

Efforts to Encourage Conservation – (Attached)

COMMUNITY WATER COMPANY  
WATER CONSERVATION PLAN

OVERVIEW	1.1
SYSTEM INFORMATION	2.1
WATER SUPPLY	3.1
SURFACE AND GROUNDWATER SUPPLY	3.2
WATER DEMAND	4.1
WATER BUDGET	5.1
PROJECTED WATER SUPPLY	6.1
WATER CHALLENGES AND GOALS	7.1
RECOMMENDED CONSERVATION MEASURES	8.1
CRITICAL SUPPLY CONSERVATION PRACTICES	9.1
CURRENT RATES	10.1
PROPOSED RATE SCHEDULE	11.1
METER REPAIR/REPLACEMENT	12.1
SYSTEM INSPECTION AND REPAIR	13.1
EDUCATION	14.1
MONTHLY AUDITS	15.1
SUMMARY	16.1
List of Tables	
Surface and Groundwater Supply Summary	3.2
Community Water Budget 2010 through 2013	5.2
Projected Water Supply Need – Year 2050	6.2
Water Challenges and Goals	7.2

## **1.1 OVERVIEW:**

Community Water Company ("CWC") has been in operation for approximately 31 years. During that time period, high quality water has been delivered in a reliable manner to its customer base of approximately 500 customers. Since the water system was acquired by its current owner ASC Utah, LLC, several operational and system improvements have been made to maintain the reliability of the system. These improvements have resulted in the uninterrupted delivery of water that meets every water quality standard of Utah's Division of Drinking Water. We continue to manage a very precious and limited resource in an efficient manner with the help of our customer base.

The need for conservation is a growing concern for our small system and throughout the State of Utah. The state legislature recently amended the requirements of a Water Conservation Plan to encourage water providers and its customers to manage the water resource in a prudent manner; conservation can go a long way in mitigating the problem.

## **2.1 SYSTEM INFORMATION:**

CWC is located in the Willow Creek drainage area near Canyons Resort just outside of Park City, Utah in Summit County. CWC obtains surface water from both the north and south fork drainages of Willow Creek. Willow Creek flows into Spring Creek, which is part tributary of the East Canyon Creek Watershed. Ultimately, water from Willow Creek finds its way to the East Canyon Reservoir which discharges to the Weber River.

The Service Area of CWC extends just north of Canyons Resort Drive and south beyond Red Pine Road. The eastern limit of the Service Area is framed by Park West Village and the west boundary ends at the base area of The Canyons Resort. Since there is no secondary irrigation system available, it supplies water for both culinary and irrigation demands; which are mostly residential with limited commercial customers. Some condominium units have master meters for larger, multi-family units.

The customer base of CWC has remained relatively stable for the past 31 years.. The main areas of water service include:

- Park West Village: 52 connections for single family homes, a 30-unit condominium and 40-unit Condominiums
- Hidden Creek Condominiums: 127 Units
- Red Pine Condominiums and Townhomes: 260 Units
- Red Pine Road: 2 connections (single family homes)
- The Canyons Resort: including the original buildings and the Sun Lodge at Snow Canyon, Lookout, Sun Lodge, Canyons entry water feature, Ski Maintenance Building, and Canyons Base Camp
- Lutheran Church

- 7-11

Connections by category:

- Residential: 494
- Commercial: 6
- Industrial: 0
- Institutional: 1

### **3.1 WATER SUPPLY:**

The water supply for CWC includes both surface and groundwater sources. Surface water for CWC originates in the Willow Creek Drainage Basin. Surface water is collected at in-stream impoundments located in the north and south fork reaches of the Willow Creek. Stream flow is conveyed from the impoundments via underground pipes to the Water Treatment Plant located just below the confluence of the two reaches of Willow Creek. Surface water is treated at the Plant, and then stored in 2 reservoirs, which total 657,000 gallons of water. Surface water supply, which is limited by stream flow, is summarized in Table 3.1 below.

Groundwater sources consist of 2 active wells in the Drainage Basin. The Gulch Well is the main source of groundwater for the system. The Gulch Well continues to produce approximately 100 gpm. The Wagon Trail #2 well is the second source of groundwater to the system. Wagon Trail #2 produces approximately 30 gpm. Both sources of groundwater are conveyed via underground pipes to the two reservoirs where they are mixed with surface water that is treated at the Water Treatment Plant. Table 3.1 provides a summary of this supply.

