- BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH -

IN THE MATTER OF THE RATE APPLICATION OF COMMUNITY WATER COMPANY FOR APPROVAL OF A GENERAL RATE INCREASE AND SPECIAL CHARGE FOR MAJOR PLANT UPGRADE	)))))	**DOCKET NO. 17-098-01** **DPU EXHIBIT NO. 1.0 DIR**

REDACTED DIRECT TESTIMONY

OF

WILLIAM DUNCAN

DIVISION OF PUBLIC UTILITIES
DEPARTMENT OF COMMERCE
STATE OF UTAH

February 13, 2018

CONFIDENTIAL SUBJECT TO UTAH PUBLIC SERVICE COMMISSION RULES R746-1-602 AND 603

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I. IDENTIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME, ADDRESS AND BY WHOM YOU ARE EMPLOYED.

A. My name is William Duncan. I am Manager of the Telecommunications and Water Section for the Utah Division of Public Utilities (DPU or Division). My business address is 160 E. 300 South, Salt Lake City, Utah, 84111.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony will first describe the policies and guiding principles of the DPU in advocating a rate structure for water companies regulated by the Public Service Commission of Utah (Commission). My testimony will also address how the rate model utilized by the DPU achieves the DPU's policy objectives.

Second, my testimony will describe the process the DPU used in establishing rates and will define the impact on customer rates as Community Water Company (CWC) rebuilds its infrastructure.

Third, my testimony will summarize the Division recommendation on rates.

Q. WHAT OTHER WITNESSES WILL THE DPU PRESENT IN THIS DOCKET?

A. The DPU will present two additional witnesses. First, Mr. Casey Colman will present testimony regarding the appropriate Rate of Return (ROR) for CWC.

Second, Mr. Gary Smith will present testimony concerning the appropriate operations and maintenance costs for the current operations of CWC.

III. DIVISION OF PUBLIC UTILITIES WATER POLICY OBJECTIVES

Q. WHAT ARE THE DPU'S MAIN POLICY OBJECTIVES?

A. The DPU has several policy objectives defined in Utah Code Section 54- 4a-6 including:

(1) Promote the safe, healthy, economic, efficient, and reliable operation of all public utilities and their services, instrumentalities, equipment, and facilities;
(2) provide for just, reasonable, and adequate rates, charges, classifications, rules, regulations, practices, and services of public utilities;
(3) Make the regulatory process as simple and understandable as possible so that it is acceptable to the public; feasible, expeditious, and efficient to apply; and designed to minimize controversies over interpretation and application;
(4) For purposes of guiding the activities of the Division of Public Utilities, the phrase ''just, reasonable, and adequate'' encompasses, but is not limited to the following criteria:
(a) Maintain the financial integrity of public utilities by assuring a sufficient and fair rate of return;
b) Promote efficient management and operation of public utilities;
(c) Protect the long-range interest of consumers in obtaining continued quality and adequate levels of service at the lowest cost consistent with the other provisions of Subsection (4).
(d) Provide for fair apportionment of the total cost of service among customer categories and individual customers and prevent undue discrimination in rate relationships;
(e) Promote stability in rate levels for customers and revenue requirements for utilities from year to year; and
(f) Protect against wasteful use of public utility services.

Q. IN SATISFYING THE POLICY OBJECTIVES SET FORTH ABOVE, HAS THE DPU SET CERTAIN POLICY GOALS RELATED TO WATER COMPANIES?

A. Yes. The DPU has two primary objectives or goals it hopes to achieve through the rate setting process for water companies. The first objective is promoting financial sustainability for the water company, which will help ensure reliable service at just and reasonable rates.

The second objective of the DPU is to encourage water conservation.

The DPU attempts to achieve these goals by adopting an increasing block rate structure for water usage, and separating recovery of fixed, system related costs from volumetric charges related to water usage.

IV. FINANCIAL SUSTAINABILITY

Q. PLEASE DESCRIBE HOW THE DPU RATE MODEL PROMOTES THE GOAL OF FINANCIAL SUSTAINABILITY?

A. The DPU rate model promotes this goal through these four principles:

1 – Customer rates generally should be set to recover all of the reasonable and prudent costs that the water company incurs in providing service. We generally discourage the practice of relying on developer subsidies to recover costs. One possible deviation from this would be for a start-up company in the initial years of providing service that may need a developer subsidy until there are enough residents to support the company.

2 – Fixed costs are generally recovered through fixed rates. Water companies should not recover fixed costs through volumetric rates. These fixed costs should

be divided between fixed system costs and fixed user costs. Standby customer rates would include only the fixed system costs, while connected customer rates would include the fixed system and the fixed user costs.

3 – Variable costs should be recovered through consumption or volumetric rates. The basic consumption rate is set at the incremental cost of producing and delivering water.

