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ECONOMIC CONSULTING

Analysis of Spring Creek Water and Wastewater Utilities Provision

**Prepared for:
Spring Creek Association, Nevada**

September 9, 2024

HEC No. 240429

The following report was prepared by Hansford Economic Consulting LLC and Mark Foree Consulting LLC.

The analyses and findings contained within this report are based on primary data provided by Spring Creek Association and Great Basin Water Company, as well as additional primary and secondary sources of data as of the date of this report. While it is believed that the primary and secondary sources of information are accurate, this is not guaranteed.

Every reasonable effort has been made in order that the data contained in this study reflect the most accurate and timely information possible. No responsibility is assumed for inaccuracies in reporting by Spring Creek Association, Great Basin Water Company, the City of Elko, or any other data source used in the preparation of this report. Updates to information used in this report could change or invalidate the findings contained herein. Changes in economic and social conditions that may affect the findings of this report include, but are not limited to, national and local economic recessions, climate change, major environmental problems, and natural disasters.

The reported analyses and conclusions are HEC and Mark Foree Consulting's unbiased professional analyses and conclusions. Neither consultant has any present or prospective interest in the provision of water and wastewater utilities that is the subject of this report.

This report was prepared for a specific use and no other use is authorized,

A handwritten signature in blue ink that reads "C. Hansford". The signature is written in a cursive style with a large initial "C" and "H".

Catherine Hansford
Hansford Economic Consulting LLC

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01. Executive Summary

Background

The Great Basin Water Company (GBWC) owns and operates the Spring Creek water and wastewater systems serving about 15,000 people, and approximately 65 nonresidential (commercial, industrial or irrigation) customers in the Spring Creek community of Elko County.

The Spring Creek Association (SCA) engaged HEC to provide a prefeasibility analysis of local control of the Spring Creek water and wastewater systems focusing on potential cost, governance, effects on water rates (and bills), ability to serve projected growth, hurdles to new development (related to the water system), and effect on property values.

Findings

The research and analysis performed for this report finds:

- GBWC does not want to sell their Spring Creek utility systems. Eminent domain would have to be pursued by Elko County (County); however, legal cause for eminent domain appears to be weak.
- Purchase of the water and wastewater utilities is expected to cost the new public entity about \$27 million, possibly more with inclusion of water rights. The only feasible way to purchase the systems is with a loan from the State Revolving Fund (SRF) program.
- A loan from the State Revolving Fund could facilitate the purchase of the private water system to a public entity only if managerial consolidation occurred with the City of Elko. Managerial consolidation would first require either the County to take control of the utility systems, or to form a General Improvement District (GID) to take control of the utility systems. Formation of a Spring Creek GID requires unanimous approval by the Elko County Board of Supervisors (BOS) because the service territory is within seven miles of a city; in addition to this challenge, the BOS can disapprove a service plan for a GID if the existing service in the area is adequate for present and projected needs.
- The analysis indicates that in the next five years, rate increases would need to be about the same whether the utilities continue to be operated by GBWC or a public entity. This finding is the same as the finding made in 2017 by HEC.
- Although rates would stay about the same, a GID does provide local control. If the GID has other powers (roads, recreation, weed & rodent control, etc.), bringing the water utilities under the GID's jurisdiction could be sensible for the long-term.
- If a GID is formed, a portion of cost recovery could be shifted from rates to ad valorem taxes but would most likely not be as the Nevada Constitutional ad valorem tax cap

limits the potential ad valorem revenue; it would be better to preserve ad valorem tax for roads maintenance, or other services provision.

- The affordability analysis presented in Section 03 demonstrates that there are many other economic variables, such as interest rates, housing supply, unemployment, and wages that would outweigh water bills as an effect on property values.
- Although Basin 048 is over-appropriated, it is not over-pumped; assuming a new point of diversion for an existing water right is not within a stream capture zone, there shouldn't be any issue having it approved by the State Engineer.
- Forecasted growth over the next twenty years can be met with existing water rights held for municipal purposes (by GBWC). There is sufficient source capacity to supply the resource for the next 20 years. Upsizing and replacing service pipes to deliver water could be very expensive for a prospective developer, however.

In conclusion, there does not appear to be much benefit in attempting to bring the Spring Creek water and wastewater systems under local control. In addition, water resources are not a current limiting factor for development, although financial feasibility of water system infrastructure upgrades to serve the development could be. Finally, water rates are unlikely to be affecting household decisions to purchase homes in Spring Creek; this analysis concludes that they are not contributing in any significant way to any property value decline that may be experienced.

02. Investigative Efforts

Investigative efforts were performed by Catherine Hansford of HEC, and Mark Foree of Mark Foree Consulting LLC.

Potential Acquisition

On May 2, 2024, Mark Foree met with Jason Cooper, Director of the State Revolving Fund (SRF), provider of low-cost financing and grants to Nevada water and wastewater systems. Below is a list of findings from the meeting with Jason and members of his staff:

