



## **The Weekly Update – March 14, 2024**

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***Attachments:***

1. City of Great Falls Total Cash and Investments as of February 29, 2024
2. Department Monthly Update, February, 2024
3. City of Great Falls Water Treatment Plant, Consumer Confidence Report for 2023.



## Finance Department Memorandum

To: Greg Doyon, City Manager; City Commission; Members of the Investment Committee

From: Kirsten Wavra, Deputy Finance Director

Date: March 13, 2024

Re: Total Cash and Investments as of February 29, 2024

The City of Great Falls' total cash and investments at the end of February 2024 was \$104,587,675.33. This included cash in bank accounts totaling \$15,482,278.78. Total cash and investments decreased from \$107.4 million in January to 104.6 million in February. It is normal for this amount to fluctuate from month to month depending on payments made on large capital projects and funds received from utilities, taxes, and grants, for example. The General Fund cash balance decreased from \$9.0 million in January to \$6.6 million in February. The balance will continue to decrease until the next major tax payments will be received by the City in June. The General Fund balance includes a CARES Act balance of \$2,381,766. The graphs for the City's total cash and investments as well as the General Fund, specifically, are on the next pages. All cash balances are monitored on a monthly basis.

Also on the next page is the summary of the City's total cash and investments. The City's investment policy specifies the percentage the City of Great Falls must have of the different types of instruments allowed by state statute. The chart below lists those percentages compared to the City's investments as of February 29<sup>th</sup>. The investments in the Montana Board of Investments (STIP) and US Bank Insured Cash Sweep (ICS) are liquid and may be called at any time. The current interest rates being earned in STIP and ICS are competitive. They are listed in the table on the next page.

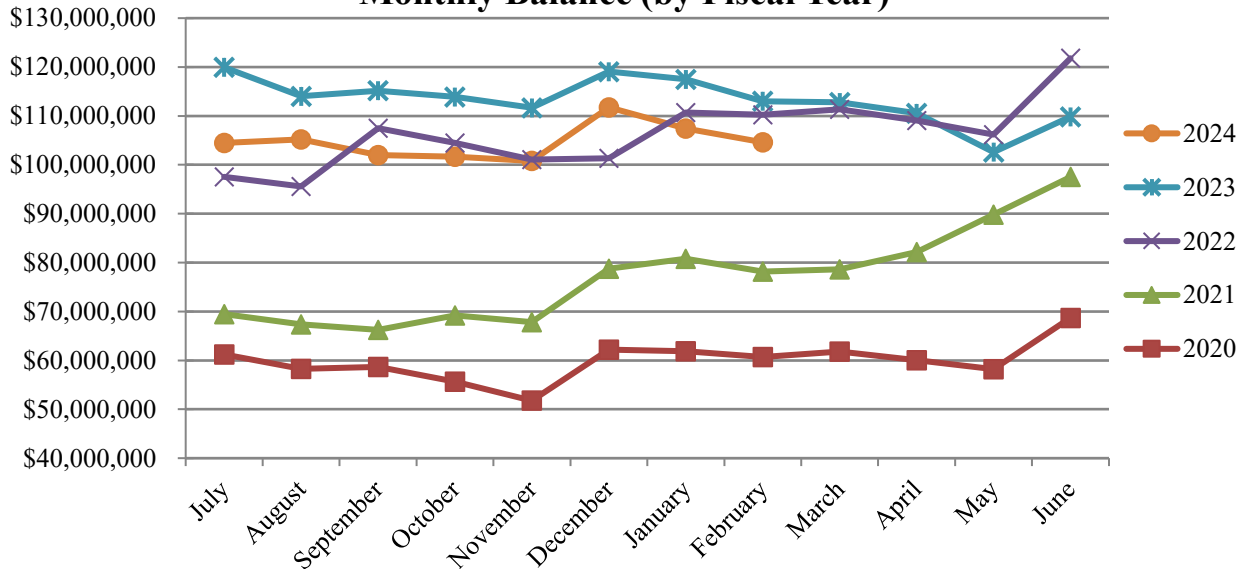
Issuer category	Minimum %	Maximum %	City's Investments % as of February 29, 2024
Master, savings, and ICS accounts		100%	100%
Montana Board of Investments STIP	20% combined	100%	
Money Market/Repurchase Agreements		100%	
Direct Obligations of the U.S. which includes Treasury Notes and Bills	0%	80%	0%
Obligations of agencies of the U.S.	0%	30%	0%

