ROCKVILLE PIPELINE COMPANY
WATER MASTER PLAN

February 2015

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I. INTRODUCTION

A. PREFACE

The Rockville Pipeline Company (RPC) operates the culinary water system serving the residents of the Town of Rockville. In recent years, RPC's water source exceeded the Maximum Contaminant Level (MCL) for Radium-228 established by the EPA. This exceedance triggered a requirement for increased monitoring and reporting of Radium-228 to the Utah Division of Drinking Water (DDW) and to customers of the water system. The ongoing monitoring has shown that the Radium-228 levels have dropped back below the MCL and the violation has been officially closed. However, the State has required that RPC prepare a plan which could be implemented to address Radium-228 levels in the event that the MCL is again exceeded in the future.

RPC has contracted with Sunrise Engineering to provide a Master Plan for their culinary water system. The Master Plan will evaluate and make recommendations for the entire water system, and will include specific information to address treatment for Radium-228 as required by the State.

B. INTRODUCTION

RPC has funded this Master Plan Study to evaluate their ability to meet increasing demands on the system, and to rectify known and unknown deficiencies in the culinary water system. The system has been analyzed under The State of Utah Division of Drinking Water Regulations to determine the current system status and to determine possible system upgrades as the community changes over the next 20 years. As part of this study, Sunrise Engineering, Inc. has recommended several improvements to the culinary water system and has developed a simple financing plan as a possible means to fund the recommended improvements.

The existing water rates and applicable fees have also been analyzed as a possible means of supporting the recommended system improvements. The recommended culinary water rates are fair and reasonable; they will allow Rockville Town to continue to maintain the level of service that is required of culinary water systems for the present time and over the 20-year planning period.

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II. SYSTEM USERS ANALYSIS

A. Projected Growth Rate

The projected growth rate gives the planner an idea of the future demands on the culinary water system. Projecting the number of future culinary water connections is a subjective process. Table II-A shows the official census historic growth rate and provides an idea of how the community population has changed from 1980 through 2012.

Table II-A: Historic Growth Rate

Year	US Census Population	Annual Growth Rate	
1980	156	-	-
1990	184	1980-1990	1.7%
2000	248	1990-2000	3.0%
2010	245	2000-2010	-0.1%
2012 (Est.)	251	2010-2012	0.5%
Average	-	1980-2012	1.5%

The census data shows that there were population increases in the 1980s and 1990s but the population has leveled out since the turn of the century. Over the period from 1980 to 2010, the average annual population growth rate was 1.5%.

For the purposes of this study an average annual growth rate of 1.5% will be used. This growth rate is expected to reflect growth similar to what the town has experienced in the past and does not include any major developments as none are currently expected. This growth rate results in an average of two or three new culinary water system connections each year throughout the 20-year planning period.

It is important to understand that projected growth rates are not the cornerstone of this Master Plan. If the number of system connections projected in this report is reached earlier or later than projected, then the future improvements may be constructed earlier or later to support such growth.

B. Length of Planning Period

This culinary Water Master Plan uses a 20-year planning period beginning in the year 2014, and running through 2034. Water rights will be evaluated with a 40-year planning period. This period will allow an adequate evaluation of the system for potential infrastructure improvements or other needs.

C. Culinary Water Connections

Current culinary water connection and usage data supplied by Rockville Pipeline Company provides the yearly averages provided in Table II-B.

Table II-B: Average Annual ERUs

Year	Active Residential Connections	Inactive Residential Connections	Other Connections	**Total ERU's**
2011	135	17	0	152
2012	132	20	0	152
2013	132	20	0	152
2014	129	23	0	152
*2015	131	23	0	154
** Future connections projected using assumed growth rate*				

The total number of ERUs has remained the same over the last few years. This is the total number of connections that RPC serves. Because of the seasonal nature of the area, the number of active/inactive connections fluctuates month to month, thus the averages very slightly year to year.

Typically, commercial or other types of connections use much more water than residential connections. An Equivalent Residential Unit (ERU) value allows the comparison of water use between residential and any other type of connection. For the purpose of this study, all connections are assumed to be equivalent types, because RPC has not distinguished between residential, commercial or other connection types. This situation could rapidly change if new commercial or other connections are approved and usage of these connections is higher than usage of typical connections.

Sunrise Engineering, Inc. is unaware of any annexation or new development plan by the Town of Rockville. This is consistent with the historical user data having the same number of connections for the last four years. It should be noted that because no commercial connections are shown in this plan, any commercial or other connection with large usage could have a significant impact on this plan and the culinary water system. Should any connections distinguished as commercial or other be introduced into the system, their effect on the system should be evaluated.

The number of future culinary ERUs can be calculated using the compound interest formula and inserting the projected growth rate, the existing number of culinary water ERUs, and the 20-year planning period for culinary water improvements.

$$F = P(1 + i)^N$$

F = Future ERUs
P = Present ERUs
i = Projected Growth Rate
N = Planning Period in Years

20-Year Projected ERUs $154(1 + 0.015)^{20} = 207$

The total number of ERUs projected for the end of the 20-year planning period (2034) is 207. It is recommended that RPC size all future culinary water related infrastructure improvements for at least 207 ERUs. It should be noted that the recommended improvements contained herein are not intended to provide adequate service for buildout conditions.

III. WATER RIGHTS ANALYSIS

The water right research identified six water rights of interest which included "Rockville" as part of the owner's name. Rockville Pipeline Company has partial ownership stake in four of them, while the other two appear to be held by separate entities associated with the Town of Rockville. It is recommended that RPC verify the findings in the water right report found in Appendix E as Sunrise is unable to guarantee the correctness of the data acquired from the Utah Division of Water Rights website.

A. EXISTING WATER RIGHT

RPC has ownership in four water rights denoted by water right numbers 81-106, 81-395, 81-450, and 81-3065. All four share the source of Buttermilk Spring and five wells. The total duty sums to 113.4 ac-ft/yr with a max rate of 67.3 gpm. Table III-A lists the water rights owned by RPC.

Table III-A: Rockville Pipeline Company Water Rights

Culinary Water Rights		Flow		
W.R. #	**Source**	**gpm**	**cfs**	**AcFt.**
81-106	Buttermilk Spring and Five Wells - Existing	16.2	0.036	26.06
81-395	Buttermilk Spring and Five Wells - Existing	31.4	0.07	50.68
81-450	Buttermilk Spring and Five Wells - Existing	19.7	0.04	31.85
81-3065	Underground Water Wells (5) and Buttermilk Springs	-	-	4.80
	Total Water Rights	**67.3**	**0.15**	**113.4**

B. EXISTING REQUIRED WATER RIGHT

Under minimum sizing requirements, the State of Utah Public Administrative Rules for Public Drinking Water Systems, R309-510 states: Sources shall legally and physically meet water demands under two separate conditions. First, they shall meet the anticipated water demand on the day of the highest water consumption. This is referred to as the peak day demand. Second, they shall also be able to provide one year's supply of water, the average yearly demand. Peak day demand will be addressed in the Water Source Capacity Analysis section, while the average yearly demand will be addressed here.

Rockville's historical water use data from February 2011 through March 2014 show that the average daily use for residential connection is approximately 250 gallons per day. This number represents indoor and outdoor water use. It does not take into account private water sources. Future water use is assumed to match historical water use.

Table III-B: Average Historical Water Use

	2011	2012	2013	Average
Residential				
Usage (gallons)	12,154,830	11,328,540	12,940,040	12,141,137
Connections (ERUs)	135	132	132	133
Usage Per Connection (gal/year)	89,854	85,768	97,907	91,176
Daily Usage Per Connection (gal/day)	246	235	268	250
Based on Historical usage data	250	gpd will be used for new connenctions		

Table III-A shows that there is 113.4 ac-ft/yr of water at a maximum rate of 67.3 gpm available to RPC. Table III-C calculates the demand for water rights based on average water use, which results in a surplus of 70 acft annually.

Table III-C: Existing Required Water Right Calculations

Average Demand (Total Use)

154 ERUs X 250 gpd / ERU X 1 day / 24 hr X 1 hr / 60 min. = 27 gpm

154 ERUs X 250 gpd / ERU X 365 day / 1 yr X 1 Acft. / 325,829 gal = 43 acft

Total Required Water Right	**43**	**Acft**	**27** **gpm**
Existing Culinary System Water Right Surplus	**70**	**Acft**	**41** **gpm**

C. Projected Required Water Right

To help protect existing water rights, and ensure availability of water in the future, the projected horizon for water rights has been set for 40 years. Assuming the existing town grows at an annual rate of 1.5%, there will be 279 ERUs in Rockville at the end of the 40 year planning period. Table III-D below shows that there will continue to be a surplus of 35 acft. This equates to an average flow of 48 gpm or 78 acft of water use annually.

Table III-D: Projected Water Right Demand

Average Demand (Total Use)

279 ERU's X 250 gpd / ERU X 1 day / 24 hr X 1 hr / 60 min. = 48 gpm

279 ERU's X 250 gpd / ERU X 365 day / 1 yr X 1 Acft. / 325,829 gal = 78 acft

Total Required Water Right	**78**	**Acft**	**48** **gpm**
Projected Culinary System Water Right Surplus	**35**	**Acft**	**19** **gpm**

D. Recommended Water Right Improvements

The whole of our recommendations are in the water rights report provided in Appendix E. In short we recommend being proactive in maintaining and managing your water rights. Some water rights have as many as three different owners listed. Evaluate these on a case by case basis to consider proper segregations. Some of the waters rights have an "unevaluated" sole supply or have not been given a quantified duty. Submitting a "Declaration of Beneficial Use Amounts" form will compel the Division of Water Rights to evaluate these rights and update their database. There are also some inconsistencies in the Divisions database that creates some confusion about which values are which. Please reference the executive summary signed by Ken Tuttle, Water Rights Specialist for Sunrise Engineering, Inc., and the accompanying report for detailed recommendations for each listed water right.

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IV. WATER SOURCE CAPACITY ANALYSIS

A. Existing Water Source Capacity

Rockville's culinary water sources are the Buttermilk Spring and Five Wells. Historically, flows from the wells varied widely from well to well. Even though the water rights exceed 67 gpm, they are not able to generate this much flow from their sources. The maximum pumping capacity is 40 gpm, however this flow cannot be sustained. The sustainable source capacity was determined to be 21 gpm by averaging the pumping time and the time to recharge the aquifer after pumping. The wells are drawing from a rather shallow aquifer that is dwindling because of drought conditions over the last few years.

The separate water rights shown in the previous section are presented in a single instance here because of how the water is being drawn from the sources.

Table IV-A: Existing Source Capacity

Rockville Town Sources	Total Flow	
	CFS	gpm
Buttermilk Spring and Five Wells - Existing	0.047	21
Source Total =	**0.047**	**21**

B. Existing Required Water Source Capacity

Under minimum sizing requirements, the State of Utah Public Administrative Rules for Public Drinking Water Systems, R309-510 states: Sources shall legally and physically meet water demands under two separate conditions. First, they shall meet the anticipated water demand on the day of the highest water consumption. This is referred to as the peak day demand. Second, they shall also be able to provide one year's supply of water, at the average daily demand.

To comply with the state standard for peak day demand, the average ERU usage was multiplied by a factor of two, thus a total of 500 gpd was used in the calculations for existing town ERUs. A peak day demand of 500 gpd is consistent with (and higher than) historical peak usage data, where usage in the peak month of June over the last three years has averaged just 407 gpd.

The existing source capacity surplus or deficit is determined by subtracting the existing required source capacity of 53 gpm from the total available source capacity of 21, which yields a deficit of 32 gpm.

Table IV-B: Existing Required Source Capacity

Required Indoor/Outdoor Source								
154	ERUs X	500 gpd / ERU	X	1 day / 24 hr	X	1 hr / 60 min.	=	53 gpm
	Total Required Source Capacity							**53 gpm**
	Existing Culinary System Source Capacity Deficit							**-32 gpm**

C. Projected Required Water Source Capacity

Projected required water source capacity at the end of the planning period is determined from the same information and calculations explained in the previous section. The one exception is that the projected number of culinary water ERUs is substituted in the calculations for the number of existing ERUs.

Table IV-C: Projected Required Source Capacity

Required Indoor/Outdoor Source								
207	ERUs X	500 gpd / ERU	X	1 day / 24 hr	X	1 hr / 60 min.	=	72 gpm
	Total Required Source Capacity							**72 gpm**
	Projected Culinary System Source Capacity Deficit							**-51 gpm**

The projected source capacity surplus or deficit is determined by subtracting the projected required source capacity of 72 gpm from the total available source capacity of 21, which yields a deficit of 51 gpm.

D. Recommended Water Source Capacity Improvements

The calculations in this section demonstrate that Rockville does not currently have sufficient quality source capacity and sufficient source capacity throughout the planning period. The current system is not able to take advantage of all of the available water rights and cannot keep up with peak demand.

Table IV-D: Water Source Capacity Summary

Water Source Capacity Summary	
Existing Water Source	**21 GPM**
Existing Water Source Deficit	**-32 GPM**
Projected 2034 Water Source Deficit	**-51 GPM**

The most efficient method of pumping from wells to achieve maximum flow is to use only one pump. Having multiple wells pumping close to each other will cause the water table to drop more at all the

wells. The best solution to increase source flow is to increase the power of the pump on the most plentiful well. It could also be the case that the well(s) are not deep enough to sustain more flow. A new, deeper well could be a suitable solution. Another issue could be that the aquifer is depleting. In this case an alternate water source needs to be found to supply water to Rockville's distribution system. Please refer to the "Water Resources of the Town of Rockville, Eastern Washington County, Utah: a Report for the Washington County Water Conservancy District" dated September 10, 2004, for detailed options for possible new well locations.

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V. WATER STORAGE CAPACITY ANALYSIS

A. Existing Water Storage Capacity

RPC owns and operates two storage tanks on top of the ridge on the south east part of the town. Each tank is identified below in the table.

Table V-A: Existing Water Storage Capacity by Tank

Existing Storage Capacity:		
Original tank	100,000	gal.
2000 tank	300,000	gal.
Total Existing Storage Capacity	**400,000**	**gal.**

B. Existing Required Water Storage Capacity

Water storage capacity requirements are found in the State of Utah Administrative Rules for Public Drinking Water System, R309-510. These regulations require storage for a community's culinary water system to meet one full day's use requirement for all connections in the community plus the required fire flows for a minimum of two hours and any emergency storage as deemed necessary.

As shown in previous sections, the historic average water use per ERU in Rockville is 250 gallons per day for indoor and outdoor use in the existing town. Storage requirements for fire protection vary slightly from community to community. In general, fire flow requirements are set by the local Fire Chief or are based on building size and type of construction. The statewide minimum fire flow is 1,000 gpm. Based on this information, storage capacity is calculated in the following table.

Table V-B: Existing Storage Capacity Surplus

Existing Required Storage Capacity								
Existing Town ERUs								
	250 gpd / ERU	X	154	ERU	=	38,469	gpd
Fire Demand								
1,000 gpm	X	60 / 1	min / hr	X	2 hr	=	120,000	gal.
				Total Existing Required Storage			158,469	gal.
				Total Existing Storage Capacity			400,000	gal.
				Existing Storage Capacity Surplus			241,531	gal.

The existing water storage capacity surplus or deficiency is determined by subtracting the existing required water storage capacity of 158,469 gallons from the total available water storage capacity of 400,000 gallons, which yields an existing surplus of 241,531 gallons.

C. Projected Required Water Storage Capacity

The projected required culinary water storage capacity at the end of the planning period is determined from the same factors explained in the previous section with the exception that the projected number of culinary water ERUs is inserted in the calculations.

Table V-C: Projected Storage Capacity Surplus

Projected Required Storage Capacity in 2034								
Existing Town ERUs								
	250 gpd / ERU	X	207 ERU	=			51,708	gpd
Fire Flow								
1,000 gpm	X	60 / 1	min / hr	X	2 hr	=	120,000	gal.
					Total Required Storage		171,708	gal.
					Total Existing Storage Capacity		400,000	gal.
					Future Storage Capacity Surplus		228,292	gal.

The projected water storage capacity surplus or deficiency is determined by subtracting the projected required water storage capacity of 171,708 gallons from the total available water storage capacity of 400,000 gallons, which yields a projected surplus of 228,292 gallons at the end of the planning period.

D. Recommended Water Storage Capacity Improvements

Current storage systems are adequate for the purposes of this report. We recommend regular preventative maintenance to ensure the tanks function properly for their design life.

Table V-D: Water Storage Capacity Summary

Water Storage Capacity Summary		
Existing Water Storage Capacity	**400,000**	**Gallons**
Existing Water Storage Surplus	**241,531**	**Gallons**
Projected 2035 Water Storage Surplus (Existing Town Only)	**228,292**	**Gallons**

VI. WATER TREATMENT REQUIREMENTS

A. General Requirements

The State of Utah Administrative Rules for Public Drinking Water Systems, R309-510, in accordance with the National Safe Drinking Water Act, have adopted "primary" regulations for the protection of public health, and "secondary" regulation related to taste and aesthetics. The regulations recommend that all culinary water sources have provisions for continuous disinfection. RPC does operate continued disinfection for all water sources.

As previously mentioned, Radium-228 is present in the source water for Rockville. This radioactive isotope must be taken out of the water through treatment if the concentration of radiation exceeds 5 pCi/L. Due to a previous exceedance, RPC has been monitoring the Radium-228 levels in the water on a quarterly basis for several years. The results of these tests are shown in Figure VI-A below. While recent tests have shown a dip in radiation levels, treatment may still be required to ensure levels remain under the threshold of 5 pCi/L in the future. There are currently only disinfecting treatment systems installed for the Rockville Culinary Water System, thus a Radium treatment facility or other treatment plan may need to be implemented.

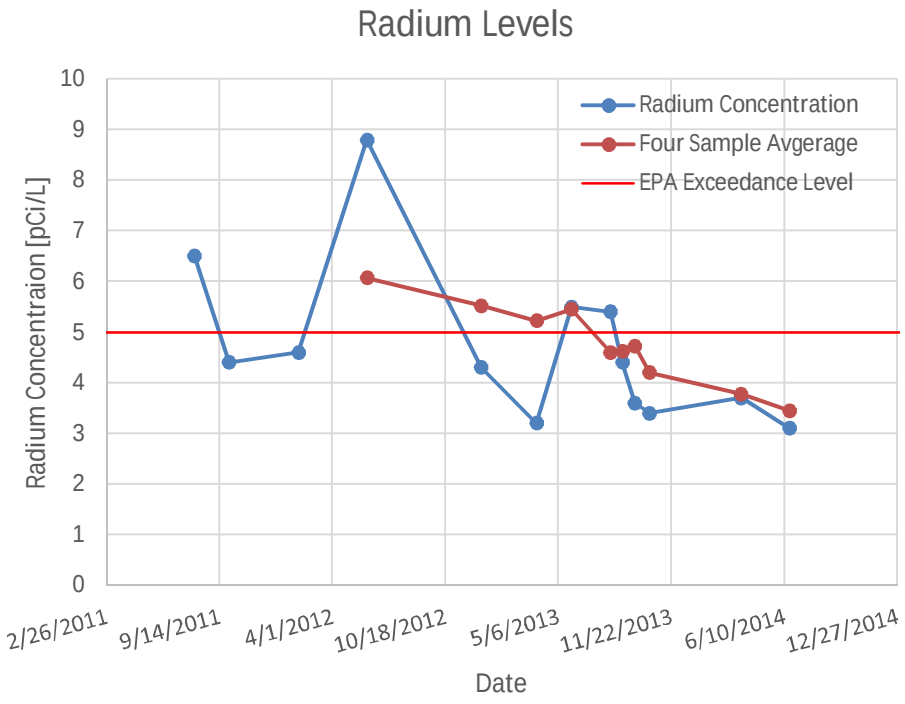

Figure VI-A: Radium Concentrations over Time

B. Existing Treatment Facilities

Disinfecting systems exist near the storage tanks and reside in a small treatment house to disinfect the water from the wells. There are no other drinking water treatment facilities owned by Rockville Pipeline Company.

C. Recommended Water Treatment Facility Improvements

Due to the requirement of the State for RPC to prepare a plan which could be implemented in case of a future Radium-228 exceedance, four different possible radium treatment methods were evaluated. The first two are adsorption filtration and media filtration. Adsorptive filters pull contaminate out of the water by the size, shape, and chemical treatment of the adsorptive media. Once the media is spent or full of radium, it must be replaced. In Rockville's case, the media would need to be replaced approximately every 18 months. The spent media is then radioactive, as it is full of Radium-228 and must be disposed of properly. No water is wasted in this process, and the only byproduct is the used up media.

Pressure filtration uses sands and anthracite, along with Hydrous Manganese Oxide (HMO) to filter contaminates out of water. A chemical feed of HMO sticks to contaminates and causes them to coagulate and precipitate out of the water. The process collects more than just Radium. Iron, manganese, and other ions that create water quality issues are treated simultaneously by precipitating out of the water. This process requires backwashing of the filters, causing a waste water stream of precipitate solution, referred to as sludge. Backwash frequency will depend on how much precipitant is created, but a safe assumption is daily. Eventually, the media will lose effectiveness and need to be replaced about every 10 years; again, this will depend on how much sludge is produced by treatment.

The other two options for treatment are reverse osmosis and blending. Reverse osmosis is not a viable options for Rockville because of high capital costs, high operating costs, and high volumes of water lost in treatment. Blending treatment requires that a secondary clean water source be used to mix with water from the RPC source water. Standards for Radium-228 concentration regulate that there is to be no more radiation than 5 pCi/L. Blending RPC source water with uncontaminated water will drop the concentration in the water delivered to the distribution system.

We recommend treatment by blending clean water from a secondary source with RPC primary source water. This alternative is shown to be the most economical option in terms of capital costs but not for net present value. In addition to providing water meeting EPA standards at a good price, it solves another rising problem RPC is faced with: not enough water. Primary source water is not entering the system at a sustainable rate. At the present, the wells do not meet the summer demand and there is not enough water to fulfill the peak day demand required by the State of Utah.

The following table shows the decision matrix used to choose the recommended treatment solution. Scoring the treatment options was done by giving the best solution for each category a score of three, the least favorable solution a score of one, and the middle option being prorated in between. Each category contains a weight that gets multiplied by the score to achieve a total point value for that category. The highest point total of all categories represents the best option based on the analysis performed.

Table VI-A: Treatment Decision Matrix

Category	Weight	Adsorptive Media		Pressure Filter		Blending	
Construction time	1	3.0	3.0	1.0	1.0	1.7	1.7
Water lost in treatment	3	1.2	3.5	1.0	3.0	3.0	9.0
Capital Costs	3	2.4	7.1	1.0	3.0	3.0	9.0
Annual O&M	3	2.1	6.3	3.0	9.0	1.0	3.0
Present Value Analysis	1	2.2	2.2	3.0	3.0	1.0	1.0
TOTALS		22.2		19.0		23.7	

A summary table showing each treatment alternative and information used to make this recommendation can be found in Appendix A.

We recommend purchasing water from Springdale for the clean secondary source water needed for the blending treatment. Springdale's published commercial water rates were used to prepare this report. The highest rate level is $10.09 per 1,000 gallons of water. This value was used to calculate the cost of the water needed for the blending alternative. Historically, Springdale has charged an average of $3.50 per 1,000 gallons for water delivered to Rockville. If Springdale continues charging the historical rates, then treatment by blending would be the most economical and viable option in almost all categories.

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VII. WATER DISTRIBUTION SYSTEM ANALYSIS

A. Existing Distribution System Analysis

The State of Utah Administrative Rules for Public Drinking Water Systems, R309-105-9, requires that no connection experience less than 20 psi at any time during operation of the system. The regulations also require that the distribution system be sized to maintain 30 psi while supplying peak instantaneous flow, 20 psi during peak day with fire flow demands, and 40 psi during peak day demands. As a general guideline, it is recommended that the system be able to provide a minimum static pressure of 50 psi at every point in the distribution system.