- Low-cost loan financing is possible for an acquisition of a water system through a consolidation process. The SRF is not currently able to provide loan financing for acquisition of a private wastewater system, but they are working on this. In this analysis, it is assumed that within 18-24 months, SRF will be able to finance acquisition of wastewater systems. Note GBWC's wastewater system is very small (serves only a few hundred customers). As an alternative, Elko County may consider acquiring this small wastewater system separately.
- The consolidation process in this case would need to be a public entity that would acquire and consolidate the Spring Creek system(s) into another public entity's system, i.e. either Elko County would need to acquire the system directly or a General Improvement District (GID) formed for this purpose would need to acquire the system and consolidate (operation, maintenance and management of the system) into another public entity system.
- If a physical consolidation is not possible, as is most likely the case for Spring Creek utilities, funding would be available for a "Managerial" consolidation. This type of consolidation would require the new Spring Creek GID to enter a long-term contract with Elko County or the City of Elko for complete operation, maintenance and management of the system (consolidation in the form of personnel, resources, equipment, etc.). If acquisition is possible, this "Managerial" consolidation would be the likely form of consolidation.
- A fair market analysis / appraisal of the Spring Creek utility system(s) being acquired would be required for the loan.
- To receive an SRF loan to finance the acquisition, the public entity acquiring the system would need to issue a revenue bond. Bond issuance requires hiring bond counsel and financial advisors to perform legal and financial analysis to support the revenue bond issue. It is estimated these "soft" costs would run about \$100,000. Typically, these costs can be reimbursed (financed) through the SRF loan.
- The usual debt service reserve requirement for an SRF loan is one year of debt service. This reserve cannot be financed with the SRF loan. It may be possible for

the state to consider relaxing this initial reserve amount requirement and allow the utility to build the required reserve over a period of time (possibly 3–4 years). If that is not allowed, the reserve would need to come from another source. If a GID is formed, Elko County would have to provide the reserve for a period of time until the GID could cover the reserve on its own. The County could ask SCA to pay this upfront cost.

- The cost to form a GID for the purpose of acquisition is not eligible for SRF loan financing.
- Rates must be sufficient to provide for a debt service coverage ratio (DSCR) of 1.25. DSCR is net operating income divided by total debt service.

On May 13, 2024, Mark Foree met with James Eason, Nevada President of Great Basin Water Company (GBWC). When asked the question, Mr. Eason stated that GBWC has no interest in selling their Spring Creek utility systems. From this discussion, it appears that the only way to acquire the system would be by eminent domain.

Elko County, or a new Spring Creek GID, would have to be the entity that would pursue this process. NRS 318.190 stipulates that a GID has the power of eminent domain and NRS Chapter 37 details eminent domain statutes for Nevada; however, there are legal questions related to whether or not there is a legal basis to pursue eminent domain when satisfactory services are already being provided, and there isn't any discernable public health issue associated with the Spring Creek utility systems.

If an eminent domain process is pursued and is successful, the public entity would be required to pay fair market value for the system.

Based on the information gathered from these two critical meetings and SCA staff input, the report next answers the following questions:

1. What would be the (fair market value) cost to acquire the Spring Creek utility systems?
2. What would be the total (operating, maintenance and management) annual costs if a public entity acquired the system compared to the total (operating, maintenance and management) annual costs of the private system?
3. Could a public entity operate, maintain and manage the system with lower rates than those charged by the private company?
4. Is there sufficient water supply availability and system capacity to serve remaining undeveloped residential lots and non-residential development in Spring Creek as well as future growth outside of the current service territory?

To answer these questions, the analysis examined GBWC's 2023 Public Utilities Commission of Nevada (PUCN) Annual Report, filed on May 15, 2024, and GBWC's 2024 Integrated Resource Plan (IRP), filed with the PUCN on March 1, 2024.

Fair Market Value

Rate Base is a good proxy for the Fair Market Value of the system prior to having an appraisal completed. The PUCN uses the term "Rate Base" to establish the approved amount of the utility's investment in the system that is eligible to earn an authorized rate of return (equals the approved amount of capital investment less accumulated depreciation of the approved facility investment). "Rate Base" is similar to the term "Net Book Value" used by municipally-owned utilities. The Net Book Value is the calculated depreciated value of a water system's assets using Governmental Accounting Standards Board (GASB) standards.

As of the end of 2023, GBWC's Rate Base for the water system was \$26,634,400 and \$435,700 for the wastewater system for a total Rate Base of \$27,070,000. While this value is a good proxy for Fair Market Value, other factors such as water rights value could impact the opinion of value provided by an appraiser.

Revenue Requirements of Public versus Private Systems

The revenue requirements of a utility system are the revenues necessary to fully cover all planned expenditures net of other operating and non-operating revenues. The revenue requirements consist of the sum of the operating costs, cash-funded capital costs, and debt service costs to be paid with rates.

Operating Costs

The hypothetical operations and maintenance costs of publicly-owned Spring Creek water and wastewater utilities was determined by reviewing the current costs of operations and maintenance of the systems by GBWC and applying similar costs incurred by the City of Elko's water fund. Table A in Appendix A provides several metrics between the Spring Creek utilities system and the City of Elko water system for comparison purposes.

Table B in Appendix A provides an estimate of operating expenses under public ownership, removing tax-related items, regulatory expenses (i.e. PUCN rate case costs) and other non-applicable expenses and adding estimated annual costs for engineering, accounting and legal support. These adjustments for a public system operation reduce total annual operating expenses by about \$500,000 annually. Personnel benefits costs were adjusted upwards to 50% of salaries and wages, in line with typical benefits costs of public agencies. See Table C for a comparison of private and public personnel benefits costs as a percentage of salaries and wages.

The City of Elko's (City) audited water enterprise fund revenues and expenses for fiscal year 2023 (July 1, 2022 through June 30, 2023) are also shown in Table B. Although the City's water system is larger (more services, wells, tanks, etc.), the City does not have any

water treatment plants (the Spring Creek system has wellhead arsenic treatment plants at 3 of its wells) and the City does not currently have meters on all residential services (the Spring Creek system has meters on all services (except fire services – this is typical). Salary, wage and benefit expenses required to operate the Spring Creek system should be similar to the cost of those expenses for the City's water system given the size of community and number of connections served. Note that the comparison does not include the City's wastewater system operations.