**City of Great Falls**  
**Total Cash & Investment Summary**  
**February 29, 2024**

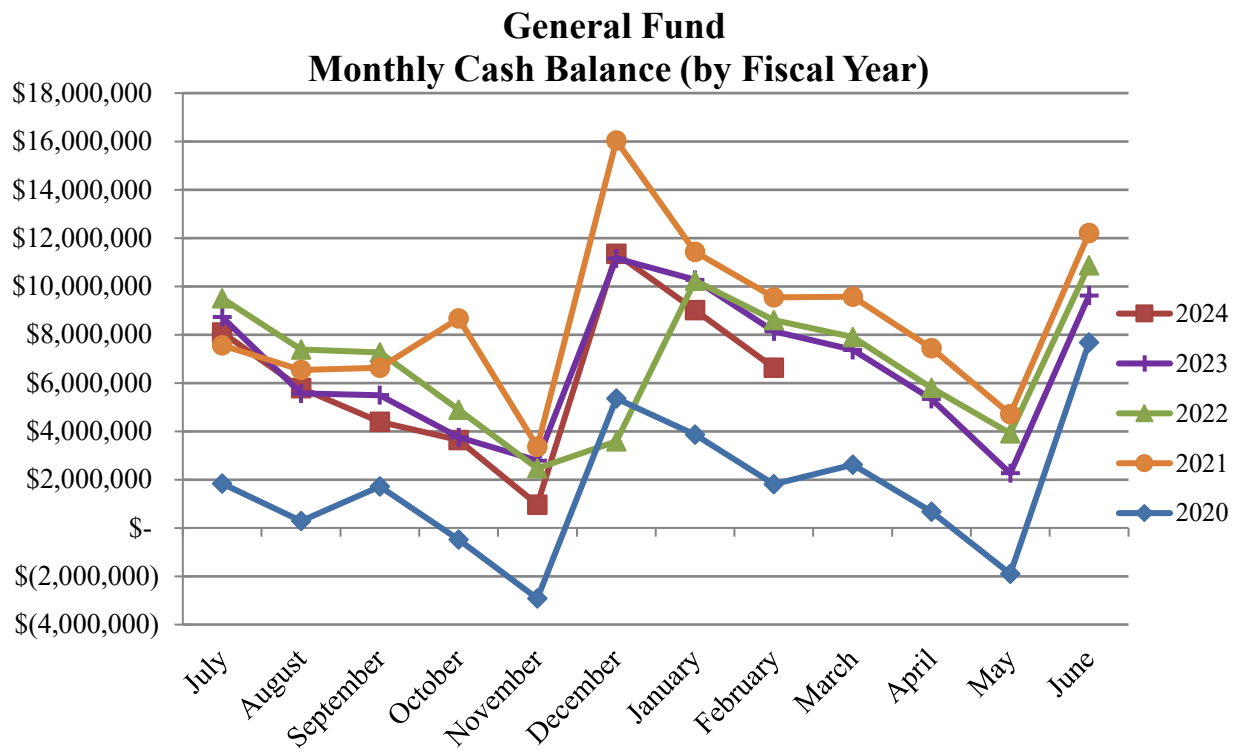
<u>Description</u>	<u>Rate</u>	<u>Due Date</u>	<u>Principal Cost</u>	<u>Market Value</u>
US Bank Investments				
Insured Cash Sweep	4.450%		42,128,324.04	42,128,324.04
<b>Total US Bank Investments</b>			<b>42,128,324.04</b>	<b>42,128,324.04</b>
State of Montana Short Term				
Investment Pool (STIP)	5.396%		46,977,072.51	46,977,072.51
<b>Total Investments</b>			<b>89,105,396.55</b>	<b>89,105,396.55</b>
Cash on Hand, Deposits in Bank			15,482,278.78	15,482,278.78
<b>Total Cash and Investments</b>			<b>\$104,587,675.33</b>	<b>\$104,587,675.33</b>

Compared to 2020 and 2021, total cash and investments are still at a higher level (see graph below). The higher levels can be attributed to receipt of American Rescue Plan (ARPA) funding and bond funding from the Park Maintenance District and Downtown Tax Increment District. These monies originally accounted for over \$35 million included in our total cash and investments. The funds received from bonds issued for the Civic Center façade project and new recreation center have been spent at this time. The ARPA funding is being spent down as it is allocated on a project-by-project basis.

**Total Cash & Investments**  
**Monthly Balance (by Fiscal Year)**



The General Fund monthly cash balances generally show a cyclical pattern largely dependent on the receipt of tax revenue usually in December and June each year (see graph below). The cash balance currently includes a CARES Act balance of \$2,381,766.



If you have any questions, please feel free to contact me at (406) 455-8423 or [kwavra@greatfallsmt.net](mailto:kwavra@greatfallsmt.net).

**Department Monthly Update**  
**February 29, 2024**  
**Key Updates**

<b>City Manager</b>	<ol style="list-style-type: none"> <li>1. Prepped for post Public Safety Levy with the Commission</li> <li>2. Met with MAFB Leadership</li> <li>3. Visited with Mayor Reeves and Carlo Centurion, new Calumet Plant Manager</li> <li>4. Reviewed AHBS draft operating budget</li> <li>5. Attended Executive Forum in Sidney Montana with Mayor Reeves</li> </ol>
<b>Deputy City Manager (IT, Clerk, Comm Specialist, Events, GFAS)</b>	<p><b>Admin:</b> Hosted biannual Board/Commission and Neighborhood Council Training with Dan Clark from the MSU Local Government Center on February 20 and 21.</p> <p><b>Animal Shelter:</b> The month of February continued to show increases in adoptions and animals returned to home. These trends have resulted in record low occupancy numbers, ending February, compared to the last few years. We held a Positively in Love Adoption event from February 7th through the 21st, the first adoptee during this special was the dog who had been with us the longest. In the month of February the staff completed and graduated from The Fear Free Shelter Program, this program provides additional knowledge on how to provide the best care possible to the animals in residence with us.</p> <p><b>Communications/Neighborhood Councils:</b> Developed and implemented the Civic Insights social media campaign, which was published on Facebook and LinkedIn. Drafted weekly press releases on the upcoming Neighborhood Council meetings and posted on social media. Facilitated correspondence between City staff and Neighborhood Council members. In conjunction with IT, started the website updating process in preparation for the Drupal upgrade. Helped the City Manager's office with the Board, Commission, and Council Training. Hosted the monthly Communications Team meeting.</p> <p><b>Events:</b> New City Church has renewed their contract for another month and will be using our facility on Sunday's until the end of March. We had a meeting with the L&amp;C Trail Heritage Foundation planning for anniversary events in 2026. More than 6,200 people attended 60 meetings or events at the Mansfield Center in February.</p>
<b>Finance</b>	<ol style="list-style-type: none"> <li>1. Continued software conversion back to New World. Utilities division received third data validation and is working through the data with New World trainers. Go live in New World is scheduled for mid-April for Finance and mid-May for Utilities.</li> <li>2. Working on Budget Calendar for FY 2025. Presented to Library Board about City of Great Falls Budget Process and Policies.</li> <li>3. Finalized bid packages for two ARPA projects: Evidence Building and Court Relocation. City Commission awarded Evidence Building contract. The Court Relocation will be awarded in March. MT HB 355 proposed projects were presented to the City Commission. A public hearing on MT HB 355 projects will be held in March.</li> </ol>
<b>Fire</b>	<p><b>Operations Division:</b> Responded to 521 calls for service including 15 fires. This total included 7 structure fires, 4 vehicle fires and 4 grass/rubbish fires. Also responded to 19 motor vehicle accidents and 5 hazardous materials incidents.</p> <p>Crews performed 1852 hours of training consisting of technical rope rescue, incident management, hazardous material response, auto extrication and the start of Recruit Training Academy.</p> <p>Cared for 243 patients in January 2024. These complaints range from cardiac arrest, chest pain, shortness of breath, falls, overdoses, seizures and diabetic emergencies. 2 patients were transported by GFFR ambulances (Medic 4 (2) and Medic 1) due to no private ambulances available. 9 Cardiac arrest patients were treated by GFFR with 3 achieving ROSC (Return of Spontaneous Circulation).</p> <p>GFFR Conducted 4 hours of Performance Contract management for monitoring the private ambulance contractor for performance compliance.</p>

**Department Monthly Update**

**February 29, 2024**

**Key Updates**

	<p><b>Fire Prevention Division:</b> Conducted 428 Annual Inspections, 69 fire code violations were noted. 2 fire alarm systems were accepted, 2 sprinkler systems were accepted, 1 fire sprinkler system hydro tested.          GFFR responded to 22 false alarms in January, 2 false alarm fees were issued.          88 life safety system reports were submitted, 75 were compliant, 13 were non-compliant, this was an 85% compliant rate for the month.          The annual SIC renewal process is underway, and 2nd notices with interest have been mailed to those who have yet to pay. Payment date for SICs was 12/31. Roughly 300 businesses have yet to pay.</p>
<p><b>Human Resources</b></p>	<ol style="list-style-type: none"> <li>1. Managed the recruitment of 26 regular full-time positions, which included 127 applicants. Onboarded 7 new employees. February's turnover rate was 0.35 percent.</li> <li>2. Began recruitment for HR Benefits Specialist to succeed Lori Smith who has been with the City for over seven years.</li> <li>3. Four work comp (WC) incidents were reported. Most common cause of injuries was slips/falls.</li> </ol>
<p><b>Information Technology</b></p>	<ol style="list-style-type: none"> <li>1. Website design review process started. This is a yearly process but more significant this year due to a major website upgrade happening soon.</li> <li>2. Munis to New World conversion continues to make good progress with Utilities conversion.</li> <li>3. GIS/Mapping completed several significant dashboard projects including one for Parks and Rec and another for tax exempt parcels.</li> <li>4. Processed over 3.1 million website requests and prevented access to over 7,100 threats including over 6,000 malware infected sites. Email server processed over 80,000 emails and blocked 6,000 malicious or SPAM messages. Antivirus detected and/or blocked 142 threats.</li> <li>5. IT Director Feist attended the MACo Midwinter Conference IT Manager session. Participated in a Cybersecurity tabletop exercise facilitated by the Cybersecurity &amp; Infrastructure Security Agency (CISA) to review incident planning and readiness.</li> <li>6. Personnel notes: Network Administrator Tyler has been assisting the Public Works group with onboarding their Cartegraph/GIS Specialist. Continue to review applicants for open Sr. Network Administrator position.</li> </ol>
<p><b>Legal</b></p>	<ol style="list-style-type: none"> <li>1. Civil Division represented City's interests in matters such as human resource / personnel matters and union negotiations; coordination and assistance with litigation matters referred to outside counsel; research and management of litigation matters handled internally; commercial marijuana business application, regulation, enforcement, zoning, and legal issues; assisting departments with upcoming proposed OCCGF revisions; and assisting departments with contract reviews/approvals.</li> <li>2. Civil Division's code enforcement efforts has 14 total active cases including remaining open from prior month, and closed one case (permanently or inactive under current conditions).</li> <li>3. Civil Division processed 155 record requests.</li> <li>4. Criminal Division processed 138 deferred prosecution agreements, and prepared 905 subpoenas for witnesses to attend trials and hearings.</li> </ol>
<p><b>Library</b></p>	<ol style="list-style-type: none"> <li>1. Thanks to the HR Department for their assistance! We have been recruiting to hire new staff including two Safety Specialists, three part-time Library clerks, one full-time Library Specialist for Youth Services, one part-time Library Specialist for Youth Services, one part-time bookmobile driver and one Technology Systems assistant. The job application window closed on February 14th. The Management Team reviewed the applications and interviews are scheduled for the last two weeks of February and the first week of March. We hope to have new staff starting around the first of April. Recruitment for the part-time custodian position has started and we hope to have that new staff person starting in May.</li> </ol>

Department Monthly Update

February 29, 2024

Key Updates

	<p>2. The Great Falls Genealogy Society, History Museum and the Library have started meeting quarterly. We have agreed that “The History Museum, Genealogy Society and Library are committed to collaboration. We believe that by working together we can be more effective in our separate missions. We aim to complement the work of each other—not to duplicate or compete.” We are currently working on plans for preservation and access for print Tribunes, newspaper microfilm and local yearbooks. Our aim is to ensure that essential local history is preserved AND that we do not waste space by unnecessary duplicate holdings.</p> <p>3. At the February 20th City Commission meeting, the Commission discussed an initiative from Commissioner Tryon. They were in consensus that they would like to start talks with the Library Board about renegotiating the City/Library management agreement. The February 27th Library Board meeting included three agenda items related to the City/Library management agreement. First, the Library Board reviewed the City/Library Management Agreement, the Public Library section of the Montana Code and the Public Library section of the City of Great Falls Code of Ordinances. Second, the Library Board voted to form a committee to research renegotiation of the City/Library management agreement and report to the full Board at the March meeting on the options available to the Library. And thirdly, the Board voted to engage outside counsel to provide legal guidance regarding possible renegotiation of the agreement.</p> <p>4. At their January meeting, the Foundation Board approved Library funding requests totaling \$92,450. The projects include funding for implementation of the new Library Logo, upgrading scheduling software, Partners expenses, upgrading public computers, community engagement swag, software and technology for communications, the MontanaLibrary2Go Advantage program and community programs including Shakespeare in the Park, Armchair traveler and the Montana Repertory theater. We will start implementing the projects over the next couple of months.</p>
<b>Park and Recreation</b>	<p>1. Construction of the Splash Pad through CDBG funding was approved by City Commission. Projected start on project is Spring of 2024, with completion being done before ECWP opening in June.</p> <p>2. Staff participated in Winter Trails Day on February 3 at Silver Crest Recreation park. Get Fit Great Falls organized the event, over #115 community members had access to cross country skis and snowshoes. Volunteers led snowshoe and cross country ski trips through the day.</p> <p>3. Samantha Kohut completed her education to become a Senior Arborist, this included additional certification courses, educational classes and testing.</p> <p>4. Jay Rowton retired after 30 years of service in the Park and Recreation Department, retiring as Parks Foreman.</p> <p>5. Parks staff installed memorial pavilion in Elks Riverside Park.</p> <p>6. Park and Recreation staff gathered for 1 first quarterly all staff meeting to discuss department goals and future plans for the department, the meeting included tours of the new Scheels Aim High Big Sky.</p>
<b>Police</b>	<p>1. Capt. John Schaffer retired from the Great Falls Police Department after serving for 25 years.</p> <p>2. Due to Capt. Schaffer's retirement, the GFPD has been going through the Captains, Lieutenants, Sergeants and Master Police Officer Promotional processes. The promotional decisions will be announced in early March.</p> <p>3. After some delay, the contract for the Evidence expansion project utilizing ARPA funds has been awarded. Anticipate breaking ground on the project in summer of 2024.</p> <p>4. Several employees, both sworn and civilian have reached some organizational milestones. Kelly Johanneck was recognized for 20 years of service with the 911 Center. Jenifer Lawson was recognized for completing her first full year with the City. Ms. Lawson works in the records bureau.</p>

Department Monthly Update

February 29, 2024

Key Updates

**Public Works**

**Director/Administration:** Started budget preparations for utility and sanitation rates; attended presentation by BBC for the Malmstrom AFB hybrid housing project (provided feedback separately, in person, to 341 CES/CD Ryck Cayer); continued discussion with PCD on establishment central code enforcement office that would assume weed enforcement versus in PW/Streets (Debbie's old position), which ties to standing up Program Specialist under the PWD; publicized PWD policy on annual and mid-term feedbacks (they are required); strategized with City Engineer on hiring a water rights consultant, hosted orientation group for tour of the PW Complex to explain what we do, and where we work; provided 8 minute 'this is me' presentation to PCD director; Matthew Corda, GIS/Asset Mgmt. Tech started 2/12/24;

**Utilities:**

1007- Fire Hydrants checked

64,948Ft-Sanitary sewers cleaned

3-Water Main Breaks

3-Fire Hydrants Repaired or Replaced

220-Locates

33-Private Water calls

26-Private Waste water calls

1- Private Storm Calls

1-Sewer main repaired

16-After hours water calls

4-After hours waste water calls

55-Public system maintenance calls for water. Water off: 45 water on: 37

8-Public system maintenance calls for waste water

8-Public system maintenance calls for storm water

**Fleet:** Staff inspected the final refurb for the Fire Dept. in Wisconsin. This closes out the ARPA refurb project on all three pumpers. New Car #7 was delivered to PD. This unit has special features for DET group which allows for a two man patrol unit. Several repairs to sanitation trucks this month. Engine repairs for unit #690 for camshaft/rocker arm material failure.

**Sanitation:** Hauled 2,595 tons with 2,844 man hours. 118 requests for roll-off service. Fleet mileage: 16,883 miles. We continue to train our new employees on all trucks and routes.

**Environmental:** Revised local limits adopted on 2/6, continued participation in Development Review Audit process, worked in cooperation with ENG to revise/update SDDM, continued progress revising/updating expired industrial discharge permits (several will be ready early March), began compiling data for IPT annual report, completed and submitted MS4 Annual Report

Water Plant: Continue to operate uninterrupted between 6-8 MGD. Construction of Solids Mitigation building continues. Operated the distribution system without 33rd St tank in preparation for coating project. Making adjustments to programmable logic controller (PLC) to bring control of pump stations into plant to help facilitate project. Warranty work completed from Phase II filter rehab. Shawn and Amy's office rehab complete. Corrosion control tech memo complete and ready to be sent to MT DEQ. Clearing of the sludge from cell #1 started.



Department Monthly Update

February 29, 2024

Key Updates

Street/Traffic: Snow Report - 18 Days of Snow Operations; 16.2" Monthly Snow Fall, First Snow Fall: 2/3/24, Most Recent Snow Fall: 2/27/24, Most Recent Plow Operations: 2/28/24, Equipment Hours: 751, Labor Hours(Including Overtime): 1,144, Snow Removal Routes: Removed Snow 2 Times for a total of 3,996 Cubic Yards - Total February Snow and Ice Control: 19, 161 Tasks, Cost: \$74,942- 138 Requests for Service: 48 Pothole Requests, 77 Plow/Sand, 6 Misc., 4 Contractor Issues, 3 Blade Requests - Pothole Repairs: 334 Using Winter Patch Material and Recycled Hot Mix Asphalt, Total Cost: \$6,466. 6 Safety Meetings, Traffic Tasks: 29 Sign Replacements, 4 Sign/Pole Repairs, 2 Traffic Studies, 49 Conflict Monitor Inspections 2 Signal Resets, 1 Signal LED Replaced, 4 Pedestrian Pole Repairs due to Auto Accidents, 3 Sign Fabrications, 1 Equipment Decal Install (GFFD), Installation of conduit for PW Fire Alarm System.

**Engineering:** Continued training of Staff Engineers regarding development review and participated in the Development Review Audit. Engineering staff facilitated a public town hall regarding the development audit for the subdivision process. At town hall staff members discussed subdivision process improvements with four citizens. Facilitated Lead Line presentation at City Commission Work Session. Participated in Storm Drainage Rate Study Kickoff meeting with the City Commission at the Work Session. Continued working on the City's inventory of lead service lines. Continued meetings and discussions regarding the federal grant through Malmstrom for resiliency planning, and started working on the Grant Application. Attended meeting with outside counsel discussing regional storm drainage ponds and drainage from City to County. Staff members worked on the final changes to the Revised Storm Drainage Design Manual. Continued the ongoing management of approximately 98 projects with a combined design cost and construction cost of approximately \$96.9M. This breaks down into 18 (\$17.7M) programmed/future projects, 7 (\$3.8M) system capacity project and future project in the scoping/RFP Phase, 43 (\$42.98M) projects in the design phase, 12 (\$22.3M) projects in the construction phase, and 18 (\$10.1M) projects in the warranty phase. PROJECT MAJOR MILESTONES: Storm Drainage Rate Study - New Rate Structure (Fall 2024) // EPA Lead Service Line Rule - City Wide Inventory (Oct 2024) // List Station No 1 Improvements and River Crossing - 90% Design Documents (Spring 2024) // Solid Mitigation Building Construction - Equipment Start Up (Spring 2024)

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CITY CLERK



City of Great Falls Water  
Treatment Plant

**CONSUMER CONFIDENCE  
REPORT**

January 1, 2023 - December 31, 2023



The United States Environmental Protection Agency (EPA) requires drinking water utilities to provide an annual Consumer Confidence Report (CCR). The purpose of the CCR is to help people understand and make informed decisions about their drinking water. The CCR summarizes the quality of the drinking water supplied by the City of Great Falls over the past year, where the water comes from, how it is treated, and how it compares to EPA's standards for drinking water quality.

### Where does your water come from?



The water treated at the Great Falls Water Treatment Plant comes from the Missouri River just south of its confluence with the Sun River. It is classified as a surface water source.

As water travels over land or through the ground, it dissolves naturally occurring salts and minerals, and can collect nutrients from animal and human activities. In some cases it can even pick up radioactive material. It is for this reason that all drinking water, including bottled water, may be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. Oftentimes the

most common issues associated with contaminants in the water are the taste, color, and odor. While undesirable, those characteristics do not necessarily pose any danger to consumers.

More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at 800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than others. Immuno-compromised people, such as a person with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, and some elderly and infants can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers.

EPA and CDC guidelines on ways to reduce the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).



## Common Contaminants:

### Microbial contaminants



Viruses, bacteria and other microbes that can come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

### Inorganic contaminants

Salts and metals can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

### Organic contaminants

Substances including synthetic and volatile organic chemicals can be the by-products of industrial processes and petroleum production, but they may also come from gas stations, urban storm water runoff, and septic systems.



### Radioactive contaminants



Radioactive substances can be naturally occurring or the result of oil and gas production and mining activities.

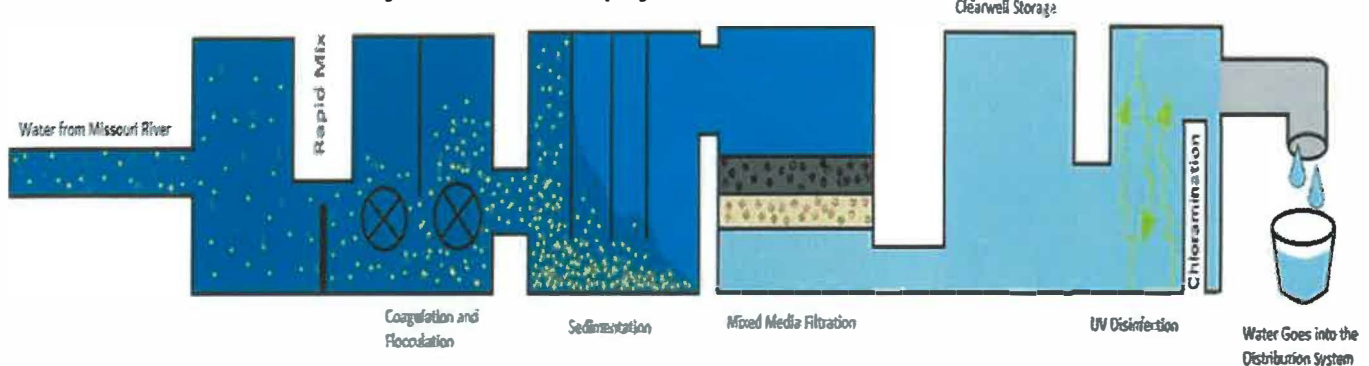
### Pesticides and Herbicides

These substances result from a variety of sources like agricultural, urban, and residential stormwater runoff.