Connection holders in CWC are not limited to an allocated volume of water. Instead, customers can use as much water they need. Once paid, connection fees allow the customer to connect to a waterline within the service area. New infrastructure required to deliver water to the customer is the obligation of the builder/owner. Water use is controlled through a progressive rate structure, maintaining close communications with our customer base - especially the larger irrigation users, and education.

**Table 3.2 – Surface and Groundwater Supply**

Water Source	Water Right(s)	Rated Capacity	2011 Production	2012 Production	2013 Production
Gulch Well	E1286, E1714	95 gpm	37,652,600	23,425,200	34,093,000
Wagon Trail #2 Well	E1286, E1714	30 gpm	4,116,300	5,599,200	3,411,200
Willow Creek WTP (surface water)	35-8411, 35-8416, E574, E1255	180 gpm	10,500,000	27,483,600	22,222,800
Totals:			52,268,900	56,508,000	59,727,000

### **4.1 WATER DEMAND:**

As noted above, customers of CWC own the right to connect and use water produced and delivered by the existing infrastructure. Unlike some other systems, there technically is no limit to the amount of water customers can use. Therefore, it is imperative that our customer base manages their water use properly and conserve where possible.

CWC's Service Area consists mainly of 3 large condominium/townhome units that account for approximately 75% of the customer base. Several of these units are second homes or managed as rental properties, mainly in the winter season due to their proximity to the adjacent ski resort. For this reason, water demand is considerably less than the calculated value recommended by the Utah Division of Drinking Water.

Water demand is much greater in the summer based upon irrigation usage. Typically, irrigation water consumes about 70% of the water used during the year. CWC does not have a secondary or untreated irrigation water system. This means that all water used for irrigation is culinary or potable grade water. Irrigation water cuts into the culinary water reserve of the system. Minimizing the amount of water used for irrigation is much more critical than conserving the in-house use of water.

#### TOTAL YEARLY WATER DELIVERIES BY TYPE:

- Residential – 41 MG
- Commercial - .814 MG
- Industrial - 0 MG
- Institutional - 1.3 MG

Total water usage for the year 2013 was 43 MG. With a population of approximately 475 people, this equals 248 gallons per capita/day (GPCD).

### **5.1 WATER BUDGET:**

Table 5.2 provides a water budget for the past three years. The budget reflects ongoing efforts to satisfy the water needs of the customer base, yet implement conservation measures where possible. The difference represented between 2010 and 2013 reflect in part a new rate structure designed to encourage conservation. Summer precipitation and temperature also have a significant impact on water use.

**Table 5.2 Community Water Budget 2010 through 2013**

Year	Inflow in Acre Feet				Outflow in Acre Feet		
	Wells	Stream	Summit Water	Total	Residential	Commercial	Total
2010	47,056,700	16,650,100		63,706,800			
2011	41,768,900	10,500,000	3,632,000	55,900,900			
2012	29,024,400	27,483,600	1,986,000	58,494,000			
2013	37,504,200	22,222,800	(2,137,930)	57,589,070	36,815,192	4,156,129	40,971,321

\*does not reflect additional water from inter-connect.

Differences between inflow and outflow i.e. system losses are the result of actual losses (chronic and acute), unmetered sources and inaccurately metered sources both on the inflow and outflow sides of the system. The CWC infrastructure is almost 25 years old, and is located in alluvium/colluvium deposits at the base of the mountain. Leaks in this type of porous media are very difficult to identify sometimes resulting in significant losses before being detected and repaired. This in part explains the high system loss.

### **6.1 PROJECTED WATER SUPPLY NEED – YEAR 2050:**

Because of geographical and system restrictions, population growth for CWC is expected to be very low – somewhere around 1%. Using this figure and a starting population of 1100, we arrive at an estimated population of 501 people in 2014 and 431 people by the year 2050. Factoring in a reduction in water use of around 15% - mostly due to conservation and more aggressive rates in the higher usage tiers, the amount of water needed is listed in Table 6.1. In order to evaluate if the goal of water conservation reduction is being met, total yearly water usage will be calculated by the population in order to determine the Gallons per Capital per Day (GPCD).