- Comparison of salary, wages, and benefit costs – Spring Creek utilities systems' annual (local) personnel costs total \$832,000. However, in order to get a more complete picture of Spring Creek utilities' total labor and benefit costs, the Contract Services – Management Fees expense line item in the amount of \$582,000 needs to be added as these are most likely labor and benefit related expenses provided to the Spring Creek Division by GBWC's corporate office (accounting, accounts payable, customer service, billing, remittance, etc.). When these corporate-provided service expenses are added to the local annual personnel costs, the total labor and benefit related costs for the Spring Creek utilities system is \$1,414,000. The City's labor and benefit related costs are very similar at \$1,599,000. Spring Creek's salary, wage and benefit costs are 88% of the City's water system salary, wage and benefit costs, which is reasonable given the difference in personnel benefits costs as a percentage of salaries and wages.
- Comparison of total operating costs – As previously stated, Spring Creek's Rate Base (combined water and wastewater systems) is \$27,070,000. Spring Creek's systems combined have 120% of the book value of the City's water system at \$22,509,000. The difference in the asset values will be due to several factors, including age of facilities, number of facilities, method of depreciation, construction costs (GBWC is not subject to prevailing wage), to name a few; overall, the total values are considered similar, and operational costs can be expected to be somewhat similar. Total operating costs are \$3,294,000 for Spring Creek Utilities and estimated at \$2,796,000 for the Spring Creek utility systems run under municipal ownership.

Total operating expenses for the City's water system are \$4,008,000. Spring Creek's total operating expenses under municipal ownership would likely be lower than the City of Elko's due to the following:

- The City has twice the number of Spring Creek's service connections.
- The City has more miles of water mains, more services/customer accounts and more facilities to operate and maintain.
- The City has greater electricity costs. Total annual well pumping for Spring Creek's system is 918 million gallons (average of 2020-2022) whereas Elko's 2023 total well pumping was 2,252 million gallons (2.45 times Spring Creek's pumping). The difference will be partly due to the difference in customer base (aside from the larger number of customers, Elko has many more non-residential customers), and lack of meters on the City system.

Capital Needs

The potential SRF “Managerial” consolidation SRF loan would fund the estimated cost of the first 3 years of capital improvements described in the IRP; however, ongoing capital needs of \$46.1 million have been estimated by GBWC in the IRP for years 4-20, averaging \$2,714,000 per year. Capital cost estimates in 2024 dollars are summarized in Table D. From its outset, the new municipally-owned water system would need to plan for many years of continued capital outlay to rehabilitate the system.

The water system contains a large amount of water mains (140 miles in total) including 70 miles of aged undersized (2-inch to 4-inch diameter) mains. These aged and/or undersized mains need to be systematically replaced on an ongoing basis in order to reduce leaks/breaks (and possible distribution system contamination), improve fire flow capability, and improve high/low pressure issues.

- The need for these water main replacement projects is well recognized by both the Nevada Division of Environmental Protection (NDEP) Bureau of Safe Drinking Water (BSDW) and the PUCN. GBWC’s 2024 IRP shows planned capital spending on water main replacements of \$1.5 million each year for the next 20 years (\$30.0 million total).
- From GBWC’s 2024 IRP, the total cost of the capital improvement plan (CIP) over the next 20 years is \$53.5 million (average of \$2.7 million per year), \$30.0 million of which is for water main replacements. Other required improvements per the 20-year plan are water tank rehabilitations/replacements, wastewater treatment plant and lift station improvements, well rehabilitations and replacements, sewer main replacements, sewer manhole lining, water meter (Advanced Metering Infrastructure, or AMI) installation and SCADA (telemetry) system improvements.
- GBWC’s estimated cost of their requested 3-year capital improvement Action Plan from the 2024 IRP filing totaled \$7.27 million. On July 12, 2024 the PUCN issued an Order and Stipulation approving approximately \$6.94 million of capital improvements from the requested \$7.27 million, an average of \$2.31 million each year over the 3-year period (2025-2027).
- In review of GBWC’s capital Action Plan (3 years) and Preferred Plan (20 years) in relation to the age, adequacy, necessary/required improvements of a large number of system facilities including routine required equipment and facility replacements, the planned expenditures averaging approximately \$2.7 million per year over the 20-year period seems to be both reasonable and required in order to improve system operation, reliability/redundancy and fire flow capability and to continue to reduce the large amount of non-revenue water (system water loss) from water main and service line breaks/leaks.
- The IRP shows the calculated non-revenue water (metered well supply minus customer metered service totals) over the last 10 years. Looking at the last 3 years of available data (2020-2022), non-revenue water in the Tract 200 system averaged

27% and non-revenue water in the Housing section has been reduced to an average of 8% over that same period. The average amount of non-revenue water for both systems combined was 12.4% over that 3-year period. An industry standard of acceptable water loss is not more than 10%; the data indicates investment in the distribution system to reduce leaks is both reasonable given industry standard, and the responsible thing to do to manage groundwater resources.

- Planned main replacements will also help to reduce number of loss of pressure and boil water (possible contamination) events. The IRP states that there were 46 water main breaks/leaks that were repaired in 2022. On December 17, 2020, NDEP BSDW performed a Sanitary Survey of the water system and identified the following as a significant deficiency:

“The water system continues to have an excessive amount of line breaks and pressure losses. Multiple boil water orders (in different portions of the distribution system) are often in place at the same time. BSDW understands that the most problematic portions of the distribution system consist of PVC pipe that is not appropriately sized to ensure proper pressures and flows. Frequent pipe breaks and pressure losses increase the probability of distribution system contamination. In addition to potential health hazards, the undersized PVC pipe could hinder firefighting efforts.”

- In regard to the inadequate firefighting capability stated above and increased future wildfire risk (see below), systematic ongoing water main replacement improvements (replacing mains and increasing main sizes) are essential in order to improve fire flow capability (and reduce risk of property loss from wildfire) in the Spring Creek community.

A 2022 University of Nevada report titled “A Comprehensive Assessment of Identified Natural and Other Disasters in the Ruby Mountain Range and the Spring Creek, Nevada Area” states the following:

“Based on the analysis presented in this University Center for Economic Development technical report, the threat that fire poses for the community of Spring Creek and other surrounding geographic areas has increasingly become the most frequent type of natural disaster in the Spring Creek area and the frequency of significant fire disasters has increased exponentially as a result of increased and prolonged drought and other unfavorable natures in environmental conditions.”

Debt Service

The approximate total loan amount required for possible system acquisition would be the Rate Base amount of \$27,100,000 plus 3 years of capital improvements (from the IRP 3-year Action Plan – amount approved by PUCN) in the amount of \$7,000,000 plus loan issuance costs and other miscellaneous costs of \$900,000 for a total loan amount of \$35.0 million. Working capital of \$1.0 million is an estimate of the amount of startup cash needed (about 4.5 months of operating expenses). This cost might be funded by the SRF program

but assuming it is not, Elko County would need to provide the money whether the new public entity is a division of the County or a separate, new GID. The cost could be charged by the County to the Spring Creek Association.

The estimate of the SRF loan and annual debt service is shown in Table E. SRF loan interest rates change weekly and are based on a percentage of market interest rates which does cause them to fluctuate over time in the same direction as national interest rates.

Cash Flow and Debt Covenants

The projected cash flow (Table F) shows the estimates of revenues and expenses, debt service, and necessary rate increases to support the revenue requirement. As previously stated, a DSCR ratio (net operating income divided by annual debt service) of 1.25 must be demonstrated for the loan. The estimated cash flow shown in Table F anticipates that the DSCR will be met each year for the next 20 years.

- A debt service reserve equal to the annual debt service payment (\$1,718,000) will also be required by the state. As previously stated, this reserve cannot be financed.

03. Water Rates Analysis

Projected Water Rates Estimates

Rate increases of 5.50% in each of the first 3 years and 4.75% in years 6 through 10 are required to build operating income in order to meet debt covenants and capital improvement expenditure plans. Rate increases of 4.00% each year are estimated to be needed for the next five years (years 11 through 15), and 3.00% each year for the following five years (years 16 through 20).

Over the first five to six years, rates would need to increase approximately 35% unless a GID is formed, in which case a portion of the costs could be funded by ad valorem. Over the same time period, GBWC anticipates filing cumulative rate increases of about 33%.

GBWC states that they will be filing a rate case in late 2024. The next rate case will be filed 3 years later – in late 2027.

- From their 2024 IRP filing, GBWC estimates rates will increase by 16% after the 2024 rate case is concluded (mid-2025, approximately year 2 in our financial model) and another 15% after the 2027 rate case is concluded (mid-2028, approximately year 5 in our financial model). GBWC does not provide estimated rate increases beyond the 2027 rate case conclusion.
- If the PUCN approves GBWC's estimated rate increases, GBWC's revenue after the rate increase in year 5 would be \$7,861,400 compared to \$7,950,000 for the estimated revenue in year 6 of the financial model for the public system operation. In view of this, our conclusion is that a publicly owned system would not be able to operate and maintain the utility system at lower rates than those of the regulated private utility over at least the first 5-6 years of operation, and possibly well beyond. This is due to the high cost of system acquisition (and high annual debt service) and significant ongoing capital improvement needs through year 20.

