



PREPARED FOR:

PREPARED BY:



MURRAY CITY

OCTOBER 2024

WATER CONSERVATION PLAN

WATER CONSERVATION PLAN

OCTOBER 2024

PREPARED FOR:



PREPARED BY:



TABLE OF CONTENTS

	Page
INTRODUCTION	1
SYSTEM PROFILE	1
Murray City Water System Service Area.....	1
Population	1
System Connections.....	3
Current Billing Rates.....	4
SUPPLY INFORMATION	6
Annual Supply	7
WATER MEASUREMENT	9
WATER PRODUCTION, SALES, AND SYSTEM LOSS.....	9
Historic Water Use	9
System Losses	9
Historic Per Capita Water Use.....	9
Current Per Capita Water Use	12
CONSERVATION GOAL WITH MILESTONES	12
Measuring Savings from Conservation	13
EFFECT OF CONSERVATION ON FUTURE WATER SUPPLY AND DEMAND	15
WATER CONSERVATION PRACTICES	18
Current Conservation Practices.....	18
New Conservation Practices Planned for Implementation	21
WATER CONSERVATION COORDINATOR.....	24
WATER CONSERVATION PLAN AUTHOR(S)	24
MURRAY CITY CONTACTS	24

LIST OF TABLES

No.	Title	Page
1	FY 2023 Water Usage by Connection Type ^a	3
2	Estimated Production -- Murray City Dry and Average Water Years	7
3	Murray City Existing Source Annual Capacity Summary	8
4	Historic Per Capita Water Culinary Production, Sales, and System Loss	10
5	Water Demands for Existing Conditions.....	12
6	Conservation Goal with Milestones Through 2065	13
7	Murray City Historic and Projected Population Estimates.....	15
8	Murray City Historic and Projected Population Estimates.....	16
9	2022 Water Demands for Residential and Non-Residential Use ¹	16
10	Implementation Schedule, Estimated Costs & Measurement of Progress	23

TABLE OF CONTENTS (continued)

LIST OF FIGURES

No.	Title	Page
1	Murray City General Land Use Plan	2
2	Current Culinary Delivery Type.....	4
3	Current Murray City Tiered Water Rate Structure	5
4	Murray City Culinary and Secondary Water Sources	6
5	Historic Per Capita Water Production.....	11
6	Culinary Demand with and without Conservation	13
7	Historic & Future Conservation Goal Per Capita Water Use	14
8	Historic & Future Conservation goal Per Capita Water Use.....	17

ABBREVIATIONS

AMI	Advanced Metering Infrastructure
AMR.....	Automated Meter Reading
DWRi.....	Division of Water Rights
GPCD	Gallons per Capita per Day
JVWCD	Jordan Valley Water Conservancy District
SLC	Salt Lake City
SLCPU	Salt Lake City Public Utilities

UNIT CONVERSIONS

GALLONS = ACRE FEET × 325,850
 ACRE-FEET = GALLONS ÷ 325,850
 MILLION GALLONS = ACRE-FEET ÷ 3.069
 ACRE-FEET = MILLION GALLONS × 3.069
 GPCD = GALLONS ÷ DAYS OF USAGE ÷ POPULATION

INTRODUCTION

Attitudes toward water supplies are changing. Water is no longer seen as a boundless resource, but as a valuable commodity that needs to be managed carefully. With this shift in attitude, conservation is becoming a larger part of water suppliers' plans to meet future water needs. Many water suppliers throughout the country have adopted conservation programs. Benefits of these programs include:

- Using existing water supplies more efficiently.
- Maximization of existing water conveyance, treatment, and distribution facilities.
- Delaying or deferring the expense of construction or capital improvement projects.
- Reducing the need for additional water supplies.

Murray City recognizes the benefits of conservation programs. The City recognizes that per capita use will be at higher levels without emphasis and a clear plan on conservation. It also recognizes that there are still many benefits of further conservation efforts. Since sustained water conservation efforts will be an important component in the City's plans for future water use, this report will evaluate the City's current conservation program and will discuss additional measures that will allow further conservation of water.

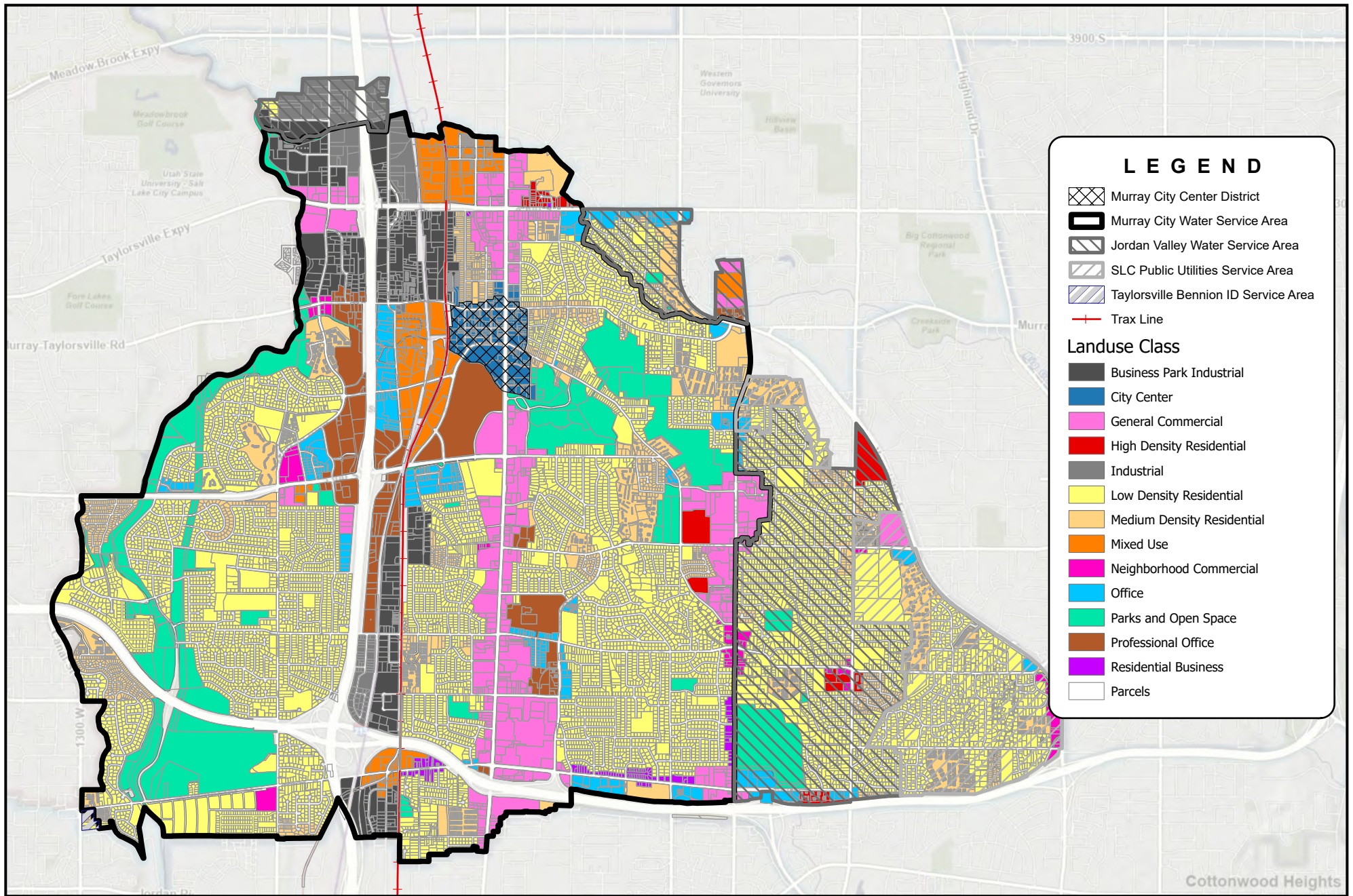
SYSTEM PROFILE

Murray City Water System Service Area

Murray City's corporate boundaries include an area larger than the City's water system service area. As a result, projecting water demands requires identifying the service area's population and population growth. Figure 1 shows the existing Murray City corporate boundary, water system service boundary, and the City's general plan for land use. The Murray City water system service area serves approximately 80 percent of the City area. The Jordan Valley Water Conservancy District (JVWCD) supplies approximately 13 percent of the City area while Salt Lake City Public Utilities (SLCPU) supplies the remaining 7 percent area. Taylorsville Bennion Improvement District serves an area less than 0.5 percent of the total Murray City area at the southwest portion of the City (near Winchester Dr and 1300 West). Murray City has no plans to expand its existing water service area to serve the Jordan Valley or Salt Lake water service areas in the future. Therefore, all future demand projections in this report are based on the population within the Murray City Water System Service Area.

Population

Murray is in Salt Lake County and has a population of roughly 41,539 residents based on the city's corporate boundaries. Murray has both culinary and secondary water systems, but most of the water demand is on the culinary system with only one well, Germania Well, providing secondary water. The existing Murray City corporate boundary, water system service boundary, and the city's general plan for land use are shown in Figure 1. Murray City's corporate boundaries include an area larger than the City's water system service area with the Murray City water system service area serving approximately 80% of the City area.



LEGEND

- Murray City Center District
- Murray City Water Service Area
- Jordan Valley Water Service Area
- SLC Public Utilities Service Area
- Taylorsville Bennion ID Service Area
- Trax Line

Landuse Class

- Business Park Industrial
- City Center
- General Commercial
- High Density Residential
- Industrial
- Low Density Residential
- Medium Density Residential
- Mixed Use
- Neighborhood Commercial
- Office
- Parks and Open Space
- Professional Office
- Residential Business
- Parcels

System Connections

The Murray City water system includes residential, commercial, industrial, and institutional connections. To help evaluate and quantify the amount of water that can reasonably be conserved in Murray, an analysis of current water use patterns has been performed. Usage among different classes of customers for the year 2020 is shown in Figure 2. Secondary connections are assumed to be included in the accounts of culinary users. Murray City has minimal secondary water usage with only one well, Germania Well, used to irrigate City parks.

Roughly 88 percent of the meters in Murray City are residential connections, accounting for 62 percent of the total water use. Hence, residential water use represents the largest single area for potential conservation. However, Murray also has a significant number of commercial and industrial connections. While comprising only about 10 percent of the total number of meters, commercial and industrial customers accounted for roughly 20 percent of Murray City water use. Institutional water use is not far behind commercial and industrial water use accounting for about 18% of the water use with only 2 percent of the total connections. Thus, non-residential accounts should not be overlooked as potential contributors to future conservation efforts.