**Table 6.2**

Year	Population	Demand	GPCD	Year	Population	Demand	GPCD
2014	1100	201,151,500	501	2032	1052	178,367,375	465
2015	1097	199,812,585	499	2033	1049	177,180,117	463
2016	1095	198,482,583	497	2034	1046	176,000,762	461
2017	1092	197,161,433	495	2035	1044	174,829,257	459
2018	1089	195,849,077	493	2036	1041	173,665,549	457
2019	1086	194,545,457	491	2037	1038	172,509,588	455
2020	1084	193,250,514	489	2038	1036	171,361,321	453
2021	1081	191,964,190	487	2039	1033	170,220,697	451
2022	1078	190,686,428	485	2040	1031	169,087,666	449
2023	1075	189,417,172	483	2041	1028	167,962,176	448
2024	1073	188,156,364	481	2042	1026	166,844,178	446
2025	1070	186,903,948	479	2043	1023	165,733,621	444

2026	1067	185,659,869	477	2044	1020	164,630,457	442
2027	1065	184,424,070	475	2045	1018	163,534,635	440
2028	1062	183,196,497	473	2046	1015	162,446,108	438
2029	1059	181,977,096	471	2047	1013	161,364,826	437
2030	1057	180,765,811	469	2048	1010	160,290,741	435
2031	1054	179,562,588	467	2049	1008	159,223,806	433
				<b>2050</b>	<b>1005</b>	<b>158,163,973</b>	<b>431</b>

### **7.1 WATER CHALLENGES AND GOALS:**

Table 7.2 below identifies the major water issues of the system, and the goal to rectify or mitigate that problem.

**Table 7.2 Water Challenges and Goals**

Problem	Goal(s)
Insufficient source capacity	Obtain funding for well improvement
Insufficient storage	Obtain funding for additional storage
Excessive use/water wasting	Educate customers to achieve 25% reduction, increase rates for excessive use
Slow leak identification and response time	Monitor system routinely and diligently
Unmetered Customers	Eliminate all unmetered Customers 2020
Inaccurately metered Customers	Maintain 10% meter replacement program. Focus on large irrigation meters
Insufficient capital budget	Seek rate increase to increase budget to adequate level to sustain yearly O&M

### **8.1 RECOMMENDED CONSERVATION MEASURES:**

#### Outdoor Water Use -

- Water landscape only as much as required by the type of landscape, and the specific weather patterns of our area, including cutting back on watering times in the spring and fall.
- Do not water on hot, sunny, and/or windy days. You may actually end up doing more harm than good to your landscape, as well as wasting a significant amount of water.
- Sweep sidewalks and driveways instead of using the hose to clean them off.



- Wash your car from a bucket of soapy water and rinse while parked on or near the grass or landscape so that all the water running off goes to beneficial use instead of running down the gutter to waste.
- Check for and repair leaks in all pipes, hoses, faucets, couplings, valves, etc.
- Keep your lawn well-trimmed and all other landscaped areas free of weeds to reduce overall water needs of your yard.

#### Indoor Water Use -

- About two-thirds of the total water used in a household is used in the bathroom. Concentrate on reducing your bathroom use. Following are suggestions for this specific area:
  - Do not use your toilet as a wastebasket. Put all tissues, wrappers, diapers, cigarette butts, etc. in the trashcan.
  - Check the toilet for leaks. Is the water level too high? Put a few drops of food coloring in the tank. If the bowl water becomes colored without flushing, there is a leak.
  - Take short showers with the water turned up only as much as necessary. Turn the shower off while soaping up or shampooing.
  - Do not let the water run while shaving or brushing your teeth.
- When doing laundry, make sure you always wash a full load or adjust the water level appropriately if your machine will do that. Most machines use 40 gallons or more for each load.
- Repair any leak within the household. Even a minor slow drip can waste up to 15 to 20 gallons of water a day.

### **9.1 CRITICAL SUPPLY CONSERVATION PRACTICES:**

Contingency measures that will be used by CWC during drought or other water supply shortages include the following practices based upon the severity of conditions -

#### Level I:

- No watering between 9:00 a.m. and 10:00 p.m.
- Water every other day.
- Avoid watering after recent rains

#### Level II:

- No watering between 9:00 a.m. and 10:00 p.m.
- Water every 3rd day
- Avoid watering after recent rains

#### Level III:

- No watering between 9:00 a.m. and 10:00 p.m.

- Hand watering only for major landscape components (trees/shrubs).
- Avoid watering after recent rains

Level IV:

- Cease all irrigation watering to conserve for in-house and life safety use.