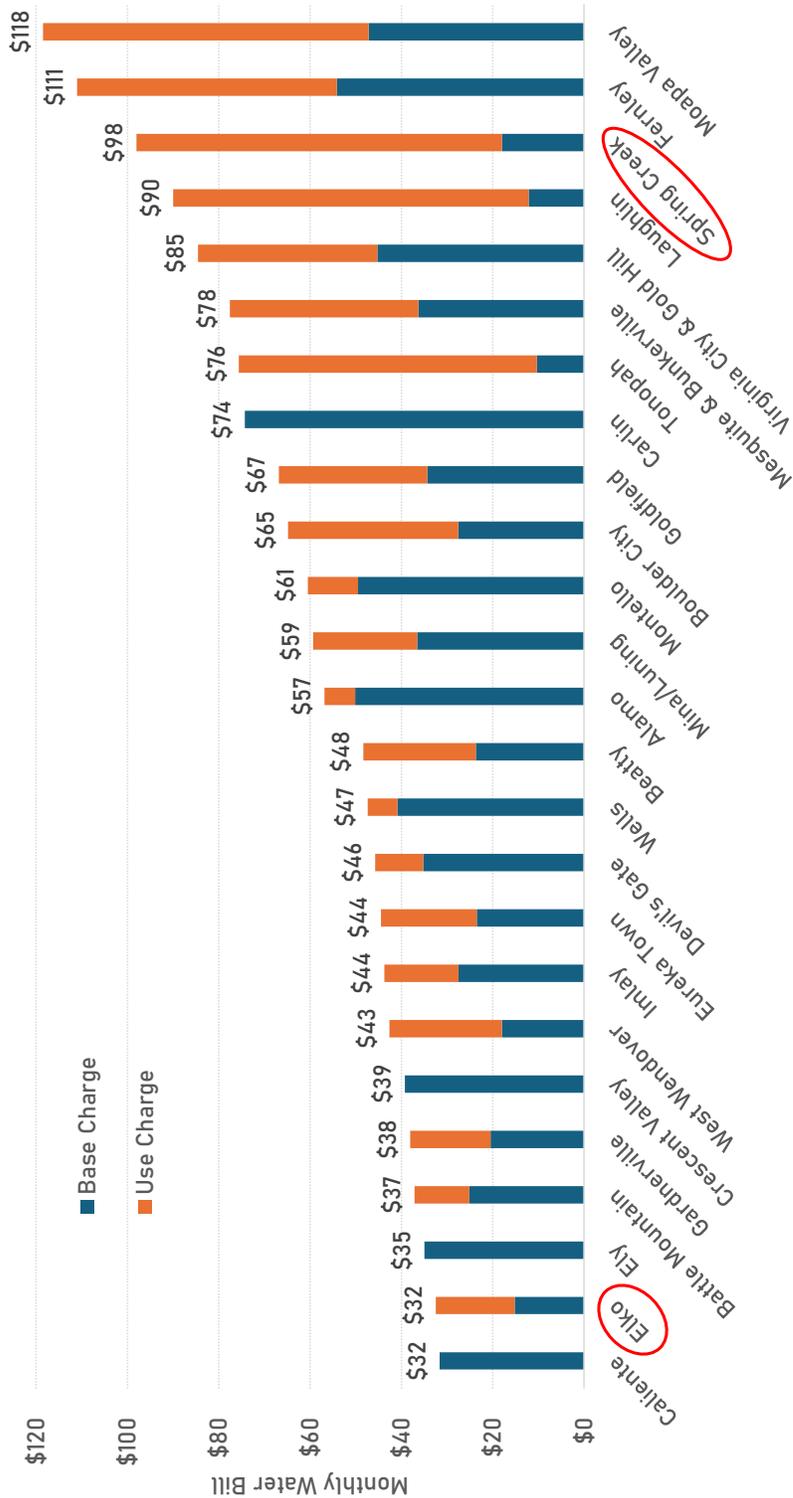
Comparison Water Rates

Spring Creek's current water bill for a single-family home using 15,000 gallons is compared with water bills of several other Nevada communities in Figure 1. Many of the comparison community water providers are funding their operations and capital needs through transfers of General Fund discretionary revenues, and many of the providers have not increased their rates for a long time (more than ten years). Communities with population size most similar to Spring Creek include Boulder City, Elko, Mesquite & Bunkerville, and Fernley. Note that the City of Fernley also charges for water system debt with property taxes, a water system cost not reflected in the water bill.

The comparison does not provide an equitable comparison, as water bills do not show the true cost of service for all the water systems, but it does show that Spring Creek does not have the highest water rates in the State. The comparison also shows that Spring Creek

customers can control their water bill better than many other comparison communities because the base charge is lower than in most other communities.

Figure 1
Comparison Monthly Water Bills for 15,000 Gallons



Generally, federal and state agencies consider water bills that are lower than 2% of Median Household Income (MHI) reasonable for a community, using typical monthly water consumption of 15,000 gallons. Table 1 shows two pieces of information considered by federal and state agencies when offering financial assistance to water providers. First, the Spring Creek Census Designated Place (CDP) has a higher median household income than the State of Nevada. If a community has an MHI lower than 80% of the State's MHI it is considered Disadvantaged. Spring Creek is not considered Disadvantaged. Second, the water bill for consumption of 15,000 gallons is \$98.05, which is 1.07% of monthly MHI. Water rates usually need to be greater than 1.5% of MHI for federal and state agencies to offer principal forgiveness or grant funding, and bills below this level are considered reasonable. The MHI analysis demonstrates that water bills (and rates) are not unreasonable when compared to the MHI of Spring Creek.

Table 1
Test of Water Rates Affordability

Item	Current
Median Household Income (MHI)	
Statewide Nevada [1]	\$71,646
Estimated Spring Creek CDP [1]	\$109,952
MHI as % of the State MHI [2]	153.5%
Monthly Water Bill	<i>@ 15,000 galls</i>
Monthly Water MHI	\$9,163
Avg. Monthly Water Bill	\$98.05
Avg. Monthly Bill as % of MHI [3]	1.07%

Source: HEC, and US Census Bureau.

[1] 2022 5-year American Community Survey table 1901.

[2] Per the Drinking Water State Revolving Fund program, a community with an MHI <80% of the Statewide MHI is Disadvantaged.

[3] Generally, water bills <2.0% of MHI are considered reasonable.

Effect on Property Values

The affordability analysis demonstrates that water rates are unlikely to be a major consideration for prospective home buyers in Spring Creek. There are many more economic variables, such as interest rates, housing supply, unemployment, and wages that that would outweigh water bills as an effect on property values.

04. Water Supply (Basin 048) and System Capacity

Spring Creek is located within State of Nevada Groundwater Basin 048 – Dixie Creek-Tenmile Creek Area. Below is a list and brief description of State Engineer Orders related to Basin 048:

- Order 848 (filed in 1984) – Designation of Basin 048 – The State Engineer has determined that the basin needs additional administration.
- Order 1120 (filed in 1996) – Curtailment of Water Appropriation – The State Engineer has determined that the basin is being depleted and new applications for appropriation of water (with few exceptions) will be denied. NOTE – this Order closed Basin 048 to new appropriation applications.
- Order 1251 (filed in 2015) – Order to install a totalizing meter on all groundwater wells (with few exceptions, i.e. domestic wells) in most of the basins within the Humboldt River Basin Hydrographic Region including Basin 048.
- Order 1286 (filed in 2017) – Order for all surface water right users within the Humboldt River Hydrographic Region to install and maintain headgates, weirs and measuring devices for all surface water withdrawals (with few exceptions).
- Order 1329 (filed in 2021) – Establishing Interim Procedures for Managing Groundwater Appropriations to Prevent the Increase of Capture and Conflict with Rights Decreed Pursuant to the Humboldt River Adjudication. The State Engineer has determined that groundwater pumping in certain areas of groundwater basins located within or near surface water sources (rivers or streams) can conflict with decreed surface water rights in that a portion of the groundwater pumping in these areas capture surface water rights that would otherwise flow to downstream decreed (senior) surface water rights holders. The order establishes procedures the state will use in reviewing and (approving or denying) applications (including applications to change the points of diversion of existing groundwater rights). For example, the state will deny a change application if it determines that granting the application would conflict with existing senior rights due to stream capture.