Table 1
FY 2023 Water Usage by Connection Type^a

Customer Class	Accounts	Percent of Connections	Culinary Annual Water Use (acre-ft)	Secondary Annual Water Use (acre-ft)	Total Water Use (acre-ft)	Percent of Total Water Use
Residential	8,973	87.6%	6,318	0	6,318	62.2%
Commercial	1,047	10.2%	1,982	0	1,982	19.5%
Industrial	8	0.08%	37	0	37	0.4%
Institutional	221	2.2%	1,050	765	1,815	17.9%
Unmetered	0	0	0	0	0	0
TOTAL	10,249	100.00%	9,387	765	10,152	100.00%

^a Water usage by connection type data obtained from the Utah Division of Water Rights Public Water Supplier Information for 2023.

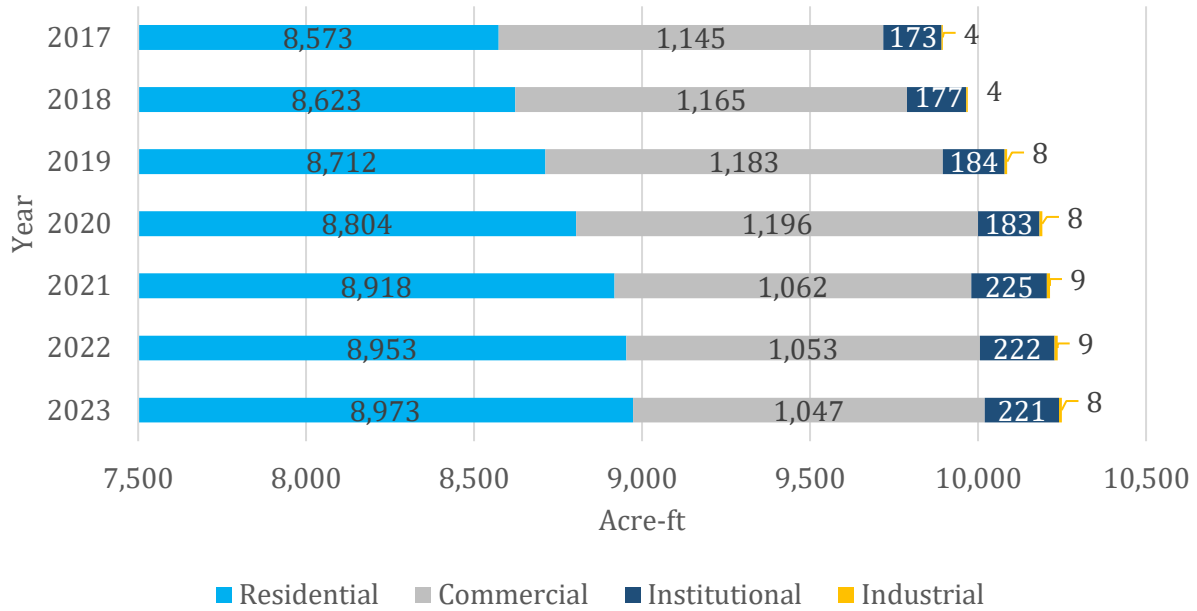


Figure 2: Current Culinary Delivery Type

Current Billing Rates

In 2018 the City established a new tiered rate structure to encourage water conservation (full rate schedule is in Figure 3). All water connections are charged a monthly base rate dependent on the meter size with no monthly water allowance included in the base rate. Each tier in the structure charges a higher rate based on the quantity of water being used. It is recommended that the current billing rates be updated.



3/4"-1" Meter			2018	2019	2020	2021	2022
Base Fee			\$10.00	\$10.60	\$11.24	\$11.91	\$12.51
Tier	Minimum HCF	Maximum HCF					
1	0	8	\$0.95	\$1.01	\$1.07	\$1.13	\$1.19
2	9	25	1.15	1.22	1.29	1.37	1.44
3	26	49	1.40	1.48	1.57	1.67	1.75
4	50	79	1.75	1.86	1.97	2.08	2.19
5	80	Above	2.50	2.65	2.81	2.98	3.13

1 1/2" Meter			2018	2019	2020	2021	2022
Base Fee			\$15.70	\$16.64	\$17.64	\$18.70	\$19.63
Tier	Minimum HCF	Maximum HCF					
1	0	32	\$0.95	\$1.01	\$1.07	\$1.13	\$1.19
2	33	100	1.15	1.22	1.29	1.37	1.44
3	101	196	1.40	1.48	1.57	1.67	1.75
4	197	316	1.75	1.86	1.97	2.08	2.19
5	317	Above	2.50	2.65	2.81	2.98	3.13

2" Meter			2018	2019	2020	2021	2022
Base Fee			\$22.54	\$23.89	\$25.32	\$26.84	\$28.19
Tier	Minimum HCF	Maximum HCF					
1	0	64	\$0.95	\$1.01	\$1.07	\$1.13	\$1.19
2	65	200	1.15	1.22	1.29	1.37	1.44
3	201	392	1.40	1.48	1.57	1.67	1.75
4	393	632	1.75	1.86	1.97	2.08	2.19
5	633	Above	2.50	2.65	2.81	2.98	3.13

3" Meter			2018	2019	2020	2021	2022
Base Fee			\$38.50	\$40.81	\$43.26	\$45.86	\$48.15
Tier	Minimum HCF	Maximum HCF					
1	0	120	\$0.95	\$1.01	\$1.07	\$1.13	\$1.19
2	121	375	1.15	1.22	1.29	1.37	1.44
3	376	735	1.40	1.48	1.57	1.67	1.75
4	736	1,185	1.75	1.86	1.97	2.08	2.19
5	1,186	Above	2.50	2.65	2.81	2.98	3.13

4" Meter			2018	2019	2020	2021	2022
Base Fee			\$61.30	\$64.98	\$68.88	\$73.01	\$76.66
Tier	Minimum HCF	Maximum HCF					
1	0	200	\$0.95	\$1.01	\$1.07	\$1.13	\$1.19
2	201	625	1.15	1.22	1.29	1.37	1.44
3	626	1,225	1.40	1.48	1.57	1.67	1.75
4	1,226	1,975	1.75	1.86	1.97	2.08	2.19
5	1,976	Above	2.50	2.65	2.81	2.98	3.13

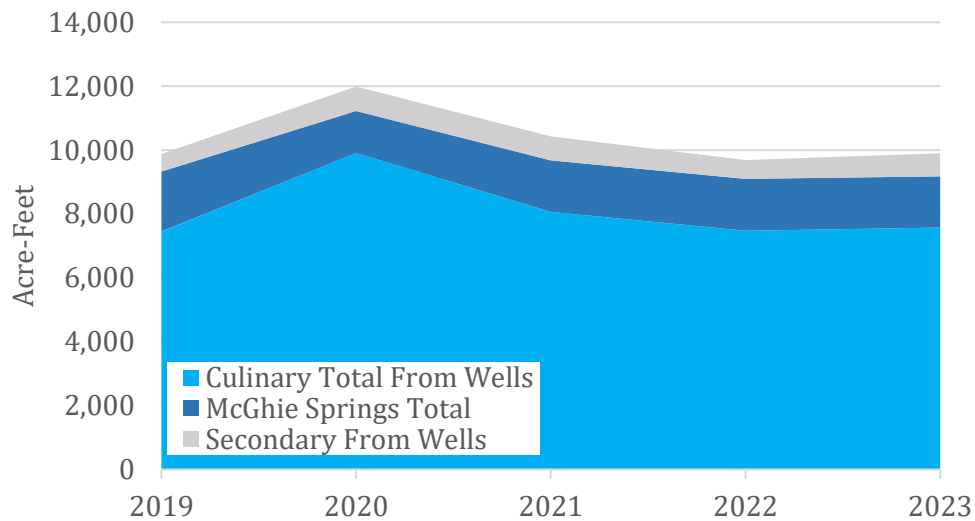
6" Meter			2018	2019	2020	2021	2022
Base Fee			\$118.31	\$125.41	\$132.93	\$140.91	\$147.95
Tier	Minimum HCF	Maximum HCF					
1	0	400	\$0.95	\$1.01	\$1.07	\$1.13	\$1.19
2	401	1,250	1.15	1.22	1.29	1.37	1.44
3	1,251	2,450	1.40	1.48	1.57	1.67	1.75
4	2,451	3,950	1.75	1.86	1.97	2.08	2.19
5	3,951	Above	2.50	2.65	2.81	2.98	3.13

8" Meter			2018	2019	2020	2021	2022
Base Fee			\$186.73	\$197.93	\$209.81	\$222.39	\$233.51
Tier	Minimum HCF	Maximum HCF					
1	0	1,120	\$0.95	\$1.01	\$1.07	\$1.13	\$1.19
2	1,121	3,500	1.15	1.22	1.29	1.37	1.44
3	3,501	6,860	1.40	1.48	1.57	1.67	1.75
4	6,861	11,060	1.75	1.86	1.97	2.08	2.19
5	11,061	Above	2.50	2.65	2.81	2.98	3.13

Figure 3: Current Murray City Tiered Water Rate Structure

SUPPLY INFORMATION

A summary of Murray city's current and historical water supply is contained here. For additional information on water supply the reader should refer to Murray City's Water Master Plan. The Murray City water system relies on well water as its predominant supply source producing about 84 percent of annual system water demand. McGhie Springs, located near the mouth of Big Cottonwood Canyon, makes up the remaining 16 percent of annual water production. Figure 4 shows the volume the City has used from each system as reported to the Division of Water rights (DWRi) Website from 2019 to 2023. An exchange agreement with Salt Lake City provides additional water supply in an emergency, up to 1%. The City also has a physical connection to the JWCD system. However, this connection has not been used since 1988 and is not considered part of the City's water system service area water supply. Note in recent years Murray City has combined some water rights to allow for more flexibility in moving rights to and from wells depending on production capacity and demands. Additionally, in 2022 and 2023 Murray City purchased 15.47 and 10.87 acre-ft from Salt Lake City (SLC) Corporation. This water was used at the McGhie Springs property and an adjacent property and was not used in the Murray City water system. Murray Water does not consider part of its water system.



*Note: In 2022 and 2023 Murray City purchased 15.47 and 10.87 acre-ft from SLC Corporation

Figure 4: Murray City Culinary and Secondary Water Sources

Annual Supply

Murray's annual source supply is summarized in Table 2 for both dry and average water years.