# THE TREATMENT PROCESS

The City of Great Falls employs a conventional treatment process.



## 1 Coagulation and Flocculation

Water from the Missouri River is pumped to the plant where it is mixed with chlorine, alum (an aluminum sulfate solution) and polymer. The chlorine provides disinfection of the water and the alum and polymer help facilitate the coagulation and flocculation process. Coagulation and flocculation is a process that causes the fine particulate and dissolved contaminants to be pulled from solution and bound together to form larger, heavier particulate called floc. The larger size and weight of the floc make it settle more readily in the next step of the process.

## 2 Sedimentation

In this step the water moves into large, open basins. This slows the movement of the water and allows all of the large floc particles and heavier sediments to settle out of the water and collect at the bottom of the basins.

## 3 Mixed Media Filtration

From the settling basins, the water makes its way through flumes and into mixed media filters. At the plant 16 mixed media filters are used to collect any fine particulate and floating matter that may have made it through the previous steps. The filters are made up

of a layer of anthracite (coal) and a layer of fine sand.

## 4 UV Disinfection

Ultraviolet disinfection (UV disinfection) follows filtration. The water flows through four foot diameter pipes outfitted with five rows of 12 UV lights. Any bacteria or viruses that may still be present in the water are sterilized by the UV light and no longer pose a danger to humans and animals. This step is especially effective at treating organisms such as Cryptosporidium, which are very hardy and can survive the chlorination process.

## 5 Chloramination

Lastly, an ammonia solution is added to the drinking water to react with the available chlorine to form chloramines. Chloramine is a more stable compound than chlorine and will remain in the drinking water as a solution much longer than chlorine. This ensures that the drinking water retains its disinfection properties as it travels from the treatment plant to the consumers. Another advantage to chloramination is that it does not impart as strong of a flavor or

smell as chlorine which benefits people sensitive to those characteristics.

Nearly 4 billion gallons of water are processed at the Water Treatment Plant annually.

It would take a 1360 mile long train to hold the amount of water processed annually at the Water Plant.

Demand during the summer months can reach as high as 33,000,000 gallons of water per day.

Demand during the winter months is typically about 7,000,000 gallons of water per day.

The Great Falls Water Treatment Plant operators and staff monitor the treatment process continually. In-line analyzers coupled with electronic data collection software provide real-time information for the entire treatment process. Additionally, operators and staff collect a variety of samples at each treatment step at the Plant and finished water samples from various locations in the City. These samples are analyzed at the Treatment Plant Laboratory as well as commercial laboratories to ensure the effectiveness of the treatment process and safety of the finished drinking water.



Göre Hill elevated tank near the airport. This tank has a 500,000 gallon capacity. Construction on this elevated tank was completed in 2018.

The elevated tanks found around Great Falls hold about 2 million gallons of water.

The following tables and descriptions will provide useful information about the drinking water, inform you of any current or upcoming EPA regulations, and describe the latest changes and updates at the Water Treatment Plant.



## Useful Definitions



**Maximum Contaminant Level (MCL):** the highest concentration that a contaminant is allowed in to be in drinking water.

**Maximum Contaminant Goal Level (MCGL):** the concentration level of a contaminant below which there is no known or expected risk to health.

**Secondary Maximum Contaminant Level (SMCL):** the concentration level of a secondary contaminant which when exceeded may adversely affect the aesthetic quality of the drinking water.

**Primary Contaminant:** Contaminants that can be harmful to human health at low concentrations.

**Secondary Contaminant:** contaminants in water that do not necessarily pose a health risk but interfere with the aesthetic quality of the drinking water.

**Variations or Exceptions:** State or EPA permission to not meet an MCL or a treatment technique limit under certain conditions.

**Treatment Technique:** A required process intended to reduce the levels of a contaminant or contaminants in drinking water.

**Action Level (AL):** the concentration of a contaminant which, if exceeded, triggers increased treatment requirements, which a water system must follow.

**Contaminant:** a constituent, impurity, or other undesirable element that makes a product polluted, unfit or inferior.

**Maximum Residual Disinfection Level Goal (MRDLG):** the level of drinking water disinfection below which there is no known or expected risk to health.

The MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Maximum Residual Disinfection Level (MRDL):** the highest concentration of disinfectant allowed in drinking water.

**Reporting Limit (RL):** the lowest concentration that can be reliably measured within a specified range of precision and accuracy limits during routine laboratory operation.

**Non-Detect (ND):** the concentration of a target analyte is below the method detection limit for the analysis.

**Method Detection Limit:** the minimum measured concentration of a substance that can be measured with 99% confidence, that is not a blank.

**Secondary Maximum Contaminant Level (SMCL):** guidelines to identify acceptable concentrations of contaminants that may cause unpleasant tastes, odors, or colors in drinking water.

Humans can smell chlorine at concentrations as low as 0.1 ppm. Household bleach concentration is about 60,000 ppm. The water leaving the Plant has a concentration of 2 ppm.

## Contaminants regulated at your tap



Constituent	AL	Results at the 90th percentile	MCGL	# of sites above the AL	# of sites sampled	90th percentile AL exceedance	Possible Sources of Contaminant
Lead	15 ppb	10.6 ppb	0	2	35	No	Corrosion of service lines and household plumbing systems. Erosion of natural deposits.
Copper	1300 ppb	35.12 ppb	0	0	35	No	Corrosion of service lines and household plumbing systems. Erosion of natural deposits.

Finished water from the treatment plant was analyzed for lead and copper on 11/1/2023. Both were ND.