The Nevada Division of Water Resources (DWR) recently (November 2023) published a Basin Status Assessment Map Series report that estimates the amount of potential groundwater pumping that could conflict with surface water rights due to stream capture in groundwater basins throughout the state. The potential conflict amount shown in Basin 048 is 600-1,200 acre-feet (per year). When compared to the total amount of groundwater rights in Basin 048 (approximately 20,000 acre-feet per year), the potential groundwater pumping conflict with senior surface water rights is deemed to be very low. Regarding Basin 048, the main issue in the state's review of applications to change the point of diversion of existing groundwater rights under this order is that if the new point of diversion lies within a stream capture zone, it will be denied. However, new change

application points of diversion which are outside of a stream capture zone should be reviewed in the same manner as they were reviewed prior to this order taking effect.

Over-appropriated vs Over-pumped status of Basin 048

The DWR report from November 2023 referenced above shows that while Basin 048 is slightly over-appropriated (over-appropriated means there are more water right commitments than the basin's perennial yield), it is not over-pumped (over-pumped means more total annual basin pumping than the basin's perennial yield).

GBWC Water Resources, Capacity, and Growth

In review of GBWC's 2024 IRP, the company holds 7,103 acre-feet (per year) of water rights in Basin 048. As described above and shown in Table A, GBWC pumped an average of 918 million gallons from 2020-2022 which equates to 2,817 acre-feet (per year) which is far less than the water rights held. This indicates that GBWC has a sufficient amount of water rights for a significant amount of growth, although buildout of their current service territory would only allow service to approximately 350 more lots. Service beyond the existing service territory would need to be approved by the PUCN from a formal application to do so. While new developments in the Spring Creek area have been considered in recent years, our understanding is that none of them are moving forward at this time.

In their IRP, GBWC does forecast growth for the next 20 years. Their forecast estimates having 5,935 service connections in 2044 compared to approximately 5,125 today (a 15.8-percent increase). GBWC also reviewed their current and future (2044) well supply capacity and storage capacity and concludes that their existing well and storage facilities can meet Nevada Administrative Code (NAC) requirements for both present and future (2044) demands, but notes that some well improvements/replacements and storage tank repairs or replacements will be required in the next few years in order to maintain those capacities. Note that the capacity discussion in this paragraph only includes well supply and storage capacity and does not address distribution system deficiencies. From the discussion in Section 02 above, there are significant deficiencies in the distribution system (aged and undersized water mains) that need to be replaced on an ongoing basis in order to meet current NAC standards and fire flow requirements.

APPENDIX A

SUPPORT TABLES TO ESTIMATE REVENUE
REQUIREMENTS OF A PUBLIC VERSUS PRIVATE
SPRING CREEK UTILITIES PROVIDER

All tables are DRAFT

Table A
Water System Statistics Comparison with City of Elko

Description	GBWC - SC water system	City of Elko water system	Comments
Population Served	15,080	20,513	see notes
Water Services			
Residential metered	5,010	1,161	
Residential unmetered	0	8,963	
Comm'l / Ind. / Irrig.	65	376	all metered
Total Services	5,075	10,500	
Production Facilities			
Production wells	12	17	active wells
Storage tanks	9	10	active tanks
Pump stations	5	0	active pump stations
Treatment facilities	3	0	SC wellhead arsenic treatment
Miles of water main	140	185	
Average annual pumpage - MG	918	2,252	see notes
Average annual demand - MG	804	N/A	Elko system not fully metered
Unaccounted for water - %	12.4	N/A	Elko system not fully metered

Notes:

GBWC - Spring Creek system - all data is from recent PUCN filings including CY 2023 Annual Report.

City of Elko population is from the 2022 American Community Survey (US Census) estimates of population.

Spring Creek average annual pumpage and metered usage is a 3-year average (2020-2022).

All other City of Elko data was provided by the City of Elko Utilities Department.

Table B
Comparison of a Municipally-Owned Spring Creek Utilities with the City of Elko