Table 2
Estimated Production -- Murray City Dry and Average Water Years

Supply Category	Estimated Production - Dry Year (acre-feet)¹	Estimated Production - Average Year (acre-feet)²
Wells	9,910	7,974
McGhie Springs	1,315	1,788
Purchased	0	3
Exchanged	0	0
Total	10,460	9,765

¹ Dry year production was based on 2020 because 2020 was the most recent dry year without drought mitigation measures in place.

² Average production was based on 2017 through 2022.

The difference in total water supply during dry and average years is 695 acre-feet of water. Total estimated water supply during dry years will be used as Murray City's annual water supply capacity for planning purposes.

On the following page, Table 3 summarizes the City's current culinary and secondary water supply for both max historic production and estimated reliable annual yield, as well as a summary of the water rights. Annual yield has been estimated by calculating 80% of the max well production from 2017 to 2022. This calculation assumes that the current well production rates are sustainable and not depleting the aquifer. It is recommended that Murray City conduct a well sustainability study to improve understanding of the recharge and depletion of the aquifer.

Table 3
Murray City Existing Source Annual Capacity Summary

Source Name	Max Historic Production ^a (acre-ft)	Appropriated		Estimated Reliable Annual Well Yield (acre-ft)
		cfs	mgd	
Wells				
Powerhouse	518.87	5.000	3.23	415
600 West	340.77	2.490	1.61	273
500 East	265.71	3.017	1.95	213
Howe	560.64	1.500	0.97	449
300 West	401.04	3.510	2.27	321
Grant	1,811.99	3.000	1.94	1,450
Vine Street	979.75	2.389	1.54	784
700 West	528.08	2.500	1.62	422
900 East	695.77	2.017	1.30	557
Reservoir	359.60	4.600	2.97	288
Whitmore West	1,695.52	5.000	3.23	1,356
Whitmore East	1,489.07	2.000	1.29	1,191
McGhie	1,015.21	3.750	2.42	0 ^c
360 West	130.29	3.010	1.95	104
Millrace	140.66	2.635	1.70	113
Park	418.20	1.892	1.22	335
4500 South	238.40	1.250	0.81	191
Monroc	807.33	3.899	2.52	646
Hi-land	260.52	1.250	0.81	208
Other Sources				
McGhie Springs	1,509.32	5.562	3.59	
SLC Exchange	0.00 ^b	1.250	0.81	0
Purchased from SLC Corporation	15.47	0	0	0
Germania Well (Irrigation)	764.64	0.5	0.03	612
TOTALS	14,946.85	62.071	39.79	9,925

^a Historic data ranges from 2017 to 2022 and was gathered from the Division of Water Rights website.

^b SLC exchange has not been used since 1988.

^c McGhie Springs Well reliable yield is calculated with the McGhie Springs because of their influence on each other

WATER MEASUREMENT

Currently, all culinary and secondary water connections in the Murray City water system service area are metered. In 2010 the City began a meter replacement program which is now completed. This program should be maintained to replace all older meters so that no meter exceeds 25 years in operation. The City is transitioning to an advanced metering infrastructure (AMI) system and is almost complete with the changeover from automated meter reading (AMR). AMI systems automate collection of meter data around the City and can actively measure use, identify leaks, and educate customers on use. Installation requires construction of central towers to collect the data. Generally, AMI technology can help encourage water conservation more for each customer by helping customers proactively monitor water use.

WATER PRODUCTION, SALES, AND SYSTEM LOSS

Historic Water Use

Historic water use from 2010 to 2022 is summarized in Table 4 and includes both water production (water produced by each source and delivered to the system) and water sales (metered use out of the system) for the culinary system. For both categories, per capita water use has been calculated. Data for this table comes from production records and water sales records provided from the City to the Division of Water Rights, and recent population.

System Losses

Murray City water system losses have been estimated with historic water production and historic water sales in Table 4. On average since 2010, the City water system losses have been approximately 7.6% of the annual water production (Table 4).

In 2016, the City performed an AWWA water loss audit and found that 212.9 MG/yr were lost out of the 3,077.2 MG/yr supplied in 2016. Roughly 6.9% of the water supplied was lost in the system with 32.7% of that loss due to unavoidable annual real losses. Revenue loss associated with the real and apparent losses are \$15,954 and \$83,816 respectively. The City plans to continue performing AWWA water loss audits to identify areas within the water system that require improvements and to make plans to improve those areas. See “Conservation Practices” for further discussion of the city efforts to minimize system losses including prevention activities and activities to locate and eliminate existing leaks.

Historic Per Capita Water Use

As summarized in Table 4, the historic per capita water production ranges from 264 gallons per capita per day (gpcd) in 2012 to a low 209 gpcd in 2023. The change in per capital water use is shown in Figure 5.

Table 4
Historic Per Capita Water Culinary Production, Sales, and System Loss

Year	Water Service Area Residential Population	Historic Water Production Culinary (acre-ft)	Historic Water Production Irrigation (acre-ft)	Per Capita Production Without Irrigation (gpcd)	Per Capita Production Combined (gpcd)	Historic Water Sales (acre-ft)	Per Capita Water Use (gpcd)	System Loss without Irrigation (acre-ft)	System Loss without Irrigation %	System Loss Combined (acre-ft)	System Loss Combined %
2010	35,000	9,281	336	237	245	8,255	211	1,026	12.4%	1,362	16.5%
2011	36,000	8,265	352	205	214	7,597	188	667	8.8%	1,019	13.4%
2012	36,000	10,127	517	251	264	9,421	234	706	7.5%	1,223	13.0%
2013	36,000	9,252	461	229	241	8,654	215	598	6.9%	1,060	12.2%
2014	36,000	8,875	485	220	232	8,338	207	538	6.4%	1,023	12.3%
2015	36,680	9,031	512	220	232	8,340	203	691	8.3%	1,203	14.4%
2016	36,990	9,444	569	228	242	8,702	210	741	8.5%	1,310	15.1%
2017	37,010	9,403	478	227	238	8,726	210	677	7.8%	1,155	13.2%
2018	37,500	9,840	710	234	251	8,945	213	895	10.0%	1,605	17.9%
2019	37,595	8,771	554	208	221	8,206	195	566	6.9%	1,120	13.6%
2020	38,110	10,461	765	245	263	9,433	221	1,029	10.9%	1,793	19.0%
2021	38,340	8,931	750	208	225	8,293	193	638	7.7%	1,388	16.7%
2022	38,723	8,514	588	196	210	7,616	176	898	11.8%	1,486	19.5%
2023	39,111	8,450	724	193	209	7,667	175	783	10.2%	1,507	19.6%

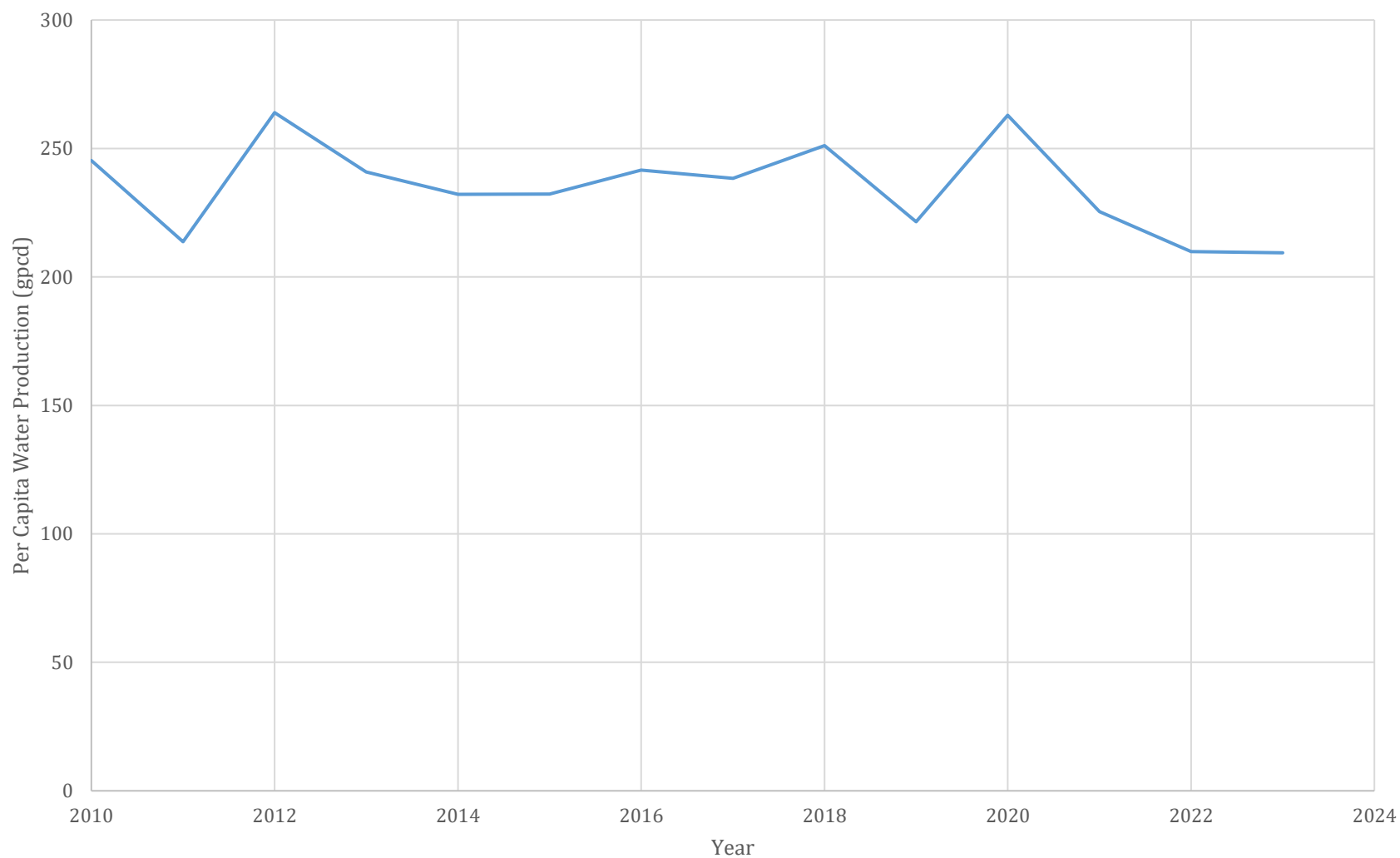


Figure 5: Historic Per Capita Water Production

Figure 5 shows the City's per capita total (culinary & irrigation only) water production has an overall downward trend from 2010 to 2023. The highest per capita production of water was in 2012 likely due to extreme dry weather. The City's conservation efforts will need to consider the effect of drought and dry weather on water use demands so that future conservation goals can be achieved, even under dry weather conditions. Overall, Figure 5 indicates that since 2010, Murray City has had a downward trend of per capita water sales.

Current Per Capita Water Use

An analysis of Murray City's current culinary water use was completed. Water use for 2023 is summarized in Table 5.

Table 5
Water Demands for Existing Conditions

		2023 (Existing)
Total Water Use (Residential + Non-Residential)	<i>mg</i>	3,175
Residential Population		42,002
Average Day Demand (ADD)	<i>mgd</i>	8.7
	<i>gpm</i>	6,040
	<i>gpcd</i>	207
Peak Day Demand (PDD)	<i>mgd</i>	22.0
	<i>gpm</i>	15,244
	<i>gpcd</i>	523
Peak Hour Demand (PHD)	<i>mgd</i>	31.0
	<i>gpm</i>	21,495
	<i>gpcd</i>	737
Peak Day Factor		2.52
Peak Hour Factor		3,175

CONSERVATION GOAL WITH MILESTONES

The State of Utah recently adopted regional water conservation goals for the State of Utah that focus on regions of water use driven primarily by dominant river drainages. Murray city is part of the Salt Lake regional area. The adopted goals establish 2015 as the baseline year to compare to for conservation. Murray City's desired conservation goals are summarized in Table 6. Figure 6 shows the City's culinary water projection with and without conservation.

The City recognizes that the per capita goal for 2030 is less than the Salt Lake Regional goal. This is primarily because the City's baseline starting point is significantly higher than the Salt Lake Regional baseline. This may be a result of a large commercial base in Murray City and/or due to larger lot sizes in the City that are typical of the older single family homes within the City. For example, the City's standard for service connections has been 1-inch for many years because smaller services were found to have inadequate capacity for the larger lot sizes. As higher densities are developed within the City, the long-term Salt Lake region goals can be met; but it may take longer to reach proposed goals than for the region as a whole.

Table 6
Conservation Goal with Milestones Through 2065

Year	Salt Lake Regional (gpcd)	Murray Per Capita Water Use Goal (gpcd)	Murray Percent Reduction Goal
2015	210	220 ¹ (Baseline)	0%
2030	187	196	11%
2040	178	187	15%
2065	169	167	24%

¹ The baseline is based on the City's approximate 10-year average annual demand per capita per day. The 10-year average was used instead of the 2015 annual demand because 2015 was an unusually low water use year for the city.

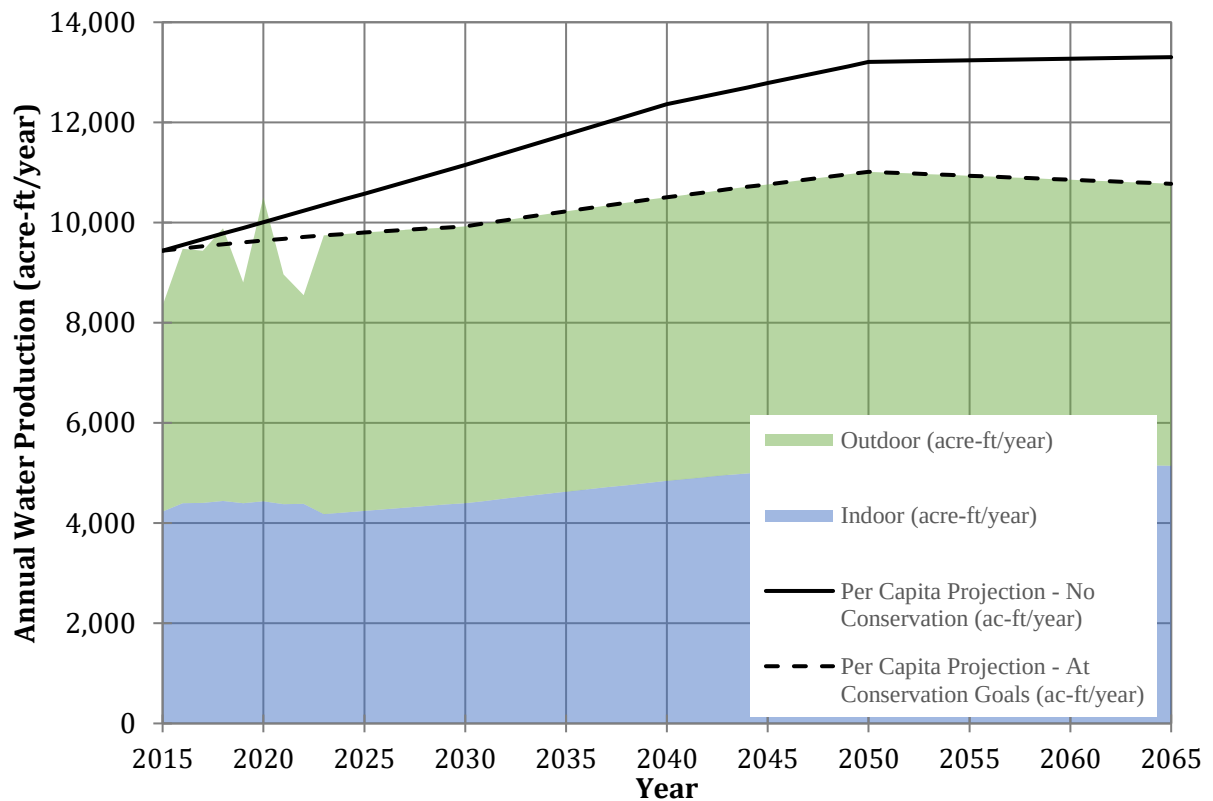


Figure 6: Culinary Demand with and without Conservation

Measuring Savings from Conservation

Figure 7 shows historic culinary water production on a per capita basis compared to the historic and proposed City conservation goal. As can be seen, Murray City is on track with their per capita conservation goals with some expected variation in dry years. To track how well the City is doing in achieving its conservation goal in the future, the City will continue to annually estimate per capita water demands based on yearly metered sales data and an updated population estimate as a function of new system connections.

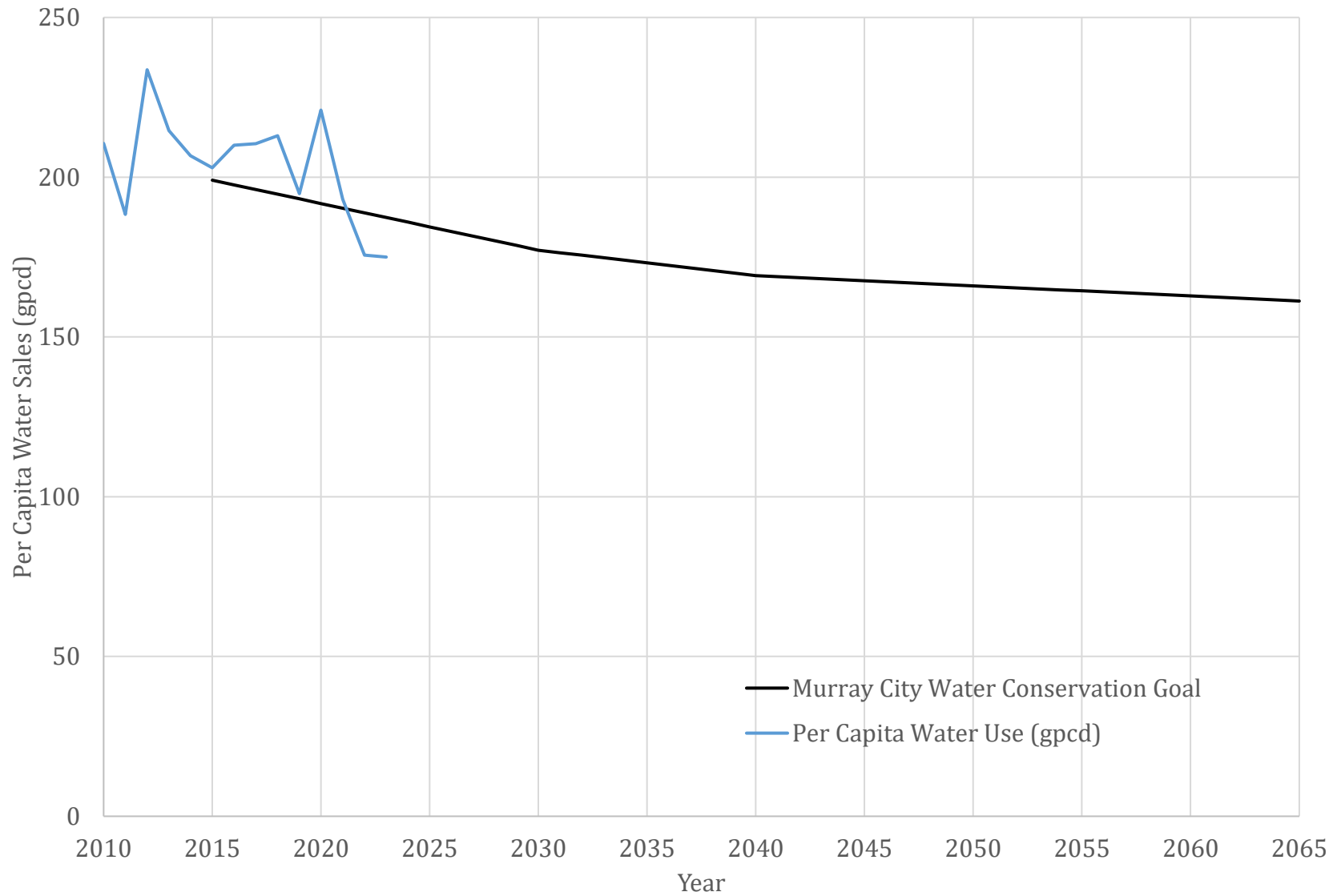


Figure 7: Historic & Future Conservation Goal Per Capita Water Use

EFFECT OF CONSERVATION ON FUTURE WATER SUPPLY AND DEMAND

The City has experienced large amounts of growth in the past and Murray City planning personnel estimate an average growth rate of 1 percent for the next 10 years, followed by slow and steady growth until buildout. The historic and projected population estimates for the Murray City water service area are shown in Table 7.

Table 7
Murray City Historic and Projected Population Estimates

Year	Murray City Overall Population Projection ¹	Water Service Area Residential Population	Water Service Area Projected Growth Rate
2010	46,746 ²	34,269 ²	-
2015	49,250 ²	36,105 ²	1.05%
2020	50,637	38,340	1.21%
2025	54,904	42,927	2.29%
2030	57,540	46,969	1.82%
2035	60,241	51,011	1.66%
2040	62,941	55,053	1.54%
2045	69,011	59,095	1.43%
2050	75,080	63,137	1.33%
2055	77,090	64,632	0.47%
2060	79,100	66,127	0.46%
2065	81,110	67,622	0.45%

¹ Population projections are for the City's corporate boundary (larger than Murray Water service area)

² Based on 2015 Water Master Plan.

As Murray City continues to develop at higher densities through redevelopment, reductions in per capita demand are anticipated as a result of reduced per capita outdoor demand. This is because outdoor irrigated areas are not anticipated to increase significantly over time and may actually decrease. For the purpose of this conservation and the water master plan, it has been assumed that minor increases in outdoor demands will continue through 2025 and will plateau at approximately 17.6 mgd of peak day outdoor demand.

As housing densities increase within the Murray City Water service area, additional reductions in per capita use are anticipated as a result of reduced per capita outdoor demands and conservation. Figure 8 shows the projected annual demands in the Murray Water Service area through 2065 given indoor demands and outdoor demands. Outdoor demand projections are extrapolated from outdoor demands recorded in 2020 (a relatively dry and warm climate year without major conservation efforts) while accounting for future conservation.

Outdoor conservations efforts alone are expected to reduce per capita demands by 24% to 167 gallons per capita per day between 2015 and 2065. During this time indoor demands increase. Therefore, additional indoor conservation would result in an even lower per capita demand. Table 8 summarizes the existing and future water demands given outdoor conservation efforts. Table 8 also calculates existing and future peak day and peak hour factors. Peak day and peak hour factors are expected to decrease in the future due to outdoor conservation efforts. Peak water demands typically

occur in the summer due to high irrigation demand. If irrigation demands are reduced, because of outdoor conservation efforts, we can expect peaking factors to reduce in tandem.

Table 8 shows the per capita demand for residential and non-residential customers, and the State defined per capita demand using the State of Utah's calculation method. Each calculation method was included in Table 9 because only about half of Murray's total water use is used by residential connections.

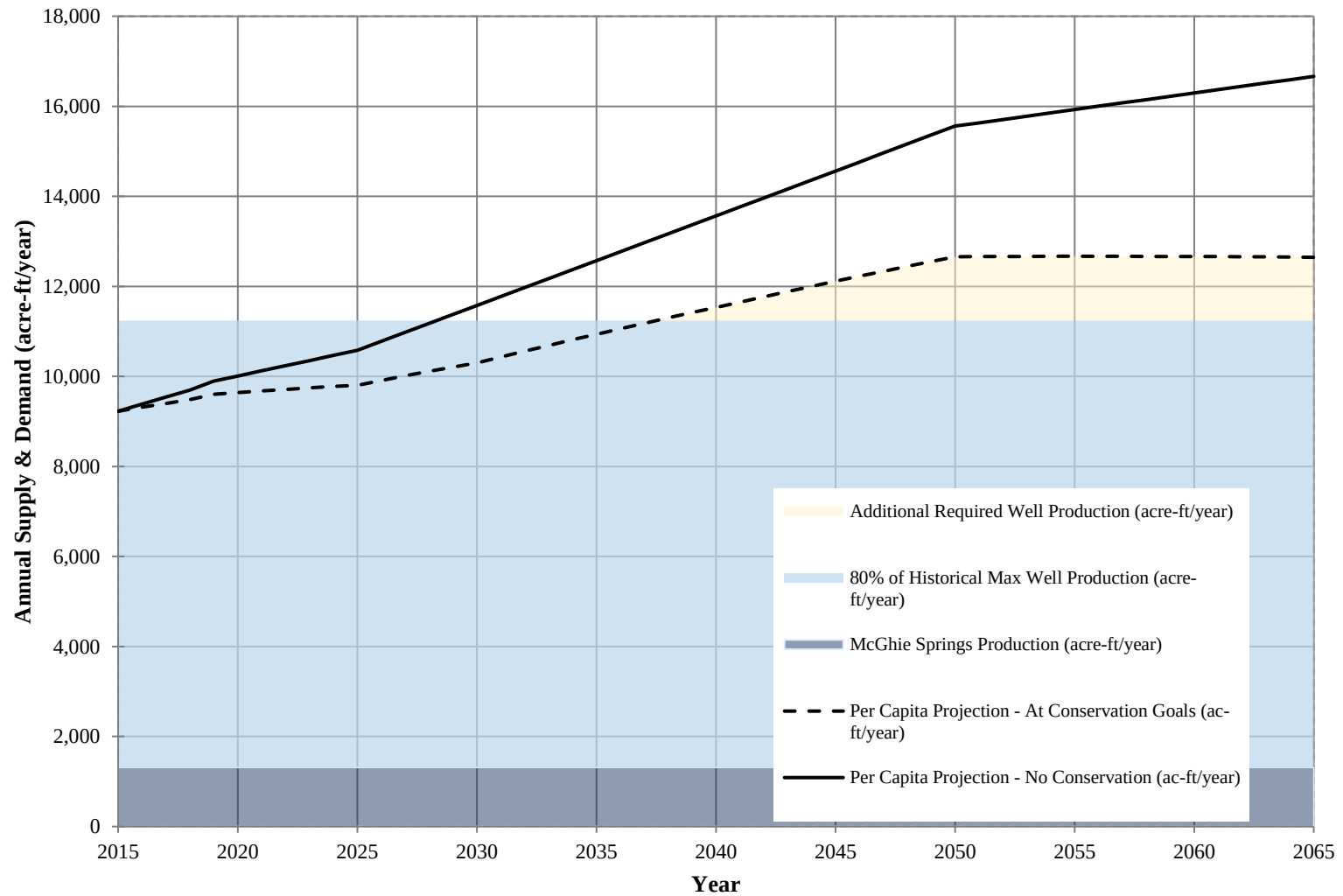
Table 8
Murray City Historic and Projected Population Estimates

		2023 (Existing)	2065 (Build Out)
Total Water Use (Residential + Non-Residential)	<i>mg</i>	3,175	4,120
Residential Population		42,002	67,622
Average Day Demand (ADD)	<i>mgd</i>	8.7	11.29
	<i>gpm</i>	6,040	7,839
	<i>gpcd</i>	207	167
Peak Day Demand (PDD)	<i>mgd</i>	22.0	26.20
	<i>gpm</i>	15,244	18,197
	<i>gpcd</i>	523	387
Peak Hour Demand (PHD)	<i>mgd</i>	31.0	36.95
	<i>gpm</i>	21,495	25,657
	<i>gpcd</i>	737	546
Peak Day Factor		2.52	2.32
Peak Hour Factor		3,175	3.16

Table 9
2022 Water Demands for Residential and Non-Residential Use¹

Demand	Residential	Non-Residential
Average Day Demand (gpcd)	150	56
Indoor Demand (gpcd)	61	23
Peak Day Demand (gpcd)	327	123
Peaking Factor (PDD/ADD)	2.18	2.18
Indoor Peaking Factor	1.25	1.25
Peak Indoor Demand (gpcd)	76	29
Average Household Size	2.51	-
Peak Day Demand for Average Household (gpd)	821	-
Peak Day Indoor Demand for Average Household (gpd)	191	-

¹ 2022 data was used in this analysis because a breakdown of residential versus non-residential water use in 2023 was not yet available.



*McGhie Springs production is based on dry year production (2020) for reliable spring yield.

*Reliable yield for wells was calculated at 80% of the maximum annual well production for each well between 2017 and 2022. The non-potable Germania well accounts for 612 acre-ft of the reliable well yield.

Figure 8: Projected Supply/ Demand with and without Conservation

Because most growth in the City will primarily increase indoor water demands, annual use of well supplies is anticipated to go up as wells will be used more throughout the year to meet indoor demands. This is shown in Figure 8 as densities increase in the City and annual demands increase with residential and nonresidential indoor demands. Fortunately, peak day demands are not anticipated to be above available peak day supply. With the implementation of their conservation goals (Table 6) the City has sufficient supply for their projected demands. Although the City has sufficient water rights for predicted increases in annual demand, there is still concern about groundwater sustainability over time.

Conservation will help the City be better prepared for potential supply reductions associated with climate change, groundwater depletion, and/or drought years. Figure 8 illustrates why water conservation is essential to Murray City's long-term water supply plan.

WATER CONSERVATION PRACTICES

The following sections document both existing and proposed water conservation practices in the City. To organize the information, each section groups conservation practices by the following major conservation categories:

- Conservation Public Awareness Practices
- Education and Training Practices
- Rebates, Incentives, and Rewards
- Ordinances and Standards
- Water Pricing
- Improvements to Physical System

Current Conservation Practices

Each water conservation program that Murray City is currently implementing is discussed in detail below (organized by major conservation categories):

Conservation Public Awareness Practices:

- ***Elementary Education Program (Water Wise Kids)*** – Murray City has partnered with the National Energy Foundation (NEF) to implement a water wise education program for all 4th grade students in the Murray School District. The program includes classroom presentations to these students on water and conservation. The City provides the students with a take home water kit that includes toilet leak detector tablets, a dual spray swivel aerator and a shower timer. The City also holds a drawing contest that coincides with the WaterSense “Fix a Leak Week” that the students participate in and awards prizes to winners from each of the schools. The overall winner of the contest wins a pizza party for their entire class. Participating teachers have evaluated this program with very high reviews and responded that they would conduct this program again and recommend it to their colleagues.
- ***“Tap Into Murray Quality” Campaign*** – Murray City's ongoing “Tap Into Murray Quality” campaign has helped the City develop and maintain a relationship with its customers so they can better understand the quality of the water and the services they are receiving. A large part of this campaign includes conservation activities.
- ***Public Outreach Booths*** – The City's water department is actively involved in providing public outreach booths at various community events including the Farmers Market, youth soccer games or sporting events, 4th of July activities and other local activities. The City uses

these opportunities to distribute water conserving materials and educate the community members about conservation and the City's water system.

- **Earth Day** – Each year to help celebrate Earth Day the City holds an event for 4th grade students and teaches the kids ways they can help conserve water around their home. After a short presentation, the students receive water bottles and backpacks with the City's conservation logo on them.
- **WaterSense Program Partner** – WaterSense is a voluntary partnership program created by the United States Environmental Protection Agency (EPA) with a goal of protecting the nation's water supply by promoting and enhancing the market for water-efficient products and services and consistently spreading the message of water efficiency. Murray City has utilized many of the tools provided by WaterSense. The City also participates in many of the events including Fix A Leak Week and Shower Better Week.
- **Consumer Confidence Report** – Each year, water conservation information is included in the consumer confidence report. This report is sent to all Murray City customers and is posted on the City's web site. The report also includes information on the City's water sources, water quality information, and conservation tips.
- **Online/Social Media** – The City's website provides information about conservation as well as links to other conservation-oriented websites. Conservation messaging is also posted on and distributed through social media.
- **Water Wise Landscaping** – Many of the City's landscapes have been converted to water wise landscaping. The increased use of water wise landscaping and the installation of rain sensors has helped the City conserve water and demonstrate outdoor water conserving practices.
- **Water-Waster Notification Program** – The City maintains a water-waster notification program where citizens can call in and report an observed water-waster. As water wasters are identified, an employee of Murray Water Department contacts the customer and provides tips on indoor and outdoor water conservation to help the customers reduce their usage.
- **High Consumption Notices** – The City sends "high consumption/possible leak" notices to customers when their monthly consumption is higher than normal.

Education & Training Practices:

- **Fix a Leak Week** – For Fix a Leak Week the City partnered with Lowe's and local plumbers to help encourage residents to find and fix water leaks. As part of Fix a Leak Week the City set up a public outreach booth at Lowe's to advertise the WaterSense Rebate Program and gave away WaterSense labeled toilets, faucets, and shower heads. The City distributed leak test kits for toilets, Murray City Water t-shirts and water bottles. The City also partnered with local plumbers who gave special discounts to customers and encouraged community members to take advantage of the rebate program.
- **Shower Better Month** – As part of Shower Better Month the City had showerhead giveaways, encouraged residents to replace inefficient showerheads and take advantage of our WaterSense Rebate program.

Rebates, Incentives & Rewards:

- **WaterSense Rebate Program** – The City actively participates in the WaterSense Rebate Program. Rebates are valued at \$150 per toilet and \$25 per showerhead for customers who replaced their existing toilet/showerhead with a new EPA WaterSense labeled version. Over

the years customers have taken advantage of the rebates and have replaced 332 toilets and 86 for shower heads with new, more efficient ones.

- ***Flip Your Strip Program*** – This program encourages the removal of turf grass in parking strips as the primary landscape feature. Replacement of turf with more drought tolerant options is encouraged. Eligible customers can receive a discount of \$1.50 per square foot of converted park strip.
- ***Utah Rivers Council's RainHarvest Program*** – The City has partnered with Utah Rivers Council RainHarvest program to reduce the cost of the rain barrels for their residents. This program encourages community members to collect rainwater, reduce culinary water use and improve water quality of rivers, streams, and lakes.
- ***Toilet Replacement*** – Residents can receive up to \$150 by replacing an old toilet (manufactured before 1994) with a WaterSense labeled toilet.
- ***Smart Controller*** – Residents can receive a rebate up to \$100 when they purchase an eligible WaterSense labeled smart controller. Smart controllers encourage conservation by automatically adjusting landscape watering based on local weather and landscape conditions.
- ***Showerhead*** – Residents can receive rebates of up to \$25 per showerhead when replacing a showerhead with a new EPA WaterSense labeled version. The use of WaterSense labeled showerheads conserves water at the use point.
- ***Turf Trade*** – The City started its participation in this program in 2024. Murray City provides offer Turfgrass Water Conservation Alliance (TWCA) seed to our residents at cost. This grass seed requires 30% less water than typical Kentucky Bluegrass. Residents can purchase this from Murray City Water every Friday from the first Friday in April through the last Friday in September. In 2024, 211 residents participated and 620 five lb bags of seed were distributed, enough to replace over 7 acres of typical Kentucky Bluegrass.

Ordinances & Standards:

Murray City has some existing ordinances intended to encourage water conservation:

- ***Ordinance 13.08.140: Executive orders of mayor Limiting Use of Water*** – This ordinance states that in the event of scarcity of water, the Mayor has the power to place restrictions on water use and provide penalties for those not in compliance.
- ***Ordinance 13.08.120: Wasting Water Prohibited*** – This ordinance prohibits the pressurized irrigation of landscape between the hours of ten o' clock (10:00) A.M. and six o' clock (6:00) P.M. any violation of this ordinance results in a penalty for those not in compliance.

Water Pricing:

- ***Tiered Water Pricing Schedule*** – In 2018 the City established a new tiered rate structure to encourage water conservation (full rate schedule is in Figure 3). All water connections are charged a monthly base rate based on the meter size with no monthly water allowance included in the base rate. Each tier in the structure charges a higher rate based on the quantity of water being used.

Improvements to Physical System:

- **Mainline Replacement Program:** Murray City has repaired and replaced 1 percent of Murray City's distribution pipe network on an annual basis.
- **Upgraded SCADA Control System:** There are continuous improvements to the SCADA system to increase the overall water system operating and reporting efficiency. The City is currently transitioning their Automated Meter Reading (AMR) system to an Advanced Metering Infrastructure (AMI) system. Completion of this project is underway to be completed by 2025. AMI systems automate collection of meter data around the City and can actively measure use, identify leaks, and educate customers on use. Generally, AMI technology can help encourage water conservation more for each customer by helping customers proactively monitor water use. The customer portal provides 24-hour leak detection notifications to customers.
- **Smart Controls:** Some City -owned landscapes have been equipped with smart controls. Smart controls automatically adjust the time and frequency a landscape is irrigated based on local weather and landscape conditions to reduce waste.
- **Rain Sensors** – Some City-owned landscapes have been equipped with rain sensors. These devices can detect rainfall events and send messages to the central control computer, indicating how much precipitation has been received at the site and can terminate a watering cycle when the precipitation makes irrigation unnecessary.

New Conservation Practices Planned for Implementation

There are several new conservation practices that the City has either recently started to implement or will implement in the next five years. The following sections describe each conservation practice and Table 10 summarizes the implementation schedule, estimated costs, and measurement of progress for each practice.

Conservation Public Awareness Practices:

- **Public Outreach.** Murray City plans to maintain existing programs including:
 - o Active participation and outreach at community events such as the 4th of July and Earth Day activities
 - o Elementary Education Program (Water Wise Kids)
 - o WaterSense Program Partner
 - o Consumer Confidence Report
 - o Social Media Updates
 - o Water Waster Notification Program
 - o High Consumption Notices
- **Water Conservation Plan** – Update the Water Conservation Plan by 2029 in adherence with ordinances to update water conservation plans every five years.

Education & Training Practices:

- **Public Education Efforts.** Public education efforts will consist of maintaining the existing programs including:

- o Shower Better Month

Rebates, Incentives & Rewards.

- **Potential Rebates** – Murray City plans to maintain existing rebate, incentive, and reward programs including:
 - o Flip Your Strip
 - o Utah Rivers Council's RainHarvest program
 - o Toilet Replacement
- Smart Controller
- Shower Head

Ordinances & Standards:

- **Utah Water Savers Program Efficiency Standards.** Murray City Council has had discussions on whether to adopt the Utah Water Savers Program efficiency standards. These standards encourage the use of native landscaping to decrease the outdoor water demands and aid in water conservation. These standards should be reconsidered.
- **Minimum service size.** Murray City to consider a new ordinance to allow and promote 3/4" meters and services for Multifamily units with no irrigation responsibilities. The City's current minimum service size for new development is 1". This has the following benefits:
 - o Customers who share the cost of water via master meters are not able to correct water wasting behaviors or leaks because they do not know or cannot quantify if they are wasting water.
 - o Billing each meter allows individual users to benefit from conservation or conversely pay for higher use if they are a high-volume user.

Water Pricing:

- **Update Tiered Water Rate Pricing to Further Incentivize Conservation** – Murray City currently has a tiered water rate structure that encourages conservation. This water rate has not been updated since 2018 and a new water rate study needs to be completed to ensure that the pricing of the water system is self-sustaining for the water utilities.

Improvements to Physical System:

- **AWWA Water Audit Program** – Participate in the AWWA Water Audit Program. This program helps water suppliers quantify system water loss and associated revenue losses. The City will participate in at least one additional water audit by 2026.
- **Pipe Replacement Program:** Replace and repair 1 percent of Murray City's distribution pipe network on an annual basis so that the entire system is replaced within the 100-year service life of a pipe network.
- **Well Sustainability Study** – Murray City plans to conduct a well sustainability study specifically to determine a reliable aquifer yield to ensure no serious aquifer depletion is occurring. Wells are the main source of water supply in Murray City and as such ensuring sustainable use of aquifer is paramount to water supply for future growth.
- **Investigate Leak Detection Technologies** – Murray City will meet with advanced leak detection equipment vendors to explore options to identify leaks via new technologies. A budget or plan will be created if research shows merit to available options.

Table 10
Implementation Schedule, Estimated Costs & Measurement of Progress

New Conservation Practices	Implementation Timeline	Estimated Cost	Measurement of Progress
Maintain Public Outreach Programs	Ongoing	Varied	Completion of any of the listed activities (See New Conservation Practices)
Water Conservation Plan	Complete by 2024 & 2029	\$10,000	Completion of Report
Public Education Efforts	Ongoing	Varied	Completion of any of the associated tasks recommended (See New Conservation Practices)
Promote Rebates	Ongoing	Varied	Complete any of the associated tasks recommended (See New Conservation Practices)
Utah Water Savers Program Efficiency Standards	Complete by 2029	\$0	Ordinance adopted
Water Rates Study	Complete by 2024	\$20,000	New adopted water rates
AWWA Water Audit Program	Complete by 2026	\$5,000	Completed audit score and record
Pipe Replacement Program	Ongoing	\$3 million/year	Completion of associated tasks recommended (See New Conservation Practices)
Leak Detection technology Investigation	Complete 2025	\$0	Meet with at least three vendors
Well Sustainability Study	Complete by 2029	\$70,000	Completion of aquifer reliable yield report

WATER CONSERVATION COORDINATOR

All water conservation coordination, implementation, monitoring, and reporting initiatives set forth by the department are assigned to the Water Division of the Murray City Public Works Department.

WATER CONSERVATION PLAN AUTHOR(S)

This plan was prepared by Bowen Collins & Associates at the Draper office with feedback from City staff:

Bowen Collins & Associates
154 E. 14000 South
Draper, Utah 84020
801.495.2224 Office

Primary authors of the plan are:

Andrew McKinnon, P.E.
amckinnon@bowencollins.com

Rachel Valek
rvalek@bowencollins.com

MURRAY CITY CONTACTS

Murray Water Division Office
4646 S. 500 W.
Murray, UT 84123
801.270-2440

Aron Frisk Murray City Water Superintendent
AFrisk@murray.utah.gov

DRAPER, UTAH OFFICE

154 E 14075 S
DRAPER, UTAH 84020
PHONE: 801.495.2224

BOISE, IDAHO OFFICE

776 E RIVERSIDE DRIVE
SUITE 250
EAGLE, IDAHO 83616
PHONE: 208.939.9561

ST. GEORGE, UTAH OFFICE

20 NORTH MAIN
SUITE 107
ST.GEORGE, UTAH 84770
PHONE: 435.656.3299

OGDEN, UTAH OFFICE

2036 LINCOLN AVENUE
SUITE 104
OGDEN, UTAH 84401
PHONE: 801.495.2224



BOWEN COLLINS
& A S S O C I A T E S

WWW.BOWENCOLLINS.COM

RESOLUTION NO. R24-75

A RESOLUTION APPROVING THE 2024 MURRAY CITY WATER
CONSERVATION PLAN

WHEREAS, Murray City has prepared a 2024 Water Conservation Plan
("Conservation Plan"); and

WHEREAS, a copy of the Conservation Plan is available for public inspection on
the City's public website and at the Murray City Public Works Department, located at
4646 South 500 West, Murray, Utah; and

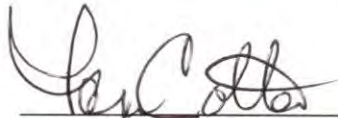
WHEREAS, the Council has reviewed the Conservation Plan and after
considering the public input, the Council is prepared to approve and adopt the
Conservation Plan.

NOW, THEREFORE, BE IT RESOLVED by the Murray City Municipal Council as
follows:

1. It hereby adopts the 2024 Murray City Water Conservation Plan.
2. The 2024 Murray City Water Conservation Plan shall be available for public
inspection at the office of the Department of Public Services, 4646 South 500
West, Murray Utah.

DATED this 3rd day of December 2024

MURRAY CITY MUNICIPAL COUNCIL



Pam Cotter, Chair

ATTEST:



Brooke Smith, City Recorder



MURRAY CITY CORPORATION

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that on the 3rd day of December 2024, at the hour of 6:30 p.m. of said day in the Council Chambers of Murray City Center, 10 East 4800 South, Murray, Utah, the Murray City Municipal Council will consider and intends to approve by resolution the 2024 Murray City Water Conservation Plan. A copy of the 2024 Murray City Water Conservation Plan will be available for public inspection on the City's public website and at the Murray City Public Works Department offices located at 4646 South 500 West, Murray, Utah 84123.

The purpose of this hearing is to receive public comment concerning the proposed approval of the 2024 Murray City Water Conservation Plan as described above.

DATED this 13th day of November 2024.



MURRAY CITY CORPORATION

A handwritten signature in blue ink, which appears to read "Brooke Smith", is written over a horizontal line.

Brooke Smith
City Recorder

DATE OF PUBLICATION: November 18, 2024
PH24-45

LOCATIONS OF POSTING – AT LEAST 14 DAYS BEFORE THE DATE OF THE PUBLIC HEARING

1. Utah Public Notice Website
2. Murray City Public Website
3. Posted at City Hall (Public location reasonably likely to be seen by residents)

**MURRAY CITY MUNICIPAL COUNCIL
COUNCIL MEETING**

Minutes of Tuesday, December 3, 2024

Murray City Hall, 10 East 4800 South, Council Chambers, Murray, Utah 84107

Attendance:

Council Members:

Paul Pickett	District #1
Pam Cotter	District #2 – Council Chair
Rosalba Dominguez	District #3
Diane Turner	District #4
Adam Hock	District #5 – Council Vice-Chair

Others:

Brett Hales	Mayor	Jennifer Kennedy	City Council Executive Director
Doug Hill	Chief Administrative Officer	Pattie Johnson	Council Administration
Brooke Smith	City Recorder	Mark Richardson	Deputy Attorney
Craig Burnett	Police Chief	Brenda Moore	Finance Director
Lori Edmunds	Cultural Arts Director	Traci Black	Parks Department
Kim Sorensen	Parks & Recreation Director	Phil Markham	CED Director
Greg Bellon	Power Director	Matt Youngs	Assistant Power Director
Russ Kakala	Public Works Director	Elvon Farrell	Economic Development Specialist
Ben Ford	Wastewater Superintendent	Aaron Frisk	Water Superintendent
Stephen Olsen	Assistant Fire Chief	Joey Mittelman	Fire Chief
Zac Smallwood	Planning Manager	Rob White	IT Director
Citizens & Guests			

Call to Order: 6:30 p.m. – Vice Chair Hock

Approval of Minutes: Council Meeting, November 12, 2024.

MOTION: Ms. Turner moved to approve, and Ms. Cotter SECONDED the motion.

Voice vote taken, all “Ayes.” Approved 5-0

Special Recognition:

- **Recognition of Station 81 Crew and Rick Johansen.** Assistant Fire Chief Travis Bodtcher explained how Northview Firefighter Rick Johansen and Murray Fire Station 81-C crew members acted to save a life. He reviewed the actions taken by off duty Firefighter Johansen who came up the patient and sustained CPR for six minutes until Murray firefighters and paramedics arrived at the scene to assist. Each firefighter/paramedic was commended for heroic measures and was presented with a Life Saver Award by Murray Fire Chief Mittelman.

Citizen Comments:

Sonya Jensen – Murray Resident

Ms. Jensen said this was her second time to address the Council about ongoing crime issues at the apartments across from her home on Fairbourne Avenue which have turned deadly now. Property owners of the apartment complex are Highland Partners. She reported frequent police activity, provided exact dates and times of events including incidents involving guns, SWAT teams, and the fatal shooting on November 21, 2024. She expressed concern for the safety of nearby children and described a deteriorating quality of life for her and her neighbors. She said they no longer feel safe using their front yards or allowing children to play outside. She stressed that as the crime continues to escalate, she fears someone else will be shot. She urged the Council to hold the property owners accountable, stating no resident should have to live under such conditions that feel like a war zone.

Scott Hansen – Murray Resident

Mr. Hansen expressed support for the two UAMPS power supply proposals to be considered by City Council. He said having worked as a risk manager in the energy industry for 38 years, he had knowledge and experience in the industry. As someone who strongly supported green energy, he wanted to share that the technology to go 100% green is not there. He favored natural gas and said natural gas was a natural fit with low emissions that supports peak, power generation and base load power.

DeLynn Barney – Murray Resident

Mr. Barney raised concerns about parking issues in downtown Murray near his home. He urged the City to review parking ordinances for businesses parking near residential areas. He expressed gratitude to the first responders who were awarded special recognition and shared his personal appreciation for a medical team that saved his life in the past.

Consent Agenda:

1. **Consider confirmation of the Mayor's appointment of Aaron Hildreth to the Planning Commission for a term beginning January 2025 through January 2028.**
2. **Consider confirmation of the Mayor's appointment of Traci Black to the Arts Advisory Board for a term beginning January 2025 through January 2028.**
3. **Consider confirmation of the Mayor's reappointment of Blair Lyon to the Arts Advisory Board for a term beginning January 2025 through January 2027.**
4. **Consider confirmation of the Mayor's reappointment of Pace Gardner to the Arts Advisory Board for a term beginning January 2025 through January 2027.**

Mayor Hales introduced those citizens who were in attendance and requested that the City Council approve each proposed appointment.

MOTION: Ms. Cotter moved to approve the Consent Agenda. Ms. Dominguez SECONDED the motion.

Council Roll Call Vote:

Mr. Pickett	Aye
Ms. Cotter	Aye
Ms. Dominguez	Aye
Ms. Turner	Aye
Mr. Hock	Aye
Motion passed:	5-0

Public Hearings:

1. **Consider a resolution approving the 2024 Murray City Water Conservation Plan.** Water Superintendent Aaron Frisk recapped about the previous Committee of the Whole work session when Council Members learned about the proposed Water Conservation Plan. Mr. Frisk said the conservation plan would be made available on the City's website and at the City's public works facility.

The public hearing was open for public comments. No comments were given, and the public hearing was closed.

MOTION: Ms. Turner moved to approve the resolution. Ms. Dominguez SECONDED the motion.

Council Roll Call Vote:

Mr. Hock	Aye
Mr. Pickett	Aye
Ms. Cotter	Aye
Ms. Dominguez	Aye
Ms. Turner	Aye
Motion passed:	5-0

2. **Consider an ordinance enacting Section 17.76.190 of the Murray City Municipal Code relating to residential short-term rentals and amending Sections 17.76.020 and 17.84.060 of the Murray City Municipal Code relating to the determination of permitted and conditional uses.** Planning Manager Zachary Smallwood reviewed the reason the City was addressing STRs (short-term rentals) now was due to a statistics report put out by the Kem C. Gardner Policy Institute in October in 2024 that related to shared housing along the entire Wasatch Front. The report indicated that STRs increased significantly between 2022 and 2023 according to census tracking data, which included an increase in the Murray area.

Mr. Smallwood explained that when staff first received a business license application for a STR property, they realized that the City had no specific zoning ordinance that allowed or outlawed them. This created a loophole in City Code so a moratorium was placed on STRs until a decision could be made about how the City would handle them. He confirmed that staff had met with Council Members numerous times and in workshops to discuss policy guidance before the moratorium would expire in January 2025. As a result the city would like an ordinance that allows STRs to operate responsibly, with minimal disruption to neighborhoods, while still protecting housing availability and create a framework for fair enforcement.

Mr. Smallwood said the proposed ordinance does not allow for unhosted sharing or dedicate vacation rentals in the City of Murray and the hope is to work towards a more lenient policy going forward. Staff would reevaluate the ordinance in one year and return to the Council with feedback about how the enforcement was going. For now the proposal is that all STRs must be hosted sharing, meaning the owner is present during the guests stay. Mr. Smallwood reviewed parking requirements, details related to enforcement and how the ordinance would help maintain integrity of neighborhoods, encourage responsible hosting and provide clear direction for the City allowing the City to enforce with more objective criteria. Mr. Smallwood noted findings to confirm why staff supports the proposal and why the Planning Commission voted 4-3 to forward a positive recommendation to the City Council on October 17, 2024.

The public hearing was open for public comments.

Joe Christensen – Murray Resident

Mr. Christensen shared his experience as a STR owner by suggesting one recommendation to the proposed ordinance. He explained that parking requirements should not be related to the number of bedrooms in a STR. Because a single bedroom can accommodate more than one guest, bedrooms should be limited to just two guests, with two extra people. This would deter large groups of people from showing up to stay. He believed property managers have more guests when more beds are placed in bedrooms and STRs end up housing large groups of people. When multiple families show up and large parties are hosted neighborhoods and communities are negatively impacted. He expressed appreciation for the City's efforts to regulate STRs.

The public hearing was closed.