4 – The establishment and continual funding of a capital reserve account.

V. CAPITAL RESERVE ACCOUNT

Q. PLEASE EXPLAIN WHAT THE CAPITAL RESERVE ACCOUNT IS AND HOW IT IS FUNDED.

A. The capital reserve account is a fund dedicated to the repair and replacement of infrastructure and specific restrictions upon its use. It is funded from two sources. First, depreciation expense is a fixed cost that is recovered through system costs. This expense is collected every month (or every other month in some cases) from both standby and connected customers. These funds should be deposited monthly into the capital reserve account. The second funding source is from amounts billed in conservation tiers that are over and above the incremental variable cost of providing service. Conservation rates will be discussed later in this testimony.

Q. **HOW DOES THE CAPITAL RESERVE ACCOUNT CONTRIBUTE TO THE WATER COMPANY'S FINANCIAL SUSTAINABILITY?**

Establishment of a capital reserve account allows the water company to respond quickly to emergencies and reduces the need for special assessments and expedited rate cases in the event of infrastructure failure. If started early in the life of a company, it would reduce the need for excessive borrowing to repair and replace infrastructure. The Commission has authority to require any public utility to establish such an account, for example, under Utah Code Section 54-4-24.

VI. WATER CONSERVATION

Q. HOW DOES THE DPU PROMOTE ITS SECOND MAJOR POLICY OBJECTIVE OF ENCOURAGING WATER CONSERVATION?

A. The DPU rate model promotes water conservation in two ways:

First, the DPU proposes a base rate that does not include a minimum usage amount. For example, many water company rate schedules in the past have included a certain number of gallons included in the base rate – normally around 6,000 to 12,000 gallons per month. This gives the consumer no incentive to use less than that minimum. The current DPU model proposes that a consumer pay the consumption rate for every 1000 gallons used per month up to the first 12,000 per month at the cost of producing that water. With this model a consumer using only 3,000 gallons, pays for only 3,000 gallons.

Second, the DPU proposes an increasing tier rate for usage over 12,000 gallons per month. These tiers would normally be priced as a 50% - 100% increase above the

previous tier. These would be known as conservation rates or conservation tiers. For example, a normal progression may look like this, where $1.00/1000 gallons represents the variable cost of production:

0 – 12,000 gallons/month	$1.00 per 1000 gallons
12,001 – 24,000 gallons/month	$1.50 per 1000 gallons
24,001 – 36,000 gallons/month	$2.25 per 1000 gallons
36,001 – 48,000 gallons/month	$3.38 per 1000 gallons
Above 48,000 gallons/month	$5.06 per 1000 gallons

The DPU believes that a rate structure similar to this would encourage water conservation. Individual circumstances may cause the DPU to advocate a different rate progression.

Q. WHY DOES THE DPU ALLOW 12,000 GALLONS PER MONTH AT COST FOR THE FIRST TIER?

A. The Division of Drinking Water estimates that 0.45 acre feet of water per year is needed for typical indoor use. Since an acre foot of water contains approximately 325,000 gallons, then 325,000 X 0.45 = 146,250 gallons annually. 146,250/12 = 12,187 gallons/month is needed for a typical residential use. The DPU simply rounded that amount down to 12,000 gallons/month and uses multiples of that amount for the tiers.

Q. EARLIER IN YOUR TESTIMONY, YOU MENTIONED USING THESE CONSERVATION RATES AS A FUNDING SOURCE FOR THE CAPITAL RESERVE ACCOUNT. PLEASE ELABORATE.

A. Since all variable costs of providing service are recovered in the consumption rate, amounts billed over that rate would be above cost. The DPU believes it is appropriate to transfer these incremental funds to the capital reserve account, since consumers using larger amounts of water are causing more wear and tear to the water system, and should contribute more funding for the repair and replacement of that infrastructure.

Q. IF THE WATER COMPANY IS COLLECTING REVENUE ABOVE COST, DOES THAT CONSTITUTE OVEREARNING?

A. If the excess revenue were going to benefit the owners or shareholders of a company it would be considered overearning. However, the DPU recommends that this revenue remain in the company, in the capital reserve account to benefit all customers.

Q. HAS THE DPU USED THIS RATE MODEL IN THIS PROCEEDING?

A. Yes. Gary Smith's testimony will show the application of these polices and rate model in this proceeding.

VII. COMMUNITY WATER INFRASTRUCTURE REPLACEMENT

Q. HAS THE DPU ADDRESSED THE ISSUE OF COMMUNITY WATER COMPANY, LLC'S (COMMUNITY WATER OR CWC) INFRASTRUCTURE REPLACEMENT IN THIS APPLICATION?

