



**MURRAY**  
CITY COUNCIL

## **MURRAY CITY MUNICIPAL COUNCIL COMMITTEE OF THE WHOLE**

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**T**he Murray City Municipal Council met as a Committee of the Whole on Tuesday, December 3, 2019 in the Murray City Center, Council Chambers, 5025 South State Street, Murray Utah.

### **Council Members in Attendance:**

Dave Nicponski - Chair	District #1
Dale Cox – Vice Chair	District #2
Jim Brass	District #3
Diane Turner	District #4
Brett Hales	District #5

### **Others in Attendance:**

Blair Camp	Mayor	Janet Lopez	City Council Executive Dir.
Brenda Moore	Finance and Administration	Marie Goetsche	Murray Chamber
Cory Wells	Water Superintendent	Danny Harris	IT
Jon Harris	Fire Department	Kat Martinez	Citizen
Doug Hill	Mayor's Office	Robert Wood	HBME, LLC
Jennifer Heaps	Mayor's Office	Jennifer Brass	Citizen
Danny Astill	Public Works Director	Pattie Johnson	Council Office

Chair Dave Nicponski called the Meeting of the Committee of the Whole to order at 4:45 p.m.

### **Approval of Minutes**

- Committee of the Whole – September 3, 2019.
- Committee of the Whole – September 17, 2019.

Council Member Brass moved to approve the minutes of the Committee of the Whole for September 3 and September 17, 2019. The motion was seconded by Council Member Hales. The motion passed unanimously.

### **Discussion Items**

#### **Independent Financial Audit Discussion** – Brenda Moore, Rob Wood.

Mr. Wood from HBME, LLC reported that the Budget and Audit Committee met previously and discussed the audit in great detail. A very thorough audit of the City was conducted to ensure that each of the funds

was properly reported and that they captured all of the transaction data. They also analyzed the internal control structure. Mr. Wood referred to pages 9 and 10 of the document for the opinion on the financial statements. A clean opinion was given, and no material misstatements were found in how the financial statements were presented or the footnotes.

Mr. Wood referenced pages 11 through 26 which contain the Management Discussion and Analysis. He reported that it is management's representation of what has occurred in the City and is the only place in the document that provides comparative information for the last two years. Governmental activities set forth on page 28 were reviewed. There were three adjustments made in the reporting this year.

- A prior period adjustment of \$43.7 million, which is the value of the land under the roads that had never been recorded.
- Murray City is an equity holder of 8.9% of the CVWR (Central Valley Water Reclamation), which equates to \$8.2 million. Because of bonded debt this amount was already included in CVWR's bottom line equity, and the city included it a second time, so an adjustment of \$4.5 million was necessary.
- A change was made in the Solid Waste Fund relating to Trans Jordan, where the city has an equity investment along with six other cities. The city has always accounted for this in governmental activities in an amount of \$2.2 million this year, however, it has now been transferred into the Solid Waste Fund.

On page 15 total government assets grew from \$181.7 million to \$190.7 million with the majority of the increase from developer donations. It was noted that once a subdivision is completed, the City takes control of the property beneath the roads, the roads, sidewalks, and curb and gutter. Fiscal year 2019 was significant for the City in terms of the timing of donations. Six or seven subdivisions came on-line which equated to \$6 to \$7 million of the increase. Assets in business-type activities grew from \$120.8 million to \$131.8 million with much of that increase also being from developer contributions.

A comparison was shown between revenues and expenditures for governmental and business activities. One of the highlights was that property taxes increased from \$10.9 million to \$13.4 million. Mr. Wood next presented the Independent Auditor's Report on internal controls over financial reporting and compliance with laws, regulations, contracts, agreements, and State law. He commended staff for the excellent job they do in ensuring that they are following the laws and regulations.

Ms. Turner asked Mr. Wood to identify the most significant portions of the document that they should be aware of. Mr. Wood suggested the Council study the Management Discussion and Analysis, which provides a two-year comparison and summary data. It also highlights why things change. He planned to provide the City with a letter including the journal entries. Assets that have been capitalized were also addressed for which three would be an adjustment on the books.

Ms. Moore referenced pages 30 and 31, which contain the governmental funds balance sheet and fund balances. The Unassigned General Fund balance was at 24.9%. She explained that 25% of the City's operating revenue equates to three months' worth of operating revenue. The Capital Projects Fund balance was approximately \$18 million. Based on the projects funded last year, it was determined that the balance is really only \$5 million. The Library Fund increased by \$1 million due to a property tax increase that was not spent in order to save for a new building.

Ms. Moore next referenced pages 38 and 39 and clarified that the Wastewater Fund appears to have an unrestricted \$10 million fund balance, however, \$8.2 million of that is tied up in the investment in Central Valley Wastewater. To view a complete copy of the CAFR (Comprehensive Annual Financial Report) FY ending June 30, 2019 see the Murray City website. [www.murray.utah.gov](http://www.murray.utah.gov)

**Fiscal Year 2019-2020 Budget Amendment** – Brenda Moore.

Ms. Moore presented the Budget Amendment (Attachment #1) and identified the following changes:

- \$2,000 contribution to the Seven Canyons Trust Preservation.
- The City was awarded \$88,000 from ZAP, which is normally put back into reserves to offset the subsidy given to the arts.
- The Alcohol Tax rolled forward with excess funds. In order to spend them, an opening is needed.
- The State Forester Grant needed to be moved into the budget.
- Federal asset forfeiture money was received and was to be transferred into the budget.
- Victims Assistance Funds were received and needed to be added to the budget.
- Street projects were being transferred between the Class C and Capital Projects Fund. The projects were being rearranged based on the funding source.
- In the Capital Projects Fund, a profit of \$16,000 was made on surplus equipment.
- Corrections needed to be made to the first budget roll to account for reimbursement grants.
- The funding of an Engineering Manager position in the Power Fund.
- An increase in the Retained Risk budget of \$121,000.
- \$10,000 was to be added to the Central Garage budget to place their swamp cooler on the roof.

Mr. Nicponski asked the total cost of the Retained Risk budget. Ms. Moore confirmed it was less than \$1 million.

**Reimbursement Resolution Murray Theater Renovation** – Brenda Moore.

Ms. Moore reported that a few months ago while running five-year projections, one of the options was to possibly fund the Murray Theater Renovation with a bond. She pointed out that pursuing a bond would result in it taking longer for the CIP to runout of money. The architect and construction company for the project have been selected and they are preparing to begin construction. The resolution would specify that if the decision is made to bond, the intent would be for the City to reimburse itself for the expended costs. The maximum amount of the bond would be \$4 million with the current commitment amount at \$3.5 million.

Ms. Moore stated that Cultural Arts Manager, Lori Edmunds is working on a campaign and is in the process of sending out information to those who may be interested in donating to the Murray City Theater Renovation Project. One million dollars was budgeted for the theatre renovation for this year. If the decision is made to bond, they may want to bond for the full \$3.5 million and use the \$1 million budgeted for something else. The estimated total theater renovation cost was estimated at \$7.5 million. It was noted that the County is covering half of the cost. Council Member Turner commented that bonding should be a last resort. Ms. Moore agreed but stated that she would like to keep it as an option.

Mayor Camp commented that the reason for the urgency is that they have only a two-year window to use the fund money. For that reason, they were exploring alternatives. Various options were identified.

**Murray City 2019 Water Conservation Plan** – Danny Astill, Cory Wells.

Water Superintendent, Cory Wells presented the 2019 Water Conservation Plan and reported that in 2004, HB 71 was passed, which required water providers with more than 500 connections to have a Water Conservation Plan. The plan (see Attachment #2) has been in place for some time but every five years the City is required to renew it. On October 1, it was resubmitted to the Division of Water Resources and will now go before the governing body for approval. A ledger was presented showing the class of water providers and a land use map. Mr. Wells reported that Jordan Valley Water Conservancy District provides about 13% of the City's water supply and Salt Lake City provides 7%.

A history of water use population estimates was provided from the year 2000 projected out to 2060. Data showing the 2018 water usage by connection was provided and broken down into four classes by the Division of Water Resources, which is what the City is required to report on. Currently, the City has approximately 10,400 connections 8,900 of which are residential, 1,300 commercial, and 4 industrials.

The estimated culinary production in average years was presented along with historical data. The City's wells produce about 12,823 acre-feet of water with McGee Springs at 1,000-acre feet. Mr. Wells explained those figures are from dry years. Historic per capita culinary water production data was presented with a breakdown to the year 2000 of the GPCD (gallons per capita per day). Mr. Wells stated major strides have been made in water conservation.