Table VII-A: Existing Distribution Demands

Indoor Peak Instantaneous Demand:

Q= 10.8 X N^.64 N= Number of ERU's

Q= 10.8 X (154) ^.64 = 271 gpm

Outdoor Peak Instantaneous Demand:

77 ERU. X (0.2 acre / ERU) X (6.78 gpm / irr. acre) = 104 gpm

Current Peak Instantaneous Demand = 376 gpm

Peak Day Demand & Fire Flow

Existing Town ERUs

154 ERU's X (500 gpd / ERU) X (1 day / 24 hr) X (1 hr / 60 min.) = 53 gpm

Fire Flow = 1,000 gpm

Current Peak Day Demand + Fire Flow = 1,053 gpm

The indoor peak instantaneous demand equation is found in the State of Utah Public Administrative Rules for Drinking Water System, R309-510. This Rule also provides the flow rate of 6.78 gpm per irrigated acre for the Outdoor Peak Instantaneous Demand in Utah Zone 3. The indoor and outdoor water use are calculated here to show a total demand on the system based on State standards. The 0.2 irrigated acres per ERU was determined by taking an average lawn size from a random sample of existing homes in Rockville. While it is difficult to determine an accurate assumption for irrigated acres per ERU in Rockville due to the small sample size, 0.2 irrigated acres per ERU is conservatively consistent with other rural southern Utah towns.

State Drinking Water Regulation R309-550 requires a minimum of 1,000 gpm fire flow if no recommendation has been provided by the local fire authority. The existing system and all projected improvements recommended for the distribution system will be analyzed and designed with a minimum fire flow of 1,000 gpm. State Drinking Water Regulation R309-550 also requires that fire hydrants be spaced a minimum of 500 feet and that all fire hydrants be supplied by an 8 inch diameter or larger pipeline; unless it can be proven through the use of modeling that a smaller line is sufficient.

The existing Rockville culinary water distribution system has been modeled, using the computer program H_2ONET® by MWH Soft, Inc. The current system does not meet the state standards in flows and pressures. Several locations do not sustain adequate pressures under the fire flow plus peak day demand scenario. These locations tend to be further away from the storage tanks and have smaller

pipe diameters; this combination prevents the system from being able to meet the state standards. Much of Rockville has 4" and 6" main lines with some 8" lines from newer installations. Maps and printouts from the H_2ONET analysis of the existing system are provided in Appendix B.

B. Projected Distribution System Analysis

The projected distribution system analysis is performed using the same assumptions as used in the existing system analysis, except that the projected number of ERUs in inserted into the calculations. The projected distribution peak instantaneous demand and total instantaneous peak demand are calculated in Table VII-B.

Table VII-B: Projected Distribution Demands

Indoor Peak Instantaneous Demand:							
Q=	10.8 X N^.64			N= Number of ERU's			
Q=	10.8 X	207	^.64		=	328	gpm
Outdoor Peak Instantaneous Demand:							
104	ERU. X	0.2 acre / conn.	X	6.78 gpm / irr. acre	=	140	gpm
	Projected Peak Instantaneous Demand				=	**468**	**gpm**
Peak Day Demand & Fire Flow							
Existing Town ERUs							
207	ERU's X	500 gpd / ERU	1 day / 24 hr	1 hr / 60 min.	=	72	gpm
	Fire Flow				=	1,000	gpm
	Projected Peak Day Demand + Fire Flow				=	**1,072**	**gpm**

The projected culinary water distribution system was modeled using the computer program H_2ONET® using projected demands. The results were similar to the existing conditions except with higher demands and slightly lower pressures.

C. Recommended Distribution System Improvements

The current culinary water distribution system in Rockville does not meet State of Utah standards for pressures and flows under the "peak daily use combined with fire flow" scenario. To bring the current system up to standards with the project flows, several undersized pipes will need to be replaced.

It is recommended that several sections of water line be upgraded to 8" water pipe. The largest section to be upgraded is on the north side of Main Street between approximately 350 West and 140 West. The next section is on the south side of Main Street between Bridge Road and 130 East and the last section is along the north east boundary of the Rockville Town Cemetery. These improvements will total approximately 2,540' of 8" pipe to be installed. See Appendix B for the Proposed Distribution System Improvements map and Appendix C for the Engineer's Opinion of Probable Cost for Distribution System Recommendations.

VIII. SUMMARY OF RECOMMENDED SYSTEM IMPROVEMENTS

A. Recommended Improvements

Radium treatment by blending is the recommended option based on the analysis of economic and non-economic factors. The construction required involves a new dedicated water line from the current metered location between Springdale and Rockville to the existing water tank. It is expected to cost approximately $80,000.

Distribution upgrades include upsizing several sections of 6" and 4" pipe to 8" pipe to improve fire flow and pressure requirements. The majority of this work will be on Main Street. It is expected to cost approximately $200,000 to complete the required construction.

B. Preliminary Engineer's Opinion of Probable Cost

After funding, administrative, engineering, geotechnical, and construction observation services, the overall project total is expected to be $331,420. This figure includes a 20% contingency. Opinions of Probable Costs are provided for each alternative and are presented as both separate projects and one improvements project. Some cost can be saved by performing all recommended work in one project. The Engineer's Opinion of Probable Cost has been included in Appendix C.

C. Financing Plan

A sample financing plan has been created which outlines a possible scenario to finance the recommended improvements. It is based on fiscal year 2016 being the first year with a new debt service payment due. The other 2016 expenses were based on average expenses for 2012 and 2013 from RPC historical financial statements. The purpose of the financing plan is to help ensure that all projected expenses are covered by user fees and other income. According to the plan, the total expenses for 2016 are projected to be $77,500. As indicated in the water rate analysis sections of this report, an average monthly water rate of $41.40 per ERU would be required to cover these expenses. The proposed Financing Plan and Cash Flow are included in Appendix D.

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IX. WATER RATE ANALYSIS

Generally water rates include a combination of base rates and overage rates. Typically, a base amount of water is provided for the base rate charge. The base rate is charged to all connections in the system whether or not water is used, and should cover all fixed costs of the system. Overage rates are normally set to encourage water conservation, but should always cover all variable costs of the system. Rockville Pipeline Company has established the following service fee rate structure:

Rates:	
$15.00	for first 5,000 gallons
$2.50/1,000 gal	5,000-15,000 gallons
$3.50/1,000 gal	15,000-30,000 gallons
$6.00/1,000 gal	30,000-50,000 gallons
$9.00/1,000 gal	above 50,000 gallons

Based on historical use, the average user consumes 6,700 gallons of water per month. According to the current rate structure the average user is billed $19.23 per month.

A. Average Rate Determination for Future Year

Annual revenues must be sufficient to cover the expenses incurred by construction, maintenance, and ongoing administration of the water system. These expenses include debt service, utilities, personnel salaries and benefits, system maintenance, legal and professional fees, and other miscellaneous items. It is also strongly recommended that RPC maintain a funded depreciation account or a replacement fund to provide the money necessary for replacement and repair of facilities and pipelines.

As indicated in the financing plan, if RPC were to move forward with the recommended improvements, the fees generated from any newly adopted rate structure would need to average at least $41.40 per ERU to cover the projected system expenses. It is recommended that an updated rate structure be implemented as soon as possible if RPC chooses to pursue construction of the proposed improvements.

B. Base and Overage Rate Determination

Because of the small size of the system, and because there are a considerable number of low use and high use users, the proposed user rates were based on the average cost per connection and not separated into fixed and variable costs. Table IX-A shows the recommended rate structure and Table IX-B shows other possible rate structures. These were analyzed so the average user pays approximately the required $41.40 to cover the projected expenses.

C. Summary

The current rate structure will not sustain the projected finances of Rockville Pipeline Company. The new proposed rate structure should allow RPC to maintain the existing water system and implement the recommended improvements. Table IX-A summarizes the recommended rate structure and Table IX-B offers two other rate structures that may also be adequate in sustaining RPC.

Table IX-A: Recommended Water Rate Structure

ROCKVILLE TOWN Possible Water Rate Structure		
Base Rate	$25.00	ERU/Month
Includes	1,000	Gallons
Overage Steps		
Cost Per 1,000 Gal.	Low Gallons	High Gallons
$2.70	1,000	6,000
$4.25	6,000	30,000
$5.00	30,000	50,000
$6.00	50,000	& UP

Usage	Rates	
(Gallons)	New Rate	Old Rate
0	$ 25.00	$ 15.00
5,000	$ 35.80	$ 15.00
6,690	$ 41.43	$ 19.23
10,000	$ 55.50	$ 27.50
30,000	$ 140.50	$ 92.50
70,000	$ 360.50	$ 332.50

Table IX-B: Other Possible Water Rate Structures

ROCKVILLE TOWN Other Possible Water Rate Structures					
Base Rate	$15.00	ERU/Month	Base Rate	$35.00	ERU/Month
Includes	0	Gallons	Includes	4,000	Gallons
Overage Steps			Overage Steps		
Cost Per 1,000 Gal.	Low Gallons	High Gallons	Cost Per 1,000 Gal.	Low Gallons	High Gallons
$3.50	0	3,000	$2.40	4,000	15,000
$4.30	3,000	15,000	$3.70	15,000	25,000
$5.00	15,000	35,000	$4.30	25,000	40,000
$6.00	35,000	& UP	$5.50	40,000	& UP

Usage	In Town Rates		Usage	In Town Rates	
(Gallons)	New Rate	Old Rate	(Gallons)	New Rate	Old Rate
0	$ 15.00	$ 15.00	0	$ 35.00	$ 15.00
5,000	$ 34.10	$ 15.00	5,000	$ 37.40	$ 15.00
6,690	$ 41.37	$ 19.23	6,690	$ 41.46	$ 19.23
10,000	$ 55.60	$ 27.50	10,000	$ 49.40	$ 27.50
30,000	$ 152.10	$ 92.50	30,000	$ 119.90	$ 92.50
70,000	$ 387.10	$ 332.50	70,000	$ 327.90	$ 332.50

APPENDIX A

FIVE POINT SYSTEM ANALYSIS

Population & Usage Data
Water Rights Data
Water Source Capacity Data
Water Storage Capacity Data
Water Treatment Data
Water Distribution System Data

Population & Usage Data

Month & Year	Water Usage Data		Connection Data		Average Daily Use
	Residential	# Days / Mon	Active	Inactive	[gal / ERU]
Feb-11	456,810	28	130	24	125.50
Mar-11	485,830	31	131	21	119.63
Apr-11	845,090	30	137	15	205.62
May-11	1,198,841	31	138	14	280.23
Jun-11	1,503,320	30	138	14	363.12
Jul-11	1,553,329	31	140	12	357.91
Aug-11	1,833,959	31	139	13	425.61
Sep-11	1,585,231	30	136	16	388.54
Oct-11	845,590	31	137	15	199.10
Nov-11	715,105	30	134	17	177.89
Dec-11	717,065	31	128	23	180.71
Jan-12	414,660	31	122	30	109.64
Feb-12	484,500	29	128	24	130.52
Mar-12	520,610	31	127	25	132.24
Apr-12	1,174,170	30	134	18	292.08
May-12	1,287,511	31	138	14	300.96
Jun-12	1,454,929	30	136	16	356.60
Jul-12	1,534,180	31	135	17	366.59
Aug-12	1,194,800	31	134	18	287.63
Sep-12	984,710	30	136	16	241.35
Oct-12	1,261,040	31	136	16	299.11
Nov-12	587,870	30	130	22	150.74
Dec-12	420,420	31	129	23	105.13
Jan-13	423,800	31	127	25	107.65
Feb-13	389,530	28	125	27	111.29
Mar-13	664,170	31	125	27	171.40
Apr-13	1,229,870	30	134	18	305.94
May-13	1,366,087	31	134	18	328.86
Jun-13	2,025,913	30	135	17	500.23
Jul-13	1,383,450	31	135	17	330.57
Aug-13	2,078,050	31	135	17	496.55
Sep-13	807,390	30	137	15	196.45
Oct-13	1,181,980	31	137	15	278.31
Nov-13	831,560	30	135	17	205.32
Dec-13	450,350	31	127	25	114.39
Jan-14	531,690	31	126	26	136.12
Feb-14	491,220	28	126	26	139.23
Mar-14	659,703	31	134	18	158.81
				Weighted average	242.19
				Average of averages	241.51

Month	Total Use	Averge Daily Us	Year*	Total Use	Averge Daily Use
	[gal]	[gal / ERU]		[gal]	[gal / ERU]
January	456,717	118	2011	12,154,830	244.46
February	455,515	127	2012	11,328,540	230.88
March	582,578	146	2013	12,940,040	264.62
April	1,083,043	268			
May	1,284,146	303	*Year omits Jan of that year and indudes Jan of the next year		
June	1,661,387	407			
July	1,490,320	352			
August	1,702,270	403			
September	1,125,777	275			
October	1,096,203	259			
November	711,512	178			
December	529,278	133			

Year	**US Census Population**	**Annual Growth Rate**	
1980	156	-	-
1990	184	1980-1990	1.7%
2000	248	1990-2000	3.0%
2010	245	2000-2010	-0.1%
2012 (Est.)	251	2010-2012	0.5%
Average	-	1980-2012	1.5%

Year	Est. Residential Growth Rate	Estimated Residential ERUs	Estimated ERUs	Estimated Population
2011	-	152	152	247
2012	-	152	152	251
2013	-	152	152	252
2014	1.5%	154	154	254
2015	1.5%	156	156	258
2016	1.5%	158	158	261
2017	1.5%	160	160	264
2018	1.5%	162	162	268
2019	1.5%	164	164	271
2020	1.5%	166	166	274
2021	1.5%	168	168	277
2022	1.5%	171	171	282
2023	1.5%	174	174	287
2024	1.5%	177	177	292
2025	1.5%	180	180	297
2026	1.5%	183	183	302
2027	1.5%	186	186	307
2028	1.5%	189	189	312
2029	1.5%	192	192	317
2030	1.5%	195	195	322
2031	1.5%	198	198	327
2032	1.5%	201	201	332
2033	1.5%	204	204	337
2034	1.5%	207	207	342
2039	1.5%	223	223	368
2044	1.5%	240	240	396
2049	1.5%	259	259	428
2054	1.5%	279	279	461
2059	1.5%	301	301	497

* 2012 Data is based on an estimate provided by the US Census.

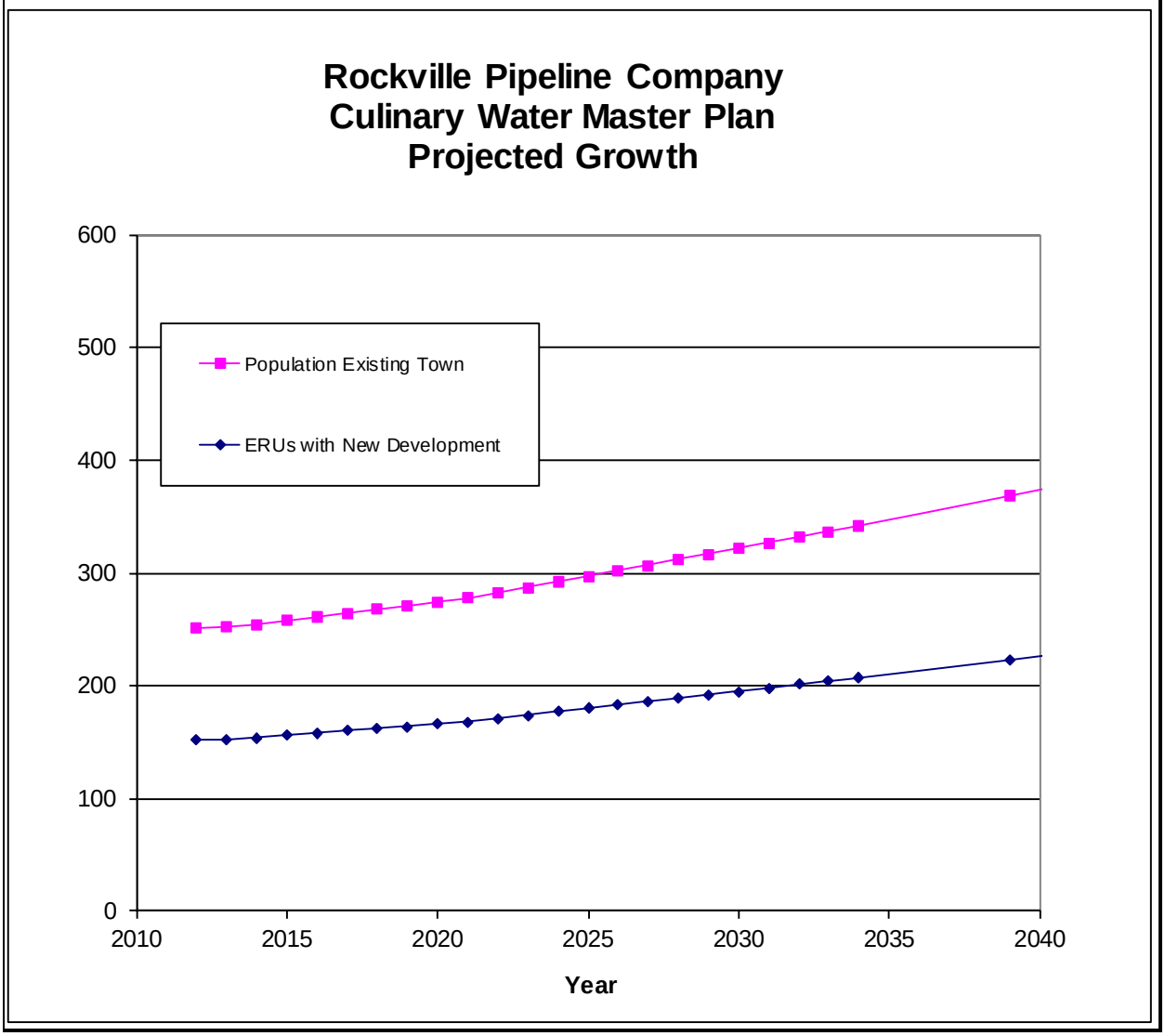
** Estimated Population is determined by multiplying the Estimated Residential ERU's by 1.65.

Population Data

	Population	% Growth
1980 Census Population	156	
1990 Census Population	184	1.7%
2000 Census Population	248	3.0%
2010 Census Population	245	-0.1%
2012 Estimated Population	251	0.5%

1.7% Growth rate experienced between 1980 & 1990
3.0% Growth rate experienced between 1990 & 2000
2.3% Growth rate experienced between 1980 & 2000
-0.1% Growth rate experienced between 2000 & 2010
1.5% Growth rate experienced between 1980 & 2010
1.2% Growth rate experienced between 2010 & 2012
1.5% Growth rate experienced between 1980 & 2012

Growth Rate for 20 Year Residential Projections	1.5%
Growth Rate for 20 Year Commercial Projections	1.5%
Projected 20 Year Population (2034)	342
Projected 20 Year ERU's (2034)	207



Average Usage Per Connection

	2011	2012	2013	Average
Residential				
Usage (gallons)	12,154,830	11,328,540	12,940,040	12,141,137
Connections (ERUs)	135	132	132	133
Usage Per Connection (gal/year)	89,854	85,768	97,907	91,176
Daily Usage Per Connection (gal/day)	246	235	268	250
Based on Historical usage data	250	gpd will be used for new connenctions		

250 gallons per connection per day will be used in this master plan for current usage.

October/February Usage (Avg Month)	643,937	gal
Assumed ERU's	135	
Indoor Usage	**157**	gpd/ERU
Indoor Usage (conn.)	**139**	**gpd/conn.**
Outdoor Usage (Total-Indoor)	85	gpd/ERU

Water Rights Data

A.

Culinary Water Rights		Flow		
W.R. #	**Source**	**gpm**	**cfs**	**AcFt.**
81-106	Buttermilk Spring and Five Wells - Existing	16.2	0.036	26.06
81-395	Buttermilk Spring and Five Wells - Existing	31.4	0.07	50.68
81-450	Buttermilk Spring and Five Wells - Existing	19.7	0.04	31.85
81-3065	Underground Water Wells (5) and Buttermilk Springs	-	-	4.80
	Total Water Rights	**67.3**	**0.15**	**113.4**

B. Current & Projected Required Water Right (2014-2054):

Average Water Right Required	**2014**	**2034**	**2054**	
Residential ERUs	154	207	279	ERU's
New Development ERUs	0	0	0	ERU's
Total New ERUs	154	207	279	ERU's
Average Water Use (Indoor + Outdoor) (gpd)	250	250	250	gpd/ERU
New Development Water Use (Indoor + Outdoor) (gpd)	250	250	250	gpd/ERU
Required Water Right Historic (Indoor + Outdoor) (gpm)	27	36	48	gpm
Required Water Right Historic (Indoor + Outdoor) (AcFt)	43	58	78	Ac-Ft
Required Water Right for New Development Use (gpm)	0	0	0	gpm
Required Water Right for New Development Use (AcFt)	0	0	0	Ac-Ft
Culinary System Water Right Surplus/(Deficit) (gpm)	41	31	19	gpm
Culinary System Water Right Surplus/(Deficit) (AcFt)	70	55	35	Ac-Ft

Current Required Water Right

Using Alton Historic Average Consumption	250	gpd/conn.
New Development in Alton, No Historic Average Consumption	250	gpd/conn.

Average Demand (Total Use)

154	ERUs X	250 gpd	X	1 day	X	1 hr	=			27 gpm
		ERU		24 hr		60 min.				
154	ERUs X	250 gpd	X	365 day	X	1 Acft.	=	43	acft	
		ERU		1 yr		325,829 gal				
	Total Required Water Right							**43**	**Acft**	**27 gpm**
	Existing Culinary System Water Right Surplus							**70**	**Acft**	**41 gpm**

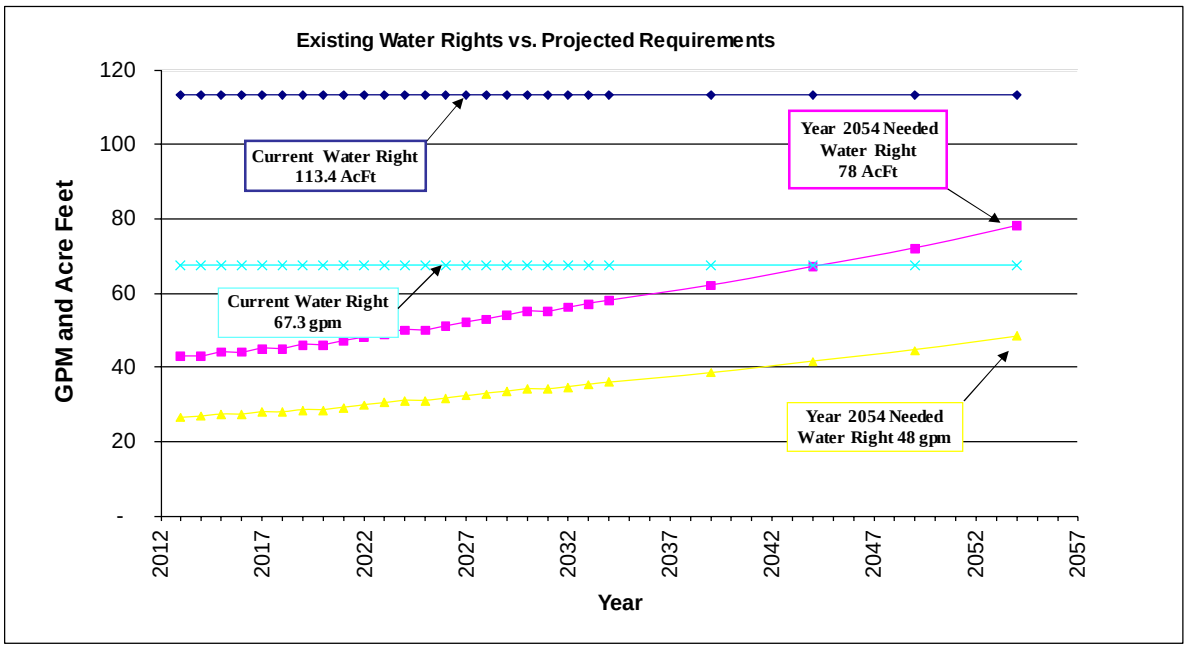
Projected 40 Year Required Water Right

Using Alton Historic Average Consumption	250	gpd/conn.
New Development in Alton, No Historic Average Consumption	250	gpd/conn.

Average Demand (Total Use)

279	ERU's X	250 gpd	X	1 day	X	1 hr	=			48 gpm
		ERU		24 hr		60 min.				
279	ERU's X	250 gpd	X	365 day	X	1 Acft.	=	78	acft	
		ERU		1 yr		325,829 gal				
	Total Required Water Right							**78**	**Acft**	**48 gpm**
	Projected Culinary System Water Right Surplus							**35**	**Acft**	**19 gpm**

Water Rights Summary		
Existing Water Rights	**113.39**	**Acft**
Existing Water Rights Surplus	**70.30**	**Acft**
Projected 2054 Water Rights Surplus	**35.32**	**Acft**



Minimum Required Water Right

Year	Water Right Available AcFt.	Historical Use AcFt.	New Developmen AcFt.	40 Year AcFt.	Water Right Available gpm.	40 Year gpm.
2011	113	43	-	43	67	26
2012	113	43	-	43	67	26
2013	113	43	-	43	67	26
2014	113	43	-	43	67	27
2015	113	44	-	44	67	27
2016	113	44	-	44	67	27
2017	113	45	-	45	67	28
2018	113	45	-	45	67	28
2019	113	46	-	46	67	29
2020	113	46	-	46	67	29
2021	113	47	-	47	67	29
2022	113	48	-	48	67	30
2023	113	49	-	49	67	30
2024	113	50	-	50	67	31
2025	113	50	-	50	67	31
2026	113	51	-	51	67	32
2027	113	52	-	52	67	32
2028	113	53	-	53	67	33
2029	113	54	-	54	67	33
2030	113	55	-	55	67	34
2031	113	55	-	55	67	34
2032	113	56	-	56	67	35
2033	113	57	-	57	67	35
2034	113	58	-	58	67	36
2039	113	62	-	62	67	38
2044	113	67	-	67	67	42
2049	113	72	-	72	67	45
2054	113	78	-	78	67	48
Water Rights Surplus/(Deficit)				**35** AcFt.		**19** gpm

Water Source Capacity Data

Rockville Town Sources	Total Flow	
	CFS	gpm
Buttermilk Spring and Five Wells - Existing	0.047	21
Source Total =	**0.047**	**21**

Peak Day Demand Using Rockville's

Average Historic Consumption Times 2 **500 gpd/ERU**

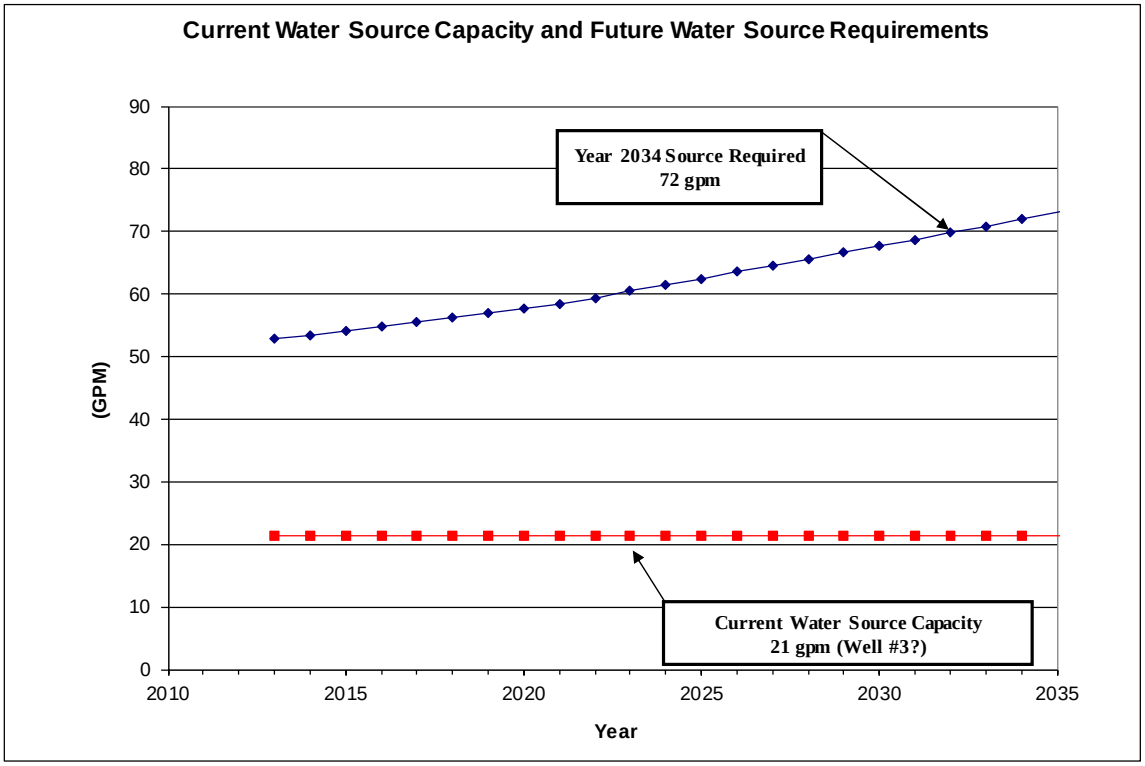
Average New Development Consumption Times 2 **500 gpd/ERU**

Current & Projected Required Water Source (2014-2035):

Average Source Req.	Year 2014	2034	
Historic Usage ERUs	154	207	ERU's
New Development ERUs	0	0	
Historic Peak Day Average Water Use	500	500	gpd/ERU
New Development Peak Day Average Water Use	500	500	gpd/ERU
Required Water Source Historic Use	53	72	gpm
Required Water Source for New Development Use	0	0	gpm
Total Required Water Source	53	72	
Culinary System Water Source Surplus/(Deficit)	(32)	(51)	gpm

Required Indoor/Outdoor Source							
Existing Town ERUs							
New Development ERUs							
-	ERUs X	500 gpd / ERU	X	1 day / 24 hr	X	1 hr / 60 min.	= 0 gpm
	Total Required Source Capacity						**53 gpm**
	Existing Culinary System Source Capacity Deficit						**-32 gpm**

Required Indoor/Outdoor Source							
Existing Town ERUs							
207	ERUs X	500 gpd / ERU	X	1 day / 24 hr	X	1 hr / 60 min.	= 72 gpm
New Development ERUs							
-	ERUs X	500 gpd / ERU	X	1 day / 24 hr	X	1 hr / 60 min.	= 0 gpm
	Total Required Source Capacity						**72 gpm**
	Projected Culinary System Source Capacity Deficit						**-51 gpm**



Water Source Capacity Summary	
Existing Water Source	**21 GPM**
Existing Water Source Deficit	**-32 GPM**
Projected 2034 Water Source Deficit	**-51 GPM**

Water Storage Capacity Data

A. Existing Storage Capacity:

Original tank	100,000	gal.
2000 tank	300,000	gal.
Total Existing Storage Capacity	**400,000**	**gal.**

B. Existing Required Storage Capacity

Existing Town ERUs

250 gpd / ERU X 154 ERU = 38,469 gpd

Fire Demand

1,000 gpm X 60 min / 1 hr X 2 hr = 120,000 gal.

Total Existing Required Storage	158,469	gal.
Total Existing Storage Capacity	400,000	gal.
Existing Storage Capacity Surplus	241,531	gal.

Projected Required Storage Capacity in 2034

Existing Town ERUs

250 gpd / ERU X 207 ERU = 51,708 gpd

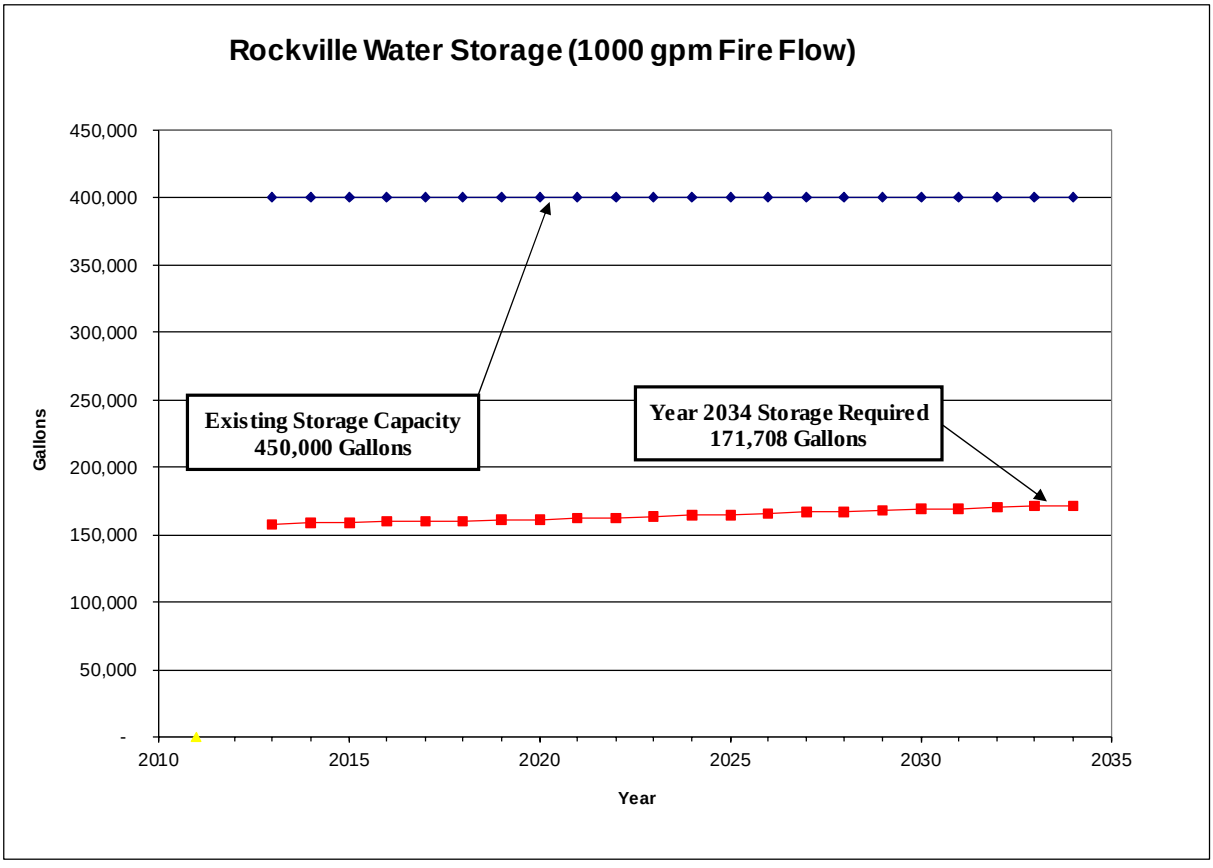
Fire Flow

1,000 gpm X 60 min / 1 hr X 2 hr = 120,000 gal.

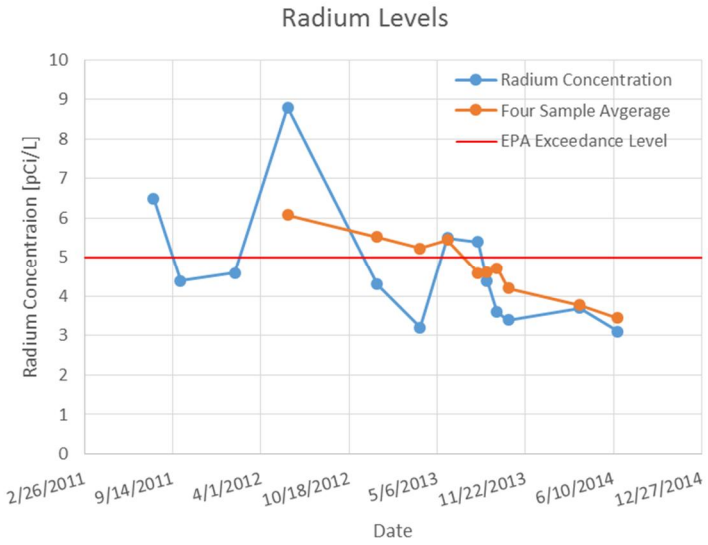
Total Required Storage	171,708	gal.
Total Existing Storage Capacity	400,000	gal.
Future Storage Capacity Surplus	228,292	gal.

Water Storage Analysis

	Historic	New Devel.	Historic	New Develp	Fire Flow	20 Year	Existing	Surplus
Year	ERUs	ERUS	Stg rqd	Stg rqd	Stg rqd	Stg rqd	Storage	Storage
2011	152	0	37,969	0	120,000	157,969	400,000	242,031
2012	152	0	37,969	0	120,000	157,969	400,000	242,031
2013	152	0	37,969	0	120,000	157,969	400,000	242,031
2014	154	0	38,469	0	120,000	158,469	400,000	241,531
2015	156	0	38,969	0	120,000	158,969	400,000	241,031
2016	158	0	39,468	0	120,000	159,468	400,000	240,532
2017	160	0	39,968	0	120,000	159,968	400,000	240,032
2018	162	0	40,467	0	120,000	160,467	400,000	239,533
2019	164	0	40,967	0	120,000	160,967	400,000	239,033
2020	166	0	41,467	0	120,000	161,467	400,000	238,533
2021	168	0	41,966	0	120,000	161,966	400,000	238,034
2022	171	0	42,716	0	120,000	162,716	400,000	237,284
2023	174	0	43,465	0	120,000	163,465	400,000	236,535
2024	177	0	44,214	0	120,000	164,214	400,000	235,786
2025	180	0	44,964	0	120,000	164,964	400,000	235,036
2026	183	0	45,713	0	120,000	165,713	400,000	234,287
2027	186	0	46,463	0	120,000	166,463	400,000	233,537
2028	189	0	47,212	0	120,000	167,212	400,000	232,788
2029	192	0	47,961	0	120,000	167,961	400,000	232,039
2030	195	0	48,711	0	120,000	168,711	400,000	231,289
2031	198	0	49,460	0	120,000	169,460	400,000	230,540
2032	201	0	50,210	0	120,000	170,210	400,000	229,790
2033	204	0	50,959	0	120,000	170,959	400,000	229,041
2034	207	0	51,708	0	120,000	171,708	400,000	228,292



Water Treatment Data



Planning Period [yr]	20
Real Discount Rate	1.6%
Nominal Discount Rate	3.6%

Option #1 Adsorption

Description	Type	Amount	Net Present Value
Capital Costs	Present Amount	$ 142,670.00	$ 142,670.00
Annual O&M Costs	Uniform Amount	$ 35,587.57	$ 605,009.28
Salvage Value	Future Amount	$ 103,331.95	$ 50,937.72
			$ 696,741.56

Option #2 Pressure Filtration

Description	Type	Amount	Net Present Value
Capital Costs	Present Amount	$ 298,595.00	$ 298,595.00
Annual O&M Costs	Uniform Amount	$ 18,589.20	$ 316,027.19
Salvage Value	Future Amount	$ 216,264.13	$ 106,607.90
			$ 508,014.29

Option #3 Blending

Description	Type	Amount	Net Present Value
Capital Costs	Present Amount	$ 79,800.00	$ 79,800.00
Annual O&M Costs	Uniform Amount	$56,033.04	$ 952,594.19
Salvage Value	Future Amount	$ 57,796.94	$ 28,491.14
			$ 1,003,903.06

Option #1 Adsorption	
Manufacturer	WRT
Description	This is a proprietary adsorption media treatment. The media removes the Radium from the water by adsorption onto the media. The Radium levels will initially be really low and gradually increase until the media is spent. Once spent, the media must be replaced by WRT. There is no backwash for this system and no water is wasted in the treatment process resulting in all water that is treated enters the distribution system.
Water Lost in Treatment	No water is wasted in treatment.
Type and Quantity of Waste	N/A
Size	78"x42"x80"
Radium Levels	1-4 pCi/L
Maintenance	Media to be replaced approx every 18 months at a cost of $46,000 per exchange. This is factored into O&M costs. Maintenance is expected to include monitoring and testing.
Capital Costs	$155,640.00
Annual O&M	$35,587.57
Present Value	$705,080.86

Option #2 Pressure Filtration	
Manufacturer	WesTech
Description	Vertical pressure filters use filter media and chemical additions (Hydrous Manganese Oxide - HMO) to remove unwanted constituents. Water from the well is mixed with HMO and introduced to the top side of the vessel where it passes through a bed of filter media to remove unwanted particulate, the water then passes an underdrain plate with distribution nozzles for effluent discharge. Once the media fouls to a predetermined set-point, a backwash cycle is required to dislodge residual particulate for waste discharge.
Water Lost in Treatment	688,000 gal annually
Type and Quantity of Waste	Backwash water from filters
Size	100"x60"x84"
Radium Levels	2-4 pCi/L
Maintenance	Daily and monthly maintenance requires checking chemical levels and pumps, maintaining chemical levels, water quality tests, and general observation of equipment. More occassional maintenance includes inspecting paint to prevent corrosion, training, and providing operation reports.
Capital Costs	$325,740.00
Annual O&M	$18,589.20
Present Value	$525,467.66

Option #3 Blending	
Manufacturer	N/A
Description	Blending water from two different sources will cause the concentration of Radium to diminish, bringing the water supply within regulations. This will be done by adding specific amounts of water from Springdale to the Rockville storage system depending on Radium concentrations from both sources.
Water Lost in Treatment	No water will be wasted in the treatment. Conversely, about 7,000,000 gal of water will be added to the system annually.
Type and Quantity of Waste Water	N/A
Size	N/A
Radium Levels	~4.0-4.5 pCi/L
Maintenance	This requires no special maintenance when compared to the current system. The maintenance regimen will be similar to what is done on the current system O&M costs include water purchased from Springdale.
Capital Costs	$79,800.00
Annual O&M	$56,033.04
Present Value	$1,003,903.06

Category	Weight	Adsorptive Media		Pressure Filter		Blending	
Construction time	1	3.0	3.0	1.0	1.0	1.7	1.7
Water lost in treatment	3	1.2	3.5	1.0	3.0	3.0	9.0
Capital Costs	3	2.4	7.1	1.0	3.0	3.0	9.0
Annual O&M	3	2.1	6.3	3.0	9.0	1.0	3.0
Present Value Analysis	1	2.2	2.2	3.0	3.0	1.0	1.0
TOTALS		22.2		19.0		23.7	

Water Distribution System Data

Total Current ERU's = 154

A. Existing Distribution Requirement:

Indoor Peak Instantaneous Demand:

Q= 10.8 X N^.64 N= Number of ERU's

Q= 10.8 X (154) ^.64 = 271 gpm

Outdoor Peak Instantaneous Demand:

77 ERU. X $\frac{0.2 \text{ acre}}{\text{ERU}}$ X $\frac{6.78 \text{ gpm}}{\text{irr. acre}}$ = 104 gpm

Current Peak Instantaneous Demand = **376 gpm**

Peak Day Demand & Fire Flow

Existing Town ERUs

154 ERU's X $\frac{500 \text{ gpd}}{\text{ERU}}$ X $\frac{1 \text{ day}}{24 \text{ hr}}$ X $\frac{1 \text{ hr}}{60 \text{ min.}}$ = 53 gpm

Fire Flow = 1,000 gpm

Current Peak Day Demand + Fire Flow = **1,053 gpm**

B. Total Projected ERU's = 207

Distribution Requirement for projected 20 year growth:

Indoor Peak Instantaneous Demand:

Q= 10.8 X N^.64 N= Number of ERU's

Q= 10.8 X 207 ^.64 = 328 gpm

Outdoor Peak Instantaneous Demand:

104 ERU. X $\frac{0.2 \text{ acre}}{\text{conn.}}$ X $\frac{6.78 \text{ gpm}}{\text{irr. acre}}$ = 140 gpm

Projected Peak Instantaneous Demand = **468 gpm**

Peak Day Demand & Fire Flow

Existing Town ERUs

207 ERU's X $\frac{500 \text{ gpd}}{\text{ERU}}$ X $\frac{1 \text{ day}}{24 \text{ hr}}$ X $\frac{1 \text{ hr}}{60 \text{ min.}}$ = 72 gpm

Fire Flow = 1,000 gpm

Projected Peak Day Demand + Fire Flow = **1,072 gpm**

		Peak Instantaneous Demand			Peak Day + Fire		
Year	No. ERU's	Indoor (gpm)	Outdoor (gpm)	Total (gpm)	Peak Day (gpm)	Fire (gpm)	Total (gpm)
2013	152	269	206	475	53	1,000	1053
2014	154	271	209	480	53	1,000	1053
2015	156	274	212	485	54	1,000	1054
2016	158	276	214	490	55	1,000	1055
2017	160	278	217	495	56	1,000	1056
2018	162	280	220	500	56	1,000	1056
2019	164	282	222	505	57	1,000	1057
2020	166	285	225	510	58	1,000	1058
2021	168	287	228	515	58	1,000	1058
2022	171	290	232	522	59	1,000	1059
2023	174	293	236	529	60	1,000	1060
2024	177	297	240	537	61	1,000	1061
2025	180	300	244	544	62	1,000	1062
2026	183	303	248	551	63	1,000	1063
2027	186	306	252	558	65	1,000	1065
2028	189	309	256	566	66	1,000	1066
2029	192	312	260	573	67	1,000	1067
2030	195	316	264	580	68	1,000	1068
2031	198	319	268	587	69	1,000	1069
2032	201	322	273	594	70	1,000	1070
2033	204	325	277	601	71	1,000	1071
2034	207	328	281	609	72	1,000	1072

APPENDIX B

"H2ONET" WATER MODEL ANALYSIS

Existing Distribution System – Peak Instantaneous Demand
Existing Distribution System – Peak Day Demand
Existing Distribution System – Peak Day Demand with Fire Flow
Proposed Distribution System – Peak Instantaneous Demand
Proposed Distribution System – Peak Day Demand
Proposed Distribution System – Peak Day Demand with Fire Flow
Proposed Distribution System Improvements

Existing System
Peak Instantaneous Demand

NORTH

SCALE
0 300 600
HORIZ: 1" =600 '

Junction Output View
Pressure (psi)
- Below 38.2
- 38.2 ~ 96.5
- 96.5 ~ 154.8
- 154.8 ~ 213.2
- 213.2 or above

Pipe Output View
Diameter (in)
- Below 3.00
- 3.00 ~ 5.00
- 5.00 ~ 7.00
- 7.00 ~ 9.00
- 9.00 ~ 11.00
- 11.00 or above

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Existing System
Peak Day Demand

NORTH

SCALE
0 300 600
HORIZ: 1" =600 '

Junction Output View
Pressure (psi)
- Below 38.2
- 38.2 ~ 96.5
- 96.5 ~ 154.8
- 154.8 ~ 213.1
- 213.1 or above

Pipe Output View
Diameter (in)
- Below 3.00
- 3.00 ~ 5.00
- 5.00 ~ 7.00
- 7.00 ~ 9.00
- 9.00 ~ 11.00
- 11.00 or above

