$27,069	$27,611	$28,163	$28,726	$29,301	$29,887	$30,485	$31,094	$31,716	$32,351	$32,998	$33,657	$34,331	$35,017	$35,718	$36,432
Mineral Fee (Service Charge on Ticket Sales)			-	$460,648	$474,467	$488,701	$503,362	$518,463	$534,017	$550,038	$566,539	$583,535	$601,041	$619,072	$637,644	$656,774	$676,477	$696,771	$717,674	$739,204	$761,381	$784,222	$807,749
Raw Water To The Overlook			$3,590	$3,590	$2,551	$2,602	$2,654	$2,707	$2,761	$2,816	$2,873	$2,930	$2,989	$3,048	$3,109	$3,172	$3,235	$3,300	$3,366	$3,433	$3,502	$3,572	$3,643
Rumbaugh Well Lease			$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,197	$1,198	$1,199	$1,200
Miscellaneous Revenues	$0	$44,052		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Op. Revenue	**$61,485**	**$107,249**	**$112,000**	**$572,648**	**$587,572**	**$604,044**	**$620,988**	**$638,418**	**$656,347**	**$674,790**	**$693,762**	**$713,279**	**$733,356**	**$754,010**	**$775,257**	**$797,114**	**$819,600**	**$842,733**	**$866,532**	**$891,015**	**$916,204**	**$942,119**	**$968,781**
External Funding																							
Transfer from General Fund			-	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Federal/State Grants		$140,390	$140,390	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total External Assistance	**$0**	**$140,390**	**$140,390**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Total Revenues	**$61,485**	**$247,639**	**$252,390**	**$572,648**	**$587,572**	**$604,044**	**$620,988**	**$638,418**	**$656,347**	**$674,790**	**$693,762**	**$713,279**	**$733,356**	**$754,010**	**$775,257**	**$797,114**	**$819,600**	**$842,733**	**$866,532**	**$891,015**	**$916,204**	**$942,119**	**$968,781**
Operating Expenditures:																							
Operating System	$37,249	$42,828	-	$45,436	$46,800	$48,204	$49,650	$51,139	$52,673	$54,253	$55,881	$57,558	$59,284	$61,063	$62,895	$64,782	$66,725	$68,727	$70,788	$72,912	$75,100	$77,353	$79,673
Administrative	$1,000	$1,150	-	$1,220	$1,256	$1,294	$1,333	$1,373	$1,414	$1,457	$1,500	$1,545	$1,592	$1,639	$1,688	$1,739	$1,791	$1,845	$1,900	$1,957	$2,016	$2,077	$2,139
Professional Fees	$2,911	$3,347	-	$3,551	$3,657	$3,767	$3,880	$3,997	$4,116	$4,240	$4,367	$4,498	$4,633	$4,772	$4,915	$5,063	$5,215	$5,371	$5,532	$5,698	$5,869	$6,045	$6,226
Aquifer Monitoring Staff and Equipment			-	$150,000	$154,500	$159,135	$163,909	$168,826	$173,891	$179,108	$184,481	$190,016	$195,716	$201,587	$207,635	$213,864	$220,280	$226,888	$233,695	$240,706	$247,927	$255,365	$263,026
Total Operating Ex.	**$41,160**	**$47,325**	**$33,301**	**$200,207**	**$206,213**	**$212,400**	**$218,772**	**$225,335**	**$232,095**	**$239,058**	**$246,229**	**$253,616**	**$261,225**	**$269,062**	**$277,133**	**$285,447**	**$294,011**	**$302,831**	**$311,916**	**$321,274**	**$330,912**	**$340,839**	**$351,064**
Capital Debt Service:																							
Existing Debt Service	$72		-	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Distribution System Replacement Loan - 3.85%			-	$0	$0	$0	$0	$0	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148
Total Capital Ex.	**$72**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**	**$462,148**
Capital Expenditures																							
Well Maintenance and Replacement	$0		-	$0	$0	$0	$0		$50,000	$0	$0	$0	$0	$57,964	$0	$0	$0	$0	$67,196	$0	$0	$0	$0
Capital and Maintenance Projects	$0		$280,780	$30,000	$30,900	$31,827	$32,782	$33,765	$34,778	$35,822	$36,896	$38,003	$39,143	$40,317	$41,527	$42,773	$44,056	$45,378	$46,739	$48,141	$49,585	$51,073	$52,605
Total Capital Ex.	**$0**	**$0**	**$280,780**	**$30,000**	**$30,900**	**$31,827**	**$32,782**	**$33,765**	**$84,778**	**$35,822**	**$36,896**	**$38,003**	**$39,143**	**$98,281**	**$41,527**	**$42,773**	**$44,056**	**$45,378**	**$113,935**	**$48,141**	**$49,585**	**$51,073**	**$52,605**
Total Expenditures	**$41,232**	**$47,325**	**$314,081**	**$230,207**	**$237,113**	**$244,227**	**$251,554**	**$259,100**	**$779,021**	**$737,027**	**$745,273**	**$753,767**	**$762,516**	**$829,490**	**$780,808**	**$790,368**	**$800,214**	**$810,356**	**$887,999**	**$831,562**	**$842,645**	**$854,060**	**$865,817**
Net Income	**$20,253**	**$200,314**	**-$61,691**	**$342,441**	**$350,459**	**$359,818**	**$369,435**	**$379,318**	**-$122,674**	**-$62,237**	**-$51,511**	**-$40,488**	**-$29,160**	**-$75,481**	**-$5,551**	**$6,746**	**$19,386**	**$32,377**	**-$21,467**	**$59,453**	**$73,560**	**$88,060**	**$102,964**
Operating Reserve		$0	$0	$100,104	$103,107	$106,200	$109,386	$112,667	$116,047	$119,529	$123,115	$126,808	$130,612	$134,531	$138,567	$142,724	$147,005	$151,416	$155,958	$160,637	$165,456	$170,420	$175,532
Debt Service Reserve		$0	$0	$100,000	$200,000	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148	$462,148
Capital Reserve		$250,409	$188,718	$331,055	$578,511	$673,088	$1,039,337	$1,415,373	$1,289,319	$1,223,601	$1,168,504	$1,124,323	$1,091,359	$1,011,960	$1,002,373	$1,004,962	$1,020,066	$1,048,033	$1,022,023	$1,076,797	$1,145,538	$1,228,634	$1,326,485
Total Reseves		$250,409	$188,718	$531,159	$881,618	$1,241,436	$1,610,870	$1,990,188	$1,867,514	$1,805,278	$1,753,767	$1,713,279	$1,684,119	$1,608,638	$1,603,087	$1,609,833	$1,629,219	$1,661,596	$1,640,129	$1,699,582	$1,773,141	$1,861,201	$1,964,165