The 90th percentile is the result at which 90 percent of all sample sites fall below. If this number exceeds the AL for either metal, the Water Plant would need to make changes to the treatment process so the water will not cause metals to leach from the plumbing in homes.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water primarily comes from materials and components associated with service lines and home plumbing. The City of Great Falls is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. If you have a lead service line and your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for at least 30 seconds or up to 2 minutes before using the water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing materials, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

To satisfy EPA testing requirements, Great Falls Water Plant Lab staff collected water samples from targeted homes throughout the City during the summer of 2023. The results are in the table above. Sampling will occur again in January of 2024 and will happen every six months. If you are interested in being included in future sampling events please contact the Water Plant. More information and regular updates about the Lead and Copper Rule can be found on the EPA's website (<https://www.epa.gov/dwreginfo/lead-and-copper-rule>).

		
<b>ppm</b> <small>(parts per million)</small>	1 drop of water in about eleven 8oz glasses of water	One penny in one million dollars
<b>ppb</b> <small>(parts per billion)</small>	1 drop of water in 10,600 8oz glasses of water	One penny in one billion dollars
<b>ppt</b> <small>(parts per trillion)</small>	1 drop of water in 10,600,000 8oz glasses of water	One penny in ten billion dollars

The EPA has developed a health advisory for the manganese in drinking water. While it is an essential nutrient for humans and animals at low concentrations, high concentrations of manganese could have adverse neurological effects. The health advisory limit has been set at 0.3 mg/L. The concentration of manganese in the finished drinking water for the City of Great Falls is **ND**.

### Contaminants regulated within the distribution system

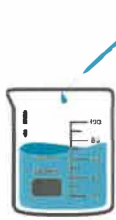
Constituent	MCL	MCGL	Concentration	Regulation Met?	Possible Sources of Contaminant
Total Coliform Bacteria (TC)	<5% pos. for TC	0	0 positive TC samples out of 840 samples analyzed this year.	Yes	Naturally occurring bacteria in the environment.
Total Residual Chlorine (mg/L)	4.0	4.0	0.22 - 1.98	Yes	Disinfection additive that limits bacterial growth.
Haloacetic Acids (HAA5, ppb)	60	--	27.4 - 50.8 Annual Average= 36.8	Yes	Byproducts of drinking water disinfection process.
Total Trihalomethanes (TTHM, ppb)	80	--	23.3 - 61.5 Annual Average= 44.1	Yes	

While we employ the use of a UV system to sterilize viruses and bacteria, chlorine is the primary disinfection used in our system. Chlorine does an excellent job of killing bacteria and microorganisms that could be harmful, but it also reacts with naturally occurring organic materials that are commonly found in surface water sources. When chlorine reacts with the organic compounds, it can form what is called Disinfection Byproducts (DBPs), or HAA5 and TTHMs. The concentration of these byproducts can vary seasonally with higher concentrations typically found during the warmer months of the year. The City of Great Falls monitors chlorine levels and the concentrations of organic carbon in the river water to adjust our treatment techniques to try to minimize the formation of DBPs.

#### Major factors for DBP formation:



Natural organic material in source water.



Chlorine used to treat source water.



Time it takes to reach the consumer.

Constituent	MCL	Concentration	Regulation Met?
Total Organic Carbon (TOC)	15% removal rate required	2.0 - 2.8 ppm	Yes 15% removal requirement met

Typical sources of TOC found in surface water are decaying grasses, leaves, and other organic materials.

There are 324 miles of water mains throughout the City.

### Contaminants regulated at the Treatment Plant

Constituent	MCL	MCGL	Concentration	Regulation Met?	Possible Sources of Contaminant
Turbidity (NTU)	<0.3, 95% of the time	0	0.025 - 0.138	Yes	Runoff.
Total Residual Chlorine (mg/L)	4.0	4.0	1.66 - 2.16	Yes	Disinfection additive.
Chloramine (mg/L)	4.0	4.0	1.65 - 2.12	Yes	Disinfection additive.
Arsenic (mg/L)	0.01	0.0	ND	Yes	Erosion of naturally contaminants, mining wastes.
Fluoride (mg/L)	2.0	2.0	0.7	Yes	Erosion of natural contaminants.
Nitrate (mg/L)	10	10.0	0.08	Yes	Runoff, fertilizers, septic tank leachates, industrial wastes.

The City of Great Falls does not fluoridate the water. The fluoride that is present in the water is naturally occurring.



The coagulation and flocculation process occurs at this location in underground chambers.

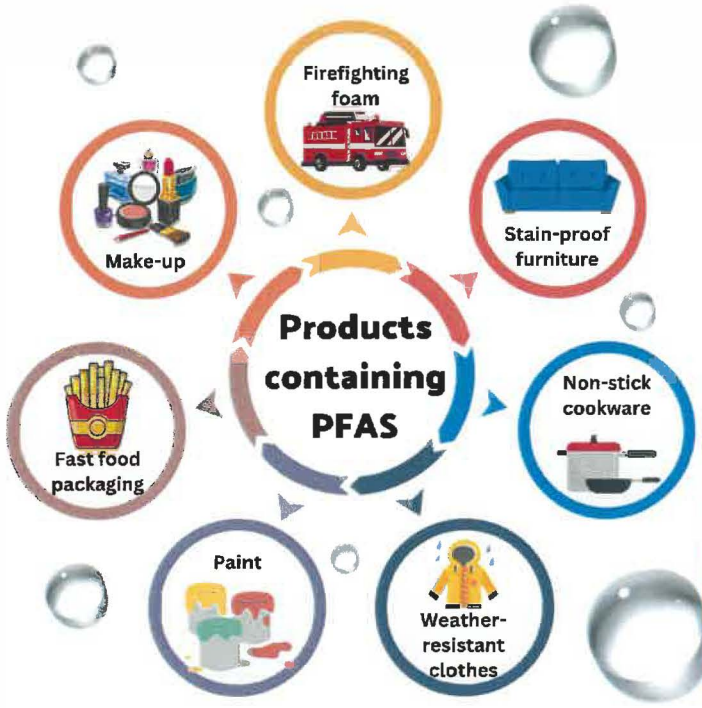


16 mixed media filters are located inside of this building.