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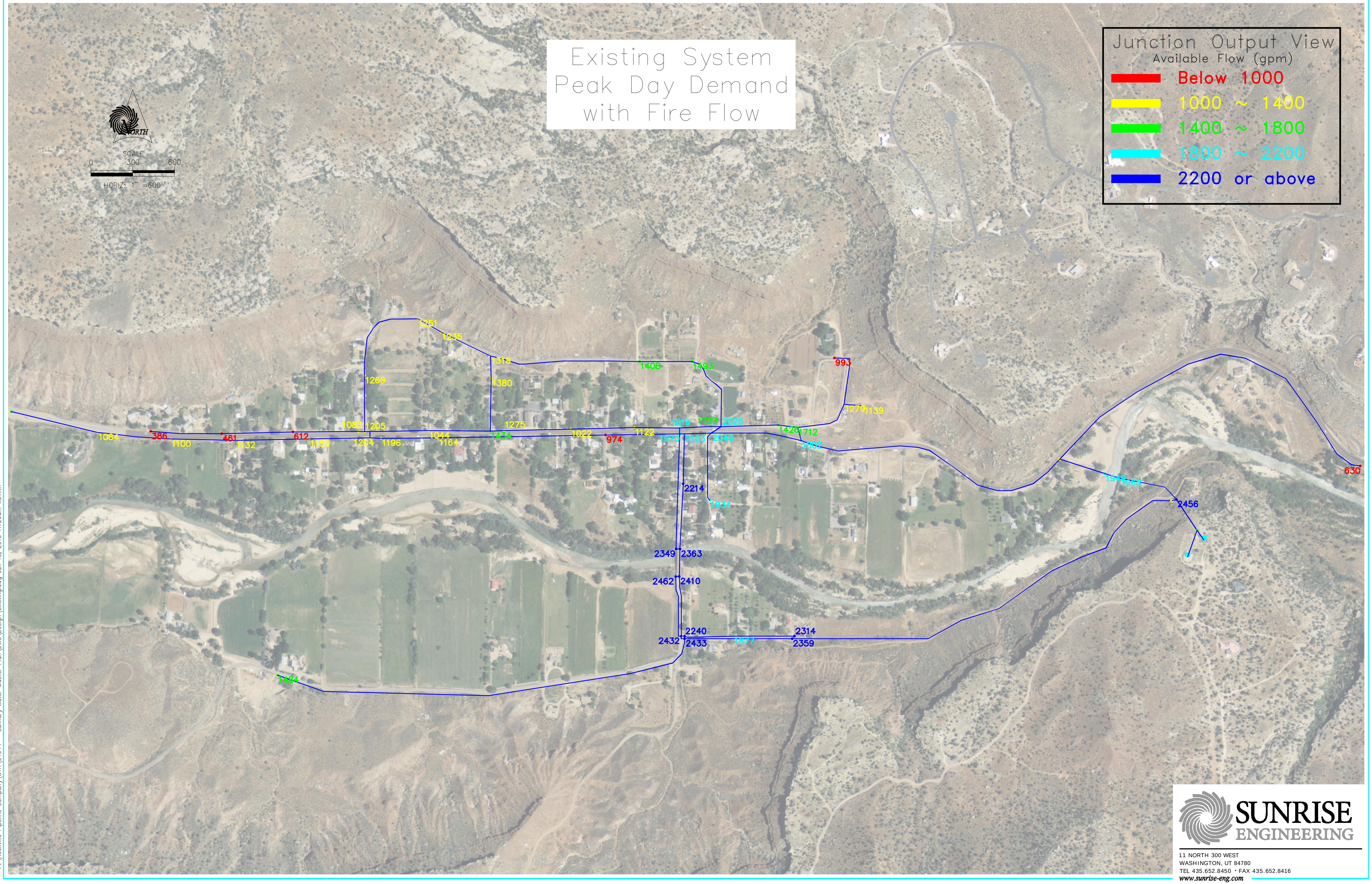
Existing System
Peak Day Demand
with Fire Flow
Junction Output View
Available Flow (gpm)
Below 1000
1000 ~ 1400
1400 ~ 1800
1800 ~ 2200
2200 or above
NORTH
SCALE
0
300
600
HORIZ: 1" =600 '
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Proposed System
Peak Instantaneous Demand

NORTH

SCALE
0 300 600
HORIZ: 1" =600 '

Junction Output View
Pressure (psi)

- Below 38.2
- 38.2 ~ 96.5
- 96.5 ~ 154.8
- 154.8 ~ 213.2
- 213.2 or above

Pipe Output View
Diameter (in)

- Below 3.00
- 3.00 ~ 5.00
- 5.00 ~ 7.00
- 7.00 ~ 9.00
- 9.00 ~ 11.00
- 11.00 or above

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Proposed System
Peak Day Demand

NORTH

SCALE
0 300 600
HORIZ: 1" =600 '

Junction Output View
Pressure (psi)

- Below 38.2
- 38.2 ~ 96.5
- 96.5 ~ 154.8
- 154.8 ~ 213.1
- 213.1 or above

Pipe Output View
Diameter (in)

- Below 3.00
- 3.00 ~ 5.00
- 5.00 ~ 7.00
- 7.00 ~ 9.00
- 9.00 ~ 11.00
- 11.00 or above

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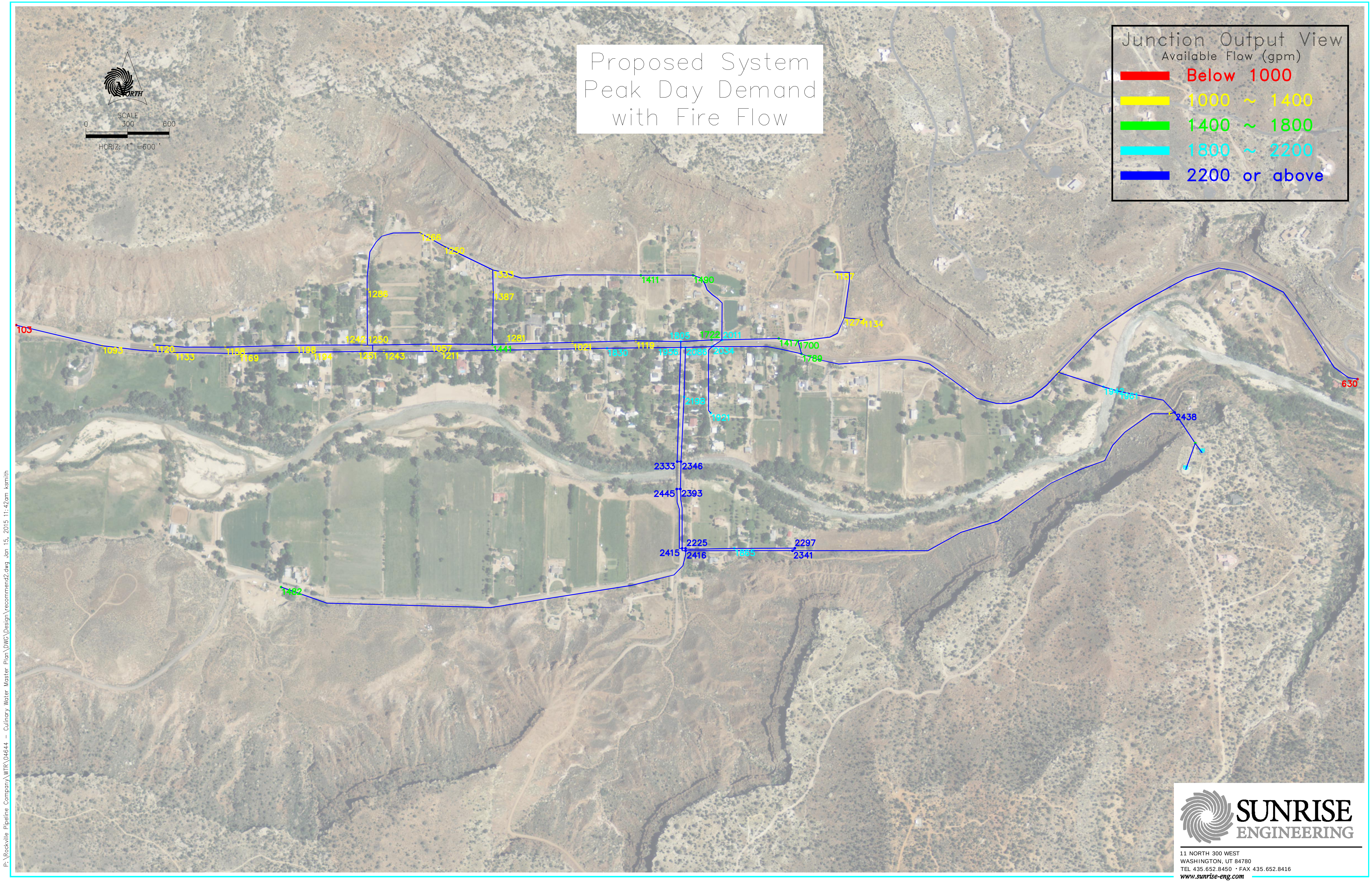

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PROPOSED IMPROVEMENTS

NORTH

SCALE
0 300 600
HORIZ: 1" =600 '

NEW 8" PIPE

NEW 8" PIPE

NEW 8" PIPE

NEW 4" PIPE
TO TANKS

68.4 66.0 68.0 70.9 69.8 64.1 66.8 63.9 62.5
84.5 76.0
86.2 93.4 92.4 92.9 91.2 92.2 90.1 89.1 89.1 89.4 89.8 89.3 87.0 87.6 87.0 87.0 84.4 83.5 81.5 81.8 82.6 82.4 82.6 82.7 83.2 73.9 73.4 75.1
102.4 102.1
87.7 88.5
91.8 91.8
95.9 91.6
86.7 86.7 86.5 78.2 78.4 77.7
242.3

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APPENDIX C

Engineer's Opinion of Probable Cost

Treatment Option #1 – Adsorption (WRT)
Treatment Option #2 – Pressure Filtration (WesTech)
Treatment Option #3 – Blending/Mixing
Distribution System Upgrades
Total Probable Costs for Recommendations

SUNRISE ENGINEERING, INC.

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Engineer's Opinion of Probable Cost

Rockville Pipeline Company Water Master Plan - Adsorption Treatment — 12-Dec-14

Rockville Pipeline Company — RF/kcs

NO.	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
GENERAL CONSTRUCTION					
1	Mobilization	8%	LS	$ 9,600.00	$ 9,600.00
2	Traffic Control	1	LS	$ 1,000.00	$ 1,000.00
3	Subsurface Investigation	24	HR	$ 150.00	$ 3,600.00
4	Materials Sampling & Testing	1	LS	$ 1,500.00	$ 1,500.00
5	Dust Control & Watering	1	LS	$ 1,000.00	$ 1,000.00
6	Construction Staking	1	LS	$ 1,500.00	$ 1,500.00
7	SWPPP/Erosion Control Compliance	1	LS	$ 5,000.00	$ 5,000.00
8	WRT Treatment System	1	LS	$ 81,500.00	$ 81,500.00
9	Renovate Current Treatment House	1	LS	$ 25,000.00	$ 25,000.00
			SUBTOTAL		$ 129,700.00
			CONTINGENCY	20%	$ 25,940.00
			CONSTRUCTION TOTAL		$ 155,640.00
INCIDENTALS					
1	Funding & Adminstrative Services	6.3%	LS	$ 10,000.00	$ 10,000.00
2	Engineering Design	9.0%	LS	$ 14,300.00	$ 14,300.00
3	Bidding & Negotiating	3.1%	HR	$ 5,000.00	$ 5,000.00
4	Engineering Construction Services	6.5%	HR	$ 10,400.00	$ 10,400.00
			SUBTOTAL		$ 29,700.00
			TOTAL PROJECT COST		$ 159,400.00

In providing opinions of probable construction cost, the Client understands that the Engineer has no control over costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinion of probable construction cost provided herein is made on the basis of the Engineer's qualifications and experience. The Engineer makes no warranty, expressed or implied, as to the accuracy of such opinions compared to bid or actual costs.

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Engineer's Opinion of Probable Cost

Rockville Pipeline Company Water Master Plan - Pressure Filter Treatment — 12-Dec-14
Rockville Pipeline Company — RF/kcs

NO.	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
GENERAL CONSTRUCTION					
1	Mobilization	8%	LS	$ 20,100.00	$ 20,100.00
2	Traffic Control	1	LS	$ 1,000.00	$ 1,000.00
3	Subsurface Investigation	24	HR	$ 150.00	$ 3,600.00
4	Materials Sampling & Testing	1	LS	$ 1,500.00	$ 1,500.00
5	Dust Control & Watering	1	LS	$ 1,000.00	$ 1,000.00
6	Construction Staking	1	LS	$ 1,500.00	$ 1,500.00
7	SWPPP/Erosion Control Compliance	1	LS	$ 5,000.00	$ 5,000.00
8	WesTech Treatment System	1	LS	$ 189,750.00	$ 189,750.00
9	Renovate Current Treatment House	1	LS	$ 28,000.00	$ 28,000.00
10	Booster Pump for Backwash Water	1	LS	$ 15,000.00	$ 15,000.00
11	Misc. Connections and Fittings	1	LS	$ 5,000.00	$ 5,000.00
			SUBTOTAL		$ 271,450.00
			CONTINGENCY	20%	$ 54,290.00
			CONSTRUCTION TOTAL		$ 325,740.00
INCIDENTALS					
1	Funding & Adminstrative Services	3.1%	LS	$ 10,000.00	$ 10,000.00
2	Engineering Design	8.1%	LS	$ 26,200.00	$ 26,200.00
3	Bidding & Negotiating	1.5%	HR	$ 5,000.00	$ 5,000.00
4	Engineering Construction Services	6.7%	HR	$ 21,700.00	$ 21,700.00
			SUBTOTAL		$ 52,900.00
			TOTAL PROJECT COST		$ 324,350.00

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Engineer's Opinion of Probable Cost

Rockville Pipeline Company Water Master Plan - Blending Treatment — 12-Dec-14
Rockville Pipeline Company — RF/kcs

NO.	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
GENERAL CONSTRUCTION					
1	Mobilization	8%	LS	$ 4,900.00	$ 4,900.00
2	Traffic Control	1	LS	$ 1,000.00	$ 1,000.00
3	Subsurface Investigation	24	HR	$ 150.00	$ 3,600.00
4	Materials Sampling & Testing	1	LS	$ 1,500.00	$ 1,500.00
5	Dust Control & Watering	1	LS	$ 1,000.00	$ 1,000.00
6	Construction Staking	1	LS	$ 1,500.00	$ 1,500.00
7	SWPPP/Erosion Control Compliance	1	LS	$ 5,000.00	$ 5,000.00
8	4" C900 Pipe Installation	1,000	FT	$ 30.00	$ 30,000.00
9	Automated Control Valves	2	EA	$ 3,000.00	$ 6,000.00
10	Control Valve and Vault	1	EA	$ 8,000.00	$ 8,000.00
11	Misc. Connections, Fittings, Tie-ins	1	LS	$ 4,000.00	$ 4,000.00
			SUBTOTAL		$ 66,500.00
			CONTINGENCY	20%	$ 13,300.00
			CONSTRUCTION TOTAL		$ 79,800.00
INCIDENTALS					
1	Funding & Adminstrative Services	11.1%	LS	$ 10,000.00	$ 10,000.00
2	Engineering Design	9.1%	LS	$ 8,200.00	$ 8,200.00
3	Bidding & Negotiating	5.6%	HR	$ 5,000.00	$ 5,000.00
4	Engineering Construction Services	5.9%	HR	$ 5,300.00	$ 5,300.00
5	Geotechnical Report	5.6%	EST	$ 5,000.00	$ 5,000.00
			SUBTOTAL		$ 23,500.00
			TOTAL PROJECT COST		$ 90,000.00

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Engineer's Opinion of Probable Cost

Rockville Pipeline Company Water Master Plan - Distribution Upgrades — 12-Dec-14
Rockville Pipeline Company — RF/kcs

NO.	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
GENERAL CONSTRUCTION					
1	Mobilization	8%	LS	$ 12,800.00	$ 12,800.00
2	Project Sign	1	EA	$ 1,500.00	$ 1,500.00
3	Pre-Construction DVD	1	EA	$ 1,000.00	$ 1,000.00
4	Traffic Control	1	LS	$ 7,000.00	$ 7,000.00
5	Subsurface Investigation	24	HR	$ 150.00	$ 3,600.00
6	Materials Sampling & Testing	1	LS	$ 5,000.00	$ 5,000.00
7	Dust Control & Watering	1	LS	$ 2,500.00	$ 2,500.00
8	Construction Staking	1	LS	$ 1,500.00	$ 1,500.00
9	8" C900 Pipe Installation	2,540	FT	$ 28.00	$ 71,120.00
10	3/4" PE Service Lateral Pipe	500	FT	$ 8.00	$ 4,000.00
11	Service Saddles & Corp Stops	20	EA	$ 225.00	$ 4,500.00
12	Reconnect Existing Meter Setter Assemblies	1	LS	$ 5,000.00	$ 5,000.00
13	8" Gate Valve Assemblies	4	EA	$ 1,600.00	$ 6,400.00
14	6" Gate Valve Assemblies	3	EA	$ 1,000.00	$ 3,000.00
15	4" Gate Valve Assemblies	4	EA	$ 800.00	$ 3,200.00
16	Fire Hydrant Assemblies	6	EA	$ 3,500.00	$ 21,000.00
17	Reconnect Existing Fire Hydrant Assemblies	1	LS	$ 8,000.00	$ 8,000.00
18	Misc. Waterline Connections	1	LS	$ 12,000.00	$ 12,000.00
				SUBTOTAL	$ 173,120.00
				CONTINGENCY 20%	$ 34,624.00
				CONSTRUCTION TOTAL	$ 207,744.00
INCIDENTALS					
1	Funding & Adminstrative Services	7.1%	LS	$ 15,000.00	$ 15,000.00
2	Engineering Design	8.6%	LS	$ 18,100.00	$ 18,100.00
3	Bidding & Negotiating	2.8%	HR	$ 6,000.00	$ 6,000.00
4	Engineering Construction Services	6.5%	HR	$ 13,800.00	$ 13,800.00
				SUBTOTAL	$ 37,900.00
				TOTAL PROJECT COST	$ 211,020.00

In providing opinions of probable construction cost, the Client understands that the Engineer has no control over costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinion of probable construction cost provided herein is made on the basis of the Engineer's qualifications and experience. The Engineer makes no warranty, expressed or implied, as to the accuracy of such opinions compared to bid or actual costs.

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Engineer's Opinion of Probable Cost

Rockville Pipeline Company Water Master Plan - Recommended Upgrades — 12-Dec-14
Rockville Pipeline Company — RF/kcs

NO.	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
GENERAL CONSTRUCTION					
1	Mobilization	8%	LS	$ 17,500.00	$ 17,500.00
2	Project Sign	1	EA	$ 1,500.00	$ 1,500.00
3	Pre-Construction DVD	1	EA	$ 1,000.00	$ 1,000.00
4	Traffic Control	1	LS	$ 8,000.00	$ 8,000.00
5	Subsurface Investigation	28	HR	$ 150.00	$ 4,200.00
6	Materials Sampling & Testing	1	LS	$ 6,000.00	$ 6,000.00
7	Dust Control & Watering	1	LS	$ 3,500.00	$ 3,500.00
8	Construction Staking	1	LS	$ 4,000.00	$ 4,000.00
9	4" C900 Pipe Installation	1,000	FT	$ 30.00	$ 30,000.00
10	8" C900 Pipe Installation	2,540	FT	$ 28.00	$ 71,120.00
11	3/4" PE Service Lateral Pipe	500	FT	$ 8.00	$ 4,000.00
12	Service Saddles & Corp Stops	20	EA	$ 225.00	$ 4,500.00
13	Reconnect Existing Meter Setter Assemblies	1	LS	$ 5,000.00	$ 5,000.00
14	8" Gate Valve Assemblies	4	EA	$ 1,600.00	$ 6,400.00
15	6" Gate Valve Assemblies	3	EA	$ 1,000.00	$ 3,000.00
16	4" Gate Valve Assemblies	4	EA	$ 800.00	$ 3,200.00
17	Fire Hydrant Assemblies	6	EA	$ 3,500.00	$ 21,000.00
18	Reconnect Existing Fire Hydrant Assemblies	1	LS	$ 8,000.00	$ 8,000.00
19	Automated Control Valves	2	EA	$ 3,000.00	$ 6,000.00
20	Control Valve and Vault	1	EA	$ 8,000.00	$ 8,000.00
21	Misc. Connections, Fittings, Tie-ins	1	LS	$ 15,000.00	$ 15,000.00
22	SWPPP/Erosion Control Compliance	1	LS	$ 5,000.00	$ 5,000.00
			SUBTOTAL		$ 235,920.00
			CONTINGENCY	20%	$ 47,200.00
			CONSTRUCTION TOTAL		$ 283,120.00
INCIDENTALS					
1	Funding & Adminstrative Services	4.5%	LS	$ 15,000.00	$ 15,000.00
2	Engineering Design	7.1%	LS	$ 23,400.00	$ 23,400.00
3	Bidding & Negotiating	1.8%	HR	$ 6,000.00	$ 6,000.00
4	Engineering Construction Services	5.7%	HR	$ 18,900.00	$ 18,900.00
5	Geotechnical Report	1.5%	EST	$ 5,000.00	$ 5,000.00
			SUBTOTAL		$ 48,300.00
			TOTAL PROJECT COST		$ 331,420.00

In providing opinions of probable construction cost, the Client understands that the Engineer has no control over costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinion of probable construction cost provided herein is made on the basis of the Engineer's qualifications and experience. The Engineer makes no warranty, expressed or implied, as to the accuracy of such opinions compared to bid or actual costs.