Per capita culinary water use by type was next presented and was based on indoor and outdoor use. With respect to residential use, 43% is indoor and 57% is outdoor. Data was also presented on the per capita culinary water use by target and type for the past 18 years. The target goal for 2030 was to be at 187 GCPD. Programs were in place to encourage water conservation. Mr. Wells reported that indoor residential consumption has been reduced by 11.3%. The most substantial reduction in indoor use in recent years has been accomplished through conservation in higher efficiency fixtures and appliances. Indoor water use was expected to continue to reduce over time as older fixtures and appliances are replaced.

Mr. Wells reported that Jordan Valley Water Conservancy District is offering a rebate program for timers, toilets, and showerheads that are water efficient. To help reduce the GCPD to 187 gallons by 2030, it was proposed that there be a 25% water use reduction with specific targets established for each user type. Other conservation efforts were described as well as public outreach and education.

Mr. Wells stated that if the City is able to maintain and achieve its conservation goals it will have sufficient source capacity beyond the year 2050. Alternatively, if the conservation goals are not met, the City may find it necessary to develop additional source capacity as early as 2030. Over the past few years the City has also participated in the AWWA Water Audit Program. An audit was conducted of the City's system to identify deficiencies and ways to increase conservation. Projected culinary water production requirements were projected to the year 2050. Mr. Wells explained that one acre-foot equates to 325,851 gallons of water.

In response to a question raised, Mr. Wells reported that the average water use per person per day in Murray City is 136 gallons.

**Agreement for ABOP Recycling** – Danny Astill.

Mr. Astill reported each year the City partners with Salt Lake County to provide a small satellite drop-off center for hazardous waste including anti-freeze, oil, batteries, and paint. The agreement has to be renewed annually. Council Member Turner considered it a valuable and important service that the City is able to provide to its citizens. She expressed her support.

**Qualified Health Care in Procurement** – Dave Nicponski.

Chair Nicponski reported that the purpose of the proposal is to include as an incentive the Qualified Health Care in Procurement building Improvements for public works projects. He explained that there are incentives for drug and alcohol testing and certain types of training. This would be added to the mix. It does not qualify or disqualify a bidder but provides an incentive where the plan would be examined.

**Committee of the Whole Location** – Dale Cox.

Council Member Cox suggested moving the location of future Committee of the Whole meetings to the Council Chambers to make it easier for those in the audience to hear. In addition, when there are items of interest, those in the audience are forced to stand, as there is not enough seating. Until the new building is completed where there will be a PA system, he suggested meetings be held in the Council Chambers.

Chair Nicponski agreed and supported Council Member Cox's proposal.

Ms. Turner's opinion was that Committee of the Whole discussions are informal in nature, and she liked having a forum where they can speak informally and make presentations in the conference room.

Mr. Hales agreed with both sides and liked the informal nature of meetings but recognized those in attendance cannot hear.

Mr. Brass stated the meetings are noticed as public meetings where those present should be able to hear what is said. That capability does not exist currently.

The consensus was to move the future meeting location from the Conference Room to the Council Chambers.

**Announcements:** None

**Adjournment:** 5:56 p.m.

**Pattie Johnson  
Council Office Administrator II**

## **ATTACHMENT #1**

ORDINANCE NO.

AN ORDINANCE AMENDING THE CITY'S FISCAL YEAR 2019-2020 BUDGET

On June 18, 2019, the Murray City Municipal Council adopted the City's budget for Fiscal Year 2019-2020. It has been proposed that the Fiscal Year 2019-2020 budget be amended as follows:

1. Modify the FY2020 Budget addendum to include a \$2,000 donation to Seven Canyons trust preservation.
2. Receive \$88,500 from the Zoo Arts and Parks Grant and appropriate to General fund reserves.
3. Appropriate \$36,613 from General fund reserves for prior year state Alcohol funds received.
4. Receive and appropriate the following grants and/or reimbursements in the General Fund with no financial impact:
  - a. \$22,500 From the FY2019 State forest Revegetation Grant, and;
  - b. \$8,006 from the FY2019 State Division of Forestry for additional Murray Parkway police patrols, and;
  - c. \$4,470 from federal asset forfeiture funds for police small equipment, and;
  - d. \$2,300 from Donations received for Victims Advocate emergency expenses, and.
5. Reclassify the following expenses in the General Fund with no financial impact:  
Decrease the budget by (\$0) from removing the 120 West, 150 West, Sam Oliver, Joma, Westridge, and 6410 projects from Class C funds and adding Radar Speed signs, and 4800 S overlay projects to Class C funds.
6. In the Capital projects fund receive \$5,300 for equipment sold and appropriate \$5,300 to Parks and Recreation equipment.
7. Reclassify the following expenses in the Capital projects Fund with no financial impact: Increase the budget by (\$0) by adding the 120 West, 150 West, Sam Oliver, Joma, Westridge, and 6410 projects and removing the Radar Speed signs, and 4800 S overlay projects.

8. Receive Salt Lake county grant revenue of \$2,730,993 and appropriate to fund balance for the following projects:
  - a. Vine to Vanwinkle \$730,993, and;
  - b. Hanauer 1 \$1,500,000, and;
  - c. Hanauer 2 \$500,000.
9. Appropriate \$210,261 from Power fund reserves for the following:
  - a. \$89,261 to fund an Engineering Manager position, and;
  - b. \$121,000 for an increase in The Risk fund assessment.
10. Receive \$121,000 from the Power fund Risk Assessment and Appropriate to Liability insurance.
11. Appropriate \$10,000 from Central Garage reserves for roof mounted swamp coolers.

*Section 2. Effective Date.* This Ordinance shall take effect on first publication.

PASSED, APPROVED AND ADOPTED by the Murray City Municipal Council on this \_\_\_\_ day of \_\_\_\_\_, 2019.

MURRAY CITY MUNICIPAL COUNCIL

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ATTEST: Dave Nicponski, Chair

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Jennifer Kennedy, City Recorder

MAYOR'S ACTION: Approved

DATED this \_\_\_\_ day of \_\_\_\_\_, 2019.

ATTEST:

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Jennifer Kennedy, City Recorder

## **ATTACHMENT #2**

# MURRAY CITY WATER CONSERVATION PLAN

SEPTEMBER 2019



Prepared for:



Prepared by:



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## INTRODUCTION

Attitudes toward water supplies are changing. Water is no longer considered to have an endless supply, but is valued as a limited 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 in Utah. Many water suppliers throughout the country have adopted conservation programs. Benefits experienced as a result of these programs include:

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

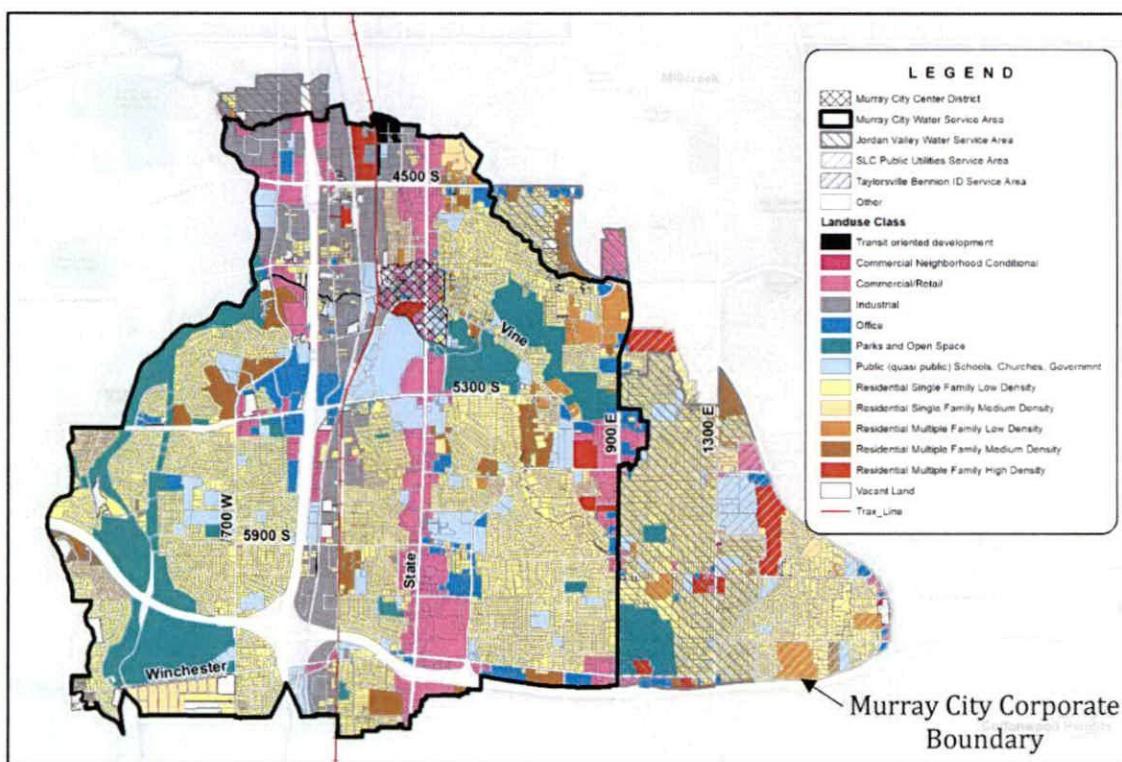
Officials at the State of Utah Department of Water Resources recognize the potential of conservation programs to extend current water supplies. They have established a statewide conservation goal of reducing per capita water use from levels measured in 2000 by 25 percent by the year 2025.