Mr. Smallwood said the suggested bedroom restriction was a great idea that would be more applicable if the City were implementing unhosted STRs or dedicated vacation rentals. He would consider applying bedroom regulations when staff reevaluates the Code in one year.

Ms. Dominguez asked how the new ordinance would affect existing STRs. Mr. Smallwood said they would not be subject to the new rules, they would be grandfathered in and be required to register with the City and obtain a business license. This way all STRs could be tracked going forward and if a STR did not operate for a year, the non-conforming status would no longer apply.

Mr. Pickett asked how property tax revenue was affected by STRs. Finance Director Brenda Moore said homeowners living full-time at their residence would qualify for the residential exemption. However, if a property is owned by a corporation with no individual residing on site as the owner, the STR would be classified as commercial property and would not qualify for the residential exemption.

MOTION: Ms. Turner moved to adopt the ordinance. Mr. Pickett SECONDED the motion.

Council Roll Call Vote:

Mr. Pickett	Aye
Ms. Cotter	Aye
Ms. Dominguez	Nay
Ms. Turner	Aye
Mr. Hock	Aye
Motion passed:	4-1

Ms. Dominguez supported the Council's work on the STR ordinance but thought it was too strict. She felt funding, staffing and software alone could manage STRs without requiring home occupancy. She proposed adding a covenant to prevent corporations from buying neighborhood properties, which she believed inflates housing costs and limits access to ownership for low-income residents.

3. **Consider an ordinance amending Sections 12.28.030 and 12.28.040 of the Murray City Municipal Code related to Golf Course fees.** Parks Director Kim Sorensen said the request to amend the existing ordinance was related to increasing golf fees by 11% at the Murray Parkway. The cost for nine holes would increase from \$18 to \$20, 18-holes from \$36 to \$40 and a new fee of \$15 would be added for a shotgun round. Mr. Sorensen confirmed that golf fees had not increased in two years and that the proposed increase would better align Murray Parkway with similar golf courses.

The public hearing was open for public comments. No comments were given, and the public hearing was closed.

MOTION: Mr. Pickett moved to approve the ordinance. Ms. Cotter SECONDED the motion.

Council Roll Call Vote:

Mr. Pickett	Aye
Ms. Cotter	Aye
Ms. Dominguez	Aye
Ms. Turner	Aye
Mr. Hock	Aye
Motion Passed:	5-0

4. **Consider an ordinance annexing real property located between approximately Van Winkle Expressway to 900 East and 4800 South to the Boundary of Murray City at 4840-4890 South.** City Recorder Brooke Smith gave an overview and history about the annexation request and the

requirements to submit a notice of intent. She discussed a timeline regarding the efforts made to process the request that involved a few setbacks. Ms. Smith said all legal requirements for the annexation petition had been met as per Utah Code Title 10, Chapter 2, Part 4 and the proposal was ready for final consideration.

The public hearing was open for public comments.

Mark Burgess – Murray Resident.

Mr. Burgess expressed gratitude to the City for considering the annexation saying he could not think of a better municipality in the county that he would rather be a part of. He shared challenges and frustrations of the past related to getting help to the area from various police forces due to being a small county island. He expressed happiness for knowing that Murray police officers might be serving his area now.

Steve Aste – Cottonwood Heights resident and Murray Business Owner.

Mr. Aste said his business was located in the annexation area and wondered if the zoning would change once the annexation was approved. He and his staff enjoyed the existing views that cover the sides of the Van Winkle Expressway. He did not want to see condominiums constructed in those natural areas.

Marv Hendricks – Murray Resident.

Mr. Hendricks shared enthusiasm for the annexation and expressed excitement about living in Murray and not Unincorporated Salt Lake County. He said having gone through the annexation process twice, he was grateful for understanding the hard work involved and he appreciated getting to know his neighbors better through it all.

The public hearing was closed.

Ms. Cotter addressed the wetlands located near the annexation area and asked who owned them. Community and Economic Development Director Phil Markham said the wetlands and wooded areas along both sides of Van Winkle Expressway, which is tied up in water rights are watersheds owned by Salt Lake City utilities. With current water issues in Utah he believed the chances of Salt Lake City ever relinquishing the land or selling it for development were very very small.

MOTION: Ms. Cotter moved to approve the ordinance. Ms. Dominguez SECONDED the motion.

Council Roll Call Vote:

Mr. Pickett	Aye
Ms. Cotter	Aye
Ms. Dominguez	Aye
Ms. Turner	Aye
Mr. Hock	Aye
Motion Passed:	5-0

Business Items:

1. **Consider a resolution providing advice and consent to the Mayor's appointment of Chad Wilkinson as the City's Community and Economic Development Department Director.** Mayor Hales introduced Mr. Wilkinson and said Council Members met him during the previous Committee of the Whole work session. The Mayor said Mr. Wilkinson was set to be sworn into his position in early 2025, at the start of the new year.

MOTION: Ms. Turner moved to approve the resolution. Ms. Cotter SECONDED the motion.

Council Roll Call Vote:

Mr. Pickett	Aye
-------------	-----

Ms. Cotter Aye
Ms. Dominguez Aye
Ms. Turner Aye
Mr. Hock Aye
Motion Passed: 5-0

2. **Consider a resolution approving the execution of a Memorandum of Understanding between the Central Valley Water Reclamation Facility (“CVWRF”) and the City regarding their respective ownership and maintenance responsibilities.** Wastewater Superintendent Ben Ford said the purpose of the resolution was to clarify ownership boundaries and maintenance responsibilities for the two connection points that Murray City has with Central Valley Water Reclamation.

MOTION: Ms. Dominguez moved to approve the resolution. Mr. Pickett SECONDED the motion.

Council Roll Call Vote:

Mr. Pickett Aye
Ms. Cotter Aye
Ms. Dominguez Aye
Ms. Turner Aye
Mr. Hock Aye
Motion Passed: 5-0

3. **Consider a resolution approving and authorizing execution of an amendment to an Interlocal Cooperation Agreement between Murray City Corporation and Salt Lake County for a contribution of TRCC Funds to assist in financing the restoration of the Murry Theater.** Parks Director Kim Sorensen said the amendment of the agreement would extend TRCC (Tourism, Recreation, Culture and Convention) grant funding terms from December 31, 2024 to June 30, 2025.

MOTION: Ms. Dominguez moved to approve the resolution. Ms. Cotter SECONDED the motion.

Council Roll Call Vote:

Mr. Pickett Aye
Ms. Cotter Aye
Ms. Dominguez Aye
Ms. Turner Aye
Mr. Hock Aye
Motion Passed: 5-0

4. **Consider a resolution approving and authorizing execution of an amendment to an Interlocal Cooperation Agreement between Murray City Corporation and Salt Lake County for a contribution of TRCC Funds to assist funding construction of Riverview Park improvements.** Parks Director Kim Sorensen said TRCC grant funding in the amount of \$400,000 was originally received from Salt Lake County for improving Riverview Park. It was necessary to extend the terms of the agreement to December 31, 2024 from the original expiration date of September of 2024, because additional money in the amount of \$40,000 was spent in October of 2024. Approval would allow the City to collect the \$40,000 in TRCC funding to pay for the additional work that was needed.

MOTION: Ms. Cotter moved to approve the resolution. Ms. Turner SECONDED the motion.

Council Roll Call Vote:

Mr. Pickett Aye
Ms. Cotter Aye
Ms. Dominguez Aye
Ms. Turner Aye
Mr. Hock Aye

Motion Passed: 5-0

5. **Consider a resolution authorizing and approving the Power County Power Project Power Sales Contract with Utah Associated Municipal Power Systems; and related matters.** Power Director Greg Bellon discussed agenda items number five and six together. Mr. Bellon provided both resolutions that would authorize and approve two Power Sales Contracts with UAMPS (Utah Associated Municipal Power Systems). One for the Power County Power Sales Contract and the other for the Millard County Power Sales Contract. He explained that the Murray Power Department would like to be part of both projects in the future.

Mr. Bellon said the natural gas fired Peaker Plant would be a 200 megawatt facility located in Millard County Utah with a commercial operating date of 2029. The other facility called the Baseload plant, would be located in Power County, Idaho, would generate 360 megawatts of energy, would be a gas and steam turbine plant, and is referred to as a combined cycle resource. The Baseload Plant is estimated to be ready in 2031.

Mr. Bellon recapped that Council Member studied both power plants in detail in a previous work session and also in individual meetings. He expressed appreciation to the Council for thoughtful questions and concerns during those past meetings and firmly believed both proposals were the best opportunity for Murray City.

Mr. Bellon recommended that the City Council approve power sales contracts for both natural gas plants in Power County and Millard County. He explained that if approved, the first step moving forward involves completing a cluster study of each facility. Once cluster studies are completed, Pacific Corp would analyze the results to determine the impact on their system and evaluate what might be needed to begin constructing both projects. He said Murray Power staff and UAMPS agree that both resources would provide a reliable and viable power source for Murray for many years to come.

MOTION: Mr. Hock called for a motion on the Power County Power Project Power Sales Contract:

Ms. Dominguez moved to approve the resolution. Mr. Pickett SECONDED the motion.

Council Roll Call Vote:

Mr. Pickett	Aye
Ms. Cotter	Aye
Ms. Dominguez	Aye
Ms. Turner	Aye
Mr. Hock	Aye
Motion Passed:	5-0

6. **Consider a resolution authorizing and approving the Millard County Power Project Power Sales Contract with Utah Associated Municipal Power Systems; and related matters. Greg Bellon presenting.** Presentation was given as noted above.

MOTION: Mr. Hock called for a motion on the Millard County Power Project Power Sales Contract:

Ms. Dominguez moved to approve the resolution. Ms. Cotter SECONDED the motion.

Council Roll Call Vote:

Mr. Pickett	Aye
Ms. Cotter	Aye
Ms. Dominguez	Aye
Ms. Turner	Aye
Mr. Hock	Aye
Motion Passed:	5-0

Mr. Hock announced that Ms. Dominguez would be leaving the Murray City Council and this was her last council meeting. Ms. Dominguez expressed excitement for her new opportunity and shared heartfelt gratitude to the Council, Mayor, staff, citizens, and her family for the years she had the privilege to serve as a Murray City Council Member.

Mayor's Report and Questions: Mayor Hales congratulated Ms. Dominguez on her victory as member-elect of the Utah House of Representatives, representing District 35. Mayor Hales expressed gratitude to Chief Burnett and his officers for handling a recent difficult incident with a quick arrest and noted upcoming holiday events scheduled in the City.

Adjournment: 8:10 p.m.

Pattie Johnson
Council Office Administrator III