



MONROE CITY COUNCIL MEETING

Tuesday, December 13, 2022 at 7:00 pm

NOTICE AND AGENDA

Pursuant to 52-4-6(2), UCA, notice is hereby given that the City Council of Monroe City, Sevier County, Utah, will hold a regular council meeting on the above date at the City Office, 10 N Main, commencing at 7:00 p.m. The agenda shall be as follows: (The order of business may be changed as time permits.)

- 1. Welcome and Call to Order: Mayor Johnny Parsons**
- 2. Pledge of Allegiance and Prayer: By elected official**
- 3. Roll Call**
- 4. Consider a motion to approve the minutes of the meeting held November 22, 2022**
- 5. Citizen input -Limit of 3 minutes per comment**
- 6. Approval of November 2022 warrant register, cash disbursements, adjustment journal, and aging report.**
- 7. Business**
 - a. Public Hearing to receive comments concerning power policy update and rate increase**
 - b. Project discussion - Jones and DeMille Engineering - Parker Vercimak**
 1. Culinary Water Master Plan
 2. Lower Hydro Project
 3. Secondary Water Meter Project
 - c. Consider Resolution 12 1 2022 to update Cemetery policy and fee schedule**
 - d. Consider Resolution 12 2 2022 to update Power Policy and rate structure**
- 8. Other Business**
 - a. Staff Reports**
 - b. Department Business-Council**
- 9. Adjournment**

Posted this 12th day of December, 2022

I hereby certify that the foregoing notice and agenda was posted at the Monroe City Hall, website littlegreenvillage.com, posted on the Utah Public Notice website and personally delivered to each member of the Monroe City Council.

Allison Leavitt, Monroe City Recorder

In compliance with the Americans with Disabilities Act, individuals needing special accommodations, or assistance during this meeting shall notify Allison Leavitt, City Recorder, at 435-527-4621 at least 24 hours prior to this meeting. Meetings of the Monroe City Council may be conducted by electronic means pursuant to Utah Code Annotated, Section 52-4-207.

Contact: Allison Leavitt, Monroe City Recorder (monroecity@msn.com 435-527-4621) | Agenda
published on 12/12/2022 at 3:43 PM



MONROE CITY COUNCIL MEETING
Tuesday, November 22, 2022, at 7:00 pm
MINUTES

7:00 p.m.

1. The regular meeting of the Monroe City Council was called to order by Mayor Parsons at 7:00 p.m.

2. The Pledge of Allegiance was led by Councilmember Buchmiller. A prayer was offered by Councilmember Payne.

3. Roll Call

Mayor Johnny Parsons

Councilmembers:

Dane Buchmiller

Janet Cartwright – left at 7:55 p.m.

Michael Mathie

Perry Payne

Erica Serrine

Public Works Director Devin Magleby

Power Foreman Josey Parsons

City Recorder Allison Leavitt

Utility Board Chairperson Jeff Nielson

4. Consider a motion to approve the minutes of the meetings held October 25, 2022.

Councilmember Payne moved to approve the October 25, 2022 Regular City Council Meeting Minutes as submitted. The motion was seconded by Councilmember Mathie. A roll call vote was called. Voting yes: Councilmembers Buchmiller, Cartwright, Mathie, Payne, and Serrine. The vote was unanimous. The motion carried. 5-0

5. Citizen input – Limit of 3 minutes per comment

37 David Peterson expressed his love of our town and the trees that we have here. The trees,
38 however, take a lot of maintenance and having to obtain a key to access the limb pile is going to
39 cause an inconvenience in maintaining the trees on his property. He understands that there is a
40 problem with misuse at the limb pile which has caused the Council to implement the key lock
41 system for access to the limb pile. He suggested that stronger penalties be put into place for non-
42 residents and others misusing the limb pile instead of penalizing those not misusing the limb pile
43 by having to obtain a key for access. Mayor Parsons stated that we have looked at other options
44 but for now we are going to go with the key system to see if it helps with the issues we are seeing
45 at the limb pile. Mayor Parsons explained that he personally followed someone with limbs on
46 their vehicle from Sigurd to our limb pile and we cannot keep up on the maintenance of the limb
47 pile for our residents, if we do not curtail non-residents using the limb pile.

48
49 Mr. Peterson expressed that if trail cameras were installed along with signs stating strong
50 penalties the key system would not be needed. Mayor Parsons explained that this is a
51 convenience to our citizens, and they are going to have to do some pre-planning for working on
52 the weekends. There are no other cities in our area that offer this service, and it is a great asset
53 that we need to protect.

54
55 Mr. Peterson asked about maintenance of the limb pile and who provides this. Mayor Parsons
56 explained that normally City staff use the backhoe to push the pile but with last October's early
57 snowstorm and increased use we had to hire Mathew Mills to bring in his dozer to push the pile.
58 Mr. Peterson said that a backhoe is not sufficient to manage this kind of job efficiently, and if the
59 City were to purchase a loader, he would push the pile a couple of times a week. Mayor Parsons
60 stated that the City staff and equipment were sufficient to maintain the pile until everybody in
61 the County started using our pile. Mayor Parsons stated again that at this point we are going to
62 use the key system because our only alternative is to shut it down and that would not be good
63 for our residents.

64
65 Mr. Peterson stated that he thinks the key system is penalizing those who have not misused the
66 limb pile, Mayor Parsons stated that they should look at it as a privilege to use the limb pile. Mr.
67 Peterson did not agree with Mayor Parsons but stated that he was going to try and look at the
68 issue the way Mayor Parsons explained it.

69
70 Mr. Peterson asked the Council to look at the option of purchasing a loader from UDOT surplus
71 equipment program. Councilmember Mathie stated that purchasing equipment would help
72 maintain the limb pile, but it does not address the problem of overuse from those outside of
73 Monroe. He explained that the Council has looked at the options he has suggested tonight, and
74 the key system is the most feasible option for right now.

75
76 Mr. Peterson is thankful for the limb pile, just wished it were a little more convenient for weekend
77 use. It was explained to him that a key can be picked up on Friday for weekend use.

To end the discussion Mayor Parsons explained to Mr. Peterson that the City was going to stay with the key system option for now and thanked Mr. Peterson for coming tonight.

Bill James explained that he and Anthony Whitmore are property owners who have purchased property adjacent to their property located in the Green Valley Subdivision. It was explained that both the Planning Commission and City Council have approved the property line adjustments. Since the meeting with the Council, it has become known that adding property to a property located in a subdivision is a more entailed process than previously thought. Quinn Davis, with the Sevier County Recorder's Office, suggested that a metes and bound agreement would accomplish what the property owners are wanting to do. This would create two separate lots, one for Mr. James and the other for Mr. Whitmore. These lots would be noted as non-buildable lots but would prevent having to vacate Green Valley Subdivision.

6. Approval of October 2022 cash disbursements, adjustment journal and aging report.

Councilmembers reviewed and signed the October 2022 cash disbursements, and adjustment journal.

7. Business

a. Red Rock Fly-in Review - Stacey Whitmore

Stacey Whitmore was not in attendance at tonight's meeting, this discussion will be tabled.

b. Parks and Recreation Review - Mike Miles

Mike Miles presented to the Council a review of work he completed this summer at Ekker Fields located at the Mtn. View Park.

Mr. Miles stated that City employees Kaycee Roberts and Darci Wagner did a phenomenal job this summer with the upkeep of the City's parks. Mr. Miles expressed concerns about how difficult it is for these two to take care of everything that is needed at the park and suggested an additional person be hired to help in the future.

Mr. Miles submitted a letter to the Council outlining needs at the park and ballfields and his opinion on how some of these needs could be addressed. Mr. Miles acknowledged that part of the funding for the park maintenance has come from a generous donor but asked that the City look at ways to obtain funding from City residents. The council recognizes Mr. Miles concerns but at this time placing an additional financial burden on our citizens for park needs is not feasible.

Mr. Miles stated that the operation and maintenance (O&M) costs are often overlooked when organizations add to their facilities. Councilmember Payne stated that as groups have come to

the City to request new facilities, such as a recreation center, it has been the O&M costs that have prevented the City from moving forward on the request.

Mr. Miles suggested hiring someone full time to take care of the parks and recreation programs. Mayor Parsons explained that right now there are not funds to do this and that City Treasurer Jacee Barney is helping the different recreation programs as needed or requested. Councilmember Sirrine stated that the City would love to hire a recreation director but when you look at adding a fee to the current registration costs and keep it affordable, it does not come close to what the cost of an employee would be. Councilmember Sirrine stated that when the City put the RAP (recreation and park) Tax on the ballot it was defeated.

Mr. Miles suggested that a meeting with the City and the school district administration be held to discuss the needs at the ballfields and create a written agreement with them. He thinks that there is a lack of communication with the high school administration, coaching staff, and City employees. The high school is currently using our park facilities for tennis, soccer, and baseball with little to no participation in O&M expenses. Mayor Parsons expressed that our fields were built by a donor who has expressed a desire that the high school baseball team use our fields and he has worked long enough with the school district to know that they usually will only help with the initial costs of the project. Councilmember Mathie stated that there is a legitimate issue concerning conflicts with the high school using our facility when needed by our league programs, and he is good with them using the facility if they are contributing and helping. Councilmember Mathie is in favor of a well-planned meeting with a good agenda outlining our concerns and needs be held with all parties involved. Councilmember Sirrine stated that she was planning to contact our school board representative Rick Orr to arrange a meeting before spring sports start in February.

Mayor Parsons and the Council thanked Mr. Miles for his efforts on the ballfields for the past two years and stated that his efforts have not gone unnoticed, many compliments have been received from not just our players but from visiting teams, on how nice our facility is.

c. Utility Board Report on Power Costs - Jeff Nielson

Chairperson Jeff Neilson explained to the Council that the Utility Board recently met to discuss options for the Council to address the increase in power costs over the past few months. We have had to purchase power on the open market, which increased our September bill to \$90,000 more than last year's September bill. Our average cost of power for September was .125 cents per kWh instead of our budgeted amount of .055 -.060 cents per kWh. We are currently charging our customers .086 -.092 cents per kWh. We all understand that we cannot charge less than our costs and stay in business.

Chair Nielson stated that the Utility Board is recommending a rate increase of .02 cents per kWh starting January 1, 2023 and include in our power department policy a purchase power price adjustment clause (surcharge) section. This section will allow a separate charge to our customers if we experience more months like September 2022 to cover costs for purchased power only. This surcharge would not be used to cover operating costs, these should be covered within our rate structure. In researching this option City Recorder Allison Leavitt spoke with personnel from Logan City and Morgan City. Logan has had this clause in their policy for over 20 years and this is the first time they have had to use it, Morgan has yet to implement the surcharge. Logan's example is on a monthly basis, but Morgan's is on a projected annual cost. We liked the annual basis versus the monthly because power costs fluctuate and if we used monthly the cost to our customers for September would have been at least an additional .06 cents per kWh. Again, Chair Neilson explained that the Utility Board is not suggesting using the surcharge now, just would like this in the policy so that it could be acted upon if needed.

The Council discussed with Power Foreman Josey Parsons what is happening on the open market right now. Power Foreman Josey Parsons explained that in the past power purchased on the open market was to help with the peaks in power usage for systems, and there was little demand for this, so the prices were reasonable. Now the need for this peak power is in higher demand, due to many reasons, that the price on the open market has gone through the roof. One reason the demand has increased is coal fired plants such as IPP and Hunter are unable to get coal, so they are having to reduce production or limit when they produce power. These are two of our sources which we have contracted with for a price of .03 - .05 cents per kWh instead \$22 per kWh, which was what we paid for some of our power in September.

It was suggested that next summer we should promote power conservation just as we do with water. If customers conserve during the peak hours this would reduce the amount of power purchased on the open market. Councilmember Mathie stated that our biggest users are the schools and pumpers. Pumpers are not really in a position to conserve since they only water when needed anyway. Power Foreman Josey Parsons stated that UAMPS has a conservation program in which we could participate. Monroe City would put so much money into the program and then we could offer a rebate program to our customers who purchase energy saving appliances or install led lighting in their homes. There are ways we can conserve; we just need to identify the most effective ways and areas to do so. Councilmember Mathie stated that by participating in these programs we are demonstrating to our customers that we are trying to provide them ways to save money and use their power more wisely.

Council and Power Foreman Josey Parsons discussed other options that UAMPS is working on ways to help systems provide reliable and affordable power. Power Foreman Josey Parsons will inform the Utility Board and Council on the progress of these studies.

Power Foreman Josey Parsons stated that he does not see things getting better in the near future and he will continue to review and participate in other power options that UAMPS provides.

Chair Nielson asked what we could save by not giving the 10% Christmas light discount. It costs approximately \$3500 each year; it was figured if we just gave a flat discount of \$5 to each person who put up Christmas lights it would save approximately \$2000. We have already advertised the discount for this year in the newsletter so the Council will consider and decide before next year's holiday season on how to handle the Christmas light discount program.

The council discussed the increased costs associated with the power department, as with everything else equipment, materials and wages have increased since our last rate increase. Even with the .003 cent per kWh yearly increase the revenues have not kept up with the expenses.

The Council agreed to the .02 cent per kWh rate increase and to update the power department policy to include a purchased power adjustment clause section. Councilmember Buchmiller stated that when we did our last rate increase the plan was that it was enough to avert a rate increase for quite some time and at no fault of our own, here we are two years later having to increase our rates to keep up with the increasing costs our power department is experiencing.

Further discussion and an opportunity for public input will be done at our regular schedule meeting to be held December 13, 2022, and a resolution will be prepared for the Council to vote on the changes.

8. Other Business

a. Staff Reports

City Recorder Allison Leavitt

*Distributed department budgets to Councilmembers and Mayor Parsons.

*Councilmember Cartwright had to leave the meeting and asked City Recorder Allison Leavitt to talk with the Council about the cemetery space fee increase.

Councilmember Cartwright suggested increasing the current fees as follows:

	Current	Proposed	Non-Resident*
Burial Space	\$250.00	\$300.00	\$500.00
Open/Close	\$225.00	\$300.00	N/A

Saturday Additional	\$100.00	\$150.00	N/A
Infant & Cremation	\$100.00	\$150.00	N/A
Disinterment	\$1000.00	\$1500.00	N/A

*We are not currently charging a different price for non-residents.

Council agreed to have Cemetery fee adjustments as a business item at our next Council meeting.

Public Works Director Devin Magleby –

*Bob Watts with Sevier County Road called to see if we want gravel crushed while they are crushing gravel at the gravel pits in the near future. This is what we have done in the past and it has been good for the City, since it reduces the cost of gravel for the City. The Council agreed to let Public Works Director Devin Magleby work with Mr. Watts on this matter and spend up to \$15,000.

*After office hours on-call employee and limb pile access protocol. The Council stated that on call employees do not have to accommodate requests for access to the limb pile. Residents are just going to have to plan ahead and obtain a key from the office for weekend or after hour use.

Power Foreman/Fire Chief Josey Parsons-

*Expressed to the Council that the Fire Department is struggling with firefighter attendance and recruitment of new firefighters. There was a discussion on training requirements and how to compensate new firefighters for the training and what benefits could be added to encourage new and current firefighters to attend meetings and fires.

The Council asked Fire Chief Parsons to meet with his officers and draft a proposal that they think the firefighters will be happy with and present this to the Council for a decision.

*Our Christmas silhouettes, which hang on the light poles, are getting old and not working, would like to begin replacing a few each year. The Council agreed to have City staff look for replacements for the aging silhouettes.

b. Department Business-Council

Councilmember Payne –

No further business tonight.

Councilmember Sirrine –

*Will follow-up on setting up a meeting with the Sevier School District Administration, South Sevier High School Principal and other effected parties concerning use and maintenance of fields at Mtn. View Park.

Councilmember Mathie-

*Trees were selected and have been removed on 400 N. Have spent most of the budgeted funds for this year.

*Jones and DeMille Engineering has submitted a grant application on our behalf to UDOT to develop a master transportation plan for Monroe. Sevier County is in the process of completing their plan and we thought it would be a suitable time for Monroe to create a transportation plan that would coincide with the County.

Councilmember Buchmiller –

No further business

Mayor Parsons –

No further business

9. Adjournment

There being no further business to come before the Council for consideration, Councilmember Mathie moved the Regular Council Meeting adjourn at 8:38 p.m. The motion was seconded by Councilmember Buchmiller The vote was unanimous. The motion carried. 4-0

The next regular City Council meeting is scheduled to be held on Tuesday, January 10, 2023 starting at 7:00 p.m. at Monroe City Office.

Approved this 13th day of December 2022.

Allison Leavitt
Monroe City Recorder

Johnny C. Parsons
Mayor

**Monroe City
Payment Approval**

Vendor	Invoice No.	PO Number	Activity No.	Description	Date	Amount
10.2222 - STATE WITHHOLDING TAX PAYABLE						
UTAH STATE TAX COMMISSION	PR120222-466			State Income Tax	12/06/2022	876.90
10.2231 - Long Term Disability						
LONG TERM DISABILITY INSU	PR120222-468			Long Term Disability	12/06/2022	97.19
10.4414 - 24TH & MISCELLANEOUS EXPENSES						
SYSCO INTERMOUNTAIN	18527757S			ACCOUNT BALANCE	11/05/2022	6.93
10.4421 - BOOKS, SUBSCRIPTIONS & MEMB.						
ZIONS BANKCARD CENTER	2494300 ADOBE			SUBSCRIPTION	10/16/2022	58.48
ZIONS BANKCARD CENTER	2480394N			EMAIL SUBSCRIPTIONS	11/01/2022	57.43
ZIONS BANKCARD CENTER	2420785N4			APT	11/09/2022	159.00
ZIONS BANKCARD CENTER	2422638NA			SAMS CLUB MEMBERSHIP	11/09/2022	110.00
						\$384.91
10.4424 - SUPPLIES						
ZIONS BANKCARD CENTER	2469216MN AM			HAND CLEANER	10/20/2022	80.52
ZIONS BANKCARD CENTER	2469216MP AMA			CABLES	10/20/2022	23.66
ZIONS BANKCARD CENTER	2413746M			SUPPLIES	10/27/2022	25.57
ZIONS BANKCARD CENTER	2413746MY			SUPPLIES	10/27/2022	3.75
ZIONS BANKCARD CENTER	2413746ODP			CORK BOARD	10/27/2022	140.52
ZIONS BANKCARD CENTER	24789301N			DOG LICENSES	11/01/2022	121.25
ZIONS BANKCARD CENTER	2413746NB			SUPPLIES	11/10/2022	54.50
ZIONS BANKCARD CENTER	2413746NQ			SUPPLIES	11/10/2022	2.36
MOUNT OLYMPUS WATERS	10203041 11252			WATER	11/25/2022	47.31
SEVIER OFFICE SUPPLY	1012440-0			PAPER SUPPLIES	11/16/2022	21.98
SEVIER OFFICE SUPPLY	1012441-0			PAPER PRODUCTS	11/16/2022	10.99
SEVIER OFFICE SUPPLY	1013060-0			CALENDARS	11/30/2022	31.96
						\$564.37
10.4425 - EQUIPMENT MAINTENANCE						
SEVIER OFFICE SUPPLY	9920			ROLLER FOR PRINTER	11/03/2022	141.15
10.4428 - TELEPHONE						
CENTURY LINK	CITYHALL 11/22			TELEPHONE	11/25/2022	79.77
GRANITE TELECOMMUNICATI	583320234			CITY HALL TELEPHONE	11/30/2022	225.41
						\$305.18
10.4429 - UTILITIES						
DOMINION ENERGY	CITY HALL 11/22			CITY HALL GAS	11/10/2022	31.65
MONROE CITY	OFFICE BUILDI			POWER USAGE	11/11/2022	79.30
						\$110.95
10.4446 - SUNDRY						
ROCKY MOUNTAIN POWER	11/17/2022			STREET LIGHT	11/17/2022	19.94
10.4447 - SR. CITIZENS						
ZIONS BANKCARD CENTER	2413746NQ2			CORK BOARD	11/10/2022	199.43
10.4448 - YOUTH CITY COUNCIL						
ZIONS BANKCARD CENTER	2469216ML	11		BALL PUMP YOUTH GRANT	10/19/2022	35.18
ZIONS BANKCARD CENTER	2405523M	11		BASKETBALL UNIFORMS YOUTH GRA	10/20/2022	1,288.05
ZIONS BANKCARD CENTER	2405523MV	11		BATTING HELEMTS	10/26/2022	869.50
ZIONS BANKCARD CENTER	2405523MV8			BASKETBALL UNIFORMS YOUTH GRA	10/26/2022	232.40
ZIONS BANKCARD CENTER	2449216N	11		SLLINGER BALL MACHING	10/31/2022	799.99
						\$3,225.12
10.5324 - SUPPLIES						
ZIONS BANKCARD CENTER	2444500M			FIRE DEPARTMENT CHARGER	10/20/2022	37.27
ZIONS BANKCARD CENTER	2469216MN360			PAPER TOWELS	10/20/2022	59.16
ZIONS BANKCARD CENTER	2423168MX			PICTURE HANGERS	11/09/2022	5.58
						\$102.01
10.5327 - GASOLINE AND OIL						
RHINEHART OIL INC	188571-22			FUEL-FD	11/28/2022	746.90
10.5329 - UTILITIES						
DOMINION ENERGY	FS 11/22			FIRE STATION GAS	11/10/2022	158.11
MONROE CITY	FIRE DEPARTM			POWER USAGE	11/11/2022	76.63
						\$234.74
10.6015 - EDUCATION AND TRAINING						
RURAL WATER ASSN OF UTA	14634			TRAINING-SINGLE DAY	11/21/2022	75.00
10.6021 - BOOKS, SUBSCRIPTIONS & MEMB.						
ZIONS BANKCARD CENTER	240705N3			ESRI RENEWAL	11/03/2022	100.00
10.6024 - SUPPLIES						
ZIONS BANKCARD CENTER	2479487N			INSURANCE DEDUCTIBLE - DEVIN'S P	11/07/2022	500.00
ZIONS BANKCARD CENTER	2449215N			COMPUTER ACCESSORIES	11/11/2022	129.04
ALVEY LUMBER	B175864			SHOP SUPPLIES	11/08/2022	22.99
ALVEY LUMBER	B175882			PARK SUPPLIES	11/08/2022	7.69
ALVEY LUMBER	B175883			SHOP SUPPLIES	11/08/2022	15.48
ALVEY LUMBER	B175910			SHOP SUPPLIES	11/09/2022	21.99
ALVEY LUMBER	B175912			SHOP SUPPLIES	11/09/2022	0.99
ALVEY LUMBER	B176198			SHOP SUPPLIES	11/15/2022	10.77
ALVEY LUMBER	B176480			SHOP SUPPLIES	11/22/2022	10.17

**Monroe City
Payment Approval**

Vendor	Invoice No.	PO Number	Activity No.	Description	Date	Amount
ALVEY LUMBER	B176500			SHOP SUPPLIES	11/22/2022	2.59
ALVEY LUMBER	B176794			SHOP SUPPLIES	11/30/2022	9.91
ALVEY LUMBER	B176800			SHOP SUPPLIES	11/30/2022	13.29
ALVEY LUMBER	B176830			SHOP SUPPLIES	11/30/2022	79.63
						\$824.54
10.6026 - VEHICLE MAINTENANCE						
BIPS AUTO PARTS	833229			DEVIN'S TRUCK	11/14/2022	11.99
10.6027 - GASOLINE AND OIL						
RHINEHART OIL INC	188571-22			FUEL-STREETS	11/28/2022	746.91
10.6029 - UTILITIES						
DOMINION ENERGY	SHOP 11/22			SHOP GAS	11/10/2022	14.15
MONROE CITY	CITY YARDS 112			POWER USAGE	11/11/2022	15.22
MONROE CITY	CROSSING 1122			POWER USAGE	11/11/2022	0.36
MONROE CITY	MAINTENANCE			POWER USAGE	11/11/2022	57.05
MONROE CITY	MARQUEE 1122			POWER USAGE	11/11/2022	7.92
MONROE CITY	PARKING SHED			POWER USAGE	11/11/2022	1.96
						\$96.66
10.6030 - STREET MAINTENANCE						
HAWLEY ROCK PRODUCTS, I	8135			DRAIN ROCK	11/15/2022	117.29
MOUNTAINLAND SUPPLY CO.	88664			STREETS DEPARTMENT	11/29/2022	760.39
						\$877.68
10.6424 - SUPPLIES						
ALVEY LUMBER	B175583			PARK SUPPLIES	11/02/2022	6.99
ALVEY LUMBER	B175802			PARK SUPPLIES	11/07/2022	19.97
ALVEY LUMBER	B175833			PARK SUPPLIES	11/07/2022	40.74
ALVEY LUMBER	B176279			PARK SUPPLIES	11/17/2022	24.18
ALVEY LUMBER	A87894			FIRE DEPARTMENT	11/26/2022	29.97
ALVEY LUMBER	B176757			PARK SUPPLIES	11/29/2022	7.49
ALVEY LUMBER	B176772			PARK SUPPLIES	11/29/2022	74.25
ALVEY LUMBER	B176797			PARK SUPPLIES	11/30/2022	8.97
LARSEN'S ACE HARDWARE	851596			SUPPLIES	11/30/2022	32.97
SEVIER VALLEY GLASS INC	00015585			WINDOWS FOR LIONS PARK	11/15/2022	80.00
						\$325.53
10.6427 - GASOLINE AND OIL						
RHINEHART OIL INC	188571-22			FUEL-PARK	11/28/2022	90.53
10.6429 - UTILITIES						
DOMINION ENERGY	CC 11/22			CC GAS	11/10/2022	48.12
DOMINION ENERGY	OLD FS11/22			OLD FD GAS	11/10/2022	40.75
MONROE CITY	BALLPARK 1122			POWER USAGE	11/11/2022	122.64
MONROE CITY	CANYON VIEW			POWER USAGE	11/11/2022	9.37
MONROE CITY	CC 1122			POWER USAGE	11/11/2022	28.75
MONROE CITY	CONCESSIONS			POWER USAGE	11/11/2022	4.54
MONROE CITY	FIRE STATION 1			POWER USAGE	11/11/2022	3.83
MONROE CITY	LIONS PARK ST			POWER USAGE	11/11/2022	1.16
MONROE CITY	LIONS RESTRO			POWER USAGE	11/11/2022	52.42
MONROE CITY	RIDING ARENA 1			POWER USAGE	11/11/2022	71.82
MONROE CITY	ROPING ARENA			POWER USAGE	11/11/2022	6.94
MONROE CITY	SPLASHPAD 112			SPLASH PAD	11/11/2022	0.36
MONROE CITY	TENNIS COURT			POWER USAGE	11/11/2022	10.68
						\$401.38
10.6430 - BUILDING MAINTENANCE						
PETERSON PLUMBING	2929758			BATHROOM WINTERIZATION AT MT VI	11/02/2022	434.38
PETERSON PLUMBING	2930569			RODEO GROUND WINTERIZATION	11/03/2022	106.68
PETERSON PLUMBING	2934672			WATER HEATER MAINTENANCE	11/09/2022	30.50
						\$571.56
10.6714 - Young Adult Books						
SEVIER OFFICE SUPPLY	1012367-0			BOOKS	11/15/2022	37.58
10.6721 - BOOKS, GENERAL FUND						
SEVIER OFFICE SUPPLY	1011801-0			BOOKS	11/03/2022	118.32
SEVIER OFFICE SUPPLY	C1011801-0			BOOKS	11/10/2022	-12.79
						\$105.53
10.6724 - SUPPLIES						
DEMCO	7188035			BOOK COVERS AND PROTECTORS	09/19/2022	232.82
DEMCO	7214845			BOOK COVERS	11/04/2022	213.09
MODERN MARKETING	MM1148772			COLORING TOTES	11/23/2022	219.69
SEVIER OFFICE SUPPLY	1011821-0			SUPPLIES	11/03/2022	96.07
SEVIER OFFICE SUPPLY	1011990-0			TONER	11/08/2022	91.99
SEVIER OFFICE SUPPLY	1012360-0			TONER	11/15/2022	329.97
						\$1,183.63
10.6727 - LARGE PRINT BOOKS						
CENGAGE LEARNING	79632923			BOOKS	11/09/2022	159.75
10.6728 - TELEPHONE						
GRANITE TELECOMMUNICATI	583320235			LIBRARY TELEPHONE	11/30/2022	66.48

**Monroe City
Payment Approval**

Vendor	Invoice No.	PO Number	Activity No.	Description	Date	Amount
10.6729 - UTILITIES						
DOMINION ENERGY	LIBRARY 11/22			LIBRARY GAS	11/10/2022	106.94
MONROE CITY	LIBRARY 1122			POWER USAGE	11/11/2022	36.85
						\$143.79
10.6730 - BUILDING MAINTENANCE						
Labor Commission/Safety Divisi	23U0000000026			BOILER INSPECTION	11/01/2022	30.00
10.6824 - SUPPLIES						
ZIONS BANKCARD CENTER	2422638N3			BATTERY	11/02/2022	66.05
ZIONS BANKCARD CENTER	744500N			CREDIT	11/10/2022	-12.81
ALVEY LUMBER	B175551			CEMETERY SUPPLIES	11/01/2022	14.20
						\$67.44
10.6826 - VEHICLE MAINTENANCE						
O'REILLY AUTO PARTS	3001-155381			TOYOTA CLUTCH	11/15/2022	37.98
10.6827 - GASOLINE AND OIL						
RHINEHART OIL INC	188571-22			CEMETERY	11/28/2022	248.97
10.6829 - UTILITIES						
MONROE CITY	CEMETERY SH			POWER USAGE	11/11/2022	0.53
51.4024 - SUPPLIES						
PETERSON PLUMBING	2934674			SALT	11/09/2022	295.47
PETERSON PLUMBING	2936395			WATER SUPPLIES	11/14/2022	887.43
SCHOLZEN PRODUCTS COM	3039642-00			CYLINDER MONTHLY RENTAL	11/18/2022	52.80
						\$1,235.70
51.4026 - VEHICLE MAINTENANCE						
PETERSON PLUMBING	2929728			TRUCK TOOLS	11/02/2022	140.76
PETERSON PLUMBING	2929747			TRUCK TOOLS	11/02/2022	165.23
PETERSON PLUMBING	2930566			TRUCK TOOLS	11/03/2022	89.84
						\$395.83
51.4027 - GASOLINE AND OIL						
RHINEHART OIL INC	188571-22			FUEL-WATER	11/28/2022	135.80
51.4028 - TELEPHONE						
CENTURY LINK	11/2022 WATER			WATER DEPARTMENT	11/25/2022	85.18
51.4029 - UTILITIES						
MONROE CITY	CULINARY WEL			POWER USAGE	11/11/2022	14.24
MONROE CITY	WATER TREATM			POWER USAGE	11/11/2022	377.36
MONROE CITY	WELLHOUSE 11			POWER USAGE	11/11/2022	14.33
RHINEHART OIL INC	149357-22			PROPANE	11/02/2022	154.63
RHINEHART OIL INC	183144-22			PROPANE	11/22/2022	452.38
						\$1,012.94
51.4037 - PROFESSIONAL AND TECHNICAL						
CENTRAL UTAH PUBLIC HEA	10/31/2022			WATER SAMPLES	10/31/2022	55.00
CENTRAL UTAH PUBLIC HEA	11/30/2022			WATER SAMPLE	11/30/2022	80.00
						\$135.00
53.4022 - NOTICES & PUBLICATIONS						
IRBY	S013181875.001			ELECTRIC SUPPLIES	11/22/2022	199.60
IRBY	S013296813.002			ELECTRIC SUPPLIES	11/22/2022	202.00
						\$401.60
53.4024 - SUPPLIES						
ALVEY LUMBER	B176440			FIRE DEPARTMENT	11/21/2022	8.99
ALVEY LUMBER	B176713			POWER SUPPLIES	11/28/2022	15.56
IRBY	S013260167.001			ELECTRIC SUPPLIES	11/01/2022	1,920.00
IRBY	S013203745.001			ELECTRIC SUPPLIES	11/09/2022	1,192.50
IRBY	S013215303.001			POWER SUPPLIES	11/09/2022	2,495.00
IRBY	S013296813.001			ELECTRIC SUPPLIES	11/21/2022	271.50
PETERSON PLUMBING	2943949			ELECTRIC/IRRIGATION	11/29/2022	159.41
						\$6,062.96
53.4025 - EQUIPMENT MAINTENANCE						
BIPS AUTO PARTS	833409			BUCKET TRUCK	11/16/2022	24.99
SOUTHERN TIRE MART	6290001932			BUCKET TRUCK	11/28/2022	1,580.00
						\$1,604.99
53.4026 - VEHICLE MAINTENANCE						
BIPS AUTO PARTS	833523			POWER DEPARTMENT	11/17/2022	411.97
53.4027 - GASOLINE AND OIL						
RHINEHART OIL INC	188571-22			FUEL-ELECTRIC	11/28/2022	294.24
53.4029 - UTILITIES						
MONROE CITY	SR. CITIZEN 112			POWER USAGE	11/11/2022	176.31
53.4031 - DATA PROCESSING						
PELORUS METHODS	230101			QUARTERLY PAYMENT	11/30/2022	1,750.00
TOWNCLOUD, INC	3711			SUBSCRIPTION	11/30/2022	50.00
						\$1,800.00
53.4038 - ADVERTISING-OTHER SERVICES						
CHRISTENSEN'S CLOTHING	39380			CANDY FOR SANTA	11/30/2022	250.00

**Monroe City
Payment Approval**

<u>Vendor</u>	<u>Invoice No.</u>	<u>PO Number</u>	<u>Activity No.</u>	<u>Description</u>	<u>Date</u>	<u>Amount</u>
KSVC 980 AM	26772-4			ADVERTISING	11/30/2022	165.00
THE RICHFIELD REAPER	53560			VETERAN'S DAY	11/30/2022	62.50
THE RICHFIELD REAPER	53561			HOLIDAY GREETING	11/30/2022	240.00
						\$717.50
53.4042 - LINEMAN SUPPLIES/MATERIALS						
ZIONS BANKCARD CENTER	24247690N			JOSEY PARSONS FR CLOTHING	11/01/2022	223.24
ZIONS BANKCARD CENTER	2424760N8			JOSEY PARSONS FR CLOTHING	11/08/2022	198.49
EPG TESTING AND SAFETY T	8381			TESTING INSPECTIONS	10/18/2022	2,684.00
						\$3,105.73
53.4046 - SUNDRY						
USDA FOREST SERVICE	BILL #BF040804			BILL #BF040804AD014	11/15/2022	1,990.73
57.4035 - ADMINISTRATIVE SERVICES						
SEVIER COUNTY	114836			DECEMBER LANDFILL BILLING	11/30/2022	6,635.25
58.4024 - SUPPLIES						
ALVEY LUMBER	B176773			IRRIGATION SUPPLIES	11/29/2022	8.68
ALVEY LUMBER	B176782			IRRIGATION SUPPLIES	11/29/2022	21.49
PETERSON PLUMBING	2943949			ELECTRIC/IRRIGATION	11/29/2022	159.40
						\$189.57
						\$39,610.48

**Monroe City
Payment Approval**

Dated: _____

Mayor: _____

City Council: _____

City Recorder: _____

JBC THREADWORKS	11/14/2022	\$	602.18	SHIRTS FOR GIRLS BASKETBALL	724087 - EQUIPMENT & SUPPLIES - GIRLS BASKETBALL
RILEY BARNEY	11/14/2022	\$	80.00	JR JAZZ OFFICIATING 4 GAMES 11/14/2022	724095 - REFEREE FEES - BOYS BASKETBALL
WHITE'S SANITATION	11/14/2022	\$	123.00	BIN REMOVAL	594035 - ADMINISTRATIVE SERVICES
WHITE'S SANITATION	11/14/2022	\$	231.50	PARK & FISH POND TRASH REMO	106424 - SUPPLIES
WHITE'S SANITATION	11/14/2022	\$	11,651.50	RESIDENTIAL TRASH REMOVAL	594035 - ADMINISTRATIVE SERVICES
ERICA SIRIRINE	11/14/2022	\$	831.29	ULCT LODGING REIMBURSEMENT	104123 - TRAVEL
RYAN JOHNSON	11/14/2022	\$	976.70	K & K INSURANCE	724052 - SUNDRY - BOYS BASKETBALL
TYLA NORTHRUP	11/15/2022	\$	120.51	PIZZA FOR SOCCER	724083 - EQUIPMENT & SUPPLIES - SOCCER
BLACKBURN, MATTIE	11/16/2022	\$	120.00	REFEREE FEES	724096 - REFEREE FEES - GIRLS BASKETBALL
KRISSY MILLER	11/16/2022	\$	120.00	GIRLS BASKETBALL OFFICIATING	724096 - REFEREE FEES - GIRLS BASKETBALL
US POSTMASTER	11/17/2022	\$	300.15	NOVEMBER NEWSLETTER	534024 - SUPPLIES
BLACKBURN, MATTIE	11/17/2022	\$	60.00	3 GAMES 11/17/2022	724095 - REFEREE FEES - BOYS BASKETBALL
HAYDEN PAYNE	11/17/2022	\$	75.00	3 GAMES 11/17/2022	724095 - REFEREE FEES - BOYS BASKETBALL
SHAKESPEARE, DUSTIN	11/17/2022	\$	60.78	REFEREE JERSEY	724052 - SUNDRY - BOYS BASKETBALL
ALLISON LEAVITT	11/17/2022	\$	1,900.00	EMPLOYEE SAVINGS WITHDRAW	102232 - EMPLOYEE SAVINGS
JACEE BARNEY	11/18/2022	\$	225.00	9 GAMES 11/16-17/2022	724098 - REFEREE FEES - JR BASKETBALL
LOVELL, KARI	11/18/2022	\$	100.00	4 GAMES 11/16-17/2022	724098 - REFEREE FEES - JR BASKETBALL
RILEY BARNEY	11/18/2022	\$	225.00	9 GAMES 11/16-17/2022	724098 - REFEREE FEES - JR BASKETBALL
BLACKBURN, MATTIE	11/18/2022	\$	80.00	4 JR JAZZ GAMES 11/19/2022	724095 - REFEREE FEES - BOYS BASKETBALL
BOSTON BARNEY	11/18/2022	\$	25.00	CLOCK WORK FOR 11/16-17/2022	724098 - REFEREE FEES - JR BASKETBALL
LANDEN PAYNE	11/18/2022	\$	60.00	3 GAMES 11/19/2022	724095 - REFEREE FEES - BOYS BASKETBALL
RILEY BARNEY	11/18/2022	\$	80.00	4 JR JAZZ GAMES 11/19/2022	724095 - REFEREE FEES - BOYS BASKETBALL
TYSON ROBB	11/18/2022	\$	60.00	3 GAMES 11/19/2022	724095 - REFEREE FEES - BOYS BASKETBALL
Full Draw Designs	11/18/2022	\$	45.00	GREEN WASTE SIGN	106030 - STREET MAINTENANCE
Full Draw Designs	11/18/2022	\$	145.60	CHECKS	104424 - SUPPLIES
Full Draw Designs	11/18/2022	\$	807.00	UTILITY BILLS	534024 - SUPPLIES
PARKER, JEFF	11/21/2022	\$	134.41	Deposit Refund: 1023115 - PARK	532410 - CUSTOMERS' DEPOSITS
ALLISON LEAVITT	11/22/2022	\$	12.53	REIMBURSEMENT FOR CHRISTMAS	104414 - 24TH & MISCELLANEOUS EXPENSES
ROBERTS, KAYCEE	11/23/2022	\$	900.00	EMPLOYEE SAVINGS	102232 - EMPLOYEE SAVINGS
Public Employees Health Program	11/23/2022	\$	8.41		106413 - EMPLOYEES BENEFITS
Public Employees Health Program	11/23/2022	\$	8.41		106713 - EMPLOYEES BENEFITS
Public Employees Health Program	11/23/2022	\$	8.41		106813 - EMPLOYEES BENEFITS
Public Employees Health Program	11/23/2022	\$	168.20		105313 - EMPLOYEES BENEFITS
Public Employees Health Program	11/23/2022	\$	1,011.88		102240 - GROUP INSURANCE PAYABLE

Public Employees Health Program	11/23/2022	\$ 1,189.34	EMPLOYEE BENEFITS	584013 - EMPLOYEES BENEFITS	
Public Employees Health Program	11/23/2022	\$ 1,236.44		106013 - EMPLOYEES BENEFITS	
Public Employees Health Program	11/23/2022	\$ 1,474.31		514013 - EMPLOYEES BENEFITS	
Public Employees Health Program	11/23/2022	\$ 1,794.35	health insurance	104413 - EMPLOYEES BENEFITS	
Public Employees Health Program	11/23/2022	\$ 6,469.52		534013 - EMPLOYEES BENEFITS	
UAMPS	11/23/2022	\$ 58,565.08	JULY POWER BILLING	534039 - POWER PURCHASED-UAMPS	
Utah Local Government Trust	11/23/2022	\$ 4.32	EMPLOYEE BENEFITS	584013 - EMPLOYEES BENEFITS	
Utah Local Government Trust	11/23/2022	\$ 7.60		106013 - EMPLOYEES BENEFITS	
Utah Local Government Trust	11/23/2022	\$ 8.65	EMPLOYEE BENEFITS	106413 - EMPLOYEES BENEFITS	
Utah Local Government Trust	11/23/2022	\$ 8.65	EMPLOYEE BENEFITS	106713 - EMPLOYEES BENEFITS	
Utah Local Government Trust	11/23/2022	\$ 8.65	EMPLOYEE BENEFITS	106813 - EMPLOYEES BENEFITS	
Utah Local Government Trust	11/23/2022	\$ 19.26		514013 - EMPLOYEES BENEFITS	
Utah Local Government Trust	11/23/2022	\$ 24.10		534013 - EMPLOYEES BENEFITS	
Utah Local Government Trust	11/23/2022	\$ 45.42		104413 - EMPLOYEES BENEFITS	
Utah Local Government Trust	11/23/2022	\$ 180.26		105313 - EMPLOYEES BENEFITS	
Utah Local Government Trust	11/23/2022	\$ 683.55		102240 - GROUP INSURANCE PAYABLE	
MONROE CITY	11/29/2022	\$ 8,005.42	PAYROLL TRANSFER	101580 - SUSPENSE	
MONROE CITY	11/29/2022	\$ 26,032.23	PAYROLL TRANSFER	101580 - SUSPENSE	
US POSTMASTER	11/29/2022	\$ 500.28	BILLING POSTAGE-NOVEMBER 20	534024 - SUPPLIES	
DEVIN MAGLEBY	11/29/2022	\$ 100.00	TRANSPORT BACKHOE REPAIRS	534024 - SUPPLIES	
MONROE CITY	11/30/2022	\$ 3.00	CAR WASH/PARKS	106424 - SUPPLIES	
MONROE CITY	11/30/2022	\$ 3.35	SUPPLIES-FAMILY DOLLAR	104424 - SUPPLIES	
MONROE CITY	11/30/2022	\$ 5.58	SUPPLIES-FAMILY DOLLAR	104424 - SUPPLIES	
MONROE CITY	11/30/2022	\$ 7.00	POSTAGE	104424 - SUPPLIES	
MONROE CITY	11/30/2022	\$ 8.34	O/S	104424 - SUPPLIES	
MONROE CITY	11/30/2022	\$ 9.57	SUPPLIES-FAMILY DOLLAR	104424 - SUPPLIES	
MONROE CITY	11/30/2022	\$ 9.86	HOME DEPOT	514024 - SUPPLIES	
CURTIS, RAELEE	11/30/2022	\$ 45.00	SCURA LUNCHEON GIFT	104446 - SUNDRY	
		\$ 193,810.23			

**Monroe City
Council Approval**

Dated: _____

Mayor: _____

City Council: _____

City Recorder: _____

**MONROE CITY
RESOLUTION 12 01 2022
AMENDING MONROE CITY'S
CEMETERY FEES**

We, the governing body of the City of Monroe, a Municipality of the State of Utah, hereby order the following resolution to be adopted and passed this 13th day of December 2022:

NOW THEREFORE, BE IT RESOLVED AS FOLLOWS:

WHEREAS, the Monroe City Council is authorized to determine policies governing Monroe City Cemetery, and

WHEREAS, the Monroe City Council desires to adjust the cemetery rate schedule to meet the costs of the daily operations, equipment replacement and grounds maintenance of the Monroe City Cemetery.

WHEREAS, the Monroe City Council desires to include Resident and Non-Resident rate in rate schedule.

WHEREAS, effective January 1, 2023, the proposed new rate schedule for cemetery spaces shall be:

WHEREAS, The Monroe City Council has determined that this revised policy will more clearly state City cemetery rates, rules, procedures, etc.

NOW THEREFORE, it is hereby resolved by the City of Monroe, Sevier County, State of Utah that Monroe city desires to adopt an amended Monroe City Cemetery Policy as set forth in the attached document.

ADOPTED BY THE MONROE CITY COUNCIL THIS 13TH DAY OF DECEMBER 2022.

MONROE CITY

By: _____
Johnny C. Parsons, Mayor

ATTEST:

Allison H. Leavitt, City Recorder

Indigent: An indigent is a person who does not have the means with which a burial right can be purchased.

Installment Plan: An installment plan requires a \$50.00 deposit for spaces purchased by an individual. Each space must be paid in full before burial.

Marker: An identification tool made of stone that is place upon a grave which contains information about the person buried in that particular space.

Perpetual Care: Perpetual care is defined as the general care and maintenance necessitated by the natural growth and ordinary care which may be provided at reasonable intervals within the budget limits of the cemetery. It includes the planting, cutting, and watering and care of lawns, upkeep of buildings, walks and roadways. It also provides for the care of trees, shrubs and flowers planted by the cemetery personnel. Perpetual care does not provide for maintenance of monuments, markers or flower vases.

Permanent Container: A metal or marble container permanently affixed to the marker or included in, but not separately attached to the concrete foundation.

Person: The term "person" shall mean individual, group, partnership, firm, corporation or association.

Resident: Any person currently residing within the incorporated limits of Monroe City or did immediately prior to being placed in a health care institution.

Resident Rate: Rate to include persons as stated in resident definition and to include those paying Monroe City property taxes, living within Monroe City service area, or living within the outlying areas of Monroe serviced by Monroe mailing address.

Sexton/Superintendent: That person is responsible for the general maintenance of the cemetery, enforcing cemetery policies and procedures. The Sexton/Superintendent is under the direction of the City Manager.

Grass Slant Marker: A marker that has a gradual slant from ground level to a height of no more than four (4) inches.

Upright Marker: A marker that stands upright with a maximum height of thirty-six inches (36) from ground level.

SECTION 2 -LOT OWNERSHIP AND PRIVILEGES

A. Nature and Extent of Rights Acquired.

- Upon payment of the purchase price of a space, the purchaser acquires the rights of burial in said space, subject to the policies and procedures of the cemetery.
- The city retains title to the cemetery property.

CEMETERY FEES

	RESIDENTIAL	NON-RESIDENT	
Cemetery Space	\$300.00	\$500.00	
Open/Close (Weekdays)	\$300.00	\$300.00	
Saturday - Additional	\$150.00	\$150.00	
Double Depth Burial – Additional	\$150.00	\$150.00	
Infant Burials			
Open/Close (Weekdays)	\$150.00	\$150.00	
Saturday - Additional	\$150.00	\$150.00	
Cremation			
Open/Close (Weekdays)	\$150.00	\$150.00	
Saturday - Additional	\$150.00	\$150.00	
Disinterment (Vaulted)	\$1500.00	\$1500.00	
Other Services			
Transfer Fee	\$50.00		
Recording Fee	\$20.00 per transaction		
Copies & Handling	\$1.00 per copy		

RESOLUTION 12 02 2022
MONROE CITY POWER DEPARTMENT
ADOPTING REVISED POWER RATES
AND INCLUDE PURCHASED POWER ADJUSTMENT CLAUSE

We, the governing body of the City of Monroe, a Municipality of the State of Utah, hereby order the following resolution to be adopted and passed this 13th day of December, 2022:

NOW THEREFORE, BE IT RESOLVED AS FOLLOWS:

WHEREAS, the Monroe City Council is authorized to determine policies of the Monroe City Power Department, which states rules, regulations, and operating procedures of the Monroe City Power Department, and

WHEREAS, the Monroe City Council desires to adjust the power rates in order to meet the costs of the daily operations, equipment replacement and infrastructure maintenance of the Monroe City Power Department, and

WHEREAS, effective with the January 1 2023, the proposed new rate structure for all power services shall be:

WHEREAS, the Monroe City Council has determined that in order to keep pace with the cost of salaries, supplies, materials, and equipment required for operation of the power department, there will also be an annual rate increase of \$.003 kWh with an annual increase to the base rate of \$.25 beginning July 1, 2021.

NOW THEREFORE, it is hereby resolved by the City Council of Monroe, Sevier County, State of Utah that Monroe City adopts the amended power policy to include the revised rate schedule of the Monroe City Power Department and the annual rate increase as set forth in this document.

A PUBLIC HEARING WAS HELD ON DECEMBER 13, 2022, FOR PUBLIC COMMENTS WITH A RESOLUTION ADOPTED DECEMBER 13, 2022.

(Seal)

Monroe City:

By _____
Johnny C. Parsons, Mayor

Attest: _____
Allison H. Leavitt, City Recorder

MONROE CITY POWER DEPARTMENT
SCHEDULE OF GRID CONNECTION FEES
(Only to be used when appropriate)
Revised 6/25/2019

Based on standard short electrical extensions for customers desiring interconnects rated 120/240 volts – Single phase, 200 amp or less, located within 100 feet of the nearest utility transformer.

Additional charges will apply for applicants with alternate or additional requirements.

A list of all materials, equipment, and labor costs included in each service classifications has been compiled in: “*Formulas for Standard Short Electrical Extensions*”

OVERHEAD TO OVERHEAD SERVICE	\$2012.00
------------------------------	-----------

OVERHEAD TO UNDERGROUND SERVICE	\$2911.00
---------------------------------	-----------

DEVELOPED SUBDIVISION UNDERGROUND SERVICE	\$ 1128.00
---	------------

TEMPORARY POWER CONSTRUCTION POWER	\$ 100.00
PER MONTHLY SERVICE FEE	\$ 10.00

MONROE CITY POWER
SCHEDULE 82R POWER RATES

6/2/97 Revised 9/12/2000-Revised 9/9/2003-Revised 7/2006 Revised 12/11/2007
Revised 10/11/2017 Revised 6/25/2019 Revised 7/01/2020 Revised 12/13/2022

RESIDENTIAL SERVICE:

APPLICATION: This schedule is for residential electric service at approximately 120/220v 200amp at a single point of delivery.

MONTHLY BILL:

Base rate **\$8.50 per month, per meter connection (7/01/2022)**

***Base rate** **\$5.25 per month, for Single 65 & Older or qualify for property tax abatement (7/01/2022)**

RATE:

• Tier 1	0-400 kWh usage	~~\$.092~~	~~\$.1120~~
• Tier 2	401-800 kWh usage	~~\$.094~~	~~\$.1140~~
• Tier 3	over 800 kWh usage	~~\$.098~~	~~\$.1180~~

***Per annual increase 7/01/2022**

DISCONNECT:	\$15.00 per trip
RE-CONNECT:	\$15.00 per trip
READ & LEAVE:	\$15.00 to be charged to individual making request
OPT-OUT AUTO READ:	\$15.00 per trip for billing purpose

****An annual base rate increase of \$.25 and increase of \$.003 per kWh to maintain pace with increased costs.***

MONROE CITY POWER
SCHEDULE 82B POWER RATE
6/2/97 Revised 9/12/2000 Revised 7/2006
Revised 12/11/2007 Revised 10/11/2017
Revised 6/25/2019 Revised 7/1/2020

BUSINESS SERVICE:

APPLICATION: This schedule is for electric service at approximately 120/240v--220/480v, single or three phase, where available.

MONTHLY BILL:

Base rate **\$8.50 per month, per meter connection (7/01/2022)**

RATE:

• Tier 1	0-400 kWh usage	\$.092	\$.1120
• Tier 2	401-800 kWh usage	\$.094	\$.1140
• Tier 3	over 800 kWh usage	\$.098	\$.1180

***Per annual increase 7/01/2022**

DEMAND OVER 10KW \$4.80 per kw demand

DISCONNECT:	\$15.00 per trip
RE-CONNECT:	\$15.00 per trip
READ & LEAVE:	\$15.00 to be charged to individual making request
OPT-OUT AUTO READ:	\$15.00 per trip for billing purpose

****An annual base rate increase of \$.25 and increase of \$.003 per kWh to maintain pace with increased costs.***

MONROE CITY POWER
SCHEDULE 96I POWER RATES
6/2/97 Revised 9/12/2000
Revised 12/11/2007 Revised 10/11/2017
Revised 6/25/2019 Revised 7/1/2020

IRRIGATION SERVICE: *Farm pumps*

MONTHLY BILL:

Base rate \$8.50 per month, per meter connection (7/1/2022)

RATE:

• Tier 1	0-400 kWh usage	\$.092	\$.1120
• Tier 2	401-800 kWh usage	\$.094	\$.1140
• Tier 3	over 800 kWh usage	\$.098	\$.1180

*Per annual increase 7/01/2021

**An annual base rate increase of \$.25 and increase of \$.003 per kWh to maintain pace with increased costs.*

****NOTE THERE WILL BE A \$3.00 FEE CHARGES PER MONTH FOR INACTIVE SERVICE AGREEMENTS ENTERED INTO BEFORE 2/2017 WHEN INACTIVE METER POLICY WAS DISCONTINUED.**

MONROE CITY POWER

MONROE CITY
POWER DEPARTMENT POLICY
12/13/2022

SCHEDULE 98DG POWER RATES
7/1/2022

DIVERSIFIED GENERATION SERVICE

APPLICATION: This schedule is for alternative sources of energy for customer use.

MONTHLY BILL:

Base rate \$30.00 per month, per meter connection (7/1/2022)

RATE:

• Tier 1	0-400 kWh usage	~~\$.092~~ \$.1120
• Tier 2	401-800 kWh usage	~~\$.094~~ \$.1140
• Tier 3	over 800 kWh usage	~~\$.098~~ \$.1180

**An annual base rate increase of \$.25 and increase of \$.003 per kWh to maintain pace with increased costs.*

PURCHASED POWER ADJUSTMENT CLAUSE

MONROE CITY
POWER DEPARTMENT POLICY
12/13/2022

The PPAC automatically adjusts on an annual basis utilizing the following formula:

$$\text{PPA} = \frac{\text{WPC} \pm \text{over / under}}{\text{PRE}} - 0.0595$$

- PPA is the purchased power adjustment per kWh.
- WPC is the projected wholesale power cost in dollars for the projected year.
- Over/Under is the amount in dollars that the previous year's estimated PPA over or under collected total wholesale costs in the previous year.
- PRE is the projected annual retail energy sales in kWh.
- 0.0595 is the base dollars per kWh.

MONROE CITY

CULINARY WATER MASTER PLAN 2022

December 9, 2022

Project #: 2005-018



www.jonesanddemille.com

1.800.748.8275

TABLE OF CONTENTS

1.	Executive Summary.....	1
2.	Introduction	2
2.1.	Definitions.....	2
2.2.	Existing Water System	3
3.	Demographics.....	3
4.	Equivalent Residential Connections	4
4.1.	ERC Projections.....	5
5.	Level of Service Requirements.....	5
5.1.	Water Rights	6
5.2.	Source	6
5.3.	Storage.....	6
5.4.	Distribution Minimum Water Pressure Requirements.....	7
5.5.	Fire Flow	7
6.	Hydraulic Modeling.....	8
7.	Existing Culinary System Capacity Analysis	9
7.1.	Water Rights	9
7.2.	Water Source	9
7.2.1.	Spring Capacity	9
7.2.2.	Well.....	10
7.2.3.	Total Source Capacity	11
7.3.	Water Treatment.....	11
7.4.	Water Storage.....	11
7.5.	Distribution System	12
8.	Recommended Culinary System Improvements	13
8.1.	Water Rights	13
8.2.	Water Source	13
8.3.	Water Treatment.....	13
8.4.	Water Storage.....	14
8.5.	Distribution System	14
8.5.1.	Aging Infrastructure Improvements.....	14
8.5.2.	Fire Flow Improvements.....	14

8.5.3.	Lead and Copper rule	14
8.6.	Water Conservation.....	15
9.	Funding Sources Available.....	15
9.1.	Utah Division of Drinking Water	15
9.2.	Permanent Community Impact Fund Board (CIB)	15
9.3.	Utah Board of Water Resources	16
9.4.	USDA Rural Development	16
9.4.1.	USDA Emergency Community Water Assistance Grant (ECWAG)	16
9.4.2.	USDA Community Facilities Direct Loan & Grant	16
9.5.	Agency Funding (Self-Fund)	16
10.	Next Steps	16
Appendix A. Map Exhibits & Model Results.....		A-1
A.1.	Map Exhibits	A-2
A.2.	Model Results	A-3
Appendix B. Updated DDW Requirements		B-1
Appendix C. Fire Flow Test Results		C-1
Appendix D. Cost Estimate.....		D-1

FIGURES

Figure 3-1 Population Projection	4
Figure 7-1: Cold Spring Flow Data	10

TABLES

Table 1-1 System ERC Summary	2
Table 4-1 2020 Culinary Water Connections	5
Table 4-2 ERC Projections	5
Table 6-1 Model Flows	9
Table 7-1 Current Water Rights	9
Table 7-2. Source Capacity Summary	11
Table 7-3 Existing Storage Tank Capacity.....	12
Table 8-1 Water Right Proof Due Dates.....	13

1. EXECUTIVE SUMMARY

This Culinary Water Master Plan provides an analysis of existing system components, such as storage, system piping, water rights, and sources. The plan also provides recommendations for Monroe City to supply water for projected growth through the 20 year planning period (2042). The recommendations in this plan are given to meet the minimum level of service required by the State while providing the best value to the City.

Based on historical census data from 1980 to 2020, growth is projected to occur at a rate of 2.78%. Using this growth rate, Monroe's population is projected to grow from 2,735 in 2020 to 4,639 in 2042. The current population and connections are comparable to 1,139 equivalent residential connections (ERCs) and is projected to be 1,970 ERCs by 2042, see Sections 3 and 4.

Currently, the City has a total of 4,013.9 ac-ft per year of water rights. The City has enough water rights to meet current and projected future demands.

Monroe City's water sources are Cold Springs and an underground well located at their public works facility. The water from the springs is the primary source of water for the City and gravity flows from the spring collection area to the treatment building before entering the storage tanks. The well is typically only used for emergencies.

The springs have been considered "under the direct influence of surface water" and therefore all spring flows are treated with microfiltration at their treatment building, which is located next to the storage tanks. The treatment plant has capacity to treat higher flows than the spring is currently producing, so it is not a limiting factor to the system. The well water is only treated with chlorine gas.

The City currently has two active storage tanks. The active tanks have a combined storage of 845,000 gallons. The current storage does not meet the existing requirements of the system as determined by the current State of Utah Division of Drinking Water rules, updated in 2018. The storage volume needs to be increased in order to meet the State's minimum standards. A new 1,000,000-gallon tank would provide sufficient storage through the planning period.

A hydraulic model was created using Innovyze InfoWater Pro modeling software (version 3.5) based on GIS Data provided by the City. The model was calibrated to the existing system for accuracy. The model was then used to project water demands based on the State's guidelines for minimum pressures during different flow scenarios, both in existing and the 2042 buildout of the system, see Section 6. The model results show that the system can adequately provide minimum pressures during the various demand scenarios with the exception of a few locations outside of city limits where fire flow is not met, and the Peak Day Demand scenario resulted in one area of residences being pressure deficient within city boundaries.

A summary of system components with their respective ERC capacity is given in Table 1-1. The Excess/(Deficient) ERC column is based on the projected 2042 system demands.

Table 1-1 System ERC Summary

System Component	ERC Capacity	Excess/(Deficient) ERC	Recommendations
Water Rights	9,118	7,148	File proofs or extensions on water rights.
Sources	2,686	716	NA
Storage	547	(1,423)	New Storage Tank
Distribution	NA	Aged cast iron pipe along Main St.	Replace pipe with 12-in PVC

2. INTRODUCTION

Monroe City is located in the Southern end of Sevier County, surrounded by Monroe Mountain to the east and the Tushar range to the West. The City's overall annual growth since 1980 has been at an average rate of 2.78% per year according to historical census data. Most of the growth has been residential. To support new development, the city has updated its Culinary Water Capital Facilities Plan. This plan will establish levels of service, analyze system capacities, identify system deficiencies, and provide strategic improvements to meet existing system deficiencies. This plan will also identify improvements to meet future water demands through a 20-year planning period (2042). Cost estimates and priorities will be assigned to improvement projects and potential funding sources will be identified to allow the city to plan and complete necessary improvements.

2.1. DEFINITIONS

ac-ft	Acre-feet	LOS	Level of Service
ADD	Average Day Demand	PDD	Peak Day Demand
DDW	Division of Drinking Water	PID	Peak Instantaneous Demand
DWR	Division of Water Rights	PRV	Pressure Reducing Valve
ERCs	Equivalent Residential Connections	psi	pounds per square inch
gpm	gallons per minute	SRF	State Revolving Fund
IFC	International Fire Code	UAC	Utah Administrative Code
MG	Million Gallons	WR	Water Right

2.2. EXISTING WATER SYSTEM

The City's culinary water system consists of treatment facilities, storage facilities, water sources, and transmission/distribution water lines, see Appendix A for an exhibit of the City's culinary water system.

The City has two sources of water: Cold Spring and an underground well. Cold Spring is located up Monroe Canyon, approximately three and a half miles east of the treatment building. The spring gravity flows down the canyon to the treatment building and produces approximately 238 gpm. The well has been used more often in recent years due to low spring flows, but it is only used during peak day demands or for emergencies. The well produces 1,350 gpm and is used for emergencies and in peak demand scenarios.

The water from the spring is treated at the treatment building before flowing into the two concrete storage tanks. Once the tanks are full, the treatment building shuts down and the water is by passed into the irrigation pond just south of the tanks. The flow is metered at the Cold Spring hydroelectric power plant upstream and at the treatment building, but the bypassed water is not metered. Comparing the meter readings at the power plant and the treatment building would provide the information needed to calculate the bypassed flow. The treatment building and storage tanks are located southeast of the City along Monroe Canyon Road.

The two buried concrete storage tanks are in parallel, the one having a capacity of 345,000 gallons, and the other having a capacity of 500,000 gallons. The 500,000-gallon tank was constructed in 1997 and the 345,000-gallon tank was refurbished in 1997 (a new lid was installed on the tank). Currently, flow from the water treatment facility passes through both tanks and is conveyed to the distribution system through two 12-in pipes. These transmission lines connect to the rest of the distribution system which consists of PVC, HDPE, and cast-iron pipes ranging from 2- to 10-inches.

The South Monroe Culinary Water Company is a wholesale customer of the City and uses an average of 48.75 ac-ft of water per year (per Monroe water usage report, 2017-2021 data).

The City currently has a plan in place to improve the culinary system outside of the city boundary. It was originally the responsibility of the connected users to maintain their respective pipe, but the pipeline has not been maintained. The City now currently charges these users outside of the boundary double the standard water rate, setting the additional money aside in a maintenance account, and uses said money to improve segments of the culinary system outside of the city boundary as funds allow.

3. DEMOGRAPHICS

Growth projections were developed using historic U.S. Census data (1980-2020). To calculate the projected population, the future value formula was used, see Equation 1.

$$FP = CP \times (1 + r)^t \quad (1)$$

Where:

FP = Future Population

CP = Current Population

r = Annual Growth Rate (%)

t = Number of Years Between Current and Future Population

The city has experienced steady growth from 1980 to 2020, with the most growth occurring from 2010 to 2020 (historical census data). To estimate future population, the average growth rate from 1980 to 2020 was calculated and used to estimate the population in 2042. By 2042, the City's population is projected to be approximately 4,639, see Figure 3-1.

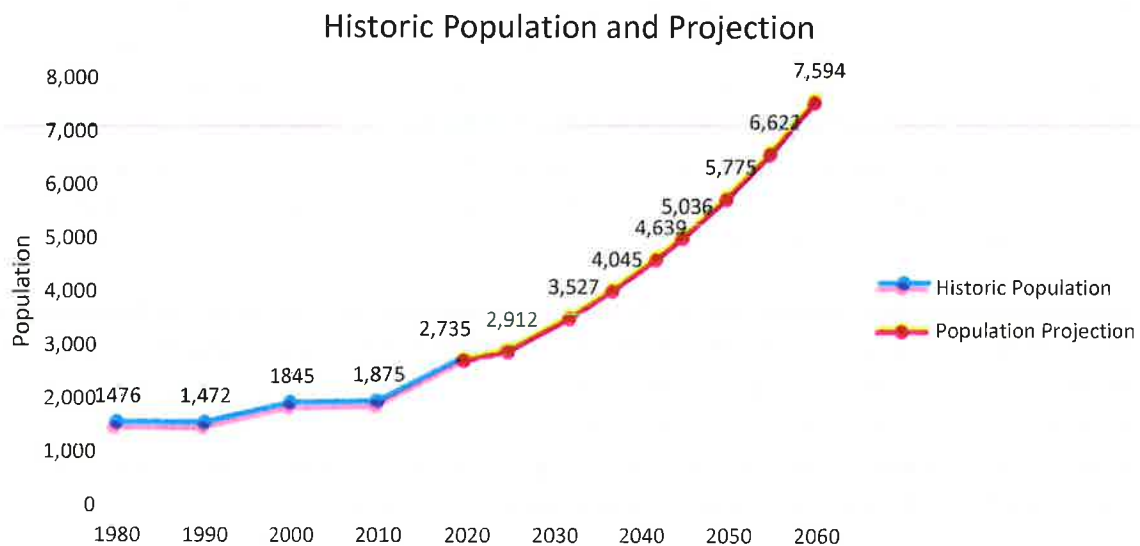


Figure 3-1 Population Projection

4. EQUIVALENT RESIDENTIAL CONNECTIONS

Currently, there are 1,022 connections reported to the State with a mix of residential, commercial, industrial, and institutional users. Water usage for these connections was determined based on water usage reports provided by Monroe City. Because the water usage data does not differentiate between indoor and outdoor water usage, the calculation for converting connections to ERCs combines indoor and outdoor use. Typically, for planning purposes, ERCs are used to define the capacities of system components. Equations 2 and 3 show the conversion from connections to ERCs. Some commercial connections use more than a typical residential connection and therefore have more ERCs than connections. A breakdown of connections and their ERC value is shown in

Table 4-1.

$$\text{Water Usage per ERC} = \frac{\text{Total Water Used by Residential Connections}}{\text{Number of Residential Connections}} \quad (2)$$

$$\text{Number of ERCs} = \frac{\text{Water Usage by Type of Connection}}{\text{Water Usage per ERC}} \quad (3)$$

Table 4-1 2020 Culinary Water Connections

Type	Connections	ERCs	Average ERC Value per Connection
Residential	978	978	1
Commercial	27	102	3.76
Industrial	9	13	1.42
Institutional	8	47	5.85
TOTAL	1,022	1,139	-

4.1. ERC PROJECTIONS

To project future water demands, it was assumed that the system ERCs would grow at the same rate as the population with residential, commercial, industrial, and institutional connections growing proportionally. Table 4-2 shows existing (1,139 ERCs) and projected number of ERCs through 2042 (1,970 ERCs).

Table 4-2 ERC Projections

	2022	2023	2024	2025	2026	2027	2032	2037	2042
Residential ERCs	978	1,005	1,033	1,062	1,091	1,122	1,286	1,475	1,691
Commercial ERCs	102	104	107	110	113	116	133	153	176
Industrial ERCs	13	13	13	14	14	15	17	19	22
Institutional ERCs	47	48	49	51	52	54	62	71	81
Total ERCs	1,139	1,171	1,203	1,237	1,271	1,306	1,498	1,718	1,970

5. LEVEL OF SERVICE REQUIREMENTS

The State of Utah DDW Rules and the current IFC outline the minimum LOS that water systems are required to provide. Establishing a LOS allows the City to provide new water users the same quantity and quality of water as existing users.

In 2018, the DDW updated the requirements for calculations to determine the LOS for water systems serving more than 500 people. In general, the new sizing guideline requires the use of measured data from the sources and water meter data by connection type to determine requirements for source, storage, and water right. A detailed outline of DDWs requirements and procedure to determine levels of

service can be found in Appendix B. To conservatively plan for non-typical water usage years, a variation factor is applied to the data. This value, called a System-Specific Variation Factor, is determined based on the distribution of the data. The maximum measured value is then multiplied by this value to set the minimum standard for the system. The following table shows the calculated and selected variation factor for each category considered.

The LOS for Monroe City is as follows:

5.1. WATER RIGHTS

The LOS related to water rights is as follows:

- Diversion Limit (peak flow or PDD) = 0.0013 cfs/ERC (0.581 gpm/ERC)
- Annual Diversion Volume (ADD projected for one year) = 0.442 ac-ft/yr/ERC (144,028 gallons/year/ERC)

The LOS for water rights is determined by the peak flow (based on PDD) and the annual diversion limit (based on the ADD over a year).

5.2. SOURCE

The LOS related to source is as follows:

- Flow Rate: provide a flow equal to the Peak Day Demand of 0.581 gpm per ERC for indoor and outdoor use.

These levels are consistent with the Utah Administrative Code Section R309-510-7, Source Sizing.

5.3. STORAGE

The LOS related to storage is the combination of the following.:

- Equalization Storage: 393 gallons per ERC
This volume is based on the new Water System Minimum Sizing Requirements (Utah Code 19-4-104 and 114) and water usage data provided by Monroe City. Indoor and outdoor water usage is included and reflects the average day water usage.
- Fire storage: 630,000 gallons
This volume is based on Appendix B Table B105.1(2) of the current IFC rule for fire flow storage for the LDS church building, which was assumed to be a Type V-B building, with no sprinkler system, and approximately 30,000 square feet. A structure of that size and type requires a fire flow of 4,750 gpm for 4 hours per the IFC code. However, that much flow is unfeasible for Monroe's system. 3,500 gpm for 3 hours is recommended and was used to calculate the fire storage.
- Emergency Storage: 0 gallons

- Utah Administrative Code Section R309.510-8(4), Facility Design and Operation: minimum Sizing Requirements, Storage Sizing, Emergency Storage states that, *“Emergency storage shall be considered during the design process. The amount of emergency storage shall be based upon an assessment of risk and the desired degree of system dependability. The Director may require emergency storage when it is warranted to protect public health and welfare.”* The City currently does not have a specific storage volume requirement for emergency storage and therefore it was not evaluated for this study.

5.4. DISTRIBUTION MINIMUM WATER PRESSURE REQUIREMENTS

The LOS related to minimum water pressure is as follows:

- Minimum of 20 psi during fire flow and PDD
- Minimum of 30 psi during PID
- Minimum of 40 psi during PDD

These levels are consistent with the Utah Administrative Code Section R309-105-9, Minimum Water Pressure.

5.5. FIRE FLOW

The LOS related to fire flow is providing a minimum of the following:

- 1,500 gpm for residential homes with a finished square footage greater than 3,600 square feet
- Non-residential buildings vary based on finished square footage, usage, automatic sprinkler systems, and construction material type.

These levels are consistent with the UAC Section R309-550(5), Water Main Design, Fire Protection. Local fire authorities were contacted to determine the control building and the required fire protection flow rate. The control building was determined to be the LDS church on Main St. and 100 South. The required fire flow for that building was 4,750 gpm for 4 hours and was determined using the 2018 IFC, assuming the building was a Type 3A building. However, the State Fire Marshal has indicated what is required by code for Monroe is improbable to achieve. Therefore, recommended improvements are suggested to improve the system flow capacity but are not sufficient to bring the system up to code. Throughout the residential areas of Monroe, the fire protection flow was set at 1,500 gpm by the local fire authority. See contact information below:

Josey Parsons
435-201-7799
10 N Main, Monroe, UT 84754
josey@littlegreenvally.com

6. HYDRAULIC MODELING

The hydraulic model was set up using information from GIS data provided by City personnel. The water system was then modeled using Innovyze InfoWater Pro Version 3.5 program.

Junctions were strategically placed at beginning, middle and end of pipes, along major roads, and intersections and at other locations as necessary to achieve an accurate system representation. Junctions were used to represent the nearby ERC values of homes and businesses. The 'demand allocator' tool was used to assign ERC data to the placed junctions, based on the nearest connection locations, and associated ERC values. The hydraulic model was used to check multiple scenarios for system performance in accordance with Utah drinking water laws and rules. The scenarios evaluated include ADD, PDD, PID and PDD + Fire Flow. The scenarios include minimum system pressures that must be checked for function of the system.

The hydraulic model was created to check existing conditions and evaluate future scenarios. The values described in Section 5 are the assigned rate values per ERC by scenario. These calculations were used as a global demand factor and adjusted for the required scenario.

The model was calibrated with existing flow data and current fire flow tests, see Appendix C for Fire Flow Test results. Hazen-Williams roughness values were assigned based on pipe material. A roughness value of 130 was used for PVC, which makes up the majority of the system. One known section of cast-iron pipe was assigned a roughness value of 75. Any recommended pipe improvements were assigned a roughness value of 130. Upon completing the existing system model, dependent scenarios were created for full buildout. By creating dependent scenarios, any changes to the base or parent model were carried through the rest of the project. The system model was continually updated as adjustments were made during the modeling process.

Growth calculations were used to estimate future ERC values and were based on previously described growth data. The additional ERCs were added to the model in areas identified by Monroe City personnel. The number of additional ERCs were distributed based on the estimated number of connections for the future development areas. High, medium, and low-density areas were identified by using a parcel map and the area of parcels and dividing that area into an amount of potential ERCs. High density areas were assigned 0.85 acres/ERC, medium density areas were assigned 1.25 acres/ERC, low density areas were assigned 2.00 acres/ERC. A map of the evaluated growth areas identified by the City is included in the future scenario maps shown in Appendix A.

The exhibits and tables in Appendix A show the areas of growth, model junctions, and results for the modeled scenarios.

Table 6-1 shows model flows for various scenarios. The PID was calculated by using Equation 4 per state requirements and dividing by the total number of ERCs.

$$Total\ Flow\ (gpm) = 10.8 * Number\ of\ ERCs^{0.64} \quad (4)$$

Table 6-1 Model Flows

ADD Flow per ERC	PDD Flow per ERC	PID Flow Capacity per ERC (Existing System)
0.273 gpm	0.581 gpm	0.857 gpm

7. EXISTING CULINARY SYSTEM CAPACITY ANALYSIS

7.1. WATER RIGHTS

Currently, the City has a total of 4,013.97 ac-ft per year of water rights. Based on the average amount of 0.476 ac-ft per ERC per year, the city can support up to approximately 9,118 ERCs.

The existing water rights are sufficient to meet the current and projected future demands. No additional water rights are necessary. Water right numbers 63-2508 and 63-3078 are both certificated, while the water right to the Cold Spring (63-2785) is listed on the State's website as "Not Protested". Table 7-1 contains a summary of the City's existing culinary water right obtained from the Utah Division of Water Rights website.

Table 7-1 Current Water Rights

WR No.	Source	Volume (ac-ft)	Max Flow Rate (cfs)	Proof Due Date	Notes	Link
63-2508	Underground Water Well	723.9	1	10/29/1976	Certificated	63-2508
63-2785	Cold Spring	2172	3	11/28/1983	Not Protested	63-2785
63-3078	Monroe Creek	1,118	7.45	3/30/2020	Certificated	63-3078
Current Total Water Available		4,014				
Current ERC Capacity		9,118				

7.2. WATER SOURCE

7.2.1. SPRING CAPACITY

The spring capacity for Cold Springs was based on the water usage report submitted by Monroe to the State. Spring yield is determined by taking the 25th percentile flow rate based on the last 3 years of data (per UAC Section R309-515-7). This allows for consideration of seasonal and annual variations. The

spring capacity was determined to be approximately 238 gpm. This flow equates to approximately 410 ERCs. Figure 7-1 shows the flow data for Cold Spring from January of 2020 to November of 2022.

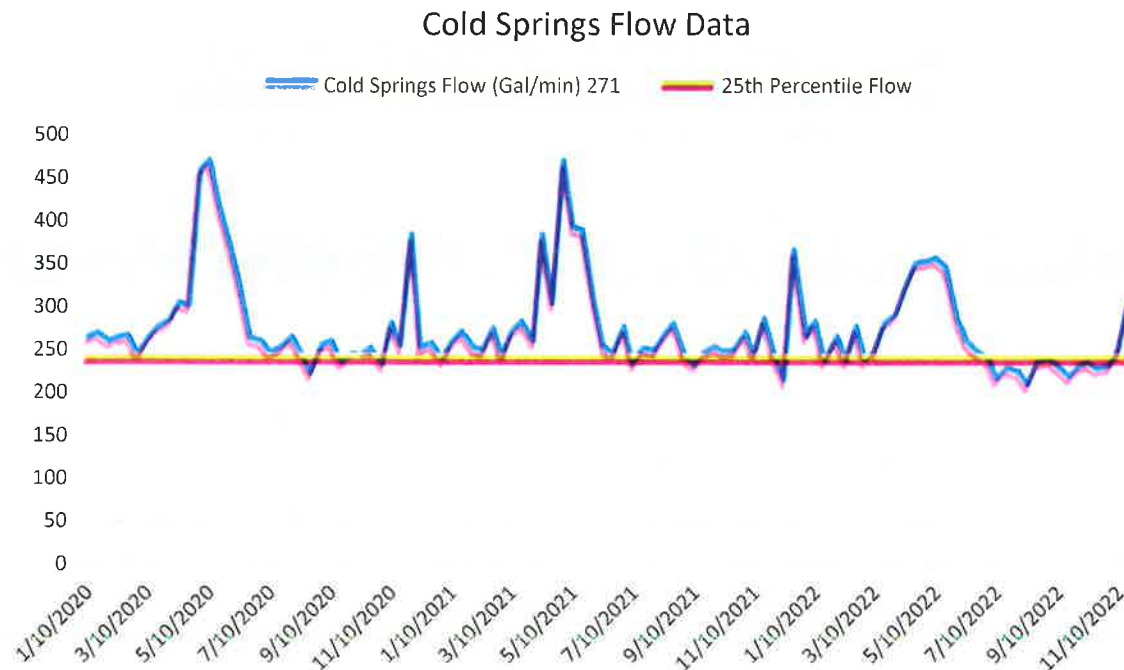


Figure 7-1: Cold Spring Flow Data

7.2.2. WELL

To identify a well's ability to provide water for a system, a well's safe yield is established. The Division of Drinking Water considers two-thirds of the pumping rate from the aquifer drawdown test as the safe yield of the well.¹ The safe yield determines the number of ERCs a well source can support. The city has one underground well located at 600 South and Main Street. This well is typically used as a non-primary source. The safe yield capacity of the underground well is 1400 gpm, but the well only has the capacity to be pumped at 1350 gpm. The well can provide sufficient flow to supply 2,325 ERCs to help supplement the system when needed, this capacity could be increased by installing a pump that could take better advantage of the well capacity (might require a new pump test and re-equipping of the well).

It should be noted that even though a safe yield is used for planning purposes, a well can be pumped more than the safe yield, up to the test pumping rate. If a well's safe yield capacity needs to be

¹ UAC R309-515-6(10)(c) states: "If the aquifer drawdown test data show that the drawdown has stabilized, the Director will consider 2/3 of the pumping rate used in the constant-rate test as the safe yield of the well. The safe yield is used to determine the number of permanent residential connections or ERCs that a well source can support."

reevaluated, it is recommended that a well pump test be conducted to determine a new safe yield capacity.

7.2.3. TOTAL SOURCE CAPACITY

Both sources of water meet the current needs of the system, see Table 7-2.

Table 7-2. Source Capacity Summary

Source	Safe Yield Capacity (gpm)	ERC Capacity
Cold Spring	238.00	409.95
Underground Well	1,350.00	2,325.36
Total	1,588.00	2,735.31

7.3. WATER TREATMENT

The City treats the spring water at the treatment building upstream of the tank, which was installed in 2005. There are two skids inside the building that can each treat up to 400 gpm. The spring is currently producing around 225 gpm. The water is treated by microfiltration.

7.4. WATER STORAGE

There are two water storage tanks that serve the City and provide the total storage capacity for the culinary water system of 845,000 gallons. The existing ERC capacity was evaluated by first determining the required fire storage based on the 2018 IFC. The IFC requires a fire flow demand of 4,750 gpm for 4 hours which corresponds to the building with the largest demand in the system, totaling 1,140,000 gallons of fire storage. This is an unrealistic amount of fire storage for a system of Monroe's size. It is recommended that the City set a goal to be able to provide 3,500 gpm for 3 hours. This decreases the amount of fire storage they need to only 630,000 gallons.

After the fire storage is accounted for, the tanks may have additional storage for emergencies. Currently, the DDW does not specify the amount of storage volume required for emergencies. Since the existing storage tanks have not been planned or constructed with emergency storage, the current emergency storage LOS is 0 gallons.

The existing 345,000-gallon tank was refurbished in 1997 (a new lid was installed). It is estimated the tank was installed in the 1950's or 1960's. If this is the case, this tank has exceeded its life expectancy and should be inspected by 2042 to determine if the tank is in need of further repair or replacement.

Using the ERCs calculated in Section 4 and the equalization storage requirements outlined in Section 5.3, the required equalization storage per ERC was approximated at 393 gallons. A breakdown of the existing storage and the sustainable ERCs are shown in Section 5.3.

Table 7-3 Existing Storage Tank Capacity

Name	Total Volume (gal)
Tank 1	345,000
Tank 2	500,000
Total Existing Storage	845,000
Total Fire Storage	630,000
Emergency Storage	0
Required Equalization Storage	447,627
System ERC Capacity	547

The existing storage capacity is not sufficient to provide fire flow and meet the demands of the existing or future system needs.

7.5. DISTRIBUTION SYSTEM

The existing system was evaluated for ADD, PDD, PID, and PDD + Fire. The system provides adequate flow and pressure as outlined in Section 5.4 for all scenarios except for a few locations where PDD pressure is not met. These locations are at 387 E Monroe Canyon Road (Pete Weimer residence) and 442 E Valley View Lane (Rhett Parsons residence). Monroe does not intend to improve the LOS to this area due to the elevation difference between this area and the tanks being too small to provide minimum pressure requirements. There is also a section of cast iron pipe that has exceeded its life expectancy along Main Street from 400 S to 400 N that has been leaking often in recent years. Repairs have been made each time a leak is found, but the City still expects future leaks from this area.

It is recommended that this section of pipe be replaced with 12-in PVC pipe from 400 S to Center St (approximately 2,600 ft) and 10-in PVC pipe from Center St to 400 N (approximately 2,600 ft). This recommendation will reduce maintenance costs and improve flow capacity throughout the system.

The DDW rules require fire hydrants have a minimum specified flow with no less than 20 psi of pressure throughout the system during PDD plus fire flow. The minimum flow varies based on building size, type, and use. In residential areas 1,500 gpm is required for fire hydrants at 20 psi. Schools and other large commercial buildings require greater flows, but the same minimum 20 psi pressure must be maintained. Facilities constructed prior to this rule may not be required to meet these conditions; when improvements are made to older facilities or newer facilities are constructed, they should provide the necessary system improvements to meet their required fire flow conditions. The LDS Church building on Main Street was determined to be the control building and requires a flow of 4,750 gpm. The rest of the system was given a 1,500-gpm demand set by the local fire authority.

8. RECOMMENDED CULINARY SYSTEM IMPROVEMENTS

In the following sections, recommendations on capital improvements are given to correct existing system deficiencies and some recommendations are given to help improve system efficiency and operations. Cost estimates for improvements are given in Appendix D.

8.1. WATER RIGHTS

The current water rights are sufficient to meet the demand of the existing and projected future system. No additional water rights are required. As previously mentioned, water rights that are put to full beneficial use should have a proof performed by a licensed engineer or surveyor to protect the water right. If the water right has not been put to full beneficial use by the time the proof is required, then an extension should be filed with the Water Rights Office.

Table 8-1 Water Right Proof Due Dates

WR No.	Source	Volume (ac-ft)	Proof Due Date	Notes	Link
63-2508	Underground Water Well	723.9	10/29/1976	Certificated	63-2508
63-2785	Cold Spring	2,172	11/28/1983	Not Protested	63-2785
63-3078	Monroe Creek	1,118	3/30/2020	Certificated	63-3078
Current Total Water Available*		4,014			
Current ERC Capacity		9,118			

8.2. WATER SOURCE

The existing spring and well flow rates are sufficient to meet the demands of the existing and future system. If the Cold Spring slows production, then the well can be pumped more regularly allowing for the system to maintain and exceed the demands on the system.

It is recommended that Monroe City consider adding another well to the system in the near future to have a redundant well source and back up. This will allow the city to provide uninterrupted water service to its customers in the event of maintenance on either the springs/treatment plant and/or the well. This well should be at a minimum similar in size to the existing well.

8.3. WATER TREATMENT

If additional sources are developed to provide water for the system, it may be necessary to treat the water from the new sources. The treatment system should be sized with the capacity of the new source. If the source of water is high quality, and treatment isn't required, the current treatment system is adequate for future needs.

8.4. WATER STORAGE

The current storage tanks are not sufficient to meet the demand of the existing or future systems out to 2042. In order to meet projected growth demands, the City would need an additional 650,000 gallons of storage. A new storage tank of a minimum 650,000 gallons would meet the required storage according to the future ERC projections. It is recommended that a 1,000,000 gallon tank be constructed due to the economy of scale on a tank this size and also to provide some redundant storage should the 345,000 gallon tank needs to be replaced before the end of the planning period.

It is also recommended that the 345,000-gallon tank be re-evaluated by 2042 to determine if any additional maintenance or refurbishing needs to be done due to aging. If the tank is damaged or in need of repair, the City should consider demolishing or abandoning the tank.

Consideration for emergency storage should be evaluated and is recommended to be included in the tank storage volume, which will increase the storage capacity required per ERC. Emergency storage is valuable for emergencies from natural disasters or from maintenance operations such as well pump maintenance or periodic spring redevelopment.

8.5. DISTRIBUTION SYSTEM

The distribution system meets the DDW requirements for all but the PDD. Results for the existing and future scenarios can be seen in Appendix A.

8.5.1. AGING INFRASTRUCTURE IMPROVEMENTS

It is recommended that the cast iron section of pipe be replaced with 12-in PVC pipe from 400 S to Center St (approximately 2,600 ft) and 10-in PVC pipe from Center St to 400 N (approximately 2,600 ft). This recommendation will reduce maintenance, maintenance costs, and improve flow capacity throughout the system.

8.5.2. FIRE FLOW IMPROVEMENTS

The City of Monroe, as previously discussed in this report, is storage deficient. The improvements to storage would alleviate the strain on the system in the case of a fire. The church building on the corner of 100 S and Main St was determined to be the system control building. The required demand on the system in order to meet IFC is not feasible. The State Fire Marshall is aware of Monroe's system and the existing deficiency in this regard and has encouraged more realistic improvements for the City.

8.5.3. LEAD AND COPPER RULE

The DDW has revised the Lead and Copper rule that that was published by the EPA in 1991 due to issues with lead and copper in water systems. The goal of this revision is to identify the material of every pipe in a given public water system and classify them into one of 4 categories:

1. Lead service lines
2. Lead status unknown service lines
3. Galvanized lines requiring replacement
4. Non-lead service lines

Water systems must submit an initial service line inventory by Oct. 16, 2024. It is not expected to have identified every pipe in the system by this time and can be worked on over time, but it is recommended that lead pipes be identified by this time if possible. It is recommended that Monroe City make a plan to review records, maps, and plans before this deadline to inventory their current system. More information about the Lead and Copper Rule, requirements, completing a records review, and funding can be found at this website: <https://deg.utah.gov/drinking-water/lead-and-copper-rule-revisions>.

8.6. WATER CONSERVATION

As noted previously in the new DDW calculation requirements, all the level of service thresholds for the various capacity requirements are based on actual water usage. Water conservation can significantly reduce the capacity requirements. Water conservation is a great way to reduce cost of new infrastructure and capitalize on existing facilities.

9. FUNDING SOURCES AVAILABLE

Several funding sources are available to Monroe City to help fund water system improvements and other public infrastructure/service projects. Interest rates are given based on 2022 data and recently funding projects.

9.1. UTAH DIVISION OF DRINKING WATER

The Utah Division of Drinking Water offers low interest loans from the Federal SRF and the SRF. These funds are available to all political entities of the state. The typical interest rate ranges between 1.5 to 4% with a 20-year term.

- The Federal SRF is provided to the states from the Environmental Protection Agency (EPA). These funds are federal dollars and require compliance with the Davis Bacon Wage Act, the American Iron and Steel Act (Buy America), and the other federal programs.
- The SRF is administered by the state and offers low interest loans (2 to 4%) and grants. Typically, only about 5% of the SRF funds are awarded as grants.
- Most systems that have a Median Adjust Gross Income (MAGI) that is below the State of Utah's average MAGI qualify for funding that is a mix of grants and low interest loans.

9.2. PERMANENT COMMUNITY IMPACT FUND BOARD (CIB)

The CIB is an entity of the state that provides loans and grants to cities. The typical conditions of a loan are a 20 to 30-year term at the going interest rate (currently 3.5%).

9.3. UTAH BOARD OF WATER RESOURCES

The Utah Board of Water Resources offers low interest loans for projects that conserve, protect, or more efficiently use present water supplies, develop new water, or provide flood control. This option is likely less favorable funding option for culinary water infrastructure improvements. Typical loan terms are 20 to 30 years at 2 to 4%.

9.4. USDA RURAL DEVELOPMENT

9.4.1. USDA EMERGENCY COMMUNITY WATER ASSISTANCE GRANT (ECWAG)

The ECWAG grant can be applied for to aid communities that have experienced a significant decline in water quantity or quality from their sources due to a natural disaster or other emergency event, such as: drought, flood, fire, earthquake, disease outbreak, chemical or leakage spill. 70% or more of funding is to be used for work at the source, 30% can be used in piping. Typical funding limits for projects is capped at \$1,000,000. This funding source also requires a Preliminary Engineering Report and an Environmental Report to be prepared and submitted with the application.

9.4.2. USDA COMMUNITY FACILITIES DIRECT LOAN & GRANT

This program provides affordable funding to develop essential community facilities in rural areas. These facilities provide an essential service to the local community for the orderly development of the community in a primary rural area populated with 20,000 residents or less.

Funds can be used to purchase, construct, and/or improve essential community facilities, purchase equipment, and pay related project expenses.

9.5. AGENCY FUNDING (SELF-FUND)

This option is for agencies to self-fund individual projects. Although self-funding is the least expensive money over the life of the project, this option is likely not financially possible for all public water systems.

The most likely source to leverage the most favorable and obtainable funding terms for Mona City culinary water infrastructure improvements is the Utah DDW.

For more information on available funding programs, please visit our funding website at:
<https://funding.jonesanddemille.com/>

10. NEXT STEPS

Since installing a new storage tank is the top priority, the City should consider the following:

- Start procuring funding for new storage as soon as possible

- Verify easements and right of ways through 2023
- Planning, engineering, and construction through 2024

The next priority would be to increase the fire flow demands throughout the system to increase the available flow at the aforementioned church building. The City should start considering funding options and plan to fund any improvements to improve the available fire flow at this section of the system.

It is also recommended Monroe City update their master plan every 10 years or as needed with new development that exceeds projected growths or in locations where development was not planned for.

APPENDIX A: MAP EXHIBITS & MODEL RESULTS

A.1. MAP EXHIBITS

A.2. MODEL RESULTS

APPENDIX B. UPDATED DDW REQUIREMENTS

Draft Print

12/09/2022 12:38:34 PM

Summary of New Water Use Data Reporting and Water System Minimum Sizing Requirements (2018 Legislative Revisions to Utah Code 19-4-104 and 114)

I. Annual Water Use Data Reporting by All Community Water Systems Serving 500 People or More

Water Use Data to Be Collected:	Reporting Frequency:	Report Data to:	Reporting Due:
1. Peak Day Source Demand 2. Average Annual Demand 3. Number of Retail Equivalent Residential Connections <i>[Number of Total ERCs]</i> 4. Quantity of Non-revenue Water	Annual	Division of Water Rights (DWRi)	March 1, 2019 for 2018 data; as specified by DWRi for future years

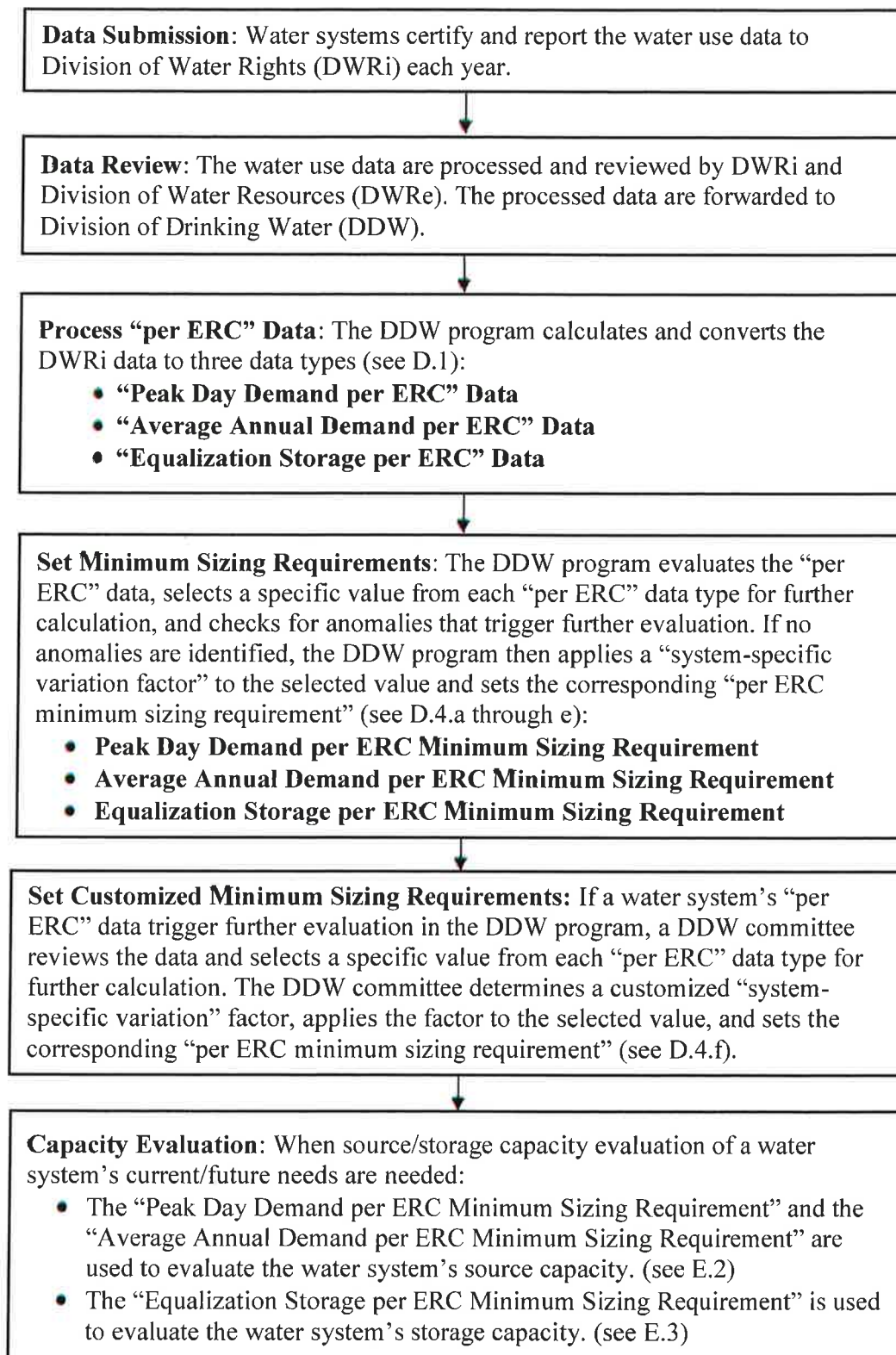
II. Schedule of Water Use Data Reporting and Minimum Sizing Requirements for Community Water Systems (CWS)

Water System Type	3 Years of Data Due	Report Data to	DDW Sets System-Specific Sizing Requirements by
Community Water Systems serving over 3,300 people	March 1, 2019	• DWRi – Annual Water Use Data described in 19-4-104(6)(a) • DDW – Engineering Study	After Division of Drinking Water (DDW) receives acceptable data
Community Water Systems serving between 500 and 3,300 people	March 1, 2023	• DWRi – Annual Water Use Data described in 19-4-104(6)(a) • DDW – Engineering Study	October 1, 2023
Community Water Systems serving fewer than 500 people	TBD	DWRi – Water Use Data (as previously required by DWRi)	TBD
Wholesale Water Suppliers that serve a total population of more than 10,000 people and the wholesale population is 75% or more of the total population served	March 1, 2019 (assume to be same as CWS serving over 3,300 people)	DWRi – Annual Water Use Data	Not Applicable

III. Non-Community Water Systems

DDW Director to establish minimum source and storage sizing standards - no water use reporting or deadlines given for water systems

Process of Analyzing Water Use Data and Establishing Minimum Sizing Requirements



To Calculate the Data:

$$\text{Quantity of Non-Revenue Water (in gallons)} = [\text{Average Annual Demand}] - [\text{Water Volume Metered/Billed}] - [\text{Wholesale Delivery Outflow}]$$

$$\text{"Peak Day Demand per ERC" Data (in gallons/day)} = \frac{[\text{Peak Day Source Demand}]}{[\text{Total Number of ERCs}]}$$

$$\text{"Average Annual Demand per ERC" Data (in gallons/year)} = \frac{[\text{Average Annual Demand}]}{[\text{Total Number of ERCs}]}$$

$$\text{"Equalization Storage per ERC" Data (in gallons)} = \frac{[\text{Average Annual Demand per ERC}]}{[\text{Operational Days in a Year}]}$$

To Calculate the "per ERC Minimum Sizing Requirements":

$$\text{System-Specific Variation Factor} = \frac{[\text{Highest Data Value}] - [\text{Lowest Data Value}]}{[\text{Lowest Data Value}]}$$

$$\text{Peak Day Demand per ERC Minimum Sizing Requirement (in gallons/day)} = [\text{"Peak Day Demand per ERC" selected value}] \times [1 + \text{System-Specific Variability Factor}]$$

$$\text{Average Annual Demand per ERC Minimum Sizing Requirement (in gallons/year)} = [\text{"Average Annual Demand per ERC" selected value}] \times [1 + \text{System-Specific Variability Factor}]$$

$$\text{Equalization Storage per ERC Minimum Sizing Requirement (in gallons)} = [\text{"Equalization Storage per ERC" selected value}] \times [1 + \text{System-Specific Variability Factor}]$$

To Calculate Source Capacity:

$$\text{Source Capacity Needed to Meet the Peak Day Source Demand (in gallons/day)} = [\text{Peak Day Demand per ERC Minimum Sizing Requirement}] \times [\text{Total Number of ERCs}]$$

$$\text{Source Capacity Needed to Meet the Average Annual Demand (in gallons/year)} = [\text{Average Annual Demand per ERC Minimum Sizing Requirement}] \times [\text{Total Number of ERCs}]$$

To Calculate Storage Capacity:

$$\text{Total Storage Capacity Required (in gallons)} = [\text{Equalization Storage}] + [\text{Fire Suppression Storage}] + [\text{Emergency Storage (optional)}]$$

$$\text{Equalization Storage Required in Utah (in gallons)} = [\text{Equalization Storage per ERC Minimum Sizing Requirement}] \times [\text{Total Number of ERCs}]$$

$$\text{Fire Suppression Storage Required by Local Fire Code Authority (in gallons)} = [\text{Required Fire Flow (in gallons per minute)}] \times [\text{Required Duration (in minutes)}]$$

APPENDIX C. FIRE FLOW TEST RESULTS



Date: 12/9/2022

Flow Test Data Sheet

Project Title: Monroe City Culinary Water Master Plan

Property & Address: 400 N 300 E, Monroe UT, 84754

Client: Monroe City

Test By: Hunter Cornelius

Project Number: 2005-018

Witnessed By: Kyler Nielsen

Purpose of Test: Flow Test

Type of Test: ☐ Single-Hydrant Test ☐ Two-Hydrant Test

Test Data

GALLIEF HYDRANT

Static: 103 PSI

Residual: 94 PSI

% Pressure Drop 8.74%

Verify 25% pressure drop from static to residual psi. If 25% pressure drop is unattainable you will need a larger test kit or multiple small kits.

FLOW HYDRANT

Outlet Diameter 2-1/2" in

Little Boy Hose Monster is 2-1/2"

Nozzle Pressure 24 PSI

Big Boy Hose Monster is 4-1/2"

Calculated Flow 826 GPM

Length of Test 5 Mins

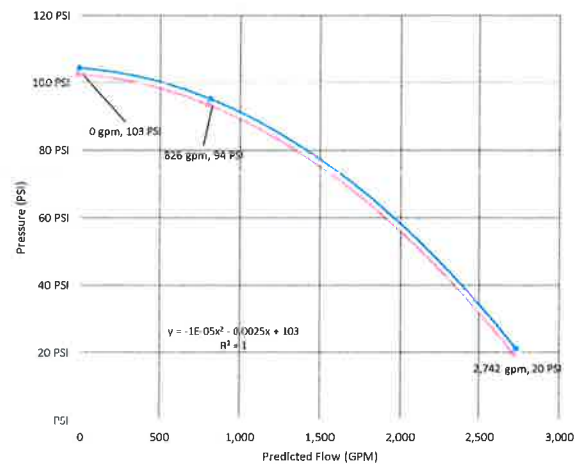
Amount of Water Used 4,130 Gallons

Rated Capacity at 20 psi: 2,742 gpm

More Information

Focus on Fire Protection.pdf

Predicted Flow Chart


<https://www.hosemonster.com/hydrant-flow-test-calculator-calculate-rated-capacity-at-20-psi/>

Remarks:



EQUATION FOR DETERMINING RATED CAPACITY

Computes the flow rate available at a specified residual pressure at a Rated Capacity. The example below enables you to find the predicted flow rate at 20 psi residual pressure. Use this when the flow testing has a test.

$$QR = QF \times (MR^{0.75} / HP^{0.75})$$

QR = Flow rate predicted at the desired residual pressure in gpm
 QF = Total test flow rate measured during test in GPM (GPM measured from loss from orifice or flowless nozzle)
 MR = Pressure drop from static pressure to desired residual pressure (Static = 20 psi if 20 psi is the desired residual pressure)
 HP = Actual pressure drop measured during the test (Static - Actual Residual)

THEORETICAL DISCHARGE THROUGH CIRCULAR ORIFICES FORMULA

Computes a flow rate in GPM given psi and coefficient of the flow device.

$$Q = 29.84 \times \sqrt{P \times D^4 \times C}$$

Q = flow rate in GPM

P = velocity pressure in psi

D = orifice diameter in inches

C = coefficient of flow device



Date: 12/9/2022

Flow Test Data Sheet

Project Title: Monroe City Culinary Water Master Plan
 Client: Monroe City
 Project Number: 2005-018

Property & Address: 348 W 150 S, Monroe UT, 84754
 Test By: Hunter Cornelius
 Witnessed By: Kyler Nielsen

Purpose of Test: Flow Test

Type of Test: ☐ Single-Hydrant Test ☐ Two-Hydrant Test

Test Data

GAUGE HYDRANT

Static: 100 PSI

Residual: 94 PSI

% Pressure Drop 6.00%

Verify 25% pressure drop from static to residual psi. If 25% pressure drop is unattainable you will need a larger test kit or multiple small kits.

FLOW HYDRANT

Outlet Diameter 2-1/2" in

Little Boy Hose Monster is 2-1/2"

Nozzle Pressure 26 PSI

Big Boy Hose Monster is 4-1/2"

Calculated Flow 860 GPM

Length of Test 5 Mins

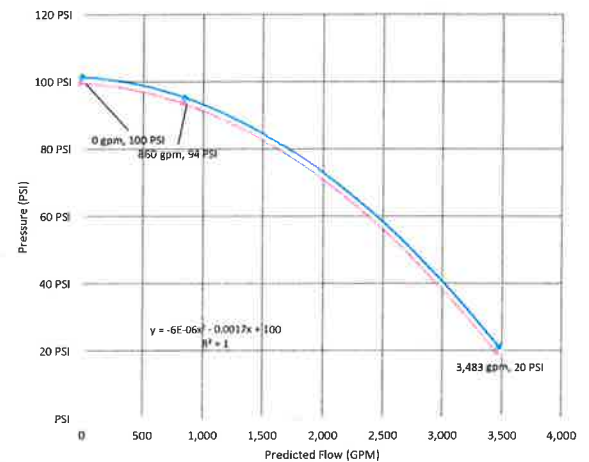
Amount of Water Used 4,300 Gallons

Rated Capacity at 20 psi: 3,483 gpm

More Information



Predicted Flow Chart



<https://www.hosemonster.com/hydrant-flow-test-calculator-calculate-rated-capacity-at-20-psi/>

Remarks:



EQUATION FOR DETERMINING RATED CAPACITY

Computes the flow-rate available at a specified residual pressure (aka a Rated Capacity). The example below enables you to find the predicted flow-rate at 20 psi residual pressure. Use this when fire flow testing hydrants.

$QR = QR \cdot (NR^{0.54}) / (PR^{0.54})$

QR = flow rate predicted at the desired residual pressure in GPM
 QR = Total test flow rate measured during test in GPM (GPM measured from hose nozzle or 7" testless nozzle)
 PR = Pressure drop from static pressure to desired residual pressure (Static - 20 psi) (If 20 psi is the desired residual pressure)
 NR = Actual pressure drop measured during the test (Static - Actual Residual)

THEORETICAL DISCHARGE THROUGH CIRCULAR ORIFICES FORMULA

Computes a flow-rate in GPM given a psi and coefficient of the flow device.

$$Q = 29.84 \times \sqrt{P} \times D^2 \times C$$

Q = flow-rate in GPM

P = pressure in psi

D = orifice diameter in inches

C = coefficient of flow device



Date: 12/9/2022

Flow Test Data Sheet

Project Title: Monroe City Culinary Water Master Plan

Property & Address: 600 S Main St., Monroe UT, 84754

Client: Monroe City

Test By: Hunter Cornelius

Project Number: 2005-018

Witnessed By: Kyler Nielsen

Purpose of Test: Flow Test

Type of Test:

☐

Single-Hydrant Test

☐

Two-Hydrant Test

Test Data

GAUGE HYDRANT

Static: 80 PSI

Residual: 76 PSI

% Pressure Drop: 5.00%

Verify 25% pressure drop from static to residual psi. If 25% pressure drop is unattainable you will need a larger test kit or multiple small kits.

FLOW HYDRANT

Outlet Diameter: 2-1/2" in

Little Boy Hose Monster is 2-1/2"

Nozzle Pressure: 71 PSI

Big Boy Hose Monster is 4-1/2"

Calculated Flow: 773 GPM

Length of Test: 5 Mins

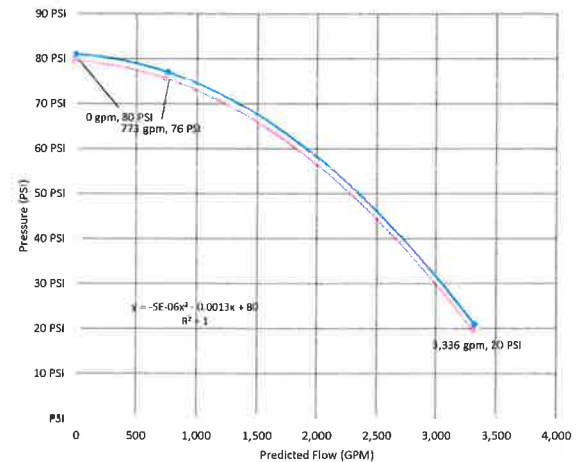
Amount of Water Used: 3,865 Gallons

Rated Capacity at 20 psi: 3,336 gpm

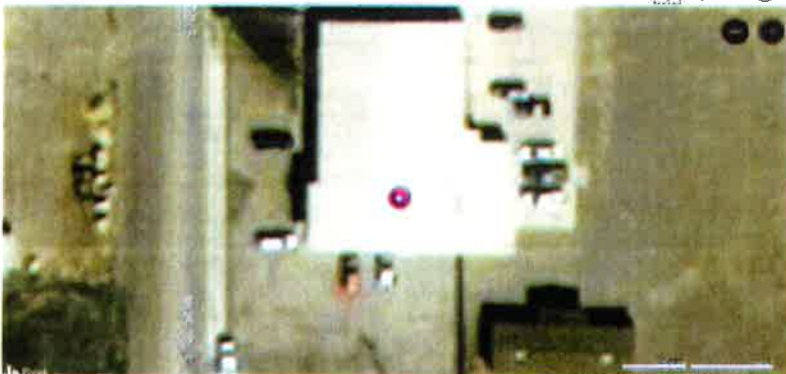
More Information

Focus on fire protection.pdf

Predicted Flow Chart


<https://www.hosemonster.com/hydrant-flow-test-calculator-calculate-rated-capacity-at-20-psi/>

Remarks:



EQUATION FOR DETERMINING RATED CAPACITY

Computes the flow rate available at a specified residual pressure (static - Rated Capacity). The example below enables you to find the predicted flow rate at a set residual pressure. Use this when fire flow testing hydrants.

$QR = QR_s (HR)^{0.54} / HP^{0.54}$

QR = Flow rate predicted at the desired residual pressure in GPM
 QR_s = Total test flow rate measured during test in GPM (measured from Pitotless Nozzle)
 HR = Pressure from front static pressure to desired residual pressure (Static - 20 psi) [20 psi is the desired residual pressure]
 HP = Actual pressure drop measured during the test (Static - Actual Residual)

THEORETICAL DISCHARGE THROUGH CIRCULAR ORIFICES FORMULA

Computes a flow rate in GPM given a psi and coefficient of the flow device.

$$Q = 29.84 \times \sqrt{P \times D^4 \times C}$$

Q = Flow rate in GPM

P = Velocity pressure in psi

D = orifice diameter in inches

C = coefficient of flow device

APPENDIX D, COST ESTIMATE

Monroe City
Culinary Water Improvements - 2022
December 9, 2022
By: Parker Vercimak



PRELIMINARY OPINION OF PROBABLE COST OF STORAGE TANK

ITEM		QUANTITY	UNIT	UNIT PRICE	COST
Distribution System Improvements					
1-1	Mobilization	1	LUMP	\$ 120,000.00	\$ 120,000.00
1-2	1,000,000 gallon Concrete Tank	1	LUMP	\$ 1,500,000.00	\$ 1,500,000.00
SUBTOTAL					\$ 1,620,000.00
Construction Contingency (20%)					\$ 325,000.00
DISTRIBUTION SYSTEM IMPROVEMENTS SUBTOTAL					\$ 1,945,000.00
1a.	Pre-Construction Engineering Services	1	LUMP	\$ 150,000.00	\$ 150,000.00
1b.	Construction Engineering Services	1	LUMP	\$ 175,000.00	\$ 175,000.00
1c.	Environmental Studies/NEPA/Permitting	1	LUMP	\$ 30,000.00	\$ 30,000.00
1d.	Easement/ROW and Water Right Coordination	1	LUMP	\$ 5,000.00	\$ 5,000.00
1e.	Admin/Legal/Bonding	1	LUMP	\$ 15,000.00	\$ 15,000.00
TOTAL PROBABLE PROJECT COST					\$ 2,320,000.00

PRELIMINARY OPINION OF PROBABLE COST OF DISTRIBUTION SYSTEM

ITEM		QUANTITY	UNIT	UNIT PRICE	COST
Distribution System Improvements					
2-1	Mobilization (Distribution System)	1	LUMP	\$ 100,000.00	\$ 100,000.00
2-2	Traffic Control/Exploratory Excavation	1	LUMP	\$ 40,000.00	\$ 40,000.00
2-3	12" Ø Water Pipe	2,600	L.F.	\$ 95.00	\$ 247,000.00
2-4	10" Ø Water Pipe	2,600	L.F.	\$ 80.00	\$ 208,000.00
2-5	12" Gate Valves	4	EACH	\$ 4,500.00	\$ 18,000.00
2-6	10" Gate Valves	4	EACH	\$ 3,500.00	\$ 14,000.00
2-7	Road Repair	5,200	S.Y.	\$ 125.00	\$ 650,000.00
SUBTOTAL					\$ 1,277,000.00
Construction Contingency (20%)					\$ 255,000.00
DISTRIBUTION SYSTEM IMPROVEMENTS SUBTOTAL					\$ 1,527,000.00
2a.	Pre-Construction Engineering Services	1	LUMP	\$ 125,000.00	\$ 125,000.00
2b.	Construction Engineering Services	1	LUMP	\$ 150,000.00	\$ 150,000.00
2c.	Environmental Studies/NEPA/Permitting	1	LUMP	\$ 30,000.00	\$ 30,000.00
2d.	Easement/ROW and Water Right Coordination	1	LUMP	\$ 5,000.00	\$ 5,000.00
2e.	Admin/Legal/Bonding	1	LUMP	\$ 15,000.00	\$ 15,000.00
TOTAL PROBABLE PROJECT COST					\$ 1,852,000.00

In providing estimates of probable construction cost, the Client understands that the Consultant has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the Consultant's estimates of probable construction costs are made on the basis of the Consultant's professional judgment and experience. The Consultant makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from the Consultant's estimate of probable construction cost.