### **10.1 Current Rates:**

Service	Charges	
	Irrigation Connections	Culinary Users
Monthly Minimum Bill	\$5.00	\$12.00
Monthly Minimum Usage Allowed for Culinary	0	5,000
Monthly Charge for Non-Standard Meter (standard meter is 1 ½ or smaller)	\$150.00	\$150.00
Tier 1 Charge per 1,000 Gallons above Minimum up to 5,000 Gallons	\$1.25	\$1.25
Tier 2 Charge per 1,000 Gallons on Gallons over Tier 1	\$5.12	\$5.12
Monthly Standby Charge to all unconnected lots in Service Area	\$5.00	\$5.00
Yearly Standby Charge to Canyons Resort for Snowmaking Due October 1 of each year	\$1,400.00	\$1,400.00
Gulch Well Water Pumped into Willow Creek for Snowmaking	\$0.20	Per 1,000 G.
Turn-On Service, Turn-Off Service	50.00	
Connection Fee for Initial Service-One Inch Service Larger Service line Adjusted Accordingly	\$3,750.00	

### **11.1 Proposed Rates Schedule**

On July 29, 2014, the Company filed with the Commission a Notice of Intent to File a Rate Case.

**The table below summarizes the proposed rate and fee schedule changes:**

<b>NEW PROPOSED RATE SCHEDULE</b>		
<b>Service</b>	<b>Charges</b>	<b>Method</b>
Monthly Minimum User Fee (base rate)	\$56.00	per Connection

<b>Service</b>	<b>Charges</b>	<b>Method</b>
Tier 1 Consumption Rate 0 gal to 5,000 gal	\$1.75	Per 1,000 Gallons
Tier 2 Consumption Rate 5,001 gal to 20,000 gal	\$4.50	Per 1,000 Gallons
Tier 3 Consumption Rate 20,001 gal to 30,000	\$5.00	Per 1,000 Gallons
Tier 4 Consumption Rate 30,001 gal to 40,000 gal	\$8.00	Per 1,000 Gallons
Tier 5 Consumption Rate 40,001 gal to 60,000 gal	\$12.00	Per 1,000 Gallons
Tier 6 Consumption Rate 60,001 gal to 80,000 gal	\$15.00	Per 1,000 Gallons
Tier 7 Consumption Rate 80,001 gal to 100,000 gal	\$18.00	Per 1,000 Gallons
Tier 8 Consumption Rate Above 100,000 gal	\$21.00	Per 1,000 Gallons
Monthly Standby Fee to all unconnected properties in Service Area	\$10.00	Per Connection
Service Connection Fee (first-time user)	\$3,750.00	Per Connection
Turn-On Service / Reconnection Fee	\$100.00	Per Connection
Turn-Off Service Fee	\$100.00	Per Connection
Account Transfer Fee	\$50.00	Per Connection
Meter Test Fee	\$50.00	Per Connection

Customer Late Fee	Greater of \$10 per month or 18% APR of delinquent balance	Varies
Returned Check Fee	\$20.00	Per Check

### **12.1 METER REPAIR/REPLACEMENT:**

CWC maintains a regular meter replacement program to better understand and measure water usage. Meter replacement/repair practices are applied to both the inflow and outflow sides of the system. CWC attempts to replace old and inoperable meters through a systematic approach, which includes reviewing water usage and the age of equipment. Problematic meters are replaced when identified. Focus is directed single family homes that have higher outside water use.

### **13.1 SYSTEM INSPECTION/REPAIR:**

The CWC infrastructure is over 35 years old. Therefore, close monitoring of the entire infrastructure system is critical. Operating personnel are routinely monitoring the system to identify promptly areas of concern. Special attention is paid to large irrigation users. Recent efforts also focus on responding quickly to any identified leaks to avoid or minimize water outages.

### **14.1 EDUCATION:**

When available, CWC participates in a water provider workgroup that review water use practices and operational issues in the Snyderville Basin and Park City areas. Through that program, brochures have been developed and are distributed to our customer base and lodging visitors. The brochure provides background information and recommends practices that encourage conservation.

Additionally, CWC works closely with its entire customer base on an as-requested basis to reduce water use. CWC is somewhat fortunate that over the past several years, approximately 50-60% of its water use was by two large condominium/townhome complexes. The management and operating staff of CWC maintains close communications with these two users, and works closely with them to manage the water usage in a prudent manner. However, CWC acknowledges that in order to obtain the goal of at least a 15% reduction, a conservation coordinator will most likely need to be hired.

### **15. 1 MONTHLY AUDITS:**

Management personnel at CWC conduct monthly audits of water usage following meter reads. The purpose of the audits is to evaluate water produced versus water delivered to the customers. These audits have been instrumental in identifying discrepancies that may be the result of metering problems (inoperable and unmetered connections), leaks, and system other losses.

**16.1 SUMMARY:**

Water quality and reliable service remains our primary focus. There is also an ongoing effort to increase source and storage capacity. CWC continues to encourage water conservation from all of its users, and reduce water losses. CWC is committed to improving recordkeeping, monitoring and system analysis in order to help customers and CWC improve water management.