APPENDIX D

PROJECTED CASH FLOW

Proposed Financing Plan
Water Rate Structures
Cash Flow

ROCKVILLE TOWN
FY 2016 PROPOSED FINANCING PLAN

TOTAL PROJECT COST			**$ 331,420**
FY 2016 EXPENSES			
Proposed Funding:	**Rate**	**Term in Yrs.**	**Principal**
Self Participation			35,000
DWB Grant			0
DWB Loan	1.50%	20	296,420
TOTAL PROJECT FUNDING:			**$331,420**
EXPENSES: (First Year of New Debt Serv. Pmt.)			
Contractual Services			$3,929
Professional Services			$2,717
Repairs and Maintenance			$16,588
Operating Expenses			$21,775
Other			$3,078
Depreciation			$0
Subtotal Expenses:			**$48,087**
EXISTING DEBT SERVICE			
USDA Rural Water Loan			$5,448
Subtotal Existing Annual Debt Service:			**$5,448**
NEW DEBT SERVICE			
New Loan(s)			$17,265
Loan Reserve (Payment/10)			$1,700
Subtotal New Annual Debt Service:			**$18,965**
Renewal and Replacement Fund			$5,000
GRAND TOTAL EXPENSES:			**$77,500**
ANNUAL INCOME			
Projected Yearly Impact Fees Received			$0
Total Number Of ERU's			156
Average Monthly Water User Rate/ERU			**$41.40**
TOTAL ANNUAL INCOME:			**$77,500**

ROCKVILLE TOWN
Existing Water Rate Structure

Total Base Rate	$15.00	per ERU/Month
Includes	5,000	Gallons

Overage Steps		
Cost Per 1,000 Gal.	Low Gallons	High Gallons
$2.50	5,000	15,000
$3.50	15,000	30,000
$6.00	30,000	50,000
$9.00	50,000	& UP

Usage	Rates	
(Gallons)	Existing Rates	
0	$ 15.00	
5,000	$ 15.00	
6,690	$ 19.23	
10,000	$ 27.50	
30,000	$ 92.50	
70,000	$ 332.50	

ROCKVILLE TOWN
Possible Water Rate Structure

Base Rate	$25.00	ERU/Month
Includes	1,000	Gallons

Overage Steps		
Cost Per 1,000 Gal.	Low Gallons	High Gallons
$2.70	1,000	6,000
$4.25	6,000	30,000
$5.00	30,000	50,000
$6.00	50,000	& UP

Usage	Rates	
(Gallons)	New Rate	Old Rate
0	$ 25.00	$ 15.00
5,000	$ 35.80	$ 15.00
6,690	$ 41.43	$ 19.23
10,000	$ 55.50	$ 27.50
30,000	$ 140.50	$ 92.50
70,000	$ 360.50	$ 332.50

ROCKVILLE TOWN
Other Possible Water Rate Structures

Base Rate	$15.00	ERU/Month	Base Rate	$35.00	ERU/Month
Includes	0	Gallons	Includes	4,000	Gallons
Overage Steps			Overage Steps		
Cost Per 1,000 Gal.	Low Gallons	High Gallons	Cost Per 1,000 Gal.	Low Gallons	High Gallons
$3.50	0	3,000	$2.40	4,000	15,000
$4.30	3,000	15,000	$3.70	15,000	25,000
$5.00	15,000	35,000	$4.30	25,000	40,000
$6.00	35,000	& UP	$5.50	40,000	& UP

Usage	In Town Rates		Usage	In Town Rates	
(Gallons)	New Rate	Old Rate	(Gallons)	New Rate	Old Rate
0	$ 15.00	$ 15.00	0	$ 35.00	$ 15.00
5,000	$ 34.10	$ 15.00	5,000	$ 37.40	$ 15.00
6,690	$ 41.37	$ 19.23	6,690	$ 41.46	$ 19.23
10,000	$ 55.60	$ 27.50	10,000	$ 49.40	$ 27.50
30,000	$ 152.10	$ 92.50	30,000	$ 119.90	$ 92.50
70,000	$ 387.10	$ 332.50	70,000	$ 327.90	$ 332.50

CASH FLOW

ROCKVILLE PIPELINE COMPANY

WATER MASTER PLAN

Annual Population Growth Rate	1.50%	C.D. Interest Rate	1.00%
Annual Rate Increase	1.50%		
Annual Inflation Rate	3.50%		

Fiscal Year Beginning January 1	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Ending December 31	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Average Rate ERU	$ 31.26	$ 28.84	$ 30.05	$ 30.05	$41.40	$42.02	$42.65	$43.29	$43.94	$44.60	$45.27	$45.95	$46.64	$47.34	$48.05
Connection Fee	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00
Impact fee	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
System Users:															
Total Existing ERU's	152	152	152	154	156	158	160	162	164	166	168	171	174	177	180
New ERU's:	0	0	0	2	2	2	2	2	2	2	2	3	3	3	3
REVENUES:															
User Fees (Water Sales)	$ 57,021	$ 52,608	$ 54,815	$ 55,536	$ 77,500	$ 79,671	$ 81,890	$ 84,157	$ 86,474	$ 88,841	$ 91,260	$ 94,283	$ 97,377	$ 100,541	$ 103,779
Connection Fees	$ -	$ -	$ -	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,500	$ 1,500	$ 1,500	$ 1,500
Late Fees & Penalties	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Miscellaneous	$ 220	$ 3,595	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Impact Fees (Certificate Sales)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest on C.D. Accounts	$ 87	$ 88	$ 88	$ 88	$ 88	$ 89	$ 90	$ 90	$ 91	$ 92	$ 93	$ 94	$ 95	$ 96	$ 97
TOTAL REVENUE:	**$ 57,328**	**$ 56,292**	**$ 54,902**	**$ 56,624**	**$ 78,588**	**$ 80,760**	**$ 82,979**	**$ 85,247**	**$ 87,565**	**$ 89,934**	**$ 92,354**	**$ 95,878**	**$ 98,972**	**$ 102,137**	**$ 105,376**
EXPENSES: (Inc. O&M & Debt Serv.)	**4.25% = Annual Inflation Rate+1/2 Annual Growth Rate**														
Contractual Services	$ -	$ 7,231	$ 3,615	$ 3,769	$ 3,929	$ 4,096	$ 4,270	$ 4,452	$ 4,641	$ 4,838	$ 5,044	$ 5,258	$ 5,482	$ 5,714	$ 5,957
Professional Services	$ -	$ -	$ 2,500	$ 2,606	$ 2,717	$ 2,832	$ 2,953	$ 3,078	$ 3,209	$ 3,346	$ 3,488	$ 3,636	$ 3,791	$ 3,952	$ 4,120
Repairs and Maintenance	$ 17,903	$ 12,624	$ 15,263	$ 15,912	$ 16,588	$ 17,293	$ 18,028	$ 18,794	$ 19,593	$ 20,426	$ 21,294	$ 22,199	$ 23,143	$ 24,126	$ 25,151
Operating Expenses	$ 18,911	$ 21,160	$ 20,036	$ 20,887	$ 21,775	$ 22,700	$ 23,665	$ 24,671	$ 25,719	$ 26,812	$ 27,952	$ 29,140	$ 30,378	$ 31,669	$ 33,015
Other	$ 3,409	$ 2,255	$ 2,832	$ 2,952	$ 3,078	$ 3,209	$ 3,345	$ 3,487	$ 3,635	$ 3,790	$ 3,951	$ 4,119	$ 4,294	$ 4,476	$ 4,667
Depreciation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sub-Total Operation & Maintainance	**$ 40,223**	**$ 43,269**	**$ 44,246**	**$ 46,127**	**$ 48,087**	**$ 50,131**	**$ 52,261**	**$ 54,482**	**$ 56,798**	**$ 59,212**	**$ 61,728**	**$ 64,352**	**$ 67,087**	**$ 69,938**	**$ 72,910**
EXISTING DEBT SERVICE (810-820)															
USDA Loan	$ 5,548	$ 5,448	$ 5,448	$ 5,448	$ 5,448	$ 5,448	$ 5,448	$ 5,448	$ 5,448	$ 5,448	$ 5,448	$ 5,448	$ 5,448	$ 5,448	$ 5,448
Rural Development Reserve (Payment/10)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sub-Total Existing Debt Service	**$ 5,548**	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ 5,448**
NEW DEBT SERVICE (810-820)															
2015 Loan	$ -	$ -	$ -	$ -	$ 17,265	$ 17,265	$ 17,265	$ 17,265	$ 17,265	$ 17,265	$ 17,265	$ 17,265	$ 17,265	$ 17,265	$ 17,265
Loan Reserve (Payment/10)	$ -	$ -	$ -	$ -	$ 1,700	$ 1,700	$ 1,700	$ 1,700	$ 1,700	$ 1,700	$ 1,700	$ 1,700	$ 1,700	$ 1,700	$ -
Sub-Total New Debt Service	**$ -**	**$ -**	**$ -**	**$ -**	**$ 18,965**	**$ 18,965**	**$ 18,965**	**$ 18,965**	**$ 18,965**	**$ 18,965**	**$ 18,965**	**$ 18,965**	**$ 18,965**	**$ 18,965**	**$ 17,265**
Total Debt Service	**$ 5,548**	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ 24,413**	**$ 24,413**	**$ 24,413**	**$ 24,413**	**$ 24,413**	**$ 24,413**	**$ 24,413**	**$ 24,413**	**$ 24,413**	**$ 24,413**	**$ 22,713**
Renewal and Replacement Fund (590)	0	0	0	0	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
TOTAL EXPENSES:	**$ 45,771**	**$ 48,717**	**$ 49,694**	**$ 51,575**	**$ 77,500**	**$ 79,544**	**$ 81,674**	**$ 83,895**	**$ 86,211**	**$ 88,625**	**$ 91,141**	**$ 93,765**	**$ 96,500**	**$ 99,351**	**$ 100,623**
Net Cashflow	**$ 11,557**	**$ 7,574**	**$ 5,208**	**$ 5,049**	**$ 1,088**	**$ 1,216**	**$ 1,305**	**$ 1,352**	**$ 1,354**	**$ 1,309**	**$ 1,212**	**$ 2,113**	**$ 2,472**	**$ 2,787**	**$ 4,753**
CASH ON HAND															
*Fund Balance					$ 5,000	$ 10,000	$ 15,000	$ 20,000	$ 25,000	$ 30,000	$ 35,000	$ 40,000	$ 45,000	$ 50,000	$ 55,000
Checking Account	$ 24,682	$ 32,169	$ 37,289	$ 7,250	$ 8,250	$ 9,378	$ 10,593	$ 11,855	$ 13,118	$ 14,335	$ 15,454	$ 17,472	$ 19,849	$ 22,540	$ 27,196
CD Account	$ 46,681	$ 46,769	$ 46,857	$ 46,945	$ 47,033	$ 47,121	$ 47,211	$ 47,301	$ 47,392	$ 47,485	$ 47,578	$ 47,672	$ 47,767	$ 47,863	$ 47,960
Total	**$ 71,364**	**$ 78,938**	**$ 84,146**	**$ 54,195**	**$ 55,283**	**$ 56,499**	**$ 57,804**	**$ 59,156**	**$ 60,510**	**$ 61,819**	**$ 63,032**	**$ 65,144**	**$ 67,616**	**$ 70,403**	**$ 75,156**
Total Project Amount	**0**	**0**	**0**	**331,420**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

**Fund Balance is obtained by adding the previous year's balance to the net cash flow, minus any self funded portion of future projects.*

CASH FLOW

ROCKVILLE PIPELINE COMPANY

WATER MASTER PLAN

Annual Population Growth Rate	1.50%								
Annual Rate Increase	1.50%								
Annual Inflation Rate	3.50%								
Fiscal Year Beginning January 1	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Ending December 31	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Average Rate ERU	$48.77	$49.50	$50.24	$50.99	$51.76	$52.54	$53.32	$54.12	$ 54.94
Connection Fee	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00
Impact fee	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
System Users:									
Total Existing ERU's	183	186	189	192	195	198	201	204	207
New ERU's:	3	3	3	3	3	3	3	3	3
REVENUES:									
User Fees (Water Sales)	$ 107,091	$ 110,480	$ 113,946	$ 117,491	$ 121,116	$ 124,824	$ 128,616	$ 132,494	$ 136,459
Connection Fees	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500
Late Fees & Penalties	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Miscellaneous	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Impact Fees (Certificate Sales)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest on C.D. Accounts	$ 98	$ 99	$ 100	$ 101	$ 102	$ 103	$ 104	$ 105	$ 106
TOTAL REVENUE:	**$ 108,689**	**$ 112,079**	**$ 115,546**	**$ 119,091**	**$ 122,718**	**$ 126,427**	**$ 130,220**	**$ 134,099**	**$ 138,065**
EXPENSES: (Inc. O&M & Debt Serv.)									
Contractual Services	$ 6,211	$ 6,474	$ 6,750	$ 7,036	$ 7,336	$ 7,647	$ 7,972	$ 8,311	$ 8,664
Professional Services	$ 4,295	$ 4,477	$ 4,667	$ 4,866	$ 5,073	$ 5,288	$ 5,513	$ 5,747	$ 5,992
Repairs and Maintenance	$ 26,220	$ 27,335	$ 28,496	$ 29,708	$ 30,970	$ 32,286	$ 33,659	$ 35,089	$ 36,580
Operating Expenses	$ 34,418	$ 35,881	$ 37,406	$ 38,996	$ 40,653	$ 42,381	$ 44,182	$ 46,060	$ 48,017
Other	$ 4,865	$ 5,072	$ 5,287	$ 5,512	$ 5,746	$ 5,990	$ 6,245	$ 6,511	$ 6,787
Depreciation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sub-Total Operation & Maintainance	**$ 76,009**	**$ 79,239**	**$ 82,607**	**$ 86,118**	**$ 89,778**	**$ 93,593**	**$ 97,571**	**$ 101,718**	**$ 106,041**
EXISTING DEBT SERVICE (810-820)									
USDA Loan	$ 5,448	$ 5,448	$ 5,448	$ -	$ -	$ -	$ -	$ -	$ -
Rural Development Reserve (Payment/10)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sub-Total Existing Debt Service	**$ 5,448**	**$ 5,448**	**$ 5,448**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
NEW DEBT SERVICE (810-820)									
2015 Loan	$ 17,265	$ 17,265	$ 17,265	$ 17,265	$ 17,265	$ 17,265	$ 17,265	$ 17,265	$ 17,265
Loan Reserve (Payment/10)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sub-Total New Debt Service	**$ 17,265**	**$ 17,265**	**$ 17,265**	**$ 17,265**	**$ 17,265**	**$ 17,265**	**$ 17,265**	**$ 17,265**	**$ 17,265**
Total Debt Service	**$ 22,713**	**$ 22,713**	**$ 22,713**	**$ 17,265**	**$ 17,265**	**$ 17,265**	**$ 17,265**	**$ 17,265**	**$ 17,265**
Renewal and Replacement Fund (590)	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
TOTAL EXPENSES:	**$ 103,722**	**$ 106,952**	**$ 110,320**	**$ 108,383**	**$ 112,043**	**$ 115,858**	**$ 119,836**	**$ 123,983**	**$ 128,306**
Net Cashflow	**$ 4,967**	**$ 5,126**	**$ 5,226**	**$ 10,709**	**$ 10,675**	**$ 10,569**	**$ 10,384**	**$ 10,116**	**$ 9,759**
CASH ON HAND									
*Fund Balance	$ 60,000	$ 65,000	$ 70,000	$ 75,000	$ 80,000	$ 85,000	$ 90,000	$ 95,000	$ 100,000
Checking Account	$ 32,065	$ 37,093	$ 42,218	$ 52,826	$ 63,400	$ 73,866	$ 84,146	$ 94,157	$ 103,810
CD Account	$ 48,058	$ 48,157	$ 48,257	$ 48,358	$ 48,459	$ 48,562	$ 48,666	$ 48,771	$ 48,877
Total	**$ 80,123**	**$ 85,250**	**$ 90,475**	**$ 101,184**	**$ 111,859**	**$ 122,428**	**$ 132,812**	**$ 142,928**	**$ 152,688**
**Fund Balance is obtained by adding the previc balance to the net cash flow, minus any self fun of future projects.*									
Total Project Amount	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

APPENDIX E

TRANERA WATER RIGHTS REPORT

Executive Summary
Water Rights Owner Inventory

SUNRISE ENGINEERING

Executive Summary

The water rights of Rockville Pipeline Company number 6 base water rights, (2) of which are in the name of Rockville Ditch Company and Rockville Town. It is not clear on whether or not Rockville Pipeline Co. is associated with these rights. However, it was determined that they should be included as part of the report, if for nothing else a source of information. There are several other permanent change applications applicable to the 6 base rights. The following comments apply to general categories or groups of rights as a whole. Sunrise Engineering Inc. (SEI) has examined portions of the public documents. Also, using the proprietary software, all pertinent information is instantly available to the SEI water right consultants. As the Utah Division of Water Rights (DWRi) does not guarantee that their information is correct, we also cannot guarantee that their information is correct. All of the comments within this report are derived from the public DWRi data base, and we have used great diligence to gather the comments as a tool to be used by your managers and consultants to help guide your future water right management actions.

GENERAL COMMENTS:

In the process of researching each of these rights, it was discovered that at the present time they are all of a perfected or certificated status. This being the case, the rights will remain as such until changes are proposed by the owners through the Division of Water Rights. If such time arises the State will require the Company to show beneficial use of the water associated with each right affected by the change. This will require a "Proof" to be prepared at some time following the change.

Even though the water rights are in a perfected status, there are a few things that we at Sunrise Engineering recommend for the protection and best management practices for your water rights. The following is a summary of these items:

- Many of these water rights are shared with as many as (3) different owners as shown in the data base at the State of Utah Division of Water Rights. We recommend that segregations be considered on a case by case basis, there may be some benefit in each entity having outright ownership of their water rights. This would be done only through a concerted effort with all parties involved and after careful consideration.
- Some of the water rights have an "unevaluated" sole supply as indicated in the Division's data base. This means that the water right has not been quantified or given a cfs and/or ACFT value. In order to understand the usability and value of these water rights, we recommend that we give diligence to compel the Division of Water Rights to evaluate these rights and update their data base as these evaluations are completed. This can be achieved with the "Declaration of Beneficial Use Amounts" form being completed and filed with the State.
- There are some inconsistencies in the Division's data base. These are mainly between the ACFT values and the irrigated acres values and does create some confusion as to which is which. We recommend that these be corrected by our petitioning the Division through the proper process.

To make the repairs to the data page information, a letter of explanation from the owner will be required for each data error change request so the State can make the correction. We recommend that SEI write the letters for your signature as the errors are located on the data page of each water right. It is very important to make the corrections (so the data page is as error free as possible). The proprietary software is irreplaceable to economically find the errors.

We strongly encourage a proactive approach in effective water right management practices. This will serve the Company well in preserving this valuable resource for your current and future needs. We believe that by doing so, will provide a level of confidence and reassurance that the right to use your allocated water for the benefit of each user individually and also collectively as a water user Company will be retained.

Respectfully,

Ken Tuttle
Water Right Specialist, Sunrise Engineering

Owner Inventory

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Owner Inventory

Generated on July 01, 2014 03:30 PM

Summary

Number of Rights: 6 **Flow:** 3.99 CFS **Quantity:** 1170.3931 ACFT

PODs: 8 **Parcels Found Containing PODs:** 1 **Basins:** 1

POD Types

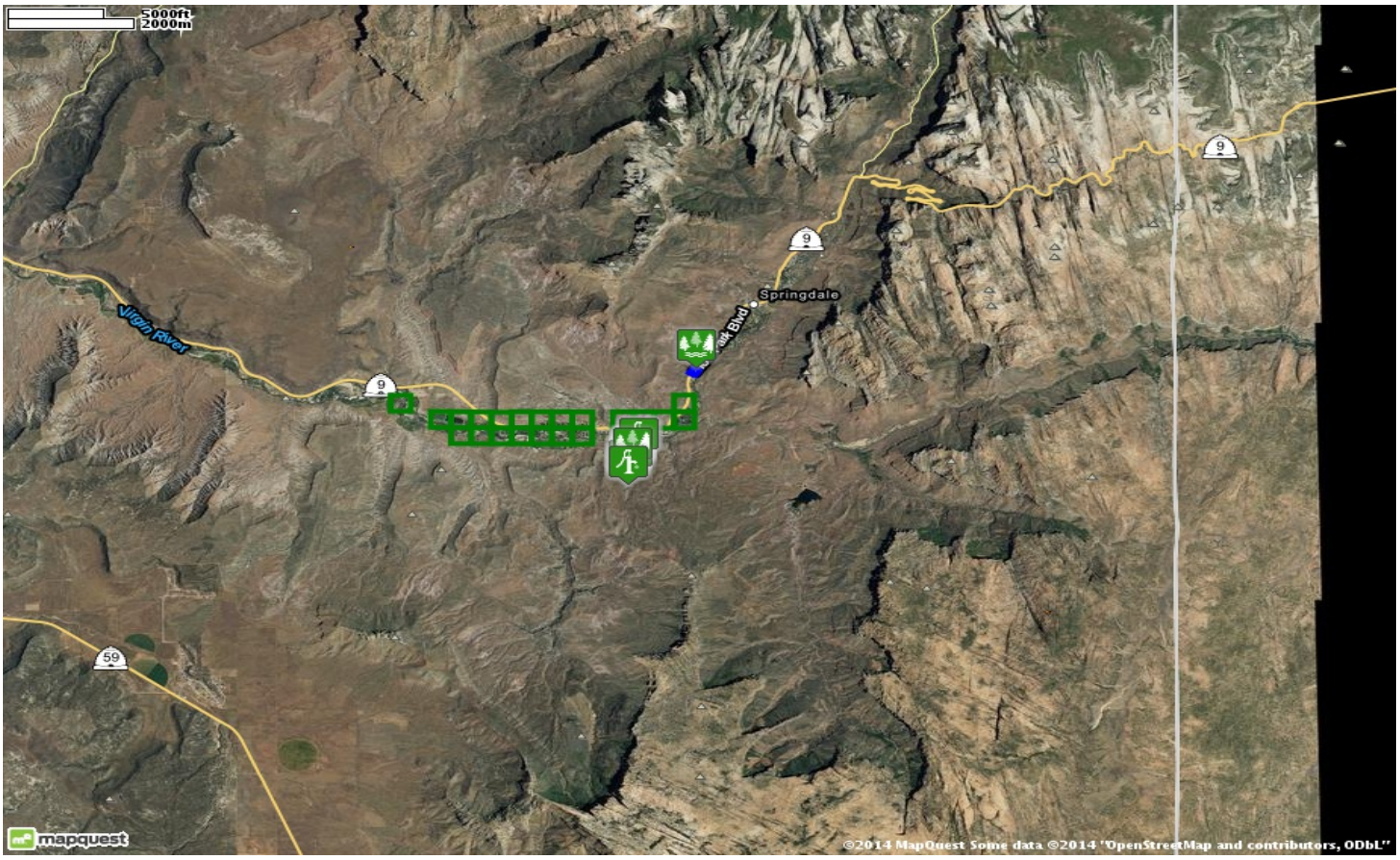
Underground: 6 PODs, 4 Rights **Surface:** 2 PODs, 6 Rights

Use Types

Irrigation: 287.8728 acres, 2 Rights **Municipal:** 0.0 , 4 Rights

Search Parameters:

Owner Names: Town of Rockville, Rockville Pipeline Company, Rockville Town Ditch Company, State of Utah Board of Water Resources (For: Rockville Town Ditch Company), Rockville Pipeline



(Lat/Long) Map shows (37.243,-112.853) to (37.078,-113.169)

81-106 A9833

Current Info:

Change Application	**a19393**	**Certificated**
Filed Date: 10/16/1995	**Decision Date: 05/31/1996**	**Priority Date: 10/16/1995**
0.036 CFS or 26.063 ACFT	**Buttermilk Spring and Five Wells-Existing**	**Proof Due:**
Washington County		**Basin 81**

Points of Diversion:

	Type	Description	Parcels
1	Underground	S 2997 ft W 377 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
2	Underground	S 2120 ft W 59 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
3	Underground	S 2622 ft W 136 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
4	Underground	S 1273 ft E 299 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
5	Underground	S 3494 ft W 383 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
6	Surface	S 2070 ft W 36 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	

Uses:

Municipal	0.0

Use Groups:

Use Group: ch_a19393	No Supplemental Rights		
Municipal	Sole Supply: Unevaluated	Group Total: 0.0	1/1 - 12/31

Owners:

Town of Rockville PO Box 157 Rockville, UT 84763	Interest: 38.0	
Rockville Pipeline Company PO Box 156 Rockville, UT 84763	Interest: 62.0	
State of Utah Board of Water Resources PO Box 146301 Salt Lake City, UT 84114-6301		Contract Holder

Opposition:

Not Protested

Non Use:

No Non-Use Applications

Extensions:

No Extension Applications

History:

	Entry	Type	Flow/Quantity	Decision	Status	Filed Date	Decision Date	Priority Date	Deadline
	81-106	Application to Appropriate	0.036 CFS or 26.063 ACFT	Approved	Certificated	09/30/1925	04/06/1926	09/30/1925	
	a6556	Permanent Change Application	0 CFS 0 ACFT		Certificated	05/10/1971		05/10/1971	
	a8629	Permanent Change Application	0 CFS 0 ACFT		Certificated	10/10/1975		10/10/1975	
	a8900	Permanent Change Application	0 CFS 0 ACFT		Certificated	04/08/1976		04/08/1976	
	a11406	Permanent Change Application	0.15 CFS 0 ACFT		Withdrawn	08/05/1980	01/23/1981	08/05/1980	11/30/1991
	a16918	Permanent Change Application	0.15 CFS or 108.595 ACFT	Approved	Amended	08/04/1992	11/20/1992	08/04/1992	11/30/1995
✔	a19393	Permanent Change Application	0.15 CFS or 108.596 ACFT	Approved	Certificated	10/16/1995	05/31/1996	10/16/1995	
	a1121	Permanent Change Application	0 CFS 0 ACFT						

Segregations:

Not Segregated

Associated Documents:

Date	Document	
26 Jan, 1998	Scanning History Sheet	A9833 016X
09 Oct, 1992	Ownership printout	016Y
09 Oct, 1992	Ownership printout	a16918 016Z
None	Abstract Sheet	P.1 0170
08 Jun, 1962	Legal	DECREE P.1 0171
08 Jun, 1962	Legal	CERTIFICATE of COPY for DECREE 0172
08 Jun, 1962	Legal	DECREE P.2 0173
10 Jun, 1988	Warranty Deed	RECORDING #333821 P.1 0174
10 Jun, 1988	Warranty Deed	RECORDING #333821 P.2 0175
08 Dec, 1975	Assignment of Water Rights	A9833 0176
08 Feb, 1989	Water User's Claim	CIVIL NO.7596 P.1 0177
08 Feb, 1989	Water User's Claim	CIVIL NO.7596 P.2 0178
08 Feb, 1989	Water User's Claim	CIVIL NO.7596 P.3 0179
23 Jan, 1976	Title Update Letter	For A9833 017A
None	Abstract Sheet	017B
08 Dec, 1975	Assignment of Water Rights	A9833 017C
15 Dec, 1975	Correspondence	ASSIGNMENT ENCLOSED 017D
None	Abstract Sheet	A9833 CERTIFICATE 1924 017E
08 Jun, 1962	Legal	CERTIFICATE of COPY for DECREE 017F
20 Feb, 1962	Correspondence	from ATTORNEY GENERAL`S OFFICE 017G
24 May, 1971	Correspondence (from Division)	RE:CONVEYANCE 017H
08 Jun, 1962	Legal	DECREE P.1 017I
08 Jun, 1962	Legal	DECREE P.2 017J
11 Oct, 1930	Certificate	1924(DUPLICATE) 017K
None	Proof	A9833 P.1 017L
None	Proof	A9833 P.2 017M
None	Endorsement Page	A9833 P.3 017N
11 Oct, 1930	Title Page	For A9833 017O
11 Oct, 1930	Correspondence	CERTIFICATE 1924 ENCLOSED 017P

Associated Documents: (continued)

Date	Document	
14 Aug, 1930	Correspondence (from Division)	PROOF RETURNED for SIGNING 017Q
23 Jun, 1930	Correspondence (from Division)	REPLY to 6-22-30 017R
22 Jun, 1930	Correspondence	INQUIRY 017S
01 May, 1930	Proof Due	6-30-30 017T
14 Feb, 1930	Extension Granted	TO 6-30-30 017U
13 Feb, 1930	Extension of time Request	For A9833 017V
14 Feb, 1930	Title Page	For A9833 017W
17 Feb, 1929	Proof Due	2-15-30 017X
26 Nov, 1929	Proof Due	FEE RECEIVED 017Y
21 Nov, 1929	Correspondence (from Division)	CHECK RETURNED MONEY ORDER REQUESTED 017Z
14 Nov, 1929	Extension Granted	TO 2-15-30 0180
13 Nov, 1929	Extension of time Request	For A9833 0181
14 Nov, 1929	Title Page	For A9833 0182
11 Oct, 1929	Correspondence (from Division)	ENCLOSURES 0183
08 Oct, 1929	Correspondence	REQUEST for PROOF FORM 0184
16 Sep, 1929	Proof Due	11-15-29 0185
16 Nov, 1928	Extension Granted	TO 11-15-29 0186
01 Nov, 1928	Extension of time Request	For A9833 0187
16 Nov, 1928	Title Page	For A9833 0188
09 Nov, 1928	Correspondence (from Division)	RE:PROCEDURES for PROOF 0189
None	Correspondence	NOTE REQUESTING RETURN of LETTER of 11-7-28 018A
07 Nov, 1928	Correspondence	RE:USE 018B
07 Nov, 1928	Correspondence	COPY of HANDWRITTEN NOTE REQUESTING RETURN 018C
29 Oct, 1929	Correspondence	REQUESTING PROOF FORMS 018D
01 Oct, 1928	Proof Due	10-30-28 018E
28 Nov, 1927	Extension Granted	TO 11-30-28 018F
23 Dec, 1927	Extension of time Request	For A9833 P.1 018G
23 Dec, 1927	Extension of time Request	For A9833 P.2 018H
28 Nov, 1927	Title Page	For A9833 018I
14 Nov, 1927	Correspondence (from Division)	ENCLOSURES 018J

Associated Documents: (continued)

Date	Document	
09 Nov, 1927	Correspondence	REQUESTING PROOF FORMS 018K
30 Sep, 1927	Proof Due	11-30-27 018L
29 Apr, 1926	Correspondence (from Division)	REPLY to 4-9-26 018M
06 Apr, 1926	Approval Letter	For A9833 018N
05 Apr, 1926	Correspondence (from Division)	RE:APPLICATION & RECEIPT 018O
03 Apr, 1926	Correspondence	REQUEST for RECEIPT 018P
03 Apr, 1926	Correspondence	RE:FEE 018Q
26 Feb, 1926	Correspondence (from Division)	FEE REQUESTED 018R
26 Feb, 1926	Correspondence (from Division)	FEE REQUESTED 018S
03 Feb, 1926	Correspondence (from Division)	RE:PROCEDURE for TRANSFER of TITLE 018T
01 Feb, 1926	Correspondence	RE:TRANSFERRING TITLE 018U
None	Notes	PROTEST PERIOD ENDS 2-20-26 018V
28 Jan, 1926	Advertising	CORRESPONDENCE 018W
08 Dec, 1925	Notes	(POOR COPY-UNREADABLE) 018X
27 Oct, 1925	Correspondence (from Division)	FEE REQUESTED 018Y
None	Application to Appropriate	A9833 P.1 018Z
None	Endorsement Page	For A9833 P.2 0190
None	Application to Appropriate	For A9833 P.3 0191
27 Jan, 1926	Advertising	CORRESPONDENCE 0192
21 Jan, 1926	Proof of publication	For A9833 0193
21 Jan, 1926	Proof of publication	For A9833 (POOR COPY-UNREADABLE DELETE) 0194
21 Jan, 1926	Advertising	RECEIPT 0195
21 Jan, 1926	Advertising	For A9833 P.1 0196
21 Jan, 1926	Advertising	For A9833 P.2 0197
21 Jan, 1926	Green card (Certified mail receipt)	FIVE for A9833 0198
27 Jan, 1998	Scanning History Sheet	a16918 019T
23 Jan, 1998	Certificate	FOR a19393 P.1 019U
23 Jan, 1998	Certificate	FOR a19393 P.2 019V
23 Jan, 1998	Correspondence (from Division)	CERTIFICATE 1924 ENCLOSED 019W

Associated Documents: (continued)

Date	Document	
23 Jan, 1998	Correspondence (from Division)	CERTIFICATE 1924 ENCLOSED 019X
23 Jan, 1998	Correspondence (from Division)	CERTIFICATE 1924 ENCLOSED 019Y
None	Proof	FOR a16918 P.1 019Z
None	Proof	FOR a16918 P.2 01A0
None	Proof	FOR a16918 P.3 01A1
None	Proof Map	FOR a16918 P.4 01A2
None	Proof	FOR a16918 P.5 01A3
31 May, 1996	Correspondence (from Division)	COPY of AMENDATORY CHANGE a19393 01A4
None	Endorsement Page	FOR a19393 P.4 01A5
None	Change Application	a19393 P.1 01A6
None	Change Application	a19393 P.2 01A7
None	Change Application	a19393 P.3 01A8
None	Notes	01A9
None	Well Log	TEST WELL #1 COMPLETED 1975 01AA
01 Jan, 1971	Well Log	FOR a6556 01AB
21 Nov, 1995	Proof of publication	FOR a19393 01AC
None	Well Log	FOR a16918 P.1 01AD
None	Well Log	FOR a16918 P.2 01AE
None	Well Log	FOR a16918 P.1 01AF
None	Well Log	FOR a16918 P.2 01AG
None	Well Log	FOR a16918 P.1 01AH
None	Well Log	FOR a16918 P.2 01AI
09 Oct, 1992	Correspondence (from Division)	RE:WARRANTY DEED P.1 01AJ
08 Apr, 1993	Correspondence	from DEQ RE:CULINARY WELL #4 01AK
08 Apr, 1995	Proof Correction Letter	FOR a16918 P.1 01AL
08 Apr, 1995	Proof Correction Letter	FOR a16918 P.2 01AM
10 Oct, 1995	Correspondence (from Division)	PROOF for a16918 RETURNED for SIGNING 01AN
14 Apr, 1994	Field Data Sheet	FOR a16918 01AO
13 Apr, 1994	Correspondence	RE:ROCKVILLE CULINARY WELLS 01AP

Associated Documents: (continued)

Date	Document	
16 May, 1994	Correspondence (from Division)	RE:PROOF FOR a16918 01AQ
28 Jun, 1993	Correspondence (from Division)	WELL LOG RETURNED for COMPLETION 01AR
28 Jun, 1993	Correspondence (from Division)	RECEIVED 7-8-93 01AS
None	Well Log	a16918 P.1 01AT
None	Well Log	a16918 P.2 01AU
28 Jun, 1993	Correspondence (from Division)	REQUESTING MORE INFO on WELL LOG 01AV
28 Jun, 1993	Correspondence (from Division)	REQUESTING MORE INFO on WELL LOG 01AW
None	Well Log	a16918 P.1 01AX
None	Well Log	a16918 P.2 01AY
None	Application Summary (1/2 green sheet)	A9983 CERT1924 a6556 CERTa916 a8900 CERTa1140 ETC. 01AZ
20 Nov, 1992	Approval Letter	FOR a16918 01B0
None	Change Application	a16918 P.1 01B1
None	Change Application	a16918 P.2 01B2
None	Change Application	a16918 P.3 01B3
None	Endorsement Page	FOR a16918 01B4
15 Oct, 1992	Proof of publication	A9833 a8900 01B5
15 Oct, 1992	Proof of publication	A9833 a8900 01B6
29 Nov, 1991	Field Data Sheet	FOR a11406 01B7
08 Jan, 1993	Memorandum Decision/Order St. Engineer	FOR a11406 01B8
28 Jun, 1992	Withdrawal Request	OF PROOF FOR a11406 01B9
28 Jun, 1992	Withdrawal Request	REQUESTING CANCELLATION OF a11406 01BA

Associated Documents: (continued)

Date	Document	
None	Proof	a11406 P.1 01BB
None	Proof	FOR a11406 P.3 01BC
None	Endorsement Page	FOR a11406 P.2 01BD
06 Dec, 1991	Correspondence (from Division)	PROOF FOR a11406 RECEIVED 01BE
27 Nov, 1991	Extension of time Request	REQUEST FOR a11406 01BF
22 Nov, 1991	Correspondence	PROOF ENCLOSED AND INFO RE:TWO WELLS 01BG
15 Nov, 1991	14 Day Proof Due Notice	FOR a11406 01BH
01 Oct, 1991	Proof Due	11-30-91 01BI
20 Dec, 1989	Extension Granted	TO 11-30-91 01BJ
22 Nov, 1991	Extension of time Request	REQUEST FOR a11406 01BK
14 Nov, 1989	14 Day Proof Due Notice	FOR a11406 01BL
29 Sep, 1989	Correspondence (from Division)	APPROPRIATION PROCEDURE 01BM
30 Jan, 1989	Extension Granted	TO 11-30-89 01BN
28 Nov, 1988	Extension of time Request	REQUEST FOR a11406 01BO
16 Nov, 1988	14 Day Proof Due Notice	FOR a11406 01BP
30 Sep, 1988	Proof Due	11-30-88 01BQ
23 Dec, 1986	Extension Granted	TO 11-30-88 01BR
26 Nov, 1986	Extension of time Request	REQUEST FOR a11406 01BS
14 Nov, 1986	14 Day Proof Due Notice	FOR a11406 01BT
30 Sep, 1986	Proof Due	11-30-86 01BU
01 Feb, 1984	Extension Granted	TO 11-30-86 01BV
30 Nov, 1983	Extension of time Request	REQUEST FOR a11406 01BW
03 Sep, 1983	Proof Due	11-30-83 01BX
23 Jan, 1981	Approval Letter	FOR a11406 01BY
None	Change Application	a11406 P.1 01BZ
None	Change Application	a11406 P.2 01C0
None	Endorsement Page	FOR a11406 P.3 01C1
None	Notice to Water Users	FOR a11406 01C2
09 Oct, 1980	Advertising	CORRESPONDENCE 01C3
07 Nov, 1980	Proof of publication	FOR a11406 01C4

Associated Documents: (continued)

Date	Document	
04 Oct, 1988	Green card (Certified mail receipt)	FOR a11406 01C5
14 Dec, 1979	Certificate	a-1140 01C6
None	Miscellaneous	STAMP 01C7
None	Change Application	a8900 TYPED PAGE SHOWING PARAGRAPHS. 5 6 & 7 P.4 01C8
None	Correspondence	Certificate letter 01C9
None	Proof	FOR a8900 P.1 01CA
None	Proof	FOR a8900 P.2 01CB
None	Change Application	a8900(CONTINUED) PARAGRAPH 8 P.5 01CC
None	Endorsement Page	FOR PROOF FOR a8900 P.3 01CD
None	Proof Map	FOR a8900 P.4 01CE
05 Jul, 1979	Correspondence	PROOF ENCLOSED 01CF
11 Jun, 1979	Correspondence (from Division)	PROOF for a8900 RETURNED for SIGNING 01CG
30 May, 1979	Field Data Sheet	FOR a8900 01CH
04 Jan, 1979	Correspondence (from Division)	PROOF RECEIVED FOR a8900 01CI
04 Jan, 1979	Correspondence	PROOF FOR a8900 ENCLOSED 01CJ
14 Nov, 1978	Extension of time Request	REQUEST FOR a8900 01CK
16 Nov, 1978	14 Day Proof Due Notice	FOR a8900 01CL
29 Sep, 1978	Proof Due	11-30-78 01CM
30 Sep, 1976	Approval Letter	FOR a8900 01CN
None	Correspondence	Certificate letter 01CO
03 Sep, 1976	Certificate	a916 CORRECTED 01CP
01 Sep, 1976	Miscellaneous	CERTIFICATE PREPARED STAMP 01CQ
18 May, 1976	Correspondence	CHEMICAL ANALYSIS RESULTS P.1 01CR
18 May, 1976	Correspondence	CHEMICAL ANALYSIS RESULTS P.2 01CS
None	Misc. Drawings and/or Documents	CHEMICAL ANALYSIS REPORT #761218 01CT
30 Apr, 1976	Correspondence	Certificate letter 01CU

Associated Documents: (continued)

Date	Document	
30 Apr, 1976	Certificate	a-916 VOID 01CV
None	Miscellaneous	CERTIFICATE STAMP 01CW
None	Change Application	a8900 P.1 01CX
None	Change Application	a8900 P.2 01CY
None	Endorsement Page	FOR a8900 P.3 01CZ
05 Apr, 1976	Correspondence	CHANGE APPLICATION ENCLOSED 01D0
None	Notice to Water Users	FOR a8900 P.1 01D1
None	Notice to Water Users	FOR a8900 P.2 01D2
None	Notice to Water Users	FOR a8900 P.3 01D3
21 May, 1976	Advertising	CORRESPONDENCE for 81-1581 a8915(INCORRECT FILE) 01D4
06 Jul, 1976	Proof of publication	FOR a8900 P.1 01D5
06 Jul, 1976	Proof of publication	FOR a8900 P.2 01D6
06 Jul, 1976	Proof of publication	FOR a8900 P.3 01D7
02 Oct, 1989	Green card (Certified mail receipt)	FOR a11406 01D8
02 Oct, 1978	Green card (Certified mail receipt)	01D9
01 Oct, 1978	Green card (Certified mail receipt)	FOR a11406 01DA
29 Jul, 1930	Correspondence	RE:ORIGINAL APPLICATION a9833 01DB
25 Jul, 1930	Correspondence (from Division)	REQUEST 01DC
None	Change Application	a1121(REJECTED) P.1 01DD
None	Change Application	a1121(REJECTED) P.2 01DE
None	Endorsement Page	FOR a1121(REJECTED) P.3 01DF
None	Title Page	FOR a1121 01DG
None	Change Application	a1121(REJECTED) P.1(COPY) 01DH
None	Change Application	a1121(REJECTED) P.2(COPY) 01DI
None	Endorsement Page	FOR a1121(REJECTED) P.3 [COPY-UPSIDE DOWN] 01DJ
None	Endorsement Page	FOR a1121(REJECTED) P.3 [COPY] 01DK
26 Jan, 1998	Scanning History Sheet	For A9833 0425

Associated Documents: (continued)

Date	Document	
26 Jan, 1999	Water User's Claim	CIVIL NO.7596 P.1 0426
26 Jan, 1999	Water User's Claim	CIVIL NO.7596 P.2 (POOR COPY) 0427
26 Jan, 1999	Water User's Claim	SIGNED CIVIL NO.7596 P.3 0428
08 Feb, 1999	Water User's Claim	SIGNED CIVIL NO.7596 P.3 0429
None	Proof Map	03HY

State Comments:

WATER RIGHT NUMBER PRIORITY DATE FLOW ACRE-FEET 81-106 9/30/1925 0.036 26.063 81-395 7/16/1959 0.070 50.678 81-450 2/17/1961 0.044 31.855 ====== ======== TOTAL 0.150 108.595

Tranera Comments:

1 use groups with unevaluated sole supply
No Places of Use Found for group ch_a19393
Multiple Owners - Ownership Segregation Recommended
Invalid Status in History. Careful Analysis Recommended.

Sunrise Engineering Comments:

This water right was developed through an “Application to Appropriate” (A9833) with a priority of 1925. It is currently in a certificated or perfected status with a flow of 0.036 cfs or 26.063 ACFT. This water right is shared with the Town of Rockville, holding 38% of the interest and Rockville Pipeline Company holding the remaining 62% with State of Utah Board of Water Resources as a contract holder of this water right as well. The nature of use for the water right, when originally appropriated was irrigation and culinary but has since been changed to municipal use for the service area of Rockville. The source began as Buttermilk Spring, which still continues today with an additional (5) sources which are underground wells as a result of change applications made throughout the history of this right. This water right is a supplemental member of group 608934 with (3) other rights consisting of 0.150 cfs or 108.595 ACFT. Even though the water right is currently in a perfected or certificated status and will remain so, unless changes are made through the Utah State Division of Water Rights. There are a few things that should be considered for the best management and protection of the water right. Due to the fact that there are multiple owners of the water right, it may be beneficial to segregate the water right so that each entity has full interest in the water right. This will require application for segregation and will minimize complications if either party has interest in making any changes to the water right. There are also some inconsistencies in the Division’s data base. We recommend that these too be resolved, this will require additional research and petitioning to the Division of Water Rights to get these issues rectified.

81-395 A31203

Current Info:

Change Application	**a19393**	**Certificated**
Filed Date: 10/16/1995	**Decision Date: 05/31/1996**	**Priority Date: 10/16/1995**
0.07 CFS or 50.678 ACFT	**Buttermilk Spring and Five Wells-Existing**	**Proof Due:**
Washington County		**Basin 81**

Points of Diversion:

	Type	Description	Parcels
1	Underground	S 2997 ft W 377 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
2	Underground	S 2120 ft W 59 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
3	Underground	S 2622 ft W 136 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
4	Underground	S 1273 ft E 299 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
5	Underground	S 3494 ft W 383 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
6	Surface	S 2070 ft W 36 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	

Uses:

Municipal	0.0

Use Groups:

Use Group: ch_a19393	No Supplemental Rights		
Municipal	Sole Supply: Unevaluated	Group Total: 0.0	1/1 - 12/31

Owners:

Town of Rockville PO Box 157 Rockville, UT 84763	Interest: 38.0	
Rockville Pipeline PO Box 156 Rockville, UT 84763	Interest: 62.0	
State of Utah Board of Water Resources PO Box 146301 Salt Lake City, UT 84114-6301		Contract Holder

Opposition:

Not Protested

Non Use:

No Non-Use Applications

Extensions:

No Extension Applications

History:

	Entry	Type	Flow/Quantity	Decision	Status	Filed Date	Decision Date	Priority Date	Deadline
	81-395	Application to Appropriate	0.07 CFS or 50.678 ACFT	Approved	Certificated	07/16/1959	08/23/1960	07/16/1959	
	a6625	Permanent Change Application	0 CFS 0 ACFT		Certificated	08/05/1971		08/05/1971	
	a16918	Permanent Change Application	0.15 CFS or 108.595 ACFT	Approved	Amended	08/04/1992	11/20/1992	08/04/1992	11/30/1995
✔	a19393	Permanent Change Application	0.15 CFS or 108.596 ACFT	Approved	Certificated	10/16/1995	05/31/1996	10/16/1995	

Segregations:

Not Segregated

Associated Documents:

Date	Document	
26 Jan, 1998	Scanning History Sheet	A31203 00E7
None	Application Summary (1/2 green sheet)	00E8
09 Oct, 1992	Correspondence (from Division)	P.1 00E9
None	Water User's Claim	CIVIL NO.7596 P.1 00EA
None	Water User's Claim	P.2 00EB
01 Jan, 1989	Water User's Claim	SIGNED P.3 00EC
03 Sep, 1976	Certificate	9977 00ED
None	Certificate	STAMP 00EE

Associated Documents: (continued)

Date	Document	
03 Sep, 1976	Letter with Certificate	9977 00EF
07 May, 1976	Certificate	9977 VOID 00EG
None	Certificate	STAMP 00EH
07 May, 1976	Letter with Certificate	9977 VOID 00EI
None	Proof	For A31203 a6625 P.1 00EJ
None	Proof	P.2 00EK
None	Endorsement Page	P.3 00EL
None	Proof Map	P.4 00EM
23 Jan, 1976	Title Update Letter	00EN
16 Dec, 1975	Abstract Sheet	00EO
08 Dec, 1975	Title document	ASSIGNMENT of APPLICATION 00EP
22 Dec, 1975	Renovate	Replace rush test wellltr(appl) LETTER 00EQ
19 Dec, 1975	Renovate	Replace rush test wellltr(appl) APPLICATIONs a6656 & a6625 00ER
15 Aug, 1974	Field Data Sheet	00ES
22 Aug, 1974	Correspondence (from Division)	PROOF RECEIVED 00ET
09 Aug, 1974	14 Day Proof Due Notice	00EU
22 May, 1974	Proof Due	00EV
None	Memo to File	00EW
27 Sep, 1971	Extension Granted	00EX
27 Sep, 1971	Memorandum Decision/Order St. Engineer	00EY

Associated Documents: (continued)

Date	Document	
24 Jun, 1971	Abstract Sheet	00EZ
19 Jun, 1976	Title document	ASSIGNMENT of APPLICATION 00F0
12 Mar, 1911	Hearing Notice	00F1
19 Nov, 1970	Extension of time Request	Extension Form 00F2
16 Nov, 1970	14 Day Proof Due Notice	00F3
30 Sep, 1970	Proof Due	00F4
31 Jan, 1969	Extension Granted	00F5
31 Jan, 1969	Memorandum Decision/Order St. Engineer	00F6
26 Nov, 1968	Extension of time Request	Extension Form 00F7
26 Nov, 1968	Extension of time Request	Extension Form 00F8
15 Nov, 1968	14 Day Proof Due Notice	00F9
01 Oct, 1968	60 Day Proof Due Notice	00FA
30 Mar, 1967	Extension Granted	00FB
10 Mar, 1967	Hearing Notice	00FC
25 Oct, 1966	Extension of time Request	00FD
16 Nov, 1966	14 Day Proof Due Notice	00FE
30 Sep, 1966	Proof Due	00FF
26 Mar, 1962	Extension Granted	00FG
22 Mar, 1962	Hearing Notes (handwritten notes)	00FH
08 Mar, 1962	Hearing Notice	00FI
24 Jan, 1962	Hearing Notice	00FJ
28 Nov, 1961	Correspondence (from Division)	EXT.RECEIVED 00FK
22 Nov, 1961	Extension of time Request	00FL
16 Nov, 1961	14 Day Proof Due Notice	00FM
25 Sep, 1961	Proof Due	00FN
23 Aug, 1960	Approval Letter	For A31203 00FO
12 Jan, 1960	Correspondence (from Division)	RE:MEETING 00FP
21 Jul, 1959	Correspondence	00FQ
None	Application to Appropriate	A31203 P.1 00FR
None	Application to Appropriate	P.2 00FS
None	Endorsement Page	P.3 00FT