Murray City has adopted water conservation as a key element in its long-term plan to serve its customers. As a result, the City has already reduced per capita water use by 13.5% since 2000. However, the City recognizes that per capita water use may return to higher levels without continued emphasis on the importance of conservation. Since sustained additional water conservation will be an important component in the City's plans for future water use, this water conservation plan evaluates the City's current conservation program, establishes the City's new conservation goal and discusses additional measures that will result in the increased conservation of water.

## MURRAY CITY WATER SYSTEM SERVICE AREA

Figure 1 shows the Murray City corporate boundaries, water system service boundaries and the City's general plan for land use. The Murray City water system service area serves nearly 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 (SLCPUD) supplies the remaining 7 percent area. Murray City has no plans to expand its existing water service area in the future. Therefore, this plan is solely based on the population within the Murray City Water System Service Area.

**Figure 1 Murray City Service Area**



## HISTORIC POPULATION AND FUTURE GROWTH

Murray City is located in Salt Lake County, approximately 8 miles south of Salt Lake City. Since the City's establishment in 1903, Murray has significantly developed and grown with an estimated existing water system service area population of 36,105 people in 2018.

While Murray City has experienced large amounts of growth in the past primarily due to annexations and development, substantial opportunities for additional future growth remain. This includes the development of new land and the redevelopment of existing land as opportunities for new economic growth occur. The historic and projected population estimates for Murray City water system service area are shown in Table 1. Population projections from the years 2000-2060 have been obtained from the City's 2017 Water Master Plan prepared by Bowen Collins and Associates (BC&A).

**Table 1**  
**Historic and Projected Water Service Area Population<sup>1</sup>**

Year	Murray City Water System Residential Population
2000	34,024
2005	34,146
2010	34,269
2015	36,105
2020	38,495
2025	40,549
2030	42,667
2035	44,581
2040	46,763
2045	49,148
2050	51,655
2055	54,290
2060	57,059

<sup>1</sup>Historic and projected population values have been taken from those developed for the City's 2017 Water Master Plan.

## EXISTING WATER USERS (MUNICIPAL & INDUSTRIAL CONNECTIONS)

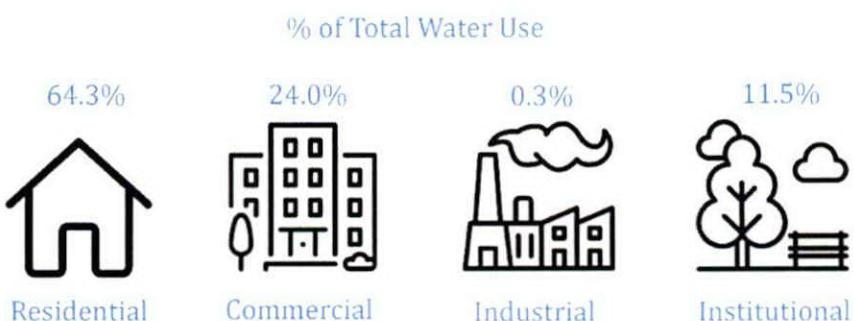
To quantify the amount of water that can reasonably be conserved in Murray City, a cursory analysis of current water use patterns has been performed. Usage among different classes of customers for the year 2018 is presented in Table 2. Roughly 86 percent of the meters in Murray City are residential connections, accounting for 64 percent of the total water use. Hence, residential water use represents the largest single area for potential conservation.

Murray City also has a significant number of commercial connections. While comprising approximately 13 percent of the total number of meters, commercial customers accounted for 24 percent of Murray City's water use. It should also be noted that roughly 2 percent of the total meters in Murray City are institutional connections, accounting for nearly 12 percent of total water use. Thus, commercial and institutional accounts should not be overlooked as potential contributors to future conservation efforts. The remaining industrial connections are less than 1 percent of the total metered water connections in the City while accounting for 0.3 percent of total water use.

**Table 2**  
**2018 Water Usage by Connection Type<sup>1</sup>**

Customer Class	Accounts	% of Connections	Annual Water Use (acer-ft)	% of Total Water Use
Residential	8,929	85.4%	5,723	64.3%
Commercial	1,347	12.9%	2,135	24.0%
Industrial	4	0.0%	23	0.3%
Institutional	176	1.7%	1,020	11.5%
Total	10,456	100%	8,900	100%

<sup>1</sup>Water usage by connection type data obtained from the Utah Division of Water Rights Public Water Supplier Information.



## CURRENT AND FUTURE WATER SUPPLY

The following section summarizes Murray City's current and future water supply as documented in Murray City's 2017 Water Master Plan (BC&A).

### Culinary Source Capacity

Water for the culinary water system in Murray City's service area is supplied by 8 springs and 18 wells as shown in Figure 2. One well, the Riverside/Germania Well, supplies water to irrigation park facilities along the Jordan River Parkway. Each of these water sources is dependent on pumps and motors to deliver water to the water distribution system. It is important to consider the potential of mechanical failure, equipment maintenance, source contamination, as well as the potential for unforeseen changes in zoning that could include new large water users. To account for these possibilities, it is Murray City's goal to develop the capacity to meet peak day water system demands with a 30 percent reserve in its water source capacity.

**Wells** – Murray City has 19 wells that are currently used to meet service area demands. Based on information in the Salt Lake County Supply & Demand Study completed in 2007, the reliable annual yield from these wells is 12,823 acre-feet/year. This reliable yield takes into account potential impacts on wells from mechanical failure, contamination, etc.

**McGhie Springs** – Discharge from the 8 McGhie Springs fluctuates depending on water year conditions (annual precipitation). Based on historic records, the average annual yield of the springs is 1,606 acre-feet. During drought years, the estimated reliable annual yield of the spring is estimated to be 1,135 acre-feet. McGhie Springs was rehabilitated in 2012 to protect the source from seismic damage due to deteriorating conditions. The rehabilitation project appears to have also improved the yield of the springs. However, due to the limited amount of data, it is not possible to verify what the capacity of the spring would be in a dry year.

### Annual Culinary Supply

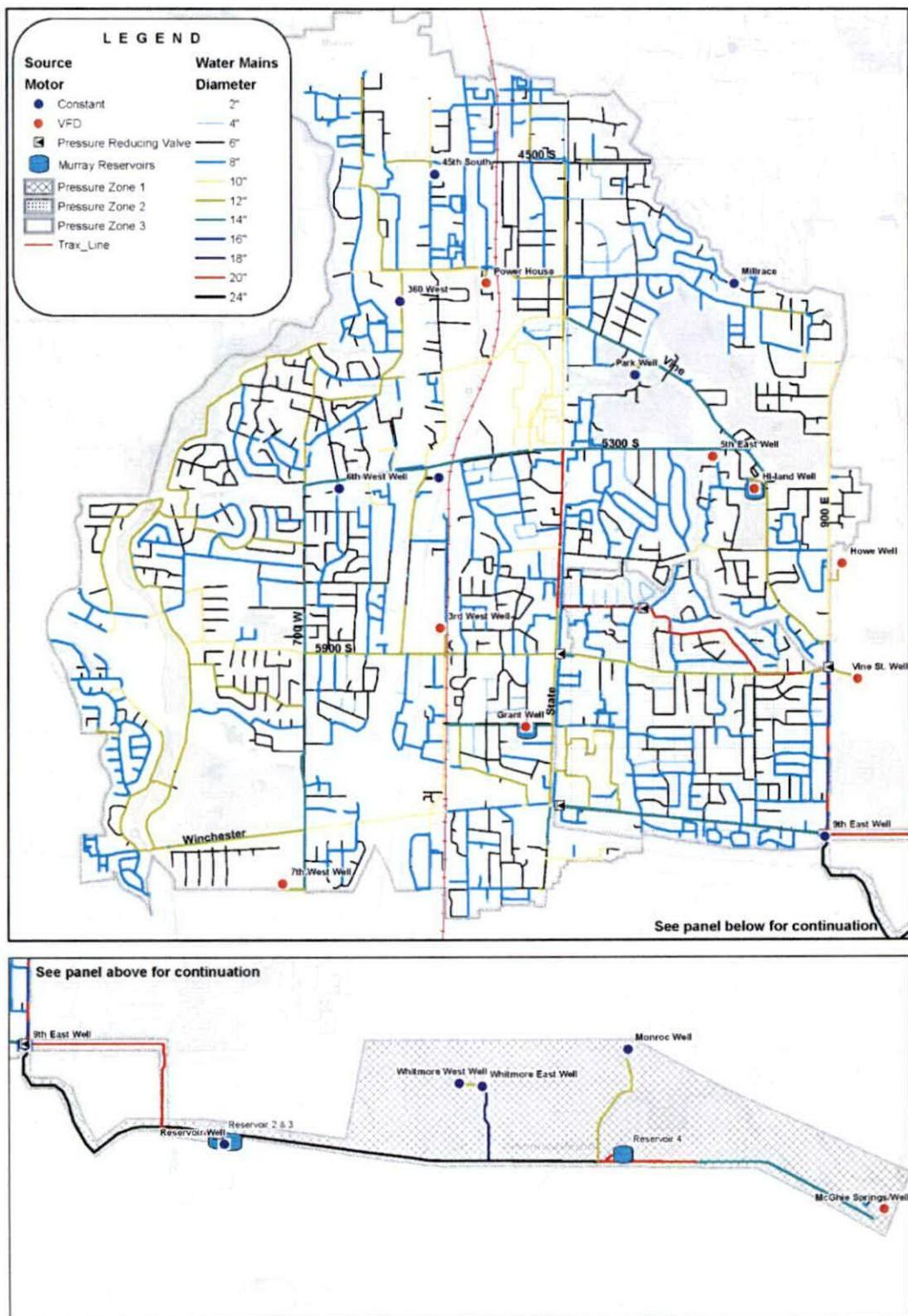
Based on the estimated production of the sources described above, the total annual supply for Murray is summarized in Table 3 for both dry and average water years.

**Table 3**  
**Estimated Culinary Production – Murray City Dry and Average Years<sup>1</sup>**

Supply Category	Estimated Production - Dry Year (acre-ft)	Estimated Production - Average Year (acre-ft)
Wells	12,823	12,823
McGhie Springs	1,135	1,606
Total	13,958	14,429

<sup>1</sup>2017 Murray City Water Master Plan.

**Figure 2 Murray City Water System**



### **Annual Dedicated Irrigation Supply**

As mentioned previously, the City has one well source that is currently dedicated to supply irrigation water to Murray City Park facilities. The Riverside/Germania well supplies irrigation water to the following parks:

- Germania Park
- Cottonwood Grove
- Willow Pond Park
- Willow Pond
- Murray Parkway Golf Course

Annual production for the Riverside Well for the years 2017-2018 is shown in Table 4.

**Table 4**  
**Annual Riverside/Germania – Irrigation Water Production<sup>1</sup>**

Year	Riverside/Germania Well Production (acre-ft)
2017	477.9
2018	710.1

<sup>1</sup> Production data obtained from the Utah Division of Water Rights Public Water Supplier Information. Production data for the years prior to 2017 is unavailable.

## HISTORIC WATER PRODUCTION, SALES AND SYSTEM LOSS

### Historic Per Capita Water Production and Consumption

Historic water use in gallons per resident from 2000 to 2018 is summarized in Table 5. That table also shows the per capita water sales and per capita water production in Murray for the same period. Per capita water use was quantified using available water production records from Murray City, water sales records from the Division of Water Rights and population estimates. As shown in Table 5, the per capita water production varies from a high of 293 gallons per capita per day (gpcd) in 2000 to a low of 218 gpcd in 2011. Table 5 also shows that metered water sales vary from a high of 244 gpcd in 2000 to a low of 192 gpcd in 2015.

On average, system losses in the Murray City water system have been approximately 10 percent of annual water production between the years 2000 and 2018. However, recent efforts to reduce water losses have reduced that number to below 10 percent.

**Table 5**  
**Historic Per Capita Culinary Water Production, Sales and System Loss<sup>1</sup>**

Year	Murray City Population	Historic Water Production (acre-ft) <sup>1</sup>	Per Capita Production (gpcd)	Historic Water Sales (acre-ft) <sup>2</sup>	Per Capita Water Use (gpcd)	System Loss (acre-ft)	System Loss %
2000	34,024	11,168	293.0	9,328	244.7	1,840	16%
2001	34,048	10,417	273.1	9,105	238.7	1,312	13%
2002	34,073	9,861	258.3	8,375	219.4	1,486	15%
2003	34,097	9,220	241.4	7,716	202.0	1,504	16%
2004	34,122	8,585	224.6	7,766	203.2	819	10%
2005	34,146	8,686	227.1	7,347	192.1	1,339	15%
2006	34,171	9,344	244.1	8,567	223.8	777	8%
2007	34,195	10,261	267.9	9,276	242.2	985	10%
2008	34,220	9,528	248.6	8,708	227.2	820	9%
2009	34,244	8,987	234.3	8,221	214.3	766	9%
2010	34,269	9,281	241.8	8,802	229.3	479	5%
2011	34,629	8,457	218.0	7,654	197.3	803	9%
2012	34,992	10,127	258.4	9,421	240.3	706	7%
2013	35,359	9,252	233.6	8,641	218.2	611	7%
2014	35,730	8,878	221.8	8,325	208.0	553	6%
2015	36,105	9,031	223.3	8,332	206.0	699	8%
2016	36,571	9,443	230.5	8,668	211.6	775	8%
2017	37,043	9,439	227.5	8,690	209.4	749	8%
2018	37,521	9,885	235.2	8,900	211.7	985	10%

<sup>1</sup> Historic water sales and production data are values on record from the Utah Division of Water Rights.

## CURRENT PER CAPITA WATER USE

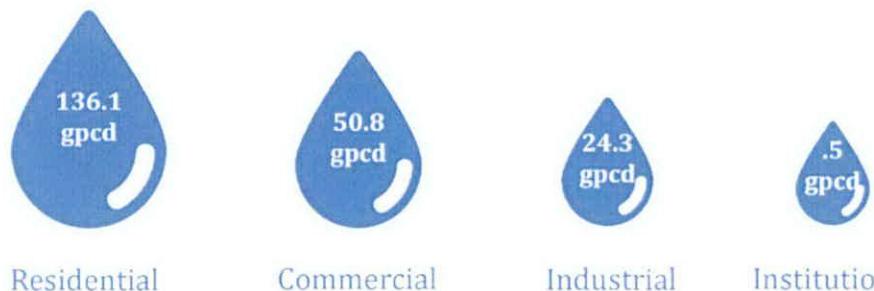
A thorough analysis of Murray's current residential, commercial, industrial and institutional water use was completed. Estimated water use by type for the year 2018 is summarized in Table 6. Per capita water use for the year 2018 was estimated using the approximate population of 37,521 people for the year 2018 and monthly metered sales data provided by Murray City.

**Residential Use** – Indoor residential water use was quantified using the average metered sales of residential users during the winter months. It is estimated that 43% of residential water is used indoors while 57% is used outdoors.

**Commercial, Industrial and Institutional Use (CII)** – Indoor water use for commercial and institutional users was quantified using the average metered sales of CII users during the winter months. On average it is estimated that 46% of culinary water is used indoors by commercial and institutional users while 54% is used outdoors. Industrial water use is minimal in the City of Murray but has been quantified under the assumption that 100% of industrial water is used indoors for manufacturing purposes.

**Table 6**  
**2018 Per Capita Culinary Water Use By Type**

User Type	Indoor Use (gpcd)	Outdoor Use (gpcd)	Total Use (gpcd)
Residential	58.6	77.5	136.1
Commercial	23.3	27.5	50.8
Institutional	11.1	13.1	24.3
Industrial	0.5	0	0.5
Total	93.6	118.2	211.7



## CONSERVATION GOAL WITH MILESTONES

Water production and metered water sales records show that efforts made by the City's staff and residents have been effective in achieving a significant amount of conservation in the last 20 years. Murray's average daily per capita water use between 1990 and 1998 was 267 gallons. Through conservation efforts, that number was reduced to 244.7 gallons per capita per day in 2000. Per capita water use is greatly reduced from where it was in 2000 and is close to meeting the targets associated with the State conservation goals. To date, conservation efforts have primarily focused on education and pricing to motivate the voluntary efforts of customers to conserve. While the observed results are positive, there are still additional conservation measures that can further reduce water use. Murray City personnel understand that additional conservation in the City is possible and are committed to making further progress in this area. However, to continue the trend of increasing conservation in the City, it is likely that a more aggressive effort and level of investment will be required.

In establishing a conservation goal for the City, it is useful to consider overall conservation goal guidance from the State. Two State water conservation goals are summarized below.

- **Historic 25 Percent Reduction Goal** – Murray has been working toward meeting the Statewide goal to reduce per capita water use (as measured from year 2000 water usage) by 25 percent by the year 2025. Table 7 shows what Murray City per capita use would need to be to achieve this 25 percent conservation goal through 2025. While this initial goal was a great start, a 2015 legislative audit concluded that setting goals on a regional basis would more appropriately capture the unique geographic and demographic features of the different regions in the State. Based on this recommendation, a new set of regional goals has been developed and recently released in draft format for public comment.
- **Draft Regional Conservation Goals** – Based on data collected regarding conservation potential throughout the State, the Draft Regional Conservation Goals identified for the Salt Lake Region recommend reducing water use from an estimated 210 gpcd in 2015 to 187 gpcd by the year 2030. Required reductions to meet this new goal are also summarized in Table 7.

**Table 7**  
**Conservation Goal With Milestones Through 2030**

Year	Historic 25% Reduction Conservation Goal Milestones (gpcd)	New Salt Lake Region Draft Goal Milestones
2000	244.7	-
2005	232.5	-
2010	220.2	-
2015	208.0	210.0
2018	200.7	205.4
2020	195.8	202.4
2025	183.5	194.8
2030	-	187.0

The data presented in Table 7 indicates that the new regional goal is actually a little less aggressive than the historic statewide goal. However, this seems appropriate for the Salt Lake Region in general and Murray City specifically. In the City, nearly all of the easy and most cost effective conservation measures have already been implemented. Correspondingly, the City has seen progress towards additional conservation slow in recent years. Meeting the future conservation goals will require significant effort and investment by the City and its residents. Therefore, this City has adopted the draft Salt Lake Regional goal as the new conservation goal for the City.

#### How Can Murray Reduce Water Use to 187 gpcd by 2030?

To help the City achieve the 25 percent water use reduction goal of 187 gpcd by 2030, specific indoor and outdoor use targets have been established for each user type as shown in Table 8.

**Table 8**  
**Per Capita Culinary Water Use Targets By Type**

User Type	2018 Total Use (gpcd)	Target 2030 Use (gpcd)	Target Savings (gpcd)	% Savings (gpcd)
Residential Indoor	58.6	52	6.6	11.3%
Residential Outdoor	77.5	65	12.5	16.1%
Commercial	50.8	47.0	3.8	7.5%
Institutional	24.3	22.5	1.8	7.4%
Industrial	0.5	0.5	0	0.0%
Total	211.7	187	24.7	11.7%

Reaching these targets will start with the foundational principles of conservation education and conservation oriented pricing. Beyond these two basic items, specifics regarding how the conservation goals can be achieved are discussed below.

**Indoor Residential Conservation (11.3% Reduction)** The most substantial reduction in indoor water use in most recent years has been accomplished through conversion to higher efficiency fixtures and appliances. Over the past few years, higher-efficiency fixtures and appliances have become progressively standardized. Indoor water use is expected to continue to be reduced over time as older fixtures and appliances are replaced.

**Outdoor Residential Conservation (16.1 % Reduction)** Outdoor conservation will be affected by at least three different factors: 1) increases in water irrigation efficiency, 2) changes in landscaping, and 3) changes in development density.

- 1) Increases in water irrigation efficiency – Irrigation efficiency in the State is expected to increase through two primary mechanisms, secondary metering and adjusting irrigation systems to correlate with seasonal evapotranspiration rates to prevent the overwatering of landscapes. While Murray does not have significant additional secondary connections to meter, there is definitely additional potential to helping residents increase efficiency through education, improved sprinkler system maintenance, and the use of smart irrigation controllers.
- 2) Changes in landscaping – A large majority of landscapes throughout the City have historically consisted of cool-season turf grasses which generally require more water than other landscaping options. A switch from traditional cool-

season turf grasses and sprinkling systems to native and climate adapted perennials, shrubs and trees with drip irrigation systems can save a significant amount of water.

- 3) Changes in development density – As high density development continues to increase throughout Murray and the population continues to increase, the amount of irrigated acreage per person will continue to decrease as well, resulting in a reduction of outdoor per capita water use.

**Commercial Conservation (7.5 % Reduction)** The factors that affect both indoor and outdoor residential water conservation also affect commercial and institutional conservation. Thus, the same practices identified for residential conservation can be used to achieve commercial conservation. As a whole, conservation for commercial customers is expected to be less than for residential customers. This is because the commercial sector is generally more likely to already have taken some of the actions necessary to conserve water for various reasons. Municipal development standards are typically more restrictive for commercial development and require water efficient fixtures and water-wise landscaping. The commercial sector also generally has more available resources to invest in water efficiency. However, even though the total planned savings from commercial conservation is lower than residential, this is still an important sector for conservation savings and should not be overlooked

**Institutional Conservation (7.4% Reduction)** One of the most important places to save water and a recommended area of focus is institutional water use. Much of this water use occurs outdoors on parks, school ball fields, etc. where there is great potential for increases in efficiency. Institutional water use is also symbolic as most government properties are included in this category and looked at as an example of how state and local governments are conserving water. Thus, even though this is a relatively small component of Murray's overall water use, this should be a primary area of focus for conservation activities.

**Industrial Conservation (0% Reduction)** Murray City has very little industrial water use. For conservation planning purposes, it has been estimated that industrial water use will remain constant on a per capita basis in each region and each scenario. This does not mean that water conservation is not expected from industrial customers. It is expected that resources will continue to be invested in looking for ways industrial water use can be decreased.

## PROJECTED WATER SUPPLY AND DEMAND

To adequately represent the implications of the City's water conservation goals, a comparison of projected demands (based on total system production requirements) and available supplies must be made. Table 9 (Average Year Demand) and Table 10 (Dry Year Demand) show the projected water production requirements for the City with conservation and the projected production requirements if no conservation occurs. Perhaps most importantly, Tables 9 and 10 also compare projected demands against the existing available water supply. This same information is shown graphically in Figure 2 (Average Year) and Figure 3 (Dry Year).

**Table 9**  
**Projected Culinary Water Production Requirements (Average Year)<sup>1</sup>**

Year	Projected Production Requirements Based on Year 2000 Demands (acre-ft)	Projected Production Requirements With Conservation (acre-ft)	Estimated Annual Savings Through Conservation (acre-ft)	Estimated New Supply Development Which Can Be Delayed Through Conservation (acre-ft)
2000	11,167	11,167	0	0
2005	11,207	10,646	561	0
2010	11,248	10,122	1,125	0
2015	11,850	10,072	1,778	0
2020	12,635	10,107	2,527	0
2025	13,309	9,981	3,328	0
2030	14,004	10,502	3,501	0
2035	14,632	10,974	3,659	203
2040	15,348	11,511	3,838	919
2045	16,131	12,098	4,033	1,702
2050	16,954	12,715	4,239	2,525

<sup>1</sup>2017 Murray City Water Master Plan.

**Table 10**  
**Projected Culinary Water Production Requirements (Dry Year)<sup>1</sup>**

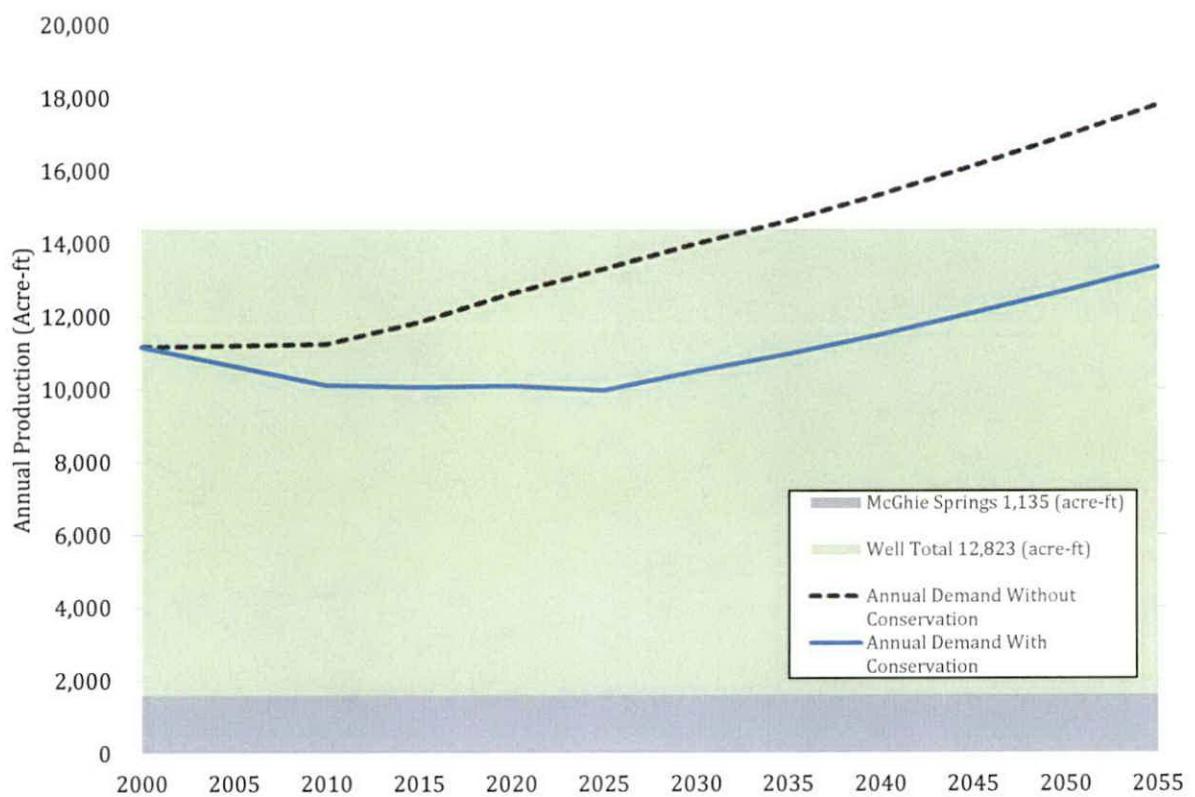
Year	Projected Production Requirements Based on Year 2000 Demands (acre-ft)	Projected Production Requirements With Conservation (acre-ft)	Estimated Annual Savings Through Conservation (acre-ft)	Estimated New Supply Development Which Can Be Delayed Through Conservation (acre-ft)
2000	11,167	11,167	0	0
2005	11,207	10,646	561	0
2010	11,248	10,122	1,125	0
2015	11,850	10,072	1,778	0
2020	12,635	10,107	2,527	0
2025	13,309	9,981	3,328	0
2030	14,004	10,502	3,501	46
2035	14,632	10,974	3,659	674
2040	15,348	11,511	3,838	1,390
2045	16,131	12,098	4,033	2,173
2050	16,954	12,715	4,239	2,996

<sup>1</sup>2017 Murray City Water Master Plan

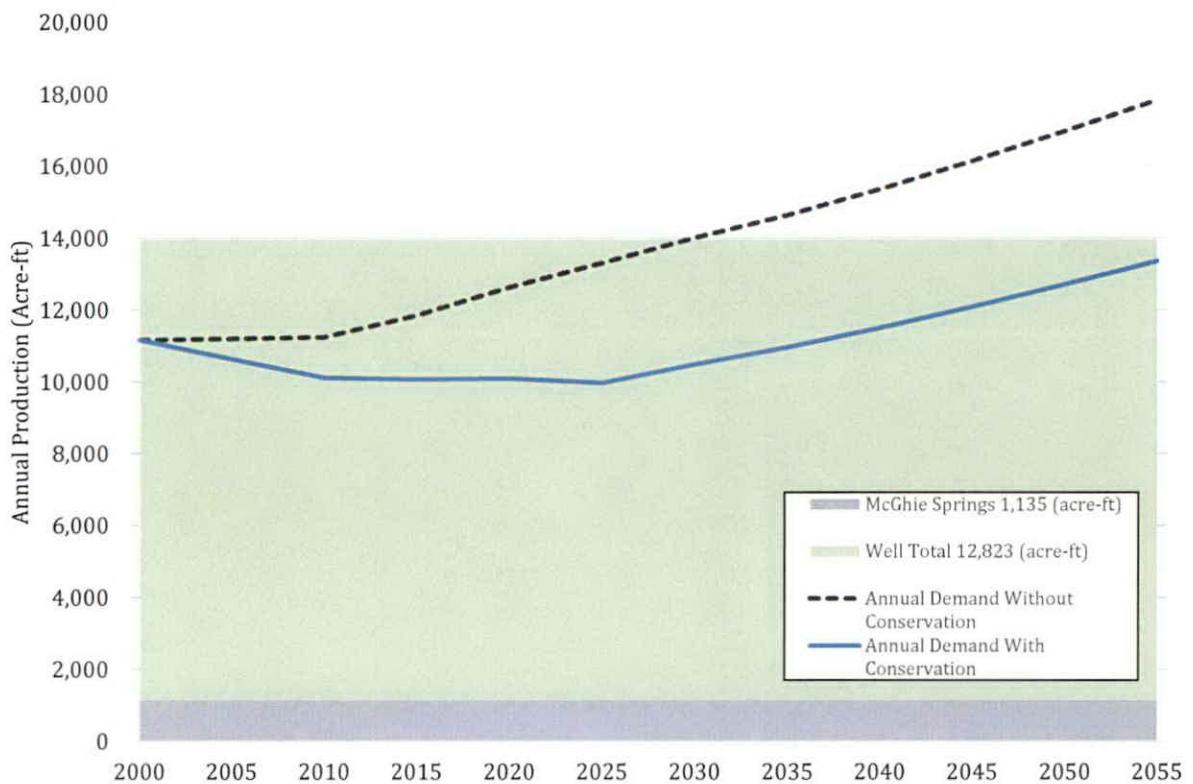
### Effect of Conservation on Annual Supply Plan

In both average and dry water years, if the City is able to achieve and maintain its conservation goals, it will have sufficient source capacity beyond the year 2050. It should also be noted that, if conservation goals are not met, the City may find it necessary to develop additional source capacity as early as 2030. Figure 3 illustrates the benefit of water conservation in Murray City, even in a normal water year. Figure 4 illustrates the benefit of water conservation in Murray City, in a dry water year.

**Figure 3**  
**Projected Annual Culinary Production Requirements (Average Year)**



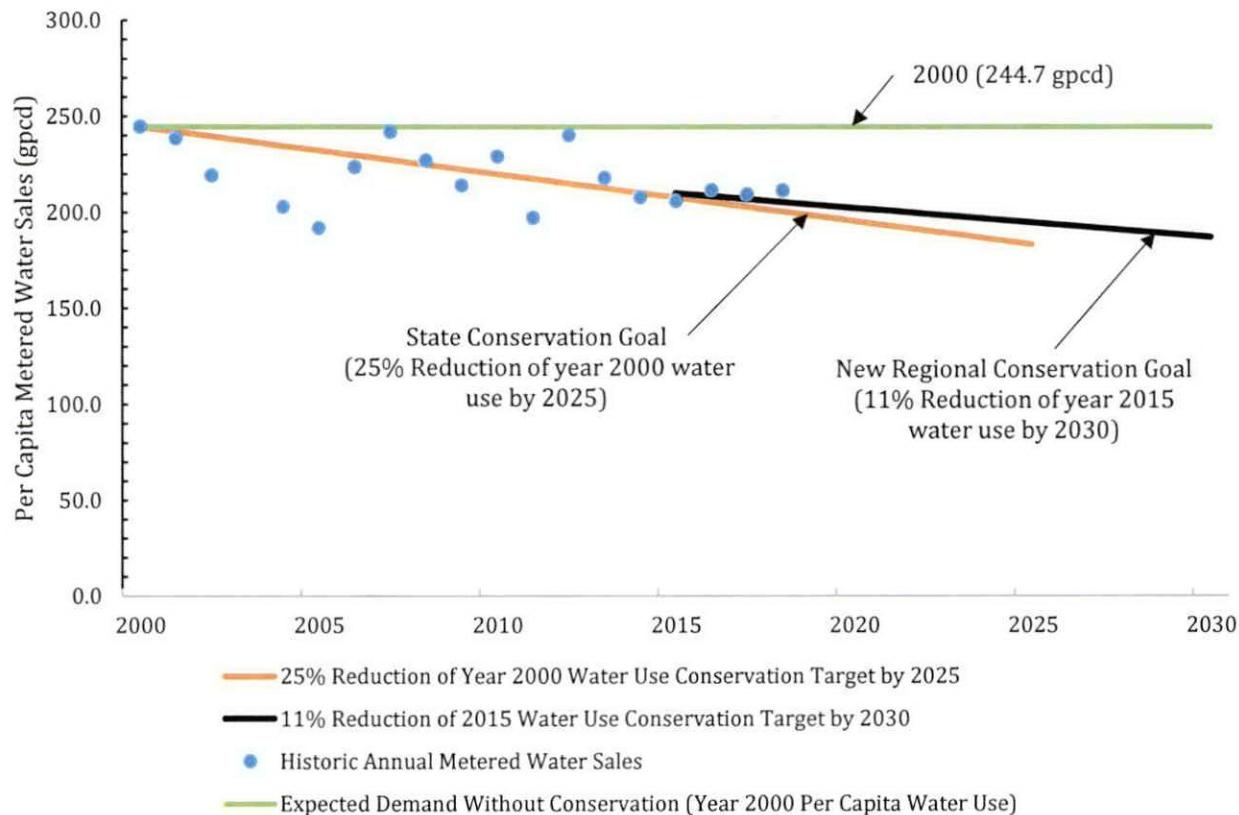
**Figure 4**  
**Projected Annual Culinary Production Requirements (Dry Year)**



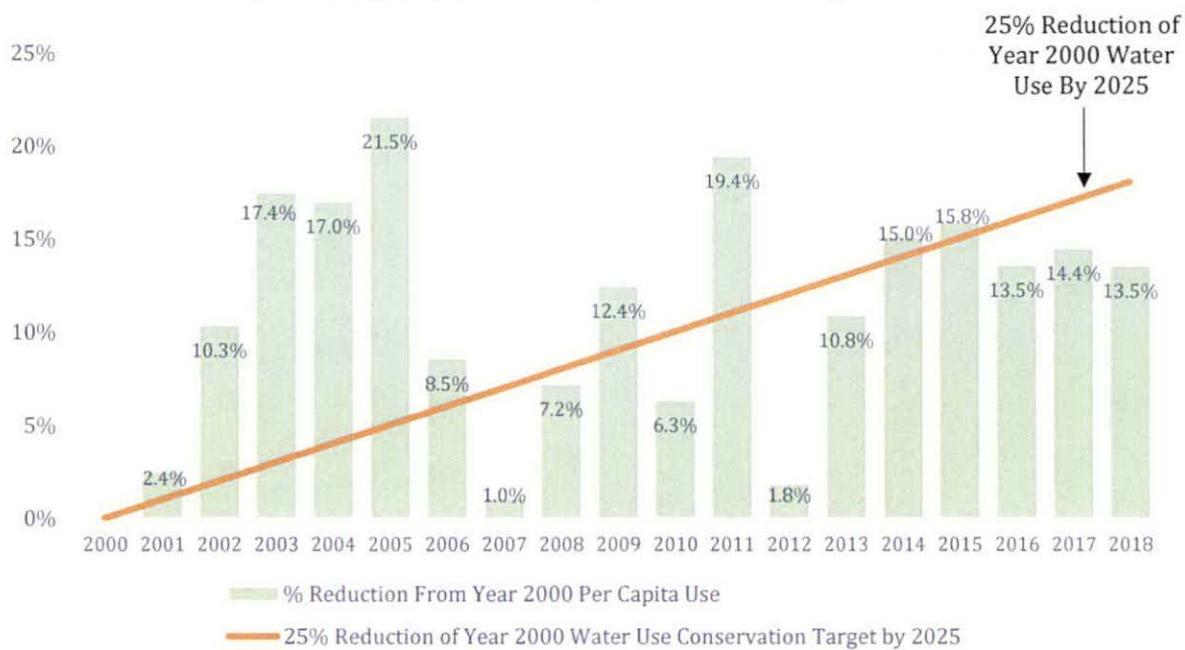
## MEASURING SAVINGS FROM CONSERVATION

Figure 5 graphically show historic annual per capita culinary water use for the period from 2000 through 2018. Figure 6 graphically shows the annual percent reduction from 2000 average water use.

**Figure 5**  
**Historic Per Capita Water Use from 2000-2018**



**Figure 6**  
**% Reduction from Year 2000 Per Capita Use**



As can be seen in the figures, the City's per capita use is trending downward. From 2000 to 2018 Murray reduced per capita use by 13.5 percent, just 3 percent short of the new regional conservation goal target for 2018. Figures 5 and 6 also show a few years in which the City's water use is higher than the state conservation goal. It is important to note that the high use during these years correlates with years that had summers that were significantly hotter and drier than normal, resulting in an increase in outdoor irrigation. Moving forward, the City will need to figure out how to both reduce long-term water use trends and how to sustain these reductions during hot and dry years.

To track how well Murray is doing in achieving its conservation goals 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.

## WATER METERING AND REPLACEMENT SCHEDULE

Currently, all culinary water connections in the Murray City water system service area are metered and read on a monthly basis. 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.

## CURRENT RATES

In 2018 the City established a new tiered rate structure to encourage water conservation (full rate schedule is attached as Appendix A). 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 the quantity of water being used.

## CURRENT CONSERVATION PRACTICES

As part of its overall water supply plan, Murray City has been very aggressive in implementing several conservation measures to reduce water usage. The City's water system is well maintained and operated. The City has been proactive in implementing and maintaining many programs to ensure that the water system meets high operating standards. Each of these programs is discussed in detail below.

**Aggressive System Maintenance and Operations Program** – Murray City will continue to maintain and improve its existing water system maintenance and operations program as outlined below:

- **Mainline Replacement Program:** Murray City has budgeted 1.7 million per year for repair and replacement of old infrastructure. This is equivalent to 0.9 percent of Murray City's distribution pipe network. If Murray City continues to spend \$1.7 million/year for pipe replacements (increasing with inflation); Murray City should expect to replace the pipes in its water system distribution network every 100-years. Age data for the system is shown in Figure 7.
- **Automatic Meter Reading (AMR):** All retail meters within the City are AMR. AMR technology automatically collects status data, diagnostic and consumption from water meters. That AMR data is transferred to a central database for analyzing, billing and troubleshooting.

**Upgraded SCADA Control System** – Supervisory Control and Data Acquisition is a critical component of operating and understanding the City's water system. The City is currently upgrading SCADA system for the City's water system. As improvements continue, Murray City will be able to better manage and control the City's water resources and system facilities. As with many infrastructure needs, the SCADA system upgrades are an ongoing capital and maintenance expense. However, the City has replaced many of the older SCADA

components in its system and is continuing to look for areas where additional improvements will increase overall system operating and reporting efficiency.

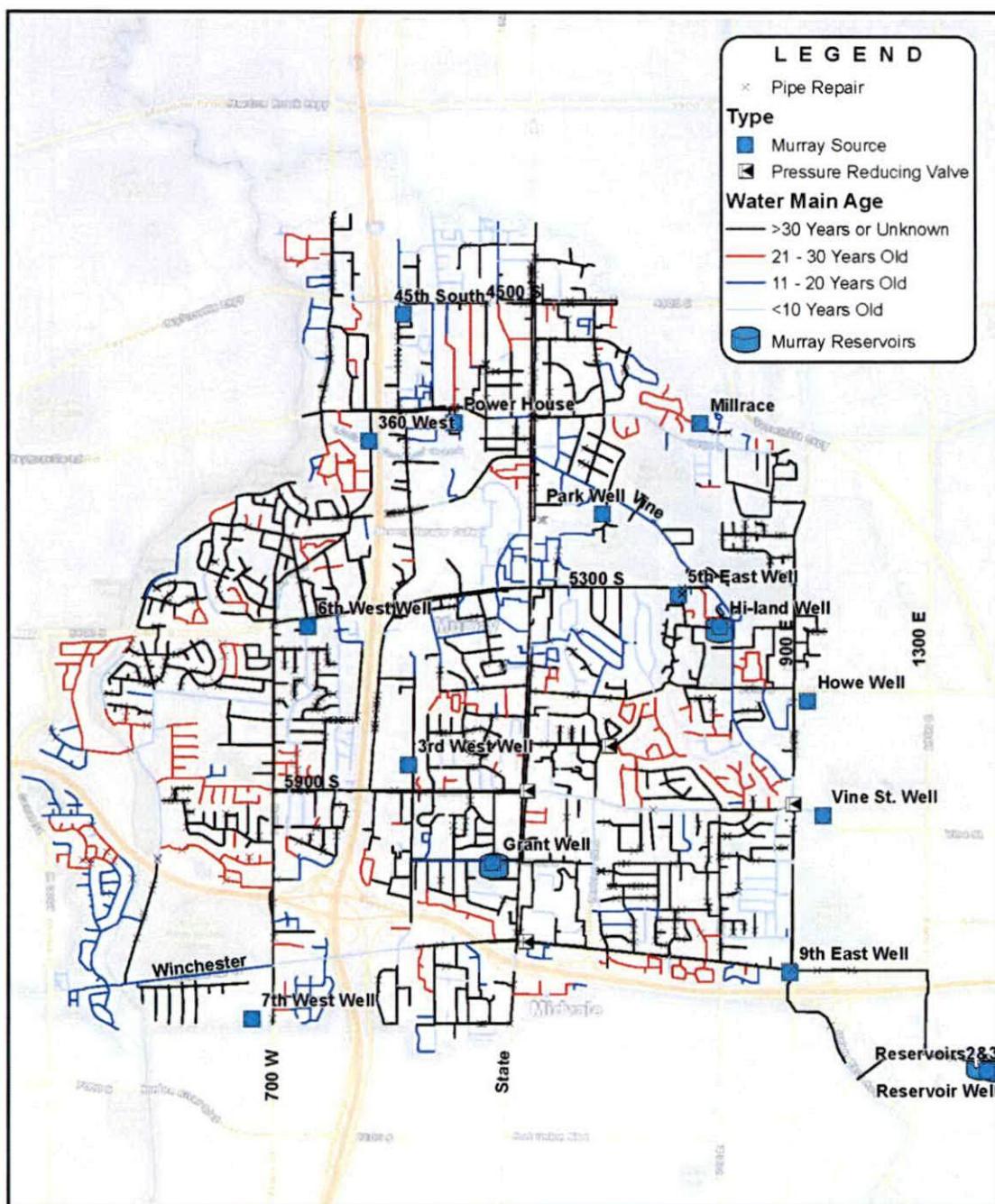
**Rain Sensors** – Some City-owned landscapes have been equipped with rain sensors. These devices can detect rainfall events and send messages to the central control computer, indicating how much precipitation has been received at the site and can terminate a watering cycle when the precipitation makes irrigation unnecessary.

**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.

**Tiered Rates** – The City has established a tiered water rate structure to further encourage conservation (see Appendix A).

**High Consumption Notices** – The City sends “high consumption/possible leak” notices to customers when their monthly consumption is higher than normal.

**Figure 7**  
**Age of Pipes in Murray City's Water System**



**Public Awareness/Public Education Programs** – Over the years a significant amount of water reduction has been achieved through increased awareness and water conservation education. The following is a list of ongoing public awareness and educational programs which the City will continue to utilize and implement:

- **Elementary Education Program (Water Wise Kids)** – Murray City has partnered with the National Energy Foundation (NEF) to implement a water wise education program to all 4<sup>th</sup> 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 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 Out Reach Booths

- **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, 4<sup>th</sup> 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 City's water system.



### Earth Day



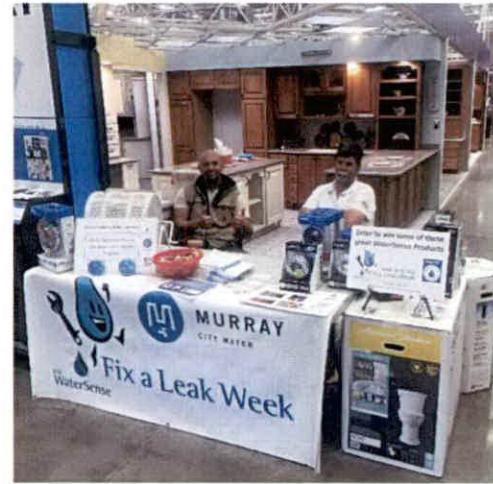
- **Earth Day** - Each year to help celebrate Earth Day the City holds an event for 4<sup>th</sup> grade students and teaches the kids ways they can help conserve water around their home. After a short presentation the students receive water bottles and backpacks with the City's conservation logo on 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.
- **WaterSense Rebate Program** - The City actively participates in the WaterSense Rebate Program. Rebates are valued at \$75 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.

### Fix a Leak Week at Lowe's

- **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.
- **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.



***City Ordinances Regarding Water Conservation*** – There are currently two ordinances related to water or water conservation. The first ordinance is entitled “Executive Orders of Mayor Limiting Use of Water” which 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. The second ordinance is entitled “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 as well.

***Water Conservation Plan*** – The City updates its Water Conservation Plan at least every five years and adopts it by Ordinance.

## 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 few years to help achieve the newly established water conservation goals. Table 11 summarizes the implementation schedule, estimated costs and potential partners of the new practices.

**AWWA Water Audit Program** – The City recently began participating in AWWA Water Audit Program. This program helps water suppliers quantify system water loss and associated revenue losses. Murray City will be participating in the audit program on an annual basis.

**Utah Rivers Council's RainHarvest** – 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 the water quality of rivers, streams and lakes.

**Smart Controllers** – The City plans to participate in a smart controllers rebate program. Smart controllers automatically adjust the time and frequency a landscape is irrigated based on local weather and landscape conditions to reduce waste.

**Flip Your Strip** – The City is considering joining the Flip Your Strip Campaign to encourage residents and businesses to replace the lawn in their park strips with water efficient alternatives.

**Table 11**  
**Implementation Schedule, Estimated Costs & Partnerships**

New Conservation Practices	Implementation Timeline	Estimated Cost	Potential Partnerships
AWWA Water Audit Program	First audit completed: 2018 Ongoing audits expected annually	\$1,000	<ul style="list-style-type: none"> <li>• AWWA Intermountain Section</li> </ul>
Rain Harvest	Ongoing	\$2,500	<ul style="list-style-type: none"> <li>• Utah Rivers Council</li> </ul>
Smart Controllers Rebates	Currently in Evaluation Phase	Currently in Cost Evaluation Phase	<ul style="list-style-type: none"> <li>• Utah Water Savers</li> <li>• WaterSense</li> </ul>
Flip The Strip	Currently in Evaluation Phase	Currently in Cost Evaluation Phase	<ul style="list-style-type: none"> <li>• Utah Water Savers,</li> <li>• Localscapes</li> </ul>

## **WATER CONSERVATION COORDINATOR AND COMMITTEES**

### **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:

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### **MURRAY CITY CONTACTS**

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

Cory Wells Murray City Water Superintendent  
[CWells@murray.utah.gov](mailto:CWells@murray.utah.gov)

APPENDIX A  
MURRAY CITY WATER RATES



MURRAY

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

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

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

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

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

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

RESOLUTION NO. \_\_\_\_\_

**A RESOLUTION APPROVING THE 2019  
MURRAY CITY WATER CONSERVATION PLAN**

WHEREAS, officials at the State of Utah Department of Water Resources recognize the potential of conservation programs to extend current water supplies and have established a statewide conservation goal of reducing per capita water use from levels measured in 2000 by 25 percent by the year 2025; and

WHEREAS, Murray City has adopted water conservation as a key element in its long-term plan to serve its customers; and

WHEREAS, the City has already reduced per capita water use by 13.5% since 2000 but recognizes that per capita water use may return to higher levels without continued emphasis on the importance of conservation; and

WHEREAS, Murray City has prepared its 2019 Water Conservation Plan ("Conservation Plan") and because sustained additional water conservation will be an important component in the City's plans for future water use, the 2019 water conservation plan evaluates the City's current conservation program, establishes the City's new conservation goal and discusses additional measures that will result in the increased conservation of water; and

WHEREAS, a copy of the Conservation Plan is available for public inspection at the Murray City Public Services Department, 4646 South 500 West, Murray Utah; and

WHEREAS, the Murray City Municipal Council has reviewed the Conservation Plan and is prepared to approve and adopt it.

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

1. It hereby adopts the Murray City 2019 Water Conservation Plan, a copy of which is attached.
2. The Murray City 2019 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    day of   , 2019

**MURRAY CITY MUNICIPAL COUNCIL**

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Dave Nicponski, Chair