Item	GBWC Financials			Adjustment for Public	Estimated Public System	Elko City Water Only
	Water	Wastewater	Combined			
Rate Base / Net Book Value	\$26,634,388	\$435,716	\$27,070,000			\$22,509,000
Depreciation Expense	\$1,273,633	\$48,850	\$1,322,000		\$1,322,000	\$859,000
Operating Revenues	\$5,698,001	\$195,336	\$5,893,000		\$5,893,000	\$4,354,000
Operating Expense						
salaries and wages	\$636,574	\$27,122	\$664,000		\$664,000	\$1,009,000
benefits (health + retirement)	\$161,096	\$7,128	\$168,000	\$164,000	\$332,000	\$590,000
Subtotal Wages + Benefits	\$797,670	\$34,250	\$832,000	\$164,000	\$996,000	\$1,599,000
purchased power	\$407,753	\$20,205	\$428,000		\$428,000	
chemicals	\$98,318	\$1,550	\$100,000		\$100,000	
materials and supplies	\$67,885	\$2,756	\$71,000		\$71,000	\$2,409,000
contract svcs - engineering	(\$205)	\$0	\$0	\$30,205	\$31,000	
contract svcs - accounting	\$0	\$0	\$0	\$30,000	\$30,000	
contract svcs - legal	\$8,830	\$386	\$9,000	\$30,784	\$40,000	
contract svcs - mgmt fees	\$557,386	\$24,245	\$582,000		\$582,000	
contract svcs - testing	\$30,261	\$0	\$30,000		\$30,000	
contract svcs - other	\$4,060	\$30	\$4,000		\$4,000	
rental of bldg/real property	\$14,831	\$645	\$15,000		\$15,000	
rental of equipment	\$0	\$0	\$0		\$0	
transportation expense	\$48,008	\$1,984	\$50,000		\$50,000	
insurance expense - vehicle	\$12,604	\$584	\$13,000		\$13,000	
insurance expense - liability	\$116,746	\$5,080	\$122,000		\$122,000	
insurance exp - workers comp	\$13,491	\$587	\$14,000		\$14,000	
insurance expense - other	\$20,006	\$871	\$21,000		\$21,000	
advertising expense	\$1,044	\$0	\$1,000		\$1,000	
reg. exp. - rate case amort.	\$256,566	\$7,273	\$264,000	(\$263,839)	\$1,000	
water resource conser exp	\$30	\$0	\$0		\$0	
bad debt expense	\$58,506	\$0	\$59,000		\$59,000	
miscellaneous expense	\$162,902	\$24,365	\$187,000		\$187,000	
Taxes other than income	\$291,557	\$4,735	\$296,000	(\$296,292)	(\$1,000)	
Federal Income Tax	\$1,496	\$66	\$2,000	(\$1,562)	\$1,000	
Provision for Deferred Inc Tax	\$185,805	\$8,137	\$194,000	(\$193,942)	\$1,000	
Operating Expense	\$3,155,550	\$137,749	\$3,294,000	(\$500,646)	\$2,796,000	\$4,008,000
Net Operating Income	\$2,542,451	\$57,587	\$2,599,000	\$500,646	\$3,097,000	\$346,000
Other income and deductions						
AFUDC (income)*	\$138,568	\$0	\$138,568	(\$138,568)	\$0	
CIAC Amort. Exp. Credit	(\$186,532)	(\$8,792)	(\$195,324)	\$195,324	\$0	
Amort. of Utility Plant adj	(\$1,877)	(\$82)	(\$1,959)	\$1,959	\$0	
Gains/Losses - disp of prop	(\$297)	(\$13)	(\$310)	\$310	\$0	
Total Other Income / Deductions	(\$50,138)	(\$8,887)	(\$59,025)	\$59,025	\$0	\$0
Total Net Income (rounded)	\$2,493,000	\$49,000	\$2,540,000	\$560,000	\$3,097,000	\$346,000

Sources: City of Elko and Spring Creek Utilities 2023 Annual Report.

Table C
Benefits as Ratio of Wages

Owner	Benefits	Wages & Salaries	Benefits Ratio
Spring Creek Utilities - GBWC	\$168,000	\$664,000	25%
City of Elko Water	\$590,000	\$1,009,000	58%

Table D
Capital Improvement Costs

Plan	Water	Sewer	Total
IRP PUCN-Approved 3-Year Capital Projects	\$6,331,000	\$609,000	\$6,940,000
Years 4-20 Capital Projects			
Estimated Cost of Capital Plan years 4-20			\$46,128,600
Average annual CIP spend yrs 4-20 (rounded)			\$2,714,000

Sources: GBWC 2024 IRP and PUCN Order and Stipulation.

Table E
SRF Debt Service Assumptions

Item	SRF Loan
Funding Uses	
Purchase System	\$27,100,000
Capital Improvements	\$7,000,000
Issuance Costs	\$900,000
Total Bond Proceeds	\$35,000,000
Annual Debt Service	\$1,718,000
<hr style="border-top: 3px double black;"/>	
Interest Rate	2.7%
Repayment Period (years)	30

Table F
 Projected Cash Flow for Municipally-Owned Spring Creek Utilities (page 1)

