



2021 Roosevelt City Water Conservation Plan



2021 Roosevelt City

Water Conservation Plan



HORROCKS
ENGINEERS



Table of Contents

1.	Introduction	1
2.	System Information.....	1
3.	Background	2
4.	Description of Roosevelt City and Its Water System	2
5.	Population	3
6.	Inventory of Water Resources	5
7.	Water Budgets	7
8.	Present Water Use and Future Water Needs	9
9.	Water Problems, Conservation Measures and Goals	12
a.	Problems Identified.....	12
b.	Water Conservation Goals	13
10.	Current Conservation Practices	17
11.	Current Water Rates	21
12.	Additional Conservation Measures.....	21
13.	Implementing and Updating the Water Conservation Plan	21

List of Tables

Table 1	Population Projections, 2010-2060
Table 2	Roosevelt City's Water Rights
Table 3	Culinary Water Use Breakdown
Table 4	Culinary Source Inventory
Table 5	Secondary Water Use Breakdown
Table 6	BMP Implementation Status
Table 7	5-Year Per Capita Water Use
Table 8	Meter Tracking
Table 9	Roosevelt City Water Connection Fees
Table 10	Roosevelt City Water Rates
Table 11	Roosevelt City Sewer Connection Fees and Rates

List of Figures

Figure 1	Population Projections, 2010-2060
Figure 2	Culinary Water Budget
Figure 3	Secondary Water Budget
Figure 4	Statewide Water Use
Figure 5	Retail Culinary Water Usage



Figure 6

Figure 7

Retail Secondary Water Usage

Indoor and Outdoor Water Use

Appendices

APPENDIX A

APPENDIX B

APPENDIX C

APPENDIX D

APPENDIX E

ORDINANCE REFERENCES

**RESOURCES OF WORKSHEETS AND TOOLS FOR
WATER CONSERVATION PLANNING**

RESOLUTION ADOPTING THIS PLAN

PUBLIC HEARING MINUTES

NOTIFICATION PROCEDURE



2021 Water Conservation Plan

1. Introduction

Utah is the 2nd driest state in the nation, and the Uintah Basin is one of the driest regions in the State. It is very important that water conservation efforts continue to be studied and explored. It is recommended that Roosevelt City continue to monitor outdoor watering and offer continued education and be informative about water conservation efforts. Through social media, newspapers, radio, and other means information should be provided to continue to educate the public about the importance of water conservation.

The Roosevelt City 2021 Water Conservation Plan was developed as required by Utah Code Section 73-10-32, and contains existing and proposed water conservation measures describing what will be done to help conserve water, and limit or reduce water use in the state in terms of per capita consumption. In response to the rapid growth occurring throughout the State, coupled with multiple years of drought, it is imperative that Roosevelt City's water needs are addressed and that supplies of water are guaranteed for future needs. This report does show that there is evidence of water losses, and this plan will aid in reducing those losses as well as provide the City with a plan for water conservation to address its water needs now and in the future.

A public hearing will be held with advanced public notice, to adopt or amend this water conservation plan.

2. System Information

Roosevelt City Culinary System

Culinary Water System No.:	07004
System Supervisor:	Ryan Clayburn
Address:	255 South State Street Roosevelt, UT 84066
Phone:	(435) 724-0419
Source:	Durigan Springs Well (WS015) Hayden Wells (2,3,4,5) (WS010, WS011, WS013, WS016) Purchased Water from DCWCD

Roosevelt City Secondary System

System Supervisor:	Ryan Clayburn
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Address:	255 South State Street Roosevelt, UT 84066
Phone:	(435) 724-0419
Source:	Big Sand Wash Reservoir
Source Contact Info:	Moon Lake Water Users Association
General Manager:	Dex Winterton
Phone:	(435) 823-4174

3. Background

Roosevelt is a City of over 7,000 residents located centrally in the Uintah Basin, midway between Duchesne and Vernal, at the junction of US Highway 40 and State Road 121. The City is at an elevation of 5,250 feet. The City is near the Uintah and Ouray Reservation of the Ute Indian Tribe. Businesses in Roosevelt serve surrounding communities and agricultural areas in eastern Duchesne and western Uintah Counties. Agriculture and the oil industry form the basis of the regional economy. With Union High School, Uintah Basin Technical College (UBTech), and Utah State University-Uintah Basin, Roosevelt is also the educational center in the Uintah Basin. The City is also the home of the largest independent rural healthcare system in Utah, Uintah Basin Healthcare.

Roosevelt City has operated a public water system for decades providing retail water to its residents and businesses for indoor, outdoor, commercial, institutional, and industrial uses. The City also has an independently operated secondary water system for outdoor irrigation, however, it is estimated that approximately 65% of the population is not connected to this secondary system.

4. Description of Roosevelt City and Its Water System

Roosevelt City's water system provides culinary water for the City of Roosevelt and non-incorporated areas of Duchesne and Uintah Counties, including Hancock Cove and North Crescent. The City is also a wholesale water provider to Neola Water Improvement District ("NWID") and Cedarview/Montwell SSD("CMSSD"). The City receives its water from the Hayden Well fields, Durigan Springs Well fields, and by wholesale water from Duchesne County Water Conservancy District (DCWCD) through Victory Pipeline. The well fields are located 10 to 13 miles north of the City. The water from these wells is supplied through 24" and 20" pipelines running west along State Road 121 through Neola and then south along State Road 121 into Roosevelt City. Water from Victory Pipeline goes through a 2 MG reservoir and connects to the City's system on South Cove Road near 4700 West. The current Roosevelt water service area is divided into multiple pressure zones. The City also supplies secondary pressurized irrigation water to large users and some portions of the City for residential outdoor irrigation. The major users include the Golf Course, Constitution Park, Union High School, USU Uintah Basin Campus, Roosevelt Middle School, U.B. Medical Center, Duchesne County East Elementary School, LDS East Stake Center, Cemetery, and Old Mill Park. The total service area of the City's water system is almost 30 Square miles.



The City also provides bulk water for purchase by contractors, oil and energy companies and residents to fill water trucks and tanks. The City provides a 3 inch connection in the industrial area near 2000 West and Hwy 40, for this purpose.

The City does occasionally allow oil and energy companies to purchase water from its system by means other than purchase at the fill station. This is accomplished by pulling water from the City's water lines at a approved locations.

Even though Roosevelt City is located in a rural and open area of the State, its residents and leaders place a high value on open space. Consequently, a substantial area of land in the City has been set aside for parks, cemetery, and an 18 hole golf course. Much of the land located within the City boundaries was dry land with little agriculture and irrigated by water from the Dry Gulch Irrigation Company. Currently there is little irrigated agriculture acreage within the City.

5. Population

Roosevelt City is presently receiving a significant portion of Duchesne County's residential, commercial, and industrial growth. This growth is causing changes in the way the land within the City limits is being utilized. Through careful planning and efficient utilization of available water supplies increased needs can be met.

The estimated population in 2017 was 6,843. This represents an increase of 797 over the population of 6,046 reported in the 2010 Census, an increase of 13% or 1.88% annually. In 2012, the Governor's Office of Planning and Budget (GOPB) produced municipal population projections through 2060. The annual growth rate from 2010 to 2040, was determined to be 1.1%, however, this rate of annual population increase is well below the growth rate of the City over the last 19 years, which ranges from 1.88-2.8%. For instance, the City grew by approximately 59 percent between 2000 and 2017, from a population of 4,299 residents to approximately 6,843 residents; an increase of 2.8% annually. In addition, updated county-level projections produced by the Kem C. Gardner Institute in 2015 show a higher growth rate for Duchesne County overall.

Population projections typically follow GOPB or some other governmental agency like an association of governments, to establish a population estimate over a certain planning period. The resulting estimated population is analyzed and is used to determine water use projections. In this case the City felt that the GOPB doesn't fully represent what is likely expected over the next 40 years, which is evidenced by rates of increase between 1.88% and 2.8% during the last two decades. For this reason, a growth rate of 1.88%, at the request of the City, is used.

These higher growth rates are used to allow the City to plan conservatively for future growth. These projections for Roosevelt and Duchesne County can be found in Table 1.



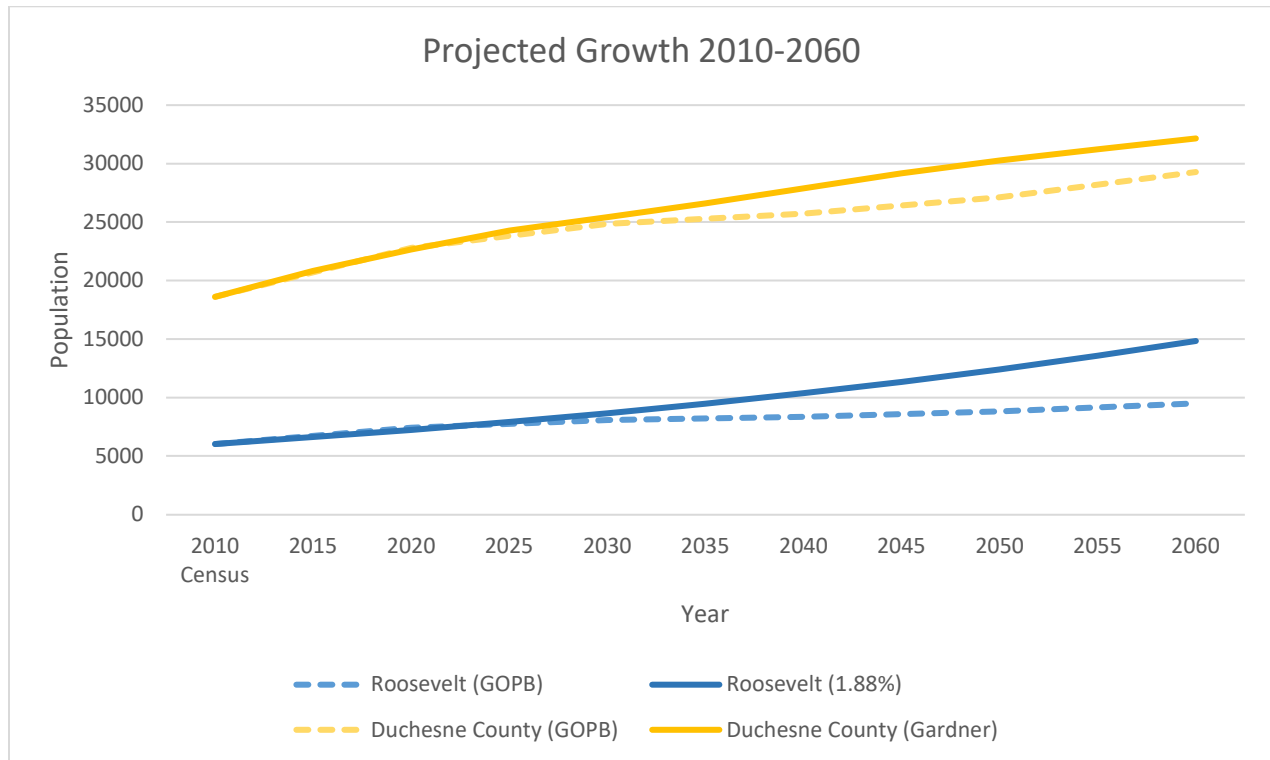
The retail population can differ from the actual population. Normally, the retail population, or number of full-time household customers in a City's water service area is the same as the population within a City's municipal boundary, but in Roosevelt City's case, it is different because it has many customers outside the City limits in the County's jurisdiction. The 2020 retail population is 8,550. This number was obtained from Roosevelt City's water use records.