A. Yes. In 2017, Community Water applied for and was authorized a loan from the Division of Drinking (DDW) water in the amount of $3.75 million for the replacement of certain infrastructure. In April 2017, a component of the infrastructure, a storage tank, failed and was deemed unrepairable. The DPU supports the replacement of that tank and other components of the system as needed investments by CWC in order to provide a safe, reliable water supply to the ratepayers of CWC.

VIII. COMMUNITY WATER OWNERSHIP

Q. HAS THE DPU ADDRESSED THE ISSUE OF A POTENTIAL TRANSFER OF OWNERSHIP OF COMMUNITY WATER COMPANY IN THIS APPLICATION?

A. No. On December 29, 2015, TCFC, the parent of Community Water, sent a letter to all customers of Community Water indicating its desire to exit the water business and proposing four potential paths forward for ownership of Community Water. The Division is aware that CWC has recently been in negotiations with Summit Water Distribution Company (SWDC) and/or Mountain Regional Water District (MRWD) concerning the transfer of CWC to one of these entities. The

DPU takes no position on this issue in this application. The DPU has evaluated the CWC as an independent, standalone entity, and will recommend rates that will provide CWC the opportunity to be self-sustaining.

Should Community Water eventually propose a transfer of ownership, the DPU will evaluate the transfer at that time.

IX. CWC WATERING RESTRICTIONS

Q. PLEASE DESCRIBE THE WATER USE RESTRICTIONS FOR CWC CUSTOMERS SINCE THE TANK FAILURE IN APRIL 2017. WHAT MITIGATION EFFORTS HAS CWC PUT INTO EFFECT SINCE THAT TIME?

A. After the tank failure in April 2017, CWC prohibited outside watering during the 2017 irrigation season. In order to mitigate the problem in 2018, CWC has entered into an agreement with SWDC to purchase additional water at the rate of [redacted] gallons for the 2018 irrigation season. In its Supplemental Direct testimony CWC proposed a projected annual fixed cost of $[redacted] to recover the estimated cost of purchasing this water in 2018. The DPU has also learned through conversations with CWC that it can supply approximately 100,000 gallons per day from its own sources and remaining storage tanks without purchasing from SWDC. This calculates out to approximately 6,000 gallons per month per customer (100,000/503 connected customers x 30 days).

While the DPU supports the efforts of CWC finding additional sources of water for its customers, the DPU believes it is appropriate to recover the costs of these purchases in a usage rate rather than a fixed rate. The DPU has adjusted the [redacted] fixed expense out of the CWC proposed Base Rate as discussed in the testimony of Gary Smith.

The DPU recommends that the Commission approve a temporary rate structure consisting of the following elements:

Base Rate for connected customers	$51.05 per month
Stand by rate	$22.85 per month
Usage Rate 0 – 6,000 gallons / month	$0.70 per 1000 gallons
Usage Rate above 6,000 gallons / month	$5.30 per 1000 gallons

The Division recommends that this rate be in effect until the completion of construction of the replacement tank

X. DPU RATE METHODOLOGY

Q. PLEASE DESCRIBE THE METHODOLOGY THAT THE DPU USED IN DEVELOPING RECOMMENDED RATES? HOW DOES THE DPU METHODS DIFFER FROM CWC'S APPLICATION?

A. In its supplemental direct testimony on page 12, CWC calculates revenue requirement on a cash needs basis. This is not unusual for water companies that are

generally unfamiliar with rate of return ratemaking principles. The DPU used normal rate of return ratemaking principles to establish revenue requirement in its analysis.

Q. HOW DID THE DPU ANALYZE THE REBUILDING OF THE CWC INFRASTRUCTURE AND ITS IMPACT ON RATES?

A. The DPU first evaluated the current operations of CWC and reviewed and adjusted expenses to establish the baseline operations and maintenance costs and necessary rates to recover those costs. These baseline costs and rates are discussed in the testimony of Gary Smith.

The DPU then treated the infrastructure rebuild as a known and measurable change to be completed in two phases, and recommended adjusting rates at the completion of each phase.

Q. PLEASE DESCRIBE HOW THE DPU DEFINES THE TWO PHASES OF THE INFRASTRUCTURE REBUILD, AND WHICH COMPONENTS ARE INCLUDED IN EACH.

A. DPU Phase 1 is the replacement of the failed tank. The DPU supports this as a critical component that needs immediate attention. This is a shorter-term project that should be complete by fall 2018. The DPU also includes in phase 1 the purchase of a new snowmobile that is needed to access infrastructure in the winter. The CWC application included this as an expense to be amortized over three years.

The DPU believes this is appropriately recorded as a capital asset and treated as such.

DPU Phase 2 is the replacement of transmission and distribution lines, water treatment plant refurbishing, meters, service valves and pressure reducing valves. This is a longer-term project that is not likely to be to be completed in less than one year.