Revenues and Expenses	Base with adj. [1]	Fiscal (Calendar) Year											
		1	2	3	4	5	6	7	8	9	10		
Operating Revenue	increase	5.50%	5.50%	5.50%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%
Annual Rates	\$ 5,893,000	\$6,217,000	\$6,558,000	\$6,918,000	\$7,246,000	\$7,590,000	\$7,950,000	\$8,327,000	\$8,722,000	\$9,136,000	\$9,569,000	\$9,999,000	\$10,438,000
Operating Expense													
Annual	\$ 2,796,000	\$2,894,000	\$2,995,000	\$3,100,000	\$3,209,000	\$3,321,000	\$3,437,000	\$3,557,000	\$3,681,000	\$3,810,000	\$3,943,000	\$4,076,000	\$4,213,000
Net Operating Revenue	\$ 3,097,000	\$3,323,000	\$3,563,000	\$3,818,000	\$4,037,000	\$4,269,000	\$4,513,000	\$4,770,000	\$5,041,000	\$5,326,000	\$5,626,000	\$5,938,000	\$6,251,000
Debt Service		\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000
Debt Service Coverage		2.07	2.22	2.22	2.35	2.48	2.63	2.78	2.93	3.10	3.27	3.44	3.61
Net Revenues	\$3,097,000	\$3,323,000	\$1,845,000	\$2,100,000	\$2,319,000	\$2,551,000	\$2,795,000	\$3,052,000	\$3,323,000	\$3,608,000	\$3,908,000	\$4,213,000	\$4,526,000
Beginning Balance		\$0	\$4,323,000	\$5,918,000	\$7,768,000	\$6,662,000	\$5,661,000	\$5,021,000	\$4,500,000	\$4,107,000	\$3,850,000	\$3,622,000	\$3,404,000
Start-Up Capital		\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Revenues		\$3,323,000	\$1,845,000	\$2,100,000	\$2,319,000	\$2,551,000	\$2,795,000	\$3,052,000	\$3,323,000	\$3,608,000	\$3,908,000	\$4,213,000	\$4,526,000
Repayment of Start-Up Capital [2]			(\$250,000)	(\$250,000)	(\$250,000)	(\$250,000)	(\$250,000)	(\$250,000)	(\$250,000)	(\$250,000)	(\$250,000)	(\$250,000)	(\$250,000)
Capital Projects [3]					(\$3,175,000)	(\$3,302,000)	(\$3,435,000)	(\$3,573,000)	(\$3,716,000)	(\$3,865,000)	(\$4,020,000)	(\$4,175,000)	(\$4,330,000)
Ending Balance	\$0	\$4,323,000	\$5,918,000	\$7,768,000	\$6,662,000	\$5,661,000	\$5,021,000	\$4,500,000	\$4,107,000	\$3,850,000	\$3,622,000	\$3,404,000	\$3,186,000
Restricted or Designated													
SRF Loan Reserve		\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000
Emergency Reserve		\$100,000	\$200,000	\$300,000	\$400,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
Total Restricted / Designated	\$1,818,000	\$1,918,000	\$2,018,000	\$2,118,000	\$2,218,000								
Unrestricted	\$2,505,000	\$4,000,000	\$4,000,000	\$5,750,000	\$4,544,000	\$3,443,000	\$2,803,000	\$2,282,000	\$1,889,000	\$1,632,000	\$1,520,000	\$1,402,000	\$1,268,000
Months of operating cost	10	16	22	17	12	10	8	6	5	5	5	5	5

[1] GBWC's 2023 financials with estimated adjustments for a municipally-owned utilities system.
 [2] Assumes no interest paid on a start-up capital loan from either Elko County or SCOA.
 [3] Capital cost of \$2.714 million (2024 dollars) adjusted for inflation each year using 4% inflation factor.

Table F
 Projected Cash Flow for Municipally-Owned Spring Creek Utilities (page 2)

Revenues and Expenses	Fiscal (Calendar) Year									
	11	12	13	14	15	16	17	18	19	20
Operating Revenue	4.00%	4.00%	4.00%	4.00%	4.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Annual Rates	\$9,951,000	\$10,349,000	\$10,762,000	\$11,192,000	\$11,639,000	\$11,988,000	\$12,347,000	\$12,717,000	\$13,098,000	\$13,490,000
Operating Expense	No customer growth is included in the analysis as service area is nearly built out.									
Annual	\$4,081,000	\$4,224,000	\$4,372,000	\$4,525,000	\$4,683,000	\$4,847,000	\$5,017,000	\$5,193,000	\$5,375,000	\$5,563,000
Net Operating Revenue	\$5,870,000	\$6,125,000	\$6,390,000	\$6,667,000	\$6,956,000	\$7,141,000	\$7,330,000	\$7,524,000	\$7,723,000	\$7,927,000
Debt Service	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000
Debt Service Coverage	3.42	3.57	3.72	3.88	4.05	4.16	4.27	4.38	4.50	4.61
Net Revenues	\$4,152,000	\$4,407,000	\$4,672,000	\$4,949,000	\$5,238,000	\$5,423,000	\$5,612,000	\$5,806,000	\$6,005,000	\$6,209,000
Beginning Balance	\$3,738,000	\$3,709,000	\$3,767,000	\$3,916,000	\$4,161,000	\$4,506,000	\$4,840,000	\$5,159,000	\$5,460,000	\$5,739,000
Start-Up Capital	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Revenues	\$4,152,000	\$4,407,000	\$4,672,000	\$4,949,000	\$5,238,000	\$5,423,000	\$5,612,000	\$5,806,000	\$6,005,000	\$6,209,000
Repayment of Start-Up Capital [2]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Projects [3]	(\$4,181,000)	(\$4,349,000)	(\$4,523,000)	(\$4,704,000)	(\$4,893,000)	(\$5,089,000)	(\$5,293,000)	(\$5,505,000)	(\$5,726,000)	(\$5,956,000)
Ending Balance	\$3,709,000	\$3,767,000	\$3,916,000	\$4,161,000	\$4,506,000	\$4,840,000	\$5,159,000	\$5,460,000	\$5,739,000	\$5,992,000
Restricted or Designated										
SRF Loan Reserve	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000	\$1,718,000
Emergency Reserve	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
Total Restricted / Designated	\$2,218,000	\$2,218,000	\$2,218,000	\$2,218,000	\$2,218,000	\$2,218,000	\$2,218,000	\$2,218,000	\$2,218,000	\$2,218,000
Unrestricted	\$1,491,000	\$1,549,000	\$1,698,000	\$1,943,000	\$2,288,000	\$2,622,000	\$2,941,000	\$3,242,000	\$3,521,000	\$3,774,000
Months of operating cost	4	4	5	5	6	6	7	7	8	8

[1] GBWC's 2023 financials with estimated adjustments for a municipally-owned utilities system.

[2] Assumes no interest paid on a start-up capital loan from either Elko County or SCOA.

[3] Capital cost of \$2.714 million (2024 dollars) adjusted for inflation each year using 4% inflation factor.