Associated Documents: (continued)

Date	Document	
None	Application to Appropriate	CONTINUATION of P.2 00FU
16 Mar, 1960	Correspondence (from Division)	INTERNAL 00FV
None	Advertising	P.1 00FW
None	Green card (Certified mail receipt)	00FX
None	Green card (Certified mail receipt)	00FY
None	Green card (Certified mail receipt)	00FZ
02 Oct, 1968	Green card (Certified mail receipt)	00G0
05 Oct, 1970	Green card (Certified mail receipt)	00G1
26 Jan, 1998	Scanning History Sheet	00G2
23 Jan, 1998	Certificate	FOR a19393 P.1 00G3
23 Jan, 1998	Certificate	P.2 00G4
23 Jan, 1998	Letter with Certificate	00G5
23 Jan, 1998	Letter with Certificate	00G6
23 Jan, 1998	Letter with Certificate	00G7
05 Jan, 1976	Well Log	00G8
29 Jun, 1971	Well Log	FOR a6556(81-450) 00G9
31 May, 1996	Approval Letter	FOR a19393 00GA
None	Extension of time Request	P.3 (FOR a19393(81-106) 00GB
None	Endorsement Page	P.3(FOR a19393[81-106]) 00GC
None	Application to Appropriate	a19393 P.1 00GD
None	Application to Appropriate	P.2 00GE
None	Application to Appropriate	P.3 00GF
09 Oct, 1992	Ownership printout	00GG
10 Jun, 1988	Abstract Sheet	P.1 00GH
19 Jun, 1976	Title document	ASSIGNMENT of APPLICATION 00GI
08 Dec, 1975	Title document	ASSIGNMENT of APPLICATION 00GJ
10 Jun, 1988	Warranty Deed	#333821 P.1 00GK
10 Jun, 1988	Warranty Deed	P.2 00GL
09 Oct, 1992	Correspondence (from Division)	P.1 00GM

Associated Documents: (continued)

Date	Document	
None	Application Summary (1/2 green sheet)	00GN
None	Change Application	COPY of a16918 P.1 00GO
None	Change Application	COPY OF a16918 P.2 00GP
None	Change Application	P.3 00GQ
08 Jan, 1993	Memorandum Decision/Order St. Engineer	FOR a11406(81-106 395 450) 00GR
23 Jan, 1981	Approval Letter	FOR a11406 P.1 00GS
None	Change Application	a11406 P.1 00GT
None	Change Application	P.2 00GU
None	Endorsement Page	FOR a11406 P.3 00GV
14 Dec, 1979	Letter with Certificate	a1140 FOR a8900 00GW
14 Dec, 1979	Certificate	a1140 FOR a8900 00GX
14 Dec, 1979	Certificate	STAMP 00GY
None	Change Application	a8900 P.2 00GZ
04 Feb, 1976	Approval Letter	FOR a8630 00H0
None	Change Application	AMENDATORY a8630 P.1 00H1
None	Change Application	FOR a8630 P.2 00H2
None	Endorsement Page	FOR AMENDATORY a8630 P.3 00H3
None	Notice to Water Users	P.1 00H4
None	Notice to Water Users	P.2 00H5
None	Notice to Water Users	P.3 00H6
None	Notice to Water Users	P.4 00H7
20 Nov, 1975	Advertising	CORRESPONDENCE FOR a8628(81-1549) 00H8
05 Jan, 1976	Proof of publication	P.1 00H9
05 Jan, 1976	Proof of publication	FOR a8630 ETC. 00HA
22 Nov, 1971	Approval Letter	for A6625 00HB
None	Change Application	a6625 P.1 00HC
None	Change Application	P.2 00HD
None	Endorsement Page	P.3 00HE
None	Notice to Water Users	FOR a6625 P.1 00HF

Associated Documents: (continued)

Date	Document	
None	Notice to Water Users	P.2 00HG
26 Oct, 1971	Correspondence (from Division)	INTERNAL P.1 00HH
01 Jan, 2000	Scanning History Sheet	A31203 04FW
None	Water User's Claim	CIVIL NO.7596 P.1 04FX
None	Water User's Claim	P.2 04FY
21 Jul, 1999	Water User's Claim	SIGNED P.3 04FZ
02 Aug, 1999	Water User's Claim	SIGNED P.4 04G0
12 Jan, 2000	Water User's Claim	SIGNED P.5 04G1
None	Water User's Claim	CIVIL NO.7596 P.1 00EG
17 Jul, 1999	Water User's Claim	SIGNED P.3 00EH

State Comments:

WATER RIGHT NUMBER PRIORITY DATE FLOW ACRE-FEET 81-106 9\30\1925 0.036 26.063 81-395 7\16\1959 0.070 50.678 81-450 2\17\1961 0.044 31.855 ======= ======== TOTAL 0.150 108.595

Tranera Comments:

1 use groups with unevaluated sole supply
No Places of Use Found for group ch_a19393
Multiple Owners - Ownership Segregation Recommended
Invalid Status in History. Careful Analysis Recommended.

Sunrise Engineering Comments:

Sunrise Engineering Comments: (continued)

This water right was developed through an "Application to Appropriate" (A31203) with a priority of 1959. It is currently in a certificated or perfected status with a flow of 0.07 cfs or 50.678 ACFT. This water right is shared with the Town of Rockville, holding 38% of the interest and Rockville Pipeline Company holding the remaining 62% with the State of Utah Board of Water Resources as a contract holder of this water right as well. The nature of use for the water right, when originally appropriated was domestic but has since been changed to municipal use for the service area of Rockville. The source began as Grapevine Spring, since then the source has been changed which consists of (1) surface and (5) underground wells as a result of change applications made throughout the history of this right. This water right is a supplemental member of group 608934 with (2) other rights consisting of 0.150 cfs or 108.595 ACFT. No further action is necessary for this right and it will remain in a certificated or perfected status barring any future changes through the Utah Division of Water Rights. Even though the water right is currently in a perfected or certificated status and will remain so, unless changes are made through the Utah State Division of Water Rights. There are a few things that should be considered for the best management and protection of the water right. Due to the fact that there are multiple owners in the water right, it may be beneficial to segregate the water right so that each entity has full interest of the water right. This will require application for segregation and will minimize complications if either party has interest in making any changes to the water right. There are also some inconsistencies in the Division's data base. We recommend that these too be resolved, this will require additional research and petitioning to the Division of Water Rights to get these issues rectified.

81-450 A32732

Current Info:

Change Application	**a19393**	**Certificated**
Filed Date: 10/16/1995	**Decision Date: 05/31/1996**	**Priority Date: 10/16/1995**
0.044 CFS or 31.855 ACFT	**Buttermilk Spring and Five Wells-Existing**	**Proof Due:**
Washington County		**Basin 81**

Points of Diversion:

	Type	Description	Parcels
1	Underground	S 2997 ft W 377 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
2	Underground	S 2120 ft W 59 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
3	Underground	S 2622 ft W 136 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
4	Underground	S 1273 ft E 299 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
5	Underground	S 3494 ft W 383 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
6	Surface	S 2070 ft W 36 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	

Uses:

Municipal	0.0

Use Groups:

Use Group: ch_a19393	No Supplemental Rights		
Municipal	Sole Supply: Unevaluated	Group Total: 0.0	1/1 - 12/31

Owners:

Town of Rockville PO Box 157 Rockville, UT 84763	Interest: 38.0	
Rockville Pipeline Company PO Box 156 Rockville, UT 84763	Interest: 62.0	
State of Utah Board of Water Resources PO Box 146301 Salt Lake City, UT 84114-6301		Contract Holder

Opposition:

Not Protested

Non Use:

No Non-Use Applications

Extensions:

No Extension Applications

History:

	Entry	Type	Flow/Quantity	Decision	Status	Filed Date	Decision Date	Priority Date	Deadline
	81-450	Application to Appropriate	0.044 CFS or 31.855 ACFT	Approved	Certificated	02/17/1961	04/16/1962	02/14/1961	
	a16918	Permanent Change Application	0.15 CFS or 108.595 ACFT	Approved	Amended	08/04/1992	11/20/1992	08/04/1992	11/30/1995
✔	a19393	Permanent Change Application	0.15 CFS or 108.596 ACFT	Approved	Certificated	10/16/1995	05/31/1996	10/16/1995	

Segregations:

Not Segregated

Associated Documents:

Date	Document	
26 Jan, 1998	Scanning History Sheet	BONNIE 00K7
09 Oct, 1992	Correspondence (from Division)	00K8
09 Oct, 1992	Correspondence (from Division)	pg 2 00K9
None	Water User's Claim	CIVIL NO.7596 P.1 00KA
None	Water User's Claim	P.2 00KB
04 Feb, 1989	Water User's Claim	SIGNED P.3 00KC
18 Jul, 1966	Certificate	7336 00KD
18 Jul, 1966	Certificate	STAMP 00KE
18 Jul, 1966	Letter with Certificate	7336 00KF

Associated Documents: (continued)

Date	Document	
None	Proof	FOR A32732 P.1 00KG
None	Proof	P.2 00KH
None	Endorsement Page	A32732 P.3 00KI
None	Proof Map	P.4(POOR COPY=SEE P.5) 00KJ
None	Proof Map	P.5 00KK
None	Correspondence (from Division)	NOTICE? (POOR COPY=UNREADABLE) 00KL
01 Apr, 1965	Extension of time Request	Extension Form 00KM
13 Jan, 1965	Correspondence (from Division)	REPLY 00KN
08 Jan, 1965	Correspondence	REPLY/REQUEST 00KO
25 Nov, 1964	Correspondence	REPLY 00KP
None	Memo to File	RE:EXT. 00KQ
16 Nov, 1964	14 Day Proof Due Notice	00KR
30 Sep, 1964	Proof Due	00KS
16 Apr, 1962	Approval Letter	00KT
21 Mar, 1962	Memo to File	RE:FIELD EXAM 00KU
05 Feb, 1962	Correspondence (from Division)	REPLY 00KV
29 Jan, 1962	Correspondence	INQUIRY 00KW
05 Mar, 1961	Well Log	00KX
13 Mar, 1961	Correspondence	00KY
13 Mar, 1961	Provisional (Rush) Letter	00KZ
None	Application to Appropriate	A32732 P.1 00L0
13 Mar, 1961	Application to Appropriate	A32732 P.2 00L1
None	Endorsement Page	P.3 00L2
01 Oct, 1964	Green card (Certified mail receipt)	00L3
10 Apr, 1961	Memo to File	00L4
None	Advertising	FOR A32732 00L5
26 Jan, 1998	Scanning History Sheet	a19393 00L6
23 Jan, 1998	Certificate	FOR a19393 P.1 00L7
23 Jan, 1998	Certificate	FOR a19393 00L8
23 Jan, 1998	Letter with Certificate	00L9

Associated Documents: (continued)

Date	Document	
23 Jan, 1998	Letter with Certificate	00LA
23 Jan, 1998	Letter with Certificate	00LB
31 May, 1996	Approval Letter	FOR a19393 00LC
None	Endorsement Page	FOR a19393 P.3 00LD
05 Jan, 1976	Well Log	00LE
None	Well Log	00LF
None	Change Application	a19393 P.1 00LG
None	Change Application	P.2 00LH
None	Change Application	P.3 00LI
09 Oct, 1992	Ownership printout	00LJ
24 Jun, 1988	Abstract Sheet	P.1 00LK
08 Dec, 1975	Title document	ASSIGNMENT of APPLICATION 00LL
10 Jun, 1988	Warranty Deed	#333821 00LM
10 Jun, 1988	Warranty Deed	P.2 00LN
None	Application Summary (1/2 green sheet)	A32732 CERT.7336 00LO
None	Change Application	COPY ONLY FOR a16918(81-106) 00LP
None	Change Application	P.2 00LQ
None	Change Application	a16918(COPY ONLY)P.3 00LR
08 Jan, 1993	Memorandum Decision/Order St. Engineer	FOR a11406 00LS
23 Jan, 1981	Approval Letter	FOR a11406 00LT
None	Change Application	COPY of a11406 00LU
None	Change Application	COPY of P.2 00LV
None	Endorsement Page	FOR a11406(COPY ONLY)P.3 00LW
14 Dec, 1979	Letter with Certificate	a1140 FOR a8900 00LX
14 Dec, 1979	Certificate	a1140 00LY
14 Dec, 1979	Certificate	STAMP 00LZ
None	Change Application	ATTACHMENT FOR a8900 00M0
03 Sep, 1976	Certificate	a917 00M1
03 Sep, 1976	Certificate	STAMP 00M2

Associated Documents: (continued)

Date	Document	
03 Sep, 1976	Letter with Certificate	a917 FOR a6556 a8629 00M3
07 May, 1976	Certificate	a917(VOID) 00M4
07 May, 1976	Certificate	STAMP 00M5
07 May, 1976	Letter with Certificate	a917 FOR a6556 a8629 00M6
15 Aug, 1974	Proof	FOR a6556 P.1 00M7
07 May, 1976	Endorsement Page	FOR CERT.916 00M8
None	Map	00M9
04 Feb, 1976	Approval Letter	FOR a8629 00MA
None	Change Application	AMEND.a8629 00MB
None	Change Application	P.2 00MC
None	Endorsement Page	FOR a8629 P.3 00MD
None	Notice to Water Users	FOR a8629 P.1 00ME
None	Notice to Water Users	P.2 00MF
None	Notice to Water Users	P.3 00MG
None	Notice to Water Users	P.4 00MH
20 Nov, 1975	Advertising	FOR a8629 00MI
05 Jan, 1976	Proof of publication	FOR a8629 P.1 00MJ
01 Jan, 1976	Proof of publication	FOR a8629 00MK
23 Jan, 1976	Title Update Letter	00ML
16 Dec, 1975	Abstract Sheet	00MM
08 Dec, 1975	Title document	ASSIGNMENT of APPLICATION 00MN
05 Aug, 1974	Field Data Sheet	FOR a6556 00MO
22 Aug, 1974	Correspondence (from Division)	PROOF RECEIVED 00MP
03 Dec, 1973	Extension Granted	FOR a6556 00MQ
18 Oct, 1973	Correspondence	REQUESTING EXT. 00MR
20 Oct, 1973	Extension of time Request	FOR a6556 00MS
20 Oct, 1973	Extension of time Request	FOR a6556 00MT
18 Oct, 1973	Correspondence	REQUESTING EXT. 00MU
30 Sep, 1973	Proof Due	FOR a6556 00MV
02 Sep, 1971	Approval Letter	FOR a6556 00MW

Associated Documents: (continued)

Date	Document	
29 Jun, 1976	Well Drillers Report	FOR a6556 00MX
12 May, 1971	Provisional (Rush) Letter	FOR a6556 00MY
10 May, 1971	Change Application	a6556 00MZ
10 May, 1971	Change Application	pg 2 00N0
10 May, 1971	Endorsement Page	pg 3 00N1
08 Jul, 1971	Notice to Water Users	a6556 00N2
08 Jul, 1971	Notice to Water Users	pg 2 00N3
29 Jun, 1971	Advertising	a6556 00N4
None	Green card (Certified mail receipt)	00N5
08 Jul, 1971	Proof of publication	a6556 00N6
01 Jan, 2000	Scanning History Sheet	04G2
None	Water User's Claim	CIVIL NO.7596 04G3
None	Water User's Claim	P.2 04G4
21 Jul, 1999	Water User's Claim	SIGNED P.3 04G5
02 Aug, 1999	Water User's Claim	SIGNED P.3 04G6
12 Jan, 2000	Water User's Claim	SIGNED P.3 04G7

State Comments:

WATER RIGHT NUMBER PRIORITY DATE FLOW ACRE-FEET 81-106 9\30\1925 0.036 26.063 81-395 7\16\1959 0.070 50.678 81-450 2\17\1961 0.044 31.855 ======= ======= TOTAL 0.150 108.595

Tranera Comments:

1 use groups with unevaluated sole supply
No Places of Use Found for group ch_a19393
Multiple Owners - Ownership Segregation Recommended
Invalid Status in History. Careful Analysis Recommended.

Sunrise Engineering Comments:

This water right was developed through an "Application to Appropriate" (A32732) with a priority of 1961. It is currently in a certificated or perfected status with a flow of 0.044 cfs or 31.855 ACFT. This water right is shared with the Town of Rockville, holding 38% of the interest and Rockville Pipeline Company holding the remaining 62% with the State of Utah Board of Water Resources as a contract holder of this water right as well. The nature of use for the water right, when originally appropriated was domestic but has since been changed to municipal and continues to supply water to the community of Rockville. The source began as an underground well, since then the source has been changed which consists of (1) surface and (5) underground wells as a result of change applications made throughout the history of this right. This water right is a supplemental member of group 608934 with (2) other rights consisting of 0.150 cfs or 108.595 ACFT. Even though the water right is currently in a perfected or certificated status and will remain so, unless changes are made through the Utah State Division of Water Rights. There are a few things that should be considered for the best management and protection of the water right. Due to the fact that there are multiple owners of the water right, it may be beneficial to segregate the water right so that each entity has full interest in the water right. This will require application for segregation and will minimize complications if either party has interest in making any changes to the water right. There are also some inconsistencies in the Division's data base. We recommend that these too be resolved, this will require additional research and petitioning to the Division of Water Rights to get these issues rectified.

81-1120

Current Info:

Change Application	**a5171**	**Certificated**
Filed Date:	**Decision Date:**	**Priority Date:**
3.09 CFS or 850.568 ACFT	**North Fork Virgin River**	**Proof Due:**
Washington County		**Basin 81**

Points of Diversion:

	Type	Description	Parcels
1	Surface	N 606 ft E 1631 ft from SW cor, Sec 32, T 41S, R 10W, SLBM	Parcel S-146-A
	Parcel S-146-A	Private parcel in Washington county 1877 ZION PARK BLVD	5.8 acres

Uses:

Irrigation	205.3 acres

Use Groups:

Use Group: ch_a5171	No Supplemental Rights		
Irrigation	Sole Supply: 205.3 acres	Group Total: 205.3 acres	1/1 - 12/31

Owners:

Town of Rockville P.O. Box 630206 Rockville, UT 84763		Remarks: 0.166 cfs, 24.0 acres irrig., 120.0 AF
Rockville Town Ditch Company PO Box 630158 Rockville, UT 84763		Remarks: Interest held by BWR
State of Utah Board of Water Resources 1594 West North Temple, Ste 310 Salt Lake City, UT 84114-6201	For: Rockville Town Ditch Company	Remarks: 2.924 cfs, 146.1136 acres irrig., 730.568 AF

Opposition:

Not Protested

Non Use:

No Non-Use Applications

Extensions:

Filed Date	Decision	Decision Date	Proof Due Date
11/29/1996	Approved	01/07/1997	11/30/1999
11/30/1999	Approved	01/05/2000	08/31/2002
08/29/2002	Approved	01/30/2003	08/31/2004

History:

	Entry	Type	Flow/Quantity	Decision	Status	Filed Date	Decision Date	Priority Date	Deadline
	81-1120	Decree	3.09 CFS or 850.568 ACFT		Certificated	12/07/1923	09/24/1924	01/01/1862	
		Segregation				12/07/1923			
	a768	Permanent Change Application	1 CFS 0 ACFT		No Proof Required	12/07/1923		12/07/1923	
	a15646	Permanent Change Application	3.09 CFS 0 ACFT	Approved	Certificated	05/08/1990	08/10/1990	05/08/1990	08/31/2004
		Extension Application		Approved		11/29/1996	01/07/1997		11/30/1999
		Extension Application		Approved		11/30/1999	01/05/2000		08/31/2002
		Extension Application		Approved		08/29/2002	01/30/2003		08/31/2004
✔	a5171	Permanent Change Application	3.84 CFS 0 ACFT		Certificated				

Segregations:

Child	App #	Filed Date	Status	Flow		Quantity
Irrigation	Stockwater	Domestic	Municipal	Mining	Power	Other
81-4739		07/18/2008	CERT	0.75 CFS		206.4321 Acft
41.28640 Acres	0.00000 ELUs	0.00000 Families	0.00000 Acft	0.00000 Acft	0.00000 Acft	0.00000 Acft
	Rockville Town Ditch Company, et al.					

Segregation Evaluation:

Section		Filed Date	Status	Flow		Quantity
Irrigation	Stockwater	Domestic	Municipal	Mining	Power	Other
Segregation Totals				0.75 CFS		206.4321 Acft
41.2864 Acres	0.0 ELUs	0.0 Families	0.0 Acft	0.0 Acft	0.0 Acft	0.0 Acft
Current Values				3.09 CFS		850.568 Acft
205.3 Acres	0.0 ELUs	0.0 Families	0.0 Acft	0.0 Acft	0.0 Acft	0.0 Acft
Net				3.84 CFS		1057.0001 Acft
246.5864 Acres	0 ELUs	0 Families	0 Acft	0 Acft	0 Acft	0 Acft
Original				3.84 CFS		1057 Acft
211.4 Acres	0 ELUs	0 Families	0 Acft	0 Acft	0 Acft	0 Acft

Associated Documents:

Date	Document	
01 Jan, 1997	Scanning History Sheet	01UG
24 Jun, 1988	Title Abstract	01UH
24 Jun, 1988	Warranty Deed	01UI
24 Jun, 1988	Warranty Deed	p2 01UJ
12 Jul, 1990	Warranty Deed	01UK
06 Mar, 1975	Title document	Transfer and Conveyance 01UL
17 Mar, 1974	Title Update Letter	01UM
06 Mar, 1975	Abstract Sheet	01UN
01 Mar, 1968	Correspondence (from Division)	Documents Received 01UO
28 Feb, 1968	Correspondence	Documents 01UP
09 Feb, 1968	Correspondence	Assignment 01UQ
09 Feb, 1968	Assignment of Water Rights	01UR
09 Feb, 1968	Assignment of Water Rights	p2 01US
25 Jan, 1968	Correspondence	Poor Copy 01UT
15 Jan, 1970	Warranty Deed	01UU
01 Jan, 1997	Scanning History Sheet	01UV
07 Jan, 1997	Extension Granted	01UW

Associated Documents: (continued)

Date	Document	
29 Nov, 1996	Extension of time Request	01UX
15 Nov, 1996	14 Day Proof Due Notice	01UY
30 Sep, 1996	60 Day Proof Due Notice	01UZ
07 Jun, 1994	Ownership printout	01V0
08 Dec, 1993	Extension Granted	01V1
23 Nov, 1993	Extension of time Request	01V2
15 Nov, 1993	14 Day Proof Due Notice	01V3
30 Sep, 1993	60 Day Proof Due Notice	01V4
None	Application Summary (1/2 green sheet)	01V5
10 Aug, 1990	Approval Letter	Change Application 01V6
08 May, 1990	Change Application	a15646 01V7
08 May, 1990	Change Application	p2 01V8
08 May, 1990	Change Application	p3 01V9
08 May, 1990	Endorsement Page	01VA
None	Proposed Determination or Decree	01VB
16 May, 1990	Correspondence (from Division)	Advertising 01VC
24 May, 1990	Proof of publication	01VD
None	Green card (Certified mail receipt)	01VE
25 Jul, 1989	Water User's Claim	01VF
25 Jul, 1989	Water User's Claim	p2 01VG
25 Jul, 1989	Water User's Claim	p3 01VH
22 Jul, 1970	Letter with Certificate	01VI
22 Jul, 1970	Certificate	01VJ
01 Dec, 1969	Proof	01VK
01 Dec, 1969	Proof	p2 01VL
24 Feb, 1967	Change Application	a5171 01VM
24 Feb, 1967	Change Application	pg 2 01VN
24 Feb, 1967	Endorsement Page	pg 3 01VO
23 Jun, 1970	Correspondence (from Division)	Proof Field Checked. No Amendments Required 01VP
03 Dec, 1969	Proof/Affidavit Received Notice	01VQ

Associated Documents: (continued)

Date	Document	
27 Oct, 1969	Extension of time Request	Extension Form 01VR
27 Oct, 1969	Extension of time Request	p2 01VS
01 Oct, 1969	60 Day Proof Due Notice	01VT
17 Jul, 1967	Approval Letter	01VU
10 Apr, 1967	Proof of publication	01VV
10 Apr, 1967	Proof of publication	01VW
None	Green card (Certified mail receipt)	01VX
24 Sep, 1924	Correspondence (from Division)	Receipt 01VY
07 Dec, 1923	Change Application	a768 01VZ
07 Dec, 1923	Change Application	p2 01W0
07 Dec, 1923	Endorsement Page	p3 01W1
04 Sep, 1924	Correspondence	Poor copy 01W2
16 Aug, 1924	Correspondence (from Division)	Application 01W3
15 Jul, 1924	Correspondence (from Division)	Receipt 01W4
03 Jul, 1924	Payment to Publisher	01W5
19 Jun, 1924	Receipt	01W6
22 May, 1924	Proof of publication	01W7
05 May, 1924	Correspondence	Poor copy 01W8
05 Apr, 1924	Correspondence (from Division)	Receipt 01W9
14 Apr, 1924	Correspondence (from Division)	Advertising 01WA
29 Mar, 1924	Correspondence (from Division)	Application 01WB
29 Mar, 1924	Correspondence (from Division)	Application corrections 01WC
23 Mar, 1924	Correspondence	Illegible 01WD
28 Mar, 1924	Correspondence	Poor copy 01WE
21 Feb, 1924	Correspondence (from Division)	01WF
18 Feb, 1924	Correspondence	Poor copy 01WG
31 Dec, 1923	Correspondence (from Division)	Application corrections 01WH
19 Dec, 1923	Correspondence (from Division)	Receipt 01WI
03 Dec, 1923	Correspondence	Unnumbered App. 01WJ
23 May, 1924	Proof of publication	. 01WK

Associated Documents: (continued)

Date	Document	
01 Jan, 2000	Scanning History Sheet	. 03FI
05 Jan, 2000	Extension Granted	. 03FJ
06 Dec, 1999	Extension of time Request	. 03FK
17 Nov, 1999	14 Day Proof Due Notice	. 03FL
30 Sep, 1999	60 Day Proof Due Notice	. 03FM
01 Mar, 2002	Scanning History Sheet	. 00XO
15 Feb, 2002	Ownership printout	. 00XP
15 Feb, 2002	Ownership printout	. 00XQ
15 Feb, 2002	Correspondence (from Division)	. 00XR
15 Feb, 2002	Correspondence (from Division)	p2 00XS
15 Feb, 2002	Correspondence (from Division)	p3 00XT
01 Sep, 2002	Scanning History Sheet	. 00DT
18 Sep, 2002	Proof/Affidavit Received Notice	00DU
18 Sep, 2002	Proof/Affidavit Received Notice	00DV
18 Sep, 2002	Proof/Affidavit Received Notice	00DW
18 Sep, 2002	Proof/Affidavit Received Notice	00DX
09 Sep, 2002	Field Exam Report	00DY
04 Sep, 2002	Proof	Beneficial Use 00DZ
04 Sep, 2002	Proof	p2 00E0
04 Sep, 2002	Proof	p3 00E1
04 Sep, 2002	Proof	p4 00E2
04 Sep, 2002	Proof Map	00E3
03 Sep, 2002	Extension of time Request	00E4
16 Aug, 2002	14 Day Proof Due Notice	00E5
16 Aug, 2002	14 Day Proof Due Notice	00E6
16 Aug, 2002	14 Day Proof Due Notice	00E7
28 Jun, 2002	60 Day Proof Due Notice	00E8
28 Jun, 2002	60 Day Proof Due Notice	00E9
28 Jun, 2002	60 Day Proof Due Notice	00EA
30 Jan, 2003	Memorandum Decision/Order St. Engineer	A15646 Granted 045T

Associated Documents: (continued)

Date	Document	
30 Jan, 2003	Memorandum Decision/Order St. Engineer	p2 045U
30 Jun, 2004	60 Day Proof Due Notice	02ZJ
30 Jun, 2004	60 Day Proof Due Notice	02ZK
09 Sep, 2002	Field Exam Report	3890
27 Feb, 2012	Proof Map	3891
11 Jan, 2006	Correspondence (from Division)	2 pages 3892
31 Jan, 2006	Correspondence (from Division)	3893
27 Feb, 2012	Miscellaneous	2 pages 3894
27 Feb, 2012	Miscellaneous	3895
03 Feb, 2012	Proof	5 pages a15646 3896
27 Feb, 2012	Memo to File	3897
15 Aug, 2012	Certificate	6 pages w/docs 1235

State Comments:

Award 69 of the Virgin River Decree.

Tranera Comments:

Forced evaluation of sole supply for a5171 use group ch_a5171 by using group totals as sole supply because no other rights present in the group.
1 use groups with unevaluated sole supply
Multiple Owners - Ownership Segregation Recommended
Owners from Current Info Source a5171 do not match Listed Owners. Carefully check 1 potential interested parties: Rockville Town Ditch Co.
Current Quantity + Total Segregation Quantity does not match Original Quantity

Sunrise Engineering Comments:

This water right is a decreed water right (award 69, Virgin River Decree) with a priority of 1862. It is currently in a certificated or perfected status with a flow of 3.09 cfs with a limitation of 850.5679 ACFT. This water right has shared ownership between Rockville Town Ditch Company, Town of Rockville and the State of Utah Board of Water Resources also holding what appears to be the ditch company's portion at the current time. The source began as the north fork of the Virgin River and continues the same today. This right is supplemental to group 609001 and 609002 providing a portion of the water for 3.84 cfs or 1057.00 ACFT for group 609001 with an unevaluated sole supply, but a group total of 1.50 acres for group 609002. We recommend that the unevaluated status be resolved in order to have in order to have a better understanding of the usability and value of the right. Even though the water right is currently in a perfected or certificated status and will remain so, unless changes are made through the Utah State Division of Water Rights. There are a few things that should be considered for the best management and protection of the water right. Due to the fact that there are multiple owners of the water right, it may be beneficial to segregate the water right so that each entity has full interest in the water right. This will require application for segregation and will minimize complications if either party has interest in making any changes to the water right. There are also some inconsistencies in the Division's data base. We recommend that these too be resolved, this will require additional research and petitioning to the Division of Water Rights to get these issues rectified.

81-3065 A32061a

Current Info:

Change Application	**a27940**	**Certificated**
Filed Date: 06/02/2003	**Decision Date: 09/19/2003**	**Priority Date: 06/02/2003**
0 CFS 4.797 ACFT	**Underground Water Wells (5) and Buttermilk Springs**	**Proof Due:**
Washington County		**Basin 81**

Points of Diversion:

	Type	Description	Parcels
1	Underground	S 2997 ft W 377 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
2	Underground	S 2120 ft W 59 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
3	Underground	S 2622 ft W 136 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
4	Underground	S 1273 ft E 299 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
5	Surface	S 2070 ft W 36 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	
6	Underground	S 3495 ft W 383 ft from N4 cor, Sec 07, T 42S, R 10W, SLBM	

Uses:

Municipal	0.0

Use Groups:

Use Group: ch_a27940	No Supplemental Rights		
Municipal	Sole Supply: 0.0	Group Total: 0.0	1/1 - 12/31

Owners:

Rockville Pipeline Company
P.O. Box 630212 Rockville, UT 84763

Opposition:

Not Protested

Non Use:

No Non-Use Applications

Extensions:

Filed Date	Decision	Decision Date	Proof Due Date
10/05/1995	Approved	01/10/1996	11/30/1998

History:

	Entry	Type	Flow/Quantity	Decision	Status	Filed Date	Decision Date	Priority Date	Deadline
	81-3065	Application to Appropriate	0 CFS 4.797 ACFT	Approved	Certificated	09/17/1960	03/28/1969	06/17/1960	
		Segregation				09/17/1960			
	a14403	Permanent Change Application	0 CFS 4.8 ACFT	Approved	Withdrawn	07/20/1987	11/13/1987	07/20/1987	11/30/1993
	a16427	Permanent Change Application	0 CFS 4.797 ACFT	Approved	Amended	10/18/1991	02/14/1992	10/18/1991	11/30/1998
		Extension Application		Approved		10/05/1995	01/10/1996		11/30/1998
✔	a27940	Permanent Change Application	0 CFS 4.797 ACFT	Approved	Certificated	06/02/2003	09/19/2003	06/02/2003	

Segregations:

Child	App #	Filed Date	Status	Flow		Quantity
Irrigation	Stockwater	Domestic	Municipal	Mining	Power	Other
81-3607	A32061a	03/05/1990	CERT	0.0 CFS		1.933 Acft
0.39000 Acres	0.00000 ELUs	0.00000 Families	0.00000 Acft	0.00000 Acft	0.00000 Acft	0.00000 Acft
	Budd Lee & Sons Construction Company					
81-3638	A32061a	05/23/1990	CERT	0.0 CFS		1.0 Acft
0.20000 Acres	0.00000 ELUs	0.00000 Families	0.00000 Acft	0.00000 Acft	0.00000 Acft	0.00000 Acft
	DeMille, Floyd H. & Vilo J.					

Segregation Evaluation:

Section		Filed Date	Status	Flow		Quantity
Irrigation	Stockwater	Domestic	Municipal	Mining	Power	Other
Segregation Totals				0.0 CFS		2.933 Acft
0.59 Acres	0.0 ELUs	0.0 Families	0.0 Acft	0.0 Acft	0.0 Acft	0.0 Acft
Current Values				0.0 CFS		4.797 Acft
0.0 Acres	0.0 ELUs	0.0 Families	0.0 Acft	0.0 Acft	0.0 Acft	0.0 Acft
Net				0 CFS		7.73 Acft
0.59 Acres	0 ELUs	0 Families	0 Acft	0 Acft	0 Acft	0 Acft
Original				0 CFS		7.73 Acft
1.55 Acres	0 ELUs	0 Families	0 Acft	0 Acft	0 Acft	0 Acft

Associated Documents:

Date	Document	
01 Jul, 1998	Scanning History Sheet	Indexed by hzundel 01FS
20 Apr, 1994	Segregation History (green sheet)	01FT
11 Apr, 1990	Segregation History (green sheet)	01FU
None	Water User's Claim	01FV
None	Water User's Claim	pg 2 01FW
27 Mar, 1990	Water User's Claim	01FX
27 Mar, 1990	Water User's Claim	pg 2 01FY
05 Dec, 1989	Abstract Sheet	01FZ
03 Dec, 1989	Quitclaim Deed	01G0
11 Dec, 1989	Quitclaim Deed	01G1
05 Dec, 1989	Warranty Deed	01G2
03 Aug, 1987	Ownership Segregation	A32061a 01G3
01 Jul, 1998	Scanning History Sheet	Indexed by hzundel 01G4
None	Application Summary (1/2 green sheet)	01G5
10 Jan, 1996	Memorandum Decision/Order St. Engineer	a16427 Granted 01G6
10 Jan, 1996	Memorandum Decision/Order St. Engineer	pg 2 01G7
05 Oct, 1995	Extension of time Request	01G8

Associated Documents: (continued)

Date	Document	
29 Sep, 1995	Proof Due	01G9
None	Blank Page	01GA
20 Apr, 1994	Ownership printout	01GB
20 Apr, 1994	Ownership printout	01GC
05 Dec, 1989	Abstract Sheet	01GD
31 Aug, 1992	Abstract Sheet	01GE
05 Dec, 1989	Warranty Deed	01GF
05 Dec, 1989	Quitclaim Deed	01GG
05 Dec, 1989	Quitclaim Deed	01GH
31 Aug, 1992	Quitclaim Deed	01GI
01 Sep, 1992	Ownership printout	01GJ
31 Aug, 1992	Abstract Sheet	01GK
31 Aug, 1992	Quitclaim Deed	01GL
14 Feb, 1992	Approval Letter	a16427 01GM
18 Oct, 1991	Change Application	a16427 01GN
18 Oct, 1991	Change Application	pg 2 01GO
18 Oct, 1991	Endorsement Page	01GP
22 Oct, 1991	Advertising	01GQ
14 Nov, 1991	Proof of publication	01GR
08 Nov, 1991	Memorandum Decision/Order St. Engineer	a14403 01GS
17 Oct, 1991	Withdrawal Request	01GT
20 Jul, 1987	Change Application	a14403 01GU
20 Jul, 1987	Change Application	pg 2 01GV
20 Jul, 1987	Change Application	pg 3 01GW
20 Jul, 1987	Change Application	pg 4 01GX
20 Jul, 1987	Endorsement Page	01GY
03 Dec, 1990	Extension Granted	01GZ
16 Oct, 1990	Extension of time Request	01H0
26 Nov, 1990	Extension of time Request	01H1
28 Sep, 1990	Proof Due	01H2

Associated Documents: (continued)

Date	Document	
28 Sep, 1990	Proof Due	01H3
13 Nov, 1987	Approval Letter	a14403 01H4
21 Aug, 1987	Notice to Water Users	01H5
21 Aug, 1987	Notice to Water Users	pg 2 01H6
12 Aug, 1987	Advertising	01H7
01 Oct, 1990	Green card (Certified mail receipt)	01H8
01 Dec, 1998	Scanning History Sheet	Indexed by hzundel 028F
08 Dec, 1998	Proof/Affidavit Received Notice	028G
04 Nov, 1998	Proof	Record Sheet 028H
19 Nov, 1998	Proof	028I
19 Nov, 1998	Proof	pg 2 028J
19 Nov, 1998	Proof	pg 3 028K
01 Sep, 1995	Proof Map	028L
19 Nov, 1998	Proof	Attachment A 028M
19 Nov, 1998	Proof	Attachment A - pg 2 028N
19 Nov, 1998	Proof	pg 4 028O
30 Sep, 1998	Proof Due	028P
02 Jun, 2003	Change Application	a27940 059C
02 Jun, 2003	Change Application	pg 2 059D
02 Jun, 2003	Change Application	pg 3 059E
01 Sep, 2003	Scanning History Sheet	Indexed by hzundel 036L
19 Sep, 2003	Approval Letter	a27940 036M
19 Sep, 2003	Memorandum Decision/Order St. Engineer	a27940 Approved 036N
19 Sep, 2003	Memorandum Decision/Order St. Engineer	pg 2 036O
19 Sep, 2003	Memorandum Decision/Order St. Engineer	pg 3 036P
19 Sep, 2003	Endorsement Page	036Q
07 Jul, 2003	Proof of publication	036R
19 Nov, 1998	Proof	036S
19 Nov, 1998	Proof	pg 2 036T
19 Nov, 1998	Proof	pg 3 036U

Associated Documents: (continued)

Date	Document	
19 Nov, 1998	Proof	A 036V
19 Nov, 1998	Proof	A - pg 2 036W
03 Jun, 2003	Correspondence (from Division)	Returning Proof 036X
23 May, 2003	Correspondence (from Division)	Proof 036Y
22 Sep, 1999	Correspondence (from Division)	Proof 036Z
04 Nov, 1998	Proof	Record Sheet 0370
01 Feb, 2003	Scanning History Sheet	Indexed by hzundel 02IJ
31 Oct, 2003	Letter with Certificate	02IK
31 Oct, 2003	Certificate	02IL
31 Oct, 2003	Certificate	pg 2 02IM
19 Nov, 1998	Proof	02IN
19 Nov, 1998	Proof	pg 2 02IO
19 Nov, 1998	Proof	pg 3 02IP

Tranera Comments:

Forced evaluation of sole supply for a27940 use group ch_a27940 by using group totals as sole supply because no other rights present in the group.
1 use groups with unevaluated sole supply
No Places of Use Found for group ch_a27940
Invalid Status in History. Careful Analysis Recommended.

Sunrise Engineering Comments:

This water right is a segregated portion of water right 81-1011 which was developed through a “Water Users Claim” (A32061a) with a priority of 1961. It is currently in a certificated or perfected status with no mention of flow in cfs, but has a limitation of 4.797 ACFT. The nature of use for the water right, when originally appropriated was limited to the irrigation requirements of 0.9594 acres. However, at this time its use is municipal for the community of Rockville along with (3) other water rights. The source consists of (1) surface and (5) underground wells as a result of change applications made throughout the history of this right. Even though the water right is currently in a perfected or certificated status and will remain so, unless changes are made through the Utah State Division of Water Rights. There are a few things that should be considered for the best management and protection of the water right. The sole supply for change application a27940 is currently unevaluated by the Division, we recommend that this be resolved in order to have a better understanding of the usability and value of the right. This would require additional research and petitioning to the Division of Water Rights to get these issues rectified.

Sunrise Engineering Comments: (continued)

81-4739

Current Info:

Decree	Ownership Segregation	Certificated
Filed Date: 12/07/1923	**Decision Date: 09/24/1924**	**Priority Date: 01/01/1862**
0.75 CFS or 206.4321 ACFT	**North Fork Virgin River**	**Proof Due:**
Washington County		**Basin 81**

Points of Diversion:

	Type	Description	Parcels
1	Surface	N 606 ft E 1631 ft from SW cor, Sec 32, T 41S, R 10W, SLBM	Parcel S-146-A
	Parcel S-146-A	Private parcel in Washington county 1877 ZION PARK BLVD	5.8 acres

Uses:

Irrigation	82.5728 acres

Use Groups:

Use Group: 609001	Supplemental Rights: 81-1120 (CERT), 81-4739 (CERT)		
Irrigation	Sole Supply: 41.2864 acres	Group Total: 211.4 acres	1/1 - 12/31
Use Group: 627464	No Supplemental Rights		
Irrigation	Sole Supply: 41.2864 acres	Group Total: 41.28642 acres	1/1 - 12/31

Owners:

Rockville Town Ditch Company
PO Box 630158 Rockville, UT 84763

State of Utah Board of Water Resources	For: Rockville Town Ditch Company
1594 West North Temple, Ste 310 Salt Lake City, UT 84114-6201	

Opposition:

United States Dept. of the Interior/ National Park Service	(c/o Charles W. Pettee (letter of concern))	10/27/2008

Non Use:

No Non-Use Applications

Extensions:

No Extension Applications

History:

	Entry	Type	Flow/Quantity	Decision	Status	Filed Date	Decision Date	Priority Date	Deadline
✔	81-4739	Decree	0.75 CFS or 206.4321 ACFT		Certificated	12/07/1923	09/24/1924	01/01/1862	
	a34839	Permanent Change Application	0.75 CFS or 206.4321 ACFT	Approved	Withdrawn	08/12/2008	02/25/2009	08/12/2008	02/28/2014
		Protest filed by 1 person				10/27/2008			

Segregations:

Not Segregated

Associated Documents:

Date	Document	
21 Jul, 2008	Ownership Segregation	00UT
21 Jul, 2008	Ownership Segregation	pg 2 00UU
25 Jul, 2008	Correspondence (from Division)	Application Enclosed 00UV
25 Jul, 2008	Notes	00UW
09 Jul, 2008	Correspondence	POD 00UX
09 Jul, 2008	Correspondence	pg 2 00UY
09 Jul, 2008	Database Printout	00UZ
09 Jul, 2008	Database Printout	00V0
12 Aug, 2008	Correspondence (from Division)	required signatures on change appl. 01RL
12 Aug, 2008	Change Application	a34839 0186
12 Aug, 2008	Change Application	pg 2 0187
12 Aug, 2008	Change Application	pg 3 0188
28 Oct, 2008	Notice of Protest	LATE 015V

Associated Documents: (continued)

Date	Document	
28 Oct, 2008	Notice of Protest	LATE 015W
28 Oct, 2008	Protest (LATE)	015X
28 Oct, 2008	Protest (LATE)	PG 2 015Y
17 Nov, 2008	Proof of publication	0008
25 Feb, 2009	Memorandum Decision/Order St. Engineer	a34839/Approved/5 pages 0044
31 Dec, 2013	60 Day Proof Due Notice	a34839 Rockville Town Ditch Co. 4497
31 Dec, 2013	60 Day Proof Due Notice	a34839 Utah Water Resources 4499
15 Jan, 2014	Withdrawal Request	7762
03 Feb, 2014	Correspondence (from Division)	Notice of Application Withdrawal - a34839 0548

Tranera Comments:

Multiple Owners - Ownership Segregation Recommended
Invalid Status in History. Careful Analysis Recommended.
Current Irrigation (82.5728) does not match Original Irrigation (41.28642)
Current Quantity (206.4321) does not match Original Quantity (41.28642)

Sunrise Engineering Comments:

This water right is a segregated right from water right 81-1120 and is a decreed water right (award 69, Virgin River Decree) with a priority of 1862. It is currently in a certificated or perfected status with a flow of 0.75 cfs with a limitation of 206.4321 ACFT. This water right has shared ownership between Rockville Town Ditch Company and the State of Utah Board of Water Resources. The source began as the north fork of the Virgin River and continues the same today. This right is supplemental to group 609001 and 627464 providing a portion of the water for 3.84 cfs or 1057.00 ACFT for group 609001 and contributing 0.75 cfs or 206.4321 ACFT for group 627464. Even though the water right is currently in a perfected or certificated status and will remain so, unless changes are made through the Utah State Division of Water Rights. There are a few things that should be considered for the best management and protection of the water right. Due to the fact that there are multiple owners of the water right, it may be beneficial to segregate the water right so that each entity has full interest in the water right. This will minimize complications if either party has interest in making any changes to the water right. There are some inconsistencies in the Division's data base, we recommend that these be resolved in order to have a better understanding of the usability and value of the right. This would require additional research and petitioning to the Division of Water Rights to get these issues rectified.

Data Source: Utah Division of Water Rights

Basin 81

Number of Rights: 6 **Flow:** 3.99 CFS **Quantity:** 1170.3931 ACFT

PODs: 8 **Parcels Found Containing PODs:** 1

POD Types

Underground: 6 PODs, 4 Rights **Surface:** 2 PODs, 6 Rights

Use Types

Irrigation: 287.8728 acres, 2 Rights **Municipal:** 0.0 , 4 Rights

Washington County

Number of Rights: 6 **Flow:** 3.99 CFS **Quantity:** 1170.3931 ACFT

PODs: 8 **Parcels Found Containing PODs:** 1

POD Types

Underground: 6 PODs, 4 Rights **Surface:** 2 PODs, 6 Rights

Use Types

Irrigation: 287.8728 acres, 2 Rights **Municipal:** 0.0 , 4 Rights

Tranera Notes:

81-4739:
Multiple Owners - Ownership Segregation Recommended
Invalid Status in History. Careful Analysis Recommended.
Current Irrigation (82.5728) does not match Original Irrigation (41.28642)
Current Quantity (206.4321) does not match Original Quantity (41.28642)

81-3065:
Forced evaluation of sole supply for a27940 use group ch_a27940 by using group totals as sole supply because no other rights present in the group.
1 use groups with unevaluated sole supply
No Places of Use Found for group ch_a27940
Invalid Status in History. Careful Analysis Recommended.

81-1120:
Forced evaluation of sole supply for a5171 use group ch_a5171 by using group totals as sole supply because no other rights present in the group.
1 use groups with unevaluated sole supply
Multiple Owners - Ownership Segregation Recommended
Owners from Current Info Source a5171 do not match Listed Owners. Carefully check 1 potential interested parties: Rockville Town Ditch Co.
Current Quantity + Total Segregation Quantity does not match Original Quantity

81-450:
1 use groups with unevaluated sole supply
No Places of Use Found for group ch_a19393
Multiple Owners - Ownership Segregation Recommended
Invalid Status in History. Careful Analysis Recommended.

81-395:
1 use groups with unevaluated sole supply
No Places of Use Found for group ch_a19393
Multiple Owners - Ownership Segregation Recommended
Invalid Status in History. Careful Analysis Recommended.

81-106:
1 use groups with unevaluated sole supply
No Places of Use Found for group ch_a19393
Multiple Owners - Ownership Segregation Recommended

Invalid Status in History. Careful Analysis Recommended.

Sunrise Engineering

Ken Tuttle

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