Table 1 Population Projections, 2010-2060

	2010 Census	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Roosevelt (GOPB)	6,046	--	7,407	--	8,070	--	8,358	--	8,813	--	9,512
Roosevelt (1.88%)	6,046	6,614	7,236	7,916	8,660	9,474	10,365	11,339	12,405	13,571	14,847
Duchesne County (GOPB)	18,607	--	22,797	--	24,836	--	25,721	--	27,123	--	29,275
Duchesne County (Gardner)	18,607	20,821	22,653	24,277	25,422	26,596	27,893	29,178	30,259	31,205	32,154



Figure 1 Population Projections, 2010-2060



To determine future impacts to the water system, it is estimated that the population will increase by almost 8,000, between 2021 and 2060, as illustrated in Figure 1.

6. Inventory of Water Resources

As mentioned, Roosevelt City currently relies on water rights from the Hayden Wells, Durigan Wells, and wholesale water from Victory Pipeline for its water supply, but it also has water rights in the Hancock Cove and Campbell Wells; those wells are presently inactive. The City also has a secondary system for outdoor watering that it gets from Big Sand Wash Reservoir. In the past Roosevelt City residents and businesses used Dry Gulch C and K2 shares for a portion of their irrigation water; this is no longer the case. Some customers that did use K2 traded in their water shares for Roosevelt Secondary from Big Sand Wash Reservoir, and now get discounted rates. For example, if they wanted to be customers of Roosevelt City, instead of Dry Gulch, they were only inclined if their secondary usage rates didn't go up.

Water used by Roosevelt City that is obtained from Hayden Wells and Durigan Wells, have municipal water rights. Water used by Roosevelt City from Victory Pipeline is wholesale water. Water rights state the legal amount of water the City has the right to access. State regulations require that the City's water sources be legally and physically capable of meeting Peak Daily flows. Roosevelt City presently has 31 approved water rights. Twelve (12) of those rights are tied to the Hayden Wellfield and are highlighted in yellow in Table 2, four (4) of those rights are tied to the Durigan Springs Well and are highlighted in



blue, two (2) of those rights are tied to the Hancock Cove Well and are highlighted in pink, and thirteen (13) of those rights are tied to the Campbell Wells and are highlighted in green. The 40 Year Water Rights Plan demonstrates that Roosevelt City will need all of its existing water rights by the year 2060, including those that are presently inactive.

Table 2: Roosevelt City's Water Rights

Water Right	Application/ Claim Number	Type/Status	Priority Date	Flow (cfs)	Quantity (acft)	Source
43-10495	A68337	Approved	11/3/1994		3.73	Underground Water Well
43-10496	A68338	Approved	11/3/1994		3.73	Underground Water Well
43-3035	A546	Certificated	9/27/1905	1.7	833.26	Uinta River
43-3160	A7409	Certificated	2/20/1928	0.029	21.00	Blackhawk Spring
43-3280	A15347	Certificated	7/9/1943	0.5	361.98	Underground Water Well
43-3607	A32695	Certificated	2/8/1961	2	1,447.93	Underground Water Well
43-7237	A39934	Certificated	4/28/1970	3	728.40	Underground Water Well
43-7253	A41738	Certificated	8/30/1972	4	809.00	Underground Water Well
43-7300	A42010	Water User's Claim	12/11/1972	3	1,273.39	Underground Water Well
43-8369	A30461b	Certificated	12/3/1958	1.59	480.00	Underground Water Well
43-8370	A32113b	Certificated	7/7/1960	3	803.64	Underground Water Well
43-1111	A31879	Certificated	4/21/1961	0.156	112.92	Underground Water Well
43-3396	A20609	Certificated	10/17/1951	0.022	15.90	Underground Water Well
43-3409	A21747	Certificated	5/29/1951	0.849	614.65	Underground Water Well
43-3512	A26133	Certificated	12/10/1954	3	2,171.90	Underground Water Well
43-3581	A30216	Certificated	9/10/1958	1.923	480.00	Underground Water Well
43-3880	U1657	Certificated	1/6/1936	0.033	23.89	Underground Water Well
43-3881	U1658	Underground Water Claim	7/10/1929	0.067	48.42	Underground Water Well
43-3882	U1659	Underground Water Claim	4/15/1934	0.076	54.92	Underground Water Well
43-3883	U1660	Underground Water Claim	7/26/1914	0.036	26.03	Underground Water Well
43-3884	U1661	Underground Water Claim	6/16/1934	0.223	161.16	Underground Water Well
43-3889	U1874	Underground Water Claim	8/10/1929	0.045	32.58	Underground Water Well
43-3890	U1875	Underground Water Claim	6/12/1926	0.06	43.36	Underground Water Well
43-3891	U1876	Underground Water Claim	4/20/1927	0.134	96.84	Underground Water Well
43-3892	U1877	Underground Water Claim	8/30/1930	0.011	7.95	Underground Water Well
43-3893	U1878	Underground Water Claim	6/8/1929	0.056	40.47	Underground Water Well
43-493	A28684	Certificated	11/10/1956	0.274	198.37	Underground Water Well
43-495	A30994	Certificated	5/11/1959	0.602	435.00	Underground Water Well
43-496	A30994	Water User's Claim	5/11/1959	0.602	435.00	Underground Water Well
43-7655	A30461a	Certificated	12/3/1958	1.77	720.00	Underground Water Well
43-8799	A358	Certificated	1861	0.244	89.10	Underground Water Well



7. Water Budgets

A comparison of culinary water and secondary water inflows and outflows are shown in Figures 2 and 3. For the culinary side, wholesale water sold to CMSSD and NWID are not included in the values shown in the figure.

On the Secondary side, reporting from the Utah Division of Water Rights only had retail use for years 2019 and 2020. Retail usage for years 2015-2018 was obtained from Roosevelt City officials.

Distribution systems have inherent losses that are functions of the size of the pipe, joint construction, temperature, age of the system, calibration, reporting, and metering. Roosevelt City data for culinary water use indicate that the 5 year average water loss is 10%. Secondary loss is greater at 21% on average over the last 6 years, with a loss during 2020 of 26% with 1,361 AF taken from the source, but a retail use of only 1,007 AF. As mentioned, these losses could be the result of a number of factors including meter reading frequency, calibration, percentage of residents with meters, etc.

Figure 2: Culinary Water Budget

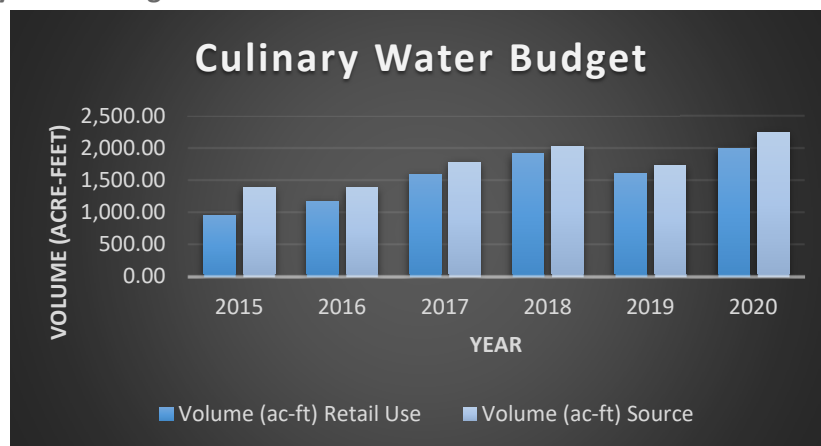


Figure 3: Secondary Water Budget

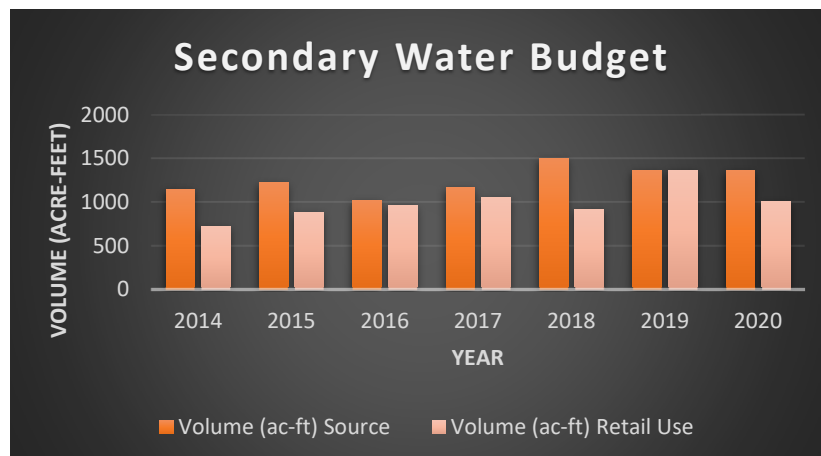




Table 3 is a break down of culinary water use, that includes connections, and usage by residential, commercial, industrial, and institutional. The table also contains total Estimated Equivalent Residential Connections (ERC).

Table 3: Culinary Water Use Breakdown

Retail Culinary Water Use Breakdown										
Year	Retail ERC	Total Res. Conn.	Res. Use (AF)	Total Comm. Conn.	Comm. Use (AF)	Total Ind. Conn.	Ind. Use (AF)	Total Inst. Conn.	Inst. Use (AF)	Total Use (AF)
2015	2234**	2,225	951	496	4		0		0	955
2016	3513*	2,319	720	289	397	113	33	26	27	1,177
2017	3626*	2,322	874	287	510	113	40	26	173	1,596
2018	4181*	2,312	826	284	510	101	413	28	166	1,915
2019	5073**	2,345	739	291	401	108	299	30	160	1,599
2020	5473**	2,372	867	293	504	107	461	30	168	2,001

*From 2019 Master Plan Update

**From Utah Division of Water Rights Calculations

Table 4 shows the amount of water taken from each of the City's culinary sources, over the past 6 years.

Table 4: Culinary Source Inventory

Roosevelt City Culinary Water Source Inventory								
Year	Durigan Springs Well WS015 (AF)	Hayden Well No. 2 WS010 (AF)	Hayden Well No. 3 WS011 (AF)	Hayden Well No. 4 WS 013 (AF)	Hayden Well No. 5 WS016 (AF)	Purchased from DCWCD (AF)	Source Totals (AF)	Total Water Rights (Durigan and Hayden) (AF)
2015	0	402	279	44	666		1,391	10,322
2016	0	142	198	166	883		1,390	10,322
2017	0	44	175	318	478	773	1,788	10,322
2018	4	346	89	307	368	921	2,035	10,322
2019	15	207	1	355	336	823	1,737	10,322
2020	39	73	346	475	525	784	2,242	10,322

As discussed in Section 6, "Inventory of Water Resources", State regulations require that the City's water sources be legally and physically capable of meeting Peak Daily flows. Although the total volume water



rights exceed recorded usage, this doesn't account for peak flows. Roosevelt City's 40 Year Water Rights Plan shows that by 2060, all of Roosevelt's water rights will be required to meet Peak Daily flows.

Table 6 illustrates the amount of retail secondary water used, along with the amount of water taken from the City's secondary source from Big Sand Wash Reservoir.

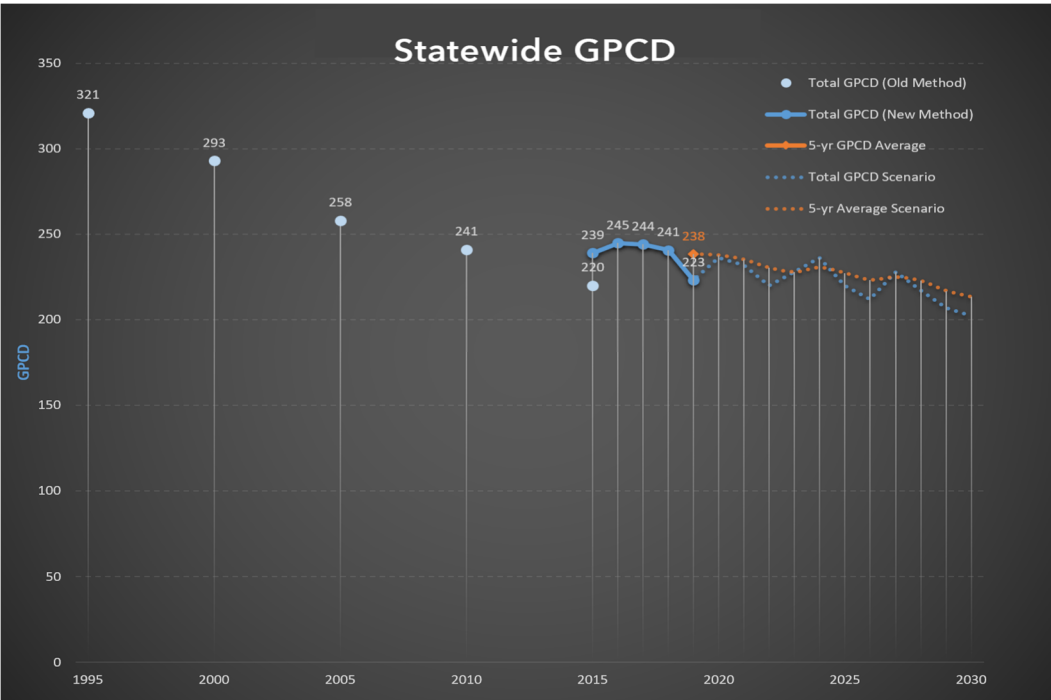
Table 5: Secondary Water Use Breakdown

Retail Secondary Water Use Breakdown													
Year	Total Res. Conn.	Res. Use (AF)	Total Comm. Conn.	Comm. Use (AF)	Total Ind. Conn.	Ind. Use (AF)	Total Inst. Conn.	Inst. Use (AF)	Total Agr. Conn.	Agr. Use (AF)	Total Use (AF)	Taken from Source (AF)	Source Capacity (AF)
2015			0	0	0	0			0	0	880		1,500
2016			0	0	0	0			0	0	964	1,024	1,500
2017			0	0	0	0			0	0	1,055	1,172	1,500
2018			0	0	0	0			0	0	923	1,500	1,500
2019	729	959	0	0	0	0	8	411	0	0	1,369	1,369	1,500
2020	742	470	0	0	0	0	8	537	0	0	1,007	1,361	3,000

As will be discussed in the following section, only 35% of the City's population has secondary water from Big Sand Wash Reservoir. Before 2019, Roosevelt City was contractually allocated 1,500 ac-ft of water from Big Sand Wash Reservoir for secondary water use. According to calculations, this amount of water will only provide secondary water to less than half of the residences and businesses. The pipeline from Big Sand Wash Reservoir to Roosevelt was capable of delivering 3,000 ac-ft of water annually, but half of that was leased to the Division of Wildlife Resources. The lease has since expired and not scheduled for renewal, so Roosevelt City now has 3,000 ac-ft of water from Big Sand Wash for secondary use. Recent masterplans have included Capital Improvement Projects intended to utilize this water, and in an effort to conserve water, measures to expand the City's secondary system is a goal included in this plan.

8. Present Water Use and Future Water Needs

Figure 4: Statewide Water Use



With an estimated retail population of 8,550, the 2020 water use in Roosevelt City was approximately 314 gpcd. This included both indoor and outdoor water use from culinary and secondary sources; see Figure 7. This is compared to the five year running statewide average of 238 gpcd. This data was obtained from the State of Utah Division of Water Resources website. As can be seen from Figure 4 the 2019 statewide GPCD water use was down

significantly as compared to the 5 year average. This is likely an indication of the impacts from water conservation.

As the population increases, and long-term droughts continue to become more common, water conservation will be required to allow for future water demands.

35% of the City’s population gets secondary water from Big Sand Wash. All customers who have Roosevelt City secondary water have a culinary water meter, so as discussed in the population section, there are no adjustments in retail population for culinary versus secondary.

Retail Culinary Water Usage can be found in Figure 5, and Retail Secondary Water Usage is shown in Figure 6.



Figure 5: Retail Culinary Water Usage

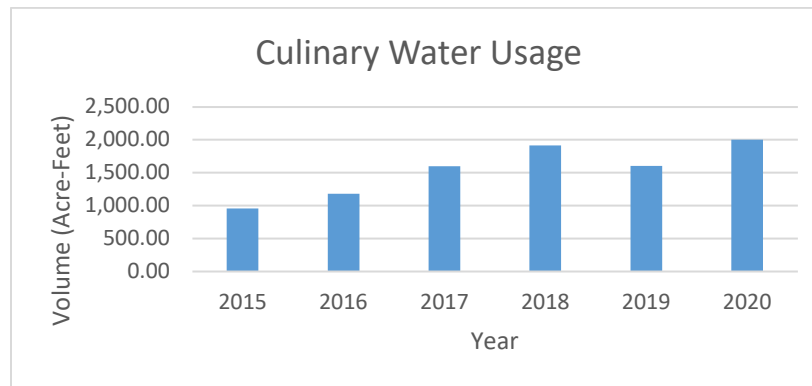


Figure 6: Retail Secondary Water Usage

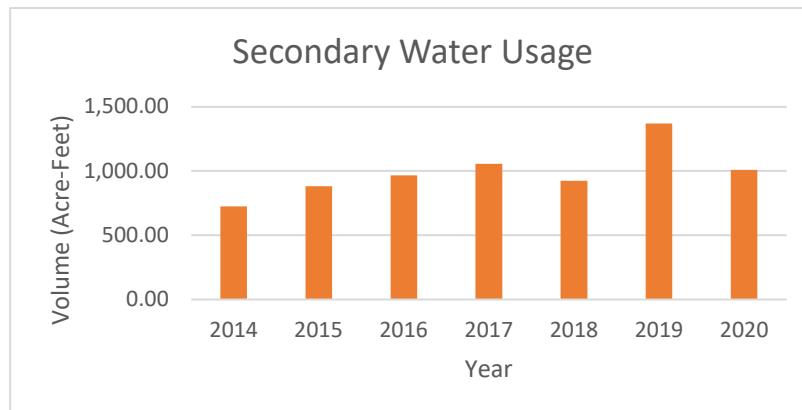
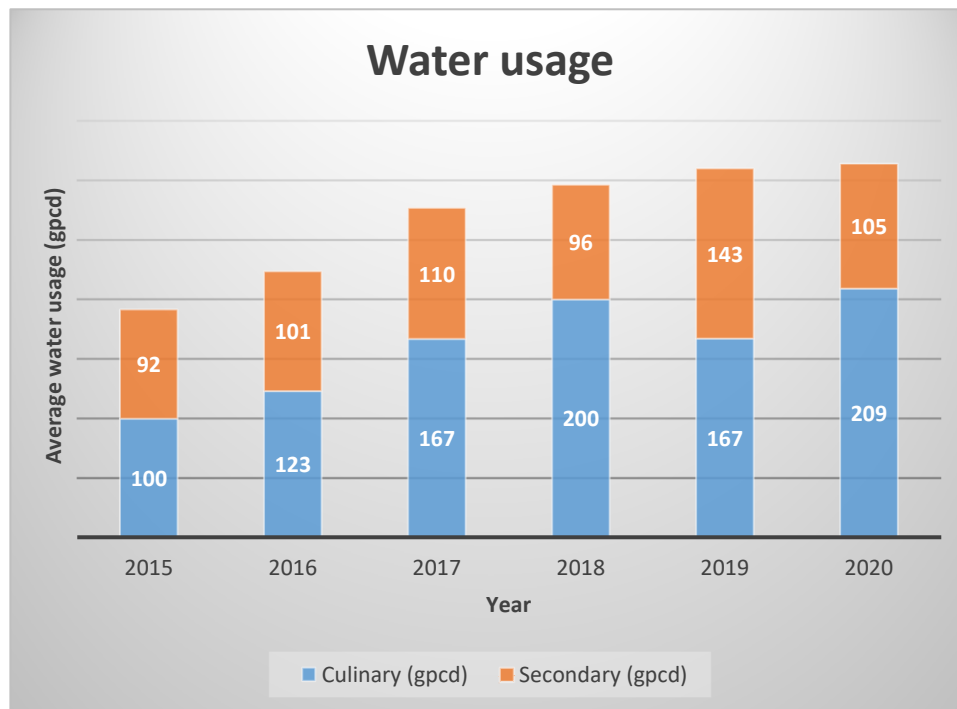




Figure 7: Indoor and Outdoor Water Use



9. Water Problems, Conservation Measures and Goals

a. Problems Identified

The following lists some of the problems identified by the City during development of the water conservation plan:

- Drought causing diminishing flows from City wells. Several wells are experiencing lower flows and problems due to drought conditions.
- Legal challenges to water production from surrounding property owners and the Ute Tribe may pose a limitation of source production for the Hayden and Durigan Well fields.
- Meter accuracy. Some secondary water supply is not metered and other supply meters need improved accuracy.
- Culinary water used for irrigation. Most City residents are presently not connected to the City's limited secondary irrigation. The City has 3,000 AF of available M and I water from Big Sand Wash Reservoir to supply water to all of its residents and businesses, and over time it plans to furnish secondary water pressurized irrigation (PI) to all users in the City as the PI system is constructed. Metering and accurate PI water use will improve as the PI system is expanded to all users.
- Loss of water.
- Public awareness.



b. Water Conservation Goals

The following goals have been set to address some of the current issues:

- **Goal #1** - Reduce the City's per capita water use by 15 percent in five years. This amounts to a reduction in per capita consumption of almost 50 gpcd, and would help meet the projected water need for the next five years. To accomplish this goal, the City would employ the following BMP's
 - Organize committee that includes designated Water Conservation Coordinator, Public Works Director, City Council Member, to help research, coordinate, create, and implement public information drives, water conservation programs, and incentives
 - Notify residents of high water use.
 - Perform agency water system audit and implement latest technologies to establish a more accurate leak detection program.

Table 6 will help track the success of these goals through the implementation of the BMP's

Table 6: BMP Implementation Status

BMP	Description	Implemented (Y/N)	If Yes, Date When Implemented	If No, Anticipated Implementation Date
1	Organize committee that includes designated Water Conservation Coordinator, Public Works Director, City Council Member, to help research coordinate, create, and implement public information drives, water conservation programs and incentives.			
2	Notify residents of high water use.			
3	Perform agency water system audit and implement latest technologies to establish a more accurate leak detection program.			

Table 7 can be used as a mechanism that allows the City, from its water use records, to summarize its average per capita use by recording it annually, and in turn calculating the percentage increase or decrease to analyze water conservation trends.

Table 7: 5-Year Per Capita Water Use

Year	Water Use (gpcd)	Increase/ Decrease in Usage (%)	Goal (gpcd)
2020	314		
2022			
2023			
2024			
2025			
2026			267



There are also worksheets to assist in water savings for each water conservation measure located in Appendix B of this report.

- **Goal #2** - Expand the City's Secondary water system to cover 75 percent of all non-culinary water usage by 2030, and develop secondary water use accounting methods. This will extend the life of the culinary water supply by many years.
- **Goal #3** - Rehabilitate current wells and rehabilitate old ones to meet current and projected culinary water needs. This will also allow the City to better meet its needs during drought conditions. This should be taken into action within the next ten years.
- **Goal #4** - Evaluate existing supply meters and repair or replace as needed, and install secondary supply meters. This will allow the City to better evaluate water usage and track conservation goals. This should be done within the next three years.
- **Goal #5** - Conduct line loss leak detection studies for all transmission pipelines. This study should be conducted on various lines annually.
- **Goal #6** – Continue the replacement of aged and undersized distribution pipelines. City budgeted replacement projects are completed by the City Water Department and includes the replacement of aged service lines and meters when undertaken. This should be reviewed at the end of each fiscal year and implemented based on budget.
- **Goal #7** - Adjust water rates if residents do not comply with water conservation measures. This is an ongoing evaluation and should be taken into action immediately if necessary.
- **Goal #8** – Hold a public hearing at City Council, with advanced public notice, every five years to discuss a formal adoption of the water conservation plan. A copy of the minutes from the public hearing shall become an Appendix to this plan.
- **Goal #9**-Implement a notification procedure to deliver the water conservation plan to the media and to the City Council. The notification procedure shall become an Appendix to this plan, and should be accomplished within the next two years.
- **Goal #10**-Provide information regarding residential and commercial landscapes that require less water to maintain. This should be done via flyers and should be accomplished within the next five years.
- **Goal #11**- Encourage conservation by the public. Advertisement of public information regarding more efficient use of water, including public education programs, customer water use audits, and water savings demonstrations. With increased public awareness, water conservation opportunities will gain support. This should be taken into action within the next ten years.
- **Goal #12**-Rebates to customers to encourage the implementation of more water efficient measures or less water use. This should be taken into action within the next ten years.
- **Goal #13**-Use City and DCWCD water efficiently by waterwise practices, minimizing water loss, tracking conservation progress. Evaluate and discuss within the next five years.
- **Goal #14**-Within the next ten years, investigate drought or water shortage planning.



- **Goal #15**-Do not water on windy days, or in the fall or spring if overnight temperatures are still dipping below freezing. Within the next 5 years provide a flier to customers explaining these steps and reasons why these practices are ineffective or unnecessary.
- **Goal #16**-Adjust sprinklers so that they are not watering sidewalks, asphalt, or graveled surfaces. Within the next 5 years provide a flier to customers explaining this.
- **Goal #17**-Promote weeding to prevent them from syphoning water from other healthy plants and shrubs; fewer weeds means all around less water use for your landscape. Within the next 5 years provide a flier to customers explaining this.
- **Goal #18**-Adjust your mower to higher height setting. Longer grass not only shades your grasses' root system, it holds in moisture. Within the next 5 years provide a flier to customers explaining this.
- **Goal #19**-Employ a more accurate meter reading system to track the percentages of secondary and culinary meters read, replacement or upgrade status, homes or businesses with meters read, homes or businesses with meters not read, calibration status, and meter reading frequency. This can be accomplished by tracking this information and updating meter status on City's GIS system, through tracking using the Table 8 below, and via the worksheets provided in Appendix B.

Table 8: Meter Tracking

YEAR	CONNECTION TYPE	TOTAL CONN.	TOTAL CONN. READ	TOTAL CONN. METERED	PERCENT READ (%)	PERCENT METERED (%)	TOTAL IN NEED OF REPLACEMENT	TOTAL IN NEED OF CALIBRATION	TOTAL REPLACED	TOTAL CALIBRATED	READING FREQUENCY
2022	Residential										
	Commercial										
	Industrial										
	Institutional										
	Agricultural										
	Other										
	Other										



YEAR	CONNECTION TYPE	TOTAL CONN.	TOTAL CONN. READ	TOTAL CONN. METERED	PERCENT READ (%)	PERCENT METERED (%)	TOTAL IN NEED OF REPLACEMENT	TOTAL IN NEED OF CALIBRATION	TOTAL REPLACED	TOTAL CALIBRATED	READING FREQUENCY
2023	Residential										
	Commercial										
	Industrial										
	Institutional										
	Agricultural										
	Other										
	Other										
2024	Residential										
	Commercial										
	Industrial										
	Institutional										
	Agricultural										
	Other										
	Other										
2025	Residential										
	Commercial										
	Industrial										
	Institutional										
	Agricultural										
	Other										
	Other										
2026	Residential										
	Commercial										
	Industrial										
	Institutional										
	Agricultural										
	Other										
	Other										



10. Current Conservation Practices

The City has initiated several conservation practices to decrease water usage. These practices are listed below:

- Conservation rate structure. The City has recently adopted a conservation rate structure to encourage water savings and ensure the system remains financially viable. The rate structure is set up to be reviewed and updated every year.
- Watering schedules. The City is working on a time of day irrigation ordinance which does not allow outdoor watering between the hours of 10:00 AM and 6:00 PM. Violators will be cited to ensure water is not being wasted.
- Water education programs. The City maintains an education program through its web site, Facebook, flyers with water bills, and school presentations.
- Leak detection program. The City maintains a leak detection program and has located and fixed many leaks in their system.
- Telemetry system. The City has updated their telemetry system over the past several years to increase monitoring, control, and proper functioning of their water system. This allows spillage waste to be minimized.
- Secondary irrigation system. A backbone secondary water system has been installed that serves the City's Golf Course, Regional Park and Cemetery, freeing up culinary water to meet the demands of growth. Major expansion of the City's PI system will allow additional culinary water savings through the use of lower quality irrigation water. Outdoor watering from a secondary irrigation source also puts less strain on the culinary system.
- The water department has staff that is certified in water conservation.
 - The City has provisions that states that wholesale water will be cut off in emergency drought situations as necessary to guarantee that its residents have water. It also will not allow bulk water at the fill station to be purchased; and oil sold to oil companies, if currently active, will be cut off.

Table 9: Roosevelt City Water Connection Fees

WATER RATES AND FEES			
NEW INSTALLATION WATER CONNECTION FEES			
METER SIZE	CITY CONNECTION	ADDITIONAL FEES TO BE INCLUDED	DESCRIPTION
3/4"	\$3,000	\$3,000 hookup fee or actual cost if greater.	Parts and labor if City does the connection.
1 "			
1 1/2"			
2"			
3"			
4"			



WATER RATES AND FEES			
6"			
3/4"	\$3,000	\$200 Inspection Fee.	If a Contractor does the connection at the main.
1 "			
1 1/2"			
2"			
3"			
4"			
6"			
METER SIZE	COUNTY CONNECTION	ADDITIONAL FEES TO BE INCLUDED	DESCRIPTION
3/4"	\$5,000	\$3,500 hookup fee or actual cost if greater.	Parts and labor if City does the connection.
1 "			
1 1/2"			
2"			
3"			
4"			
6"			
3/4"	\$5,000	\$200 Inspection Fee.	If a Contractor does the connection at the main.
1 "			
1 1/2"			
2"			
3"			
4"			
6"			
NEW INSTALLATION SECONDARY CONNECTION FEES			
METER SIZE	CONNECTION		DESCRIPTION
1 "	\$500		Required if property is located in an area where secondary water service is available.
1 1/2"			
2"			
3"			
4"			
5"			
6"			



WATER RATES AND FEES			
K2 1"			
K2 1 1/2"			
K2 2"			

Table 10: Roosevelt City Water Rates

WATER RATES AND FEES		
CITY MONTHLY WATER RATES		
METER SIZE	BASE RATE	USAGE RATES
3/4"	\$30	\$1.25 per 1,000 gallons (1,000 to 8,000 gallons) \$1.50 per 1,000 gallons (9,000 to 20,000 gallons) \$2.00 per 1,000 gallons (21,000 to 40,000 gallons) \$2.25 per 1,000 gallons (41,000 to 60,000 gallons) \$2.00 per 1,000 gallons (61,000 gallons and greater)
1 "	\$40	
1 1/2"	\$100	
2"	\$150	
3"	\$380	
4"	\$625	
6"	\$1,250	
COUNTY MONTHLY WATER RATES		
METER SIZE	BASE RATE	USAGE RATES
3/4"	\$45	\$1.88 per 1,000 gallons (1,000 to 8,000 gallons) \$2.25 per 1,000 gallons (9,000 to 20,000 gallons) \$3.00 per 1,000 gallons (21,000 to 40,000 gallons) \$3.38 per 1,000 gallons (41,000 to 60,000 gallons) \$3.00 per 1,000 gallons (61,000 gallons and greater)
1 "	\$60	
1 1/2"	\$150	
2"	\$225	
3"	\$570.50	
4"	\$938	
6"	\$1,875	
SECONDARY MONTHLY WATER RATES		
METER SIZE	BASE RATE	USAGE RATES
1 "	\$6	\$1.00 per 1,000 gallon (1,000 to 50,000 gallons) \$1.25 per 1,000 gallon (51,000 to 75,000 gallons) \$1.50 per 1,000 gallon (76,000 gallons and greater)
1 1/2"	\$9	
2"	\$12	
3"	\$18	
4"	\$24	
5"	\$30	



WATER RATES AND FEES		
6"	\$36	
K2 1"	\$6	\$0.80 per 1,000 gallon (until new ownership, then zeros) \$1.00 per 1,000 gallon (if usage exceeds 1,000,000 gallons)
K2 1 1/2"	\$9	
K2 2"	\$12	
Senior Rate	\$6	No charge up to 6,000 gallon, then follow above schedules

Table 11: Roosevelt City Sewer Connection Fees and Rates

SEWER RATES AND FEES		
NEW INSTALLATION SEWER CONNECTION FEES		
TYPE	CITY CONNECTION FEE	COUNTY CONNECTION FEE
Single Family Dwelling.	\$3,000	\$5,000
Commercial, Each Building in Multiple Dwellings or P.U.D.	\$4,000	\$6,000
Impact Fee in Stonegate Subdivision.	\$5,500	
Impact Fee in Area East of Stonegate Subdivision Using Same Trunkline.	\$900	
CITY MONTHLY SEWER RATES		
TYPE	CITY RATES	COUNTY RATES
Single Family Dwelling.	\$25.75	\$38.63
RV Park/Multiple Dwellings, Mobile Home Parks and PUD's. *If each unit or lot has an individual water meter, it is considered a single family dwelling.	\$25.75 1 st unit \$6.44 each additional unit	\$38.63 1 st unit \$9.66 each additional unit
Large Commercial - Laundry, Carwash, Motel, Hotel, Grocery, Restaurant, Eating Establishment, Public School.	\$96.56	\$144.84
Other Commercial and Professional Buildings not included in Large Commercial.	\$32.19	\$48.28
Special Rate: All homes constructed in Chrisville, Stonegate Phase I and Stonegate Phase II on or before November 14, 2017, shall be subject to a "Special Rate" pursuant to Roosevelt City Municipal Code Section 13.12.090. **Amount includes \$25.75 single family rate and \$67.75 special rate.	\$93.50**	



11. Current Water Rates

Roosevelt City recently modified its rate structure to encourage water conservation. See table 4 for a detailed breakdown of water rates.

12. Additional Conservation Measures

The new rate structure should encourage water conservation. The City will continue its current conservation measures and track them to evaluate their effectiveness. Over the next ten years, goals will continue to be evaluated and new conservation measures will be put into action.

13. Implementing and Updating the Water Conservation Plan

The City's water conservation plan will be reviewed on a yearly basis to track progress toward its goal. This will be done in January of each year in conjunction with its well and water rights reports.

This plan will be updated and resubmitted to the Division of Water Resources in April of 2021 as required by legislative House Bill 153. The ordaining ordinance for the adoption of this water conservation plan will be included in Appendix C.



Implementation Procedure WORKSHEET

Practice 1

Description: _____

Assign Responsibility _____

Budget Projected Costs: _____ Fund: _____

Schedule Begin Date: _____ End Date: _____

Public Involvement: _____

Practice 2

Description: _____

Assign Responsibility _____

Budget Projected Costs: _____ Fund: _____

Schedule Begin Date: _____ End Date: _____

Public Involvement: _____

Practice 3

Description: _____

Assign Responsibility _____

Budget Projected Costs: _____ Fund: _____

Schedule Begin Date: _____ End Date: _____

Public Involvement: _____

Practice 4

Description: _____

Assign Responsibility _____

Budget Projected Costs: _____ Fund: _____

Schedule Begin Date: _____ End Date: _____

Public Involvement: _____



Monitoring and Evaluation WORKSHEET

Describe the method for monitoring and evaluating this program. Include a schedule for monitoring and evaluating on a regular basis (annually, semi-annually). For instance, "Water use records of participants will be tracked and recorded every twelve months, with water use comparisons made to the previous twelve-month period. Charts and reports will be created to relate this data to the public."

Practice 1

Description: _____

Evaluation Schedule Monthly Quarterly Annually Other _____

Data to Be Gathered: _____

Evaluation Process: _____

Practice 2

Description: _____

Evaluation Schedule Monthly Quarterly Annually Other _____

Data to Be Gathered: _____

Evaluation Process: _____

Practice 3

Description: _____

Evaluation Schedule Monthly Quarterly Annually Other _____

Data to Be Gathered: _____

Evaluation Process: _____

Practice 3

Description: _____

Evaluation Schedule Monthly Quarterly Annually Other _____

Data to Be Gathered: _____

Evaluation Process: _____



Plan Updates & Adoption

WORKSHEET

PLAN UPDATE

Describe the procedure for updating the water conservation plan:

LIST OF OFFICERS

Name

Title

<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
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<hr/>	<hr/>

Date of Plan Adoption by Governing Body:

APPROVAL

Approved By

Date

Title

Approved By

Date

Title

Approved By

Date

Title



APPENDIX A – ORDINANCE REFERENCES

Time-of-Day Watering Ordinance

____ City
A Municipal Corporation

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE MUNICIPAL CODE TO PROMOTE WATER USE EFFICIENCY IN AMENITY LANDSCAPE IRRIGATION.

Section 1. Preamble

- A. WHEREAS, [the City] desires to promote efficient sprinkler irrigation practices for all lawns and landscapes; and
- B. WHEREAS, research has shown that irrigating landscapes only during the hours of 6:00 p.m. to 10:00 a.m. significantly increases irrigation efficiency; and
- C. WHEREAS, conservation of water through more efficient use is in the public interest and enhances the community's economic, environmental, recreational and aesthetic resources; and
- D. WHEREAS, [the City] has the authority to adopt this ordinance pursuant to Utah Code Annotated 10-3-702, and hereby exercises its legislative powers in doing so;

Section 2. Ordaining Clause

NOW THEREFORE, be it ordained by [the City] that the following ordinance be enacted.

Section 3. Time-of-Day Watering Parameters

Sprinkler irrigation of all lawns and landscapes is prohibited between the hours of 10:00 a.m. and 6:00 p.m.

Section 4. Applicability of Time-of-Day Watering Ordinance

The provisions of this ordinance shall apply to all landscapes within the city. This ordinance does not apply in the following situations:

- a. New lawns that require frequent irrigation for establishment purposes within 90 days of planting.



- b. Short cycles required for testing, inspecting and maintaining irrigation systems.
- c. Other situations as permitted by the city.

Section 6. Penalty

[A section may be added to describe the penalty for violation of this ordinance.]

Section 7. Effective Date

This ordinance shall be effective as of _____ 20__.



Commercial Landscape Ordinance

Water-Efficient Landscape Ordinance for Commercial Businesses

ORDINANCE NO. _____

Section 1. Preamble

- A. Whereas, [the City] desires to promote the design, installation and maintenance of commercial landscapes that are both attractive and water efficient;
- B. Whereas, [the City] can accomplish these goals by adopting this ordinance; and,
- C. Whereas, [the City] has the authority to adopt this ordinance pursuant to Utah Code Annotated (Rep. Vol. 1999) § 10-3-702, and hereby exercises its legislative powers in doing so.

Section 2. Ordaining Clause

Be it ordained by the [the City], that the Water-Efficient Landscape Ordinance for Commercial Business, Number _____.

Section 3. Title, Water-Efficient Landscape Requirements

An ordinance amending the Zoning Code of the City of ____ so as to add a Water-Efficient Landscape Ordinance of minimum landscape requirements. This ordinance shall be referred to as "____ City Water-Efficient Landscape Ordinance".

Section 4. Purpose

The City Council has found that it is in the public interest conserve the public's water resources and to promote water-efficient landscaping. The purpose of this ordinance is to protect and enhance the community's environmental, economic, recreational, and aesthetic resources by promoting efficient use of water in the community's landscapes, reduce water waste and establish a structure for the designing, installing and maintaining of water-efficient landscapes throughout the City.

Section 5. Definitions

The following definitions shall apply to this ordinance:

Administrative Standards: The set of rules, procedures and requirements set forth in a landscape ordinance associated with making permit application, assembling materials for public review, meeting the requirements of the landscape ordinance, seeking approvals, enforcement, conducting site inspections and filing reports.

Bubbler: An irrigation head that delivers water to the root zone by "flooding" the planted area, usually measured in gallons per minute. Bubblers exhibit a trickle, umbrella or short stream pattern.



Drip Emitter: Drip irrigation fittings that deliver water slowly at the root zone of the plant, usually measured in gallons per hour.

Evapotranspiration: The quantity of water evaporated from adjacent soil surfaces and transpired by plants during a specific time, expressed in inches per day, month or year.

Extra-Drought Tolerant Plant: A plant that can survive without irrigation throughout the year once established, although supplemental water may be desirable during drought periods for improved appearance and disease resistance.

Grading Plan: The Grading Plan shall be shown at the same scale as the Planting and Irrigation Plan. The Grading Plan shows all finish grades, spot elevations as necessary and existing and new contours with the developed landscaped area.

Ground cover: Material planted in such a way as to form a continuous cover over the ground that can be maintained at a height not more than twelve (12) inches.

Hardscape: Patios, decks and paths. Does not include driveways and sidewalks.

Irrigated Landscaped Area: All portions of a development site to be improved with planting and irrigation. Natural open space areas shall not be included in the Irrigated Landscaped Area.

Irrigation Efficiency: The measurement of the amount of water beneficially applied, divided by the total amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system hardware characteristics and management practices.

Irrigation Contractor: A person who has been certified by the Irrigation Association (IA) to install irrigation systems.

Irrigation Designer: A person who has been certified by the Irrigation Association to prepare irrigation system designs, and/or a Landscape Architect.

Irrigation Plan: The irrigation plan shall be shown at the same scale as the planting plan. The irrigation plan shall show the components of the irrigation system with water meter size, backflow prevention, precipitation rates, flow rate and operating pressure for each irrigation circuit, and identification of all irrigation equipment.

Landscape Architect: A person who holds a certificate to practice landscape architecture in the state of Utah.

Landscape Irrigation Auditor: A person who has been certified by the Irrigation Association to conduct a landscape irrigation audit.

Landscape Designer: A person who has been certified by the Utah Nursery and Landscape Association (UNLA) to prepare Landscape Plans.

Landscape Plan Documentation Package: The preparation of a graphic and written criteria, specifications, and detailed plans to arrange and modify the effects of natural features such as plantings, ground and water forms, circulation, walks and other features to comply with the provisions of this ordinance. The Landscape Plan Documentation Package shall include a project data sheet, a



Planting Plan, an Irrigation Plan, a Grading Plan, a Soils Report, a Landscape Water Allowance, and an Irrigation Schedule.

Landscape Water Allowance: For design purposes, the upper limit of annual applied water for the established landscaped area. It is based upon the local Reference Evapotranspiration Rate, the ET_0 adjustment factor and the size of the landscaped area.

Landscape Zone: A portion of the landscaped area having plants with similar water needs, areas with similar microclimate (i.e., slope, exposure, wind, etc.) and soil conditions, and areas that will be similarly irrigated. A landscape zone can be served by one irrigation valve, or a set of valves with the same schedule.

Landscaping: Any combination of living plants, such as trees, shrubs, vines, ground covers, flowers, or grass; natural features such as rock, stone, or bark chips; and structural features, including but not limited to, fountains, reflecting pools, outdoor art work, screen walls, fences or benches.

Mulch: Any material such as bark, wood chips or other materials left loose and applied to the soil.

Non-Drought Tolerant Plant: A plant that will require regular irrigation for adequate appearance, growth and disease resistance.

Planting Plan: A Planting Plan shall clearly and accurately identify and locate new and existing trees, shrubs, Ground Covers, Turf areas, driveways, sidewalks, Hardscape features, and fences.

Precipitation Rate: The depth of water applied to a given area, usually measured in inches per hour.

Rain Shut-Off Device: A device wired to the automatic controller that shuts off the irrigation system when it rains.

Reference Evapotranspiration Rate or ET_0 : A standard measurement of environmental parameters that affect the water use of plants. ET_0 is expressed in inches per day, month or year and is an estimate of the evapotranspiration of a large field of four to seven-inch tall, cool season grass that is well watered. The average annual ET_0 for the ___ City area is ___ inches.

Runoff: Irrigation water that is not absorbed by the soil or landscape area to which it is applied and which flows onto other areas.

Soils Report: A report by a soils laboratory indicating soil type(s), soil depth, uniformity, composition, bulk density, infiltration rates, and pH for the topsoil and subsoil for a given site. The soils report also includes recommendations for soil amendments.

Spray Sprinkler: An irrigation head that sprays water through a nozzle.

Stream Sprinkler: An irrigation head that projects water through a gear rotor in single or multiple streams.

Turf: A surface layer of earth containing mowed grass with its roots.

Water-Conserving Plant: A plant that can generally survive with available rainfall once established although supplemental irrigation may be needed or desirable during spring and summer months.



Water Audit: An on-site survey and measurement of irrigation equipment and management efficiency, and the generation of recommendations to improve efficiency.

Section 6. Applicability of Water-Efficient Landscape Ordinance

The provisions of this ordinance shall apply to all new and rehabilitated landscaping for public agency projects, private development projects, developer-installed landscaping in multi-family residential projects, and developer-installed landscaping in single-family projects that require a permit.

This section does not apply to:

- Homeowner provided landscaping at single-family projects;
- Registered historical sites;
- Landscapes that are irrigated exclusively with secondary water (non-potable); or
- Projects with a total irrigated landscaped area less than 2,500 square feet.

In addition, sports fields, turf play areas within public parks, school yards, golf courses and cemeteries are exempt from the **Landscape Water Allowance** limitations outlined in Section 7F; however, all other portions of this ordinance shall be applicable.

Section 7. Documentation

Landscape Plan Documentation Package. A copy of a **Landscape Plan Documentation Package** shall be submitted to and approved by the City prior to the issue of any permit. A copy of the approved **Landscape Plan Documentation Package** shall be provided to the property owner or site manager and to the local retail water purveyor. The **Landscape Plan Documentation Package** shall be prepared by a registered **Landscape Architect** or a **Landscape Designer** certified by the Utah Nursery and Landscape Association (UNLA). The **Irrigation Plan** shall be prepared by an **Irrigation Designer** certified by the Irrigation Association (IA) and/or a **Landscape Architect**. The **Landscape Plan Documentation Package** shall consist of the following items:

- A. **Project Data Sheet.** The Project Data Sheet shall contain the following:
 1. Project name and address;
 2. Applicant or applicants agent's name, address, phone and fax number;
 3. **Landscape Designer/Landscape Architect's** name, address, phone and fax number; and
 4. **Landscape Contractor's** name, address, phone and fax number, if available at this time.
- B. **Planting Plan.** A detailed Planting Plan shall be drawn at a scale the clearly identifies the following:



1. Location of all plant materials, a legend with botanical and common names, and size of plant materials;
 2. Property lines and street names;
 3. Existing and proposed buildings, walls, fences, utilities, paved areas and other site improvements;
 4. Existing trees and plant materials to be removed or retained;
 5. Designation of **Landscape Zones**, and
 6. Details and specifications for tree staking, soil preparation, and other planting work.
- C. **Irrigation Plan.** A detailed Irrigation Plan shall be drawn at the same scale as the planting plan and shall contain the following information:
1. Layout of the irrigation system and a legend summarizing the type and size of all components of the system, including manufacturer name and model numbers;
 2. Static water pressure in pounds per square inch (psi) at the point of connection to the public water supply;
 3. Flow rate in gallons per minute and design operating pressure in psi for each valve and precipitation rate in inches per hour for each valve with sprinklers, and
 4. Installation details for irrigation components.
- D. **Grading Plan.** A Grading Plan shall be drawn at the same scale as the Planting Plan and shall contain the following information:
1. Property lines and street names, existing and proposed buildings, walls, fences, utilities, paved areas and other site improvements, and
 2. Existing and finished contour lines and spot elevations as necessary for the proposed site improvements.
- E. **Soils Report.** A Soils Report will be required where irrigated landscaped areas exceed 2,500 square feet. The Soils Report shall describe the depth, composition, and bulk density of the topsoil and subsoil at the site, and shall include recommendations for soil amendments. The **Planting Plan** shall incorporate the recommendations of the **Soils Report** into the planting specifications.
- F. **Landscape Water Allowance.** The annual Landscape Water Allowance shall be calculated using the following equation:
Landscape Water Allowance = $ET_0 \times 1.0 \times 0.62 \times A$

where *Landscape Water Allowance* is in gallons per year

ET_0 = **Reference Evapotranspiration** in inches per year



1.0 = ET_0 adjustment factor, 100% of turf grass ET_0 (water year adjustment factor)

0.62 = conversion factor (to gallons per square feet)

A = total **Irrigated Landscape Area** in square feet

- G. **Irrigation Schedule.** A monthly Irrigation Schedule shall be prepared that covers the initial 120-day plant establishment period and the typical long-term use period. This schedule shall consist of a table with the following information for each valve:

1. Plant type (for example, turf, trees, low water use plants);
2. Irrigation type (for example, sprinklers, drip, bubblers);
3. Flow rate in gallons per minute;
4. Precipitation rate in inches per hour (sprinklers only);
5. Run times in minutes per day;
6. Number of water days per week, and
7. Cycle time to avoid Runoff.

Section 8. Landscape Design Standards

- A. **Plant Selection.** Plants selected for landscape areas shall consist of plants that are well suited to the microclimate and soil conditions at the project site. Plants with similar water needs shall be grouped together as much as possible.

For projects located at the interface between urban areas and natural open space (nonirrigated), **Extra-Drought Tolerant Plants** shall be selected that will blend with the native vegetation and are fire resistant or fire retardant. Plants with low fuel volume or high moisture content shall be emphasized. Plants that tend to accumulate excessive amount of dead wood or debris shall be avoided.

Areas with slopes greater than 33% shall be landscaped with deep rooting, Water-Conserving Plants for erosion control and soil stabilization.

Parking strips and other landscaped areas less than eight (8) feet wide on any side shall be landscaped with **Water-Conserving Plants**.

- B. **Mulch.** After completion of all planting, all irrigated non-turf areas shall be covered with a minimum four (4) inch layer of Mulch to retain water, inhibit weed growth, and moderate soil temperature. Non-porous material shall not be placed under the mulch.
- C. **Soil Preparation.** Soil preparation will be suitable to provide healthy growing conditions for the plants and to encourage water infiltration and penetration. Soil preparation shall include scarifying the soil to a minimum depth of six (6) inches and amending the soil with



organic material as per specific recommendations of the **Landscape Designer/Landscape Architect** based on the **Soils Report**.

Section 9. Irrigation Design Standards

- A. Irrigation design standards for this ordinance shall be as outlined in the latest version of the **"Minimum Standards for Efficient Landscape Irrigation System Design and Installation"** prepared by the Utah Irrigation Association. In addition, the following portions of this section shall also be applicable.
- B. **Pressure Regulation.** A pressure regulating valve shall be installed and maintained by the consumer if the static service pressure exceeds 80 pounds per square inch (psi). The pressure-regulating valve shall be located between the meter and the first point of water use, or first point of division in the pipe, and shall be set at the manufacturer's recommended pressure for the sprinklers.
- C. **Landscape Water Meter.** A water meter shall be installed for landscape irrigation systems, and the landscape water meter shall be separate from the water meter installed for indoor uses. The size of the meter shall be determined based on irrigation demand.
- D. **Automatic Controller.** All irrigation systems that include an electric automatic controller must have a controller with multiple programs and multiple repeat cycle capabilities and a flexible calendar program. All controllers shall be equipped with an automatic rain shut-off device, and the ability to adjust run times based on a percentage of maximum ET_0 .
- E. On slopes exceeding 33 percent, the irrigation system shall consist of **Drip Emitters**, **Bubblers** or sprinklers with a maximum **Precipitation Rate** of 0.85 inches per hour and adjusted sprinkler cycle times to eliminate Runoff.
- F. Each valve shall irrigate a landscape with similar site, slope and soil conditions and plant materials with similar watering needs. Turf and non-turf areas shall be irrigated on separate valves. **Drip Emitters** and sprinklers shall be placed on separate valves.
- G. **Drip Emitters** or a **Bubbler** shall be provided for each tree. **Bubblers** shall not exceed 1.5 gallons per minute per device. **Bubblers** for trees shall be placed on a separate valve unless specifically exempted by the City due to the limited number of trees on the project site.
- H. Sprinklers shall have matched **Precipitation Rates** with each control valve circuit.
- I. Check valves shall be required where elevation differences will cause low-head drainage. Pressure compensating valves and sprinklers shall be required where a significant variation in water pressure will occur within the irrigation system due to elevation differences.
- J. Drip irrigation lines shall be undergrounded, except for **Emitters** and where approved as a temporary installation. Filters and end flush valves shall be provided as necessary.
- K. Valves with spray or stream sprinklers shall be scheduled to operate between 6 p.m. and 10 a.m. or the city's specified **Time-of-Day Watering Ordinance** to reduce water loss from wind and evaporation.



- L. Program valves for **multiple repeat cycles** where necessary to reduce runoff, particularly on slopes and soils with slow infiltration rates.

Section 10. Plan Review, Construction Inspection and Post-Construction Monitoring

- A. As part of the **Building Permit** approval process, a copy of the **Landscape Plan Documentation Package** shall be submitted to the City for review and approval before construction begins. With the **Landscape Plan Documentation Package**, a copy of the **Landscape Water Allowance Worksheet** shall be completed by a landscape designer and submitted to the City. Once approved, the **Landscape Water Allowance Worksheet** will be transmitted to the local water purveyor.
- B. All **Landscape Plan Documentation Packages** submitted must be certified by a licensed **Landscape Architect** or **UNLA certified Landscape Designer**. The **Irrigation Plan** must be prepared by a IA certified **Irrigation Designer**, or a **Landscape Architect**.
- C. All landscape irrigation systems shall be installed by an IA certified **Irrigation Contractor**. The certified person representing the contracting firm shall be a full-time employee of the firm and shall be directly involved with the project including at least weekly site visits.
- D. All installers, designers, and auditors shall meet state and local license, insurance, and bonding requirements, and be able to show proof of such.
- E. During construction, site inspection of the landscaping may be performed by the **City Building Inspection Department**.
- F. Following construction and prior to issuing the approval for occupancy, an inspection shall be scheduled with the **Building Inspection Department** to verify compliance with the approved landscape plans. The **Certificate of Substantial Completion** shall be completed by the property owner, contractor or **Landscape Designer/Landscape Architect** and submitted to the City.
- G. Following construction and prior to issuing the approval for occupancy, a **Water Audit** will be conducted by a IA certified **Landscape Irrigation Auditor**. The auditor shall be independent of the contractor, design firm, and owner/developer of the project. The water performance audit will verify that the irrigation system complies with the minimum standards required by this ordinance. The minimum efficiency required for the irrigation system is 60% for the distribution efficiency for all fixed spray systems and 70% distribution efficiency for all rotor systems. The auditor shall furnish a certificate to the City, designer, installer, and owner/developer certifying compliance with the minimum distribution requirements, and an irrigation schedule. Compliance with this provision is required before the City will issue the letter of final acceptance.
- H. The City reserves the right to perform site inspections at any time before, during or after the irrigation system and landscape installation, and to require corrective measures if requirements of this ordinance are not satisfied.

Section 11. Penalty

[If applicable, a statement may be created to describe the penalty for violation of this ordinance.]



Section 12. Effective Date

This ordinance shall be effective as of _____ 20____.

Dated:

By [the City]: _____

Its Mayor: _____

[Municipal Recorder Attestation and Seal]



APPENDIX B – RESOURCES OF WORKSHEETS AND TOOLS FOR WATER CONSERVATION PLANNING

SUMMARIZE SYSTEM CHARACTERISTICS				
A	SERVICE CHARACTERISTICS	Number		
1	Estimated service population			
2	Estimated service area (square miles)			
B	ANNUAL WATER SUPPLY	Annual volume	Percent metered	
3	Total annual water supply		%	
C	SERVICE CONNECTIONS	Connections	Percent metered	
4	Residential, single-family		%	
5	Commercial		%	
6	Industrial		%	
7	Institutional		%	
8	Other		%	
9	Total connections		%	
C	WATER DEMAND	Annual Volume	Percent of total	Per connection
10	Metered residential sales			
11	Metered nonresidential sales			
12	Other metered sales			
13	Unmetered sales			
14	Nonaccount water (a)			
15	Total system demand (total use)			
D	AVERAGE & PEAK DEMAND	Volume	Total supply capacity	Percent of total capacity
16	Average-day demand			%
17	Peak-day demand			%
F	PRICING	Rate structure [b]	Metering schedule [c]	Billing schedule [c]
18	Residential rate			
19	Commercial rate			
20	Industrial rate			
21	Institutional rate			
22	Other rate			
G	PLANNING	Prepared a plan	Date	Filed with state
23	Capital, facility, or supply plan			
24	40 year plan			
25	Master plan			
26	Drought plan			



SUMMARIZE SYSTEM CHARACTERISTICS				
27	Emergency Response plan			
28	Water conservation plan			
29	Other:			
30	Other:			
H	PLANNING QUESTIONS	Yes	No	Comment
31	Is the system in a designated critical water supply area?			
32	Does the system experience frequency shortages or supply emergencies?			
33	Does the system have substantial unaccounted-for and lost water?			
34	Is the system experiencing a high rate of population and/or demand growth?			
35	Is the system planning substantial improvements or additions?			
SUMMARIZE SYSTEM CHARACTERISTICS				
Water conservation measures	Approximate annual water savings [if known]	Implemented since (date)	Is continued implementation planned?	



WATER DEMAND FORECAST¹				
Line	Item	Current Year	5-Year Forecast	10-Year Forecast
A	TOTAL ANNUAL WATER DEMAND			
1	Current total annual water demand (from "Summarize System Characteristics") ¹			
2	Current population service ²			
3	Total water demand per capita (line 1 divided by line 2) ²			
4	Projected population ²			
5	Projected total annual water demand (line 3 multiplied by line 4)			
6	Adjustments to forecast (+ or -) ³			
7	Adjusted total annual water demand (line 5 plus line 6)			
8	Current annual demand (line 1) and adjusted annual water demand forecast (line 7 for forecasted years)			
9	Current and projected annual supply capacity (from "Summarize System Characteristics") ⁴			
10	Difference between total annual water demand and total annual supply capacity (+ or -) subtract line 8 from line 9)			
B	AVERAGE-DAY AND PEAK-DAY DEMAND			
11	Current and forecast average-day demand (line 8 divided by 365)			
12	Current peak-day demand (from "Summarize System Characteristics")			
13	Peak-day to average-day demand ratio (line 12 divided by line 11)			
14	Projected peak-day demand (line 13 multiplied by line 11 for all forecasted years)			
15	Adjustment to peak-day demand forecast ³			
16	Current (line 12) and adjusted peak-day demand forecast (add lines 14 and 15)			
17	Daily supply capacity (line 9 divided by 365)			
18	Ratio of peak-day demand to daily supply capacity (line 16 divided by line 17)			
¹ Separate forecasts should be prepared for large-volume users, as well as for non-account water (water not billed to customers) if non-account water is a significant amount (such as more than 10 percent of total production).				



²Managers can use connections instead of population and per-connection water use instead of per-capita water use.

³Please explain adjustments to your forecast (lines 6 and 15), including effects of installed conservation measures and rate changes.

⁴Supply capacity should take into account available supplies (permits), treatment capacity, or distribution system capacity and reflect the practical total supply capacity of the system, including purchased water.



BUDGET AND SAVINGS FOR EACH CONSERVATION MEASURE

Describe planned conservation measure:

Typical water savings from measure: _____ per _____

Number of planned installations: _____

Anticipated life span for the measure: _____ years

The measure is designed to reduce:

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Average-day demand

Peak-day demand

Both average-day and peak-day demand

Line	Item	Amount	Amount
A	BUDGET FOR EACH MEASURE¹	Per unit²	Total cost of the measure
1	Materials	\$	\$
2	Labor		
3	Rebates or other payments		
4	Marketing and advertising		
5	Administration		
6	Consulting or contracting		
7	Other		
8	Total program cost for the life of the measure (add lines 1 through 7) ³		\$
B	TOTAL SAVINGS		
9	Number of units to be installed ⁴		
10	Anticipated annual water savings per unit in gallons ⁵		
11	Total annual savings for the measure in gallons (multiply line 9 by line 10)		
12	Expected life span for the measure in years		
13	Total life span savings for the measure in gallons (multiply line 11 by line 12)		
14	Cost per gallon of water saved (divide line 8 by line 13)	\$	/gallon

¹A separate analysis should be performed for each conservation measure, but measures can be combined if they jointly produce water savings.

²Examples of a unit are a toilet, a retrofit kit, and an audit. A unit estimate may not be appropriate for each measure, in which case total program water savings and costs for the measure can be used.

³Include all recurring cooperation and maintenance costs over the life of the measure.

⁴Units can be individual product units (such as toilets) or groups of products (such as household retrofits), as long as the analysis is consistent. Leave blank if unit values do not apply.



⁵For example, water savings per retrofit. See Appendix B for benchmarks and sample calculations. Leave blank if unit values do not apply.



SELECTION OF CONSERVATION MEASURES				
Line	Measure	Already Implemented	Plan to implement	Primary criteria for selecting or rejecting the conservation measure for implementation ¹
Universal metering				
1				
2				
3				
Water accounting and loss control				
4				
5				
Cost and pricing				
6				
7				
8				
Information and education				
9				
10				
Other Measures				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
¹ This may also be used to note special issues related to this measure, including legal or obstacles to its use that preclude further consideration.				



IMPLEMENTATION STRATEGY

A. PUBLIC INVOLVEMENT

Describe plan for public involvement:

B. MONITORING AND EVALUATION

Describe plan for monitoring and evaluation:

Describe plan to collect water demand data:

C. PLAN UPDATES

Describe plan for updates and revisions:

D. ADOPTION OF THE PLAN

Date plan completed:

Date plan approved:

Approved by City Council:

Signature:



APPENDIX C – RESOLUTION ADOPTING THIS PLAN



APPENDIX D – PUBLIC HEARING MINUTES



APPENDIX E – NOTIFICATION PROCEDURE



Roosevelt City

U T A H

Item No. _____

MEMO TO: Joshua Bake, City
Manager
FROM: Ryan Clayburn, Water Source
Director

Subject: Public Hearing And Approval Of Roosevelt City's Water
Conservation Plan

Recommendation:

*That the Roosevelt City Council review and accept
the purposed Water Conservation Plan 2021.*

Date:

August 19, 2021

Fiscal Impact:

N/A

Funding Source:

N/A

Background:

Water Conservation Plans are required to be updated and submitted to the Utah Division Of Water Resources every five years by State Bill 73-10-32. Plans must be approved in a public meeting and adopted by the governing board by December 31st 2021. Roosevelt City's Water Source Department and Horrocks Engineering have worked together on updating the Water Conservation Plan to meet the requirements needed by the state. The state has received and reviewed the plan and has approved to go to a public hearing and then passed by our City Council.

<u>Attachments:</u>
Roosevelt City Water Conservation Plan



ROOSEVELT *Utah*

CITY COUNCIL MINUTES

September 21, 2021

1. Roll

Councilmen Don Busenbark, Dustin White, David Baird, Cody Aland, and Mayor JR Bird were present. Councilman Beau Hancock was not in attendance.

2. Public Hearings

a. Public Comment Period

City resident, Robert Puck spoke to Council about garbage fees. Puck suggested that it would benefit our elderly population to tie garbage fees to water usage rates because that would be more reflective of the number of people living in the home, and thus the need for garbage services. Puck also suggested that residents should be able to opt out of garbage services, citing that he only needs his garbage emptied once every 3 weeks, and is on a fixed income. Council thanked him for his input and requested his contact information in order to follow up on this matter.

b. FY '22 Budget Reopen and Adjustment

Councilman Busenbark noted that this agenda item was listed as "Budget FY '22- '23" when in fact it was a reopen of the current fiscal year's budget. This was noted by the recorder and has been revised in the minutes.

The Budget readjustment was presented by City Manager, Joshua Bake. The purpose of the reopen and adjustment was to eliminate errors and oversites from the previously approved budget. Updates included intergovernmental revenue minus interest, adjustments in council salaries to remedy an addition error in the previous budget, and the addition of expenses such as the July 4th celebration, which was previously omitted. Additionally, employee training and the cost of putting land-line phones back into the City Office were added to the budget. The City has also just received the first half of our ARPA funding, which was also added to the budget.

Councilman Baird made a motion to enter public hearing and was seconded by Councilman Alland. The motion passed unanimously. Seeing no comments, Councilman Baird motioned a return to regular session and was seconded by Councilman Busenbark. The motion passed unanimously, and Council returned to regular session.

c. Clate Miller Annexation

Deputy Recorder, Sunshine Bellon presented an Annexation Ordinance for Council Approval. Council discussed the ordinance and Councilman Busenbark made a motion to enter public hearing and was seconded by Councilman White. The motion passed unanimously. Seeing no comments, Councilman Busenbark motioned a return to regular session and was seconded by Councilman Baird. The motion passed unanimously, and Council returned to regular session.

Councilman Busenbark motioned to approve Ordinance 2021-439 and was seconded by Councilman White. The motion passed unanimously.

d. Water Conservation Plan

Water Conservation Plans are required to be updated and submitted to the Utah Division Of Water Resources every five years by State Bill 73-10-32. Plans must be approved in a public meeting and adopted by the governing board by December 31st, 2021. Roosevelt City's Water Source Department and Horrocks Engineers have worked together on updating the Water Conservation Plan to meet State requirements. The State has reviewed this plan and has approved it to go to a public hearing. The plan was presented to Council by City Manager, Joshua Bake. Councilman Busenbark made a motion to enter a public hearing and was seconded by Councilman Baird. The motion passed unanimously, and Council entered a public hearing. Seeing no comments, Councilman Busenbark motioned a return to regular session and was seconded by Councilman Baird. The motion passed unanimously, and Council returned to regular session. Councilman Busenbark motioned to approve the water conservation plan and was seconded by Councilman White. The motion passed unanimously, and the plan was approved.

3. Items

a. Ovintiv

The City's contract with Ovintiv is up for renewal with a rate change. The contract was presented to Council for approval. Councilman Busenbark motioned to approve the contract and was seconded by Councilman Alland. Councilman White and Mayor Bird voted aye and Councilman Baird stated a conflict of interest and abstained from voting. The contract was approved.

b. North Crescent

Evan from Jones and DeMille presented an alternative plan for water connections in the North Crescent area, as per the request from last council meeting. Evan explained that this new plan would enable the City to address fire flow issues, without the need for completing multiple other projects. The proposed area is outside of our annexation and water district boundaries. Councilman Busenbark made a motion in favor of honoring any connections we have already approved but recommended against making any further decisions until an agreement with Montview and Cedar view have been reached. Council discussed that the project stands to benefit the county the very most, so they need to be involved in this project. City Manager Joshua Bake requested a motion for recommendation for city staff to address water connection requests. 2/3 of the pending connection requests are within the water district boundary. Councilman Busenbark amended his motion to state that the City should proceed with updating our annexation boundary and upon completion of an agreement with Mont Well and Cedar View, we approve water connection requests within our annexation boundary and/ or water boundary. The motion was seconded by Councilman Aland and the motion passed unanimously.

c. Council Term Limits

City Attorney, Grant Charles updated Council on initiative deadlines, which have passed for this election. We would have had to submitted by April 15th of this year. There is simply not time to get a Council term limits initiative in for this election. Council term limits must be voted on during a general election, and they can be voted on next year.

d. State Street Project Update

Brent Reynolds from Civico presented an update on the State Street project to Council and asked questions about which fiber lines are currently in use. Reynolds stated that keeping and moving lines would add additional costs to the project, but said it is important that they not disrupt any in-use lines. Additionally, the current estimate of cost is \$340,000 over budget due to the secondary water and culinary water work on the project. Removing those two items would put the project at or under budget. Reynolds requested Council decide how to move forward with the bid and project before the next City Council meeting. Reynolds also provided Council with an estimated project completion date of August 15th.

e. Nature Park Update

City Manager, Joshua Bake provided an update on the Nature Park project. Roosevelt City is working with the DRN to see what they would charge us to get fishing ponds. We are also looking into power lines and how they can be safely redirected out of the casting area. Councilman Baird asked what, if anything, is going to be done to stabilize the river that runs through the nature park area. Baird stated, "it is constantly eroding" and suggested the City look into stabilizing/restoring the river and gulch throughout the park and possibly into the city. Council also discussed where the water in the river and gulch come from and what fish flow water rights the City still has.

f. Airport Min. Standards, Rules & Regulations, and FBO RFP

Kimberly Silvester from J-U-B presented Minimum Standards, Rules and Regulations and an RFP for a fixed base operator to Council for approval. Mayor Bird acknowledged that these items had come before the Airport Board several times and had been thoroughly reviewed. councilman B made a motion to approve, seconded by Baird, approved by all.

g. Airport J-U-B Task Order Amendment

Kimberly Silvester from J-U-B presented an amended task order and highlighted extra tasks that have been completed to account for an increase in the not to exceed limit from \$10,000 to \$14,000. It was noted by City Manager Joshua Bake that the increase amount was already included in the amended budget. Councilman Busenbark moved to approve and was seconded by Councilman Baird. The motion passed unanimously, and the amended task order was approved.

h. Court Security Contract

Chief Watkins presented the Court Security Contract between Roosevelt City and Duchesne County Courts. Chief Watkins stated that the contract had been reviewed by the City Attorney, Grant Charles. Councilman White motioned to approve the contract and was seconded by Councilman Baird. The motion passed unanimously, and the Court Security Contract was approved.

i. City Manager Update

City Manager, Joshua Bake informed Council that the ARPA Notice of Funding had come out with two weeks' notice, and that the City submitted grant proposals for the Nature Park, Sports Complex, Innovation Hub and Secondary Water projects. After the update, Councilman Busenbark asked Mr. Bake if the City BBQ would be able to move forward as planned. Council decided to set a date and chose Oct. 21st at 5:30 p.m. Mr. Bake will draft up invitations and get them approved by council.

j. Council Updated

Councilman Busenbark voiced appreciation for Parks and Rec and stated, "I appreciate how well the city is running and that people are on top of things." Councilman Busenbark also updated Council on the plans to update our contract with the Duchesne County School District, which hasn't been updated since the 80s.

Mayor Bird gave an update on the shooting range. There is still no funding, but there is a ton of community support. Mayor Bird also confirmed that a conditional use permit from before was passed along.

Councilman Aland provided an update on the Sports Complex saying there were good options moving forward for getting local businesses involved. Councilman Aland also wanted to publicly recognize the service work that took place recently in Ballard.

Closed Session

Councilman Busenbark motioned to enter a closed session and it was seconded by Councilman Aland. The motion passed unanimously, and Council entered a closed session.

Regular Session Resumed at 7:40

Before closing, Councilman Aland recognized everyone who came out for the Day of Service, "it was impressive, there were 150 people, and I don't know how many tons of garbage... I just wanted to make sure they were recognized publicly."

4. Adjourn

Councilman Busenbark motioned to adjourn at 7:42. The motion was seconded by ____ . All were in favor and Council adjourned.

Further information can be obtained by contacting Rhonda Goodrich at (435) 722-5001. In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during these hearings should notify Rhonda Goodrich at 255 South State Street, Roosevelt, Utah, 84066, at least three days prior to the hearing to be attended.