## Unregulated Contaminant Monitoring Rule (UCMR)

As part of the EPA’s responsibility under the Safe Drinking Water Act, every five years a list of priority, unregulated contaminants of interest are listed for each public water system to monitor over a years time. This year the City of Great Falls Water Treatment Plant conducted testing for the UCMR5 (5 denoting the fifth monitoring event) on the finished drinking water. The targeted, unregulated contaminants for this round were lithium (Li) and 29 different PFAS compounds.



PFAS is short for perfluoroalkyl- and polyfluoroalkyl-substances. These synthetic compounds are considered forever chemicals because they do not easily breakdown. PFAS are very common and found in everyday things like non-stick cookware, waterproof clothing and shoes, outdoor equipment, tarps, food packaging, and dental floss, just to name a few. The health impacts of PFAS are still being investigated but it is suspected that they may cause some forms of cancer.

- Here are a few ways to avoid PFAS:**
- Avoid stain-resistant carpets and upholstery, as well as waterproofing sprays.
  - Avoid lined take-out containers.
  - Choose cookware made of cast iron, stainless steel, glass, or enamel instead of Teflon.
  - Avoid products with the ingredient PTFE or other “fluor-” ingredients listed on the label.

Constituent	MCL	MCGL	Concentration	Possible Sources of Contaminant
Lithium (ppb)	Not Specified	0	57.0 - 80.8	Erosion of natural contaminants.
PFAS (ppb)	0.002-0.02	0	ND	Synthetic chemicals used in manufacturing and processing facilities, fire fighting foams, and in various daily use household products.

Most of what is known about the health affects of lithium is related to its use as a pharmaceutical drug. Very little is known about how the intake of lithium from food and water may effect health.

Learn more about PFAS by visiting the EPA’s website: <https://www.epa.gov/pfas>

Learn more about the UCMR5 here: <https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule>



## Miscellaneous Constituents of Interest

Constituent	SMCL	Monitoring Location	Concentration	Possible Sources of Contaminant
Hardness (mg/L)	--	Finished Water (post-treatment)	146	Erosion of natural contaminants. Can cause water spots and deposits on fixtures.
Alkalinity (mg/L as calcium carbonate)	--	Finished Water (post-treatment)	70 - 134	Runoff. Can impart a salty or soda flavor to the water. May also contribute to dry skin.
Chloride (mg/L)	250	Finished Water (post-treatment)	13	Runoff. Can give water a salty flavor.
Total Dissolved Solids (TDS, mg/L)	500	Finished Water (post-treatment)	232	Runoff. Can contribute to hardness and cause colored water, staining, and deposits.
Sulfate (mg/L)	250	Finished Water (post-treatment)	54	Runoff. Can give water a metallic, or medicine flavor. May also contribute to a sulfur smell.
Aluminum (mg/L)	0.05-0.2	Finished Water (post-treatment)	0.05	Runoff.
Calcium (mg/L)	--	Finished Water (post-treatment)	41	Runoff, erosion of natural contaminants.
pH (pH units)	6.5-8.5	Finished Water (post-treatment)	6.75-7.45	Erosion of natural contaminants, human actions.

The City of Great Falls Water Treatment Plant operated the entire 2023 year with no violations and met or exceeded all EPA and DEQ water quality standards.

## Current and Upcoming Projects

As part of our commitment to providing the residents of Great Falls with quality drinking water, the Water Treatment Plant is regularly undergoing routine maintenance and upgrades. Below is a summary of the current and upcoming projects at the Plant.

### Service Line Inventory



The EPA is requiring that all water systems have a comprehensive inventory of all drinking water service lines. As part of maintaining compliance, the City of Great Falls Engineering Department and Water Plant Staff have worked together with the public to identify the composition of the service lines entering all of the homes in Great Falls. This will be an ongoing process until all lines have been identified. If you have questions about your service line, or would like to inform us about what material your service line is comprised of, please call the Lead and Copper Hotline at 406-455-8401.



### Stage 2 of Filter Building Upgrades Completed



The second stage of a two stage filter upgrade project was completed in the spring of 2023. This project included upgrading all filters to contain air scour cleaning systems and replacing old controls, drains, valves, hardware, and media in the filters. This upgrade means a much more efficient filter cleaning process to ensure optimal filter performance resulting in better quality drinking water for the public.

### Construction of a Solids Handling Building



Currently the Water Plant collects all the solids removed during the treatment process and stores them in holding ponds on-site. When the water has evaporated from the surface and the sludge has frozen during the winter months, it is hauled off site using heavy equipment and dump trucks. In order to better manage the solids generated at the Plant, a solids handling facility is being built. The new facility will be finished in 2024. It will contain a gravity thickener and two screw presses. All three will work in unison to thicken and dewater the sludge produced during the treatment process. The dewatered sludge will be collected in trash receptacles and disposed of as needed. This process will not only allow the Water Plant to better manage the solids, but also return more and cleaner water to the Missouri River.

**More than 150 people from Great Falls and the surrounding areas toured the Water Treatment Plant in 2023.**



If you are interested in a tour, call the Plant at 406-727-1327

If there are any questions about this report or the quality of the drinking water in your home please contact the Water Plant Laboratory Personnel, or the Water Utility Branch Manager, Jason Fladland, at 406-727-1325.