Q. PLEASE DESCRIBE THE EXHIBITS INCLUDED WITH YOUR TESTIMONY.

A. Three exhibits have been produced to aid in explaining the DPU's position on rate impacts as the infrastructure is complete:

Exhibit 1.1 D Summary of current depreciation expense – This exhibit is extracted from DPU Exhibits 2.7 and 2.8 and is displayed for convenience. The assets listed are those that the DPU believes are still depreciating; depreciation expense is included in the baseline rates. Lines 1-8 itemizes those *original* assets that are not yet fully depreciated. Lines 9-14 itemizes *current* investments and associated depreciation expense made by current ownership.

Exhibit 1.2 D Calculation of Future Rate Base and Depreciation Expense Additions - This exhibit calculates the amount of rate base and depreciation expense that will be added to the baseline costs upon completion of phase 1 and phase 2 of the infrastructure rebuild. Column D allocates the indirect costs of the

DDW loan. Column E summarizes rate base additions by phase. Column H summarizes depreciation expense additions by phase.

Exhibit 1.3 D Base rate analysis – This exhibit calculates the increase to the base rate as the two phases of the infrastructure rebuild completes. Column B data is extracted from the DPU exhibits 2.1 – 2.11 in the testimony of Gary Smith. Column C details changes after completion of phase 1. Colum D details changes at the completion of phase 2.

I will describe this exhibit line by line:

Line 1 - Shows the increase in rate base. It uses data from Exhibit 1.2D, column E, Rate Base additions.

Line 2 – Shows the DPU recommended rate of return.

Line 3 – Calculates the return on investment. (Line 1 x Line 2)

Line 4 – DPU recommended Operations and Maintenance cost – fixed costs only (from DPU Exhibit 2.3). For purposes of this analysis, these costs do not change over time.

Line 5 – Annual depreciation expense. This expense increases as the phases of construction complete. This line uses data from DPU Exhibit 1.2 column H. Note: at the completion of phase 2, the DPU assumes that all of the original equipment will be replaced and retired from the records of CWC. Assets that are not retired will be close to being fully depreciated. The DPU has removed the depreciation

expense for these items (Exhibit 1.1D, column F, row 8), at the completion of phase 2.

Line 6 – Projected Income Tax. This cost increases as revenue and return on investment increases.

Line 7 – Itemizes the increase in total fixed costs. This is the sum of Line 3 through line 6. Since all of these costs are fixed, this line will be used in the calculation of the Base Rate as the construction phases complete.

Line 8 – DPU recommended variable cost. For purpose of this analysis, these costs do not change over time. From DPU Exhibit 2.3 D.

Line 9 – calculates the total revenue requirement after each phase of construction.

Line 10 – Calculates the incremental increase in fixed costs at the completion of each construction phase. Differences from line 7.

Line 11 – Calculates the increased cost per customer per month as the construction phases complete. This amount is based on 503 customers.

Lines 12 and 13 – Details the Division-recommended Base Rate at the end of each construction phase.

XI. DIVISION RECOMMENDED RATES

Q. PLEASE SUMMARIZE THE DPU'S RATE RECOMMENDATION.

A. The Division recommends the PSC order the following rates:

	During construction of the replacement tank	At Completion of replacement tank (Phase 1)	At completion of remaining infrastructure construction (Phase 2)
Base Rate Connected Customers	$51.05	$67.29	$115.41
Base Rate Standby Customers	$22.85	$39.09	$87.21
Usage Rates (monthly per 1000 gallons)			
0 – 6,000	$0.70		
Over 6,000	$5.30		
Usage Rates (monthly per 1000 gallons)			
0 – 12,000		$0.70	$0.70
12,001 – 24,000		$1.40	$1.40
24,001 – 36,000		$2.80	$2.80
36,001 – 48,000		$5.60	$5.60
Above 48,000		$11.20	$11.20
Annual Capital Reserve Funding	$52,938	$81,587	$116,232
Monthly Capital Reserve Funding	$4,412	$6,799	$9,686

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Other Recommendations:

1) The DPU recommends that the Commission include in its order that CWC deposit monthly into the capital reserve account the amount listed above plus any revenue from usage rates above the cost of service.
2) The DPU also notes that the Base Rate for both connected and standby customers includes a charge of $6.07/month to recover certain legal and engineering costs, and recommends that this charge be in effect for a 36-month period. At the end of the 36-month period, the base rate in effect at that time should be reduced by $6.07 per month.
3) The DPU also recommends that CWC be required to submit detailed cost records of all infrastructure construction at the completion of DPU Phase 2 to the Commission so that the DPU can make a more accurate assessment of rates.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes.