Agenda

Town Council Special Meeting | 5:30 PM

Tuesday, December 30, 2025

Town Hall / Council Chambers - 302 Pine St Minturn, CO

The agenda is subject to change, including the addition of items 24 hours in advance or the deletion of items at any time. The order of agenda items listed are approximate.
This agenda and meetings can be viewed at www.minturn.org.

Meeting Access Information and Public Participation:

This will be an in-person meeting with access for the public to attend in person or via the Zoom link included. Zoom Link: https://us02web.zoom.us/j/88307619286

Zoom Call-In Information: 1 651 372 8299 or 1 301 715 8592 **Webinar ID:** 883 0761 9286

Please note: All virtual participants are muted. In order to be called upon an unmuted, you will need to use the "raise hand" feature in the Zoom platform. When it's your turn to speak, the moderator will unmute your line and you will have five minutes for public comment.

Public Comments: If you are unable to attend, public comments regarding any items on the agenda can be submitted to Jay Brunvand, Town Clerk, prior to the meeting and will be included as part of the record.

1. **Call to Order**

2. **Roll Call and Pledge of Allegiance**

3. **Approval of Consent Agenda**
   Consent agenda items are routine Town business, items that have received clear direction previously from the council, final land-use file documents after the public hearing has been closed, or which do not require council deliberation.

   A. 12-17-2025 Minutes

4. **Approval of Regular Agenda**
   Opportunity for amendment or deletions to the agenda.

5. **Declaration of Conflicts of Interest**

6. **Public Comment**
   Citizens are invited to comment on any item on the Consent Agenda, or not on the regular Agenda subject to a public hearing. Please limit your comments to five minutes per person

unless arrangements have been made for a presentation with the Town Clerk. Those who are speaking are requested to state their name and address for the record.

7. Council and Committee Reports

8. Staff Reports

9. Special Presentations
Presentations are limited to 5 minutes. Invited presentations are limited to 10 minutes if prior arrangements are made with the Town Clerk.

10. Business Items
Items and/or Public Hearings listed under Business Items may be old or new and may require review or action by the Council.

A. Public Hearing for Minturn Water Treatment Plan Public Needs Assessment

11. Discussion / Direction Items

A. Continued Discussion with Municipal Advisor regarding WTP Financing

12. Future Agenda Items

A. Future Meeting Topics

13. Adjourn

Information Only Items
Upcoming Council Meetings: January 7, January 21, February 4. Upcoming Special Events: Friday, January 9th - Christmas Tree Bonfire. Community Dinners start back up on January 13th (second Tuesday of the month Jan/Feb/March). There will not be a January First Friday due to the holiday timing. February First Friday will be held at Vail Mountain Coffee & Tea.

Official Minutes

Town Council Regular Meeting | 5:30 PM

Wednesday, December 17, 2025

Town Hall / Council Chambers - 302 Pine St Minturn, CO

The agenda is subject to change, including the addition of items 24 hours in advance or the deletion of items at any time. The order of agenda items listed are approximate.
This agenda and meetings can be viewed at www.minturn.org.

Meeting Access Information and Public Participation:

This will be an in-person meeting with access for the public to attend in person or via the Zoom link included. Zoom Link: https://us02web.zoom.us/j/89053708463

Zoom Call-In Information: 1 651 372 8299 or 1 301 715 8592 **Webinar ID:** 890 5370 8463

Please note: All virtual participants are muted. In order to be called upon an unmuted, you will need to use the "raise hand" feature in the Zoom platform. When it's your turn to speak, the moderator will unmute your line and you will have five minutes for public comment.

Public Comments: If you are unable to attend, public comments regarding any items on the agenda can be submitted to Jay Brunvand, Town Clerk, prior to the meeting and will be included as part of the record.

1. **Call to Order**

   Mayor Earle Bidez called the meeting to order at 5:30pm.

2. **Roll Call and Pledge of Allegiance**

   Council present: Mayor Earle Bidez, and Town Council Members Gusty Kanakis, Brian Rodine, Lynn Feiger, and Tom Priest. Kate Schifani was excused absent. Eric Gotthelf joined the meeting at 5:50pm.

   Staff Members Present: Town Manager Rob Gutierrez, Deputy Clerk Cindy Krieg (Zoom), Planning Department members Scot Hunn and Madison Harris, and Town Attorney Mike Sawyer (Zoom).

3. **Approval of Consent Agenda**
   Consent agenda items are routine Town business, items that have received clear direction previously from the council, final land-use file documents after the public hearing has been closed, or which do not require council deliberation.

   A. 12-03-2025 Minutes

B. 0156 Miles End Lane - New Single Family Residence

C. 0146 Miles End Lane - New Single Family Residence

D. 0070 Miles End Lane - New Single Family Residence

Motion by Gusty K., second by Eric G., to approve the consent agenda of December 17, 2025 as presented. Motion passed 5-0. Kate Schifani was excused absent. Eric Gotthelf joined the meeting late at 5:50pm.

4. Approval of Regular Agenda

Opportunity for amendment or deletions to the agenda.

Motion by Eric G., second by Gusty K., to approve the regular agenda of December 17, 2025 as presented. Motion passed 5-0. Kate Schifani was excused absent. Eric Gotthelf joined the meeting late at 5:50pm.

5. Declaration of Conflicts of Interest

6. Public Comment

Citizens are invited to comment on any item on the Consent Agenda, or not on the regular Agenda subject to a public hearing. Please limit your comments to five minutes per person unless arrangements have been made for a presentation with the Town Clerk. Those who are speaking are requested to state their name and address for the record.

Sasha Gros, 1108 Main St.
Mr. Gros inquired about the sidewalk project delay. He hadn't heard much lately, and wanted to get an update.

He also noted that it's planned to stop right at his house, but he noted if it could go another 100 yards it would extend to the school bus stop. He understands there are financial constraints, but CDOT should be concerned about safety there and should consider trying to extend. OR – could the bus stop be moved down? There are several kids taking that bus, and will be more once Belden is complete. There is a lot of traffic during the school bus times. (The bus stop is right by the barber shop).

Mr. Gros also inquired about photo radar / speed cameras. This new venture seems to be working well for Vail and Avon right now. He suggested Minturn consider something like this, and specifically noted issues with semis using jake brakes and driving very high speeds at night.

Mr. Gros also noted that there are some folks in town that would love to help volunteer with needed tasks around town, including shoveling sidewalks, tree clearing, etc. Perhaps there could be some sort of volunteer sign-up on the town website for signup?

Earle B. noted that the Minturn Community Fund does have this (a volunteer sign-up), and has used this for things like help with shoveling (for seniors and others in need of help), but Lynn F. noted that the Town should consider a volunteer list as well, for help in public areas. Town Staff will work on putting something together.

Mr. Gros also brought up the ice that used to be out at Maloit (unofficial ice rink). He noted that's not happening anymore (this used to be a school district project). He noted that there is a lot of flat space out there and that the community has asked for this in the past. He would like this to be looked into, to see if it can be done without much cost, and maybe with volunteer support.

7. Council and Committee Reports

Lynn F. expressed concern that Council did not get more public input prior to listing the Highlands parcels for sale. She is recommending that we now set up a volunteer citizen committee, to talk about zoning / plans for zoning, and allow the public an opportunity to be heard. She is concerned that the listing contract doesn't really have any restrictions. She expressed concern over what could potentially be done (for example, a large development).

Earle B. reiterated why the Town / Council took the approach they did with regard to zoning was because it allows the Town more flexibility, and actually protects the town better than to zone it without knowing the property's true value or demand. And things are often overlooked when zoning in advance.

Earle B. also pointed out that even though there are not specific restrictions in the listing contract, any development would still need to go through the approval process. The zoning would need to be approved, and then the project (by planning and council). So Council still has control over what will end up happening with those parcels.

Earle B. also noted that the infrastructure does not exist out there for a large development.

There is still a chance that the Town could get a reasonable offer for open space, and that can still be considered. But to do any type of restrictive zoning now could be very detrimental and potentially hinder the sale of the parcels.

Earle B. noted that he did not want to do anything to slow down the process, giving the timing of the water treatment plant financing, and all the work that has already been done to get the parcels listed.

Lynn F. noted that she would still like to have this on an upcoming agenda, and would like to see a citizen committee formed. She did not feel this would impede moving forward with finding interested buyers.

Mike S. interjected and pointed out that he has never heard of a zoning advisory committee. The Town takes public comment in one of three ways. We can establish some work sessions if needed. Then there will be a public hearing before planning commission, and then 2 public hearings with Council. So the public would have these opportunities to provide input.

Lynn F. then noted a work session would be great.

Mike S. also noted that staff capacity needs to be taken into account. To have an effective workshop will require a lot of work and preparation from the planning department.

Tom P. suggested that perhaps this topic is put on an upcoming agenda just for the purpose of just updating / educating the public as to the status, how we got to this point, and the process going forward. He also noted that while we can put this on a January or February agenda, but we do not yet have all the information. We don't know yet what offers we might get, and how this will impact water costs. The public hearing process that will follow when the town receives offers / proposals, will be a public process and the residents will be informed.
But for now, we do not know all the options that are available to us at this point, until such time as we put it out there. If conservation comes back, throws a number out there that's amenable, that reduces debt - Super. Nobody has said anything is set in stone. All we've asked is in regards to the real estate piece. So let's put it out there, let's see what we get. For those citizens to sit there, as we talked about before, you have to disclose everything

to them. That means this the amount of money we're gonna get if we choose to go down this road or that road, as Earle just said. This is what it's going to cost you for the next 30 years on your water bill. Thumbs up or thumbs down on that. Those are all things that are going to be put to the citizens. Period. Through the public hearing process, Mike already talked about that. Not opposed to them being there in January (or February even). The problem is we're not gonna have all the information then. The whole point of where we are and where we're trying to go is to get as much information as possible.
To inform the public so they are fully aware of what we're looking at as we move forward with debt.
With regard to the WTP and the sale or conservation of the Highlands parcels.
That's it. So I don't see the point of continuing to go down this road.

Rob G. also noted that in February, we will have the financing information. But unless we have an offer by then, we won't have much more information as to the true potential value.

Tom P.:
Regarding the earlier public comment – jake braking.
He suggested larger signs or some additional efforts to address this ongoing issue. He stated the signs are not very large and are hard to read, especially at night.

Tom P. also noted that Public Works has been doing a great job and extended a thank you for their hard work.

Brian R.
He has been hearing through the grapevine that the school district has served eviction notices to the mobile homes out at Maloit Park (in preparation for the housing development). Can the Town verify this and the timeline, and/or help in any way? By connecting those folks with resources to find housing?

Tom P.
We should reach out to Kari Bangston with the School District, to see what their displacement plans are for buildout / if they have offered to help with temporary housing during the transition.

Gusty K. reminded everyone that CO Gives is still open through December. High Five Media is still needing more donations. High Five of course provides a valuable resource, and residents would not be able to watch these meetings without them.

8. Staff Reports

A Manager's Report

All Town staff have been directed to complete the online FEMA courses:

- **NIMS Introduction (IS-700)**
- **ICS Introduction (ICS-100)**

Staff will also schedule a **2026 training session** with Eagle County Emergency Management for participation in the **Eagle County EOC/Emergency Support Function Training**.

Staff Follow-Up:
Staff have contacted USFS District Ranger Leanne Veldhuis about our interest in assisting with fire mitigation work. Staff have scheduled a meeting with Eagle River Fire Protection District's (ERFPD) Wildland Fire Management Team in January 2026 to discuss how the town can assist ERFPD with fire mitigation.

Capital Projects
New Water Treatment Plant (WTP)
Status:

- **90% design is complete.**
- The design has been submitted to and accepted by the Colorado Department of Public Health & Environment (CDPHE) for formal review and can be tracked here: https://cdphe.colorado.gov/designreviews
- Plans have been submitted for **local building and zoning review**.

Cost Estimate:

- Current estimate is **~$11 million based on the 60% design**.
- An **updated cost estimate** is expected **by January**, once the 90% design review is complete.

Next Steps:

- The town will hold a hearing on the WTP's Project Needs Assessment as required by CDPHE on **December 30th, 2025**.
- If the Town wishes to pursue a **State Revolving Fund (SRF) Loan** through the Colorado Water Resources and Power Development Authority (CWRPDA), the application must be submitted by **January 5th, 2026**.

Town Hall 2-Bedroom Apartment Reconstruction
Status:
Staff issued a formal request for clarification to the three firms that submitted bids in response to the Town's Request for Proposals (RFP). Responses are due by **December 19, 2025**.
Next Steps:
Staff will evaluate and score the final submissions and prepare a recommended contract for Council review at the **first meeting in January 2026**.

Taylor Street Repaving
Status:
Design is complete and the project is pending a public bid.

US 24 Pedestrian Improvement Project Phase II
Status:
The project has been shut down for the season and construction will resume in the spring.
Next Steps:
Staff are working with Xcel Energy and Phoenix Industries to negotiate the potential costs and impacts of a spring 2026 re-mobilization.

Main Street Streetlighting
Background:
Town Council approved the 2026 budget with funding allocated for streetlight replacement and expansion along Main Street.
Status:
Staff are working with several streetlight manufacturers and vendors to develop a shortlist of potential decorative streetlight models. Once fixture, pole, and base specifications are finalized for each option, staff will obtain pricing to complete a detailed model comparison.
Next Steps:
After the shortlist of models is finalized, staff will work with Town Engineer Jeff Spanel to outline the engineering and design process required to prepare bid-ready plans for 2026. Staff will also explore potential grant opportunities to supplement the project budget.

Bellm Bridge Replacement

Status:
Staff are currently working with SEH Inc. on the bridge design. Staff applied to CDOT's Off-System Bridge Grant program on November 7th, 2025.
Next Steps:
Identify additional funding opportunities for the estimated $6 million dollar construction cost.

Little Beach Park Improvements
Status:
Installation of the new retaining wall and asphalt access road is complete.
Next Steps:
Staff have drafted an Request for Qualifications (RFQ) for a new playground with the assistance of the Town Engineer Jeff Spanel. After we receive comments and feedback from the Council Committee, the RFQ will be posted.

Other Projects

Highlands Parcels
Background:
As part of a settlement agreement with the former developer of the Battle Mountain Ski Resort, the Town obtained ownership of approximately 55 acres of land located west of U.S. 24 at the south end of town. The property was transferred to the Town after the developer failed to meet financial commitments related to the construction of a new water treatment plant.
On **November 19, 2025**, the Town Council approved a contract with Slifer Smith & Frampton to list the land for sale. The listing followed a recommendation from a Council-appointed committee tasked with identifying a broker and determining market value for the property.
Status:
Staff held a meeting with brokers from Slifer Smith & Frampton on December 8th, 2025, to discuss next steps in the listing process and help share key information about the property with the firm.

Minturn USFS Shooting Range
Background:
At the November 19, 2025, Town Council meeting, staff were directed to explore options for Town management of the Minturn Shooting Range in order to address long-standing community concerns regarding safety, noise, and environmental impacts. The shooting range is located on federal land south of the Minturn Bike Park.
Status:
Staff have contacted USFS District Ranger Leanne Veldhuis and received confirmation on December 11, 2025, that USFS permitting staff will follow up with details on the permitting process for potential Town management of the shooting range.

Policy & Planning Initiatives
Minturn Forward Land Use Code Update
Background:
Town staff with Matt Farrar, Western Slope Consulting have been developing and reviewing with the Planning Commission new portions of the Land Use Code as we make our way through the Chapters 16 and 17 update. Staff has completed Module 1 (Land use application requirements and procedures, Subdivision application requirements and procedures, Annexation and disconnection of land, and Environmental/development impact report) and Module 2 (Zone districts, Use

regulations and standards, Dimensional requirements, and Community housing standards and guidelines).

Status:

Staff is currently working on Module 3 (Subdivision and Development/Design Standards) that will hopefully wrap up in January.

Next Steps:

Module 4 (General provisions, Area and activities of state interest, and Terms and definitions) will start in January and will conclude with the whole adoption of the new Land Use Code.

Comprehensive Impact Fee Study RFP

Background:

Staff issued a Request for Proposals (RFP) in November 2025 to solicit qualified firms to conduct a comprehensive impact fee study. The purpose of the study is to ensure that the impacts of new developments appropriately contribute to the Town's future infrastructure costs.

Status:

Staff are currently reviewing and scoring the three proposals received. A recommended contract will be presented to the Town Council for consideration at the **first meeting in January 2026**.

Minturn Rural Technical Assistance Program

Background:

The Town was selected to participate in the Rural Technical Assistance Program through the Colorado Office of Economic Development & International Trade (OEDIT). RTAP pairs Minturn with graduate students from the University of Colorado Boulder and Colorado State University to develop strategies for how small communities can leverage outdoor recreation opportunities to strengthen their local economies.

Status:

Staff participated in the program kickoff meeting on **December 4, 2025**. Staff are currently seeking participation from additional community members to support the assessment and planning process.

Next Steps:

Staff and RTAP participants will complete the **Community Assessment** document by **January 7, 2026**.

Town Departments

Public Works Weekly Report (Nov 17-23, 2025)

Hazard Tree Removal & Vegetation Management

Public Works removed several hazardous trees along Highway 24, Cemetery Bridge, Two Elk Estates, and the Bone Yard area. This work eliminated safety hazards in high-visibility travel corridors and prepared the areas for winter operations.

Holiday Lighting Repairs

Staff replaced damaged Christmas lights and installed new rope lighting for the Bellum Bridge Star to ensure holiday décor remains functional and visible for the season.

Water Plant & Drainage Work

A drainage ditch at the Water Plant was cleared following blockage from beaver activity. Keeping this drainage path open is important for protecting plant operations.

Roadway Safety & Winter Prep

Crews removed boulders from the top of Taylor Street to ensure safe plowing access and performed minor road patching along Highway 24 near the Cemetery Bridge to address settling around the new gas line installation.

CDOT Rockfall Mitigation Partnership
Public Works collaborated with CDOT on rock mitigation on the north side of town. CDOT supplied traffic control and hauling, while the Town provided equipment and staff support.
Equipment & Facility Work
Staff completed small repairs and maintenance, including utility trailer lighting repairs and securing a loose ground cable at Eagle Park.
Littering Issue at Cemetery Bridge
Staff collected recurring weekend litter at Cemetery Bridge and are evaluating the potential installation of a game camera to deter future incidents.
Safety
No safety incidents were reported.

Public Works Weekly Report (Dec 1-7, 2025)
Snow Operations & Winter Maintenance
Public Works conducted full snow operations for three consecutive days, including plowing and shoveling across Town facilities, Main Street sidewalks, bridges, and bike paths. Crews applied cinders townwide and kept all priority routes clear during early-season storms.
Utility & Water System Work
Staff completed end-of-month manual meter reads and installed a new AMI unit at 292 Main Street. Valve box investigations on Maloit Park Road and South Main indicate a leak that will require excavation next week. Due to forecasted snowfall and the need to maintain uninterrupted snow operations, an outside contractor will be used for the excavation.
Equipment & Fleet Updates
Staff completed preventative maintenance on loaders, the cinder machine, and Town trucks. Replacement cutting edges and new hydraulic couplers were ordered to improve snow equipment efficiency and reduce downtime. Several small repairs (marker light, tail/brake assemblies, cinder shed door framing) were completed in-house.
General Maintenance
Trash and dog waste stations were serviced on schedule; new water meter supplies were inventoried; new snow shovels were purchased for seasonal readiness.
Safety
No safety incidents reported.

Rob G: With regard to the sidewalk project delay – The gas line complexity was not fully understood in the beginning, which caused a significant delay. The Town has offered (weather permitting) to be flexible with the work moratorium in the early spring, to try to get work started as soon as possible.

The key thing that the Town is negotiating right now with RockSol, is the cost of remobilization. We're working with the town engineer to verify the latest proposal they sent us last week for additional costs against the CDOT standards and specs. Once we sort through that, we can continue working with them to minimize that cost impact to the town. Hopefully we'll have a better picture in January.

Regarding the earlier comments about the sidewalk project, we cannot extend the length of the project due to finances. In fact, the project was actually reduced to meet the project budget, which was limiting because it’s funded through a CDOT grant.
But perhaps the Town could take on a minor extension potentially handle this in-house. Or perhaps we could move the bus stop. Both options will be looked into.

Brian R. inquired about the CDOT Safe Routes to School grant program.

Brian R. also mentioned the speed cameras option that was brought up earlier in public comment.

Rob G. noted that we can look the CDOT Safe Routes to School Program, but those programs can be very lengthy and may not result in a timely solution.

Rob G. also noted that with regard to Speed cameras, we need to do significant data gathering first in order to be eligible. Staff will look into this and get back with Council.

9. Special Presentations

Presentations are limited to 5 minutes. Invited presentations are limited to 10 minutes if prior arrangements are made with the Town Clerk.

No special presentations.

10. Business Items

Items and/or Public Hearings listed under Business Items may be old or new and may require review or action by the Council.

A. Resolution No. 52 - Series 2025, A Resolution Adopting a Minturn Downtown Development Authority Plan of Development

The DDA Plan of Development was reviewed and discussed by Planning Commission at the December 2nd Planning Commission meeting, and the December 3rd Town Council meeting. No changes were recommended. This resolution is to formally adopt the plan.

Motion by Eric G., second by Gusty K., to approve Resolution 52 – Series 2025, A Resolution Adopting a Minturn Downtown Development Authority Plan of Development. Motion passed 6-0. Kate Schifani was excused absent.

B. Maloit Park Exemption Tract A Eagle County School District Subdivision - Preliminary Plat - Request for Continuance

Madison H. noted when the public notice for the Maloit Park preliminary plat went out, we dual noticed for Town Council and Planning Commission meetings (12/10 planning commission and 12/17 council), pending the review in one night and recommendation by Planning Commission. Due to some unexpected information that we got on the day of the Planning Commission meeting, we ended up having to push that meeting to January 14th. So keeping with the public notice timeline for both boards, we are requesting a continuance to January 21st.

Tom Braun attended via Zoom.

Earle B. asked if they are hoping to begin construction next year.
Mr. Bruan noted that site work will hopefully start next summer, with hopes to go vertical in spring 2027.
Roads, water, sewer lines, drainage, that sort of thing hopefully in 2026, so the project is teed up and ready to go vertical in spring of 2027.

Motion by Gusty K., second by Lynn F., to allow a continuance for Maloit Park Exemption Tract A, Eagle County School District Subdivision – Preliminary Plat. Motion passed 6-0. Kate Schifani was excused absent.

11. Discussion / Direction Items

A. Continued Discussion - WTP Financing Options

Municipal Advisor Troy Bernberg addressed the Council with updates since the last meeting. The slides from this presentation are included in the minutes.

One item to consider is the first year of principal. Between the two options, we talked about the power development authority loan, that is the SRF (State Revolving Fund). And we talked about a direct lending arrangement. The concept of being able to delay principle, maybe perhaps only a year, in order to ease the rate increases is one strategy for that approach.
The Power Development Authority does not allow us to defer any principal payments, so that could be a factor in regard to what that first payment of debt service might look like.
There is a slightly higher borrowing cost for the private placement option, or direct lending option. But in looking at the cash flows and the impacts to rate payers, the gap still remains quite narrow between the two options.
Because the power development authority loan does not allow you to push principal a year, that means you're amortizing principal a little faster.
Because of that, the Power Development Authority loan option actually results in a higher impact to rate users in 2026. But it actually dips a little below what the bank option is years after. Because the authority does not allow you to defer principle, the total interest cost is a little lower, and therefore the monthly impact is a little lower.
Right now, the two options continue to be very neck and neck, and.

Mr. Bernberg still recommends strongly that we apply to the Power Development Authority on January 5th. And then following, probably early February, to give Mr. Bernberg an opportunity to follow up directly and try to obtain an indicative debt service schedule from the authority.
He would then I go out and solicit responses from banks.
So he can then provide a comparative analysis.

So by mid-February, maybe late February, we would be making a final decision. Overall, the power development authority option provides a slightly lower cost of borrowing, but the private financing options provide more flexibility with regard to prepayment and refinancing. So Council can decide which option makes the most sense at the time. There is no penalty to remove the application from the power development authority.

Lynn F. asked about interest rates changing with the market. Mr. Bernberg noted that he will be seeking a long term fixed rate financing option.

Earle B. brought up project cost impacts as it relates to the PDA loan. Mr. Bernberg elaborated on these, including BABA (Build America, Buy America) and Davis Bacon. On a project total basis, he’s estimating about an 8% impact. This is reflected in the numbers presented. Some other items (such as electrical and mechanical) could be an even higher impact.

Rob G. also noted that he meets with Jared from HDR every two weeks on Tuesday morning. While they haven't yet had extensive discussions about going to bid, Jared did request that if we are considering private financing that HDR would like to know as soon as possible, because it takes a lot of complexity out of the bid process. There's a lot of things the contractor doesn't have to track, they don't have to consider. The math could be anywhere in that percentage range, but it does add a lot of complexity for the contractor, to track and report that information.

Earle B. asked about the length options of the loan and refinancing / final maturity. Mr. Bernberg responded that a traditional bank loan is likely to be 20 – 25 years for public finance lending. So we would need to refinance at some point. The annual payments would be slightly higher than PDA (which offers a longer final maturity), however at a slightly higher project cost. We could refinance under PDA after 10 years, but with a bank loan we could consider refinancing as soon as 3 years if terms are favorable. So after an initial refinance with a bank loan, we could probably get 24-year permanent financing.

Additional discussion ensued regarding interest rates and refinancing options.

Unfortunately, there was a power outage at approximately 6:45pm, and the meeting had to be adjourned early. The WTP financing discussion will be revisited at an upcoming meeting.

12. Future Agenda Items

A. Future Meeting Topics

13. Adjourn

Motion by Gusty K., second by Lynn F., to adjourn the meeting at 6:51pm.

_____
Earle Bidez, Mayor

ATTEST:

_____
Jay Brunvand, Town Clerk

COLORADO
Department of Public Health & Environment

Drinking Water Project Needs Assessment (PNA) Form

Water Quality Control Division

Read Only

General Information

Facility Name:	Minturn, Town of			Original ID:	
Mailing Address 1:	PO Box 309	Mailing Address 2:		County:	
City:	Minturn	State:	CO	Zip Code:	81645
Property Address 1:	PO Box 309	Property Address 2:		County:	
City:	Minturn	State:	CO	Zip Code:	81645
Latitude :	39.7517291	Longitude :	-104.992107		
Name of Project:	Water Treatment Plant				

Type of Project (Check all that apply)

☑ Treatment ☐ Distribution / Transmission ☐ Water Supply ☐ Water Storage

Please enter the following information for your organization if you have it.

1. Applicant Information:

First Name:	Jay	Middle Name:		Last Name:	Brunvand
Phone Number:	970-827-5645				
Mailing Address1:	301 Boulder St.	Mailing Address2:	#309		
City:	Minturn	State:	CO	Zip Code:	81645
E-mail:	treasurer@minturn.org				

Consulting Engineer Information:

First Name:	Jarod	Middle Name:		Last Name:	Limke
Phone Number:					
Mailing Address1:		Mailing Address2:			
City:	Denver	State:	CO	Zip Code:	
E-mail:	jarod.limke@hdrinc.com				

Self-Certification:

☐ Yes ☑ No Does the system intend to self-certify all or a portion of the project?

2. Executive Summary

The Town of Minturn has spent the last few years evaluating a path forward to supply reliable water production for its constituents as the existing Water Treatment Plant (WTP) nears the end of its usable lifecycle. The current slow sand filter is also having challenges meeting regulatory compliance for drinking water standards. Thus forcing the town to explore alternative treatment technologies.

The town developed a strategic approach to determine the most feasible path forward with the assistance of its consulting team led by HDR Engineering Inc. The team developed a qualitative analysis to determine the top priorities for the Town in terms of selecting a new treatment technology. The results determined a Membrane WTP is the selected alternative for the town with the highest overall score.

The new WTP is planned for construction at Minturn's existing WTP site. Minturn's current slow sand filtration WTP, with Filters 1 and 2 being outdoor filtration basins that are presently removed from service as they were found to be non-compliant with CDPHE drinking water regulations. Filters 1 and 2 are to be demolished and backfilled with structural material. A new concrete foundation and slab will be placed on top of where the older filters were located.

3.System Structure and Operation

3.1 Legal Ownership of System (TMF: Managerial-1)

First Name: Town of Minturn

Mailing Address1: 301 Boulder St. #309 Mailing Address2:

City: Minturn State: CO Zip Code: 81645

Phone Number: 970-445-2416 Fax:

3.2 Organizational Chart

Include an Organizational Chart as Attachment 2.

3.3 Plans (TMF: Managerial-2)

Monitoring Plan - Include a copy of the Monitoring Plan as Attachment 3.
Cross Connection Control Plan - Include a copy of the Cross Connection Control Plan as Attachment 4.

Water Conservation Plan (if system sells over 2,000 acre feet of water annually) - Include a copy of the Water Conservation Plan as Attachment 5. ☑ Not Applicable

3.4 Current Operator in Responsible (ORC) Charge (TMF: Technical-14)

First Name: John Middle Name: Last Name: Volk

Certification Number: 10098 Certification Expiration Date: 04/12/2027

Operator Certification Level (check one) ☐ Staff Operator ☑ Contract Operator

Treatment	☐ Class D	☐ Class C	☐ Class B	☑ Class A
Distribution	☐ Class 4	☑ Class 3	☐ Class 2	☐ Class 1
Combined Treatment/Distribution	☐ Class S	☐ Class T		

3.5 Operator Certification (TMF: Technical-15)

☑ Yes ☐ No Do the system operators have adequate operator certification levels for the proposed project as defined by Regulation 100 Water and Wastewater Facility Operators Certification Requirements?

Explain the impact of the proposed project on the required operator in responsible charge (ORC) certification level and other predicted staffing changes.

Read Only

The proposed project will have an impact on the operator rating for the proposed system, however, the ORC is certified at the appropriate level for the proposed improvements.

3.6 Record Keeping (TMF: Managerial-3)

Describe the system's record retention policy that meets the requirements of the Colorado Primary Drinking Water Regulations (Regulation 11) including: record type, retention period, and record location.

The town adheres to the requirements outlined in Regulation 11: 11.36 RECORDKEEPING REQUIREMENTS RULE and the schedule outlined in Colorado Revised Statute C.R.S. 6-17-101 et seq. All records pre 2011 are stored in the PW building. All documents post 2011 are located in a shared, cloud-based, software, which is available to all PW staff and town staff as-needed.

3.7 Annual Budget (TMF: Financial-1)

☑ Yes ☐ No Does the system prepare an annual budget?

☑ Yes ☐ No Does the system prepare and maintain a Capital Improvement Plan?

Please provide a narrative of the process for annual budgeting and financial planning.

The Town submits an annual budget to DOLA as required by statute. The budget is developed by staff and adopted by the board prior to the start of each calendar year. The CIP is nearing the point it should be updated, as it was last developed in 2019.

3.8 Financial Status (TMF: Financial-2)

Describe the current financial status and multi-year financial planning for the system including O&M costs, existing debt, required reserve accounts, rate structure, other capital improvement programs, and the system's reserve policies.

See attachment 8 for financial outlook in the 20-yr cash-flow projections. The Town has operated with funds contributed to reserves in most years, however with planning efforts to construct the new WTP the water enterprise fund has taken a hit. The Town has been working on securing funding for this project for many years now, and we are finally close to a path forward financially by securing CDS, DOLA, and in the queue for EID funds from EPA. The SRF loan will cover the balance of the outlined project costs. The Town has been proactive with rate increases, although depending on final costs for the WTP additional rate increases are anticipated.

20-year cash flow projection
Include a copy of the 20-year cash flow projection as Attachment 8.

3.9 Audits (TMF: Financial-5)

Has the system submitted audits to the Department of Local Affairs or has the received State exemption of the statutory audit requirement?

☑ Yes - Provide a copy of the most recent audited financial statement or exemption from State as Attachment 9. ☐ No

Read Only

3.10 Insurance (TMF: Financial-6)

Does the system maintain general liability insurance?

☑ Yes - Provide a copy of the most recent audited financial statement or exemption from State as Attachment 9. ☐ No

4. Project Purpose and Need

Discuss the issue or concern that the proposed project will address. Specific issues are outlined below. All issues must be discussed in each sub section below even if they are not the project driver.

4.1 Health and Compliance

Summarize the system's compliance status that necessitates the proposed project.

Minturn's existing water treatment plant (WTP) is nearing the end of its serviceable life and struggles to meet both regulatory water quality limits and summertime water demand. The existing water plant represents a large share of Minturn's available water supply to its approximately 1,100 residents. A new WTP is proposed to replace the existing slow sand filtration plant and provide the necessary capacity to meet peak demand.

4.2 Existing facility limitations

Summarize existing water system facility(ies) limitations that necessitate the proposed project.

The current system is at or beyond the end of its usable lifecycle. The current summertime demand exceeds the plants capabilities to produce finished water. This projects' objective is to provide a new water treatment plant comprised of best available technologies to fully utilize Minturn's senior water right in Cross Creek, meet current and future water quality regulations, and expand their treatment capacity to meet summertime demand. During spring runoff, turbidity increases in Cross Creek and Filter 3 struggles to maintain turbidity compliance at the higher solids loading. Filter 3 is subsequently taken offline during spring runoff for filter skimming, where the fouled layer of sand and particles is removed and washed, a process that takes approximately 2-3 months. Filter 3 is brought back online when turbidity has declined, and the filters are clean. While Filter 3 is skimmed, groundwater is used to as the source of supply to Minturn. Groundwater wells #3 and #4 can produce up to 80 gpm each (approx. 0.25 mgd in total) to the existing clearwell where they are combined with the filtrate from the slow sand filters.

4.3 Operations and Maintenance Issues

Summarize operational and maintenance (O&M) issues with the existing water facilities.

Operationally, the current WTP is simple technically speaking with filtration and disinfection. However, due to the source water quality, the simplicity of the technology limits the Town's ability to produce finished water that can maintain during peak summer demand. These limitations create a maintenance burden on the existing staff due to to the filter skimming process that needs to be monitored during spring runoff. Additionally, a lot of operational time is invested into ensuring finished water is produced around the clock to provide ample finished water during peak demand.

5. Existing Facilities Analysis

5.1 Existing Source Water– Section required for treatment and supply projects

☐ Not applicable (for distribution and storage projects, only)

Read Only

5.1.1 Raw Water Supply (TMF: Technical-2)
Explain the system's existing raw water source(s), seasonal variability, and availability. Explain the system's raw water quality including primary water quality parameters of concern, variability and potential sources of contamination in the watershed or source aquifer. Identify whether sources are classified as surface water, groundwater, or groundwater under direct influence of surface water (GWUDI). Explain water usage including multiple sources of differing qualities.

Source Name	Source Classification	Source Description
Cross Creek	SurfaceWater	1912 Minturn Water System Ditch water right
Well #1	GroundWater	1962 water right for the Town of Minturn Well No. 1 (currently diverted at Minturn Well No. 3)
Well #2	GroundWater	1962 water right for the Town of Minturn Well No. 2 (currently diverted at Minturn's Well No. 4)

5.1.2 Water Rights (TMF: Technical-3)

Minturn primarily uses three water rights to provide water for Minturn's Water Service Area. These include its 1912 Minturn Water System Ditch water right, its 1962 water right for the Town of Minturn Well No. 1 (currently diverted at Minturn Well No. 3), and its 1962 water right for the Town of Minturn Well No. 2 (currently diverted at Minturn's Well No. 4). The years associated with each right are from the water rights' appropriation dates and determine their seniority. If these three "senior" water rights are insufficient to meet all or a portion of the Town's demands because of limits on their use, the Town can use its junior water rights (priority dates in the 2000s) along Cross Creek through existing infrastructure and augment those rights when they are out of priority.

The Town also has additional junior water rights on the Eagle River and Cross Creek at multiple locations, as well as a junior storage water right in Bolts Lake. These additional junior rights cannot be utilized to provide water until Minturn invests in additional infrastructure.

Minturn is planning to use a combination of its junior and senior water rights, and the augmentation plan and exchanges from Case No. 07CW225, to provide a reliable water supply for the existing Town and projected growth

5.2 Existing treatment– Required for treatment and supply projects only

☐ Not applicable (for distribution and finished water storage projects, only)

5.2.1 Overall treatment description (TMF: Technical-5)
Provide a current treatment description including: treatment processes used, major design parameters (e.g., process capacities, detention times, unit loading rates, disinfection log inactivation).

Minturn presently operates a direct filtration WTP consisting of three slow sand filters. Filter 1 and Filter 2 are earthen pits constructed in 1963. Filter 1 is no longer in service, and Filter 2 feeds a 1.0-micron cartridge filter capable of producing 50 gpm of treated water. Filter 3 is a concrete lined filter constructed in 1991, capable of producing 60 gpm. Water treated through Filter 3 and the cartridge filter comes from a surface water diversion on Cross Creek. The water is blended together in the WTP clearwell, where chlorine is applied for disinfection, and then pumped to the Minturn distribution system.

During spring runoff, turbidity increases in Cross Creek and Filter 3 struggles to maintain turbidity compliance at the higher solids loading. Filter 3 is subsequently taken offline during spring runoff for filter skimming, where the fouled layer of sand and particles is removed and washed, a process that takes approximately 2-3 months. Filter 3 is brought back online when turbidity has declined, and the filters are clean. While Filter 3 is skimmed, groundwater is used to as the source of supply to Minturn. Groundwater wells #3 and #4 can produce up to 80 gpm each (approx. 0.25 mgd in total) to the existing clearwell where they are combined with the filtrate from the slow sand filters.

Minturn recently completed construction of a new 572,000-gallon unbaffled concrete storage tank. Minturn intends to use the tank to supply water pressure to the distribution system.

5.2.2 Existing Process Flow Diagram (TMF: Technical-8)
Include an existing treatment facility process flow diagram as Attachment 13.

5.2.3 Current Compliance Status (TMF: Technical-1)
Discuss the system's current compliance status with Regulation 11, as well as violations and significant deficiencies documented during sanitary surveys.

The town is currently in good standing with the CDPHE compliance requirements with no outstanding violations. There were a few items found in the most recent sanitary survey. The outdoor slow sand filters have been taken off line and the cartridge filtration has been installed and used accordingly.

5.2.4 Appropriateness of Treatment Technologies (TMF: Technical-6)
Discuss if the existing treatment process(es) are appropriate to meet Regulation 11 considering existing source water quality and potential sources of contamination.

Ready Only

Although at the end of its usable lifecycle, the chlorine injection, disinfection, residual monitoring system and slow sand filter have been able to provide compliant treatment for groundwater/surface water source of this complexity and flow rate. However, due to the quality of the Town's source water, changing regulatory requirements for surface water treatment, and the town's inability to meet peak summer demand a new WTP is needed.

5.2.5 Capacity of Treatment Technologies (TMF: Technical-7)
Is the capacity of the existing water treatment system appropriate to meet water demands through the next 20 years?

☐ Yes ☑ No

Please explain:

During spring runoff, turbidity increases in Cross Creek and Filter 3 struggles to maintain turbidity compliance at the higher solids loading. Filter 3 is subsequently taken offline during spring runoff for filter skimming, where the fouled layer of sand and particles is removed and washed, a process that takes approximately 2-3 months. Filter 3 is brought back online when turbidity has declined, and the filters are clean. While Filter 3 is skimmed, groundwater is used to as the source of supply to Minturn. Groundwater wells #3 and #4 can produce up to 80 gpm each (approx. 0.25 mgd in total) to the existing clearwell where they are combined with the filtrate from the slow sand filters.

5.2.6 Operational Controls (TMF: Technical-10)
Describe if the existing treatment process(es) has appropriate operational controls.

The current WTP is relatively simple. The only operational controls that are in place are chlorine residual alarms monitored with an alarm for call out on low Cl residual.

5.2.7 Residuals Management (TMF: Technical-9)
If the treatment process produces waste residuals, please discuss the water system's residuals management strategy.

N/A

List documentation for all existing discharge permits and/or residuals for the water treatment plant including residuals for disposal or beneficial use (e.g., NPDES discharge permits, EPA UIC Permit, HMWMD radioactive materials license, HMWMD Solid Waste licenses).

No current discharge permits, however, a new discharge permit for the membrane backwash has been submitted. See attachment 14

Include a copy of discharge permits and/or residual documentation as Attachment 14 ☐ Not Applicable

5.3 Distribution - Required for distribution and storage projects only

☑ Not applicable (for supply and treatment projects, only)

6.Facility Planning Analysis

6.1 Planning Area Description

6.1.1 Project Area Map
Provide a map showing a minimum of a 3-mile radius around the project area that includes environmental features (lakes, streams, wetlands, floodplains). Map must include current and proposed service area, existing drinking water facilities (plants, major distribution lines, water sources, storage facilities), existing wastewater outfalls/permitted discharge points, and any new or affected sources with regard to the pertinent watershed. Include the map as Attachment 16.

Read Only

6.1.2 Urban Growth Boundary

☐ Yes ☑ No Is the project within or near an urban growth boundary?

6.1.3 Local and Regional Issues

☐ Yes ☑ No Were local and regional planning efforts considered?

Please describe.

☑ Yes ☐ No Were local and regional water quality and/or quantity efforts considered?

Please describe.

The town and its consultants considered local and regional water quality and quantity. The primary source of the valley is groundwater and the Eagle River. The groundwater in the area, along with the Eagle River, are considered high-quality sources in the state. The town has only experienced quantity issues due to technological limitations, which are not a result of any of its sources.

☑ Yes ☐ No Was consolidation with another water system / treatment facility considered?

If yes, describe the consolidation considerations. If no, please indicate why consolidation was not considered.

The Town had been in negotiations with Eagle River WSD to consolidate. However, the conversations continued to delay progress of improvements for the Town. Ultimately, the town decided to avoid further delays, large tap fees, and a deteriorating political environment for the connection with ERWSD and pursue improvements at its own WTP. HDR did complete initial estimates to determine the feasibility of connecting with ERWSD; however, ERWSD and Minturn did not come to agreement on consolidation and the option is no longer considered feasible.

6.2 Population and Water Demand Projections (TMF: Technical-2)

For a 20 year planning period, forecast the population growth, projected increase in Equivalent Residential Taps (ERT), and projected drinking water demands.

Current ERT - As Calculated in the Prequalification Form: 659

Population and Demand Projections - The department generally accepts two methodologies for projecting water flows over the 20 year planning period. Other methodologies are acceptable with a clear explanation and all assumptions and parameters listed:

☑ Method 1: Population based projections. Recommended for primarily residential systems and/or for systems without water meter data

☐ Method 2: Equivalent Residential Taps (ERT) Analysis. Recommended for systems with a high multifamily, commercial, industrial, irrigation demands.

Method 1 and 2 templates can be found at the end of this form.
Attach the population projection as Attachment 17.

Discuss supporting data and reasons for projected future growth during the 20 year planning period.
Note: Projects designed solely to serve future development or population growth are not eligible for State Revolving Fund financing.

The Town is currently under a development moratorium until it addresses the limitations of its WTP. Despite the needs of the Town's WTP, growth will be limited due to augmentation and a need to secure future water rights (currently in water court) for the Town to expand. The purpose of this project is to become compliant with CDPHE regulatory requirements for potable drinking water. Although the primary purpose of this project is to address regulatory and compliance concerns, it will allow the Town to offer new development within the battle mountain development. The plant will only have the square footage in the building for the future equipment, but no equipment will be installed as a result of this project for the battle mountain development.

Read Only

6.3 Source Water Planning

6.3.1 Overall Water Resource Management Description (TMF: Technical-2)
For a 20 year planning period, describe the system's water resource management plan.

No additional source water planning or procurement is necessary to meet the needs of the Town. The current augmentation plan is adequate to supply water to the community through the next 20 years. The Town could consider securing additional water rights for domestic water supply however, water rights in the valley are complex, difficult to find, and costly to purchase. The current water supply plan addresses further considerations regarding source water planning efforts.

6.3.2 Water Rights (TMF: Technical-3)
For the 20 year planning period, discuss how the system will be able to meet the projected population and increased industrial/commercial water demands.

The Town currently has an moratorium on development in the Town due to the current limitations at the WTP. However, upon completion of the WTP project, the Town will have enough water rights and augmentation to adequately to supply water to the community with available capacity for development of residential and commercial needs require.

Provide documentation supporting the system's water rights, if not provided in section 5.1.2 above, as Attachment 18.

6.3.3 Source Water Supply Capacity (TMF: Technical-4)
For the 20 year planning period, discuss if the source water supply infrastructure is capable of delivering adequate source water to meet projected needs.

The town's current source water supply infrastructure is sufficient to deliver adequate water for projected needs. However, in the future the town is planning for a diversion on the Eagle River to meet future demand. However, the town has no plans to construct the diversion at this time nor to meet the needs of the source water supply as a result of this project.

7.Assessment of Alternatives

7.1 Alternatives

For each alternative, please provide:
1. A description of the alternative addressing the issues identified in Section 4: Project Purpose and Need. (TMF: Technical-7)
2. Capital cost estimates and annual operation and maintenance costs.
3. Advantages and Disadvantages of each alternative.

Alternative 1 Title : Slow Sand Filtrations

Alternative 1 Description (2000 character limit):

Rehabilitation of existing slow sand direct filtration WTP

Alternative 1 Capital and Operation and Maintenance Costs (2000 character limit):

See Attachment 19

Read Only

Alternative 1 Advantages and Disadvantages (2000 character limit):

See Attachment 19

Alternative 2 Title : Packaged WTP

Alternative 2 Description (2000 character limit):

Construction of new WTP using packaged conventional treatment units with dual-media filters

Alternative 2 Capital and Operation and Maintenance Costs (2000 character limit):

See Attachment 19

Alternative 2 Advantages and Disadvantages (2000 character limit):

See Attachment 19

Alternative 3 Title : Membrane WTP

Alternative 3 Description (2000 character limit):

Construction of a new WTP with membrane filtration with consideration for expansion and future preliminary treatment

Alternative 3 Capital and Operation and Maintenance Costs (2000 character limit):

See Attachment 19

Read Only

Alternative 3 Advantages and Disadvantages (2000 character limit):

See Attachment 19

Provide discussions of additional alternatives as Attachment 19.

8. Selected Alternative

8.1 Justification of Selected Alternative (TMF: Technical-6)

Please demonstrate why the selected alternative best meets system needs based on both monetary and non-monetary considerations. For treatment facility projects, if the EPA-BAT technology is not selected then the report must include a treatment rational.

Based on the results of the alternative analysis, it is recommended that Minturn move forward with construction of a new membrane filtration plant. It resulted in the highest qualitative score and is recognized to best address the priorities Minturn has for a providing a resilient and reliable treatment system. While rehabilitation of the slow sand filters ultimately had the lowest cost of the alternatives, the drawbacks of continuing to rely on an aging technology and cutting off the option for the addition of Eagle River water in the future far outweigh the cost savings associated with the option. Membrane filtration allows Minturn to address the needs of its existing customers, while leaving open the option for future development and water rights.

8.2 Technical Description and Design Parameters (TMF: Technical-5)

For the selected alternative, please describe all proposed project components and assumed design parameters.

The new membrane WTP would maintain the existing intake infrastructure followed by new flocculation and settling with bypass capabilities. The water would then flow through one of two membranes prior to chlorine injection. At this point in the system the wells would enter the process stream. To meet chlorine contact time the treated water will flow into the new 572kgal storage tank prior to entering the distribution system and/or the 100kgal storage tank for the school.

8.3 Proposed Process Flow Diagram

Include a proposed treatment facility process flow diagram or map of the distribution system, as applicable as Attachment 20.

8.4 Appropriateness of Treatment Technologies (TMF: Technical-6)

Discuss appropriateness of the proposed treatment process(es) to meet Regulation 11 considering anticipated source water quality and potential sources of contamination.

See Attachment 19

8.5 Environmental Impacts

Describe direct and indirect impacts on floodplains, wetlands, wildlife habitat, historical and archaeological properties, etc., including any projected permits and certifications.

Read Only

See Attachment 19. Note: the environmental lead agency will be the EPA due to EID funding. See attachments for lead agency email from Matt Mullens from EPA.

8.6 Land Requirements

Identify all necessary sites and easements, permits and certifications, and specify if the properties are currently owned, to be acquired, or leased by the applicant.

See Attachment 19

8.7 Construction Requirements

Discuss construction concerns such as subsurface rock, high water table, limited access, or other conditions that may affect cost of construction or operation of a facility.

All of the above. The Town is constructed immediately adjacent Cross Creek in the valley between two mountain ranges. There will be challenges with subsurface rock, likely a high water table, and limited access for construction crews.

8.8 Operational Aspects

Discuss the operator staffing requirements, operator certification level requirements (including distribution), the expected basic operating configuration and process control complexities, and the operational controls and equipment that allows operational personnel to respond to routine and unanticipated treatment challenges, such as flow rate, chemical feed dosing, and process monitoring.

See Attachment 19

8.9 Costs (TMF: Financial-2 and -3)

Summarize the capital costs associated with the selected alternative. The 20 year cash flow projection included in Attachment 7 must reflect the capital and operation and maintenance costs associated with the selected alternative. (No more than 2,000 Characters)

See Attachment 19

Cost Category Selection (Assign a percent to each applicable category)

Planning and Design Only (non-construction)	10

Read Only

Construction - Treatment	90
Construction - Transmission and distribution	0
Construction - Source	0
Construction - Storage	0
Purchase of Systems	0
Restructuring	0
Land Acquisition	0
Water Rights	0
Other	0
Total: (must equal 100%)	100

Please include an estimate of the projected increase in and total average monthly user charges. Does the user charge system allow for billing, collection, and enforcement?

The town has implemented regimented rate increases. Until the final budget is closer to a reality with a more flushed out design at 60-90% the town is holding off any additional substantial increases. However, the town has taken a proactive approach knowing this project will impact its budget and cashflow projections as noted in attachment 8.

8.10 Environmental Checklist

Include the Environmental Checklist for the Selected Alternative as Attachment 22.

8.11 Project Implementation

8.11.1 Proposed Schedule

Loan application	06/05/2025	Design Plans (60 day review period)	06/05/2025
Advertisement for bids	01/12/2026	Award Contracts	03/09/2026
Start Construction	04/01/2026	Complete Construction	08/31/2027

8.11.2 Public Meeting

Provide documentation of a public meeting held or describe when and where the meeting will be held. The meeting must be noticed for 30 days. Provide the public notice, proof of publication, sign in sheet, and agenda as Attachment 23 or provide to your project manager in the Grants and Loans Unit after the meeting has taken place.

☐ Include the public meeting documentation as Attachment 23.

Or, will be provided to the Grants and Loans Unit project manager after the meeting takes place.

9. Projecting Water Flows Method 1: Population based projections

Assumptions/Data			Information Source
Current System Population	944	People	ACS

Read Only

Current Service Area Population (If providing water to neighboring community)	944	People	
Population Growth Rates	-2.52	% increase/year	ACS/DOLA Demography
Average Daily per Capita Flow Rate	141	Gallons per capita day	CIP
Maximum Daily per Capita Flow Rate	314	Gallons per capita day	CIP
Peak Hour Factor	2.3	Gallons per capita day	

Year	System Population	Service Area Population (if different)	Average Daily Flow	Maximum Daily Flow	Peak Hour Flow
+0	0	0	141	314	
+5	991				
+10	1040				
+15	1092				
+20	1147		259	570	

10. Projecting Water Flow Method 2: Equivalent Residential Taps (ERT)

Current Equivalent Residential Taps (ERT)		
A	Number of active residential taps:	0
B	Total annual consumption (gallons per year) - Residential	0
C	Estimated equivalent residential tap water usage Annual flow per ERT = B / A	0
D	Total annual consumption (gallons per year) - Commercial / Industrial / Irrigation	0
E	Estimated Commercial / Industrial / Irrigation flow in ERT # of commercial / industrial / irrigation ERT = D / C	0
F	Total ERTs = A + E	0

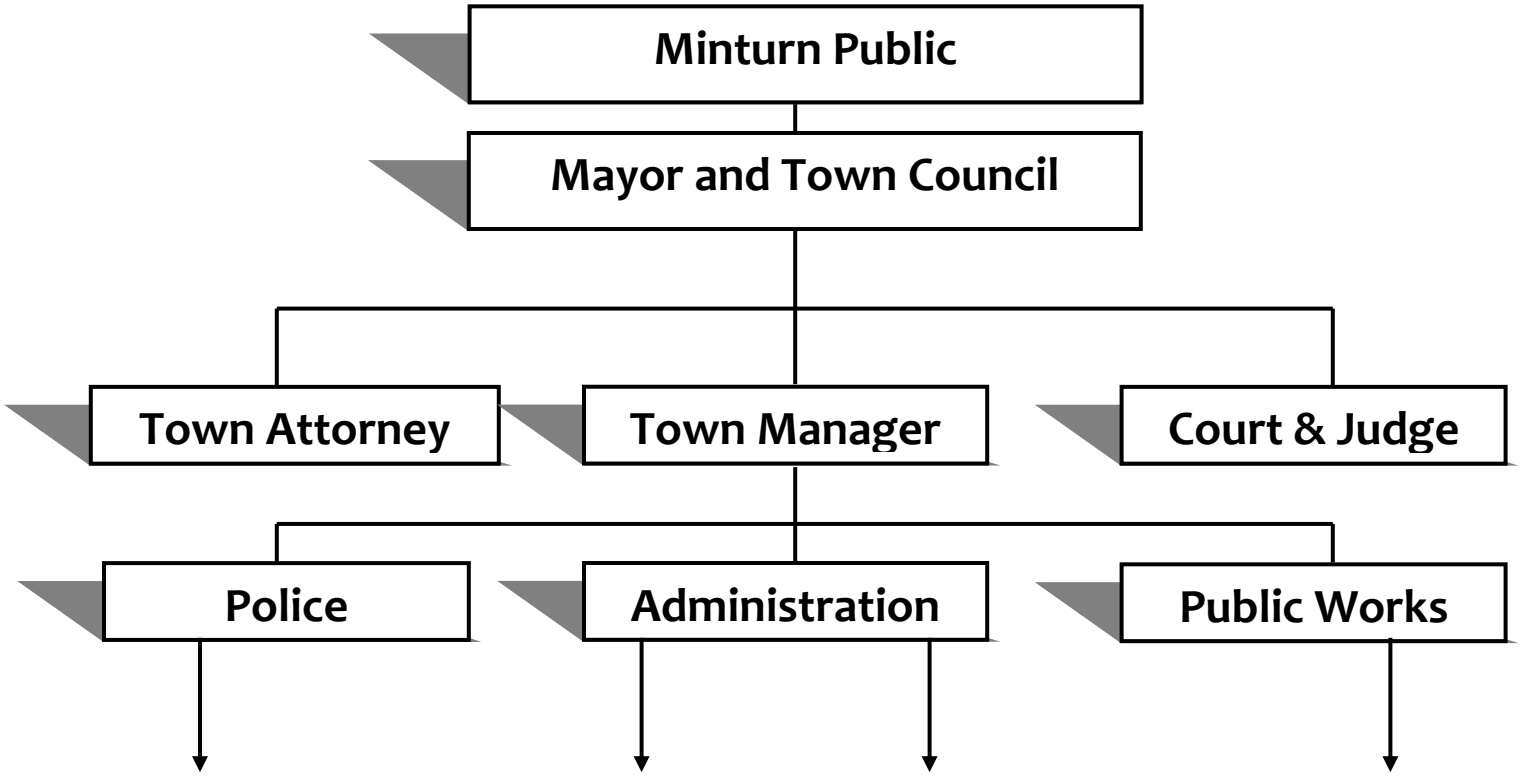
Population and Flow Assumptions / Data			Information Source
Current System Population		People	
Current Service Area Population (If providing water to neighboring community)		People	
Population Growth Rates		% increase/year	
Average daily flow per ERT		Gallons per capita day	
Maximum daily flow per ERT		Gallons per capita day	
Peak Hour Factor		Gallons per capita day	

Read Only

Year	System Population	Service Area Population (if different)	Residential Taps (ERTs)	Multifamily Residential Taps (ERTs)	Commercial/ Industrial Taps (ERTs)	Irrigation Taps (ERTs)	Total Taps (ERTs)	Average Daily Flow	Maximum Daily Flow	Peak Hour Flow
+0										
+5										
+10										
+15										
+20										

Read Only

TOWN OF MINTURN ORGANIZATIONAL CHART



Public Water System Monitoring Plan

System Name	**MINTURN TOWN OF**
PWSID (Assigned by Department)	**CO0119510**
County	**EAGLE**
School or Daycare	**No**
Describe Changes	**Update plan**

Submittal to the Department
Submit Online (**Preferred**): wqcdcompliance.com/login
Fax: 303-758-1398
WQCD – B2 – Drinking Water CAS
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Revisions
Water systems are required to submit any changes to the Department within thirty (30) calendar days following the effective date of the change. **If submitting revisions please only submit the individual section(s) that changed.**

Monitoring Schedules
All routine monitoring information, facilities and sample points (with state assigned IDs), system classification, and system source classification is available at wqcdcompliance.com/schedules. Schedules are updated on a weekly basis and should be checked regularly for any changes.

Immediately call **303-692-3308** (or **1-877-518-5608** if after-hours) for:
1. Positive coliform or Positive *E. coli*.
2. Nitrate greater than or equal to 10.0 mg/L.
3. Nitrite greater than or equal to 1.0 mg/L.
4. Surface water high turbidity or inadequate disinfection.
5. Chlorine dioxide greater than or equal to 0.8 mg/L.
6. Chlorite greater than or equal to 1.0 mg/L.

Contact Information

Completed by: **John Volk** Signature: _____

Certification of Accuracy: I hereby certify that the information is true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

System Physical Address (Not Mailing)
Address: **{}**
City: **{}** State: **{}** Zip: **{}**
System Phone: **{System Phone}** **System** Email: **{System Email}**

Administrative Contact (AC) Name: MICHELLE METTEER

(The primary contact person for all Department mail or other communications regarding drinking water compliance)
Mailing Address: **PO BOX 309**
City: **MINTURN** State: **CO** Zip: **81645**
Phone: **970-827-5645** E-mail: **MANAGER@MINTURN.ORG**

**** If the Administrative Contact is also the Distribution or Treatment Operator and is not the owner or legal representative of the water system (e.g. contract operator), a signed delegation form must be submitted. (Form can be downloaded at: wqcdcompliance.com/forms) ****

Legally Responsible Water System Owner Name: MICHELLE METTEER

(An individual, corporation, partnership, association, state or political subdivision thereof, municipality, or other legal entity)
Mailing Address: **{}**
City: **{}** State: **{}** Zip: **{}**
Phone: **970-827-5645** Email: **MANAGER@MINTURN.ORG**

Emergency Contact Name: {}

(Someone the Department can contact in an emergency if the administrative contact is unavailable)
Phone: **{}** Email: **{}**

Distribution System (DS) Operator Name: JOHN VOLK

(A certified operator designated by the owner to have ultimate responsibility for decisions regarding operational activities)
Operator ID#: **10098** (**not the certificate number**)
Phone: **970-389-4491** Email: **jvolk@wqcpllc.com; JM_VOLK@MSN.COM**
DS Operator Signature: _____

Treatment Operator Name: JOHN VOLK **Same as DS?** Yes/No

(A certified operator designated by the owner to have ultimate responsibility for decisions regarding operational activities)
Operator ID#: **10098** (**not the certificate number**)
Phone: **970-389-4491** Email: **jvolk@wqcpllc.com; JM_VOLK@MSN.COM**
Treatment Operator Signature: _____

Population Types and Seasons

Completed by: **John Volk** Signature: _____

Certification of Accuracy: I hereby certify that the information is true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Service Connections provide water through a pipe or constructed conveyance for human consumption which includes drinking, showering, hand-washing, or cooking. Examples of service connections: single family homes, a metered multi-family dwelling unit, a business building, a mobile home trailer, or camp spigot.

Total Number of Service Connections (Residential and Commercial): 550

Resident Population is the number of people who live there.

Resident Population: 1200

Non-Transient Population is the number of same people who have regular opportunity to consume the water for six months or more per calendar year, but do not reside there. These are usually students or employees. Regular opportunity is defined as four or more hours per day, for four or more days per week, for six months or more per year.

Non-Transient Population: 0 Season **{BegMonthNt}** (month) to **{EndMonthNt}** (month)

Transient Population is the daily average number of people who have an opportunity to consume the water, but are not residents or non-transients. These are customers, visitors, or seasonal employees

If your transient population varies by season you may specify multiple seasonal populations, otherwise enter January and December for the months.

Average Transients per day in the busiest month is **0** - Busy season **{BegMonth1}** (month) **to {EndMonth1}** (month)

Average Transients per day in the busiest month is **0** - Other season **{BegMonth2}** (month) **to {EndMonth2}** (month)

If you need assistance, please call (303) 692-3556 or visit wqcdcompliance.com.

Definitions of the terms used in this form may be found in 5 CCR 1002-11 (Regulation 11) available at wqcdcompliance.com.

Water haulers please follow the instructions in the operational handbook available at wqcdcompliance.com/forms.

Water Sources Definitions

Water Types

Groundwater (GW) – Any water under the surface of the ground being neither "surface water" nor "groundwater under the direct influence of surface water."

Surface water (SW) – Any water source that is open to the atmosphere and subject to surface runoff.

Groundwater under the direct influence of surface water (GWUDI or GU) – Any water beneath the surface of the ground with significant occurrence of insects or other macro-organisms, algae or large-diameter pathogens such as *Giardia lamblia* or *Cryptosporidium*; or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity or pH that closely correlate to climatological or surface water conditions.

Purchased water (GWP, SWP or GUP) – Water that you receive (whether or not you purchase it) from another water system or water hauler.

Integration agreement – An agreement between two or more public water systems, one of which is a wholesale/supply system, whose distribution systems are physically connected. The systems agree to operate using a common set of standards that the wholesale system establishes for the purpose of maintaining and protecting drinking water quality. Integrated systems must submit their agreement to the Department for approval.

Availability

Permanent (P) – A primary water facility.

Emergency (E) – A water facility that is used only as the result of extreme circumstances, and is otherwise kept offline. This type of facility is most likely never used. Nitrate and total coliform samples would need to be obtained within 2 days after start-up and the **Department must be notified of start-up within 24-hours**.

Interim (I) – A water facility that is either used as a result of high water demand or out of necessity to maintain water rights. The facility may be used once every few weeks or months or once every few years. Routine Sampling will be required at the Entry Point to the Distribution System.

Seasonal (S) – A water facility that is typically used every year to aid a system in meeting high water demands. While a water system may not know when it will need a seasonal source, it is most often used every year. These also may be referred to as peaking facilities. Routine sampling will be required at the Entry Point to the Distribution System.

Water Source Details

Record of Approved Waterworks On File With State

Completed by: **John Volk** Signature: _____

Groundwater Sources					
Facility ID (Assigned by Department)	Name	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in operation	DNR Permit # - Aquifer Name	Well Depth at Completion
005	WELL NO 3	P		- Colorado-Basin	86
006	WELL NO 4	P		- Colorado-Basin	87.5

Ground Water Under the Direct Influence of Surface Water Sources (GWUDI)					
Facility ID (Assigned by Dept)	Name	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in operation	DNR Permit # - Aquifer Name	Well Depth at Completion

Surface Water Sources			
Facility ID (Assigned by Dept)	Name	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in operation
004	CROSS CREEK	P	

Purchased Water Sources							
Facility ID (Assigned by Dept)	PWSID - Name of Supplying Water System	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in use	Type (GW, SW or GWUDI)	Connection Location cross-streets	Do you receive treated or raw water	Approved Integration Agreement? Yes / No

Combined Raw Source Sampling Locations Used when raw sources blend and there is a sample tap that represents multiple blended sources					
Facility ID (Assigned by Dept)	Name	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in use	Combining Sources Facility IDs and Names	Treatment Plant it Flows to

Water Treatment Codes

The codes below are generated by the USEPA for the purpose of standardizing the treatment processes as they are cataloged and tracked within the federal and state database programs. Water systems should have individual process flow diagrams for treatment; from these diagrams, each process should have an associated name. If you struggle to understand the different treatment codes below, please contact the Division's Engineering Section for assistance.

DISINFECTION
GASEOUS CHLORINATION (401)
HYPOCHLORINATION BLEACH (421)
CHLORAMINES (200)
CHLORINE DIOXIDE (220)
ULTRAVIOLET RADIATION (720)
OZONATION (541)
CONTACT TIME PROVIDED (825)

FILTRATION
ANION EXCHANGE (836)
CATION EXCHANGE (835)
FILTRATION, BAG (801)
FILTRATION, BAG - ROUGHING (810)
FILTRATION, CARTRIDGE (341)
FILTRATION, CARTRIDGE - ROUGHING (865)
FILTRATION, MICROFILTRATION (895)
FILTRATION, PRESSURE SAND (344)
FILTRATION, RAPID SAND (345)
FILTRATION, ULTRAFILTRATION (347)
FILTRATION,GREENSAND (343)
NANOFILTRATION (890)
NATURAL OR RIVERBANK FILTRATION (GWUDI) (826)
REVERSE OSMOSIS (640)

PRETREATMENT, COAGULATION AND SEDIMENTATION
AERATION (820)
ACTIVATED CARBON, GRANULATED (121)
ACTIVATED CARBON, POWDERED (125)
COAGULATION (240)
DISSOLVED AIR FLOTATION (880)
FLOCCULATION (360)
HYDRAULIC JET MIXING (831)
IN LINE STATIC MIXING (830)
MICROSCREENING (520)
PERMANGANATE (560)
PRESEDIMENATION (840)
RAPID MIX (600)
SEDIMENTATION (660)
UPFLOW CLARIFIER (845)

OTHER FORMS OF TREATMENT
ACTIVATED ALUMINS (100)
ALGAE CONTROL (160)
BLENDING (896)
FLUORIDATION (380)
INHIBITOR, SILICATE (449)
INHIBITOR/SEQUESTERING AGENT, PHOSPHATE BASED (815)
PEROXIDE (580)
PH ADJUSTMENT - SUPPRESION (847)
PH ADJUSTMENT - ELEVATION (848)
REDUCING AGENT (620)

Water Treatment Plant Details

Record of Approved Waterworks On File With State

Completed by: **John Volk** Signature: _____

Treatment Plants

Facility ID (Assigned by Department)	Plant Name	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in operation	Contributing Sources Facility IDs and Names
001	**SLOW SAND FILTER NO 3**	**P**		**CROSS CREEK (004);**

Treatment Codes (see previous page for codes)

FILTRATION, SLOW SAND (346); HYPOCHLORINATION (421); CONTACT TIME PROVIDED (825);

Provide a Detailed Description of the Water Treatment System
(including descriptions of tanks used for disinfection contact time)

Slow Sand Filter #3 is located in its own building. It is dosed with sodium hypochlorite before it reports to the clear well 014.

Facility ID (Assigned by Department)	Plant Name	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in operation	Contributing Sources Facility IDs and Names
010	**TREATMENT FOR WELL NO 4**	**P**		**WELL NO 4 (006);**

Treatment Codes (see previous page for codes)

HYPOCHLORINATION (421);

Provide a Detailed Description of the Water Treatment System
(including descriptions of tanks used for disinfection contact time)

Facility ID (Assigned by Department)	Plant Name	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in operation	Contributing Sources Facility IDs and Names
012	**SLOW SAND FILTER NO 2**	**P**		**CROSS CREEK (004);**

Treatment Codes (see previous page for codes)

865

Provide a Detailed Description of the Water Treatment System
(including descriptions of tanks used for disinfection contact time)

Slow Sand Filter #2 is used as a roughing filter for the Harmsco filter locate din the clear well room.

Facility ID (Assigned by Department)	Plant Name	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in operation	Contributing Sources Facility IDs and Names
				Groundwater

Treatment Codes (see previous page for codes)

Provide a Detailed Description of the Water Treatment System
(including descriptions of tanks used for disinfection contact time)

Facility ID (Assigned by Department)	Plant Name	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in operation	Contributing Sources Facility IDs and Names
014	CROSS CREEK SWTP DISINFECTION	P		SLOW SAND FILTER NO 2 (012); SLOW SAND FILTER NO 3 (001); WELL NO 3 (005);WELL NO 4 (010)

Treatment Codes (see previous page for codes)

HYPOCHLORINATION (421); CONTACT TIME PROVIDED (825);

Provide a Detailed Description of the Water Treatment System
(including descriptions of tanks used for disinfection contact time)

Facility ID (Assigned by Department)	Plant Name	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in operation	Contributing Sources Facility IDs and Names
015	SWTP Cross Creek Cartridge Filtration	P		Well 3 (005)

Treatment Codes (see previous page for codes)

Cartridge Filtration (341), 365, Hypochlorination (421)

Provide a Detailed Description of the Water Treatment System
(including descriptions of tanks used for disinfection contact time)

Distribution System Definitions

Entry point –A location before or at the first customer which is representative of treated (finished) water. The entry point may represent treated water from multiple treatment plants and/or multiple sources. Sometimes the water treatment plant is the first tap.

Distribution system storage facility – Any treated (finished) water storage tank at the treatment plant or in the distribution system that is not considered part of disinfection contact time (i.e. after the entry point).

Booster treatment facilities – Any chemical booster stations after the first customer (such as disinfection or corrosion control chemical booster stations in the distribution system).

Consecutive connection – A master meter connection from your water system to another water system for purposes of supplying drinking water to the other system.

Integration agreement - An agreement between two or more public water systems, one of which is a wholesale/supply system, whose distribution systems are physically connected. The systems agree to operate using a common set of standards that the wholesale system establishes for the purpose of maintaining and protecting drinking water quality. **Integrated systems must submit their agreement to the Department for approval.**

Pump station – A facility used to pump water or increase water pressure. Pump stations are not used for chemical additions or other treatment and do not need to be reported on this form.

Distribution System Details

Record of Approved Waterworks On File With State

Completed by: **John Volk** Signature: _____

Number of Distribution Systems

How many distribution systems does the system have? **1** If more than one, how are the distribution systems operated? (i.e. are they completely independent of each other or does water flow from one to another through operator-controlled valves, etc.): **{Distribution System Details}**

Entry Points to Distribution System *Residual Disinfectant, Nitrate, Nitrite, Inorganics, Volatile Organics, Synthetic Organics, Radionuclides, Chlorite, Chlorine Dioxide, and Bromate Must be Collected at All Entry Points*	
Facility ID (Assigned by Department)	**Facility Name**
007	MASTER METER C12 SAMPLE SITSOURCE

Storage & Other Facilities				
Facility ID (assigned by Department)	**Facility Name**	**After Entry Point (In Distribution)**	**Contributing Treatment Plants (or Sources)**	**Tank Volume** (gallons)
007	MASTER METER C12 SAMPLE SITSOURCE	ENTRY POINT	CROSS CREEK SWTP DISINFECTION (014);	400000 GPD
008	STORAGE TANK NO 1	Yes	CROSS CREEK SWTP DISINFECTION (014);	600000 GAL
009	MALOIT PARK TANK	Yes	CROSS CREEK SWTP DISINFECTION (014);	108000 GAL

Booster Treatment Facilities (Post Entry-Point Treatment)		
Facility ID (Assigned by Department)	**Facility Name**	**Treatment Description (use treatment codes)**

Consecutive Connections Serving Another Water System			
Receiving System PWS ID and Name	**Availability** (P, E, I, or S)	**Do you supply treated or raw water?**	**Integrated Agreement? Yes / No**

Schematics and Maps

Sketch of Facility Flows

Include a schematic, diagram or sketch depicting how the flow from each source facility is connected to the combined raw source, treatment plant, storage tank, and the distribution system. Indicate all applicable entry point and raw water sample sites.

****Record of Approved Waterworks On File With State****

Process Schematic of Water Treatment Plants

Provide a process flow diagram for each treatment plant. Include locations (in the process) of all chemical additions, chemical storage, monitors/meters, piping and physical components of the treatment plant. Designate water flow direction throughout the schematic. All components must be clearly labeled. Indicate all applicable sample sites, and include parameters measured at each site.

****Record of Approved Waterworks On File With State****

Map of Distribution System

Provide a map of the distribution system showing locations of all storage facilities, booster treatment facilities, consecutive connections and entry points as well as all applicable sample sites described below. You may provide this detail all in one map or in several different maps. Clearly indicate if there are multiple distribution systems and if those distribution systems are connected to each other. If applicable, include an evaluation and description of the extent to which zones of influence from each source overlap.

Total Coliform Sample Sites

Attach a map of the distribution system showing locations of all total coliform sample sites. Hand drawn schematics or aerial maps (Google Maps) are acceptable.

Lead and Copper Sample Sites

Attach a map of the distribution system showing locations of all lead and copper sample sites. Hand drawn schematics or aerial maps (Google Maps) are acceptable.

Disinfection Byproducts (TTHM/HAA5 and Chlorite) Sample Sites

Attach a map of the distribution system showing locations of all disinfection byproduct sample sites as well as treatment plants and distribution storage tanks. Hand drawn schematics or aerial maps (Google Maps) are acceptable.

Note: The supplier may use one schematic if it includes all of the required elements.

Records Locations

Completed by: **John Volk** Signature: _____

These records must be made available for inspection for Department staff during site visits.

Type of Record	Location Address	Retain no less than…
Total Coliform (TCR) and Fecal Coliform/*E. coli* results AND distribution system residual disinfection monitoring results	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	5 years
Revised TCR (RTCR) assessment forms or corrective actions as a result on an assessment, or other available summary documentation of the sanitary defects and corrective actions	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	5 years after completion of the assessment or corrective action
Chemical analyses results	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	10 years
All lead and copper rule documents and results	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	12 years
Violations of Regulation 11, including corrective action	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	3 years after corrective action is completed
Sanitary surveys, including any written reports, summaries or correspondences	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	10 years
Variances or exemptions granted by the Department	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	5 years after expiration
Public notices and consumer confidence reports, including certification	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	3 years
Individual rule sampling plans	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	10 years
Turbidity monitoring results	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	5 years
Recycle flows information • Copy of original recycle notification and information submitted to Department • List of all recycle flows and frequency with which they are returned • Average and maximum backwash flow rate • Average and maximum backwash duration • Typical filter run length and how it is determined • Treatment provided for the recycle flow (including chemicals and doses) • Physical dimensions of the equalization/treatment units • Typical and maximum hydraulic loading rates	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	Indefinitely

• Frequency of solids removal		
Individual filter turbidity monitoring results AND entry point residual disinfection monitoring results	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	3 years
Disinfection profiling results, including raw data and analysis	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	Indefinitely
Disinfection benchmark, including raw data and analysis	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	Indefinitely
Source water monitoring for Long Term 2 Surface Water Treatment Rule	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	3 years after bin classification
Notification to the Department that system meets criteria to avoid source water monitoring for Long Term 2 Surface Water Treatment Rule	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	3 years
Treatment monitoring associated with microbial toolbox options for Long Term 2 Surface Water Treatment Rule	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	3 years
Initial distribution system evaluation (IDSE) report submitted for the Stage 2 Disinfectants and Disinfection Byproducts Rule	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	10 years after report submitted
Corrective actions taken for the Groundwater Rule	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	10 years
Invalidation of fecal indicator-positive groundwater source samples for the Groundwater Rule	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	5 years
For consecutive systems, documentation of notification to the wholesale system(s) of total coliform-positive samples	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	5 years
For systems conducting compliance monitoring for the Groundwater Rule • Department-specified minimum disinfectant residual	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	10 years
For systems conducting compliance monitoring for the Groundwater Rule • Lowest daily disinfectant residual, date and any failure to maintain the Department-specified minimum disinfectant residual for a period of more than 4 hours • Department-specified compliance requirements for membrane filtration, date and duration of any failure to meet those requirements for more than 4 hours	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	5 years
Storage Tank Rule – for each completed tank inspection, the inspection summary	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	10 years
Backflow Prevention and Cross-Connection Control Rule – for Community Water Systems	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	3 years

• Testing, inspection and maintenance records for backflow prevention assemblies and methods. • Each annual BPCCC program report		
Backflow Prevention and Cross-Connection Control Rule – for Non-Community Water Systems • Testing, inspection and maintenance records for backflow prevention assemblies and methods. • Each annual BPCCC program report	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	5 years
Water Hauler Rule • Water Hauler Operational Guide and associated required records	WQCP LLC 13863 W LaSalle Pl Lakewood, CO 80228	Indefinitely

TTHM/HAA5 Stage 2 Disinfection Byproduct Sample Sites - Portal

Completed by: **John Volk** Signature: _____

Certification of Accuracy: I hereby certify statements below are true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

- The drinking water portal (wqcdcompliance.com/login) is being used to maintain the sites.
- The sites, status, and any additional information is kept up-to-date.
- When site information changes the drinking water portal is updated immediately.

Surface Water Treatment Rule

Record of Approved Waterworks On File With State

Completed by: **John Volk** Signature: _____

Turbidity Monitoring

Describe how and where the supplier will sample turbidity

Turbidity quality assurance/quality control (QA/QC) – explain the exact procedures to be followed to ensure that the test result will be accurate: {}

Describe the system's plan for turbidity monitoring that deviates from this plan due to operational issues (such as filter backwash cycles, start-ups/shut-downs, or filter to waste): {}

Treatment Plant Facility ID (Assigned by Department)	Treatment Plant Facility Name	Filter Type	Grab or Continuous Sampling	Describe Location for Combined Filter Effluent (CFE) Monitoring	Describe Location for Individual Filter Effluent (IFE) Monitoring
001	SLOW SAND FILTER NO 3	SS		See Waterworks	See Waterworks
015	SWTP Cartridge Filtration	SS + Cart		See Waterworks	See Waterworks

Microbial Inactivation (3-log for Giardia lamblia and 4-log for viruses) Residual Disinfectant Monitoring

Describe how and where the supplier will sample residual disinfectant

Residual disinfectant quality assurance/quality control (QA/QC) – explain the exact procedures to be followed to ensure that the field test measurement will be accurate. This may be found in the manufacturer's literature: **The Hach colorimeters that are used for compliance sampling are verified quarterly with Hach SpecCheck secondary samples. The same colorimeters are used to calibrate online instrumentation.**

Describe any additional treatment (i.e. Ultraviolet, Ozone, or Chlorine Dioxide) used to assist in microbial inactivation: {}

Facility ID (Assigned by Department)	Facility Name	Grab or Continuous Sampling	Describe Location for Microbial Inactivation Monitoring
007	MASTER METER C12 SAMPLE SITSOURCE		See Waterworks
014	CROSS CREEK SWTP DISINFECTION		See Waterworks

Long Term 2 (LT2) Raw Water Source Monitoring

Must conduct two separate rounds of sampling at each source

Identify where the raw water sample(s) will be collected	Does the raw water sampling site(s) represent more than one source? If so, describe the raw sources that combine
CROSS CREEK (004);	

Treatment Plant Facility ID (Assigned by Department)	Treatment Plant Facility Name	LT2 Bin Classification
001	SLOW SAND FILTER NO 3	1
012	SLOW SAND FILTER NO 2	1
014	CROSS CREEK SWTP DISINFECTION	1

Disinfection Byproduct Precursors (Total Organic Carbon (TOC) and Alkalinity) Only required for suppliers using conventional filtration		
Identify where the raw water TOC and alkalinity sample(s) will be collected		Does the raw water sampling site(s) represent more than one source? If so, describe the raw sources that combine
Treatment Plant Facility ID (Assigned by Department)	Treatment Plant Facility Name	Describe Location for Treated Water TOC Monitoring

Lead and Copper Sample Sites - Portal

Completed by: **John Volk** Signature: _____

Certification of Accuracy: I hereby certify statements below are true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

- The drinking water portal (wqcdcompliance.com/login) is being used to maintain the sites.
- The sites, status, and any additional information is kept up-to-date.
- When site information changes the drinking water portal is updated immediately.

Community Lead and Copper Materials Evaluation Summary

Completed by: **John Volk** Signature: _____

Materials Evaluation Summary by Tier Level **Note:** This is **not** a summary of the lead and copper sample pool. This is a summary of **all sites in the distribution system** that the supplier believes meets each of the criteria below.	
Tier 1 Sites - Single family structures, currently being used as either a residence or place of business	**Number of Site Locations**
Containing copper pipe with lead solder installed after 1982 and before 1988	13
Are served by a lead service line (no year restriction)	0
Containing lead pipes, goosenecks, or pigtails (no year restriction)	0
Tier 2 Sites - Multiple-family residences and buildings	**Number of Site Locations**
Containing copper pipe with lead solder installed after 1982 and before 1988	1
Are served by a lead service line (no year restriction)	0
Containing lead pipes, goosenecks, or pigtails (no year restriction)	0
Tier 3 Sites - Single-family structures	**Number of Site Locations**
Containing copper pipes with lead solder installed before 1983	257
Representative Sample Sites - Structures	**Number of Site Locations**
With plumbing material typically found throughout the distribution system	279
Describe the representative plumbing material: **Copper plumbing without lead solder or plastic plumbing.**	
Additional Information	

Please describe the verification process, if any, that was used to provide the information above: Records search
Additional Information - Tier 1
If no Tier 1 sites were indicated above, please provide an explanation: {Tier 1 Info}

COLORADO
Department of Public Health & Environment

APPENDIX A: Backflow Prevention and Cross-connection Control

Town of Minturn BPCCC Program

Purpose

This Backflow Prevention and Cross-connection Control Program outlines how the supplier of water specified below will implement its written BPCCC program and achieve compliance with Regulation 11.

Other potentially applicable backflow prevention and cross-connection control requirements are specified in Article 1-114 and Article 1-114.1 of Title 25 of the Colorado Revised Statutes and in the Colorado Plumbing Code. The Department has developed Safe Drinking Water Program Policy 7 to assist public water systems achieve compliance with Regulation 11.

Public Water System Name & PWSID:	Town of Minturn CO119510
Public Water System Owner:	Town of Minturn
BPCCC Administrative Contact:	John Volk
Address:	13863 W LaSalle Pl Lakewood, CO 80228
Email:	Jvolk@wqcpllc.com
Phone:	970-389-4491

Signatures of Owner or Administrative Contact:

Effective Date	Name	Signature
4/1/2016	John Volk	

This BPCCC program will include and specify information regarding how this supplier identifies cross connections, performs surveys, and controls identified cross connections. This BPCCC program also address how this supplier will require that backflow prevention assemblies and methods be tested and inspected annually, how this supplier will track the installation, maintenance, and testing of assemblies and methods and how this supplier will ensure that assemblies are tested by a *Certified Cross-Connection control Technician(Regulation 11.37(1)(b)*.

****This program must be kept on file for review by the Department. It can be revised by the Department as necessary.

Water Quality Control Division

4300 Cherry Creek Drive South Denver, Colorado 80246

Backflow Prevention and Cross-connection Control Program

(i) Process for conducting surveys.

All buildings, except single family homes, will be inspected for cross connections and installed devices.

(ii) Legal authority to perform a survey of a customer's property to determine whether a cross connection is present unless the supplier controls all non-single-family residential connections to the public water system with the most protective backflow prevention assembly or backflow prevention method.

{X} Ordinance (attach copy) { } User Agreements (attach copy) { } Other – explain below

(iii) Process to select a backflow prevention assembly or backflow prevention method to control a cross connection.

Local and state plumbing codes.

(iv) Legal authorities to install, maintain, test, and inspect backflow prevention assemblies and/or backflow prevention methods and/or require customers to install, maintain, test, and inspect backflow prevention assemblies and/or backflow prevention methods.

{X} Ordinance (attach copy) { } User Agreements (attach copy) { } Other – explain below

(v) Process to track the installation, maintenance, testing, and inspection of all backflow prevention assemblies and backflow prevention methods used to control cross connections.

The devices are logged into a spreadsheet with all pertinent data.

(vi) The process the supplier will use to ensure backflow prevention assemblies are tested by a Certified Cross-Connection Control Technician.

Annual inspections forms are collected from the owners. Data is updated into the spreadsheet.

Sample Backflow Prevention and Cross-connection Control Program

Department Notification

If we become aware of a suspected or confirmed backflow contamination event, the supplier must notify and consult with the Department on any appropriate corrective measures no later than 24 hours after learning of the backflow contamination event. The notification should be made to the **24-hour Environmental Release and Incident Report Hotline at 1-877-518-5608.**.

When reporting the event, please have available the as much of the following information as possible:

- Date and time of incident
- Location of incident
- Type of threat or incident
- Public Water System Name and Identification Number
- Water supplier contact name and phone number
- Method of discovery (consumer complaint, witness, perpetrator, employee report)
- Response actions taken (water quality parameter testing, isolation of affected water)
- Recovery actions taken
- Notifications made (customers, law enforcement, news media, etc.)
- Assessment of threat, if possible

Regulation 11.39(7) requires that we notify the Department within 48 hours in any instance the supplier becomes aware of any backflow prevention and cross-connection control violation and any backflow prevention and cross-connection control treatment technique violation specified in Regulation 11.39(6).

Such notifications to the Department can be written, verbal, or made by other means. The Department can be notified via telephone at 303.692.2000 and contacting the Department's Water Quality Control Division's backflow prevention and cross connection control specialist. The Department can also be notified via email at cdphe.wqenginfo@state.co.us sent to the attention of the backflow prevention and cross-connection control specialist.

Public Notice Requirements

Regulation 11.39(7) requires that suppliers distribute Tier 2 public notice as specified in Regulation 11.33 in any instance the supplier becomes aware of any backflow prevention and cross-connection control treatment technique violation.

Regulation 11.39(7) requires that suppliers distribute Tier 3 public notice as specified in Regulation 11.33 a in any instance the supplier becomes aware of any backflow prevention and cross-connection control violation.

Please contact your Department assigned compliance officer with any questions regarding to public notice.

Sample Backflow Prevention and Cross-connection Control Program

(i) Survey Process and Documentation

Suppliers must survey all non-single-family-residential connections to the public water system to determine if the connection is a cross connection. The supplier must also survey all connections within the supplier's waterworks to determine if there are any cross connections present which could contaminate the public water systems or the facilities water supply system.

The supplier must identify the total number of non-single-family-residential connections to the public water system and connections within the supplier's waterworks. This number is the total number or connections to the public water distribution system that are not considered single – family connections. Acceptable survey process documentation includes the following: How the supplier will select service connections that need a survey; For example: Usage type - commercial, industrial, or multi-family; new or newly acquired connections; and/or questionnaire results.

Single-family means:

- A single dwelling which is occupied by a single family and is supplied by a separate service line;
- A single dwelling comprised of multiple living units where each living unit is supplied by a separate service line.
- If a water supplier has ownership and maintenance responsibilities of a service line up to a point of single-connections such connections may be considered a single-family-residential-connection even if this connection is to a multi-family dwelling unit. It is important to be aware that all other applicable parts of Regulation 11 will also apply to those new acquired waterworks (i.e. distribution system) and that any irrigation or other cross connections that are directly connected to the newly acquired service line would have to be controlled in accordance with Regulation 11.39.

Once the supplier has identified the total number of non-single family residential connections, the supplier must survey the connections to identify cross connections. The supplier must document the process for conducting surveys. Surveys can be performed onsite by a person designated by public water system or can be of a questionnaire type. The supplier's survey process should identify potential service connections and uses that when identified may trigger cross-connection control requirements. The supplier's process should address how the supplier will select individuals to perform the survey including experience and/or training or certification qualifications to perform a survey. Additionally the supplier must survey any waterworks and the water supply systems associated with those facilities for cross connections.

If the supplier uses questionnaires, various methods may be used to distribute the questionnaires: email surveys, web-based surveys, written surveys, or telephone surveys. Questionnaires should provide examples of common cross connections to the customer who completes the survey. Questionnaires should ask that the property-owner indicate that the information is accurate to the best of their knowledge. If the supplier does not receive a response to a questionnaire or the results are inconclusive, the supplier is required to perform an onsite survey for cross connections or control the connection with the most protective backflow prevention assembly or method.

The results of surveys should be kept in a manner that allows the supplier to demonstrate that a survey has been performed and if any action was required based on the result of the survey.

It is important that newly constructed and renovated buildings are constructed in accordance with the local plumbing code. The code is intended to protect the internal potable water system and its occupants from contamination that can be introduced via restrooms, kitchens, boilers, irrigation, HVAC systems, etc. It is equally important that the water supplier protect their distribution system from

contamination that can be introduced via car washes, auxiliary water sources, fire suppression systems, irrigation and many other sources. Water suppliers need to perform cross connection identification surveys to identify potential cross connections within their distribution system.

***Note to supplier. Describe in this section how the supplier complys with the regulation and its survey requirements

(ii & iv) Legal Authority

The supplier must have a legally-enforceable mechanism that implements its written backflow prevention and cross connection control program as described in 11.39(2). The Department recommends that the legally-enforceable mechanisms include specific provisions identifying customer requirements under 11.39(2)(a)(ii, iv) and the associated remedies that the supplier may utilize for failure of customer(s) to comply. If the supplier does not have a legally-enforceable mechanism in place, the Department expects the supplier to perform the actions necessary to complete the indicated requirements in the regulation.

***Note to supplier. Provide a copy of the ordinance or user agreement in this section or discuss how the supplier implements the actions necessary to complete the indicated requirements in the regulation. As a reminder suppliers are prohibited from installing or permitting any uncontrolled cross connection to the distribution system or within the supplier's waterworks.

- Installing an uncontrolled cross connection means modifications or additions to waterworks or water supply systems that create a cross connection. The supplier is prohibited from intentionally performing any actions which would result in the creation of a cross connection.
- Permitting an uncontrolled cross connection in the context of Regulation 11.39 means the supplier has allowed their users or customers to continue to have an uncontrolled cross connection past the regulatory-defined timelines. If the regulatory-defined timelines have elapsed and the supplier has not taken any of following actions; control the cross connection, remove the cross connection or suspends service to the identified connection***, then the supplier is allowing, or permitting, the cross connection to exist and is in violation of Regulation 11.

  *** Note to supplier. Before suspension of service can be considered appropriate action the Department expects that the supplier will confirm the following:

  - The connection downstream of the valve used to suspend the service does not remain pressurized because the customer has access to an alternative source of water or a storage tank onsite
  - If the cross connection is to a fire suppression system; suspension of service would not result in the building being inadequately protected from loss of life through fire. If there are service connections at the property separate from the fire suppression system causing the cross connection, a supplier may suspend service to one or all of those other service lines (e.g. domestic or irrigation) as an appropriate action.
- The supplier may receive a Department approved alternative compliance schedule for identified cross connections that have not been controlled within 120 days. Department-approval of an alternative compliance schedule means either an email or other written communication from the Department. The Department has provided in APPENDIX C – BPCCC Rule 120-Day Cross-connection Control Extension Application for such request.

- Suppliers must specify the process that the water system will use to require the installation, maintenance, testing, and inspection of all backflow prevention assemblies and backflow prevention methods used to control cross connections. Generally, this is specified in one of the following: local government ordinances, user agreements or the public water system assumes full responsibility.

Sample Backflow Prevention and Cross-connection Control Program

(iii) Identification of Cross Connections and Backflow Prevention Assembly or Backflow Prevention Method Selection

If the supplier discovers an uncontrolled cross connection and believes that a backflow contamination event has not occurred, the supplier must: first the supplier must determine the type of backflow prevention assembly or backflow prevention method needed to control the cross connection and second install and maintain or require the customer to install and maintain a backflow prevention assembly or backflow prevention method at the uncontrolled cross connection, suspend service to the customer, or remove the cross connection, no later than 120 days after its discovery.

***Note to supplier. Suppliers should include in the written BPCCC program guidelines and criteria used to select the type of backflow prevention assembly or method used to control identified cross connection. Guidelines and criteria should address examples of cross connections throughout the water systems distribution system along with the corresponding appropriate backflow prevention assembly and or backflow prevention method used to control the identified cross connection. Part 4.3 of SDWP Policy 7 provides various examples of backflow prevention assemblies and methods and when the use of such assemblies and methods may be appropriate.

(v & vi) Tracking & Certified Tester Verification

Suppliers must specify the tracking mechanism it will use to verify the installation, maintenance, testing, and inspection of all backflow prevention assemblies and backflow prevention methods used to control cross connections. This section may include the process the supplier will use to ensure backflow prevention assemblies are tested by a Certified Cross-Connection Control Technician

***Note to supplier. Please provide a tracking spreadsheet or description of program or other method which the supplier is using to verify performance and compliance with Regulation 11.

i. To be considered adequate, test reports used to document compliance with Regulation 11 must include all of the following:

Assembly or method information:

a. Assembly or method type;
b. Assembly or method location;
c. Assembly make, model and serial number;
d. Assembly size;
e. Test date; and,
f. Test result (pass/fail).

Certified Cross-Connection Control Technician information:

a. Certified Cross-Connection Control Technician certification agency;
b. Certification number;
c. Certification expiration date or statement that certification is current;

TABLE OF CONTENTS

SECTION I - GENERAL 3

1.1 Purpose 3
1.2 Applicability 3

2 SECTION II – APPROVAL, DESIGN, AND INSTALLATION 5

2.1 Approval 5
2.2 Required Assembly or Method based on Application and Identified Contaminant 5
2.3 Installation 7

3 SECTION III – TESTING AND MAINTENANCE 10

3.1 Testing 10
3.2 Maintenance 11

4 SECTION IV - SURVEYS 12

5 SECTION V - ENFORCEMENT 13

6 REFERENCES 14

SECTION I - GENERAL

1.1 Purpose

Uncontrolled cross connections have the potential to cause severe health risks to customers of the water distribution system. Uncontrolled cross connections are not permitted.

Water services shall be designed, installed, retrofitted, and maintained in such a manner so as to prevent contamination from nonpotable liquids, solids or gases being introduced into the potable water supply through cross connections or any other piping connections. Customers shall design, install, maintain, upgrade, test, and inspect backflow prevention assemblies and backflow prevention methods in accordance with these rules and regulations.

Customers shall permit authorized representatives of the district to access their property for the purpose of surveying, testing, and inspecting backflow prevention assemblies and backflow prevention methods, in accordance with Article I, 1.12 of these rules and regulations, Authority to Access Customer Property.

All laws and regulations apply as of the adoption of these Rules and Regulations, regardless of the age of the Water Service and/or the age of the building, home, facility or structure served. No “grandfathering” of this requirement exists or shall be asserted.

1.2 Applicability

1.2.1 Commercial and Multi-Family Applications

An approved backflow prevention assembly or method is required for all commercial and multi-family water services where the following exist:

a. Fire suppression systems;
b. Irrigation systems including dedicated irrigation connected directly to the water main;
c. Chemical process systems, including chemicals connected for temporary maintenance;
d. Hydronic heating and cooling systems, industrial boilers, chillers, cooling towers, double wall heat exchangers and solar panels;
e. Auxiliary water sources, display fountains, hot tubs, pools, reclaimed water systems, graywater systems and onsite storage tanks; and
f. Any other connection that poses unacceptable risk to public health.

1.2.2 Types of Commercial Applications

An approved backflow prevention assembly or method is required for the following types of commercial and industrial service connections:

a. Dry cleaning and laundries;
b. Mortuaries;
c. Hair salons;
d. Laboratories;
e. Auto repair shops;
f. Car washes;
g. Bulk fill water stations;
h. Restaurants;
i. Hospitals, dental facilities, medical facilities and clinics, and blood banks;
j. Veterinary, pet stores, and livestock facilities;
k. Manufacturing facilities;
l. Green houses and agricultural commerce; and
m. Other commercial and industrial service connections that pose unacceptable risk to public health.

1.2.3 High Risk Single-Family Residential Applications

An approved backflow prevention assembly or method is required for single-family residential water services where any of the following conditions exist:

a. Dedicated irrigation lines (from the water main);
b. Dedicated fire suppression system lines and chemically enhanced fire suppression systems (multi-purpose fire suppression systems are not required to be controlled where each branch of the suppression system terminates at a regularly used fixture);
c. Auxiliary water sources (e.g. wells, ponds, lagoons, irrigation ditches), hot tubs or swimming pools piped with permanent plumbing, reclaimed water systems, graywater systems, or onsite water storage tanks with permanent plumbing;
d. Connections to a home’s potable water supply system from home business and hobbies including but not limited to agricultural commerce and hydroponic systems, doctor’s offices, photo laboratories, hide tanning operations, and metal plating operations; and
e. Any other connection that poses unacceptable risk to public health.

SECTION II – APPROVAL, DESIGN, AND INSTALLATION

2.1 Approval

All assemblies and methods shall be approved in writing by the District prior to installation.

For new construction and remodels, in cases where an uncontrolled cross connection is identified, or where the existing assembly or method does not meet District requirements, or as required by the District, the Customer shall submit a New Account Application with a complete set of building plans including assembly or method design, approved by the applicable building permit authority.

Existing assemblies and methods that do not meet the requirements of the District shall be replaced with an approved assembly or method within 60 days of notification by the District or a certified cross-connection control technician. Uncontrolled cross connections shall be controlled within 120 days of discovery.

All costs for design, installation, maintenance, testing, repair and replacement are the responsibility of the Customer.

2.2 Required Assembly or Method based on Application and Identified Contaminant

The District will evaluate each submittal and application using industry standards outlined in manuals such as the *Colorado Cross-Connection Control Manual*, the *EPA Cross-Connection Control Manual* and the current *Manual of Cross-Connection Control* (USC Manual) to evaluate which backflow prevention assembly or backflow prevention method is appropriate. Such industry standards are outlined in table 2.2.1.

Reduced pressure zone backflow assemblies are required for high-risk applications, except where otherwise specifically approved in writing by the District.

2.2.1 Table. Assembly and method applications

Assembly or Method Type	Abbreviation	Typical Appropriate Uses
Testable Assemblies		
Reduced Pressure Zone Backflow Prevention Assembly	RPZ	Appropriate for any identified contaminant except direct connections to sewer or installations which may impair the integrity of the assembly to function as designed.
Reduced Pressure Zone Fire Protection Backflow Prevention Assembly	RPF	Appropriate for cross connections to fire suppression systems.
Reduced Pressure Zone Detector Fire Protection Backflow Prevention Assembly	RPD	
Double Check Backflow Prevention Assembly	DC	Appropriate for cross connections to fire suppression systems except when upstream of a chemical other than food grade glycerin.
Double Check Fire Protection Backflow Prevention Assembly	DCF	
Double Check Detector Fire Protection Backflow Prevention Assembly	DCD	
Pressure Vacuum Breaker Backflow Prevention Assembly	PVB	Not appropriate for direct connections to sewer or installations which may impair the integrity of the assembly to function as designed. Not appropriate for connections subject to backpressure.
Spill-Resistant Vacuum Breaker	SVB	
Colorado Plumbing Code	CPC	Appropriate for Backflow Prevention Assemblies or Methods installed in accordance with the most recent version of the CPC.
Methods		
Air Gap	AG	Appropriate for any identified contaminant. All cross connections can be controlled using an air gap installed in accordance with standard AMSE A112.1.2.
Block and Bleed Valve or Double Block and Bleed Valve	BB	Appropriate for membrane chemical-clean-in-place and filter-to-waste at supplier's facilities.

Additional criteria:

a. All valves and assembly plumbing should be approved by the local fire protection jurisdiction.

b. Dry fire systems shall have an approved double check valve installed upstream of the air pressure valve.

c. All multi-family cross connections will be controlled using a containment assembly or method.

d. All premises with irrigation that is separate from the domestic water system must have an RPZ assembly.

2.3 Installation

a. Refer to the meter assembly and vault diagrams located in Appendix B of these rules and regulations (Water and Wastewater Service Line Construction) for proper configuration.

b. Backflow prevention assemblies shall be installed in accordance with instructions and approved designs.

c. All backflow assemblies must be testable.

d. All backflow assemblies and methods shall be installed in the horizontal position. Assemblies manufactured and identified for other alignments may be installed if such installations are in accordance with the design and approved by the District.

e. A pressure type vacuum breaker shall not be used where the assembly will be subjected to back pressure and shall be installed a minimum of 12 inches above the highest piping or outlet downstream of the assembly in a manner to preclude back pressure, but no higher than 60 inches above ground level.

f. An atmospheric non-pressure type vacuum breaker shall be used only where:
    i. The assembly is never subjected to more than 12 hours continuous pressure;
    ii. The assembly is installed with the air inlet in a level position and a minimum of six inches above the highest piping or outlet it is protecting; and
    iii. No valves are installed downstream of atmospheric non-pressure type vacuum breakers.

g. A single or a dual check valve shall not be considered to be a backflow prevention assembly.

h. A double check valve assembly may only be installed in a below-grade vault when the vault is properly constructed in accordance with approved plans, is adequate based on the degree of hazard, and is insulated to prevent freezing.

i. A reduced pressure backflow prevention assembly shall be used only if:
    i. The assembly will not be submerged;
    ii. There is a drain twice the diameter of the service to daylight;
    iii. It is installed in a horizontal position; and
    iv. It is installed a minimum of 12 inches and a maximum of 36 inches from the floor.

j. Basement installations may be made where:
    i. There is a drain large enough to accommodate the maximum flow of water the assembly is capable of discharging under twice the normal static pressure for the system. Refer to flow chart in Colorado Cross Connection Control Manual, Appendix D Discharge Flow Rate;
    ii. An acceptable high water alarm system is installed;
    iii. There are no electrical components in the general area of the assembly;
    iv. Only factory-supplied funnels are used to remove the periodic discharge from the assembly; and
    v. The piping system must have an adequate Air Gap at the termination of the run.

k. The reduced pressure backflow prevention assembly shall be kept from freezing.

l. The assembly must be tested by a certified inspector when installed. If an assembly fails testing, it must be corrected within 60 days of the original install date.

m. In no case is it permissible to connect the relief valve discharge on the reduced pressure assembly to a sump, drainage ditch, or other source of potential contamination.

n. All backflow prevention assemblies shall be installed in an accessible location to facilitate maintenance, testing, and repair.

o. All backflow prevention assemblies shall be installed downstream of the water meter. No connections shall be made between the assembly and the meter.

p. Before installing a backflow prevention assembly, pipelines must be thoroughly flushed to remove foreign material.

q. Test cocks shall not be used as supply connections.

SECTION III – TESTING AND MAINTENANCE

3.1 Testing

Backflow prevention assemblies shall be tested by a certified cross connection control technician within forty-eight (48) hours of turn on of the water service. Assemblies shall be tested at least annually thereafter. For high hazard applications, the district may require more frequent testing. The tests shall be made at the expense of the customer. Records of all such tests, repairs, or replacement shall be kept by the Customer and a copy shall be submitted to the District. Methods shall be inspected upon installation and annually thereafter.

The result of each test shall be submitted to the District and shall contain the following information:

a. Assembly or method type
b. Assembly or method location
c. Assembly make, model and serial number
d. Assembly size
e. Test date
f. Test results including all results that would justify a pass or fail outcome
g. Certified cross connection control technician certification agency
h. Technician’s certification number
i. Technician’s certification expiration date
j. Test kit manufacturer, model, and serial number
k. Test kit calibration date

Test kit certification must be submitted to the District annually by testers.

The District may test or otherwise check the installation and operation of any backflow prevention assembly at any time to assure proper operation.

The Customer’s backflow prevention assembly shall be repaired or replaced at the expense of the Customer whenever the assembly is found to be defective or if the assembly fails the annual test. This repair or replacement must take place within 60 days of the original failed test. Failure to correct failed devices within 60 days may result in disconnection of water service and fines.

3.2 Maintenance

Backflow prevention assemblies shall be regularly inspected and maintained at a frequency deemed necessary to maintain the proper functioning of the assembly.

SECTION IV - SURVEYS

The District conducts surveys to assess customer compliance with the Backflow Prevention and Cross Connection Control Program. Surveys may consist of a physical inspection or a questionnaire that the customer is required to complete and submit to the District. Authorized representatives of the District, upon presentation of a work order and identification, shall be permitted to enter upon a Customer's property at all reasonable times for the purpose of conducting a survey.

Upon receipt of a questionnaire, the Customer shall submit all of the required information and documentation as requested by the District to evaluate the existence of cross connection(s) and/or assemblies or methods, and to determine their type, adequacy, maintenance history, and any other information necessary to determine compliance with these rules and regulations and the Colorado Primary Drinking Water Regulations.

The Customer shall provide this information by the deadline indicated on the questionnaire. If the District has not received all required information by the deadline, a fine may be assessed. An additional fine may be levied for each additional month until all required information is received by the District. Water service to the Customer is subject to disconnection 60 days after the due date of the questionnaire if the required information has not been received by the District.

SECTION V - ENFORCEMENT

Service of water to any premises may be discontinued by the District if a backflow prevention assembly or method required by these rules and regulations is not installed, tested, and maintained, or if it is found that a backflow prevention assembly or method has been removed, or bypassed, or if an uncontrolled cross connection exists on the premises. Service will not be restored until such conditions or defects are corrected and approved by the District. All expenses incurred by the District shall be the responsibility of the customer.

Customers may be fined per month per violation for backflow noncompliance, as indicated in Appendix A of these rules and regulations.

Failure of the Customer to install, maintain, test, inspect, repair, or replace their backflow prevention assembly or method shall be considered a violation of these Rules and Regulations and subject to Section 3.6, Violator's Liability.

Service of water to a Customer may be revoked per Article I, Discontinuance or Revocation of Service, if a cross connection is found to exist on a Customer's property. Service may also be revoked when any defect is found in an installed backflow prevention assembly, or if a backflow prevention assembly or method has been removed or bypassed. Reinstatement of service is subject to Article I, Reinstatement of Service.

References

1. C.R.S. 25-1-114, 25-1-114.1, (Colorado Department of Public Health and Environment (CDPHE).
2. CDPHE Regulation 11.39, Back Flow Prevention and Cross-Connection Control Guidance. Colorado Primary Drinking Water Regulations Article 14, (Hazardous Cross-Connections).
3. Water Quality Control Division-Cross-Connection Control Manual, CDPHE.
4. International Building Code.
5. Colorado Plumbing Code and/or the International Plumbing Code
6. International Swimming Pool and Spa Code.
7. "Cross-Connection Control Manual," Environmental Protection Agency (EPA) 570/9-89-007.
8. Manual of Cross-Connection Control (USC Manual)

Operating Plan for Delegation of Tasks and Activities

Task Description	Activities	Minturn Personnel	ORC/WQCP operators
WTP Operation	Start up WTP		X
	Shutdown WTP		X
	Adjust chlorine pump settings (notify ORC before any changes)	x	X
	Adjust operating flow (notify ORC before any changes)	x	X
	Adjust tank operating level (notify ORC before any changes)	X	x
	Adjust disinfectant dosage per EP-007 results	x *notify ORC if <1.0 mg/L or > 2.8 mg/L*	X
	Adjust on/off runtime for well #4 (notify ORC before any changes)	X	x
	Record data in daily process control sheet	x	X
	Verify and calibrate chlorine, ph and temp analyzers at 007&014		x
	Analytical compliance sampling		x
	PLC program modifications, alarm setpoints, etc.		x
WTP Maintenance	WTP equipment, chemicals, consumables (includes instrument calibration)		x
	Slow sand filter cleaning and conditioning	x	x
	Placing slow sand filters online		x
Distribution	6 Month tank inspections		X
	Daily free chlorine sample from distribution system	x	X
	PRV Maintenance and adjustments		x
	Hydrant Flushing/Flow testing	x	x



2024
BUDGET

FINAL

12/22/2023 1:26 PM

TOWN OF MINTURN

COUNCIL MEMBERS:

Mayor Earle Bidez
Mayor Pro Tem Terry Armistead
Councilwoman Lynn Feiger
Councilman Gusty Kanakis
Councilman Brian Rodine
Councilwoman Kate Schifani
Councilman Tom Sullivan

TABLE OF CONTENTS

	PAGE
PRELIMINARY:	
BUDGET CERTIFICATION	2
BUDGET MESSAGE	3
ANNUAL BUDGET:	
TOWN 2023 BUDGET OVERVIEW	6
GENERAL FUND 01	9
ENTERPRISE FUND 02	32
CONSERVATION TRUST FUND 03 (LOTTERY)	38
BUILDING FUND 04	40
MINTURN ART FUND 05	42
CAPITAL FUND 06	44
SCHOLARSHIP FUND 08	46
BATTLE MOUNTAIN RESORT FUND 09	48
5-YEAR PLAN BUDGET:	
GENERAL FUND 01	51
ENTERPRISE FUND 02	61
BUILDING FUND 04	65
MINTURN ART FUND 05	66
BACKUP:	
TOWN ORGANIZATIONAL CHART	67
INTERFUND TRANSFER SUMMARY	68
2020 DEBT SERVICE SCHEDULES	69
MISCELLANEOUS SUPPORTING DOCUMENTATION:	
BUDGET SCHEDULE AND CALENDARS	71
SAMPLE MILL LEVY CALCULATION	79
MISCELLANEOUS SCHEDULES	80
CAPITAL IMPROVEMENT PLAN	87

TOWN OF MINTURN
P.O. Box 309 (302 Pine Street)
Minturn, Colorado 81645-0309
970-827-5645 Fax: 970-827-5545
treasurer@minturn.org

FROM THE DESK OF
JAY BRUNVAND, TREASURER/FINANCE

I, Jay Brunvand, certify that the attached is a **true and accurate copy** of the adopted 2023 Budget of the Town of Minturn.

Jay Brunvand, Town Treasurer/Clerk

12/6/2023
Date

2023 BUDGET MESSAGE

December 2, 2023

Honorable Mayor and Town Council Members,

Budgets reflect priorities. Traditionally, the annual budget would reflect the Strategic Plan and corresponding Capital Improvement Plans however, as it has been noted in Council meetings, this year is an exceptional situation where Minturn has a major financial focus in advancing its legal positions. With this in mind, staff has prepared the 2024 budget focusing on settling two outstanding lawsuits with the understanding that the legal situations are fluid and may require adjustments, up or down, in order to maintain a balanced budget.

On behalf of the Town staff, I submit the 2024 budget to Town Council and the community. The budget was introduced and accepted at the October 4, 2023, Council meeting; reviewed and a Public Hearing will be held during the November 1, 2023, Council meeting, with Ordinance readings being completed on November 15, 2023, and December 6, 2023.

This budget message outlines the Town's overall financial condition; provides an overview of the 2024 budget including reasoning for the adjustment in priorities, and reviews information about the current Capital Improvement Plan.

Overall Town Financial Condition

As in years past, Minturn is heavily reliant on sales and property taxes to sustain the general fund, and additionally this year saw a sustained increase to the Real Estate Transfer Tax (RETT). Property tax is expected to see an increase; however, forecasting is complicated by the recently failed HH ballot initiative combined by the complications of the State Legislature actions. Sales tax is expected to remain flat given inflation concerns combined with property tax projections.

The 2023 modified accrual budget includes funding for additional planning support through contracted services. A 7% merit raise is included along with the opportunity for merit-based bonuses.

Ongoing and Upcoming Projects

Below are the ongoing, and anticipated upcoming projects as identified in the 2023 Imagine Minturn Community Plan, the 2023-25 Minturn Strategic Plan, and the Water Capital Improvement Plan. Minturn is planning for fewer projects in 2024 which is a direct reflection of the Town's priority to support the legal budget until settlements can be reached in the various ongoing lawsuits.

Completed & Ongoing Projects:

- Water infrastructure capital improvement plan
    - Town-wide water meter replacement program
    - New concrete water tank operational

    - Secured HDR. Inc for the design and engineering services of water treatment plant alternatives analysis
    - Cross Creek Wellfield analysis
- Execute the updating of the Community Plan through a comprehensive public engagement process led by 3rd party consultants.
- Downtown Minturn Parking Analysis
- Downtown Minturn Economic Feasibility Analysis
- Create a Little Beach Park Recreation Sub Area Master Plan as an amendment to the Community Plan
- Increased public utilization of the Minturn Fitness Center through the implementation of a key fob system allowing for unsupervised use of the facility by its members
- Incorporate Water-Wise standards for landscape site design into development requirements.
- Minturn Challenge Town project through Downtown Colorado Inc.
- Pine Street 300-block repairs
- Creation of a Downtown 100-Block Design Guideline booklet and updated code
- Eagle Valley ECO trail from Dowd Junction to Minturn
- Town-wide replacement of trash receptacles with bear proof containers
- Creation of a Historic Preservation Ordinance and Commission
- Visioning for the reimagination of the Minturn Market
- Implementation of the memorial bench program
- Construction of a public pavilion at the Minturn Bike Park
- Installation of two new directory signs in Downtown Minturn and at the Minturn Bike Park
- Installation of a lighting system for the Little Beach Park Amphitheatre seating area
- Design and engineering improvements for the increased safety of the Railroad Ave to Taylor Ave area
- Implementation of the Reimagine Destinations Program (grant award) to provide resilient and environmentally conscious fostering of the recreational tourism industry in and around Minturn
- Historic Preservation – Certified Local Government accreditation

Upcoming Projects:

- Minturn legal matters
- Phase 2 Main Street Sidewalks – including over $1.725M in grant funding
- Bellm Bridge feasibility study
- Revitalizing Main Street CDOT Grant – Railroad Ave Rehabilitation
- Historic Preservation Resource Survey Study Grant
- Update Minturn's SFE Definition and MMC implementation
- Downtown Development Authority Election
- Evacuation Planning Grant Application
- Medina property water service updates
- Capital Improvement Plan Update

Accounting Standard
The town uses a modified accrual basis of accounting.

Conclusion
The town will see modest revenue increases in 2024. Those increases are anticipated to focus on supporting the legal and engineering funds. This primary objective, along with ongoing operations of the town will be the focus for 2024. We anticipate a return to focusing on the Town's various Plans once this legal objective has been reached.

The town enjoys acceptable balances given current revenues but will continue to look for ways to better diversify Minturn's financial future. The town staff intends to complete the department objectives as outlined in the budget and recognizes the need to utilize available resources in an efficient and effective manner and consistent with the goals, policies, and plans of the town.

A special thanks to Jay Brunvand, Town Treasurer, for his dedication to a transparent and professional budget process.

Respectfully submitted,

Michelle Metteer
Town Manager
Minturn, Colorado

Town of Minturn
2024 ALL FUND OVERVIEW

Item	General Fund 01	Water/Sewer Fund 02	Lottery Fund 03	Special Rev Fund 04	Market Fund 05	Capital Fund 06	Scholar Fund 08	BMR Fund 09	Totals
Revenue	2,997,177.78	2,205,533.00	14,122.15	115,223.00	37,000.00	509,723.00	10,000.00	2,500.00	5,891,278.93
Battle Mtn Dev Revenue	0.00								0.00
Battle Mtn Dev Revenue - Scholarship Endowment							0.00		0.00
Battle Mtn Dev Revenue - Little Beach Park									0.00
Net Revenue	2,997,177.78	2,205,533.00	14,122.15	115,223.00	37,000.00	509,723.00	10,000.00	2,500.00	5,891,278.93
Expenses									
Council	42,831.00								42,831.00
Gen Gov't	877,385.00			0.00					877,385.00
Planning	568,403.00								568,403.00
Battle Mtn Dev	0.00	0.00				0.00		150,000.00	150,000.00
Police and Court	461,344.00								461,344.00
Econ Dev	219,917.00								219,917.00
Public Works	633,675.00	1,073,013.00				510,000.00			2,216,688.00
Grants/Debt Service/Capital	0.00	1,123,337.00		0.00					1,123,337.00
Misc	193,000.00	0.00	61,000.00	0.00	37,000.00	0.00	7,100.00		298,100.00
Net Expenses	2,996,555.00	2,196,350.00	61,000.00	0.00	37,000.00	510,000.00	7,100.00	150,000.00	5,958,005.00
Net Income (Receipts) before transfers	**622.78**	**9,183.00**	**-46,877.85**	**115,223.00**	**0.00**	**-277.00**	**2,900.00**	**-147,500.00**	-66,726.07
Transfers IN (Revenue)	0.00	0.00	0.00	0.00	0.00	105,223.00	0.00	0.00	105,223.00
Transfers Out (Expenses)	0.00	0.00		105,223.00				0.00	105,223.00
Net Due To/From Transfers	0.00	0.00	0.00	-105,223.00	0.00	105,223.00	0.00	0.00	0.00
Net Receipts after transfers	622.78	9,183.00	-46,877.85	10,000.00	0.00	104,946.00	2,900.00	-147,500.00	-66,726.07
Beginning Cash Balance - Jan 2024 (EST)	2,753,903.00	1,463,322.00	82,371.00	27,260.93	8,331.00	400,093.00	271,618.00	160,844.00	5,167,742.93
Transfers to Depreciation-Est		0.00							0.00
Ending Cash Balance	**2,754,525.78**	**1,472,505.00**	**35,493.15**	**37,260.93**	**8,331.00**	**505,039.00**	**274,518.00**	**13,344.00**	**5,101,016.86**
Restricted Cash -									
TABOR (3% of non-enterprise expenses)	87,250.00				0.00	0.00			
Restricted for CIP			35,493.15	27,260.93					
(1) Restricted by TABOR-Real Estate Trans	0.00								
(2) 6 Mo Reserve Target (non Grant)	1,107,207.65								
Grant Match Reserve	25,000.00								
Restricted for Capital Imp Plan	1,221,120.78	703,780.00							
Restricted for Exterior Energy Offset	17,872.00								
Restricted for Parks						250,093.69			
Restricted for Capital Imp (Const Use Tax)						254,945.31			
Restricted for Scholarships							274,518.00		
Restricted for GID									
Restricted for BMR and Escrow									
Restricted-Cash In Lieu of Water Fee		47,008.00							
Restricted-System Improvement Fee		31,625.00							
Restricted for Infrastructure		538,320.00			8,331.00				
Total Restricted Revene	2,458,450.43	1,320,733.00	35,493.15	27,260.93	8,331.00	505,039.00	274,518.00	0.00	4,629,825.51
Cash Available after Restricted	296,075.35	151,772.00	0.00	10,000.00	0.00	0.00	0.00	13,344.00	471,191.35

TOWN OF MINTURN
SALES TAX COMPARISON

MONTH	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	CHANGE	SAME MO 2022	ACCR YTD VAR TO '21	SAME MO 2021	ACCR YTD VAR TO '21
JANUARY	52,282	39,306	42,037	44,898	45,721	47,881	54,313	62,068	52,148	71,528	58,509	92,315	76,245	116,435	106,276	-8.73%	-10,159	-10,159.29	30,031	30,031.18
FEBRUARY	45,235	38,781	38,147	43,993	46,028	43,246	59,868	57,178	51,785	31,263	52,232	64,708	77,087	100,408	98,438	-1.96%	-1,970	-12,129.65	21,351	51,381.73
MARCH	41,718	43,231	49,085	49,922	51,708	54,423	52,142	40,835	52,249	53,561	60,705	45,220	89,591	110,345	107,744	-2.36%	-2,601	-14,730.83	18,153	69,534.73
APRIL	28,637	29,168	33,779	27,176	30,328	30,568	37,398	41,478	40,395	42,743	44,115	38,337	64,613	84,211	83,628	-0.69%	-583	-15,314.26	19,015	88,549.41
MAY	27,084	29,341	22,115	31,209	36,473	27,758	42,569	32,926	39,471	38,977	33,722	35,077	64,412	76,766	77,406	0.83%	641	-14,673.52	12,995	101,544.15
JUNE	40,924	34,289	40,990	31,800	41,560	54,001	39,765	46,832	55,131	57,776	55,473	58,096	83,356	104,769	116,080	10.80%	11,311	-3,362.56	32,724	134,267.79
JULY	44,134	42,602	49,410	48,715	49,680	52,732	67,899	61,541	69,902	59,770	69,560	94,124	106,900	108,021	118,588	9.78%	10,566	7,203.91	11,687	145,954.91
AUGUST	37,513	38,450	45,002	42,791	59,605	49,406	55,724	66,318	59,838	55,132	65,306	77,518	96,349	116,158	107,845	-7.16%	-8,312	-1,108.54	11,497	157,451.67
SEPTEMBER	36,925	36,039	42,748	36,965	43,370	62,771	43,550	51,788	47,013	59,679	80,605	77,391	98,710	109,693	110,347	0.60%	654	-454.86	11,637	169,088.76
OCTOBER	27,176	23,333	25,686	32,804	33,504	26,151	33,116	37,233	43,535	40,602	47,347	81,756	82,437	87,622		-100.00%	-87,622	-88,076.45	-82,437	86,652.04
NOVEMER	23,559	24,685	29,076	29,669	28,425	29,736	32,090	28,247	63,238	41,793	60,807	59,169	81,494	82,931		-100.00%	-82,931	-171,007.66	-81,494	5,157.94
DECEMBER	47,143	44,840	45,959	47,370	55,171	58,060	65,694	57,520	61,371	67,719	90,821	104,590	118,851	113,622		-100.00%	-113,622	-284,629.49	-118,851	-113,693.23
TOTAL	452,327	424,064	464,033	467,311	521,573	536,735	584,128	583,964	636,074	620,544	719,201	828,301	1,040,044	1,210,980	926,351	-23.50%	-284,629		-113,693	

	HISTORICAL AVERAGE BY MO	32Yr Avg	5yr Avg	FY2023		VARIANCE FROM 5YR
	JANUARY	49,643	93,436	106,276		12,840
	FEBRUARY	48,430	75,497	98,438		22,941
	MARCH	52,915	82,334	107,744		25,410
	APRIL	35,013	62,883	83,628		20,745
	MAY	31,119	57,685	77,406		19,721
	JUNE	45,143	82,920	116,080		33,159
	JULY	54,137	101,655	118,588		16,933
	AUGUST	50,046	94,060	107,848		13,788
	SEPTEMBER	45,731	94,618	110,347		15,729
	OCTOBER	35,238	76,659			-76,659
	NOVEMER	34,333	77,887			-77,887
	DECEMBER	56,965	111,395			-111,395
	TOTALS	538,713	1,011,029	926,355		-84,674

	09/01/23	CURRENT MONTH	YTD 2023	% OF TOTAL
RETAIL	294,134	35,068	329,202	36%
LODGE	44,090	6,838	50,928	5%
F & B	190,596	24,647	215,243	23%
UTIL	66,515	5,623	72,138	8%
ON-LINE	220,670	38,172	258,842	28%
TOTAL	816,005	110,347	926,352	

	YTD 2022	% OF TOTAL
	335,825	36%
	46,242	5%
	228,995	25%
	67,202	7%
	248,542	27%
	926,806	
		YTD 2022	YTD 2021
YEAR OVER YEAR VARIANCE		-0.05%	18.25%

/S District - Incom

	2021								2022								2023							
	Base Rate	Excess Use Res	Excess Use Comm	Total Water	Debt Svc	Trash	Total	Total Water Income Vs 2021 over 2020	Base Rate	Excess Use Res	Excess Use Comm	Total Water	Debt Svc	Trash	Total	Total Water Income Vs 2022 over 2021	Base Rate	Excess Use Res	Excess Use Comm	Total Water	Debt Svc	Trash	Total	Total Water Income Vs 2023 over 2022
January	64,784.95	10,736.76	3,906.76	79,428.47	5,629.93	9,539.77	94,598.17	5,284.48	60,068.39	9,377.09	4,357.54	73,803.02	5,489.20	9,402.42	88,694.64	-5,625.45	73,645.42	10,974.80	4,392.96	89,013.18	12,188.73	12,512.22	113,714.13	15,210.16
February	62,971.81	10,641.14	4,057.02	77,669.97	5,615.37	9,529.77	92,815.11	72,632.47	63,004.30	12,895.04	5,723.54	81,622.88	5,492.22	9,572.22	96,687.32	3,952.91	77,237.73	11,797.76	4,767.36	93,802.85	12,195.68	9,782.22	115,780.75	12,179.97
March	64,242.21	10,497.71	4,384.86	79,124.78	5,590.36	9,485.81	94,200.95	74,405.78	65,176.46	9,507.36	4,248.26	78,932.08	5,472.17	9,386.29	93,790.54	-192.70	76,717.10	9,864.24	4,526.08	91,107.42	12,181.78	9,782.22	113,071.42	12,175.34
April	62,891.15	10,518.20	4,384.86	77,794.21	5,598.17	9,519.77	92,912.15	73,101.21	63,479.79	8,972.71	4,637.57	77,090.07	5,478.68	9,376.95	91,945.70	-704.14	77,113.70	10,599.68	6,830.72	94,544.10	12,227.51	9,742.00	116,513.61	17,454.03
May	64,153.76	8,831.19	4,091.17	77,076.12	5,579.94	9,469.12	92,125.18	75,665.62	60,774.95	9,398.08	3,223.76	73,396.79	5,463.59	9,309.03	88,169.41	-3,679.33	76,429.52	7,970.56	7,521.28	91,921.36	12,153.98	9,738.50	113,813.84	18,524.57
June	64,272.66	8,762.89	3,360.36	76,395.91	5,575.78	9,745.98	91,717.67	74,985.41	62,152.46	11,255.84	3,476.47	76,884.77	5,472.69	10,304.63	92,662.09	488.86	70,563.66	8,919.04	8,486.40	87,969.10	12,192.20	9,773.48	109,934.78	11,084.33
July	68,426.27	18,188.29	5,320.57	91,935.13	5,566.93	9,552.22	107,054.28	90,492.13	67,140.04	14,411.30	4,050.19	85,601.53	5,487.80	9,493.79	100,583.12	-6,333.60	81,804.58	15,783.04	6,822.40	104,410.02	12,192.20	9,703.52	126,305.74	18,808.49
August	68,075.34	15,387.99	5,825.99	89,289.32	5,554.44	9,528.26	104,372.02	82,613.82	65,229.61	15,326.52	4,883.45	85,439.58	5,468.01	9,514.30	100,421.89	-3,849.74	84,930.08	20,483.84	13,104.00	118,517.92	12,179.46	9,739.66	140,437.04	33,078.34
September	70,842.59	15,210.41	6,010.40	92,063.40	5,544.54	9,462.61	107,070.55	86,245.90	69,411.92	16,945.23	7,533.49	93,890.64	5,496.92	9,548.26	108,935.82	1,827.24	86,793.94	10,400.00	18,487.04	115,680.98	12,188.73	9,773.48	137,643.19	21,790.34
October	69,377.38	12,833.57	4,521.46	86,732.41	5,578.64	9,427.51	101,738.56	81,025.41	113,703.88	12,901.87	5,279.59	131,885.34	5,455.24	9,480.34	146,820.92	45,152.93	83,981.76	14,701.44	7,321.60	106,004.80	12,261.11	9,773.48	128,039.39	-25,880.54
November	66,097.49	8,318.94	3,763.33	78,179.76	5,731.98	9,358.46	93,270.20	73,454.26	20,020.72	10,661.63	5,163.48	35,845.83	5,476.08	9,515.43	50,837.34	-42,333.93	78,010.41	11,648.00	4,992.00	94,650.41	12,351.43	9,854.52	116,856.36	58,804.58
December	64,615.43	9,077.07	4,446.33	78,138.83	5,579.48	9,402.42	93,120.73	74,080.83	61,257.78	8,660.44	4,261.92	74,180.14	5,471.13	9,534.30	89,185.57	-3,958.69				0.00			0.00	-74,180.14
	790,751.04	139,004.16	54,073.11	983,828.31	67,145.56	114,021.70	1,164,995.57	863,937.32	771,420.30	140,313.11	56,839.26	968,572.67	65,723.73	114,437.96	1,148,734.36	-15,255.64	867,227.90	133,142.40	87,251.84	1,087,622.14	134,312.81	110,175.30	1,332,110.25	119,049.47

u:water rate comparison

State Law requires a property reassessment every odd year as taxes and mill levies are set for the following even year. Between the 2017 and 2021 assessments the effects of the Gallagher Amendment caused residential properties to be assessed at an ever-decreasing amounts in order to remain compliant. The residential appraised value calculation dropped from 7.96% in 2016 to 7.12% in 2020 and then 6.95% in 2021 and 6.765% in 2021 by legislative action enacted to reduce the effects of inflation in the real estate markets. For comparison in 2016 the town received $488,343 on an assessed value of $27,230,020, while in 2023 we anticipate receiving $580,330 on an assessed value of $32,359,180. The 2023 assessment for 2024 revenue is proving to be very cumbersome and difficult to pin down. This is due to a pending November 2023 ballot question referred to the voters by the state legislature of how the calculations will be made with the assessed value. This ballot question will determine exemptions, credits, and tax rates on each assessed property. Until the election passes we won't know for certain the true revenue to be generated leaving us in a wait-and-see pattern.

The November 2020 and General Election passed a ballot measure which froze the value at 7.12% and will remain there until changed by a statewide election. Then, as stated, through legislative actions at the state level our residential tax formula reduced from 7.12% to 6.765%. Property values used to calculate the 2024 property tax revenues have sky rocketed and it is anticipated the values will be 60% over 2023. Over the previous several years, Minturn has acted proactively each year during the monthly financial reviews at staff level and during the fiscal budget process to continually review our budget and examine expenses while maximizing service levels for the greatest value to our citizens. Minturn is embarking on several improvement plans. The Town will need to consider any and all options to save money during the upcoming years in order to meet these funding requirements.

During 2020 the Town passed a temporary moratorium on water taps sold in the Enterprise Fund which has been extended into 2024 and is anticipated to extend beyond 2025. This move was made in light of the significant repairs and replacements required in the water plant, water tank, and distribution systems as well as several large anticipated projects being proposed at the initial stages in the Planning Department. In late 2023 the town completed the new water storage tank. It is planned that the old tank will be refurbished in the future and remain in use. Currently the town is considering options to test our water wells to determine if they can be converted to our sole source of water, increase the well production and maintain our current water diversion on Cross Creek, refurbish our sand filters, build a new treatment plant, or some combination of those options. Funding to

research these options has been budgeted in the 2024 Enterprise Fund. Once studied and approved, additional funding will be sought in order to implement the approved direction.

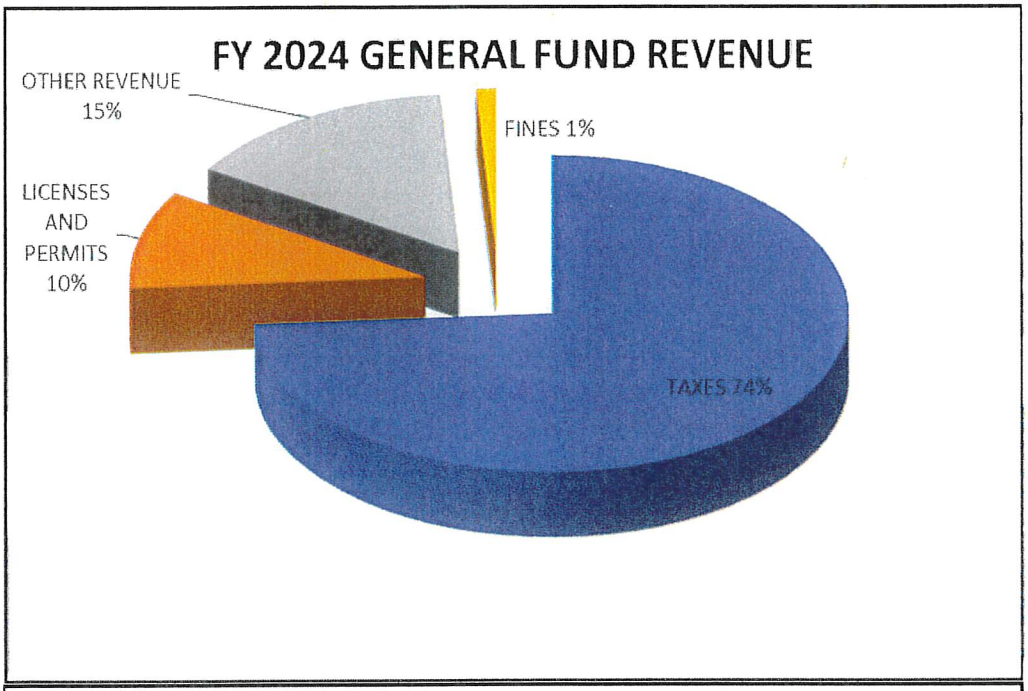
Annual Town Revenue Growth (less Grants)

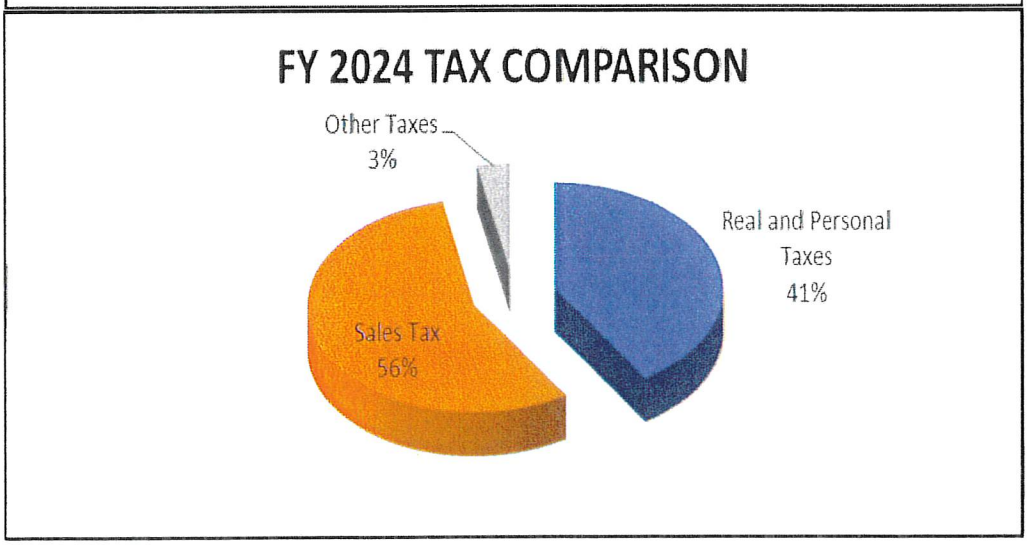
Year	General Fund	BMR Contribution	Total	Annualized Growth
2004	1,448,349.00	0.00	1,448,349.00	
2005	1,495,138.00	691,044.00	2,186,182.00	3.13%
2006	1,519,760.00	800,000.00	2,319,760.00	1.60%
2007	1,595,309.00	1,380,000.00	2,975,309.00	4.70%
2008	1,673,054.00	1,600,000.00	3,273,054.00	4.65%
2009	1,653,276.88	1,578,270.00	3,231,546.88	-1.18%
2010	1,400,838.00	285,753.00	1,686,591.00	1.20%
2011	1,463,689.00	424,367.00	1,888,056.00	1.04%
2012	1,287,582.00	180,000.00	1,467,582.00	-12.03%
2013	1,461,431.00	180,000.00	1,641,431.00	11.89%
2014	1,363,052.00	180,000.00	1,543,052.00	-6.73%
2015	1,653,719.00	180,000.00	1,833,719.00	18.80%
2016	2,659,131.00	180,000.00	2,839,131.00	54.80%
2017	1,998,883.00	180,000.00	2,178,883.00	-23.26%
2018	1,864,479.00	165,000.00	2,029,479.00	-9.32%
2019	1,979,213.00	0.00	1,979,213.00	-2.47%
2020	2,331,675.00	0.00	2,331,675.00	17.80%
2021	2,610,321.00	0.00	2,610,321.00	10.67%
2022	2,982,949.00	0.00	2,982,949.00	12.49%

Minturn continues to see modest revenue growth year over year. The above table illustrates the impact of sales tax collections due to changes for on-line purchases which require tax be paid based on where the items are delivered. Previously, tax was either not collected or remitted to the location from where the product was. By way of example, prior to this change in 2018 our sales tax collections were $620,544 and in 2022 our collections were $1,040,044; a gain of 49%. It is important to recognize that as this single source of revenue has grown so have legal expenses due to ongoing lawsuits on various projects including the Battle Mountain Resort property. Currently the town is considering a Settlement Agreement with Battle Mountain. This agreement, if approved, will settle all current legal disputes and give land within the project to the town, and will maintain the development within the town boundaries.

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

General Fund: Revenue





2023 is a reassessment year and we are anticipating a significant increase of over 40% in property taxes over 2023. It is expected that with the significant increases in property values that our property tax receipts will increase as well. The state legislature has placed a tax reform measure on the November 2023 ballot which, if passed, will reduce much of this new property value growth. With the enacted statewide legislation over the past four sessions

and the November 2023 election, how the assessed value is taxed has and will continue to change annually.

A re-assessment occurs in odd years when the County Assessor in each county statewide evaluates all the property in the County for tax purposes by comparing like transactions throughout a set area to create an assessed value for each and every property. The mill levy is then used to calculate the various taxing district's revenue. It is important to note that the town has not changed it's mill levy in over 25years. The mill levy is set at 17.934 and the town revenues rise and fall in sequence with property values.

Each town department has been reviewed again this year in order to obtain a better grasp on the expenses and control of those expenditures. This has allowed the Town an opportunity to examine each department's needs, staffing, and service levels. The Town has continued to find qualified services provided by outside contracts. This opportunity requires the Town to only manage the contract without the need to hire the position at this time. This practice results in a cost savings to the Town.

Footnotes:

1) Property taxes are calculated on the Town wide 17.934 mill levy. This year's assessment reflects growth based on the 2023 reassessment of real property values. The reassessment value calculations will be considered in a state wide election in November 2023. Once the election results are considered it is possible the values will change significantly.
2) The Sales Tax budget for 2024 is based on the 2022 actual and 2023 estimated collections; we anticipate sales tax collections to be flat in 2024 compared to 2023. It is important to note sales and property tax can be extremely fickle and go down just as fast as they go up. In addition, it should be noted that sales tax is high than property tax due to the noted recent legislative actions.
3) Building Permits net an income to the Town of 20% over the cost of the building inspection services. The town is looking at several large developments that could increase our housing stock. The budget is based on reasonable and conservative numbers meaning not all the homes proposed are included. Historically, not once have we warranted hiring in-house for this service when viewed over multiple back-to-back years.
4) The town has a number of land and parking leases for a diversified income source of $150,950. This accounts for over 5% of all General Fund revenues.
5) Real Estate Transfers within the Town are assessed a 1% tax on the value of the sale. This revenue continues to improve as the economy recovers.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
FUND 01: GENERAL FUND							
REVENUE							
PROPERTY TAX - REAL AND PERSONAL	01-00-4010	593,646.42	568,723.00	568,723.00	828,751.00	45.72%	1
SPECIFIC OWNERSHIP	01-00-4020	31,864.00	30,000.00	30,000.00	32,000.00	6.67%	
SPECIAL ASSESSMENT (MVSA)	01-00-4030	5,823.80	6,250.00	6,250.00	6,000.00	-4.00%	
LODGING TAX - 1.5%	01-00-4039	20,304.73	20,000.00	20,000.00	20,000.00	0.00%	
COUNTY SALES TAX	01-00-4040	46,456.16	45,000.00	45,000.00	45,000.00	0.00%	2
CITY SALES TAX - 4%	01-00-4050	1,164,524.64	1,155,000.00	1,155,000.00	1,155,000.00	0.00%	2
CIGARETTE TAX	01-00-4051	2,707.20	2,800.00	2,800.00	2,800.00	0.00%	
HIGHWAY USERS TAX (HUTF)	01-00-4052	38,650.12	36,263.00	36,263.00	37,362.00	3.03%	
ROAD AND BRIDGE	01-00-4070	22,454.52	25,000.00	25,000.00	25,000.00	0.00%	
OTHER TAXES	01-00-4090	0.00	0.00	0.00	0.00	#DIV/0!	
BUILDING PERMITS	01-00-4210	70,019.50	50,000.00	50,000.00	118,560.00	137.12%	3
EXTERIOR ENERGY CREDIT	01-00-4215	7,120.00	0.00	0.00	0.00	#DIV/0!	
HIGHWAY 24 MAINTENANCE	01-00-4220	37,800.00	37,800.00	37,800.00	38,934.00	3.00%	
LIQUOR LICENSE FEES	01-00-4230	2,579.75	1,500.00	1,500.00	1,500.00	0.00%	
BUSINESS AND CONTRACTORS LICENSE	01-00-4240	24,344.00	22,500.00	22,500.00	24,000.00	6.67%	
PLANNING AND ZONING FEES/PERMITS	01-00-4250	99,212.97	50,000.00	50,000.00	50,000.00	0.00%	
FRANCHISE FEES - PUBLIC SERVICE	01-00-4260	52,726.30	40,000.00	40,000.00	50,000.00	25.00%	
FRANCHISE FEES - PHONE/CABLE	01-00-4280	19,543.49	19,500.00	19,500.00	19,500.00	0.00%	
FRANCHISE FEES - HOLY CROSS	01-00-4290	2,098.52	2,000.00	2,000.00	2,000.00	0.00%	
MUNICIPAL TRAFFIC FINES	01-00-4430	12,273.45	15,000.00	15,000.00	15,000.00	0.00%	
MUNICIPAL NON-TRAFFIC FINES	01-00-4435	0.00	0.00	0.00	0.00	#DIV/0!	
MUNICIPAL VICTIM RESTITUTION	01-00-4436	0.00	0.00	0.00	0.00	#DIV/0!	
CODE ENFORCEMENT FINES	01-00-4440	0.00	0.00	0.00	0.00	#DIV/0!	
COURT COST/ADMIN FEES	01-00-4445	0.00	0.00	0.00	0.00	#DIV/0!	
BOND FORFEITURES	01-00-4450	0.00	0.00	0.00	0.00	#DIV/0!	
TOWN HALL RENT	01-00-4511	2,150.00	1,500.00	1,500.00	1,500.00	0.00%	
ERFPD IMPACT FEE	01-00-4512	7,808.62	0.00	0.00	0.00	#DIV/0!	
LAND LEASE - SEASONAL LANDSCAPING	01-00-4516	9,000.00	9,000.00	9,000.00	9,300.00	3.33%	4
LAND LEASE - WILCON LEASE	01-00-4518	9,000.00	9,000.00	9,000.00	9,300.00	3.33%	4
LAND LEASE - SNOW DUMP	01-00-4519	8,200.00	8,500.00	8,500.00	8,500.00	0.00%	4
LAND LEASE - MTN MGMT PROP	01-00-4520	15,000.00	14,400.00	14,400.00	18,600.00	29.17%	4
LAND LEASE - OLD CASTLE	01-00-4521	66,112.55	70,000.00	70,000.00	70,000.00	0.00%	4
LAND LEASE - WORKER BEE LANDSCAPING	01-00-4522	9,000.00	9,000.00	9,000.00	9,300.00	3.33%	4
LAND LEASE - ALTA STONE	01-00-4523	9,000.00	9,000.00	9,000.00	9,300.00	3.33%	4
LAND LEASE - CHARD'S YARDS	01-00-4524	9,000.00	9,000.00	9,000.00	9,300.00	3.33%	4
LAND LEASE - SUNCOAST SEALER	01-00-4525	5,444.00	9,000.00	9,000.00	9,300.00	3.33%	4
LAND LEASE - MISC ENCROACHMENTS	01-00-4526	0.00	0.00	0.00	0.00	#DIV/0!	
PARKING LEASE - TIM SIMON PARKING	01-00-4530	1,337.00	1,337.00	1,337.00	1,337.00	0.00%	
LAND LEASE - IRONWORKS PARKING	01-00-4531	2,952.32	2,953.00	2,953.00	2,953.00	0.00%	
D&RGRR - THE BUNKHOUSE	01-00-4535	3,820.00	3,820.00	3,820.00	3,820.00	0.00%	

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
D&RGRR - SALOON	01-00-4537	4,940.00	4,940.00	4,940.00	4,940.00	0.00%	
FUND RAISER - MEMORIAL BENCH PROGRAM	01-00-4538	3,000.00	0.00		0.00	#DIV/0!	
INVESTMENT EARNED	01-00-4540	56,029.07	35,000.00	35,000.00	150,000.00	328.57%	
GRANTS - TAP #1	01-00-4552	0.00	0.00	0.00	0.00	#DIV/0!	
GRANTS - TAP #2/RPP/DOLA	01-00-4552	0.00	0.00	0.00	0.00	#DIV/0!	
GRANTS - DOLA COMMUNITY PLAN (EIAF)	01-00-4561	135,452.56	0.00	0.00	0.00	#DIV/0!	
GRANTS - COVID 19	01-00-4562	-5,798.18	0.00	0.00	0.00	#DIV/0!	
BATTLE MTN RESORTS REVENUE	01-00-4575	45,000.00	0.00	0.00	0.00	#DIV/0!	
MINTURN EVENT REVENUE	01-00-4591	0.00	0.00	0.00	0.00	#DIV/0!	
OTHER REVENUE	01-00-4597	39,457.39	35,000.00	35,000.00	35,000.00	0.00%	
TRANSFER FROM OTHR FUNDS	01-00-4650	0.00	0.00	0.00	0.00	#DIV/0!	
REAL ESTATE TRANSFER TAX - **TABOR RESTRICTED**	01-00-4680	292,895.00	150,000.00	150,000.00	175,000.00	16.67%	1
SUBTOTAL: REVENUE		**2,982,949.90**	**2,508,786.00**	**2,508,786.00**	**2,998,857.00**	19.53%	

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

General Fund: Council Expense

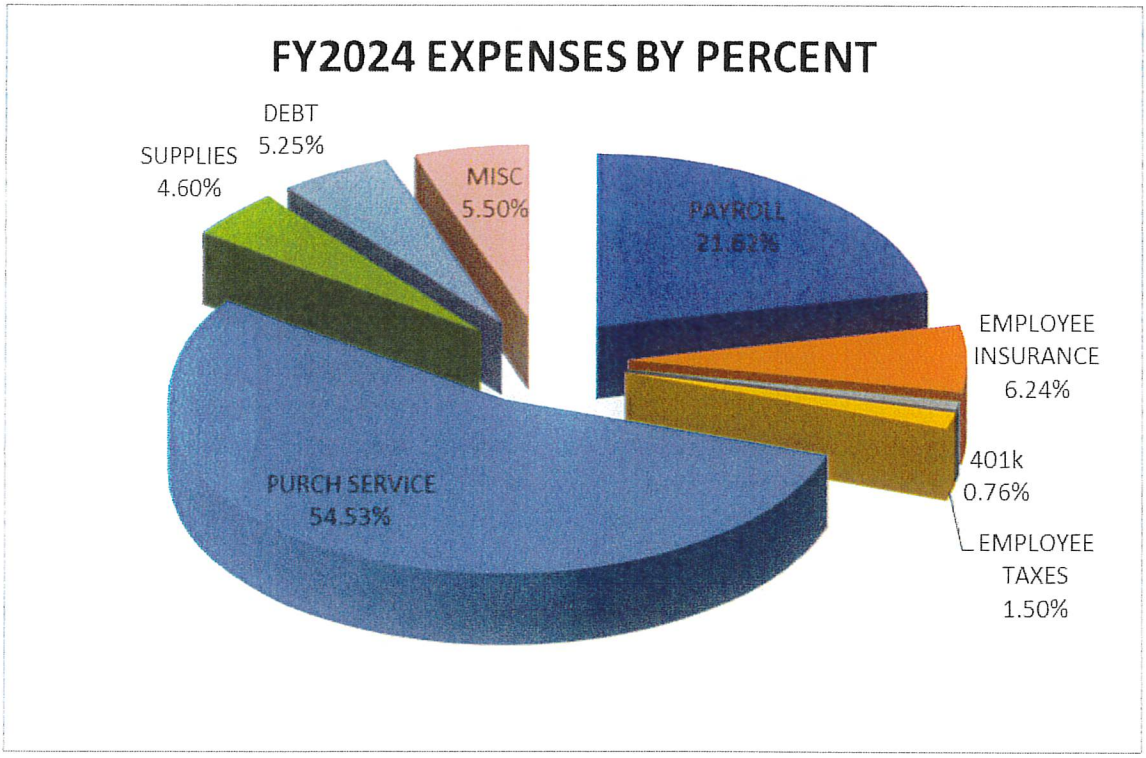
This budget carries the payroll for the Town Council members and a small allowance for supplies/services. The wage cost includes the regular monthly stipend for the Mayor and Council to allow for all regularly scheduled meetings plus four additional unscheduled meetings. Historically we have budgeted for three additional meetings but this has been exhausted due to the need to meet with legal teams and other unscheduled events.

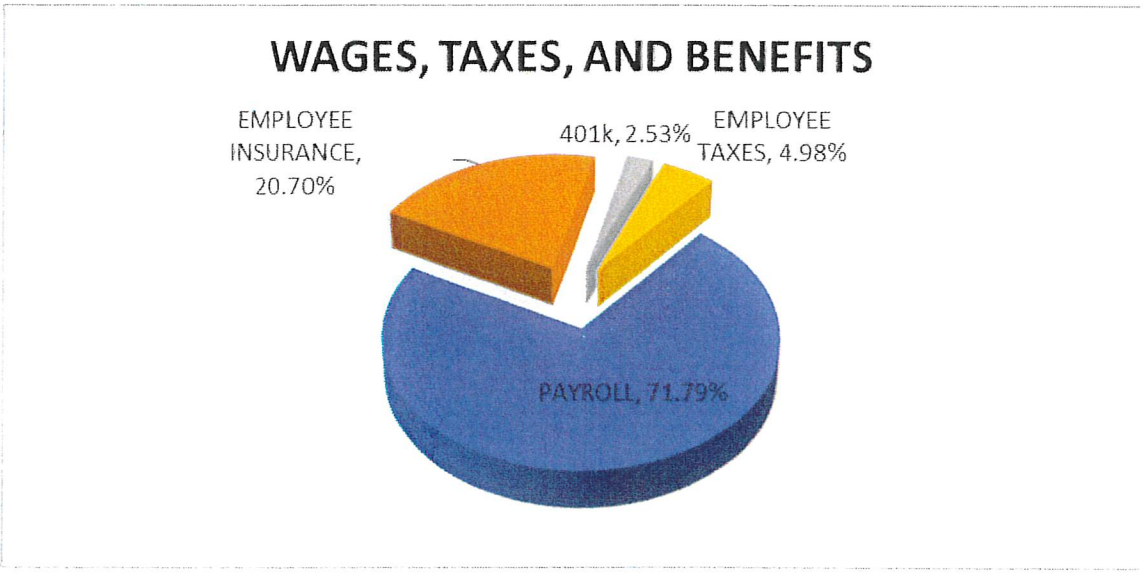
The Town provides contributions to various events and organizations which have been committed to based on Council direction. These include the Minturn Summer Concert series, funding for the Vail Valley Partnership, and other items which mutually benefit the town and the Minturn Community Fund. This funding has been incorporated in the General Government and Economic Development budgets. Additionally, the members elected in April of 2024 will see a pay increase. The remaining three members will increase in April 2026 when their seat stands for election.

The Town contracts for legal, engineering, community planning, code enforcement and water treatment services among others. Not including the Council or contract services, the staffing level for the Town of Minturn employs 9 full time employees and no part time employees. 2024 reflects a growth of one code enforcement officer who will also assist Public Works. this position is budgeted but has not been filled as of yet.

Town Manager	1
Town Treasurer/Town Clerk	1
Planning and Code Enforcement	2
Court Clerk/Economic Coordinator	1
Public Works	4

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET



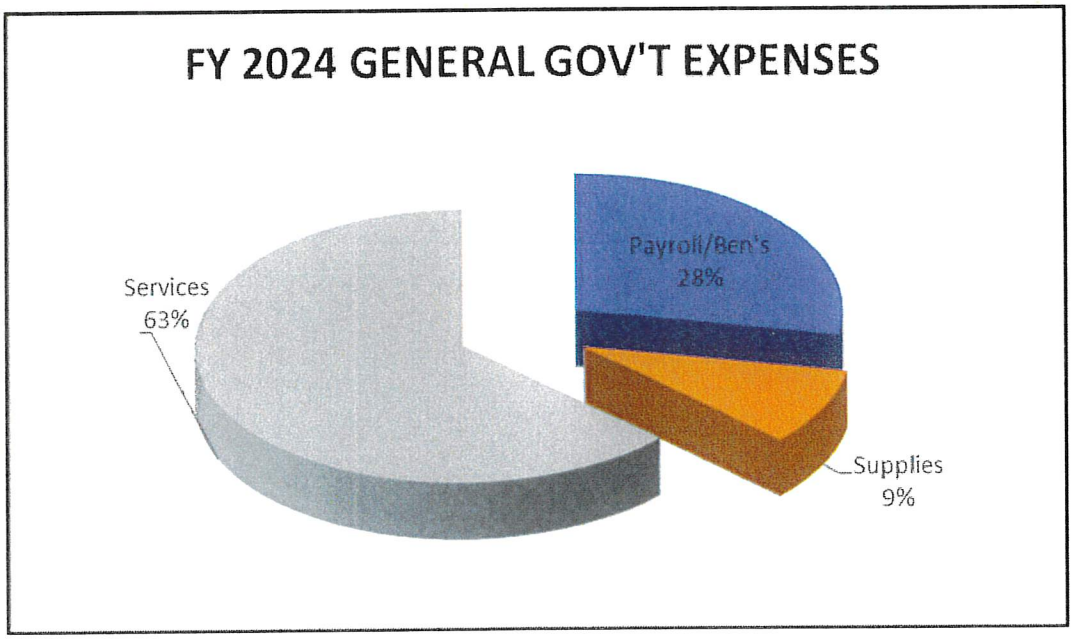


DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
EXPENSES							
COUNCIL (XX-01-XXXX)							
PAYROLL - MAYOR	01-01-5010	5,400.00	6,000.00	6,000.00	10,000.00	66.67%	1
PAYROLL - COUNCIL	01-01-5011	16,100.00	18,000.00	18,000.00	27,000.00	50.00%	1
FICA EXPENSE	01-01-5092	1,644.75	1,836.00	1,836.00	2,831.00	54.19%	
SUPPLIES - COUNCIL	01-01-5100	1,882.48	5,000.00	5,000.00	3,000.00	-40.00%	
PURCH SERV - COMMUNITY CONTRIBUTION	01-01-5271	0.00	0.00	0.00	0.00	#DIV/0!	
SUBTOTAL: COUNCIL		**25,027.23**	**30,836.00**	**30,836.00**	**42,831.00**	38.90%	

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

General Fund: General Government Expense

The General Government or Administration Department is allotted an FTE of 1.2 to include the Town Manager (70%), Town Treasurer/Clerk (50%). The fiscal year 2024 budget shows a 17% decrease over the 2023 budget. This is due in large part to the proposed Battle Mountain Settlement Agreement and the associated reduced legal expenses.



Footnotes:

1) The Town Manager wage is based on full time carried 100% in the General Fund.
2) The Town Clerk/Treasurer wage is based on full time and shared 50/50 split between the General Fund and the Enterprise Fund to better allot for the time consumption. This division is based on a 12mo labor study.
3) Employee insurance benefits: The Town employee insurance coverage includes coverage for the employee and immediate family for medical, dental, and vision, provides a $20,000 life insurance policy (employee only), and AD&D for the employee. Over the years the Town has continuously researched, reviewed and modified its employee insurance program to provide beneficial coverage to the employee at the best cost to the Town. Our employee insurance plans are reviewed annually and reflect changes made for the purposes of cost containment on the insurance plans and the town is undertaking a full bid process in 2023.

Following, is a chart showing the effects over the past several years and also shows how one change can skew dramatically the numbers. The town budgets a 10% increase annually and then adjusted as we get confirmation on those numbers in November and December. Based on the industry norm of often over 20% annual increases our efforts in maintaining cost control in this area is paying off as exemplified by the minimal average cost per employee. This program continues to be reviewed and modified as needed annually in order to maintain the direction Council established in a concerted effort to contain the insurance costs yet still provide a quality benefit for the employees.

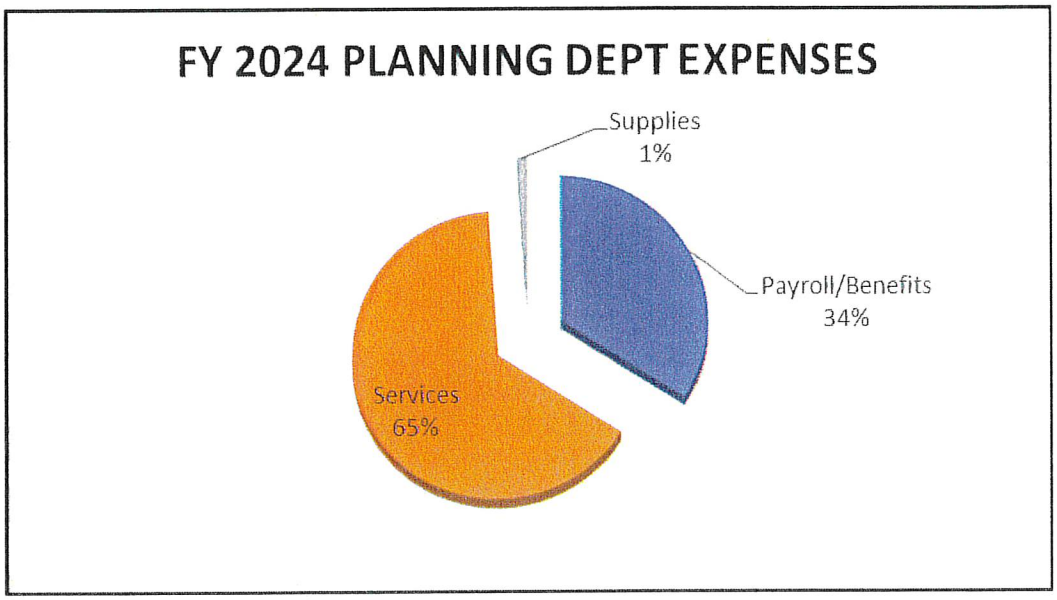
YEAR	ACTUAL EMP'EE INSURANCE COST	TOTAL EMP'EES	COST PER EMP'EE	PERCENT INC/(DEC)
2006	194,336.22	16	12,146.01	-
2007	209,670.24	15	13,978.02	13%
2008	230,803.52	14	16,485.97	15%
2009	204,771.96	14	14,626.57	-11%
2010	188,673.32	12	15,722.77	-8%
2011	194,131.29	11	17,456.45	9%
2012	179,845.00	11	16,349.00	-6%
2013	188,321.49	11	17,120.13	6%
2014	180,057.68	11	16,368.88	-5%
2015	165,748.00	8	20,718.50	-8%
2016	166,599.00	8	20,824.88	0%
2017	142,707.00	8	18,987.50	-14%
2018	148,030.00	8	18,504.00	-3%
2019	150,847.00	8	18,856.00	2%
2020	154,183.00	8	19,273.00	3%
2021	157,414.00	8	19,677.00	2%
2022	161,105.00	8	20,138.00	2%
2023	165,926.00	8	20,741.00	4%
2024 Budget	245,200.00	9	27,244.00	32%

**The general historical trend is relatively constant and reflects conservative budgeting during the Estimated and Budget years.
**2023 includes one employee that transitioned from single to married.
**2024 Includes a full-time new position. Until we have a candidate, benefits are budgeted at family costs.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
GENERAL GOVERNMENT (XX-01-XXXX)							
PAYROLL - TOWN MANAGER	01-01-5012	86,809.28	84,810.00	95,879.00	133,811.60	39.56%	1
PAYROLL - TOWN TREASURER/CLERK	01-01-5014	56,624.72	54,925.00	62,388.00	60,387.03	-3.21%	2
PAYROLL - TOWN DEPUTY CLERK	01-01-5015	0.00	0.00	0.00	0.00	#DIV/0!	
MEDICAL AND DISABILITY	01-01-5091	23,160.95	26,000.00	26,000.00	40,500.00	55.77%	3
FICA EXPENSE	01-01-5092	10,972.89	10,600.00	12,107.00	14,856.20	22.71%	
ICMA 401 EXPENSE	01-01-5094	5,622.34	5,590.00	6,171.00	7,768.00	25.88%	
SUPPLIES - OFFICE	01-01-5110	25,399.85	27,500.00	30,000.00	27,500.00	-8.33%	
SUPPLIES - COMPUTER AND SUPPORT	01-01-5120	66,003.11	65,000.00	65,000.00	51,000.00	-21.54%	
SUPPLIES -	01-01-5126	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - TELEPHONE	01-01-5200	11,205.04	12,000.00	12,000.00	12,000.00	0.00%	
PURCH SERV - TOWN MANAGER SUPPORT	01-01-5209	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - UTILITIES	01-01-5210	29,316.39	26,000.00	30,000.00	30,000.00	0.00%	
PURCH SERV - CUSTODIAL SERVICES	01-01-5211	6,968.00	8,500.00	8,500.00	9,000.00	5.88%	
PURCH SERV - LEGAL AND PROFESSIONAL	01-01-5220	487,034.11	125,000.00	125,000.00	148,000.00	18.40%	
PURCH SERV - ENGINEER SERVICES	01-01-5221	105,565.30	75,000.00	75,000.00	120,000.00	60.00%	
PURCH SERV - LAWSUITS	01-01-5220	0.00	432,223.00	432,223.00	0.00	-100.00%	
PURCH SERV - AUDITOR FEES	01-01-5225	12,000.00	12,000.00	12,000.00	13,500.00	12.50%	
PURCH SERV - VEHICLE R&M	01-01-5231	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - DUES, FEES AND TRAINING	01-01-5235	48,156.25	45,000.00	45,000.00	55,000.00	22.22%	
PURCH SERV - EAGLE CO TREASURES FEE	01-01-5236	10,586.51	12,000.00	12,000.00	13,000.00	8.33%	
PURCH SERV - ERFPD IMPACT FEE	01-01-5240	6,426.78	0.00	1,599.00	0.00	-100.00%	
PURCH SERV - LEGAL NOTICES	01-01-5250	7,687.28	7,500.00	8,000.00	7,700.00	-3.75%	
PURCH SERV - ELECTIONS	01-01-5255	1,831.62	0.00	0.00	4,250.00	#DIV/0!	
PURCH SERV - MUNI PARKING/RR LEASE	01-01-5261	23,147.52	25,000.00	25,000.00	26,500.00	6.00%	4
PURCH SERV - MEETING FOOD AND DRINK	01-01-5270	0.00	0.00	0.00	10,000.00	#DIV/0!	
PURCH SERV - PROMOTIONS/FLOWERS ON MAIN ST	01-01-5275	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - TV 5	01-01-5280	11,800.00	14,500.00	14,500.00	14,500.00	0.00%	
PURCH SERV - ANIMAL CONTROL	01-01-5285	9,672.00	9,700.00	9,700.00	11,112.00	14.56%	
PURCH SERV - MEMORIAL BENCHES	01-01-5290	2,490.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - EQUIPMENT R&M	01-01-5291	0.00	500.00	500.00	500.00	0.00%	
PURCH SERV - COMPUTER R&M	01-01-5292	992.35	5,500.00	5,500.00	10,000.00	81.82%	
PURCH SERV - COVID EXPENSE	01-01-5293	1,906.41	0.00	0.00	0.00	#DIV/0!	
INSURANCE - WORKERS COMP	01-01-5300	5,829.00	10,000.00	11,000.00	11,500.00	4.55%	
INSURANCE -TOWN LIABILITY INS	01-01-5310	28,140.53	32,500.00	37,000.00	45,000.00	21.62%	
INSURANCE - UNEMPLOYMENT	01-01-5320	0.00	0.00	0.00	0.00	#DIV/0!	
INSURANCE - OTHER	01-01-5330	0.00	0.00	0.00	0.00	#DIV/0!	
SUBTOTAL: GENERAL GOVERNMENT		**1,085,348.23**	**1,127,348.00**	**1,162,067.00**	**877,384.83**	**-24.50%**	

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

General Fund: Planning Department Expense



The Planning Department represents a full-time Staff Planner in-house in addition to a contracted planner to allow for better expertise, service, and cost effectiveness. A new position of Code Enforcement has been added to assist with code enforcement, building permits, and public works. The department is budgeted at 2FTE for the Planner and Code Enforcer with the contract planner reflected in account 01-02-5215. The intent of this hybrid staff and contract service is to provide the citizens and customers with professional planners and an office that is available to the public as questions and concerns arise.

The Planning Department collects design review fees that offset a fraction of the Planning costs. Building permit fees cover additional building inspections and plan reviews.

Continuous Projects:

1. Municipal Code Zoning Amendment, Planning & Development
2. Planning Commission support

Projects of High Priority:

1. Complete MMC Chapter 16 review.
2. Quite Title River Parcels to high water mark for town ownership
   Budget Update: Project currently pending additional funding and staff bandwidth.

Footnotes:

1) The payroll cost includes 2FTE.
2) 01-02-5215 allocates funding for the contract Town Planner position as well as other contracted services.

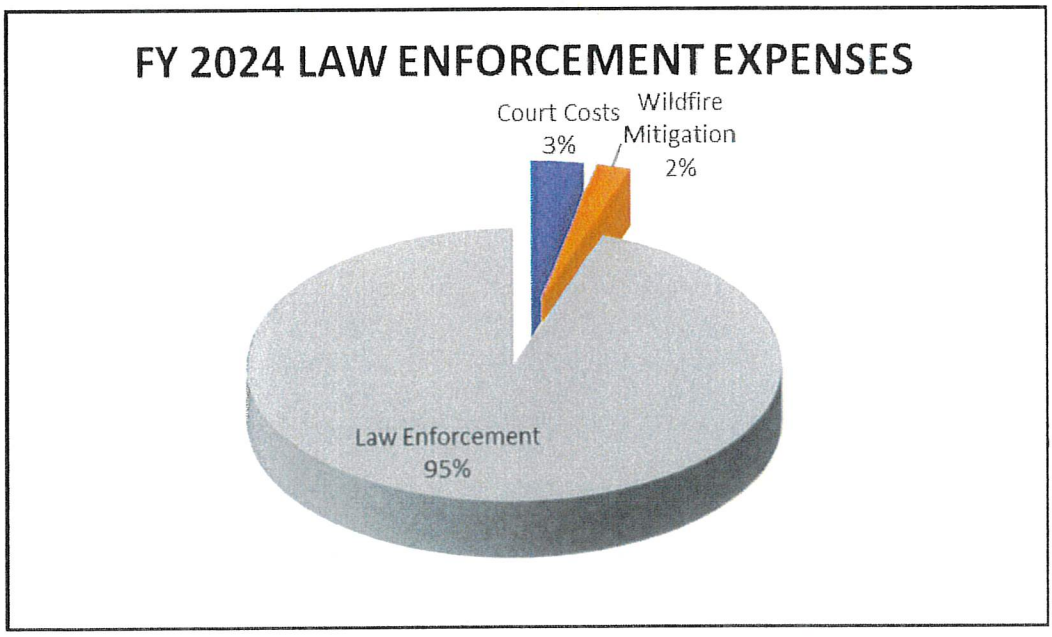
Planner Contract	=	$124,800
Misc needs	=	75,200
Total Budget		$200,000

3) Planning Commission members receive $75 per meeting attended not to exceed $150 per month for each of the six-member Commission.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
PLANNING AND ZONING (XX-02-XXXX)							
PAYROLL - PLANNING STAFF	01-02-5010	64,424.00	63,024.00	71,266.00	69,266.00	-2.81%	1
PAYROLL - CODE ENFORCEMENT	01-02-5011	0.00	0.00	0.00	65,000.00	#DIV/0!	1
MEDICAL AND DISABILITY	01-02-5091	10,522.21	12,000.00	12,750.00	45,500.00	256.86%	
FICA EXPENSE	01-02-5092	4,928.42	4,825.00	5,452.00	10,317.00	89.23%	
ICMA 401 EXPENSE	01-02-5094	2,496.96	2,525.00	2,771.00	5,395.00	94.70%	
SUPPLIES - OFFICE	01-02-5110	1,314.56	5,400.00	5,400.00	5,400.00	0.00%	
SUPPLIES - COMPUTER	01-02-5120	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - TELEPHONE	01-02-5200	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - UTILITIES	01-02-5210	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - BUILDING INSPECTIONS	01-02-5214	44,560.29	38,000.00	38,000.00	134,848.00	254.86%	
PURCH SERV - PLANNER ASSIST	01-02-5215	303,982.70	175,000.00	175,000.00	200,000.00	14.29%	2
PURCH SERV - P&Z COMMISSION	01-02-5216	5,400.00	11,925.00	11,925.00	11,925.00	0.00%	3
PURCH SERV - EXTERIOR ENERGY OFFSETS	01-02-5217	0.00	0.00	0.00	10,752.00	#DIV/0!	
PURCH SERV - COMMUNITY HOUSING FEES	01-02-5218	0.00	5,000.00	5,000.00	5,000.00	0.00%	
PURCH SERV - CODE ENFORCEMENT CONTRACT	01-02-5219	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - FEES AND TRAINING	01-02-5235	595.32	1,000.00	1,000.00	1,000.00	0.00%	
PURCH SERV - LEGAL NOTICES	01-02-5250	3,818.70	4,000.00	4,000.00	4,000.00	0.00%	
SUBTOTAL: PLANNING AND ZONING		**442,043.16**	**322,699.00**	**332,564.00**	**568,403.00**	70.92%	

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

General Fund: Court and Police Department Expense



2024 reflects all police services within the Town of Minturn to be accommodated by the Eagle County Sheriff's Office operational contract. The Town continues to contract for court judge and to provide court prosecuting attorney services. The Town utilizes a contract for a code enforcement provider and an allowance paid to the Eagle River Fire Protection District for Wildfire mitigation.

Footnotes:

1) The FTE is set at 0 as services under this department are contract only.
2) The policing agreement with the Eagle County Sheriff's Office was renewed in the 2022 fiscal year. This agreement is scheduled for renewal in 2027.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
MUNICIPAL COURT (XX-03-XXXX)							
PAYROLL - TOWN JUDGE	01-03-5010	0.00	0.00	0.00	0.00	#DIV/0!	
FICA EXPENSE	01-03-5092	0.00	0.00	0.00	0.00	#DIV/0!	
SUPPLIES - OFFICE	01-03-5110	0.00	150.00	150.00	150.00	0.00%	
SUPPLIES - COMPUTER	01-03-5120	0.00	0.00	0.00	0.00	#DIV/0!	
PURCHASE SERVICES - JUDGE/ATTORNEY/TRANSLATOR	01-03-5216	8,606.51	12,500.00	12,500.00	12,500.00	0.00%	
PURCHASE SERVICES - EQUIPMENT R&M	01-03-5217	0.00	0.00	0.00	0.00	#DIV/0!	
LAW ENFORCEMENT (XX-04-XXXX)							
PAYROLL - POLICE CHIEF	01-04-5010	0.00	0.00	0.00	0.00	#DIV/0!	1
PAYROLL - OVERTIME/STIPEND	01-04-5017	0.00	0.00	0.00	0.00	#DIV/0!	
FICA EXPENSE	01-04-5092	0.00	0.00	0.00	0.00	#DIV/0!	
ICMA 401 EXPENSE	01-04-5095	0.00	0.00	0.00	0.00	#DIV/0!	
FPPA D&D (NEW HIRES 2.6%)	01-04-5096	0.00	0.00	0.00	0.00	#DIV/0!	
SUPPLIES - OFFICE	01-04-5100	0.00	500.00	500.00	500.00	0.00%	
MEDIA NOTICE AND EMP'EE FEES	01-04-5110	0.00	0.00	0.00	0.00	#DIV/0!	
SUPPLIES - COMPUTER/EQUIPMENT	01-04-5120	0.00	0.00	0.00	0.00	#DIV/0!	
SUPPLIES - VEHICLE FUEL AND SUPPLIES	01-04-5130	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - TELEPHONE AND 911	01-04-5200	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - UTILITIES	01-04-5210	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - CODE COMPLIANCE	01-04-5235	21,930.00	32,500.00	32,500.00	0.00	-100.00%	
PURCH SERV - PRISONER UPKEEP/SUPPORT TRAINING	01-04-5239	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - ERFPD WILDLAND FIRE FEES	01-04-5240	0.00	8,000.00	8,000.00	8,000.00	0.00%	
PURCH SERV - DISPATCH SERVICES	01-04-5245	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - ECO SHERIFF SERVICES	01-04-5246	379,887.00	440,669.00	427,373.00	440,194.00	3.00%	2
PURCH SERV - TRAINING & DEVELOPMENT	01-04-5265	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - UNIFORM PURCH/MAINT	01-04-5271	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - EQUIPMENT R&M	01-04-5291	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - COMPUTER R&M	01-04-5292	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - VEHICLE LEASE/PURCHASE	01-04-5350	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - EQUIPMENT LEASE/PURCHASE	01-04-5351	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - GRANT EXPENSE	01-04-5355	0.00	0.00	0.00	0.00	#DIV/0!	
SUBTOTAL: COURT/POLICE		**410,423.51**	**494,319.00**	**481,023.00**	**461,344.00**	**-4.09%**	

General Fund: Economic Development and Events:

The Events and Economic Coordinator/Court Clerk represent 1 FTE.

The funding allocation for the various programs within the Economic Development and Events budget is set at $100,000 for all programing.

The primary goal of this budget is to maintain the consistency of events which have come to be expected, while adapting to the need for new or expanded programs. This budget also works to adapt to the requests of local business owners who would like to see more support in their marketing and advertising campaigns.

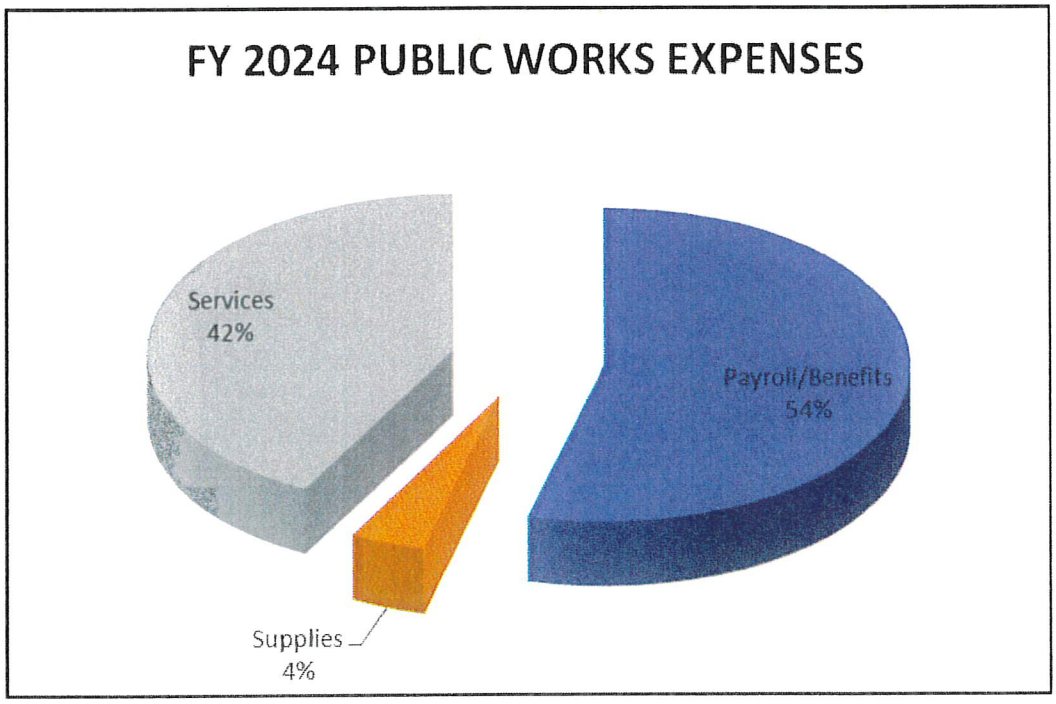
Objectives: Events and Minturn Arts Fund (Minturn Market – 2024)

1) Communications – As emphasized in the Strategic Plan, additional efforts will be sought to further improve communications between town government and the community.
2) A Community Survey will be conducted in 2024. This will be a much larger and more in-depth survey than has been done in the past.
3) Events; including the Minturn Summer Concert series – The 2024 Economic Development budget allocates $15k toward supporting the Minturn Summer Concert series.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
ECONOMIC DEVELOPMENT (XX-05-XXXX)							
PAYROLL - ECONOMIC DEVELOPMENT	01-05-5010	75,887.84	74,590.00	83,877.00	81,877.00	-2.38%	
MEDICAL AND DISABILITY	01-05-5091	10,613.02	12,000.00	31,100.00	28,500.00	-8.36%	
FICA EXPENSE	01-05-5092	5,805.42	5,700.00	6,417.00	6,264.00	-2.38%	
ICMA 401 EXPENSE	01-05-5094	2,955.60	2,985.00	3,276.00	3,276.00	0.00%	
PURCH SERV - PROMOTIONS	01-05-5275	69,686.82	75,000.00	75,000.00	100,000.00	33.33%	
SUBTOTAL: EVENTS		**164,948.70**	**170,275.00**	**199,670.00**	**219,917.00**	**10.14%**	

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

General Fund: Public Works Department Expense



The Public Works Department consists of the Public Works Division in the General Fund and the Water Division in the Enterprise Fund. Although reported separately, combined, they represent the largest single department within the Town of Minturn. The combined departments have an FTE allowance of four (4) of which three and a half (3.5) are funded in the Public Works Division and one half (.5) are funded in the Water Division. The above graph shows only the Public Works Division as budgeted in the General Fund.

2024 Objectives

1. Bridge Maintenance—clean all debris, perform necessary painting of bridge rails and support structure, change guard rails to meet AASHTO standards.
2. Further town wide implementation of the winter Snow Removal Plan.
3. Inventory remaining deficient sidewalks and make improvements with property owner financial participation.
   Budget Update: The Town will proceed with Phase II of the scheduled sidewalk extension from approximately the 1000 block to approximately the 1350 block. This process will utilize grants and coordinated work with CDOT upgrades. The engineering needs to get the project to Shovel Ready status is anticipated for 2024 with construction in 2025. These costs will come from the Capital Improvement Fund (06)
4. Implementation of an updated Capital Improvements Plan

Footnotes:

1) The snowplow contract has been modified to assist Public Works
2) A line item is used in 2024 for the Minturn Fitness Center expenses paid by the Town.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
PUBLIC WORKS							
PAYROLL - DIRECTORS	01-06-5010	0.00	0.00	0.00	0.00		
PAYROLL - STAFF	01-06-5011	125,722.50	121,505.00	137,703.00	204,666.00	48.63%	
PAYROLL - OVERTIME	01-06-5011	7,120.83	4,000.00	4,000.00	10,000.00	150.00%	
MEDICAL AND DISABILITY	01-06-5091	51,160.66	56,000.00	62,500.00	104,000.00	66.40%	
FICA EXPENSE	01-06-5092	10,162.51	9,602.00	10,841.00	16,422.00	51.48%	
ICMA 401 EXPENSE	01-06-5094	3,557.27	5,021.00	5,508.00	8,587.00	55.90%	
SUPPLIES - OFFICE	01-06-5100	36.50	500.00	500.00	500.00	0.00%	
SUPPLIES - TOOLS	01-06-5120	839.48	5,000.00	5,000.00	5,000.00	0.00%	
SUPPLIES - VEHICLE FUEL AND SUPPLIES	01-06-5130	9,099.09	10,000.00	10,000.00	10,000.00	0.00%	
SUPPLIES - GENERAL	01-06-5140	4,048.57	5,000.00	5,000.00	5,000.00	0.00%	
PURCH SERV - TELEPHONE	01-06-5200	2,717.98	2,600.00	2,600.00	3,000.00	15.38%	
PURCH SERV - UTILITIES/STREET LIGHTS	01-06-5210	27,007.91	28,000.00	28,000.00	28,000.00	0.00%	
PURCH SERV - VEHICLE R&M	01-06-5231	1,496.45	6,000.00	6,000.00	6,000.00	0.00%	
PURCH SERV - TRAINING & DEVELOPMENT	01-06-5265	0.00	1,250.00	1,250.00	1,250.00	0.00%	
PURCH SERV - PUBLIC BUILDING R&M	01-06-5290	23,024.61	15,000.00	15,000.00	15,000.00	0.00%	
PURCH SERV - EQUIPMENT R&M	01-06-5291	5,941.77	7,000.00	7,000.00	12,000.00	71.43%	
PURCH SERV - COMPUTER R&M	01-06-5292	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - VEHICLE LEASE/PURCHASE	01-06-5350	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - EQUIPMENT LEASE/PURCHASE	01-06-5351	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - STREET/SIDEWALK MAINTENANCE	01-06-5352	36,061.68	40,000.00	40,000.00	125,000.00	212.50%	
PURCH SERV - SNOW REMOVAL	01-06-5353	39,877.50	27,500.00	27,500.00	27,500.00	0.00%	1
PURCH SERV - MINTURN FITNESS CENTER MAINTENANCE	01-06-5354	3,242.00	5,000.00	5,000.00	5,000.00	0.00%	2
PURCH SERV - TOWN AND PARK SIGNAGE	01-06-5356	0.00	0.00	0.00	0.00	#DIV/0!	
PURCH SERV - PARKS AND LANDSCAPING	01-06-5357	40,369.54	43,000.00	43,000.00	46,750.00	8.72%	
SUBTOTAL: PUBLIC WORKS		**391,486.85**	**391,978.00**	**416,402.00**	**633,675.00**	**52.18%**	
TOTAL: GENERAL FUND EXP.		**2,519,277.68**	**2,537,455.00**	**2,622,562.00**	**2,803,554.83**	**6.90%**	

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

General Fund: Additional Expenses

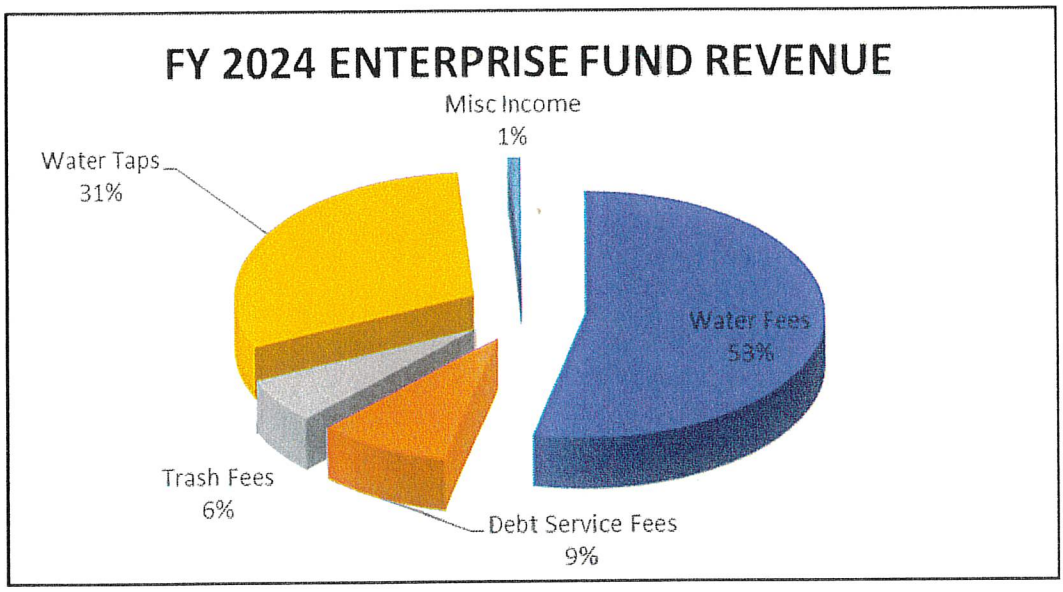
Footnotes:

1) Due to unprecedented increases in the labor market the Employee Wage Pool in 2024 is based on 7% plus taxes of all wages paid in 2023. It is intended that this pool be used for a combined Cost of Living and Merit Based wage increase and annual bonus. In prior years this has been calculated on a 2-5% basis.
2) Account 01-09-800X are new accounts that will assist to better detail the special capital projects and grants that are planned each year.
    a. $50,000 is budgeted to assist the County bike path connection to Minturn.
    b. Two street projects are budgeted to include upgrades and pavement to Norman Street and Nelson Street.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
TRANSFER TO OTHER FUND	01-07-6100	0.00	0.00	0.00	0.00		1
EMP'EE WAGE POOL-7%		0.00	85,000.00	10,037.00	81,000.00		2
CAPITAL OUTLAY - GENERAL FUND	01-09-8000	0.00	0.00	0.00	0.00		3
CAPITAL OUTLAY - SPEC PROJECTS - STREETS AND BIKE PATH	01-09-8001	0.00	50,000.00	50,000.00	92,000.00		4
CAPITAL OUTLAY - SPEC PROJECTS - STATE LAND ROW	01-09-8003	0.00	0.00	0.00	0.00		4
CAPITAL OUTLAY - SPEC PROJECTS - STORM DRAIN/BELDEN	01-09-8004	0.00	0.00	0.00	0.00		4
CAPITAL OUTLAY - SPEC PROJECTS - TRAILER SIGNS	01-09-8005	0.00	0.00	0.00	20,000.00		4
CAPITAL OUTLAY - SPEC PROJECTS -	01-09-8006	0.00	0.00	0.00	0.00		4
CAPITAL OUTLAY - SPEC PROJECTS - TAP #1 GRANT	01-09-8007	0.00	0.00	0.00	0.00		4
CAPITAL OUTLAY - SPEC PROJECTS - TAP #2 GRANT	01-09-8007	0.00	0.00	0.00	0.00		4
CAPITAL OUTLAY - SPEC PROJECTS - DOWD JCT PARCELL	01-09-8008	0.00	0.00	0.00	0.00		4
	TOTAL REV	2,982,949.90	2,508,786.00	2,508,786.00	2,998,857.00	19.53%	
	TOTAL EXP	2,519,277.68	2,672,455.00	2,682,599.00	2,996,554.83	11.70%	
NET GAIN/(LOSS)		463,672.22	-163,669.00	-173,813.00	2,302.17		
TRANS FROM CARRY FORWARD - ESTIMATED		0.00	163,359.12	142,679.38	0.00		5

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

Enterprise Fund: Revenue



The Enterprise Fund consists of the Water Works Division and the contracted Town wide citizen trash/recycle removal program. The Enterprise Fund is facing a period of major renovation and construction and has developed a thorough Capital Improvements Plan and construction schedule. This planned development effort will include increased fees and in late 2021 the Enterprise Fund closed on a $3,000,000 loan for the purpose of building a new water tank to be located at the Water Treatment Plant. The existing tank is anticipated to be refurbished in the future for additional and secondary water storage to allow more ability to maintain the tanks without affecting the overall water supply for the town. In 2023-24 the town will undertake several engineering studies designed to study costs associated with various water plant scenarios. This cost will be paid with annual revenue and savings. Once a direction is approved, funding will be secured. Options being considered include:

- Increasing the capacity of our two water wells to reduce or in combination of the town's Cross Creek water diversion rights.
- Rehabilitation of current sand filters - $6-9m (least resilient, lowest treatment capacity)
- Conventional Process Package WTP - $11-17m (adequate, good option)
- Membrane Filtration WTP - $10-15m (Best addresses Minturn's priorities for providing a resilient and reliable treatment system.

Footnotes:

1) Water Use fees are based on a Single-Family Equivalent (SFE) and include a base rate, a pay by use fee per 1,000gal. This base fee is the same regardless of Residential or Commercial. Water and Trash fees are budgeted based on the CIP requirements for the

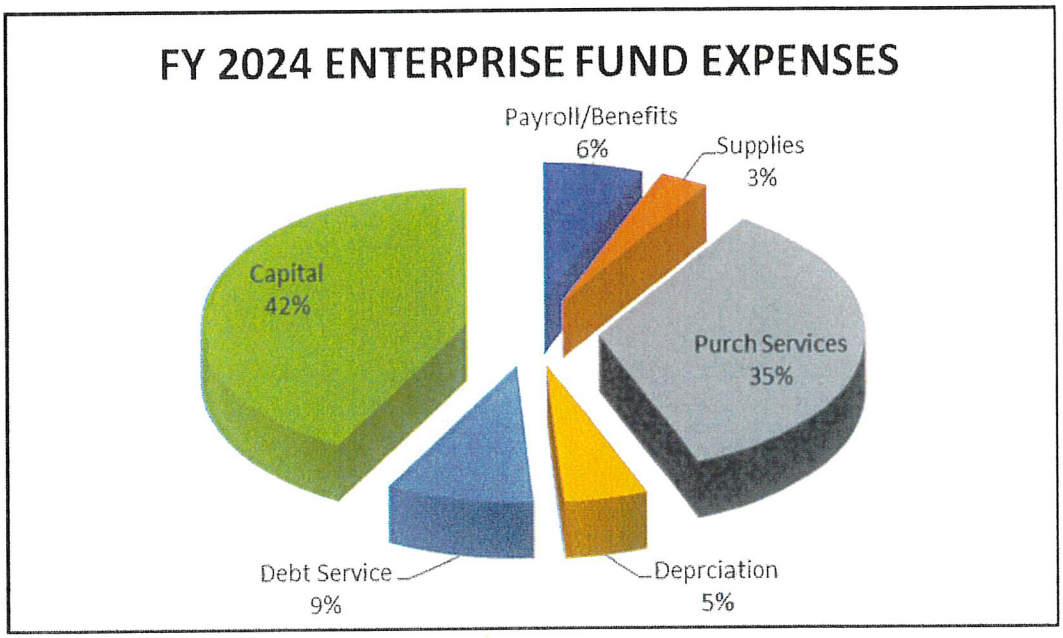
Water Plant and System upgrades. Fees set based on a fee needs study conducted by an outsourced contract to ensure need, accuracy, and fairness.

2) Although rates have not been set it is anticipated the Eagle River Water and Sanitation District water users will see a 5-8% rate increase as has been the case annually with its rates.
3) Residential water Fees for FY2023 are anticipated to increase at various levels to accommodate the debt fees and Capital Improvement costs. Water Taps and associated fees will increase as well. These fees are based on a tiered structure which is similar in comparison to the Eagle River Water and Sanitation District. Additionally, Commercial tap fees will be reviewed and adjusted to match the ERWSD commercial rates.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
FUND 02: WATER-SEWER-REC FUND							
REVENUE							
WATER USER FEES	02-00-4210	968,606.87	1,220,000.00	1,220,000.00	1,236,407.00	1.34%	1
WATER USER DEBT SERVICE FEES	02-00-4220	65,723.83	205,111.00	205,111.00	205,111.00	0.00%	
WATER METERS & INSTALLS	02-00-4240	752.00	0.00	0.00	0.00	#DIV/0!	
MISCELLANEOUS REVENUE	02-00-4275	26,365.33	19,000.00	19,000.00	19,000.00	0.00%	
TAP FEES - CAPITAL REVENUES	02-00-4320	36,821.62	42,500.00	42,500.00	42,500.00	0.00%	2
TAP FEES - CASH IN LIEU OF WATER FEE	02-00-4321	46,525.71	42,500.00	42,500.00	42,500.00	0.00%	2
TAP FEES - SYSTEM IMPROVEMENT FEES	02-00-4322	58,190.29	42,500.00	42,500.00	600,000.00	1311.76%	2
GARBAGE COLLECTION FEES	02-00-4330	114,438.66	122,000.00	122,000.00	130,000.00	6.56%	1
INVESTMENT EARNED	02-00-4540	1,411.25	0.00	0.00	0.00	#DIV/0!	
GRANTS - MISC AND ARP FUNDS	02-00-4565	143,897.74	125,000.00	125,000.00	0.00	-100.00%	
TRANSFER FROM OTHER FUNDS	02-00-4570	0.00	0.00	0.00	0.00	#DIV/0!	
WATER FUND-TANK LOAN PROCEEDS	02-00-4575	1,926,513.38	0.00	0.00	0.00	#DIV/0!	
TRANS FROM CARRY FORWARD-ESTIMATED		0.00	0.00	0.00	0.00	#DIV/0!	
SUBTOTAL: REVENUE		**3,389,246.68**	**1,818,611.00**	**1,818,611.00**	**2,275,518.00**	25.12%	

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

Enterprise Fund: Expense



As previously noted, the Public Works Department including the Water division in the Enterprise Fund combined is the largest single department in the Town of Minturn. The combined departments have an FTE allowance of four (4) of which two (2) are in each: Public Works and Water as the employees are trained and hold various certifications in each Division. In addition, .3 FTE of the Town Manager and .5 FTE of the Town Clerk/Treasurer are included in the Enterprise Fund. The segregation between the two Funds has been established using actual payroll data and costs. The above graph shows only the Enterprise Fund portion.

Enterprise Fund – 2024 Objectives

1. Implementation of the Capital Improvements Plan developed by SGM Consulting.
2. Complete design and engineer water plant options.

Footnotes:

1) Account 02-06-5220 and 02-06-5247 includes the cost of the design and engineering of the defined water plant options, contracted service for the supervision of the water treatment, distribution, and leak detection process and other engineering needs.
2) Account 02-06-5352 includes cost for a gauging station on Cross Creek shared with CBS/Viacom, 20acre feet and 5acre feet from the Colorado River District, and the ERWSD settlement agreement.
3) Depreciation is again this year being budgeted as an expense in order to best maintain our reserves in the Enterprise Fund for use in the implementation of the CIP plan.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
EXPENSES							
PAYROLL - REGULAR	02-06-5010	114,916.87	126,752.00	141,423.00	40,710.00	-71.21%	
PAYROLL - NON PLANT	02-06-5011	90,971.52	91,275.00	100,621.00	60,388.00	-39.98%	
PAYROLL - OVERTIME	02-06-5017	5,065.97	12,000.00	12,000.00	2,000.00	-83.33%	
MEDICAL AND DISABILITY	02-06-5091	62,808.81	70,000.00	78,100.00	22,000.00	-71.83%	
FICA EXPENSE	02-06-5092	15,982.94	17,600.00	19,435.00	7,887.00	-59.42%	
ICMA 401 EXPENSE	02-06-5094	7,932.39	9,190.00	10,082.00	4,124.00	-59.10%	
SUPPLIES - OFFICE/LAB	02-06-5100	27,204.86	20,000.00	20,000.00	25,000.00	25.00%	
SUPPLIES - VEHICLE FUEL AND SUPPLIES	02-06-5130	9,099.06	10,000.00	10,000.00	10,000.00	0.00%	
SUPPLIES - GENERAL	02-06-5140	4,068.43	6,000.00	6,000.00	6,000.00	0.00%	
SUPPLIES - TOOLS	02-06-5150	470.28	5,000.00	5,000.00	5,000.00	0.00%	
SUPPLIES - WATER METERS & INSTALL	02-06-5160	88,219.20	0.00	0.00	30,000.00	#DIV/0!	
PURCH SERV - TELEPHONE	02-06-5200	2,275.68	2,500.00	2,500.00	2,500.00	0.00%	
PURCH SERV - UTILITIES	02-06-5210	15,968.94	14,000.00	14,000.00	16,000.00	14.29%	
PURCH SERV - LEGAL SERV (GENERAL)	02-06-5220	230,836.62	310,000.00	310,000.00	150,000.00	-51.61%	1
PURCH SERV - VEHICLE R&M	02-06-5231	1,400.58	8,000.00	8,000.00	8,000.00	0.00%	
PURCH SERV - ENGINEERING CONTRACTS	02-06-5247	146,362.85	350,000.00	350,000.00	150,000.00	-57.14%	
PURCH SERV - TRAINING & DEVELOPMENT	02-06-5265	0.00	1,250.00	1,250.00	1,250.00	0.00%	
PURCH SERV - UNIFORM PURCH/MAINT	02-06-5271	168.00	1,000.00	1,000.00	1,000.00	0.00%	
PURCH SERV - EQUIPMENT R&M	02-06-5291	13,062.27	8,000.00	8,000.00	12,000.00	50.00%	
PURCH SERV - WATER PLANT/SYSTEM R&M	02-06-5293	80,067.97	40,000.00	40,000.00	80,000.00	100.00%	
PURCH SERV - ANNUAL H2O RIGHTS MAINT	02-06-5352	133,738.50	140,000.00	140,000.00	160,000.00	14.29%	2
PURCH SERV - GARBAGE CONTRACT SERVICES	02-06-5353	157,089.00	115,000.00	115,000.00	130,000.00	13.04%	
PURCH SERV - ERWSD CONTRACT SERVICES	02-06-5354	11,671.00	36,151.00	36,151.00	40,954.00	13.29%	
DEPRECIATION EXPENSE	02-06-6000	0.00	108,200.00	108,200.00	108,200.00	0.00%	3
SUBTOTAL: OPERATION EXPENSES		**1,219,381.74**	**1,501,918.00**	**1,536,762.00**	**1,073,013.00**	-30.18%	

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
ASSET MANAGEMENT PLAN							
MALOIT PARK-MOSQUITO CONTROL	02-07-6001	4,425.00	4,600.00	5,000.00	5,000.00	0.00%	
GRANT-COUNT - EAGLE PARK RESTROOMS	02-07-6002	0.00	0.00	0.00	0.00	#DIV/0!	
PARKS UPKEEP	02-06-5356	0.00		0.00	0.00	#DIV/0!	
DEBT SERVICE							
PRINCIPAL - 2021 WATER BONDS	02-08-7970	0.00	123,689.00	123,689.00	123,688.00	0.00%	
INTEREST - 2021 WATER BONDS	02-08-7971	0.00	66,581.00	66,581.00	66,584.00	0.00%	
PRINCIPAL - 97 $260k RD B	02-08-7980	6,799.09	7,134.59	7,134.59	7,487.00	4.94%	
INTEREST - 97 $260k RD B	02-08-7981	8,041.71	7,706.21	7,706.21	7,358.00	-4.52%	
SUBTOTAL: LONG-TERM & ASSET MGMT		**19,265.80**	**209,710.80**	**210,110.80**	**210,117.00**	0.00%	
CAPITAL							
CAPITAL OUTLAY - WATER FUND	02-09-8000	28,584.37	44,500.00	0.00	19,500.00	#DIV/0!	
CAPITAL OUTLAY - BOLTS LAKE	02-09-8001	0.00	0.00	0.00	0.00	#DIV/0!	
CAPITAL OUTLAY - WATER PLANT CIP	02-09-8002	225,981.82	85,000.00	0.00	75,000.00	#DIV/0!	
CAPITAL OUTLAY - WATER TANK(S) CIP	02-09-8003	2,197,056.82	0.00	0.00	0.00	#DIV/0!	
CAPITAL OUTLAY - WATER TREATMENT ANALYSIS	02-09-8004	0.00	0.00	0.00	260,000.00	#DIV/0!	1
CAPITAL OUTLAY - GIS SYSTEM	02-09-8004	0.00	0.00	0.00	0.00	#DIV/0!	
CAPITAL OUTLAY - NEW WATER PLANT	02-09-8005	0.00	0.00	0.00	0.00	#DIV/0!	
MINTURN NORTH CONTENGENCY		0.00	0.00	0.00	558,720.00	#DIV/0!	
	TOTAL REV	$3,389,246.68	$1,818,611.00	$1,818,611.00	$2,275,518.00	25.12%	
	TOTAL EXP	$3,690,270.55	$1,841,128.80	$1,746,872.80	$2,196,350.00	25.73%	
NET GAIN/(LOSS)		**-$301,023.87**	**-$22,517.80**	**$71,738.20**	**$79,168.00**		

CONSERVATION TRUST FUND:

This fund represents revenue received from the state and is funded by lottery sale proceeds. The use of these funds are restricted to use as defined by the State of Colorado.

In 2024 it is anticipated we will use these funds to cover wood treatment of the Little Beach Park stage and playground equipment, wood treatment of the Eagle River Park bathroom, wood treatment of the Manager's House (owned by the town), and potential need of a roof replacement also at the Town Manager's House.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
FUND 03: CONSERVATION TRUST							
REVENUE							
CTF REVENUE	03-00-4010	13,122.15	10,000.00	10,000.00	13,122.15		
INVESTMENT EARNED	03-00-4540	1,097.11	400.00	400.00	1,097.11		
EXPENSES							
CTF EXPENDITURES	03-00-5140	0.00	15,000.00	15,000.00	61,000.00		
CAPITAL OUTLAY	03-00-5390	0.00	0.00	0.00	0.00		
LITTLE BEACH PARK FUND	03-00-5395	0.00	0.00	0.00	0.00		
TRANS TO OTHER FUNDS	03-00-6100	0.00	0.00	0.00	0.00		
Total Revenue		14,219.26	10,400.00	10,400.00	14,219.26		
Total Expense		0.00	15,000.00	15,000.00	61,000.00		
Net Income/(Expense)		14,219.26	-4,600.00	-4,600.00	-46,780.74		
Est. Ending Fund Balance		10,794.55	-	6,194.55	-40,586.19		

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

SPECIAL REVENUE FUND:

This is an income fund which received revenue from the US Post Office and apartment leases housed inside the Town Hall. A small cash balance is maintained in this fund for maintenance needs at the Town Hall, all other revenue is transferred to the Capital Fund (06).

Lease Detail:

USPO	$ 79,823.00
Apartments (2)	35,400.00
Total	$115,223.00

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
FUND 04: BUILDING FUND							
REVENUE							
CERTIFICATES OF PARTICIPATION PROCEEDS	04-00-4000	0.00	0.00	0.00	0.00	#DIV/0!	
ESCROW RESERVE PROCEEDS		0.00	0.00	0.00	0.00	#DIV/0!	
RENT - POST OFFICE	04-00-4512	79,822.04	79,823.00	79,823.00	79,823.00	0.00%	
RENT - APARTMENTS	04-00-4513	26,400.00	26,400.00	26,400.00	35,400.00	34.09%	
INVESTMENT EARNED	04-00-4540	0.00	0.00	0.00	0.00	#DIV/0!	
TRANSFER FROM OTHER FUNDS	04-00-4570	-96,223.00	-96,223.00	-96,223.00	-105,223.00	9.35%	
OTHER REVENUE	04-00-4597	0.00	0.00	0.00	0.00	#DIV/0!	
EXPENSES							
PURCHASE SERVICES -	04-01-5220	0.00	0.00	0.00	0.00	#DIV/0!	
PURCHASE SERVICES -	04-01-5247	0.00	0.00	0.00	0.00	#DIV/0!	
PURCHASE SERVICES -	04-01-5248	0.00	0.00	0.00	0.00	#DIV/0!	
PURCHASE SERVICES -	04-01-5249	0.00	0.00	0.00	0.00	#DIV/0!	
PURCHASE SERVICES - BUILDING R&M	04-01-5250	84.05	10,000.00	53,500.00	10,000.00	-81.31%	
PURCHASE SERVICES - BANK FEES	04-01-5251	0.00	0.00	0.00	0.00	#DIV/0!	
DEPRECIATION EXPENSE	04-01-6000	0.00	0.00	0.00	0.00		
DEBT SERVICE							
PRINCIPAL - TOWN CENTER	04-08-7990	0.00	0.00	0.00	0.00	#DIV/0!	
INTEREST - TOWN CENTER	04-08-7991	0.00	0.00	0.00	0.00	#DIV/0!	
PURCASE SERVICES-COST OF ISSUANCE	04-08-7992	0.00	0.00	0.00	0.00		
PURCASE SERVICES-PAYMENT TO FISCAL AGE	04-08-7993	0.00	0.00	0.00	0.00		
TOTAL REVENUE		9,999.04	10,000.00	10,000.00	10,000.00	0.00%	
TOTAL EXPENSE		84.05	10,000.00	53,500.00	10,000.00	-81.31%	
NET INCOME/(EXPENSE)		9,914.99	0.00	-43,500.00	0.00		

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

MARKET FUND:

This Fund handles all revenue and expenses related to the Minturn Summer Market.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
FUND 05:MINTURN MARKET FUND							
REVENUE							
PARTICIPATION REVENUE	05-00-4591	24,500.00	30,000.00	30,000.00	30,000.00	0.00%	
SPONSORSHIP & DONATIONS	05-00-4592	6,250.00	6,000.00	6,000.00	6,000.00	0.00%	
SALES AND PROMOTIONS	05-01-4593	0.00	1,000.00	1,000.00	1,000.00	0.00%	
INVESTMENT EARNED	05-00-4540	0.24	0.00	0.00	0.00	#DIV/0!	
TRANSFER FROM OTHER FUNDS	05-00-4570	0.00	0.00	0.00	0.00	#DIV/0!	
OTHER REVENUE/GRANTS	05-00-4597	5,000.00	0.00	0.00	0.00	#DIV/0!	
EXPENSES							
SUPPLIES - GENERAL	05-01-5100	6,765.13	7,000.00	7,000.00	7,000.00	0.00%	
SUPPLIES - PROMOTIONAL	05-01-5105	14,854.55	15,000.00	15,000.00	15,000.00		
SUPPLIES - CONTRACT LABOR	05-01-5110	9,010.00	15,000.00	15,000.00	15,000.00	0.00%	
PURCHASE SERVICES - ADVERTISE	05-01-5201	0.00	0.00	0.00	0.00	#DIV/0!	
PURCHASE SERVICES - PROMOTION	05-01-5202	0.00	0.00	0.00	0.00	#DIV/0!	
TOTAL INCOME		35,750.24	37,000.00	37,000.00	37,000.00	0.00%	
TOTAL EXPENSE		30,629.68	37,000.00	37,000.00	37,000.00	0.00%	
NET INCOME/(EXPENSE)		5,120.56	0.00	0.00	0.00	#DIV/0!	

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

CAPITAL FUND:

This Fund manages all non-Enterprise Fund Capital Improvement Projects.

Revenue for this fund is generated from the Construction Use Tax (4%) along with any funds transferred from the Special Revenue Fund (04).

In 2024, the town will begin Phase II of the Sidewalk Program. This program will install Main Street sidewalks from the 100 block all the way to Maloit Park Road in the 1900 block of Main St. Phase II extends from approximately 980 Main St to approximately 1350 Main St.

A second portion of this fund holds a $250,000 cash balance for use on approved projects associated with Little Beach Park. This amount was contributed by the Battle Mountain Project.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
FUND 06: CAPITAL FUND							
REVENUE							
CONSTRUCTION USE TAX PROCEEDS	06-00-4000	79,576.60	100,000.00	100,000.00	400,000.00	300.00%	
CAP FUND-REV & GRANT PROCEEDS	06-00-4010	0.00	0.00	0.00	0.00	#DIV/0!	
INVESTMENT EARNED	06-00-4540	4,330.60	4,500.00	4,500.00	4,800.00	6.67%	
TRANSFER FROM OTHER FUNDS	06-00-4570	96,223.00	96,223.00	96,223.00	105,223.00	9.35%	
GRANTS AND OTHER REVENUE	06-00-4597	0.00	0.00	0.00	0.00	#DIV/0!	
EXPENSES							
PURCHASE SERVICES - PARKS/REC CENTER	06-01-5220	0.00	0.00	0.00	0.00	#DIV/0!	
PURCHASE SERVICES - PUBLIC WORKS	06-01-5247	276,447.53	170,000.00	280,000.00	0.00	-100.00%	
PURCHASE SERVICES - STREET/SIDEWALK	06-01-5248	0.00	0.00	0.00	250,000.00	#DIV/0!	
PURCHASE SERVICES - VEHICLES/EQUIPMENT	06-01-5250	28,584.36	56,500.00	28,000.00	0.00	-100.00%	
PURCHASE SERVICES - MISC	06-01-5249	0.00	0.00	0.00	0.00	#DIV/0!	
BMR FUNDS - LITTLE BEACH PARK	06-01-5310	19,836.89	260,000.00	260,000.00	260,000.00		
BMR FUNDS - MINTURN FITNESS CENTER	06-01-5311	0.00	0.00	0.00	0.00		
BMR FUNDS - LAND PURCHASE		0.00	0.00	0.00	0.00		
DEBT SERVICE							
PRINCIPAL	06-08-7990	0.00	0.00	0.00	0.00	#DIV/0!	
INTEREST	06-08-7991	0.00	0.00	0.00	0.00	#DIV/0!	
TOTAL REVENUE		180,130.20	200,723.00	200,723.00	510,023.00	154.09%	
TOTAL EXPENSE		324,868.78	486,500.00	568,000.00	510,000.00	-10.21%	
NET INCOME/(EXPENSE)		-144,738.58	-285,777.00	-367,277.00	23.00	-100.01%	

MINTURN SCHOLARSHIP FUND:

This Fund was established as an endowment with funds provided by the original Battle Mountain Project. In 2012, Battle Mountain provided $350,000 to create this endowment with $50,000 provided to Colorado Mountain College and $300,000 to fund an annual allocation for applicants. Applicants must be residents of Minturn and attending a certified program at a trade or traditional college.

SCHOL[illegible]HIP FUND
INFORMATIONAL ONLY

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
FUND 08: SCHOLARSHIP FUND							
REVENUE							
BMR SCHOLARSHIP	08-00-4100	0.00	0.00	0.00	0.00	#DIV/0!	
MINTURN SCHOLARSHIP FUND	08-00-4200	0.00	0.00	0.00	0.00	#DIV/0!	
INVESTMENT EARNED	08-00-4540	-71,386.13	10,000.00	10,000.00	10,000.00	0.00%	
EXPENSES							
BMR SCHOLARSHIP AWARDS	08-01-5300	6,510.00	6,600.00	8,025.00	6,600.00		
LEGAL AND ACCOUNTING	08-02-5300	477.50	500.00	500.00	500.00		
TOTAL REVENUE		-71,386.13	10,000.00	10,000.00	10,000.00	0.00%	
TOTAL EXPENSE		6,987.50	7,100.00	8,525.00	7,100.00	-16.72%	
NET INCOME/(EXPENSE)		-78,373.63	2,900.00	1,475.00	2,900.00	96.61%	
ENDING FUND BALANCE		317,713.00		319,188.00	322,088.00		

TOWN OF MINTURN
FISCAL YEAR 2024 BUDGET

BATTLE MOUNTAIN FUND:

This Fund segregates approved Battle Mountain expenses and is funded by that project. Based on the Battle Mountain Settlement Agreement, in 2023-24 it is anticipated these existing funds, plus $50,000 from Battle Mountain to provide funds for the town's due diligence necessary for the proposed Settlement Agreement. Once the Settlement Agreement is approved this Fund will be dissolved. In the event the Settlement Agreement is not approved, the fund will continue.

DESCRIPTION	ACCOUNT NUMBER	12/31/2022 TRIAL BALANCE	FY2023 BUDGET	2023 EST YEAR END BALANCE	PROPOSED 2024 BUDGET	% CHANGE FROM EST 2023	FT NOTES
FUND 09: BATTLE MTN RESORT FUND							
REVENUE							
BMR - REVENUE	09-00-4000	0.00	100,000.00	100,000.00	0.00	-100.00%	
INVESTMENT EARNED	09-00-4540	1,449.88	2,500.00	2,500.00	2,500.00	0.00%	
GRANTS AND OTHER REVENUE	09-00-4597	0.00	0.00	0.00	0.00	#DIV/0!	
EXPENSES							
BMR - STREET SCAPE	09-01-5100	0.00	0.00	0.00	0.00	#DIV/0!	
BMR - TOWN ADMINISTRATIVE COSTS	09-02-5100	0.00	0.00	0.00	0.00	#DIV/0!	
BMR - LEGAL & CONSULTING ($200K)	09-03-5100	0.00	100,000.00	100,000.00	150,000.00	50.00%	
BMR - LEGAL & CONSULTING ($250K)	09-03-5100	0.00	0.00	0.00	0.00	#DIV/0!	
BMR - RECREATION CENTER	09-04-5100	0.00	0.00	0.00	0.00	#DIV/0!	
BMR - OTHER RECREATION USE	09-04-5120	0.00	0.00	0.00	0.00	#DIV/0!	
BMR - RECREATION PATH	09-04-5140	0.00	0.00	0.00	0.00	#DIV/0!	
BMR - LAND PURCHASE	09-05-5100	0.00	0.00	0.00	0.00	#DIV/0!	
BMR - WATER INFRASTRUCTURE	09-06-5100	0.00	0.00	0.00	0.00	#DIV/0!	
BMR - WATER STORAGE	09-06-5120	0.00	0.00	0.00	0.00	#DIV/0!	
BMR - TRANSFER TO OTHER FUND	09-04-6100	0.00	0.00	0.00	0.00	#DIV/0!	
DEBT SERVICE							
PRINCIPAL	09-08-7990	0.00	0.00	0.00	0.00	#DIV/0!	
INTEREST	09-08-7991	0.00	0.00	0.00	0.00	#DIV/0!	
TOTAL REVENUE		1,449.88		102,500.00	2,500.00	-97.56%	
TOTAL EXPENSE		0.00		100,000.00	150,000.00	50.00%	
NET INCOME/(EXPENSE)		1,449.88		2,500.00	-147,500.00	-6000.00%	

2024 BUDGET FOOT NOTES	
FOOT NOTE NUMBER	DESCRIPTION
PG 13 - 1	Property taxes are calculated on the Town wide 17.934 mill levy. This year is a reassessment year.
PG 13 - 2	The Sales Tax budget for 2024 is based on the 2022 actual and 2023 estimated collections; we anticipate sales tax collections to be flat for 2024. On-line purchases have significantly increased our annual collections. It is important to note sales and property tax can be extremely fickle and go down just as fast as they go up. In addition, it should be noted that sales tax is double property tax due to the noted recent legislative actions.
PG 13 - 3	Building Permits net an income to the Town of 20% over the cost of the building inspection services. Historically, not once have we warranted hiring in-house for this service when viewed over multiple back-to-back years.
PG 13 - 4	The town has a number of land and parking leases for a diversified income source of $152,900. This accounts for almost 4% of all General Fund revenues.
PG 14 - 1	Real Estate Transfers within the Town are assessed a 1% tax on the value of the sale. This revenue continues to improve year over year.
PG 17 - 1	The Town Council increased the Mayor and Council pay. This increase will be effective as each seat is re-elected. The new rate is $800 for the Mayor and $400 for each Council Member.
PG 20 - 1	The Town Manager wage is based on full time and shared 70/30 split between the General Fund and the Enterprise Fund to better allot for the time consumption. This division is based on a 12mo labor study.
PG 20 - 2	The Town Treasurer/Clerk's wage is based on full time and shared 70/30 split between the General Fund and the Enterprise Fund to better allot for the time consumption. This division is based on a 12mo labor study..
PG 20- 3	Employee insurance benefits: The Town employee insurance coverage includes coverage for the employee and his/her immediate family for medical, dental, and vision, AD&D, and provides $20,000 in life insurance. All coverages are reviewed on an annual basis and bid as necessary.
PG 20 - 4	Muni Parking/RR leases is increased for potential additional leases through the UPRR.
PG 23 - 1	The payroll cost includes 2FTE for the Planner and a new postion of a Code Enforcement Officer..
PG 23 - 2	Allocates funding for contracted planning services.
PG 23 - 3	Planning Commission members receive $75 per meeting not to exceed $150 per month for each of the six member Commission.
PG 25 - 1	The FTE is set at 0 as services under this department are contract only
PG 25 - 2	The policing agreement with the Eagle County Sheriff's Office was renewed in with the 2023 fiscal year. This agreement is scheduled for renewal in 2025.
PG 29 - 1	The snowplow contract has been modified to assist Public Works
PG 29 - 2	A line item is used in 2024 for the Minturn Fitness Center expenses paid by the Town
PG 31 - 1	Account 01-07-6100 is used to transfer funds between the other funds. A detailed list is included within the budget of the required transfers between all funds.
PG 31 - 2	Due to unprecedented increases in the labor market the Employee Wage Pool in 2027 is based on 7% plus taxes of all wages paid in 2023. In prior years this has been calculated on a 2-5% basis.
PG 31 - 3	Account 01-09-8000 is used for General Fund Capital Outlay as part of the instituted Capital Improvement Plan. A detailed list is included within the budget for these expenses.
PG 31 - 4	Account 01-09-800X are new accounts that will assist to better detail the special capital projects and grants that are planned each year.
PG 31 - 5	Carry Forward Income/expenses will come from the Restricted Revenue for CIP
PG 34 - 1	Water Use fees are based on a Single-Family Equivalent (SFE) and include a base rate, a pay by use fee per 1,000gal. This base fee is the same regardless of Residential or Commercial. Water and Trash fees are budgeted based on the CIP requirements for the Water Plant and System upgrades. Although rates have not been set it is anticipated the Eagle River Water and Sanitation District water users will see a 5-8% rate increase as has been the case annually with its rates
PG 34 - 2	Residential water Fees for FY2024 are anticipated to increase at various levels tot accommodate the debt fees and Capital Improvement costs. Water Taps and associated fees will increase as well. These fees are based on a tiered structure which is similar in comparison to the Eagle River Water and Sanitation District. Additionally, Commercial tap fees will be reviewed and adjusted to match the ERWSD commercial rates.
PG 36 - 1	Account 02-06-5220 and 02-06-5247 includes the cost of the design and engineering of a water plant, contracted service for the supervision of the water treatment process and other engineering needs. It is anticipated to use grants and loans for this which are being developed
PG 36 - 2	Account 02-06-5352 includes cost for a gauging station on Cross Creek shared with CBS/Viacom, 50acre feet, 20acre feet, and 5acre feet from the Colorado River District as per the ERWSD settlement agreement
PG 36 - 3	Depreciation is again this year being budgeted as an expense in order to best maintain our reserves in the Enterprise Fund for use in the implementation of the CIP plan.
PG 37 - 1	Account 02-09-8004 reflects expenses related to necessary annalysis of the water treatment plant options.

DESCRIPTION	ACCOUNT NUMBER	ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
REVENUES:									
SUBTOTAL - TAXES		1,926,431.79	1,889,036.00	2,151,913.00	2,237,301.04	2,321,697.08	2,409,468.96	2,500,751.72	2,595,685.79
SUBTOTAL - LICENSES AND PERMITS		315,444.53	223,300.00	304,494.00	227,634.00	227,634.00	227,634.00	227,634.00	227,634.00
SUBTOTAL - FINES AND FORFEITURES		12,273.45	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00
SUBTOTAL - OTHER REVENUE		728,800.33	381,450.00	527,450.00	415,550.00	415,550.00	415,550.00	415,550.00	415,550.00
TOTAL REVENUE		2,982,950.10	2,508,786.00	2,998,857.00	2,895,485.04	2,979,881.08	3,067,652.96	3,158,935.72	3,253,869.79
EXPENSES:									
SUBTOTAL - COUNCIL EXPENSES		25,027.23	30,836.00	42,831.00	28,252.40	28,252.40	28,252.40	28,252.40	28,252.40
SUBTOTAL - GENERAL GOVERNMENT EXPENSES		1,085,348.23	1,162,067.00	877,384.83	824,829.23	842,012.71	841,463.57	859,843.03	858,670.57
SUBTOTAL- PLANNING AND ZONING		442,043.16	332,564.00	568,403.00	342,838.65	376,629.27	346,410.03	384,336.18	353,242.80
SUBTOTAL - MUNICIPAL COURT		8,606.51	12,650.00	12,650.00	13,150.00	13,150.00	13,150.00	13,150.00	13,150.00
SUBTOTAL - POLICE DEPT		401,817.00	468,373.00	448,694.00	497,100.79	513,046.82	529,550.96	546,632.74	564,312.39
SUBTOTAL- EVENTS DEPARTMENT		164,948.70	199,670.00	219,917.00	238,168.98	241,530.11	245,003.35	248,593.19	252,304.31
SUBTOTAL- PUBLIC WORKS		391,486.85	416,402.00	633,675.00	593,694.78	603,816.38	614,304.20	625,173.78	636,441.33
EMPLOYEE RAISE POOL (7% POOL)		0.00	10,037.00	81,000.00	45,000.00	45,000.00	45,000.00	45,000.00	45,000.00
FTE ALLOWANCE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEBT SERVICE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAPITAL OUTLAY - GENERAL FUND		0.00	0.00	0.00	72,500.00	72,500.00	72,500.00	72,500.00	72,500.00
CAPITAL OUTLAY - SPECIAL PROJECTS		0.00	50,000.00	112,000.00	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENSES		2,519,277.68	2,682,599.00	2,996,554.83	2,655,534.83	2,735,937.69	2,735,634.51	2,823,481.32	2,823,873.80
NET INCREASE/(DECREASE)		463,672.42	-173,813.00	2,302.17	239,950.21	243,943.39	332,018.45	335,454.41	429,995.99
INTER-FUND TRANSFERS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET INCREASE/(DECREASE)		**463,672.42**	**-173,813.00**	**2,302.17**	**239,950.21**	**243,943.39**	**332,018.45**	**335,454.41**	**429,995.99**
YEAR END CASH BALANCE		2,695,033.00	2,521,220.00	2,523,522.17	2,763,472.38	3,007,415.77	3,095,490.83	3,342,870.18	3,525,486.83
YEAR END CASH BAL PER FIN STMTS									
RESERVE TARGET (6 MONTHS as of 2001)		1,107,208.00	1,300,881.50	1,420,861.92	1,313,641.21	1,353,842.64	1,353,691.06	1,397,614.46	1,397,810.70
TABOR RESERVE @ 3% OF REVENUES		96,800.00	96,800.00	96,800.00	86,864.55	89,396.43	92,029.59	94,768.07	97,616.09
OTHER RESERVED FUNDS-CIP		600,000.00	750,000.00	1,000,000.00	408,398.00				
RESTRICTED FOR EXTERIOR ENERGY OFFSET		10,752.00							
DISCRETIONARY FUNDS		891,025.00	373,538.50	5,860.25	954,568.61	1,564,176.70	1,649,770.19	1,850,487.65	2,030,060.03

DESCRIPTION	ACCOUNT NUMBER	ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
FUND 01: GENERAL FUND									
REVENUE									
PROPERTY TAX - REAL AND PERSONAL	01-00-4010	593,646.42	568,723.00	828,751.00	861,901.04	896,377.08	932,232.16	969,521.45	1,008,302.31
SPECIFIC OWNERSHIP	01-00-4020	31,864.00	30,000.00	32,000.00	30,000.00	30,000.00	30,000.00	30,000.00	30,000.00
SPECIAL ASSESSMENT (MVSA)	01-00-4030	5,823.80	6,250.00	6,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
LODGING TAX - 1.5%	01-00-4039	20,304.73	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00
COUNTY SALES TAX	01-00-4040	46,456.16	45,000.00	45,000.00	46,800.00	48,672.00	50,618.88	52,643.64	54,749.38
CITY SALES TAX - 4%	01-00-4050	1,164,524.84	1,155,000.00	1,155,000.00	1,201,200.00	1,249,248.00	1,299,217.92	1,351,186.64	1,405,234.10
CIGARETTE TAX	01-00-4051	2,707.20	2,800.00	2,800.00	2,400.00	2,400.00	2,400.00	2,400.00	2,400.00
HIGHWAY USERS TAX	01-00-4052	38,650.12	36,263.00	37,362.00	40,000.00	40,000.00	40,000.00	40,000.00	40,000.00
ROAD AND BRIDGE	01-00-4070	22,454.52	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00
OTHER TAXES	01-00-4090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL - TAXES		1,926,431.79	1,889,036.00	2,151,913.00	2,237,301.04	2,321,697.08	2,409,468.96	2,500,751.72	2,595,685.79
BUILDING PERMITS	01-00-4210	70,019.50	50,000.00	118,560.00	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00
EXTERIOR ENERGY CREDIT	01-00-4215	7,120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HIGHWAY 24 MAINTENANCE	01-00-4220	37,800.00	37,800.00	38,934.00	38,934.00	38,934.00	38,934.00	38,934.00	38,934.00
LIQUOR LICENSE FEES	01-00-4230	2,579.75	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
BUSINESS AND CONTRACTORS LICENSE	01-00-4240	24,344.00	22,500.00	24,000.00	22,500.00	22,500.00	22,500.00	22,500.00	22,500.00
PLANNING AND ZONING FEES/PERMITS	01-00-4250	99,212.97	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00
FRANCHISE FEES - PUBLIC SERVICE	01-00-4260	52,726.30	40,000.00	50,000.00	40,000.00	40,000.00	40,000.00	40,000.00	40,000.00
FRANCHISE FEES - PHONE/CABLE	01-00-4280	19,543.49	19,500.00	19,500.00	22,500.00	22,500.00	22,500.00	22,500.00	22,500.00
FRANCHISE FEES - HOLY CROSS	01-00-4290	2,098.52	2,000.00	2,000.00	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00
SUBTOTAL - LICENSES AND PERMITS		315,444.53	223,300.00	304,494.00	227,634.00	227,634.00	227,634.00	227,634.00	227,634.00
MUNICIPAL TRAFFIC FINES	01-00-4430	12,273.45	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00
MUNICIPAL NON-TRAFFIC FINES	01-00-4435	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MUNICIPAL VICTIM RESTITUTION	01-00-4436	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CODE ENFORCEMENT-FINES	01-00-4440	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COURT COST/ADMIN FEES	01-00-4445	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BOND FORFEITURES	01-00-4450	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL - FINES AND FORFEITURES		12,273.45	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00
TOWN HALL RENT	01-00-4511	2,150.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
ERFPD IMPACT FEE	01-00-4512	7,808.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FLOWERS ON MAIN ST	01-00-4515	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAND LEASE - SEASONAL LANDSCAPING	01-00-4516	9,000.00	9,000.00	9,300.00	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00
LAND LEASE - TOWN MANAGER HOUSE	01-00-4517	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAND LEASE - WILCON ENERGY	01-00-4518	9,000.00	9,000.00	9,300.00	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00
LAND LEASE - SNOW DUMP	01-00-4519	8,200.00	8,500.00	8,500.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
LAND LEASE - MTN MANAGEMENT PROPERTIES	01-00-4520	15,000.00	14,400.00	18,600.00	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00
LAND LEASE - OLD CASTLE CONCRETE	01-00-4521	66,112.55	70,000.00	70,000.00	70,000.00	70,000.00	70,000.00	70,000.00	70,000.00
LAND LEASE - WORKER BEE LANDSCAPING	01-00-4522	9,000.00	9,000.00	9,300.00	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00
LAND LEASE - ALTA STONE	01-00-4523	9,000.00	9,000.00	9,300.00	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00
LAND LEASE - CHARD'S YARDS	01-00-4524	9,000.00	9,000.00	9,300.00	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00

DESCRIPTION	ACCOUNT NUMBER	ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
LAND LEASE - SUNCOAST SEALER	01-00-4525	5,444.00	9,000.00	9,300.00	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00
LAND LEASE - MISC ENCROACHMENTS	01-00-4526	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PARKING LEASE - TIM SIMON PARKING	01-00-4530	1,337.00	1,337.00	1,337.00	1,337.00	1,337.00	1,337.00	1,337.00	1,337.00
LAND LEASE - IRONWORKS PARKING	01-00-4531	2,952.32	2,953.00	2,953.00	2,953.00	2,953.00	2,953.00	2,953.00	2,953.00
LAND LEASE - THE BUNKHOUSE PARKING	01-00-4535	3,820.00	3,820.00	3,820.00	3,820.00	3,820.00	3,820.00	3,820.00	3,820.00
D&RGRR - SALOON	01-00-4537	4,940.00	4,940.00	4,940.00	4,940.00	4,940.00	4,940.00	4,940.00	4,940.00
FUND RAISER-MEMORIAL BENCH PROGRAM	01-00-4538	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INVESTMENT EARNED	01-00-4540	56,029.07	35,000.00	150,000.00	65,000.00	65,000.00	65,000.00	65,000.00	65,000.00
GRANTS-TAP #2/RPP/DOLA	01-00-4552	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GRANTS-DOLA	01-00-4561	135,452.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GRANTS-OTHER/COVID RELIEF FUNDS	01-00-4562	-5,798.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BATTLE MOUNTAIN RESORTS	01-00-4575	45,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MINTURN EVENT REVENUE	01-00-4591	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCHOLARSHIP DONATIONS	01-00-4596	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER REVENUE	01-00-4597	39,457.39	35,000.00	35,000.00	30,000.00	30,000.00	30,000.00	30,000.00	30,000.00
INTERFUND TRANSFER REVENUE	10-04-4650	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRAINING SURCHARGE - **RESTRICTED**	01-00-4660	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REAL ESTATE TRANSFER TAX - **TABOR RESTRICTED**	01-00-4680	292,895.00	150,000.00	175,000.00	150,000.00	150,000.00	150,000.00	150,000.00	150,000.00
TRANSFER FROM CARRY FWD-ESTIMATED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL - OTHER REVENUE		$728,800.33	$381,450.00	$527,450.00	$415,550.00	$415,550.00	$415,550.00	$415,550.00	$415,550.00

DESCRIPTION	ACCOUNT NUMBER	ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
EXPENSES									
COUNCIL (XX-01-XXXX)									
PAYROLL - MAYOR	01-01-5010	5,400.00	6,000.00	10,000.00	5,400.00	5,400.00	5,400.00	5,400.00	5,400.00
PAYROLL - COUNCIL	01-01-5011	16,100.00	18,000.00	27,000.00	16,200.00	16,200.00	16,200.00	16,200.00	16,200.00
FICA EXPENSE	01-01-5092	1,644.75	1,836.00	2,831.00	1,652.40	1,652.40	1,652.40	1,652.40	1,652.40
SUPPLIES - COUNCIL	01-01-5100	1,882.48	5,000.00	3,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
PURCHASE SERVICES - COMMUNITY CONTRIBUTION	01-01-5271	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL - COUNCIL EXPENSES		**25,027.23**	**30,836.00**	**42,831.00**	**28,252.40**	**28,252.40**	**28,252.40**	**28,252.40**	**28,252.40**

DESCRIPTION	ACCOUNT NUMBER	ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
GENERAL GOVERNMENT (XX-01-XXXX)									
PAYROLL - TOWN MANAGER	01-01-5012	86,809.28	95,879.00	133,811.60	136,487.83	139,217.59	142,001.94	144,841.98	147,738.82
PAYROLL - TOWN TREASURER/CLERK	01-01-5014	56,624.72	62,388.00	60,387.03	61,594.77	62,826.67	64,083.20	65,364.86	66,672.16
PAYROLL - OFFICE TECH	01-01-5015	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEDICAL AND DISABILITY	01-01-5091	23,160.95	26,000.00	40,500.00	41,715.00	42,966.45	44,255.44	45,583.11	46,950.60
FICA EXPENSE	01-01-5092	10,972.89	12,107.00	14,856.20	15,153.32	15,456.39	15,765.51	16,080.82	16,402.44
ICMA 401 EXPENSE	01-01-5094	5,622.34	6,171.00	7,768.00	7,923.30	8,081.77	8,243.41	8,408.27	8,576.44
SUPPLIES - OFFICE	01-01-5110	25,399.85	30,000.00	27,500.00	27,500.00	27,500.00	27,500.00	27,500.00	27,500.00
SUPPLIES - COMPUTER	01-01-5120	66,003.11	65,000.00	51,000.00	65,000.00	65,000.00	65,000.00	65,000.00	65,000.00
PURCHASE SERVICES - TELEPHONE	01-01-5200	11,205.04	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00
PURCHASE SERVICES - INTERIM TOWN MANAGER	01-01-5209	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - UTILITIES	01-01-5210	29,316.39	30,000.00	30,000.00	26,000.00	26,000.00	26,000.00	26,000.00	26,000.00
PURCHASE SERVICES - CUSTODIAL SERVICES	01-01-5211	6,968.00	8,500.00	9,000.00	8,500.00	8,500.00	8,500.00	8,500.00	8,500.00
PURCHASE SERVICES - LEGAL AND PROFESSIONAL	01-01-5220	487,034.11	125,000.00	148,000.00	125,000.00	125,000.00	125,000.00	125,000.00	125,000.00
PURCHASE SERVICES - ENGINEER SERVICES	01-01-5221	105,565.30	75,000.00	120,000.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00
PURCHASE SERVICES - LAW SUITS	01-01-5222	0.00	432,223.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - AUDITOR FEES	01-01-5225	12,000.00	12,000.00	13,500.00	12,500.00	12,500.00	12,500.00	12,500.00	12,500.00
PURCHASE SERVICES - ADMIN CONTRACT EXP	01-01-5234	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - DUES, FEES AND TRAINING	01-01-5235	48,156.25	45,000.00	55,000.00	45,000.00	45,000.00	45,000.00	45,000.00	45,000.00
PURCHASE SERVICES - EAGLE CO TREAS FEES	01-01-5236	10,586.51	12,000.00	13,000.00	12,000.00	12,000.00	12,500.00	12,500.00	12,500.00
PURCHASE SERVICES - ERFPD IMPACT FEES	01-01-5240	6,426.78	1,599.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - LEGAL NOTICES	01-01-5250	7,687.28	8,000.00	7,700.00	7,700.00	7,500.00	7,500.00	7,500.00	7,500.00
PURCHASE SERVICES - ELECTIONS	01-01-5255	1,831.62	0.00	4,250.00	0.00	2,250.00	0.00	2,250.00	0.00
PURCHASE SERVICES - MUNI PARKING/DEPOT LEASE	01-01-5261	23,147.52	25,000.00	26,500.00	27,295.00	28,113.85	28,957.27	29,825.98	30,720.76
PURCHASE SERVICES - MEETING FOOD AND DRINK	01-01-5270	0.00	0.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
PURCHASE SERVICES - TV 5	01-01-5280	11,800.00	14,500.00	14,500.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00
PURCHASE SERVICES - ANIMAL CONTROL	01-01-5285	9,672.00	9,700.00	11,112.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
PURCHASE SERVICES - MEMORIAL BENCHES	01-01-5290	2,490.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - EQUIPMENT R&M	01-01-5291	0.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
PURCHASE SERVICES - COMPUTER R&M	01-01-5292	992.35	5,500.00	10,000.00	5,500.00	5,500.00	5,500.00	5,500.00	5,500.00
PURCHASE SERVICES - COVID 19	01-01-5293	1,906.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INSURANCE - WORKERS COMP	01-01-5300	5,829.00	11,000.00	11,500.00	12,500.00	12,500.00	12,500.00	12,500.00	12,500.00
INSURANCE - TOWN	01-01-5310	28,140.53	37,000.00	45,000.00	39,960.00	48,600.00	43,156.80	52,488.00	46,609.34
INSURANCE - UNEMPLOYMENT	01-01-5320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INSURANCE - OTHER	01-01-5330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL - GENERAL GOVERNMENT EXPENSES		**1,085,348.23**	**1,162,067.00**	**877,384.83**	**824,829.23**	**842,012.71**	**841,463.57**	**859,843.03**	**858,670.57**

DESCRIPTION	ACCOUNT NUMBER	ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
PLANNING AND ZONING (XX-02-XXXX)									
PAYROLL - TOWN PLANNER/STAFF	01-02-5010	64,424.00	71,266.00	69,266.00	70,651.32	72,064.35	73,505.63	74,975.75	76,475.26
PAYROLL - CODE ENFORCEMENT	01-02-5011	0.00	0.00	65,000.00	66,300.00	67,626.00	68,978.52	70,358.09	71,765.25
MEDICAL AND DISABILITY	01-02-5091	10,522.21	12,750.00	45,500.00	13,132.50	46,865.00	13,526.48	48,270.95	13,932.27
FICA EXPENSE	01-02-5092	4,928.42	5,452.00	10,317.00	10,476.78	10,686.31	10,900.04	11,118.04	11,340.40
ICMA 401 EXPENSE	01-02-5094	2,496.96	2,771.00	5,395.00	5,478.05	5,587.61	5,699.37	5,813.35	5,929.62
SUPPLIES - OFFICE	01-02-5110	1,314.56	5,400.00	5,400.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
SUPPLIES - COMPUTER	01-02-5120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - BUILDING INSPECTIONS	01-02-5214	44,560.29	38,000.00	134,848.00	30,000.00	30,000.00	30,000.00	30,000.00	30,000.00
PURCHASE SERVICES - PLANNER ASSISTANCE	01-02-5215	303,982.70	175,000.00	200,000.00	125,000.00	125,000.00	125,000.00	125,000.00	125,000.00
PURCHASE SERVICES - P&Z COMMISSION	01-02-5216	5,400.00	11,925.00	11,925.00	10,800.00	10,800.00	10,800.00	10,800.00	10,800.00
PURCHASE SERVICES - EXTERIIOR ENERGY OFFSETS	01-02-5217	0.00	0.00	10,752.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - COUNTY HOUSING FEES	01-02-5218	0.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
PURCHASE SERVICES - FEES AND TRAINING	01-02-5235	595.32	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
PURCHASE SERVICES - LEGAL NOTICES	01-02-5250	3,818.70	4,000.00	4,000.00	4,000.00	1,000.00	1,000.00	1,000.00	1,000.00
SUBTOTAL: PLANNING AND ZONING		**442,043.16**	**332,564.00**	**568,403.00**	**342,838.65**	**376,629.27**	**346,410.03**	**384,336.18**	**353,242.80**

DESCRIPTION	ACCOUNT NUMBER	ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
MUNICIPAL COURT (XX-03-XXXX)									
PAYROLL - TOWN JUDGE	01-03-5010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FICA EXPENSE	01-03-5092	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUPPLIES - OFFICE	01-03-5110	0.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00
SUPPLIES - COMPUTER	01-03-5120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - ATTORNEY/TRANSLATOR	01-03-5216	8,606.51	12,500.00	12,500.00	13,000.00	13,000.00	13,000.00	13,000.00	13,000.00
PURCHASE SERVICES - EQUIPMENT R&M	01-03-5217	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL - MUNICIPAL COURT		8,606.51	12,650.00	12,650.00	13,150.00	13,150.00	13,150.00	13,150.00	13,150.00
POLICE DEPARTMENT (XX-04-XXXX)									
PAYROLL - POLICE CHIEF	01-04-5010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PAYROLL - PATROL OFFICER(S)/CLERK	01-04-5012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PAYROLL - OVERTIME/STIPEND	01-04-5017	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEDICAL AND DISABILITY	01-04-5091	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FICA EXPENSE	01-04-5092	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ICMA 401 EXPENSE	01-04-5095	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUPPLIES - OFFICE	01-04-5100	0.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
MEDIA NOTICE AND EMP'EE FEES	01-04-5110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUPPLIES - COMPUTER/RADIO EQUIPMENT	01-04-5120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUPPLIES - VEHICLE FUEL AND SUPPLIES	01-04-5130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - TELEPHONE AND 911	01-04-5200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - VEHICLE R&M	01-04-5231	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - CODE COMPLIANCE	01-04-5235	21,930.00	32,500.00	0.00	32,500.00	32,500.00	32,500.00	32,500.00	32,500.00
PURCHASE SERVICES - PRISONER UPKEEP/SUPPORT TF	01-04-5239	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - ERFPD WILDLAND FIRE FEES	01-04-5240	0.00	8,000.00	8,000.00	8,500.00	8,500.00	8,500.00	8,500.00	8,500.00
PURCHASE SERVICES - DISPATCH SERVICES	01-04-5245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - ECO SHERIFF SERVICES	01-04-5246	379,887.00	427,373.00	440,194.00	455,600.79	471,546.82	488,050.96	505,132.74	522,812.39
PURCHASE SERVICES - TRAINING & DEVELOPMENT	01-04-5265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - UNIFORM PURCH/MAINT	01-04-5271	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - EQUIPMENT R&M	01-04-5291	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - COMPUTER R&M	01-04-5292	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - VEHICLE LEASE/PURCHASE	01-04-5350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - EQUIPMENT LEASE/PURCHASE	01-04-5351	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - GRANT EXPENSES	01-04-5355	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL - POLICE DEPT		401,817.00	468,373.00	448,694.00	497,100.79	513,046.82	529,550.96	546,632.74	564,312.39
SUBTOTAL: COURT/POLICE		**410,423.51**	**481,023.00**	**461,344.00**	**510,250.79**	**526,196.82**	**542,700.96**	**559,782.74**	**577,462.39**

DESCRIPTION	ACCOUNT NUMBER	ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
ECONOMIC DEVELOPMENT DEPT (XX-05-XXXX)									
PAYROLL - ECON DEV	01-05-5010	75,887.84	83,877.00	81,877.00	83,514.54	85,184.83	86,888.53	88,626.30	90,398.82
MEDICAL AND DISABILITY	01-05-5091	10,613.02	31,100.00	28,500.00	29,925.00	31,421.25	32,992.31	34,641.93	36,374.02
FICA EXPENSE	01-05-5092	5,805.42	6,417.00	6,264.00	6,388.86	6,516.64	6,646.97	6,779.91	6,915.51
ICMA 401 EXPENSE	01-05-5094	2,955.60	3,276.00	3,276.00	3,340.58	3,407.39	3,475.54	3,545.05	3,615.95
PURCHASE SERVICES - COMMUNITY FUND FEES	01-05-5235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - PROMOTIONS	01-05-5275	69,686.82	75,000.00	100,000.00	115,000.00	115,000.00	115,000.00	115,000.00	115,000.00
PURCHASE SERVICES - TV 5	01-05-5280	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - WEBSITE	01-05-5292	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL: ECON DEV DEPT		**164,948.70**	**199,670.00**	**219,917.00**	**238,168.98**	**241,530.11**	**245,003.35**	**248,593.19**	**252,304.31**

DESCRIPTION	ACCOUNT NUMBER	ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
PUBLIC WORKS									
PAYROLL - STAFF	01-06-5011	125,722.50	137,703.00	204,666.00	208,759.32	212,934.51	217,193.20	221,537.06	225,967.80
PAYROLL - STAFF OVERTIME	01-06-5011	7,120.83	4,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
MEDICAL AND DISABILITY	01-06-5091	51,160.66	62,500.00	104,000.00	109,200.00	114,660.00	120,393.00	126,412.65	132,733.28
FICA EXPENSE	01-06-5092	10,162.51	10,841.00	16,422.00	16,735.09	17,054.49	17,380.28	17,712.59	18,051.54
ICMA 401 EXPENSE	01-06-5094	3,557.27	5,508.00	8,587.00	8,750.37	8,917.38	9,087.73	9,261.48	9,438.71
SUPPLIES - OFFICE	01-06-5100	36.50	500.00	500.00	500.00	500.00	500.00	500.00	500.00
SUPPLIES - TOOLS	01-06-5120	839.48	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
SUPPLIES - GENERAL	01-06-5140	9,099.09	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
SUPPLIES - VEHICLE FUEL AND SUPPLIES	01-06-5130	4,048.57	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
PURCHASE SERVICES - TELEPHONE	01-06-5200	2,717.98	2,600.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
PURCHASE SERVICES - UTILITIES/STREET LIGHTS	01-06-5210	27,007.91	28,000.00	28,000.00	30,000.00	30,000.00	30,000.00	30,000.00	30,000.00
PURCHASE SERVICES - VEHICLE R&M	01-06-5231	1,496.45	6,000.00	6,000.00	6,500.00	6,500.00	6,500.00	6,500.00	6,500.00
PURCHASE SERVICES - TRAINING & DEVELOPMENT	01-06-5265	0.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00
PURCHASE SERVICES - PUBLIC BUILDING R&M	01-06-5290	23,024.61	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00
PURCHASE SERVICES - EQUIPMENT R&M	01-06-5291	5,941.77	7,000.00	12,000.00	7,000.00	7,000.00	7,000.00	7,000.00	7,000.00
PURCHASE SERVICES - COMPUTER R&M	01-06-5292	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - VEHICLE LEASE/PURCHASE	01-06-5350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - EQUIPMENT LEASE/PURCHASE	01-06-5351	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - STREET/SIDEWALK MAINTENANC	01-06-5352	36,061.68	40,000.00	125,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00
PURCHASE SERVICES - SNOW REMOVAL	01-06-5353	39,877.50	27,500.00	27,500.00	30,000.00	30,000.00	30,000.00	30,000.00	30,000.00
PURCHASE SERVICES - MINTURN FITNESS CENTER	01-06-5354	3,242.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
PURCHASE SERVICES - TOWN AND PARK SIGNS	01-06-5356	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - PARKS AND FLOWERS ON MAIN	01-06-5357	40,369.54	43,000.00	46,750.00	47,000.00	47,000.00	47,000.00	47,000.00	47,000.00
SUBTOTAL: PUBLIC WORKS		**391,486.85**	**416,402.00**	**633,675.00**	**593,694.78**	**603,816.38**	**614,304.20**	**625,173.78**	**636,441.33**

DESCRIPTION	ACCOUNT NUMBER	ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
TRANSFER TO OTHER FUND	01-07-6100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EMPLOYEE RAISE POOL		0.00	10,037.00	81,000.00	45,000.00	45,000.00	45,000.00	45,000.00	45,000.00
DEBT SERVICE - PRINCIPAL	TBD								
DEBT SERVICE - INTEREST	TBD								
CAPITAL OUTLAY - GENERAL FUND	01-09-8000	0.00	0.00	0.00	72,500.00	72,500.00	72,500.00	72,500.00	72,500.00
CAPITAL OUTLAY - BIKE BRIDGE	01-09-8001	0.00	50,000.00	92,000.00	0.00	0.00	0.00	0.00	0.00
CAPITAL OUTLAY - SPECIAL PROJ - STATE LAND ROW	01-09-8003	0.00							
CAPITAL OUTLAY - SPECIAL PROJECTS - BELDEN	01-09-8004	0.00							
CAPITAL OUTLAY - SPECIAL PROJECTS - TRAILER SIGNS	01-09-8005	0.00		20,000.00					
CAPITAL OUTLAY - SPECIAL PROJECTS -	01-09-8006	0.00							
CAPITAL OUTLAY - SPECIAL PROJECTS - TAP GRANT #1	01-09-8007	0.00							
CAPITAL OUTLAY - SPECIAL PROJECTS - TAP GRANT #2	01-09-8007	0.00							
CAPITAL OUTLAY - SPECIAL PROJECTS - DOWD JCT PAR	01-09-8008	0.00							

DESCRIPTION	ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
REVENUES								
WATER OPERATIONS	1,062,859.28	1,444,111.00	1,460,518.00	2,353,307.00	2,507,976.00	2,576,564.00	2,576,564.00	2,576,564.00
GARBAGE COLLECTION FEES	114,438.66	122,000.00	130,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00
CAPITAL REVENUES	285,435.36	252,500.00	685,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00
WATER FUND-BOND PROCEEDS	1,926,513.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUE - WATER/SEWER & RECREATION	3,389,246.68	1,818,611.00	2,275,518.00	2,593,307.00	2,747,976.00	2,816,564.00	2,816,564.00	2,816,564.00
EXPENDITURES								
SALARY AND BENEFITS	297,678.50	361,661.00	137,108.92	150,282.97	155,736.37	157,894.90	163,672.70	165,993.74
OPERATIONAL EXPENSES	921,703.24	1,066,901.00	827,704.00	548,300.94	575,794.35	569,992.30	584,699.01	585,879.01
ASSET MANAGEMENT	4,425.00	113,200.00	113,200.00	114,600.00	114,600.00	114,600.00	114,600.00	114,600.00
BMR EXPENSES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEBT SERVICE	14,840.80	205,110.03	205,117.00	205,112.92	205,112.92	205,112.92	205,112.92	205,112.92
CAPITAL OUTLAY - NON WATER TAP	2,451,623.01	0.00	913,220.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
TOTAL EXPENSE - WATER/SEWER & RECREATION	3,690,270.55	1,746,872.03	2,196,349.92	1,028,296.84	1,061,243.64	1,057,600.12	1,078,084.63	1,081,585.68
NET INCREASE/(DECREASE)	-301,023.87	71,738.97	79,168.08	1,565,010.16	1,686,732.36	1,758,963.88	1,738,479.37	1,734,978.32
INTERFUND TRANSFERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET FUND INCREASE/(DECREASE)	-301,023.87	71,738.97	79,168.08	1,565,010.16	1,686,732.36	1,758,963.88	1,738,479.37	1,734,978.32
YEAR END RETAIN EARN (PER FINANCIAL STMTS W/ APPL)	718,049.97	789,788.94	868,957.02	2,433,967.19	4,120,699.55	5,879,663.43	7,618,142.80	9,353,121.13

DESCRIPTION		ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
FUND 02: WATER-SEWER-REC FUND									
REVENUE									
WATER OPERATIONS									
WATER USER FEES	02-00-4210	968,606.87	1,220,000.00	1,236,407.00	1,793,572.00	1,866,139.00	1,938,702.00	1,938,702.00	1,938,702.00
WATER USE DEBT SERVICE FEES	02-00-4220	65,723.83	205,111.00	205,111.00	539,735.00	621,837.00	617,862.00	617,862.00	617,862.00
WATER METERS & INSTALL	02-00-4240	752.00	0.00	0.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
INVESTMENT EARNED	02-00-4540	1,411.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MISCELLANEOUS REVENUE	02-00-4275	26,365.33	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00
SUBTOTAL: WATER OPERATIONS		1,062,859.28	1,444,111.00	1,460,518.00	2,353,307.00	2,507,976.00	2,576,564.00	2,576,564.00	2,576,564.00
GARBAGE COLLECTION FEES	02-00-4330	114,438.66	122,000.00	130,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00
TAP FEES - CAPITAL REVENUES	02-00-4320	36,821.62	42,500.00	42,500.00	40,000.00	40,000.00	40,000.00	40,000.00	40,000.00
CASH IN LIEU OF WATER FEES - CAPITAL REVENUES	02-00-4321	46,525.71	42,500.00	42,500.00	40,000.00	40,000.00	40,000.00	40,000.00	40,000.00
SYSTEM IMPROVEMENT FEES - CAPITAL REVENUES	02-00-4322	58,190.29	42,500.00	600,000.00	40,000.00	40,000.00	40,000.00	40,000.00	40,000.00
GRANTS - MISC AND ARP FUNDS	02-00-4565	143,897.74	125,000.00						
GRANTS - DOLA AND OTHER	02-00-4566	0.00	0.00						
MISCELLANEOUS LOAN AND GRANT REVENUE		0.00							
SUBTOTAL: CAPITAL REVENUE		285,435.36	252,500.00	685,000.00	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00
TRANSFER TO/FROM OTHER FUNDS	02-00-4570	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WATER FUND-BOND PROCEEDS	02-00-4575	1,926,513.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRANS FROM CARRY FORWARD - ESTIMATED									
TOTAL ALL SOURCES LESS INTERFUND TRANS (FIN STMTS IF APP)		3,389,246.68	1,818,611.00	2,275,518.00	2,593,307.00	2,747,976.00	2,816,564.00	2,816,564.00	2,816,564.00

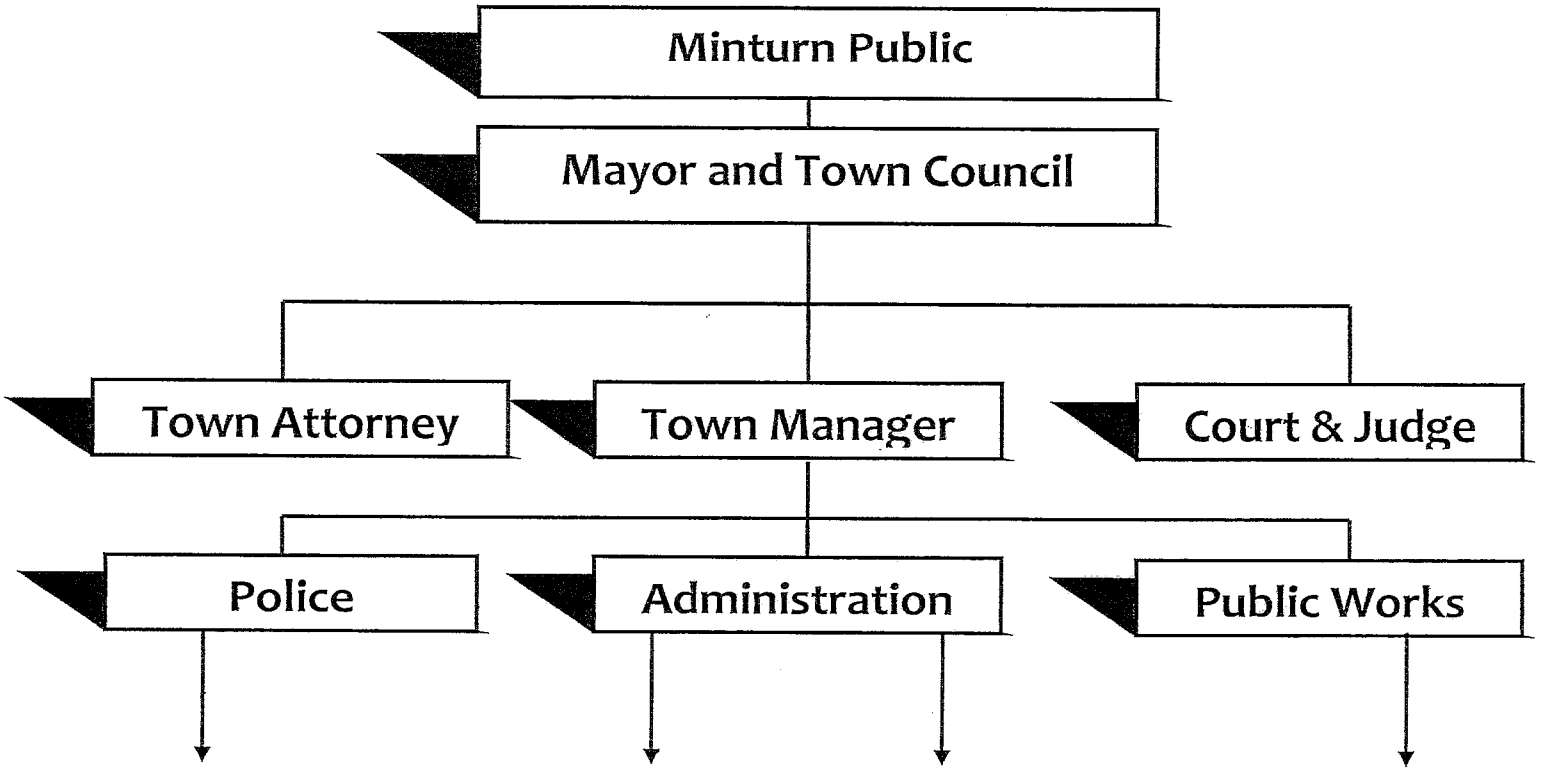
DESCRIPTION		ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
EXPENSES									
PAYROLL - REGULAR	02-06-5010	114,916.87	141,423.00	40,710.00	41,524.20	42,354.68	43,201.78	44,065.81	44,947.13
PAYROLL - NON PLANT	02-06-5011	90,971.52	100,621.00	60,388.00	60,388.00	63,407.40	63,407.40	66,577.77	66,577.77
PAYROLL - OVERTIME	02-06-5017	5,065.97	12,000.00	2,000.00	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00
MEDICAL AND DISABILITY	02-06-5091	62,808.81	78,100.00	22,000.00	23,100.00	24,255.00	25,467.75	26,741.14	28,078.19
FICA EXPENSE	02-06-5092	15,982.94	19,435.00	7,887.00	8,714.28	9,008.80	9,073.60	9,382.23	9,449.65
ICMA 401 EXPENSE	02-06-5094	7,932.39	10,082.00	4,123.92	4,556.49	4,710.48	4,744.37	4,905.74	4,941.00
TOTAL SAL/BEN		297,678.50	361,661.00	137,108.92	150,282.97	155,736.37	157,894.90	163,672.70	165,993.74
SUPPLIES - OFFICE/LAB	02-06-5100	27,204.86	20,000.00	25,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00
SUPPLIES - VEHICLE FUEL AND SUPPLIES	02-06-5130	9,099.06	10,000.00	10,000.00	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00
SUPPLIES - GENERAL	02-06-5140	4,068.43	6,000.00	6,000.00	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00
SUPPLIES - TOOLS	02-06-5150	470.28	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
SUPPLIES - WATER METERS & INSTALL	02-06-5160	88,219.20	0.00	30,000.00	750.00	750.00	750.00	750.00	750.00
PURCHASE SERVICES - TELEPHONE	02-06-5200	2,275.68	2,500.00	2,500.00	2,562.50	2,562.50	2,626.56	2,626.56	2,692.23
PURCHASE SERVICES - UTILITIES/STREET LIGHTS	02-06-5210	15,968.94	14,000.00	16,000.00	16,400.00	16,810.00	17,230.25	17,661.01	18,102.53
PURCHASE SERVICES - LEGAL SERVICES (GENERAL)	02-06-5220	230,836.62	310,000.00	150,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00
PURCHASE SERVICES - VEHICLE R&M	02-06-5231	1,400.58	8,000.00	8,000.00	1,435.59	8,200.00	8,200.00	1,471.48	8,405.00
PURCHASE SERVICES - ENGINEERING CONTRACTS	02-06-5247	146,362.85	350,000.00	150,000.00	80,000.00	80,000.00	80,000.00	80,000.00	80,000.00
PURCHASE SERVICES - TRAINING & DEVELOPMENT	02-06-5265	0.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00
PURCHASE SERVICES - UNIFORM PURCH/MAINT	02-06-5271	168.00	1,000.00	1,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
PURCHASE SERVICES - EQUIPMENT R&M	02-06-5291	13,062.27	8,000.00	12,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00
PURCHASE SERVICES - COMPUTER R&M	02-06-5292	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - WATER PLANT/SYSTEM R&M	02-06-5293	80,067.97	40,000.00	80,000.00	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00
PURCHASE SERVICES - VEHICLE LEASE/PURCHASE	02-06-5350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - EQUIPMENT LEASE/PURCHASE	02-06-5351	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - ANNUAL H20 RIGHTS MAINT	02-06-5352	133,738.50	140,000.00	160,000.00	164,800.00	169,744.00	174,836.32	180,081.41	185,483.85
PURCHASE SERVICES - GARBAGE CONTRACT SERVICES	02-06-5353	157,089.00	115,000.00	130,000.00	117,875.00	133,250.00	120,821.88	136,581.25	123,842.42
PURCHASE SERVICES - ERWSD CONTRACT SERVICES	02-06-5354	11,671.00	36,151.00	40,954.00	41,977.85	41,977.85	43,027.30	43,027.30	44,102.98
PURCHASE SERVICES - DUMP FEES	02-06-5355	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - TOWN AND PARK SIGNS	02-06-5356	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - PARKS AND FLOWERS ON MAIN ST	02-06-5357	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OPERATING EXPENSES		921,703.24	1,066,901.00	827,704.00	548,300.94	575,794.35	569,992.30	584,699.01	585,879.01
ASSET MANAGEMENT PLAN									

DESCRIPTION		ACTUAL 2022	ESTIMATED 2023	BUDGET 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029
WATER PLANT AND SYSTEM - DEPRECIATION	02-07-6000	0.00	108,200.00	108,200.00	110,000.00	110,000.00	110,000.00	110,000.00	110,000.00
DEBT REDUCTION REPAYMENT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MALOIT PARK-MOSQUITO CONTROL	02-07-6001	4,425.00	5,000.00	5,000.00	4,600.00	4,600.00	4,600.00	4,600.00	4,600.00
EAGLE RIVER PARK GRANT	02-07-6002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PARK UPKEEP	02-06-5356	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL ASSET MANAGEMENT PLAN		4,425.00	113,200.00	113,200.00	114,600.00	114,600.00	114,600.00	114,600.00	114,600.00
DEBT SERVICE									
PRINCIPAL - CAT LOADER PRIN	02-08-7910	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INTEREST - CAT LOADER INT	02-08-7911	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRINCIPAL - '88 $100k DLA IMPACT	02-08-7920	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INTEREST - '88 $100k DLA IMPACT	02-08-7921	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRINCIPAL - 91 $50k WATER AUTHORITY	02-08-7930	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INTEREST - 91 $50k WATER AUTHORITY	02-08-7931	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRINCIPAL - 91 $360k WATER AUTHORITY	02-08-7940	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INTEREST - 91 $360k WATER AUTHORITY	02-08-7941	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRINCIPAL - 98B (92B) $100k WATER PLANT LOAN	02-08-7950	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INTEREST - 98B (92B) $100k WATER PLANT LOAN	02-08-7951	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRINCIPAL - 95 $300k CWRPDA	02-08-7960	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INTEREST - 95 $300k CWRPDA	02-08-7961	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRINCIPAL - 2021 $3M CWRPDA	02-08-7970	0.00	123,688.23	123,688.00	129,348.83	132,275.55	135,268.49	135,268.49	135,268.49
INTEREST - 2021 $3M CWRPDA	02-08-7971	0.00	66,581.00	66,584.00	60,923.29	57,996.57	55,003.63	55,003.63	55,003.63
PRINCIPAL - 97 $260k RD B	02-08-7980	6,799.09	7,134.59	7,487.00	5,607.62	5,607.62	5,607.62	5,607.62	5,607.62
INTEREST - 97 $260k RD B	02-08-7981	8,041.71	7,706.21	7,358.00	9,233.18	9,233.18	9,233.18	9,233.18	9,233.18
TOTAL LONG TERM DEPT		14,840.80	205,110.03	205,117.00	205,112.92	205,112.92	205,112.92	205,112.92	205,112.92
CAPITAL									
CAPITAL OUTLAY - WATER FUND	02-09-8000	28,584.37	0.00	19,500.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
CAPITAL OUTLAY - BOLTS LAKE	02-09-8001								
CAPITAL OUTLAY - WATER PLANT CIP	02-09-8002	225,981.82	0.00	75,000.00					
CAPITAL OUTLAY - WATER TANK CIP	02-09-8003	2,197,056.82							
CAPITAL OUTLAY - WATER TREATMENT ANALYSIS	02-09-8004			260,000.00					
CAPITAL OUTLAY - GIS SYSTEM	02-09-8004	0.00							
MINTURN NORTH CONTGENGENCY				558,720.00					
TOTAL CAPITAL EXPENSES		2,451,623.01	0.00	913,220.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
TOTAL EXPENSES		**3,690,270.55**	**1,746,872.03**	**2,196,349.92**	**1,028,296.84**	**1,061,243.64**	**1,057,600.12**	**1,078,084.63**	**1,081,585.68**
CONTROL TOTAL FROM FS									

DESCRIPTION		ACTUAL	ESTIMATED	BUDGET	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED
		2022	2023	2024	2025	2026	2027	2028	2029
FUND 04: BUILDING FUND									
REVENUE									
CERTIFICATES OF PARTICIPATION PROCEED	04-00-4000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESCROW RESERVE PROCEEDS									
RENT - POST OFFICE	04-00-4512	79,822.04	79,823.00	79,823.00	79,823.00	79,823.00	79,823.00	79,823.00	79,823.00
RENT - APARTMENTS	04-00-4513	26,400.00	26,400.00	35,400.00	26,400.00	26,400.00	26,400.00	26,400.00	26,400.00
INVESTMENT EARNED	04-00-4540	0.00	0.00	0.00	25.00	25.00	25.00	25.00	25.00
TRANSFER FROM OTHER FUNDS	04-00-4570	-96,223.00	-96,223.00	-105,223.00	-96,223.00	-96,223.00	-96,223.00	-96,223.00	-96,223.00
OTHER REVENUE	04-00-4597								
NET REVENUE		9,999.04	10,000.00	10,000.00	10,025.00	10,025.00	10,025.00	10,025.00	10,025.00
EXPENSES									
PURCHASE SERVICES - CONSTRUCTION	04-01-5249	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - BUILDING R&M	04-01-5250	84.01	53,500.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
PURCHASE SERVICES - BANK FEES	04-01-5251	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET EXPENSE		84.01	53,500.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
TRANSFER TO OTHER FUNDS									
DEBT SERVICE									
PRINCIPAL - TOWN CENTER	04-08-7990	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INTEREST - TOWN CENTER	04-08-7991	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET DEBT SERVICE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET FUND INCREASE/(DECREASE)		9,915.03	-43,500.00	0.00	25.00	25.00	25.00	25.00	25.00

DESCRIPTION		ACTUAL	ESTIMATED	BUDGET	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED
		2022	2023	2024	2025	2026	2027	2028	2029
FUND 05:MINTURN MARKET FUND									
REVENUE									
PARTICIPATION REVENUE	05-00-4591	24,500.00	30,000.00	30,000.00	30,000.00	30,000.00	30,000.00	30,000.00	30,000.00
SPONSORSHIP & DONATIONS	05-00-4592	6,250.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00
SALES AND PROMOTIONS	05-01-4593	0.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
INVESTMENT EARNED	05-00-4540	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRANSFER FROM OTHER FUNDS	05-00-4570	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER REVENUE	05-00-4597	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EXPENSES									
SUPPLIES - GENERAL	05-01-5100	6,765.13	7,000.00	7,000.00	7,000.00	7,000.00	7,000.00	7,000.00	7,000.00
SUPPLIES - PROMOTIONAL	05-01-5105	14,854.55	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00
SUPPLIES - CONTRACT LABOR	05-01-5110	9,010.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00
PURCHASE SERVICES - ADVERTISE	05-01-5201	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PURCHASE SERVICES - PROMOTION	05-01-5202	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL INCOME		35,750.24	37,000.00	37,000.00	37,000.00	37,000.00	37,000.00	37,000.00	37,000.00
TOTAL EXPENSE		30,629.68	37,000.00	37,000.00	37,000.00	37,000.00	37,000.00	37,000.00	37,000.00
NET INCOME/(EXPENSE)		5,120.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TOWN OF MINTURN ORGANIZATIONAL CHART



https://minturnco-my.sharepoint.com/personal/treasurer_minturn_org/Documents/Old U Drive/Annual Budget/Budget-Org Chart alternative.DOC

INTERFUND TRANSFER SUMMARY

DESCRIPTION	GF-01	EF-02	CTF-03	BLD-04	ART-05	CAP-06	SCH-08	BMR-09	
Building Debt Svc (70/30)									0.00
Special Projects-Main St									0.00
River Restoration Proj									0.00
Market Fund									0.00
Capital Expenditures				(106,223.00)		106,223.00			0.00
									0.00
									0.00
									0.00
TOTAL	0.00	0.00	0.00	(106,223.00)	0.00	106,223.00	0.00	0.00	0.00

8/31/2023 14:16	FY 2024					1/1/2024	
					TOTAL	PAY OFF	PAYOFF
DUE DATE	RECIPIENT		PRINCIPAL	INTEREST	DUE	(PRIN ONLY)	YEAR
05/01/23	CWRPDA	02-08-7970 and 7971	61,498.19	33,637.87	95,136.06	2,866,345.03	2042
11/01/23	CWRPDA		62,190.04	32,946.02	95,136.06		
			123,688.23	66,583.89	190,272.12		
04/01/23	RURAL DEVELOPMENT OFFICE	02-08-7980 and 7981	3,698.25	3,722.15	7,420.40	159,838.35	2037
10/01/23	RURAL DEVELOPMENT OFFICE		3,788.39	3,632.01	7,420.40		
			7,486.64	7,354.16	14,840.80		
			131,174.87	73,938.05	205,112.92		
					219,953.72	3,026,183.38	

USDA RURAL DEVELOPMENT OFFICE
CORPORATE TRUST SERVICES

WELLS FARGO, N.A.
ATTN: SANDRA SHUPE
MAC-C7301-024
1740 BROADWAY
DENVER, CO 80274

DESCRIPTION		ACTUAL	ESTIMATE	BUDGET	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED
		2022	2023	2024	2025	2026	2027	2028	2029
DEBT SERVICE									
PRINCIPAL - 97 $260k RD B	02-08-7980	6,799.09	7,134.59	7,486.64	7,856.06	8,243.71	8,650.49	9,077.34	9,077.34
INTEREST - 97 $260k RD B	02-08-7981	8,041.71	7,706.21	7,354.16	6,984.74	6,597.09	6,190.31	5,763.46	5,763.46
PRINCIPAL - 21 $3m CWRPDA	02-08-7970	0.00	6,442.40	123,688.23	126,486.87	129,348.83	132,275.55	135,268.49	135,268.49
INTEREST - 21 $3m CWRPDA	02-08-7971	0.00	1,728.94	66,583.89	63,785.25	60,923.29	57,996.57	55,003.63	55,003.63
TOTAL ANNUAL DEBT PAYMENT		14,840.80	23,012.14	205,112.92	205,112.92	205,112.92	205,112.92	205,112.92	205,112.92

FY 2024 BUDGET SCHEDULE

2023 DATE	DESCRIPTION	NOTES	TO DO
APRIL THROUGH AUGUST 2023	STAFF REVIEW AND PREPARATION	REVIEW BUDGET AND FIELD QUESTIONS FROM STAFF AS NECESSARY. STAFF WILL HAVE OPPORTUNITY TO SUPPLY INPUT ON BOTH THEIR BUDGET AND CIP NEEDS	
SEPTEMBER 2023	**DISCUSSION ITEMS OR MANAGER'S REPORT AS NEEDED**	Discuss Preliminary Budget concerns and receive direction from Council as needed.	Sept 20 set for Budget work session with Council to review Special Projects and Water Matters
10/4/2023	COUNCIL MEETING	REVIEW BUDGET HIGHLIGHTS AND FIELD QUESTIONS FROM COUNCIL AS NECESSARY COUNCIL WILL FORMALLY ACCEPT THE BUDGET AS REQUIRED BY C.R.S 29-1-106(1) This will be a time for Council comments and Direction as well.	Council to receive Preliminary electronic Budget by Sept 29. AFTER MEETING POST AND PUBLISH IN NEWSPAPER THE "NOTICE OF BUDGET"
10/18/2023	COUNCIL MEETING	REVIEW BUDGET AND SPECIAL PROJECTS TO GAIN BUDGET INPUT AND DIRECTION FROM COUNCIL	
11/1/2023	COUNCIL MEETING	PUBLIC HEARING ON THE PROPOSED BUDGET AS ACCEPTED ON OCTOBER 3RD (ONLY ONE PUBLIC HEARING SCHEDULED)	
11/15/2023	COUNCIL MEETING	1ST READING OF BUDGET ORDINANCES: - BUDGET ADOPTION ON FIRST READING - MILL LEVY ADOPTION ON FIRST READING - FY 2023 SUPPLEMENTAL APPROPRIATION ON FIRST READING - TOWN FEE ADOPTION ON FIRST READING	PUBLISH ORDINANCES BY TITLE ONLY (FIRST READING) IN NEWSPAPER
12/6/2023	COUNCIL MEETING	2ND READING OF BUDGET ORDINANCES: - BUDGET ADOPTION ON FINAL READING - MILL LEVY ADOPTION ON FINAL READING - FY 2023 SUPPLEMENTAL APPROPRIATION ON FINAL READING - TOWN FEE ADOPTION ON FIRST READING	PUBLISH ORDINANCES BY TITLE ONLY (SECOND READING) IN NEWSPAPER

September 2023
FY 2024 BUDGET CALENDAR

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4 LABOR DAY OFFICE CLOSED	5	6 COUNCIL MEETING	7	8	9
10	11	12	13 PLANNING COMMISSION	14	15	16
17	18	19	20 COUNCIL MEETING	21	22	23
24	25	26	27 PLANNING COMMISSION	28	29	30

October 2023
FY2024 Budget Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4 COUNCIL MEETING	5 PUBLISH "NOTICE OF BUDGET" IN PUBLIC BOXES AND NEWSPAPER	6	7
8	9	10	11 PLANNING COMMISSION	12	13	14
15	16	17	18 COUNCIL MEETING	19	20	21
22	23	24	25 PLANNING COMMISSION	26	27	28
29	30 MINTURN HALLOWEEN	31 MINTURN HALLOWEEN				

November 2023
FY2024 Budget Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 COUNCIL MEETING	2	3	4
5	6	7	8 PLANNING COMMISSION	9	10 VETERAN'S DAY OFFICE CLOSED	11
12	13	14	15 COUNCIL MEETING	16 **PUBLISH ORDI-NANCES BY TITLE ONLY IN NEWSPA-PER AND WEBSITE**	17	18
19	20	21	22 PLANNING COMMISSION	23 THANKSGIVING OFFICE CLOSED	24 THANKSGIVING OFFICE CLOSED	25
26	27	28	29	30		

December 2023
FY2024 Budget Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6 COUNCIL MEETING	7 **PUBLISH ORDINANCES BY TITLE ONLY IN NEWSPAPER AND WEBSITE**	8 **SUBMIT MILL LEVY CERTIFICATION TO EAGLE COUNTY COMMIS-**	9
10	11	12	13 PLANNING COMMISSION	14	15	16
17	18	19	20 COUNCIL MEETING	21	22	23
24	25 CHRISTMAS DAY OFFICE CLOSED	26	27 PLANNING COMMISSION	28	29	30
31	**JANUARY 1, 2024** NEW YEAR'S DAY OFFICE CLOSED					

TOWN OF MINTURN

Box 309 (302 Pine Street)
Minturn, Colorado 81645-0309
970-827-5645 Fax: 970-827-4049

FROM THE DESK OF
JAY BRUNVAND, TREASURER/TOWN CLERK
MEMORANDUM

To: Town Staff
CC:
Date: 9/5/23 10:03 AM
RE: 2024 Town Holidays

As you are aware the Town recognizes the following Holidays as a day off with Pay.

HOLIDAY	DAY/DATE RECOG	BASIS
New Year's Day	Monday, January 1	First day of January
Martin Luther King Day	Monday, January 15	Third Monday of January
President's Day	Monday, February 19	Third Monday of February
Memorial Day	Monday, May 27	Last Monday of May
Independence Day	Thursday, July 4	Fourth of July
Labor Day	Monday, September 2	First Monday of Sept
Veteran's Day	Monday, Nov 11	11th day of the 11th month
Thanksgiving Day	Thursday, November 28	Fourth Thursday of Nov
Day after Thanksgiving	Friday, November 29	Fourth Friday of Nov
Christmas Day	Wednesday, December 25	Twenty-fifth day of Dec

Please remember certain employees may be scheduled to work on observed holidays pursuant to Town needs. They will be granted time off on a day agreed to in advance with the department director and the Town Manager.

Please contact me if you have any questions, jay

Approved by: _____ 9/5/23
Town Manager Date

2024



January

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

February

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		

March

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

April

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

May

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

June

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

July

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

August

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

September

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

October

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

November

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

December

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

print-a-calendar.com

COLORADO
Department of Local Affairs
Division of Local Government

LOCAL GOVERNMENT BUDGET CALENDAR

The budget calendar is a general listing of the deadlines for the budget, for an audit and for the property tax certification process. Some deadlines are not statutory, but reflect good budgeting practices. For details on the applicable statutes listed below, please refer to the most current Colorado Revised Statutes ("C.R.S.")

DATE	EVENT / ACTIVITY
1-Jan	Start of Fiscal Year; begin planning for the budget of the next year.
10-Jan	Deadline for assessor to deliver tax warrant to county treasurer (C.R.S 39-5-129.)
31-Jan	A certified copy of the adopted budget must be filed with the Division. (C.R.S 29-1-113(1)). - If a budget is not filed, the county treasurer may be authorized to withhold the local government's tax revenues. -
10-Feb	The Division sends notification to local governments whose budgets have not been filed with the Division.
1-Mar	The U.S. Bureau of Labor Statistics releases the Consumer Price Index (the "CPI") for the Denver/Boulder area. This annual percent change is used with "local growth" to calculate "fiscal year spending" and property tax revenue limitations of TABOR. (Article X, Sec. 20, Colo. Const.)
15-Mar	The Division will authorize the county treasurer to withhold tax revenues until a certified copy of the budget is filed with the Division.
31-Mar	Deadline to request exemption from audit. (C.R.S 29-1-604(3)) Contact the Local Government Audit Division, Office of the State Auditor, (303) 869-2800.
	The Division notifies local governments of its determination that the entity has exceeded the statutory property tax revenue limit (the "5.5%" limit).
30-Jun	Deadline for auditor to submit audit report to local government governing body. (C.R.S 29-1-606(a)(1))
31-Jul	Deadline for submitting annual audit report to the Office of the State Auditor. (C.R.S 29-1-606(3)) Deadline for request for extension of audit. (C.R.S 29-1-606(4)) - If an audit is required but has not been filed, the county treasurer may be authorized to withhold the local government's tax revenue -
25-Aug	Assessors certify to all taxing entities and to the Division of Local Government the total new assessed and actual values (for real and personal property) used to compute the statutory and TABOR property tax revenue limits. (C.R.S 39-5-121 (2)(b) and 39-5-128,.)
	If applicable, upon receipt of the Certification of Valuation, submit to the Division certifications of service impact from increased mining production and/or from increased valuation due to previously exempt federal property which has become taxable. Certifications of impact are required if the value is to be excluded from the tax revenue limit.
	If applicable, apply to the Division for authorization to exclude from the limit the assessed valuation attributed to new primary oil or gas production from any producing land or leaseholds.
15-Oct	Budget officer must submit proposed budget to the governing body. (C.R.S. 29-1-105) Governing body must publish "Notice of Budget" upon receiving proposed budget. (C.R.S. 29-1-106(1))
1-Nov	Deadline for submitting applications to the Division for an increased levy pursuant to 29-1-302, C.R.S. and applications for exclusion of assessed valuation attributable to new primary oil or gas production from the 5.5% limit pursuant to (C.R.S. 29-1-301 (1)(b))
10-Dec	Assessors' changes in assessed valuation will be made only once by a single notification (re-certification) to the county commissioners or other body authorized by law to levy property tax, and to the DLG. (C.R.S. 39-1-111(5))
15-Dec	Deadline for certification of mill levy to county commissioners (C.R.S 39-5-128(1)). Local governments levying property tax must adopt their budgets before certifying the levy to the county. If the budget is not adopted by certification deadline, then 90 percent of the amounts appropriated in the current year for operations and maintenance expenses shall be deemed re-appropriated for the purposes specified in such last appropriation. (C.R.S. 29-1-108(2) and (3))
22-Dec	Deadline for county commissioners to levy taxes and to certify the levies to the assessor. (C.R.S. 39-1-111(1))
31-Dec	Local governments not levying a property tax must adopt the budget on or before this date; governing body must enact a resolution or ordinance to appropriate funds for the ensuing fiscal year. If the budget is not adopted by certification deadline, then 90 percent of the amounts appropriated in the current year for operations and maintenance expenses shall be deemed re-appropriated for the budget year. (C.R.S 29-1-108(4))

More information and contact information is available on our website – www.dola.colorado.gov/budgets

ESTIMATED EFFECT OF MUNICIPAL MILL LEVY CALCULATIONS

	Residential	Commercial
MARKET VALUE OF HOME	200,000.00	200,000.00
RESIDENTIAL ASSESSMENT PERCENTAGE	6.8%	26.4%
MINTURN MILL LEVY	17.934	17.934

Residential

$$\frac{\$200{,}000 \times 6.80\% \times 17.934}{1{,}000} = \$249.28$$

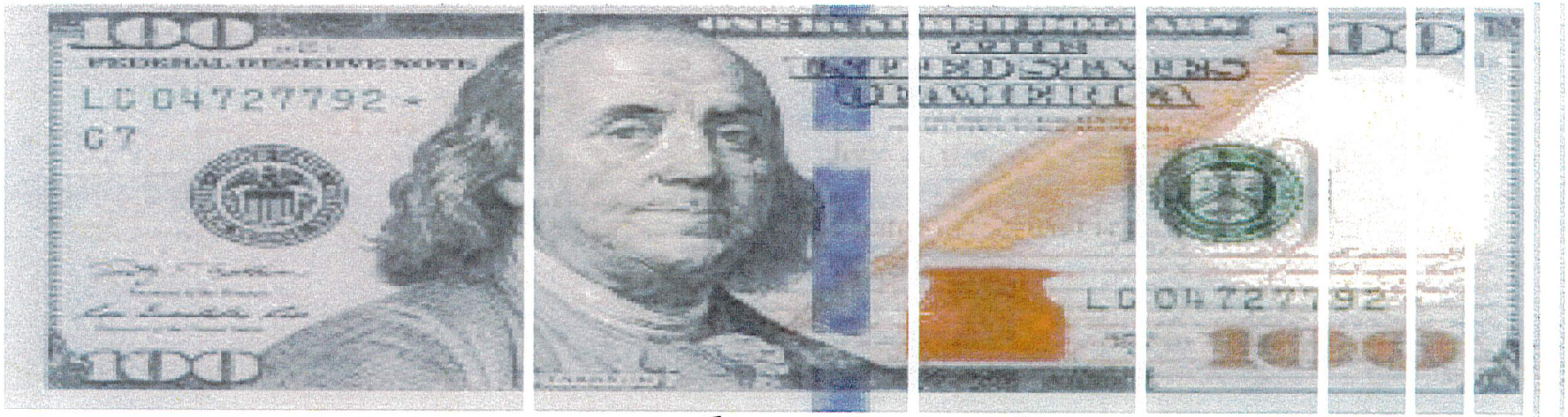
Commercial

$$\frac{\$200{,}000 \times 26.4\% \times 17.934}{1{,}000} = \$946.92$$

In 2002 a home assessed at $200,000 paid $328.20 in Minturn property taxes, in 2017 the same house paid $285.51, in 2022 the same house paid $256.46 in Minturn property taxes. During the 2017 statewide reassessment, the Residential assessment decreased from 7.96% to 7.2% based on the Gallagher Amendment restrictions and again in 2019 the assessed rate fell to 7.15% and in 2023 will fall again to 6.95% due to statewide legislative action. New in 2023 the state legislature has changed the commercial calculation from 29% down to 26.4%. Since 2002 the assessment ratio for residential has decreased 24% and commercial has decreased 9%. It is important to note that as the value of the property increases or decreases, so does the amount taxed.

In recent years, the values of residential housing have increased, affecting both the amount of property tax paid by the owner and the amount collected by the taxing entity. In November 2023 a state wide referendum will be voted on to potentially reduce and revise how the calculations are made after the assessed valuation is determined. This could significantly reduce the effects presented with the fast property value growths.

WHERE DO MY TAX DOLLARS GO?



School Dist 24.532

Town of Minturn, 17.934

ERFPD, 10.624

Eagle County 8.499

Colo Mtn College 4.085

Health Svcs 2.755

Library Dist 2.763

ERWSD 0.765

Cemetery Dist 0.45

CRWC 0.501

TOTAL MILL LEVY = 72.908

WATER COST
VS.
WATER EXPENSE

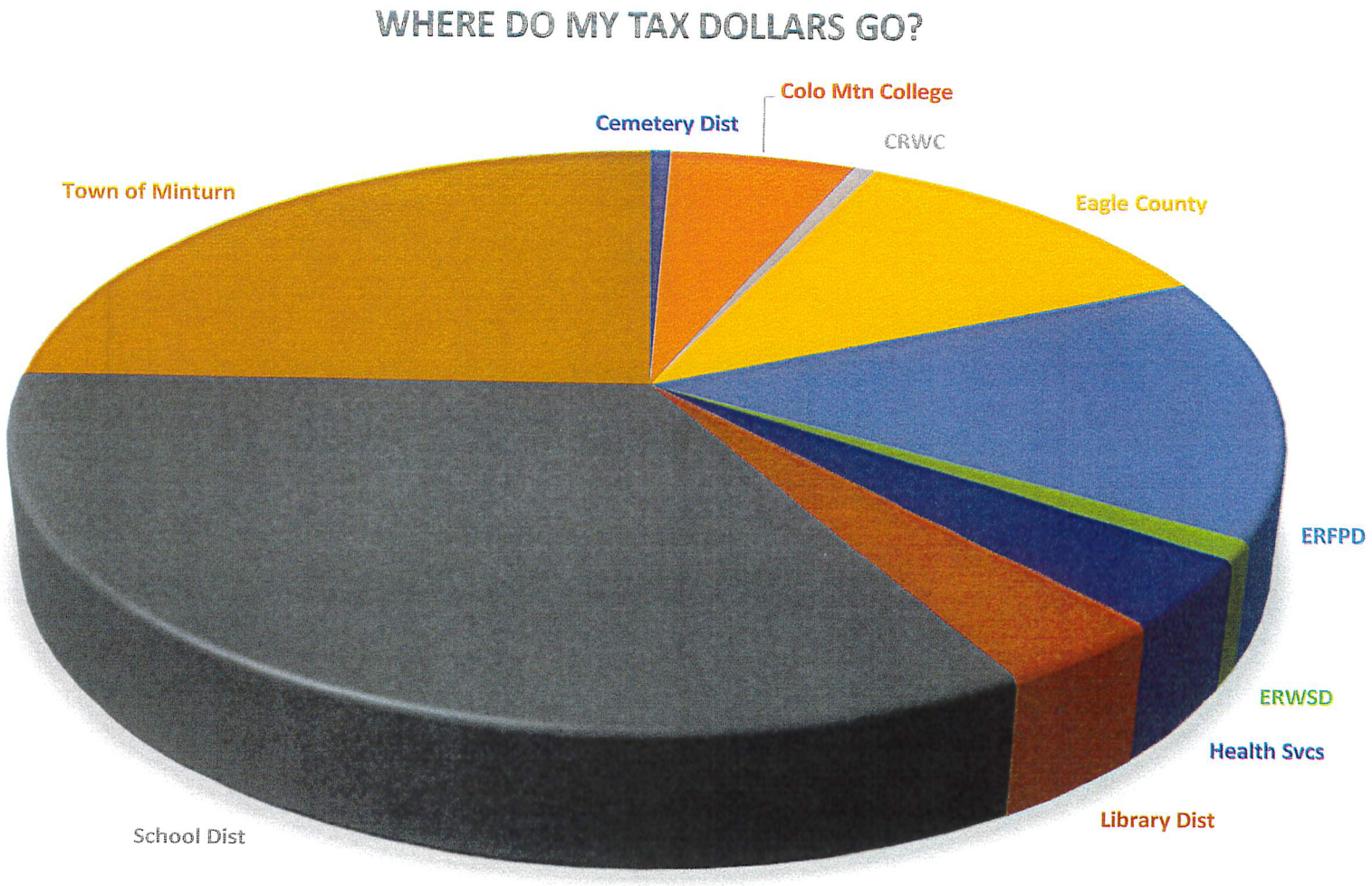
LAST UPDATED *12/22/2023*

	2024	NET	TOTAL	
WATER REVENUE	1,236,407.00			*
MISC	19,000.00			*
		1,255,407.00		
EXPENSE				
GENERAL	839,813.00			*
INTERFUND TRANSFER	0.00			
NET GRANT EXPENSES	0.00			
CAPITAL EXPENSE	94,500.00			
DEPRECIATION	108,200.00			*
		1,042,513.00	212,894.00	
DEBT SERVICE FEE	205,111.00			*
TAP/SIF/CIL FEES	685,000.00			*
GRANT FUNDS	0.00			
BOND PROCEEDS (Rec in 2021	0.00			
		890,111.00		
WATER SYSTEM CIP	260,000.00			*
DEBT SVC ANNUAL PYMT	205,117.00			*
OTHER	558,720.00			*
		1,023,837.00	-133,726.00	
MISC				
TRASH REVENUE	130,000.00			*
		130,000.00		*
TRASH EXPENSE	130,000.00			
		130,000.00		
			0.00	

NET REV/(EXP) 79,168.00

The following rates follow the recommended schedule approved in 2022

	2023	2024	
Base Rate - 2021	110.16	116.77	6% increase
Volumetric Rate/1000gal	8.32	8.82	6% increase
Debt Service	17.37	17.37	6% increase
3/4in Residential Water Tap	12,940.00	12,940.00	0% increase
System Impact Fee			
<1500sqft	10.95	12.32	0% increase
1501-3000sqft	14.52	16.34	0% increase
>3000sqft (2SFE's)	17.47	19.65	0% increase
up to 750sqft (.5SFE)	10.95	12.32	0% increase
Cash In Lieu of Water Fee	40,501.00	50,626.00	0% increase
Trash Fee	34.98		0% increase


WHERE DO MY TAX DOLLARS GO?
Colo Mtn College
Cemetery Dist
CRWC
Town of Minturn
Eagle County
ERFPD
ERWSD
Health Svcs
Library Dist
School Dist

2022 EAGLE COUNTY TAX AREAS BY AUTHORITY:

*Please note - if Tax Area # is preceeded by a "P" as in P001, the Colo River Water Cons, 076 and the Basalt Water Cons Dist, 074 mills are not included in mill levy total.

AREA ----►	001	003	004	006	007	008	009	010	012	013	015	016	018	019
	Avon (Town)	Basalt (Town)	Basalt (Rural)	El Jebel Area	El Jebel Area	Basalt (Town)	Basalt Area	Woods Lake Area	Sheephorn	Eagle (Town)	Brush Creek	Eagle Area	Gypsum (Town)	Gypsum (Town)
Total Mill Levy:	63.480	91.747	80.341	65.933	80.376	90.667	81.456	77.946	44.509	60.611	43.390	54.660	63.070	59.420
TAX AUTHORITY:														
Eagle County, 001 - 011	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499
CMC, 012 - 014	4.085	4.085	4.085	4.085	4.085	4.085	4.085	4.085		4.085	4.085	4.085	4.085	4.085
RE-50J, 015 - 019, 144	24.532									24.532	24.532	24.532	24.532	24.532
RE-1, 020 - 023		47.400	47.400	47.400	47.400	47.400	47.400	47.400						
WG JT, 025 - 028									29.991					
Avon, 030	8.956													
Basalt, 031		10.291				10.291								
Eagle, 032										2.301				
Gypsum, 033													5.094	5.094
Minturn, 034														
Red Cliff, 035														
Vail, 036														
SPECIAL DISTRICT:														
Airport Commerce Center, 131														
Arrowhead Metro, 052														
Arrowhead Metro Debt Srvc, 053														
Avon Center West TIF, 118														
Avon General Improvement, 127														
Avon Station Metro, 038														
Avon Station Metro Debt, 147														
Bachelor Gulch Metro, 067														
Basalt & Rural Fire, 049		8.834	8.834		8.834	8.834	8.834	8.834						
Basalt Regional Library, 092, 124		5.352	5.352		5.352	5.352	5.352	5.352						
Basalt Sanitation, 070		1.080					1.080							
Basalt Water Cons Dist, 074*		0.035		0.035	0.035	0.035	0.035							
Beaver Creek Metro, 054														
Bellyache Ridge Metro, 055														
Berry Creek Metro, 056														
Buckhorn Valley Metro #1,102														
[illegible]rn Valley Metro #2,101														
[illegible]e Village Metro, 061														
[illegible] Hill Cemetery, 041													0.490	0.490
Chatfield Corners Metro, 105														
Colo River Water Cons, 076*	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
Confluence Metro, 037														
Cordillera Metro, 063														
Cordillera Metro Consolidated, 107														
Cordillera Mtn Metro, 045														
Cordillera Valley Club Metro, 106														
Cotton Ranch Metro, 065														
Crown Mtn Park & Recreation, 108		3.020	3.020		3.020	3.020	3.020	3.020						
E.C. Health Service, 096	2.755								2.755	2.755	2.755	2.755	2.755	2.755
E.C. Conservation, 090														
Eagle Cemetery, 042								0.255		0.255	0.255	0.255		
Eagle Downtown Development, 148														
Eagle Ranch Metro, 044														
Eagle River Fire, 100, 142	10.624													
Eagle River Station, 117 (Inactive)														
Eagle River Water & San, 069	0.765													
E.R.W.&S. Water Subdstrct, 085														
Eagle Valley Library, 094	2.763			2.763					2.763	2.763	2.763	2.763	2.763	2.763
Eagle-Vail Metro, 057														
Edwards Metro, 059														
Edwrds Mtro Wst End Sbdstrct,143														
Greater Eagle Fire, 046										11.270		11.270		
Gypsum Fire, 050													10.701	10.701
Haymeadow Metro 1, 136														
Haymeadow Metro 2, 137														
Haymeadow Metro 3, 138														
Haymeadow Metro 4, 139														
Haymeadow Metro 5, 140														
Haymeadow Metro 6, 141														
Holland Creek Metro, 088														
[illegible] Mtn Ranch Metro, 068														
[illegible]reek Metro, 078														
[illegible]lley Metro, 060														
Minturn Cemetery, 043														
Minturn General Improvement, 128														
Mountain Recreation Metro, 062										3.650			3.650	
Mountain Vista Metro, 039														
Mt. Sopris Conservation, 091														
Red Sky Ranch Metro, 087														
Roaring Fork Trans Authority, 145		2.650	2.650	2.650	2.650	2.650	2.650							

*Please note - if Tax Area # is preceeded by a "P" as in P001, the Colo River Water Cons, 076 and the Basalt Water Cons Dist, 074 mills are not included in mill levy total.

REA ----►	020	022	023	024	025	027	028	029	031	033	034	035	036	037
	Gypsum S Area	Gypsum SW Area	Lake Crk Meadows	Minturn (Town)	Rural Eastern	Dowd Junction	Eagle/ Vail	Gypsum (Town)	Red Cliff (Town)	Bachelor Gulch	Smith Creek	Cordillera	Wolcott ERW&S	Eagle/ Vail
Total Mill Levy:	46.275	46.310	67.867	72.908	43.585	44.350	74.894	63.404	87.637	57.524	54.524	103.642	54.524	74.444
TAX AUTHORITY:														
Eagle County, 001 - 011	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499	8.499
CMC, 012 - 014	4.085	4.085	4.085	4.085	4.085	4.085	4.085	4.085	4.085	4.085	4.085	4.085	4.085	4.085
RE-50J, 015 - 019, 144	24.532	24.532	24.532	24.532	24.532	24.532	24.532	24.532	24.532	24.532	24.532	24.532	24.532	24.532
RE-1, 020 - 023														
WG JT, 025 - 028														
Avon, 030														
Basalt, 031														
Eagle, 032														
Gypsum, 033								5.094						
Minturn, 034				17.934										
Red Cliff, 035									33.878					
Vail, 036														
SPECIAL DISTRICT:														
Airport Commerce Center, 131														
Arrowhead Metro, 052														
Arrowhead Metro Debt Srvc, 053														
Avon Center West TIF, 118														
Avon General Improvement, 127														
Avon Station Metro, 038														
Avon Station Metro Debt, 147														
Bachelor Gulch Metro, 067										3.000				
Basalt & Rural Fire, 049														
Basalt Regional Library, 092, 124														
Basalt Sanitation, 070														
Basalt Water Cons Dist, 074*		0.035												
Beaver Creek Metro, 054														
Bellyache Ridge Metro, 055														
Berry Creek Metro, 056														
Buckhorn Valley Metro #1,102														
[illegible]orn Valley Metro #2,101														
[illegible]e Village Metro, 061														
[illegible]ar Hill Cemetery, 041	0.490	0.490												
Chatfield Corners Metro, 105														
Colo River Water Cons, 076*	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
Confluence Metro, 037														
Cordillera Metro, 063												0.000		
Cordillera Metro Consolidated, 107												45.468		
Cordillera Mtn Metro, 045														
Cordillera Valley Club Metro, 106														
Cotton Ranch Metro, 065														
Crown Mtn Park & Recreation, 108														
E.C. Health Service, 096	2.755	2.755	2.755	2.755	2.755	2.755	2.755	2.755	2.755	2.755	2.755	2.755	2.755	2.755
E.C. Conservation, 090														
Eagle Cemetery, 042								0.255						
Eagle Downtown Development, 148														
Eagle Ranch Metro, 044														
Eagle River Fire, 100, 142			10.624	10.624			10.624		10.624	10.624	10.624	10.624	10.624	10.624
Eagle River Station, 117 (Inactive)														
Eagle River Water & San, 069				0.765		0.765	0.765			0.765	0.765	0.765	0.765	0.765
E.R.W.&S. Water Subdstrct, 085														
Eagle Valley Library, 094	2.763	2.763	2.763	2.763	2.763	2.763	2.763	2.763	2.763	2.763	2.763	2.763	2.763	2.763
Eagle-Vail Metro, 057							19.920							19.920
Edwards Metro, 059														
Edwrds Mtro Wst End Sbdstrct,143														
Greater Eagle Fire, 046								11.270						
Gypsum Fire, 050														
Haymeadow Metro 1, 136														
Haymeadow Metro 2, 137														
Haymeadow Metro 3, 138														
Haymeadow Metro 4, 139														
Haymeadow Metro 5, 140														
Haymeadow Metro 6, 141														
Holland Creek Metro, 088														
Horse Mtn Ranch Metro, 068														
[illegible]Creek Metro, 078			10.458											
[illegible]alley Metro, 060														
Minturn Cemetery, 043				0.450	0.450	0.450	0.450							
Minturn General Improvement, 128														
Mountain Recreation Metro, 062			3.650					3.650				3.650		
Mountain Vista Metro, 039														
Mt. Sopris Conservation, 091														
Red Sky Ranch Metro, 087														
Roaring Fork Trans Authority, 145	2.650	2.650												

/S District - Incom

	2021								2022								2023							
	Base Rate	Excess Use Res	Excess Use Comm	Total Water	Debt Svc	Trash	Total	Total Water Income Vs 2021 over 2020	Base Rate	Excess Use Res	Excess Use Comm	Total Water	Debt Svc	Trash	Total	Total Water Income Vs 2022 over 2021	Base Rate	Excess Use Res	Excess Use Comm	Total Water	Debt Svc	Trash	Total	Total Water Income Vs 2023 over 2022
January	64,784.95	10,736.76	3,906.76	79,428.47	5,629.93	9,539.77	94,598.17	5,284.48	60,068.39	9,377.09	4,357.54	73,803.02	5,489.20	9,402.42	88,694.64	-5,625.45	73,645.42	10,974.80	4,392.96	89,013.18	12,188.73	12,512.22	113,714.13	15,210.16
February	62,971.81	10,641.14	4,057.02	77,669.97	5,615.37	9,529.77	92,815.11	72,632.47	63,004.30	12,895.04	5,723.54	81,622.88	5,492.22	9,572.22	96,687.32	3,952.91	77,237.73	11,797.76	4,767.36	93,802.85	12,195.68	9,782.22	115,780.75	12,179.97
March	64,242.21	10,497.71	4,384.86	79,124.78	5,590.36	9,485.81	94,200.95	74,405.78	65,176.46	9,507.36	4,248.26	78,932.08	5,472.17	9,386.29	93,790.54	-192.70	76,717.10	9,864.24	4,526.08	91,107.42	12,181.78	9,782.22	113,071.42	12,175.34
April	62,891.15	10,518.20	4,384.86	77,794.21	5,598.17	9,519.77	92,912.15	73,101.21	63,479.79	8,972.71	4,637.57	77,090.07	5,478.68	9,376.95	91,945.70	-704.14	77,113.70	10,599.68	6,830.72	94,544.10	12,227.51	9,742.00	116,513.61	17,454.03
May	64,153.76	8,831.19	4,091.17	77,076.12	5,579.94	9,469.12	92,125.18	75,665.62	60,774.95	9,398.08	3,223.76	73,396.79	5,463.59	9,309.03	88,169.41	-3,679.33	76,429.52	7,970.56	7,521.28	91,921.36	12,153.98	9,738.50	113,813.84	18,524.57
June	64,272.66	8,762.89	3,360.36	76,395.91	5,575.78	9,745.98	91,717.67	74,985.41	62,152.46	11,255.84	3,476.47	76,884.77	5,472.69	10,304.63	92,662.09	488.86	70,563.66	8,919.04	8,486.40	87,969.10	12,192.20	9,773.48	109,934.78	11,084.33
July	68,426.27	18,188.29	5,320.57	91,935.13	5,566.93	9,552.22	107,054.28	90,492.13	67,140.04	14,411.30	4,050.19	85,601.53	5,487.80	9,493.79	100,583.12	-6,333.60	81,804.58	15,783.04	6,822.40	104,410.02	12,192.20	9,703.52	126,305.74	18,808.49
August	68,075.34	15,387.99	5,825.99	89,289.32	5,554.44	9,528.26	104,372.02	82,613.82	65,229.61	15,326.52	4,883.45	85,439.58	5,468.01	9,514.30	100,421.89	-3,849.74	84,930.08	20,483.84	13,104.00	118,517.92	12,179.46	9,739.66	140,437.04	33,078.34
September	70,842.59	15,210.41	6,010.40	92,063.40	5,544.54	9,462.61	107,070.55	86,245.90	69,411.92	16,945.23	7,533.49	93,890.64	5,496.92	9,548.26	108,935.82	1,827.24	86,793.94	10,400.00	18,487.04	115,680.98	12,188.73	9,773.48	137,643.19	21,790.34
October	69,377.38	12,833.57	4,521.46	86,732.41	5,578.64	9,427.51	101,738.56	81,025.41	113,703.88	12,901.87	5,279.59	131,885.34	5,455.24	9,480.34	146,820.92	45,152.93				0.00			0.00	-131,885.34
November	66,097.49	8,318.94	3,763.33	78,179.76	5,731.98	9,358.46	93,270.20	73,454.26	20,020.72	10,661.63	5,163.48	35,845.83	5,476.08	9,515.43	50,837.34	-42,333.93				0.00			0.00	-35,845.83
December	64,615.43	9,077.07	4,446.33	78,138.83	5,579.48	9,402.42	93,120.73	74,030.83	61,257.78	8,660.44	4,261.92	74,180.14	5,471.13	9,534.30	89,185.57	-3,958.69				0.00			0.00	-74,180.14
	790,751.04	139,004.16	54,073.11	983,828.31	67,145.56	114,021.70	1,164,995.57	863,937.32	771,420.30	140,313.11	56,839.26	968,572.67	65,723.73	114,437.96	1,148,734.36	-15,255.64	705,235.73	106,792.96	74,938.24	886,966.93	109,700.27	90,547.30	1,087,214.50	-81,605.74

u:water rate comparison

	TOWN OF MINTURN									
	PAYROLL DATABASE									
LAST NAME	FIRST NAME	HIRE DATE	POSITION	PAY DATES	FY2023 ANNUAL PAY	2024 PROJECTED RAISE %	2024 PROJECTED RAISE $	2024 PROJECTED ANNUAL PAY	2024 PROJECTED AMT/CK	WAGE ACCOUNT NUMBER
STAFF										
BIDEZ	EARLE		MAYOR	15	$4,800.00	0%	$0.00	$4,800.00	$400.00	01-01-5010
AMRISTEAD	TERRY		MAYOR PRO-TEM	15	$2,400.00	0%	$0.00	$2,400.00	$200.00	01-01-5011
BRODIN	GEORGE		COUNCILMAN	15	$2,400.00	0%	$0.00	$2,400.00	$200.00	01-01-5011
FEIGER	LYNN		COUNCILMAN	15	$2,400.00	0%	$0.00	$2,400.00	$200.00	01-01-5011
KANAKIS	GUSTY		COUNCILMAN	15	$2,400.00	0%	$0.00	$2,400.00	$200.00	01-01-5011
STAFFANI	KATE		COUNCILMAN	15	$2,400.00	0%	$0.00	$2,400.00	$200.00	01-01-5011
SULLIVAN	TOM		COUNCILMAN	15	$2,400.00	0%	$0.00	$2,400.00	$200.00	01-01-5011
			TOWN MANAGER	15 & 30	$129,311.60		$0.00	$129,311.60	$5,387.98	01-01-5012
			TREASURER/CLERK	15 & 30	$120,174.05		$0.00	$120,174.05	$5,007.25	01-01-5014
			OFFICE TECHNICIAN	15 & 30	$0.00		$0.00	$0.00	$0.00	01-01-5013
			TOWN PLANNER	15 & 30	$68,666.40		$0.00	$68,666.40	$2,861.10	01-02-5010
			PLANNING & ZONING	15 & 30	$65,000.00		$0.00	$65,000.00	$2,708.33	01-02-5011
			EVENTS/COURT	15 & 30	$81,276.56		$0.00	$81,276.56	$3,386.52	01-05-5010
			PUBLIC WORKS	15 & 30	$82,093.44		$0.00	$82,093.44	$35.88/$53.85 HRLY/OT	02-06-5010
			PUBLIC WORKS	15 & 30	$71,728.80		$0.00	$71,728.80	$31.35/$47.03 HRLY/OT	01-06-5011
			PUBLIC WORKS	15 & 30	$61,959.04		$0.00	$61,959.04	$27.08/$40.62 HRLY/OT	01-06-5011
			PUBLIC WORKS	15 & 30	$57,314.40		$0.00	$57,314.40	$25.05/$37.58 HRLY/OT	02-06-5010
ANNUAL BONUS POOL ($2K/EMP'EE)					$16,000.00		$16,000.00			
			NET WAGES		$772,724.29			$756,724.29		
			EMP'EE WAGE POOL APPROX (7%)		$54,090.70	14% BEN	$7,572.70			
		TOTAL EST EMP'EE WAGES LESS BEN'S			$826,814.99					
		EMP'EE RAISE POOL W/BEN			$61,663.40					
			2024 BUDGET		$85,000.00		$23,572.70			
			% CHANGE							
2007 BUDGETED WAGES LESS BEN		738,068.00	8.45%	(Includes 1.5 new employees = 1 in Planning and .5 In Public Works)						
2008 BUDGETED WAGES LESS BEN		805,851.00	8.41%	(includes Police at 5FTE even though currently at 4FTE)						
2009 BUDGETED WAGES LESS BEN		1,109,759.00	27.39%	(Includes 5 new employees = 1 in Finance, 1 in Planning, 1in Police and 2 In Public Works)						
2010 BUDGETED WAGES LESS BEN		907,638.72	-22.27%							
2011 BUDGETED WAGES LESS BEN		755,449.68	-20.15%							
2012 BUDGETED WAGES LESS BEN		661,600.96	-14.19%	(budgeted staff includes 11 FET plus judge and Council)						
2013 BUDGETED WAGES LESS BEN		696,529.68	5.01%	(budgeted staff includes 12 FET plus judge and Council)						
2014 BUDGETED WAGES LESS BEN		533,778.06	-30.49%	(budgeted staff includes 9 FET plus judge and Council)						
2015 BUDGETED WAGES LESS BEN		532,009.83	-0.33%	(budgeted staff includes 9 FET plus judge and Council)						
2016 BUDGETED WAGES LESS BEN		581,454.00	8.50%	(budgeted staff includes 9 FET plus judge and Council)						
2017 BUDGETED WAGES LESS BEN		616,459.00	5.68%	(budgeted staff includes 9 FET plus judge and Council)						
2018 BUDGETED WAGES LESS BEN		641,482.17	3.90%	(budgeted staff includes 9 FET plus judge and Council)						
2019 BUDGETED WAGES LESS BEN		589,481.06	-8.82%	(budgeted staff includes 8 FET plus judge and Council)						
2020 BUDGETED WAGES LESS BEN		580,269.80	-1.59%	(budgeted staff includes 8 FET plus judge and Council)						
2021 BUDGETED WAGES LESS BEN		595,602.54	2.57%	(budgeted staff includes 8 FET plus Council)						
2022 BUDGETED WAGES LESS BEN		630,577.78	5.55%	(budgeted staff includes 8 FET plus Council)						
2023 BUDGETED WAGES LESS BEN		672,524.29	6.24%	(budgeted staff includes 8 FET plus Council)						

	ITEM	INT FUND TRANS	2024 AMOUNT	ACCOUNT
NON-ENT FUNDS				
	INTERFUND CAPITAL TRANSFER		0.00	
	BOBCAT		0.00	06-01-5249
	STREET/SIDEWALK/DRAINAGE		125,000.00	01-06-5352
	PW VEHICLE		0.00	06-01-5249
	PW LOADER		0.00	06-01-5249
	PUBLIC BLD MAINT		15,000.00	01-06-5290
	PW TOOLS		5,000.00	01-06-5120
	COMPUTER ROTATION		5,500.00	01-01-5292
	NETWORK UPGRADE		0.00	01-01-5120
	WEBSITE SOFTWARE		0.00	04-01-5250
	PARK MAINT		31,750.00	01-06-5357
	BIKE PARK MAINT		15,000.00	01-06-5357
	COPY MACHINE (50%)		0.00	06-01-5249
PRIORITY 2	ADDITIONAL STRT/SIDEWALKS			FUNDED DURING YEAR
			197,250.00	

ENT FUND				
	INTERFUND TRANSFER	YES	0.00	02-00-4570 TO 04-00-4570
	BOBCAT		0.00	02-09-8000
	PW VEHICLE		0.00	02-09-8000
	PW LOADER		0.00	02-09-8000
	PW TOOLS		5,000.00	02-06-5150
	WATER PLANT/SYSTEM		80,000.00	02-06-5293
	WATER RIGHTS MAINT		160,000.00	02-06-5352
	COPY MACHINE (50%)		0.00	02-09-8000
			245,000.00	

CTF FUND				
	WOOD TREAT:MGRS HS, EP		61,000.00	03-00-5140
	RESTROOM & AMPHITHEATER			
			61,000.00	

NON ENTERPRISE FUND ITEMS	2023	2024
INTERFUND CAPITAL TRANSFER	0.00	0.00
BOBCAT	3,000.00	0.00
STREET/SIDEWALK/DRAINAGE	40,000.00	125,000.00
PW VEHICLE	34,000.00	0.00
PW LOADER	0.00	0.00
PUBLIC BLD MAINT	15,000.00	15,000.00
PW TOOLS	5,000.00	5,000.00
COMPUTER ROTATION	5,500.00	5,500.00
NETWORK UPGRADE	0.00	0.00
WEBSITE SOFTWARE	0.00	0.00
PARK MAINT	28,000.00	31,750.00
BIKE PARK MAINT	15,000.00	15,000.00
COPY MACHINE (50%)	7,500.00	0.00
	153,000.00	197,250.00

ENTERPRISE FUND		
INTERFUND TRANSFER	0.00	0.00
BOBCAT	3,000.00	0.00
PW VEHICLE	34,000.00	0.00
PW LOADER	0.00	0.00
PW TOOLS	5,000.00	5,000.00
WATER PLANT/SYSTEM	40,000.00	80,000.00
WATER RIGHTS MAINT	140,000.00	160,000.00
COPY MACHINE (50%)	7,500.00	0.00
	229,500.00	245,000.00

CONSERVATION TRUST FUND		
WOOD TREAT:MGRS HS, EP, LBP	15,000.00	61,000.00
RESTROOM & AMPHITHEATER	0.00	0.00
FISHING ACCESS GRANT	0.00	0.00
BONEYARD CONSERVATION	0.00	0.00
BIKE TRACK STUDY	0.00	0.00
	15,000.00	61,000.00

FROM THE DESK OF
JAY BRUNVAND, MINTURN FINANCE OFFICE
MEMORANDUM

FROM: Jay Brunvand, Treasurer
DATE: 9/27/23
RE: Capital Asset narrative

Proposal: Following is a narrative summary of the Town wide Capital Improvement Plan. The intent of this summary is to:

- Maintain existing capital facilities and equipment
- Continue to rotate our vehicle stock so as to best recognize an efficient and cost-effective fleet
- Provide capital assets that are safe and desirable to the employees and citizens of the Town of Minturn
- Maintain or complete existing programs through the assessment of needs and costs and to recognize potential system needs in order to avert avoidable issues in the future.
- Move the Town philosophy from a reactionary system to a proactive system

In November 2018 the Town passed a 4% Construction Use Tax to help fund our growing list of Capital needs. Dollars collected from this tax will be utilized to further our repair and maintenance schedules. Revenue from this tax is reflected in the Capital Fund (06),

Streets, Roads and Bridges:
Public Works should maintain and annually confirm and update a list of all streets in Town and the status of each. This list should include a dated bid of the cost to overlay each road. I have included below the most recent summary of the streets and repairs. For 2024 we have budgeted $125,000 for Street/Sidewalk Maintenance (01-06-5352). A Capital Outlay-Special Projects account has been created to allocate planned improvements (XX-09-8000). Additionally, projects are budgeted in the Capital Fund (06). In the event the Enterprise Fund participates, funds are budgeted in the Enterprise Fund (02).

Through much of Minturn's history our road maintenance schedule has been nonspecific and addressed only when a road was at or nearly failing. A standardized repair and maintenance program for road maintenance Capital Improvements and Order of Magnitude schedule has been developed by our contracted town engineer firm, Intermountain Engineering. This plan is developed as a component of this Capital Improvement Plan whereby patch, crack and annual maintenance are scheduled for all roads in order to maintain the road infrastructure. Currently a set amount is budgeted based on availability in the General Fund line item 01-06-5352 and utilized based on need and in consideration of this plan and Special Projects have been proposed to accommodate major repairs and projects.

During our annual review of this document, assessments have been made on each street, road, and bridge as to its current condition, its maintenance needs, its upgrade needs, the ability to phase improvements, a cost assessment, and a priority has been established.

- Establish a classification system for all roads to include arterial, collector and local roads.
- Survey and establish a database of all streets, rights of way, sidewalks, gutters and water lines
- Hwy 24 – this road is approximately 20 blocks long (3.6 miles from MP 143.6 to MP 147.2). The State of Colorado is the primary maintenance crew on this road. Our PW Dept works with CDOT to ensure concerns are addressed. An existing agreement is annually renewed and expires in November of each year.
    - The Town maintains a contract with CDOT whereby the Town will plow and remove snow and perform other specific maintenance on Hwy 24 within the Town along the sides of the roadway. CDOT will plow the main traffic lanes.
    - Summer 2010 the "S" curves at the North end of Main Street were repaired and paved and in 2016 several major bulges were mitigated halfway between the north town

boundary and the "S" curves. During most winters, this section of road is undermined with water, ice and falling debris. In early spring CDOT patches the worst areas and will complete more as spring and summer weather allow. Summer of 2013 the South end of Town was roto milled and new asphalt was laid. During the summer of 2014 repairs and an asphalt overlay was conducted in the travel lanes from the "S" turns north for approximately one mile.

- A phased plan to address the 100 Block entryway was begun in the fall of 2015. A major upgrade was completed in 2016 in the 100 block and engineering was completed from the 200 block to Maloit Park Road. This plan is funded using Minturn funds, a DOLA grant, and CDOT TAP grant.
- In 2017 and annually thereafter, the town will rent a heavy-duty street sweeper in the spring and sweep all streets.
- In 2019 Hwy 24 was significantly upgraded from the I-70 interchange at the north end of town to Maloit Park Road at the south end of town. CDOT managed the entire project but the town contributed with grants and additional town source funding. The entire project was estimated at $3m.
    - CDOT replaced and upgraded all guardrails and paving.
    - In the 500 to approximately the 1000 block drainage, curb/gutter, and sidewalk was installed within the CDOT right of way.
    - Sidewalks were installed within this area and on both sides of Hwy 24 if able, if not able at least on one side.
    - Curb stops were located and marked in the sidewalk areas and driveway access was improved.
    - Phase II of the sidewalk construction will take sidewalk on both sides of Main St from approximately the 1000 block to approximately 1350 Main St (Bone Yard Park).

- Minturn Road – This road is divided in near half with the north end a County road maintained by the County and a Town road to the south maintained primarily by the Town. The County is willing to assist on road grading and the like but it is hit and miss. Where the road shifts from County to Town ownership continues to be an area of high maintenance and is often rutted and wash-boarded. During the summer of 2012 the road was stripped of the roto-mill that had served as paving and was graded with new road base from the USFS Bridge (North Bridge) to Taylor St by Eagle County Road and Bridge. This cooperative grading is scheduled to continue annually.

- Taylor Ave – The lower area of the 100 block was reconstructed and paved in 2007. It has no sidewalks, little shoulder or snow stacking area, and narrows progressively as you move north. In 2015 the rail tracks were covered over with asphalt to improve the passageway for vehicular traffic.

- Grant Ave – This road is undeveloped yet platted and runs north/south and parallel to Taylor Ave along the east side. In 2019 the entire stretch of road was surveyed and encroachments are being addressed.

- Railroad Ave – the area from Bellm Bridge to the right-hand turn where Taylor St begins was roto milled and overlaid during the 2009 summer at a cost of approximately $25k. In 2015 the area from the north end of the Saloon to the tracks was completely rebuilt and curb and gutter was added to assist in water drainage.

- Eagle St (AKA Eagle River St.) – Very narrow alley which starts and stops intermittently between the 100 and 400 blocks on the east side between Main St and the Eagle River. In 2013 the 100 to approximately mid-200 block was significantly improved with drainage, curb and gutter, and complete tear up and repave of the road. The street travels south parallel to the Eagle River from the 100 block for almost two blocks dead ending just south of the Manager's House (210 Eagle St), then picks up again for a short distance in the 300 block dead ending again, and picking up again to include the 400 block between Harrison and Meek where it again dead ends. This street was crack sealed in 2011.

- Williams St – Very narrow alley that runs parallel along the west side of Hwy 24 in the 100 block. The area is used for the summer Minturn Market and much of the area is in good shape and has been jointly maintained by the immediate property owner, MR Minturn, and the Town over the years. This street was crack sealed in 2011.

- 1st Street – This road currently exists as a parking lot between 101 Main St and 131 Main St and runs from Main Street to Williams Ave with a 40ft ROW. The Town works in partnership with MR Minturn, the current owner of the adjacent properties, to maintain this area. Direction was given in 2017 to survey this area in order to pin the 1st street right-of-way in order to address concerns and confusion of encroachments, width, and length.

- Nelson Ave – Nelson runs from Main St west a short distance up the hill. It is approximately less than two blocks or so and then becomes a private road which is VERY steep. This area has been developed and consists of several private homes and a small hotel. Although it is in pretty good shape it is a future concern of the Town due to its horrible incline, and limited sidewalk and curb/drainage potential. This street was crack sealed in 2011. Drainage work was done on Nelson Ave from Williams St to Main Street in 2015; however, the neighbors adjacent to the road have expressed concern over the upkeep of the portion that is not town ROW and the Town has expressed concern of the drainage from the private portion shedding down the ROW portion. Nelson Ave is scheduled for an overlay in the 2024 budget.

- Toledo Ave – extends from Eagle St to Pine St across Hwy 24. In 2013 this road was significantly improved with drainage, curb and gutter, and complete tear up and repave of the road between Eagle Street and Hwy 24. The area from Hwy 24 to Pine St. holds leased parking from the Town to the Ironworks Building (201 Main St) as most of their parking is in the right of way. This street was crack sealed in 2011. Concern has been expressed of the winter ice buildup as the road is in near continuous shade during the winter and the ice buildup is affecting the Ironworks Building.

- Norman Ave – Extends from the river to Pine St and is a priority repair. The Hwy 24 to Pine was rebuilt when we built the Town Center in 2000. Drainage is a significant issue as we are unable to fully pave the north side of Norman between Boulder and Pine St's due to a zero percent incline. This street was rebuilt and drainage, curb and gutter were added in 2015. This street was crack sealed in 2011 and 2016. Norman Ave is scheduled for an overlay in the 2024 budget.

- Harrison Ave – Harrison runs from the River to Pine St and is generally in good shape. During a water line looping project in the summer of 2014 the street was roto milled and overlaid from Main St to Pine St at a cost of approximately $16,000. This street was crack sealed in 2011 and 2016.

- Boulder St – Boulder St is a modified alley. In the 200 block it is two-way; in the 300 block it is one-way north to south; the rest of Boulder from the 400 to the 700 block runs one-way south to north. From Toledo to Harrison, it has hot-patched potholes but is generally in good condition. The 200 block could be reconfigured for better parking. From Harrison south it is one way in sections and single lane at best. It is in need of repairs and overlay. This street was crack sealed in 2011 and 2016.

- Pine St – runs from the 200 block to about the 5-600 block poor maintenance and snowpack have caused the street to degrade over the years. It was reconstructed in the mid 90's or so. In 2012 the 200 block was roto-milled and paved; curb and gutter drainage were installed along the east side and sidewalk, curb, and gutter were installed along the west side. In the 400 block and on south the street seems to narrow progressively as you travel south whereby when you reach Mann Ave the right of way is potentially not where the road actually sits. The street has narrow sidewalks in various states of disrepair. The street is a priority. This street was crack sealed in 2011 and 2016. In 2022, Phase I was completed with sidewalk/curb/gutter and paved. This project will continue south as a phased project in FY2025 or later as funds are available.

- Byre Ave – Byre runs from the river to Hwy 24, skips Hwy 24 to Boulder, and runs from Boulder to Pine. The road is poorly defined, is very narrow, and resembles more of a parking lot than a defined street. There are no sidewalks or curbs defining the road. During the winter months, it is used for snow stacking between Eagle St and Main St. This street was crack sealed in 2011 and 2016.

- Meek Ave – Hwy to Pine was roto milled and overlaid in approximately 2007 and includes asphalt drainage pans. This Avenue has been a source of concern as the northwest corner of Meek and Boulder has drainage issues onto the residential property. This street was crack sealed in 2011 and 2016, and significant pothole patching was done in 2020.

- Mann Ave – Hwy to Pine was roto milled and overlaid a few years ago and includes some asphalt drainage pans. This street was crack sealed in 2011 and 2016.

- Cemetery Rd – On the east side of the river is a dirt road that has heavy use by heavy equipment. This is the only connection to the east side of the river and is used to access the River View Cemetery, Little Beach Park, the Public Works shop area, and the land known as the Lease Lot. The traffic on this road is near 80% heavy equipment as both the Public Works facility and the New Castle Concrete plant utilize this road. The remaining 20% is access to cross country ski trails, the Cemetery, and the Forest Service shooting range. The road is maintained as needed and, other than the fact it is dirt, it is maintained to an acceptable standard. In FY2020 the Minturn Bike Park was constructed where the road terminates passed the Lease Lots.

- Three Bridges – Each of the bridges (North, Bellm, and Cemetery) are in deteriorating condition and have been cited as in need of minor to significant repairs on the annual State Bridge reports. During 2014 the public works crew made upgrades to the bridges at the water line.

Sidewalks:

Minturn has a somewhat defined sidewalk plan which should be addressed in this improvement plan. Sidewalks should be defined as a path for pedestrian and non-motorized travel and would include the standard three foot or five-foot-wide sidewalk, a paved path or even a soft path. Currently and in the past the Public Works Department had worked through 2015 with respective citizens by removing the old sidewalk, forming the new one and either using Lafarge left over concrete or the citizen purchased concrete. The Town PW's crew normally has preformed the finish work on the poured concrete. Although only a soft cost to the Town, this is a heavy burden on the PW's crew. New and or replacement sidewalks are budgeted within the Street and Sidewalk General Fund budget line item (01-06-5352). Complete sidewalks, curb, and gutter were installed on both sides of the street in FY2020. This addition runs south to approximately the 1000 block on the east side of Main St/Hwy 24 and from the mid 400 block to approximately the 1000 block on the west side of Main St/Hwy 24 in conjunction with the CDOT repaving from Down Jct to Maloit Park.

- Current sidewalks:
    - A standard width of 5ft has been established; a standard material should be established.
    - An assessment of current sidewalks to include the condition, placement, up grades, phasing and cost assessment will need to be established. This assessment has been determined a high priority.
    - Consideration should be given between sidewalk, paved path, or soft path in various areas as the need in the specific area warrants.
    - A defined sidewalk plan of where sidewalks/paths are placed, how sidewalks are maintained, weather the Town or the citizen is responsible, cost and enforcement of policy. This plan should include both winter shoveling and summer maintenance/repair. This plan should be sympathetic to the current "owner pays" program as well as future needs of the Town.
    - Funding should be based on need, phasing, and the ability to accomplish in conjunction with street repair/maintenance. Any reasonable outside funding mechanism should be considered to reduce or share the cost shouldered by the Town.

- A base price should be calculated that could be extrapolated to price any size sidewalk.

- Future or proposed sidewalks:
  - Establish a needs list of new sidewalks and paths to allow safe pedestrian travel.
  - Establish a sidewalk plan that would relegate where sidewalks would be placed and if a path or soft path is a viable solution as well as allow for the requirement of sidewalk placement based on a specified cost or percentage of remodel.
  - Establish priority needs and funding sources available to include Town funds in conjunction with outside grants. Any outside reasonable funding mechanism should be considered to reduce or share the cost shouldered by the Town.

Entry and Streetscapes:
Entry and Streetscape needs were traditionally budgeted within the Street and Sidewalk General Fund budget line item (01-06-5352). With the Construction Use Tax (Fund 06) funding is limited but available as well.

- In 2007 the Town created a plan with the OZ Group. This plan highlighted streetscape needs based on aesthetic quality and use emphasizing the Minturn culture and citizen desires. The Town also has worked with Downtown Colorado Inc to define procedures to implement the OZ plan and identify other options in order to establish a uniform character throughout Town. These plans lay out a defined project however do not extend to the engineered level.
- In 2009 the Town completed the Community Plan and in 2010 the Town held meetings to develop a Town sign. The Community Plan will be updated in FY2022. In 2011 two monument signs were installed, one at the north and one at the south end of Town, welcoming citizens and guests to Minturn.
- Establish a streetscape needs list progressing block by block on Hwy 24 to include priority and costs.
- Establish both Town and alternate sources of funding.
- Signage and uniform signage should be considered with the intent of eliminating nonproductive signage and replacing with uniform and clear signage, flags, banners and the like. Annually funds are appropriated in line item 01-06-5357. Annual funding is budgeted in order to further this goal.
- Annual progress should be highlighted and funding should be established based on need and priority in the annual budget. Annual highlights and needs budgeted to include traffic routing, sidewalk lighting within the Business District area, benches, and sidewalks/bulb-outs with a goal of enticing pedestrian traffic.
- In 2017 and 2018 the town planned and engineered and in 2019 in conjunction with CDOT repaving of Main St. installed a full street scape and drainage project from approximately Cemetery Bridge extending four or so blocks.
- Parking needs:
  - Currently the Town has on-street parking that is affected by the snowplow/removal schedule which utilizes alternate day on-street parking throughout Town. Additionally, the Town has the Municipal Lot which holds approximately 93 vehicles.
  - Partial funding of the parking needs is funded by businesses that do not have sufficient parking provided based on MMC code requirements.
  - Additional parking needs should be explored with one-way traffic and diagonal parking on the 200 block of Boulder, the Pine St side of 243 Boulder St (Not-A-Park) and the expansion and reintroduction of parking along Eagle Street.
  - The Planning Department conducted a parking needs study in the core area in FY2020 and will ideally extend this to the entire town.

Building and Park Maintenance:
A defined building maintenance program does exist and relies on manual annual inspections. Effective with the 2011 Fiscal Year Budget, the Town established a line-item account in the General Fund for annual maintenance and repair of the Town's buildings and structures (01-06-5290). During 2012 the Town Center was painted on the exterior.

Over the past years, the town has had landscape maintenance contracts to cover various aspects of our park needs. Progressively from 2017 on the Town has undertaken more and more of the maintenance of the parks using existing staff for mowing operations and small contracts for flower and plant maintenance. This will continue in 2020.

The inspection program stated above includes at a minimum the following:

- Town Center (302 Pine St)
  - Outside painting and general repair
  - Annual curb painting and spring cleaning
  - Annual maintenance of HVAC system
  - Annual maintenance of outside plant areas to include bark and plant replacement.
  - The Town Center is on a weekly cleaning contract with an outside source and an as need carpet cleaning schedule. (Cost for both is $750/mo)
  - General repair and maintenance to include painting of the two rental apartments.
    - New carpet in these units was installed in 2013.
    - Professional cleaning and carpet cleaning is required by the renter upon checkout.
- Little Beach Park and Amphitheater
  - General annual maintenance of playground and picnic equipment and amphitheater to include wood treatment. In 2012 the wood features of the Amphitheater and play equipment were treated. This treatment program will continue on a five-year rotation.
  - Complete weeding of playground area and other areas as needed. This should be done annually and as needed during the season.
  - Currently the Town utilizes a contract with an outside vendor to maintain the greenery of all parks to include annual irrigation maintenance, fertilizer and weed treatment, and flower bed maintenance. The PW crew mows and waters during the season.
  - Wood stain/painting is scheduled approximately every five years.
- Eagle River Park – 200 Eagle St.
  - Maintain annually all outside wood to include the public restrooms and picnic tables as needed.
  - Yard maintenance and basketball court maintenance.
  - General annual maintenance as needed.
  - Wood stain/painting is scheduled approximately every five years.
- Town's House – 210 Eagle St
  - Maintain annually all outside wood to include the deck(s) and siding as needed.
  - Yard maintenance is normally performed by the occupant.
  - General annual maintenance as needed.
  - Wood stain/painting is scheduled approximately every five years.
- Public Works Building
  - General annual maintenance to include
    - HVAC repair and maintenance
    - Roof drainage
    - Fuel tank area upkeep to include spill retention area
    - On going cleaning and repair/maintenance of the building and site as necessary to exude a professional and positive image of the Town.
- Water Plant
  - The Water Department maintains and cleans all water filters as needed. An assessment has been done to determine the life expectancy of each filter and asset on the property and how best to maintain those assets on an on-going basis. In 2018 a further larger assessment was undertaken to consider the efficiency of the existing plant and its potential to accommodate future growth and to what extent. As a result of this study the Town has developed a plan to replace the aging water purification system, distribution system, and water tank to best serve our future needs. This project(s) began in 2020 with the beginning stages of replacing our water tank, and to connect Well #4 to the Clear

Well to enable required purification contact time and will extend 5-10 years. The project will require significant adjustments to our water rates and the issuance of bonds to fund the projects.

- On-going cleaning and repair/maintenance of the buildings and site as necessary to exude a professional, safe, and positive image of the Town.
- During 2014 a new master meter and accompanying housing was built. This upgrade is anticipated to last 50 years with proper maintenance and upkeep. In addition, several drainage upgrades were installed at the Water Plant pump house and well pumps.
- Major upgrades are being undertaken with construction to begin in 2022 to replace the existing water storage tank and relocate the new tanks to the existing water treatment plant.
- Future upgrades will include a new water treatment plant with construction estimated in 2024.

Enterprise Fund:

The annual budget includes all operations and debt service of the Enterprise Fund. The Enterprise Fund includes the Water plant and systems including all distribution and collection systems, all citizen trash services, and parks and recreation needs. An additional annual allowance is budgeted, normally in the $40,000 range to cover water distribution line breaks, maintenance, and includes plant and system maintenance and improvements. The lines are twenty plus years and older. Many are in corrosive soils caused by the mining and railroad history of the Town and are therefore beginning to fail at an ever-increasing rate. Because much of the land has been developed only a handful of water taps are sold each year. In a normal system, tap fees would be utilized to pay for the future needs of the infrastructure system while fees would be used to pay the day-to-day costs. Because we sell so few water taps annually, any future plant and system repairs and maintenance need to be paid by water fees collected (adding an additional strain to the funding mechanism).

- A defined management system has been developed by the Water Department to be performed on an annual basis whereby all valves and fire hydrants are exercised. As valves are identified that are not in working order repair or replace should be considered.
- A defined program of line replacement and looping concerns continues to be addressed. During 2014 the main line was looped from Main to Pine down Harrison and other loops are being developed.
- A needs assessment system is in place whereby when a main line breaks or is exposed a determination is as to an appropriate location for a shutoff valve or possible loop is installed.
- The Town has developed a management system for the water tank inspections and repairs.
- The Town practices a limited program of water plant repairs.
- The Town has developed a defined program of annual water line flushing and valve maintenance.
- Assessments need to be made on the water distribution program as to future maintenance, needed tools, and necessary expertise. These assessments need to be extended to budget numbers and annual goals.
- In 2019 a full Capital Improvement Plan was developed and will be implemented over the next several years and on into the future.
- In 2023 a new water tank was installed at the existing water plant and is anticipated to replace the existing tank. The existing tank will be taken off line and the intent is to refurbish the tank, bring it back on line, and have two tanks with a combined capacity of approximately 1.2million gallons.

Vehicles and equipment

The Town has maintained a program of vehicle rotation in the Police and Public Works/Water Plant Departments. The approved plan currently allows for 5-10year rotations of vehicles. Often at the end of the cycle a vehicle is still in good condition. This vehicle, in past years, has been retained within the inventory or passed to another department. A complete inventory of vehicles and major equipment are maintained as a function of the Audit and for insurance purposes and is also used to identify asset needs. Vehicles are maintained professionally by area mechanics or the Town of Avon Fleet Maintenance through an intergovernmental agreement.

Public Works/Water Plant and System: Currently the Public Works/Water plant and system have numerous vehicles as detailed below. The commercial trucks are on a 5 to 8-year rotation and the tandem trucks and other heavy equipment are on an as need replacement cycle.

- 5 standard trucks, 1 Bobcat, 3 Cat Tool Carriers (10-year rotation), one backhoe, and two dump trucks.
- Maintain the fleet and rotation as per the approved scheduled.
- Undertake a complete inventory of tools and supplies over $5,000 in value. The annual budget includes $10,000 for tool and major tool replacement needs.
- Endeavor and continue to budget for proper maintenance and replacement of tools and assess needs annually in the budget.

Network and Computers: The Town has developed and adheres to a computer network maintenance and rotation program. It is recommended computers be on a 5-year rotation. This would require the purchase of 1-2 computers per year and a new server every 5-years. Management of the system is performed by an outside company. A budget for this is annually established in the amount of approximately $5000 for replacement and approximately $15,000-20,000 every 5-years for major upgrades to the server(s). Such a major upgrade was completed in 2014 and is again scheduled for 2021. This would be in addition to the computer system maintenance and web site maintenance and development needs of $31,000 per year. Overall, all of the software works well and as it is designed to function. From time to time specific software needs might occur and are addressed on an as-need basis for the foreseeable future. Integrated with the computer systems are the phone system and copy machine.

TOWN OF MINTURN CAPITAL IMPROVEMENT PLAN

Priority	Core need
Priority	Desire
Priority	Nonessential
Budgeted in the Fiscal Year	

2023	2024	2025	2026	2027	2028	2029	NOTES
Copy Machine (50%) 7,500							7-8yr rotation (2031)
Bobcat 50% annual 6,000			Bobcat 50% annual 6,000			Bobcat 50% annual 6,000	3yr Rotation
Streets 20,000	Streets 25,000	Streets 25,000	Streets 25,000	Streets 25,000	Streets 25,000	Streets 25,000	
Sidewalks 10,000	Sidewalks 25,000	Sidewalks 25,000	Sidewalks 25,000	Sidewalks 25,000	Sidewalks 25,000	Sidewalks 25,000	Annual
Storm Drainage 10,000	Storm Drainage 25,000	Storm Drainage 25,000	Storm Drainage 25,000	Storm Drainage 25,000	Storm Drainage 25,000	Storm Drainage 25,000	
Town Bldg 15,000	Town Bldg 15,000	Town Bldg 15,000	Town Bldg 15,000	Town Bldg 15,000	Town Bldg 15,000	Town Bldg 15,000	
Pub Wks truck (50%) 34,000			Pub Wks truck (50%) 34,000	Pub Wks truck (50%) 34,000	Pub Wks truck (50%) 34,000	Pub Wks truck (50%) 34,000	
Public Works tools 5,000	Public Works tools 5,000	Public Works tools 5,000	Public Works tools 5,000	Public Works tools 5,000	Public Works tools 5,000	Public Works tools 5,000	Annual
Computer rotation 5,500	Computer rotation 5,500	Computer rotation 5,500	Computer rotation 5,500	Computer rotation 5,500	Computer rotation 5,500	Computer rotation 5,500	Annual
			Network Upgrade 10,000	Network Upgrade 20,000			
Bike Park Maint $15,000	Bike Park Maint $15,000	Bike Park Maint $15,000	Bike Park Maint $15,000	Bike Park Maint $15,000	Bike Park Maint $15,000	Bike Park Maint $15,000	Annual
Park Maint 28,000	Park Maint 28,000	Park Maint 28,000	Park Maint 28,000	Park Maint 28,000	Park Maint 28,000	Park Maint 28,000	Annual
Copy Machine (50%) 7,500							7-8yr rotation (2031)
Bobcat 50% annual 6,000			Bobcat 50% annual 6,000			Bobcat 50% annual 6,000	3yr Rotation
Pub Wks truck (50%) 34,000			Pub Wks truck (50%) 34,000	Pub Wks truck (50%) 34,000	Pub Wks truck (50%) 34,000	Pub Wks truck (50%) 34,000	
Water Rights Maint $140,000	Water Rights Maint $160,000	Water Rights Maint$168,000	Water Rights Maint$176,500	Water Rights Maint$185,000	Water Rights Maint$194,500	Water Rights Maint$194,500	annual
Public Works tools 5,000	Public Works tools 5,000	Public Works tools 5,000	Public Works tools 5,000	Public Works tools 5,000	Public Works tools 5,000	Public Works tools 5,000	Annual
Water Plant/sys 40,000	Water Plant/sys $75,000	Water Plant/sys $60,000	Water Plant/sys $60,000	Water Plant/sys $60,000	Water Plant/sys $60,000	Water Plant/sys $60,000	Annual
	Amphitheater, Mgr Hs, Eagle Bathroom wood treat, Mgr Hs roof $61,000						7yr cycle (2030)
Gen Fund $161,000	Gen Fund $143,500	Gen Fund $143,800	Gen Fund $178,500	Gen Fund $197,500	Gen Fund $177,500	Gen Fund $183,500	
Gen Fund $0.00	Gen Fund $0.00	Gen Fund $0.00	Gen Fund $0.00	Gen Fund $0.00	Gen Fund $0.00	Gen Fund $0.00	
Gen Fund $0.00	Gen Fund $0.00	Gen Fund $0.00	Gen Fund $0.00	Gen Fund $0.00	Gen Fund $0.00	Gen Fund $0.00	
Ent Fund $229,500	Ent Fund $240,000	Ent Fund $225,000	Ent Fund $281,500	Ent Fund $284,000	Ent Fund $293,500	Ent Fund $299,500	
Ent Fund $0.00	Ent Fund $0.00	Ent Fund $0.00	Ent Fund $0.00	Ent Fund $0.00	Ent Fund $0.00	Ent Fund $0.00	
Ent Fund $0.00	Ent Fund $0.00	Ent Fund $0.00	Ent Fund $0.00	Ent Fund $0.00	Ent Fund $0.00	Ent Fund $0.00	
CTF Fund $15,000	CTF Fund $61,000.00	CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	
CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	
CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	CTF Fund $0.00	

TOWN OF MINTURN, COLORADO
ORDINANCE NO. 20 – SERIES 2023

AN ORDINANCE AMENDING THE 2023 BUDGET AS SET FORTH IN THE FOLLOWING EXHIBIT "A", TO APPROPRIATE ADDITIONAL GENERAL FUND REVENUES IN THE AMOUNT OF $ 309,472.00, AND APPROPRIATING ADDITIONAL GENERAL FUND EXPENDITURES IN THE AMOUNT OF $ 224,101.00, AND APPROPRIATING ADDITIONAL ENTERPRISE FUND REVENUES IN THE AMOUNT OF $ 356,000.00, AND APPROPRIATING ADDITIONAL ENTERPRISE FUND EXPENDITURES IN THE AMOUNT OF $ 361,701.00, AND APPROPRIATING ADDITIONAL CONSERVATION TRUST FUND REVENUES IN THE AMOUNT OF $ 5,400.00, AND APPROPRIATING ADDITIONAL MARKET FUND REVENUES IN THE AMOUNT OF $4,000.00, AND APPROPRIATING ADDITIONAL MARKET FUND EXPENSES IN THE AMOUNT OF $19,300.00, AND APPROPRIATING ADDITIONAL CAPITAL FUND REVENUES IN THE AMOUNT OF $7,500.00, AND APPROPRIATING ADDITIONAL SCHOLARSHIP FUND EXPENESE IN THE AMOUNT OF $1,400.00, AND APPROPRIATING ADDITIONAL BATTLE MOUNTAIN FUND REVENUES IN THE AMOUNT OF $ 4,500.00,

WHEREAS, in accordance with Section 8.8 of the Minturn Home Rule Charter the Council may make additional appropriations by ordinance during the fiscal year, and;

WHEREAS, Jay Brunvand, Treasurer, has verified that additional funds are available for appropriations in each fund from actual and anticipated revenues of the current year and prior year cash reserves, and;

WHEREAS, the Town Council is advised that certain revenues, expenditures and transfers must be approved by ordinance.

NOW, THEREFORE, THE TOWN OF MINTURN, COLORADO ORDAINS:

Section 1.
Upon the Town Manager's verification that there are current year revenues available for appropriation in the General Fund, Enterprise Fund, Conservation Trust Fund, Special Revenue Fund, Marketing Fund, Capital Fund, Scholarship Fund, and Battle Mountain Resort Fund and un-appropriated prior year cash balance available in one or more of those funds, the Town Council hereby makes supplemental appropriations as specified in attached Exhibit "A".

Section 2.
The Town Council hereby authorizes and directs the Town Manager to enter into such contracts and execute such documents on behalf of the Town as may be necessary and customary to expend the funds hereby appropriated for all operations and capital projects within the budget as hereby amended in accordance with the requirements of the Home Rule Charter and the Town's Financial Policies.

Section 3.
The adoption of this Ordinance will promote the health, safety and general welfare of the Minturn community.

Section 4.
If any provision of this Ordinance or portion thereof is held by a court of competent jurisdiction to be invalid or unconstitutional, such invalidity or unconstitutionality shall not affect any other provision which can be given effect without the invalid portion.

INTRODUCED, READ BY TITLE, APPROVED ON THE FIRST READING AND ORDERED PUBLISHED BY TITLE ONLY AND POSTED IN FULL ON THE OFFICIAL TOWN WEB SITE THE 15th DAY OF NOVEMBER, 2023. A PUBLIC HEARING ON THIS ORDINANCE SHALL BE HELD AT THE REGULAR MEETING OF THE TOWN COUNCIL OF THE TOWN OF MINTURN, COLORADO ON THE 6th DAY OF DECEMBER, 2023 AT 5:30 p.m. AT THE MINTURN TOWN HALL 302 PINE STREET, MINTURN COLORADO 81645.

TOWN OF MINTURN, COLORADO

Earle Bidez, Mayor

ATTEST:

By: _____
Jay Brunvand, Town Clerk

TOWN OF MINTURN, COLORADO SEAL 1904

THE TOWN OF MINTURN, COLORADO, ORDAINS THIS ORDINANCE ENACTED ON SECOND READING AND ORDERED PUBLISHED BY TITLE ONLY AND POSTED IN FULL ON THE OFFICIAL TOWN WEB SITE THIS 6th DAY OF DECEMBER, 2023.

Earle Bidez, Mayor

ATTEST:

By: _____
Jay Brunvand, Town Clerk

TOWN OF MINTURN, COLORADO SEAL 1904

ORDINANCE 20 – SERIES 2023
EXHIBIT "A"

			Addition	Revised Budget
GENERAL FUND:				
	Additional Revenue	$ 309,472.00		
		Town Hall Rent	01-00-4511	500	2,000
		Building Permits	01-00-4210	100,000	150,000
		Liquor License Fees	01-00-4230	2,000	3,500
		Business License Fee	01-00-4240	4,000	26,500
		Fran Fee-PSCO	01-00-4260	10,000	50,000
		Muni Traffic Fines	01-00-4430	20,000	35,000
		ERFPD Impact Fee	01-00-4512	3,372	3,372
		Snow Dump	01-00-4519	1,000	9,500
		Land Lease-Mtn Mgmt	01-00-4520	3,600	18,000
		Inv Earned	01-00-4540	165,000	200,000
	Additional Expense	$ 224,101.00		
		Eng Services	01-01-5221	100,000	175,000
		Dues and Fees	01-01-5235	5,000	50,000
		ERFPD Impact Fees	01-01-5240	3,229	3,229
		Workers Comp	01-01-5300	1,086	11,086
		Town Liab Ins	01-01-5310	2,561	35,061
		Building Inspections	01-02-5214	10,000	48,000
		Events-Emp'ee Ins	01-05-5091	8,325	20,325
		Public Building R/M	01-06-5290	24,000	39,000
		Supplies	01-06-5140	500	5,500
		Telephone	01-06-5200	900	3,500
		Vehicle R&M	01-06-5231	500	6,500
		Public Buildings	01-06-5290	24,000	39,000
		Street/Sidewalk Maint	01-06-5352	25,000	65,000
		Snow Removal Contract	01-06-5353	19,000	46,500
ENTERPRISE FUND:				
	Additional Revenue	$356,000.00		
		Misc Rev	02-00-4275	3,000	22,000
		System Imp Fee	02-00-4322	20,000	62,500
		Garbage Fee	02-00-4330	13,000	135,000
		Tank Loan	02-00-4575	320,000	320,000
	Additional Expense	$ 361,701.00		
		Water Meter Install	02-06-5160	75,000	75,000
		Plant R&M	02-06-5293	75,000	115,000
		H20 Water Rights	02-06-5352	5,876	145,876
		Garbage Collection	02-06-5353	20,000	135,000
		Mosquito Control	02-07-6001	825	5,425
		Water Plant CIP	02-09-8002	20,000	105,000
		Water Tank CIP	02-09-8003	165,000	165,000
CONSERVATION TRUST FUND:				
	Additional Revenue	$ 5,400,00		
		CTF Revenue	03-00-4010	5,000	15,000
		Inv Earn	03-00-4540	400	800
	Additional Expense	$ 0.00		
SPECIAL REVENUE FUND:				
	Additional Revenue	$ 0,00		
	Additional Expense	$ 0.00		

MARKET FUND:			
Additional Revenue	$ 4,000.00		
Sponsorship	05-00-4592	4,000	10,000
Additional Expense	$19,300.00		
Supplies-General	05-01-5100	14,000	21,000
Supplies-Promotional	05-01-5105	5,100	20,100
Supplies-Contract Labor	05-01-5110	200	15,200
CAPITAL FUND:			
Additional Revenue	$ 7,500.00		
Investment Earned	06-00-4540	7,500	12,000
Additional Expense	$ 0.00		
GID FUND:			
Additional Revenue	$ 0.00		
Additional Expense	$ 0 .00		
SCHOLARSHIP FUND:			
Additional Revenue	$ 0.00		
Additional Expense	$ 1,400.00		
Scholarship Awards		1,400	8,000
BATTLE MOUNTAIN RESORT FUND:			
Additional Revenue	$4,500.00		
Interest Earned	09-00-4540	4,500	7,000
Additional Expense	$ 0.00		

TOWN OF MINTURN, COLORADO
ORDINANCE NO. 21 – SERIES 2023

AN ORDINANCE LEVYING GENERAL PROPERTY TAXES FOR THE YEAR 2024, TO MEET GENERAL OPERATING COSTS OF GOVERNMENT FOR THE TOWN OF MINTURN, COLORADO FOR THE 2024 BUDGET YEAR.

WHEREAS, the Minturn Town Council of the Town of Minturn, Colorado will adopt the annual budget for Fiscal Year 2024 in accordance with Local and State Government Budget Law, on December 6, 2023, and;

WHEREAS, the assessed valuation for the Town of Minturn, Colorado as certified by the Eagle County Assessor is approximately **$47,511,530.00** and will generate approximately **$852,072.00** based on the authorized 17.934 mills of the Town of Minturn, and;

WHEREAS, at General Election on November 3, 1998, the citizens of Minturn, Colorado have established the Town Mill Levy at 17.9340 mills in accordance with Article X, Section 20 of the Colorado Constitution, and;

WHEREAS, the final assessed valuation for the fiscal year 2024 will be available by December 6, 2023 from the County of Eagle Assessor in a timely manner to allow the passage of this Ordinance as a non-emergency in the normal course of events.

NOW, THEREFORE, THE TOWN OF MINTURN, COLORADO ORDAINS:

Section 1. That for the purpose of meeting general operating expenses of the Town of Minturn during the 2024 budget year, there is hereby levied a tax of 17.934 mills upon each dollar of the total valuation for assessment of all taxable property within the Town of Minturn for the 2024 budget year. This assessment of 17.934 mills shall be duly made by the County of Eagle, State of Colorado, as directed by the Colorado Revised Statutes (as amended), and as otherwise required by law.

Section 2. The Minturn Town Treasurer is hereby authorized and directed to immediately certify to the County Commissioners of Eagle County, Colorado, the mill levies for the Town of Minturn, Colorado as here in above determined and set.

Section 3. The Minturn Town Council hereby finds, determines, and declares that this ordinance is necessary and proper for the health, safety, and welfare of the Town on Minturn, Colorado and the inhabitants thereof.

Severability. If any part, section, sub-section, clause or phrase of this Ordinance is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this Ordinance; and the Town Council for the Town of Minturn, Colorado hereby declares it would have passed this Ordinance and each part, section, sub-section, sentence, clause or phrase thereof, irrespective of the fact that any one or more parts, sections, sub-sections sentences, clauses or phrases be declared invalid.

INTRODUCED, READ BY TITLE, APPROVED ON THE FIRST READING AND ORDERED PUBLISHED BY TITLE ONLY AND POSTED IN FULL ON THE OFFICIAL TOWN WEB SITE THE 15th DAY OF NOVEMBER, 2023. A PUBLIC HEARING ON THIS ORDINANCE SHALL BE HELD AT THE REGULAR MEETING OF THE TOWN COUNCIL OF THE TOWN OF MINTURN, COLORADO ON THE 6th DAY OF DECEMBER, 2023 AT 5:30 p.m. AT THE MINTURN TOWN HALL 302 PINE STREET, MINTURN COLORADO 81645.

TOWN OF MINTURN, COLORADO

Earle Bidez, Mayor

ATTEST:

Jay Brunvand, Town Clerk

THE TOWN OF MINTURN, COLORADO, ORDAINS THIS ORDINANCE ENACTED ON SECOND READING AND ORDERED PUBLISHED BY TITLE ONLY AND POSTED IN FULL ON THE OFFICIAL TOWN WEB SITE THIS 6th DAY OF DECEMBER, 2023.

Earle Bidez, Mayor

ATTEST:

Jay Brunvand, Town Clerk

TOWN OF MINTURN, COLORADO
ORDINANCE NO. 22 – SERIES 2023

AN ORDINANCE ANNUALLY SETTING, AMENDING AND APPROVING TOWN FEES AS SET FORTH IN THE FOLLOWING ATTACHMENT TO BE INCLUDED IN APPENDIX "A" OF THE MINTURN MUNICIPAL CODE FOR THE TOWN OF MINTURN, COLORADO FEES COMMENCING JANUARY 1, 2024

WHEREAS, The Town of Minturn reviews and approves such fees by ordinance annually and as necessary, and;

WHEREAS, The fee schedule is available for review during regular business hours at the Town Offices as well as the Official Town Website.

NOW, THEREFORE, THE TOWN OF MINTURN, COLORADO, ORDAINS:

Section 1.
The following fees and deposits are hereby set as set forth or added in Appendix "A" is adopted.

Section 2.
In the event of a conflict between the fees, rates and charges listed in this Appendix A and the Text of any individual section of the Town Code, the provisions of The Minturn Municipal Code shall control.

Severability. If any part, section, sub-section, clause or phrase of this Ordinance is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this Ordinance; and the Town Council for the Town of Minturn, Colorado hereby declares it would have passed this Ordinance and each part, section, sub-section, sentence, clause or phrase thereof, irrespective of the fact that any one or more parts, sections, sub-sections sentences, clauses or phrases be declared invalid.

INTRODUCED, READ BY TITLE, APPROVED ON THE FIRST READING AND ORDERED PUBLISHED BY TITLE ONLY AND POSTED IN FULL ON THE OFFICIAL TOWN WEB SITE THE 15th DAY OF NOVEMBER, 2023. A PUBLIC HEARING ON THIS ORDINANCE SHALL BE HELD AT THE REGULAR MEETING OF THE TOWN COUNCIL OF THE TOWN OF MINTURN, COLORADO ON THE 6TH DAY OF DECEMBER, 2023 AT 5:30 p.m. AT THE MINTURN TOWN HALL 302 PINE STREET, MINTURN COLORADO 81645.

TOWN OF MINTURN, COLORADO

Earle Bidez, Mayor

ATTEST:

Jay Brunvand, Town Clerk

THE TOWN OF MINTURN, COLORADO, ORDAINS THIS ORDINANCE ENACTED ON SECOND READING AND ORDERED PUBLISHED BY TITLE ONLY AND POSTED IN FULL ON THE OFFICIAL TOWN WEB SITE THIS 6TH DAY OF DECEMBER, 2023.

Earle Bidez, Mayor

ATTEST:

Jay Brunvand, Town Clerk

Fees, Rates, and Charges Imposed Pursuant to the Minturn Town Code				
ITEM	DESCRIPTION	FEE 2023	OTHER	2024 Revisions
Administration				
Copies	per page	$0.25		
CD-Town Code		$50.00		
Bad Check fee		$35.00		
Open Records Request				
Attorney-Administrative Description	per hour, minimum 1hr after first hour in 15min increments	$185.00		
Town Staff-Administrative Description	per hour, minimum 1hr after first hour in 15min increments	$33.58		
Past due monthly fee		$35.00 plus 1.5%/month		
Real Estate Transfer Tax	per sale due at time of sale	1%		
Lodging Tax		1.5%		
Sales Tax - City		4%		
Use Tax - Construction		4%		
Credit Card Fee	For charges in excess of $500	3%		
Meeting Room Fees	Deposit may be required			
Set-Up Fee	Used in Special circumstances. Will generally only use the space for Town related business or for Town partners. Will generally require they set up on their own.	$50.00		
Flip Chart and Easel		$25.00		
LCD Projector/screen		$100.00		
Sound System/Microphones		$100.00		
Full Room with Kitchen		$300.00		
Full Room Without Kitchen		$200.00		
Cleaning Deposit	Based on actual cost	$250.00		
Nonprofit		$50 set up fee		
Little Beach Park Minturn Resident Non Profit Non Resident		 $150/block $250/day $50/$100 $200/block $300/day		 $150/half day $250/day $50/$100 $300/half day $500/day
Special Event Permit				$250/Town Property $100/Private Property
Business Licenses:				
Initial License Fee		$120.00		$75.00
	Prorated at $10/month			
Business License Fee	(Due 4/1-3/31)	$120.00		$75.00
In-Home License Fee		$36.00		$75.00
Home Business License-Renewal	(Major household income)	$120.00		$75.00
Mobile Food Vendor License		$120.00		$75.00
Outdoor Recreation License		$120.00		$75.00
Short Term Rental License		$300.00		$300 PER Bdrm/Sleep Rm
Snow Plow Business		$120.00		$75.00
Each additional vehicle		$12.00		$20.00
Peddler or Solicitor:				
License Fees				
1 Day		$15.00		
2 Days Consecutively		$30.00		
3 Days Consecutively		$45.00		
5-Days Consecutively		$75.00		
7 Days Consecutively		$120.00		$75.00
30 Days consecutively		$240.00		$75.00
Annual License	(Due 4/1)	$240.00		$75.00
Contractor:				
Annual License Fee - General	~~Valid for 3yrs~~	$240.00		$100/yr
Business List Print Fee		$40.00		

ITEM	DESCRIPTION	FEE 2023	OTHER	2024 Revisions
MISCELLANEOUS FEES		Set administratively based on cost		
Professional Use Fee	Inc use of town Eng, Lawyer, etc	Cost + 20%		
LIQUOR LICENSE APP FEES	All fees as set by State			
PUBLIC SAFETY				
Incarceration Fee	Assessed at current daily fee charged by the ECO Sheriff's Office			
Records Requests-Criminal Justice		.25pg + $5.00 Admin Fee		
Clearance Letter	per individual	$10.00		
Court Transcripts		$250.00 Deposit/Actual Cost		
Court Fines		per Judge		
Court Fines-Payment Plan Fee	Per court direction	$25.00		
Court Cost Fee		$25.00		$25 + 25% Aministrative Fee
Community Service Fee		$25.00		
MINTURN BIKE PARK				
Programs-fee based	less than 4hrs/14ppl	$100.00		
Programs-fee based	more than 4hrs/14ppl	$200.00		
Exclusive Use for camp or clinic	less than 4hrs/14ppl	$250.00		
Exclusive Use for camp or clinic	more than 4hrs/14ppl	$500.00		
PUBLIC WORKS				
SNOW DUMP-TANDEM		$50.00		$75.00
SNOW DUMP-END DUMP		$90.00		$125.00
USE OF SNOW DUMP AT COMM GARDEN	MUST HAVE PRIOR WRITTEN APPROVAL-BILL USER NOT OPERATOR			$150/SEASON
SNOW DUMP-FINE	ILLEGAL DUMPING-MINIMUM x4			
Water				
Cash deposit		$100.00		
Debt Service Fee	Per SFE/Month	$17.37		
Turn-on/Reconnect Fee		$50.00		
Turn-off/Disconnect Fee		$50.00		
Turn-on/Reconnect	For non metered water only	$400.00		
Tap, Inspection, connection fee				
(1) Residential Unit; per unit plus Tier fee per sq foot floor		Tap Fee $12,940 SIF Tier 1 $10.95/sqft SIF Tier 2 $14.52/sqft SIF Tier 2 $17.47/sqft		
Accessory Dwelling Unit (>750sf)	.5sfe	10.95sf		
Cash in Lieu of Water		$40,501.00		
(2) Hotel/Lodge/Motel/Lock-off/Accommodation Unit:				
(a) per efficiency room		$9,652.45		
(b) per room		$6,650.00		
Out of Town Tap Fees are 25% higher				
Tap, Inspection, Connection Fee				
Commercial Service Line Size in inches: Set to equal ERWSD rates		These will automatically change once set by ERFPD in January		
	3/4in (1.5 SFE)	$17,840.00		
	1in (2.6 SFE)	$30,918.00		
	1in 1/2 (5.8 SFE)	$68,973.00		
	2un (10.3 SFE)	$125,730.00		
	3in (23.0 SFE)	$275,911.00		
	4in (40.9 SFE)	$486,376.00		
	6in (92.1 SFE)	$1,095,240.00		
All out of Town Taps	Sec. 13-29(b)(1)	+ 50%		
Construction Use Rates	Sec. 13.65			
Any water use for construction	per month flat fee plus use	$100.00		

ITEM	DESCRIPTION	FEE 2023	OTHER	2024 Revisions
Portable meter fee		$100.00		
Portable meter water use		$10.00/1000 gal		
Portable meter deposit or lost meter		$1,750.00		
Unusual Water User Fee	Sec. 13.66	set Administratively		
Unmetered Water Rate	Sec. 13-4			Base x3
Monthly rate per SFE for	Residential	$137.70	Base + 25%	$330.48
Policy related to other uses	Commercial	$137.70	Base + 25%	$330.48
Replaces Sec. 13-29(b)(2)	Residential out of Town	$165.24	Base + 50%	$498.15
	Commercial out of Town	$192.78	Base + 75%	$578.34
	Seniors-Grandfathered (65 years or older)	$82.62	Base -25%	$247.86
Metered Water Rate	Sec. 13-4			
(a) Residential, basic monthly charge	per SFE	$110.16		
plus a monthly above 0 gals. Use charge per 1,000 gallons		$8.32		
(b) Commercial, basic monthly charge	per SFE	$110.16		
plus a monthly above 0 gals. Use charge per 1,000 gallons		$8.32		
(c) 25% discount for Residential Owner-Occupant over 65 years of age		$82.62		
Out of Town Water Rate are 50% higher for Residential and 75% higher for Commercial	Sec. 13-29(b)(2)	R=$166.05 C=$192.78		
IRRIGATION/SPRINKLER USAGE RATES (NO STRUCTURE)	IRRIGATION	SPRINKLER USAGE RATES	SPRINKLER	
SFE factor based on meter size/kgal		(SFE based on associated structure)/kgal		
Tier 1 (0-8)	$12.49	Tier 1 (0-20)	$12.49	
Tier 2 (8-16)	$18.74	Tier 2 (21-30)	$18.74	
Tier 3 (16-24)	$28.10	Tier 3 (31-40)	$28.10	
Tier 4 (24-32)	$42.19	Tier 4 (more than 40)	$42.19	
Tier 5 (more than 32)	$63.28		$63.28	
Trash Collection	Plus $10/can more than one	34.98		
Street Cut Fee				
Basic permit fee	Performance Bond may Required	$75.00		
Basic utility fee		$50.00		
	per Sec. 11-26			
	replacement of paving w/oil&chip surface/ per sq. ft.	Per Bid		
	dirt cuts	Per Bid		
	Backfilling	time, material, staff time		
	Saw cuts per lineal foot w/min fee 25.00	time, material, staff time		
	Any re-work	time, material, staff time		
Application for Encroachment	Sec. 11-3	$40.00		
Encroachment Fee		$16sqft annually		
Eagle River Fire Protection District Impact Fees*	THESE WILL AUTO UPDATE WHEN SET BY ERFPD IN JANUARY			
new meter size:	3/4 inch	$1,734.00		
	1 inch	$2,949.00		
	1.5 inch	$5,724.00		
	2 inch	$9,192.00		
	3 inch	$19,078.00		
	4 inch	$29,484.00		
	6 inch	$57,234.00		
*Fees may be increased administratively to adjust for inflation. MMC Sec. 18-16-110				

ITEM	2023 FEE	DETAIL	2024 REVISED AMOUNT
PUD Applications			
Pre-Application Conference			
PUD Concept Plan	$850 + $40/Unit + $5,000 Deposit		
PUD Preliminary Development Plan	$2500 + $40/Unit + $5,000 Deposit		
PUD Final Development Plan	$1500 + $40/Unit + $5,000 Deposit		
Minor PUD Concept/Preliminary Development Plan	$1000 + $40/Unit + $5,000 Deposit		
Changes to Approved PUD Plans-			
(Minor) Approved by Planning Director	$350 + $1,000 Deposit		
(Minor) Approved by Planning Commission	$500 + $25/Additional Units + $1,000 Deposit		
(Major) Approved by Town Council	$1000 + $25/Additional Units + $5,000 Deposit		
Subdivision Application			
Administrative Replat	$500 + Cost		
Correction Plat	$350 + Cost		
Preliminary Subdivsion Plat	$1500 + 25/Lot + $5,000 Deposit		
Final Subdivision Plat	$1000 + 25/Lot + $3,000 Deposit		
Minor Subdivision			
Amended Final Plat	$650 + Cost		
Minor Type A Subdivision	$850 + Cost		
Minor Type B Subdivision	$850 + Cost		
Miscellaneous			
Annexation	$5,000 + $10,000 Deposit		
Disconnect/De-Annexation	$3,000 plus associated costs		
Amendments To Text of Land Use Regulations	$1,750 + Cost		
Amendments To Official Zone District Map	$1,000 + Cost		
Conditional Use Permit Application	$800 + Cost		
Limited Use Review	$450 + Cost		$150 + Cost
Temporary Use Permit	$425 + Cost		
Temporary Use Permit Security Deposit	TBD on Per Case Basis		
Variance	$575 + Cost		
Vacation of Public Easements and ROW	$750 + Cost		
Sign Permit	$60 + 1.50/Sq. Ft.		
Design Review Board			
Major Design Review Application	$200		
Minor Design Review Application	$75		
Special Planning Commission meeting	$500 + Cost		
Appeal - Planning Commission or Town Council	$300 + Cost		
Professional Review - Single structure project < 1 acre			
Multiple structure projects or projects 1 to 3 acre			
Buidling Permits new construction - based on valuation:**			
$1.00 to $500.00			
$501.00 to $2,000.00		$3.87 for each addtional $100 valuation over $500.00	
$2,001.00 to $25,000		$17.78 for each additional $1,000 valuation over $2,000	
$25,001.00 to $50,000		$12.83 for each additional $1,000 valuation over $25,000	
$50,001.00 to $100,000.00		$8.89 for each additional $1,000 valuation over $50,000	
$100,001.00 to $500,000.00		$7.11 for each additional $1,000 valuation over $100,000	
$500,001.00 to $1,000,000.00		$6.03 for each additional $1,000 valuation over $500,000	
$1,000,001.00 and up		$4.64 for each additional $1,000 valuation over $1,000,000	
Construction without a permit		Purchase of Building Permit plus Fine of 75-100% value of permit to be determined by Town	
Single item permits ex: re-roofing, basement finish, mechanical, plumbing		$75 for each additional inspection - to be determined by building official	
Plan Review		65% of permit fee	
Cleanup Deposit			
Street Use Fee		1/2% of the project valuation that is valued at $500 or greater	

Application Review Deposit:

Deposits are required to cover staff and consultant time attributable to a particular land use application reveiw, meeting attendance, and phone consultations over and above the minimum application fee required for the application. Applicant will bear the burden of all staff & consultant costs above and beyone the first staff member.
For multi-step applications (e.g. PUD Concept, PUD Preliminary Plan, PUD Final Plan) any unused deposit amounts from one application may be applied toward the next application. Minimum deposit balances for each land use application type must be maintained or replenished upon notice by the Town.

Costs:

Costs attributable to the review by consultant, and additional staff time, are billed at actual hourly rates. Cost assessed after first hour.

Tempoary Use Permit Security Deposit:

Security deposit amounts for the cleanup or restoration following the termination of an approved temporary use are determined by the Planning Director on a case by case basis dependent on the intensity, scope, timing, and location of the use; and, upon the intensity, scope, timing, and location of the anticipated mitigation needed to return the unit, site. or area to its pre-permit condition.

** Valuation is based upon the national average per/square foot construction cost published semi-annually by the International Code Council, with a 1.4 multiplier applied as a regional cost differential.

Other:

*For all applications requiring legal descriptions to be published in the newspaper, additional fees will be charged on a per cost basis, for publications that are in excess of $50

*Review fees charged by a state or federal agency shall be made payable to the reviewing agency based on current rates and paid at the time of application.

*No application shall be considered or reviewed until the application fees are paid in full and the application is deemed complete. Where mulitiple applications are required, multiple fees shall be assessed. Fees are not required for Town-initiated applications.

*Application fees shall be paid by cash or by a check made payable to the Town of Minturn, and shall be submitted with the application to the Town of Minturn Planning Department.

*Additional Town Staff services may be billed at an hourly rate as deemed necessary.

TOWN OF MINTURN, COLORADO
ORDINANCE NO. 23 – SERIES 2023

AN ORDINANCE APPROPRIATING REVENUES, APPROPRIATING EXPENDITURES, APPROVING TRANSFERS AND ADOPTING THE TOWN OF MINTURN BUDGET FOR THE PERIOD BEGINNING ON THE FIRST DAY OF JANUARY, 2024 AND ENDING ON THE LAST DAY OF DECEMBER, 2024.

WHEREAS, the Minturn Town Council of the Town of Minturn, Colorado has appointed Jay Brunvand, Treasurer, to prepare and submit a proposed budget to said governing body at the proper time, and;

WHEREAS, Jay Brunvand, Treasurer, has submitted a proposed 2024 Budget to this governing body on October 4, 2023, for its consideration, and;

WHEREAS, upon due and proper notice, published and posted in accordance with the law, said proposed budget was open for inspection by the public as required by law at the Minturn Town Center, a public hearing was scheduled and held on November 1, 2023 and interested citizens were given the opportunity to file or register any objections to said proposed budget, and;

WHEREAS, this proposed budget balances by fund as required by law, and;

WHEREAS, the final assessed valuation will be available by December 6, 2023 from the County of Eagle Assessor in a timely manner to allow the passage of this Ordinance as a non-emergency in the normal course of events.

NOW, THEREFORE, THE TOWN OF MINTURN, COLORADO ORDAINS:

Section 1.
The budget for the Town of Minturn, Colorado for the fiscal year 2024 as submitted and summarized by fund as described below is hereby adopted, which adoption shall constitute appropriations of the amounts specified therein as revenues and expenditures from the Funds indicated; and that the estimated Beginning Balances, Revenues and Other Sources are hereby declared to be a reasonable projection of the amount of Revenue available for appropriation and to provide an adequate Fund Balance at the close of the fiscal year beginning January 1, 2024 and ending December 31, 2024 more particularly described as follows:

FUND DESCRIPTION	BEGINNING FUND EST. BALANCE	FY2024 REVENUE	FY2024 EXPENSES
General Fund	$2,753,903	$2,997,177	$2,996,554
Enterprise Fund	$1,463,322	$2,205,533	$2,196,350
Conservation Trust Fund	$ 82,371	$ 14,219	$ 61,000
Special Revenue Fund	$ 27,260	$ 10,000	$ 10,000
Market Fund	$ 8,331	$ 37,000	$ 37,000
Capital Fund	$ 400,093	$ 510,023	$ 510,000
Scholarship Fund	$ 271,618	$ 10,000	$ 7,100
Battle Mtn Fund	$ 160,844	$ 2,500	$ 150,000

Section 2.
The Town Council hereby authorizes and directs the Town Manager and Treasurer to enter into such contracts and execute such documents on behalf of the Town as may be necessary and customary to expend the funds hereby appropriated for all operations and capital projects within the budget as hereby adopted all in accordance with the requirements of the Home Rule Charter and the Town's Financial Policies.

Section 3.
The budget hereby approved and adopted shall be signed by the Mayor and Town Clerk and made a part of the public records of the Town of Minturn, Colorado.

INTRODUCED, READ BY TITLE, APPROVED ON THE FIRST READING AND ORDERED PUBLISHED BY TITLE ONLY AND POSTED IN FULL ON THE OFFICIAL TOWN WEB SITE THE 15th DAY OF NOVEMBER, 2023. A PUBLIC HEARING ON THIS ORDINANCE SHALL BE HELD AT THE REGULAR MEETING OF THE TOWN COUNCIL OF THE TOWN OF MINTURN, COLORADO ON THE 6th DAY OF DECEMBER, 2023 AT 5:30 p.m. AT THE MINTURN TOWN HALL 302 PINE STREET, MINTURN COLORADO 81645.

TOWN OF MINTURN, COLORADO

Earle Bidez, Mayor

ATTEST:

Jay Brunvand, Town Clerk

TOWN OF MINTURN, COLORADO SEAL 1904

THE TOWN OF MINTURN, COLORADO, ORDAINS THIS ORDINANCE ENACTED ON SECOND READING AND ORDERED PUBLISHED BY TITLE ONLY AND POSTED IN FULL ON THE OFFICIAL TOWN WEB SITE THIS 6th DAY OF DECEMBER, 2023.

Earle Bidez, Mayor

ATTEST:

Jay Brunvand, Town Clerk

TOWN OF MINTURN, COLORADO SEAL 1904

Member	Full Entity Name	CNID	Certificate Type	Certificate Holder Name	Certificate Holder Name 2	Attention	Address Line1	Address Line2	City	State	Zip	Fax	Email	Default Delivery	Description
Mintum	Town of Mintum	67608136	Liability only Proof (23/24)	Colorado Department of Transportation		Joel Berschauer	222 South 6th Street, Room 110		Grand Junction	CO	81501		Joel.Berschauer@state.co.us	EMAIL	Proof of insurance to be kept on file with CDOT in order to expedite mobilization in the event the Town needs to dig within the CDOT right-of-way.
Mintum	Town of Mintum	67608138	Liability only Proof (23/24)	Colorado Department of Transportation - Region 3		Daniel Roussin	222 S. 6th Street, Room 100		Grand Junction	CO	81501		daniel.roussin@state.co.us	EMAIL	As respects to the Town's projects on CDOT right-of-way.
Mintum	Town of Mintum	67609996	Liability only w/ Add'l Insured (23/24)	151 Main Street LLC			10800 Biscayne Blvd Ste 600		Miami	FL	33161			MAIL	Certificate Holder is Additional Insured on Liability Policies if required by contract. As respect to the Town's use of land for the Mintum Market and Independence Day Celebrations.
Mintum	Town of Mintum	67609343	Liability only w/ Add'l Insured (23/24)	Eagle Valley Land Trust			34215 US Highway 6, Suite 205		Edwards	CO	81632		jfoutis@evlt.org	EMAIL	Certificate Holder is Additional Insured on Liability Policies if required by contract. With respects to the conservation easement for the Mintum Boneyard.
Mintum	Town of Mintum	67609372	Liability only w/ Add'l Insured (23/24)	Vail Corp		Tom Allender	390 Interlocken Cres, Suite 1000		Broomfield	CO	80021-8056			MAIL	Certificate Holder is Additional Insured on Liability Policies if required by contract. As respects to the Town's use of land owned by Vail Corp for parking and extending the Little Beach Park's features.
Mintum	Town of Mintum	67609629	Liability only w/ Add'l Insured (23/24)	Colorado Department of Transportation		Joel Berschauer	222 South 6th Street, Room 110		Grand Junction	CO	81501		Joel.Berschauer@state.co.us	EMAIL	Certificate Holder is Additional Insured on Liability Policies if required by contract. With regards to the installation of a bike rack in a parking space on Highway 24. The liability policies contain a provision allowing the insured the right to waive subrogation prior to a loss. All policies are primary and non-contributory with respect to any insurance carried by the certificate holder and contains a severability of interest provision.
Mintum	Town of Mintum	67608772	Liability only w/ Add'l Insured (23/24)	Eagle County, its officers, employees, and agents			850 Broadway		Eagle	CO	81620		mike.mcwilliam@eaglecounty.us	EMAIL	Certificate Holder is Additional Insured on Liability Policies if required by contract. As respects to the Law Enforcement Services Agreement between the Town of Mintum and Eagle County Sheriff's Office.
Mintum	Town of Mintum	67609981	Liability only w/ Add'l Insured (23/24)	Colorado River Water Conservation District		Melissa Wills	201 Centennial St, Ste 200		Glenwood Springs	CO	81601		mwills@crwcd.org	EMAIL	Certificate Holder is Additional Insured on Liability Policies if required by contract. With respects to Grant (contract # CFP2022-11) for construction of new water tank.
Mintum	Town of Mintum	67609433	Liability only w/ Add'l Insured (23/24)	County of Eagle - Eagle County Animal Control		Nathan Lehnert Animal Field Services	P. O. Box 850		Eagle	CO	81631	1-970-328-2442	nathan.lehnert@eaglecounty.us	EMAIL	Certificate Holder is Additional Insured on Liability Policies if required by contract. With respects to the contract between The Town of Mintum and Eagle County, for Animal Control Services. All policies are primary and non-contributory with respects to any insurance carried by the certificate holder and contains a severability of interest provision.
Mintum	Town of Mintum	67609196	Liability only w/ Add'l Insured (23/24)	Molly G Building	Bold Real Estate	Rick Bolduc	P.O. Box 5800		Avon	CO	81620		rickb@boldsolutions.net	EMAIL	Certificate Holder is Additional Insured on Liability Policies if required by contract. As respects to the use of the portion of front parking and possible use at front patio of 67 Nelson Ave.
Mintum	Town of Mintum	67607225	Liability Add'l Insured & Property Loss Payee (23/24)	Intermountain Sweeper, CO		Mike Ker	3881-A Paris Street		Denver	CO	80239		mike@intermountainsweeper.com	EMAIL	Certificate Holder is Additional Insured on Liability Policies and Loss Payee on Property if required by contract. As respects street sweeper rental annually in May.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 01/10/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER LIC #N/A 1-303-757-5475 CIRSA 3665 Cherry Creek North Drive Denver, CO 80209	CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS:
INSURED Town of Minturn PO Box 309 Minturn, CO 81645	INSURER(S) AFFORDING COVERAGE / NAIC # INSURER A : CIRSA INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 70398748 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			LIAB 01-2024	01/01/24	01/01/25	EACH OCCURRENCE	$ 10,000,000
	X CLAIMS-MADE ☐ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 10,000,000
	X $10m POL E&O Aggregate						MED EXP (Any one person)	$ 0
							PERSONAL & ADV INJURY	$ 10,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$
	☐ POLICY ☐ PRO-JECT ☐ LOC						PRODUCTS - COMP/OP AGG	$ 10,000,000
	☐ OTHER:							$
A	AUTOMOBILE LIABILITY			LIAB 01-2024	01/01/24	01/01/25	COMBINED SINGLE LIMIT (Ea accident)	$ 5,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						☐ PER STATUTE ☐ OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ N/A						E.L. EACH ACCIDENT	$
	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Proof of insurance to be kept on file with CDOT in order to expedite mobilization in the event the Town needs to dig within the CDOT right-of-way.

CERTIFICATE HOLDER

Colorado Department of Transportation

Joel Berschauer
222 South 6th Street, Room 110

Grand Junction, CO 81501
USA

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 01/10/2024

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PRODUCER LIC #N/A 1-303-757-5475 CIRSA 3665 Cherry Creek North Drive Denver, CO 80209	CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS:
INSURED Town of Minturn PO Box 309 Minturn, CO 81645	INSURER(S) AFFORDING COVERAGE / NAIC # INSURER A : CIRSA INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 70399517 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			LIAB 01-2024	01/01/24	01/01/25	EACH OCCURRENCE	$ 10,000,000
	X CLAIMS-MADE ☐ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 10,000,000
	X $10m POL E&O Aggregate						MED EXP (Any one person)	$ 0
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	$ 10,000,000
	☐ POLICY ☐ PRO-JECT ☐ LOC						GENERAL AGGREGATE	$
	OTHER:						PRODUCTS - COMP/OP AGG	$ 10,000,000
								$
A	AUTOMOBILE LIABILITY			LIAB 01-2024	01/01/24	01/01/25	COMBINED SINGLE LIMIT (Ea accident)	$ 5,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						☐ PER STATUTE ☐ OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ N/A						E.L. EACH ACCIDENT	$
	(Mandatory In NH)						E.L. DISEASE - EA EMPLOYEE	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Certificate Holder is Additional Insured on Liability Policies if required by contract.
With regards to the installation of a bike rack in a parking space on Highway 24.
The liability policies contain a provision allowing the insured the right to waive subrogation prior to a loss.
All policies are primary and non-contributory with respect to any insurance carried by the certificate holder and contains a severability of interest provision.

CERTIFICATE HOLDER

Colorado Department of Transportation

Joel Berschauer
222 South 6th Street, Room 110

Grand Junction, CO 81501

USA

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 01/10/2024

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INSURED Town of Minturn PO Box 309 Minturn, CO 81645	INSURER(S) AFFORDING COVERAGE / NAIC # INSURER A : CIRSA INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 70398750 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			LIAB 01-2024	01/01/24	01/01/25	EACH OCCURRENCE	$ 10,000,000
	X CLAIMS-MADE ☐ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 10,000,000
	X $10m POL E&O Aggregate						MED EXP (Any one person)	$ 0
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	$ 10,000,000
	☐ POLICY ☐ PRO-JECT ☐ LOC						GENERAL AGGREGATE	$
	OTHER:						PRODUCTS - COMP/OP AGG	$ 10,000,000
								$
A	AUTOMOBILE LIABILITY			LIAB 01-2024	01/01/24	01/01/25	COMBINED SINGLE LIMIT (Ea accident)	$ 5,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						☐ PER STATUTE ☐ OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ N/A (Mandatory in NH)						E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

As respects to the Town's projects on CDOT right-of-way.

CERTIFICATE HOLDER

Colorado Department of Transportation - Region 3

Daniel Roussin
222 S. 6th Street, Room 100

Grand Junction, CO 81501

USA

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Jill Ridlon

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Water Supply Plan for the Town of Minturn

November 2021



Cross Creek near the Minturn Water System Ditch

Prepared For:
Town of Minturn
301 Boulder Street #309
Minturn, CO 81645

Holland & Hart LLC
600 East Main Street, Suite 104
Aspen, CO 81611

Project No. 649.1

Martin and Wood
Water Consultants, Inc.

538 Commons Drive
Golden, CO 80401
Phone: (303) 526-2600
www.martinandwood.com

TABLE OF CONTENTS

1. INTRODUCTION 1

2. MINTURN'S WATER RIGHTS 1

3. MINTURN WATER DEMANDS 2

4. PHYSICAL AND LEGAL LIMITATIONS ON RAW WATER 2

4.1 Cross Creek Low Flow Evaluation 3
4.2 Consumptive Use Limitations on Senior Water Rights 3

5. AUGMENTATION REQUIREMENTS 4

6. FUTURE WATER SUPPLY ALTERNATIVES 6

7. CONCLUSIONS AND RECOMMENDATIONS 6

LIST OF TABLES

Table 1: Eagle River Augmentation Requirements for Growth Scenarios
Table 2: Colorado River Augmentation Requirements for Growth Scenarios
Table 3: Minturn Water Supply Options Comparison

1. INTRODUCTION

This Water Supply Plan provides a brief overview of the Town of Minturn's (Minturn) water rights and its raw water supplies, evaluates the ability of those supplies to meet existing and future water demands, and provides water supply-related recommendations for Minturn to consider. This plan is part of Minturn's efforts to continue to provide reliable and safe drinking water for its customers. Operational and infrastructure constraints and future planning to address the same are not the subject of this plan but are instead addressed in Minturn's Water System Capital Improvement Plan prepared by SGM (dated September 30, 2019) (CIP).

Reliable water supplies for Minturn depend on many factors, three of which are the focus of the Water Supply Plan. The three factors that are the focus of the Water Supply Plan are:

1. Water rights which allow for the diversion and use of water – this includes Minturn's surface water and groundwater rights as well as an augmentation plan to be operated when needed;
2. Physical availability and reliability of raw water to meet Minturn's current and future water demands consistently and under variable conditions; and
3. Augmentation supplies that can be used to provide access to additional water for Minturn while preventing impacts to other water users through a permanent augmentation plan.

Minturn's raw water supply for the potable system is currently obtained from surface water and groundwater from Cross Creek, which is a tributary to the Eagle River. Minturn's three active and existing diversion points utilizing Cross Creek water are the Minturn Water System Ditch (a surface water diversion), Minturn Well No. 3 (a groundwater diversion), and Minturn Well No. 4 (a groundwater diversion). Minturn also occasionally pumps river water from the Eagle River for non-potable purposes.

Minturn's raw water is treated and disinfected as required by the Colorado Department of Public Health and Environment (CDPHE) at the Town's water treatment plant and related facilities. More information on the Town's water treatment plant and potable water distribution system is provided in Minturn's CIP.

2. MINTURN'S WATER RIGHTS

Minturn primarily uses three water rights to provide water for Minturn's Water Service Area. These include its 1912 Minturn Water System Ditch water right, its 1962 water right for the Town of Minturn Well No. 1 (currently diverted at Minturn Well No. 3), and its 1962 water right for the Town of Minturn Well No. 2 (currently diverted at Minturn's Well No. 4). The years associated with each right are from the water rights' appropriation dates and determine their seniority. If these three "senior" water rights are insufficient to meet all or a portion of the

Town's demands because of limits on their use, the Town can use its junior water rights (priority dates in the 2000s) along Cross Creek through existing infrastructure and augment those rights when they are out of priority[1].

The Town also has additional junior water rights on the Eagle River and Cross Creek at multiple locations, as well as a junior storage water right in Bolts Lake. These additional junior rights cannot be utilized to provide water until Minturn invests in additional infrastructure.

Minturn is planning to use a combination of its junior and senior water rights, and the augmentation plan and exchanges from Case No. 07CW225, to provide a reliable water supply for the existing Town and projected growth.

3. MINTURN WATER DEMANDS

Minturn developed current planning assumptions for use in estimating existing and future water demands. These assumptions include a 20% loss in the potable water distribution system, and single-family equivalents (SFEs) that are considered to include 2.3 people who utilize 65 gallons per person per day (gpcd) for indoor use. Minturn's current customers include 730 SFEs, per the CIP, and future growth is estimated for up to 1,200 additional SFEs (of which 120 SFEs exclude outdoor water use) in Minturn and potential future growth of up to 700 SFEs in the Bolts Lake Development with outdoor water use restricted to 15 acres. With the exceptions of the future 120 SFEs in Maloit Park and the future 700 SFEs in the Bolts Lake Development, outdoor water demands per SFE were based on 2,000 sq-ft of lawn and gardens irrigated at an average outdoor watering rate of 17 inches per year.

Combining the existing and future diversion requirements, the annual average diversion estimates range from 212 af/yr for existing Minturn (730 SFEs) up to 766 af/yr for a built-out Minturn under the assumptions described above.

4. PHYSICAL AND LEGAL LIMITATIONS ON RAW WATER

Minturn's water rights are limited both physically (e.g., by streamflow limitations) and legally (e.g., by decreed diversion limits, consumptive use limits, and augmentation requirements), as described further below.

[1] Junior water rights may not divert when a downstream senior water right is calling, except in limited cases when the diversions of those junior water rights are being "augmented" under an approved plan which prevents injury or impacts to the downstream senior water right(s).

4.1 Cross Creek Low Flow Evaluation

The adequacy of Minturn's current physical water supply was evaluated through an analysis of historical flows on Cross Creek, from where all of Minturn's potable water supply is currently sourced.

Cross Creek streamflow is typically lowest during the winter months, and the estimated minimum flow during the 1957 through 2018 study period was 1.0 cfs. Based on the current planning assumptions, this flow rate could support Minturn's wintertime water demands for a built-out Minturn and is not a current constraining factor based the updated evaluation and planning criteria. During times of the year when outdoor water uses are occurring, more streamflow is needed to supply the Town to meet the increased demands. October streamflows on Cross Creek have occasionally been low enough that Minturn's future October water demands (which include indoor and outdoor water uses) would not be fully satisfied, even before development levels reach build-out. This constraint could be mitigated by the implementation of outdoor watering restrictions during low flow periods or through efficiency measures that would reduce the anticipated demands.

4.2 Consumptive Use Limitations on Senior Water Rights

One of the limitations on Minturn's senior water rights is associated with the consumptive use limits which result in restrictions on Minturn's diversions and well pumping of senior water rights on a monthly, seasonal, and annual basis. Consumptive use is calculated from the metered water deliveries to customers, estimates of how the water is used (indoor uses are 5% consumptive and outdoor uses are 85% consumptive), and is allocated based on diversion and pumping data between Minturn's water rights. After a consumptive use limit is reached under the Town's senior water rights, the Town must cease diversions or pumping under that water rights and then would divert under its junior water rights or cease diversions. Currently, Minturn can divert or pump Cross Creek water under its senior and junior water rights from its existing diversion and well facilities. Even though the facilities exist, in the event that the Division of Water Resources administers the Cross Creek instream flow (ISF) water right, Minturn's diversions of junior water rights would be curtailed due to the impact to the ISF, unless the impact was offset (i.e., augmented) with a return of water to Cross Creek (i.e., from an approved augmentation supply). The Town does not currently have a Cross Creek augmentation supply. The lack of a Cross Creek augmentation supply limits Minturn's existing ability to reliably supply growth.

For the purposes of this plan, an evaluation of how often the consumptive use limits on Minturn's senior water rights might be triggered, based on the demand assumptions described in Section 3, was conducted along with a quantification of the needed augmentation supplies. This evaluation indicated that consumptive use limits are most likely to be reached or exceeded in warm, dry months, when outdoor watering is typically high. The

Town has already come within 10% of the monthly consumptive use limits and has reached the annual consumptive use limit on the Well No. 2 water right. Until the Town has a Cross Creek augmentation supply such as the ability to release water from Bolts Lake to Cross Creek, outdoor watering restrictions may be necessary, particularly in warm, dry months and years, in order to avoid nearing or exceeding the consumptive use limits and risking curtailment if a Cross Creek ISF call occurs.

5. AUGMENTATION REQUIREMENTS

A detailed, daily spreadsheet model (model) was used to estimate the time, place, and amount of Minturn's augmentation requirements along the Eagle River and the Colorado River. The amount and location of these requirements are based on the calling water right and on Minturn's water demand and water uses at that time (e.g., more water consumption occurs in July than January, so augmentation requirements are greater in July). The model includes data from 1957 through 2018 and considers administrative calls along the Eagle and Colorado Rivers, streamflow data from the Eagle River and its tributaries, estimated diversions under Minturn's water rights, and estimated return flows from system loss and lawn irrigation return flows from use of junior water rights. Modeling for Cross Creek augmentation requirements was not conducted as no supplies are currently available, although actual replacements of augmentation water to Cross Creek could be used to meet downstream Eagle River and Colorado River augmentation obligations.

The results of this augmentation modeling indicate that Minturn's existing Eagle River augmentation supply of 70 acre-feet can satisfy the Town's anticipated augmentation requirements for existing Minturn and an additional 450 SFEs of growth, provided there is no change to the Eagle River call conditions (Table 1). If Eagle River calls are placed more often in the future than they were in the past (as the recent record suggests and is likely), then the Town's existing 70 acre-feet of Eagle River augmentation supply is only adequate to support a lower amount of growth (estimated at approximately 287 SFEs of growth: 120 SFEs having no outdoor use and 167 standard SFEs) under the anticipated stricter administrative conditions. As the Town updates its planning assumptions, including those related to outdoor areas associated with each SFE, potential modifications or restrictions on outdoor water use during dry periods, or changes in anticipated indoor water use, the evaluation of augmentation requirements should be updated.

Table 1
Eagle River Augmentation Requirements for Growth Scenarios

Growth Scenario	Maximum Annual Eagle River Augmentation – Additional Calls	Maximum Annual Eagle River Augmentation – Historical Calls	Average Annual Eagle River Augmentation – Historical Calls
190 Growth SFEs + 730 Existing SFEs	48 af	40 af	5 af
450 Growth SFEs + 730 Existing SFEs	107 af	70 af	10 af
1,200 Growth SFEs + 730 Existing SFEs	268 af	154 af	27 af
190 Growth SFEs + 700 SFEs at Bolts Lake with 15 ac outdoor use + 730 Existing SFEs	163 af	97 af	24 af
450 Growth SFEs + 700 SFEs at Bolts Lake with 15 ac outdoor use + 730 Existing SFEs	223 af	124 af	29 af
1200 Growth SFEs + 700 SFEs at Bolts Lake with 15 ac outdoor use + 730 Existing SFEs	384 af	207 af	46 af

1). In all scenarios, the modeling evaluated 120 SFEs of growth as indoor use only (associated with anticipated future use at the School District Property).
2.) In scenarios with development in the Bolts Lake area, the outdoor irrigated area is limited to 15 acres. The augmentation modeling should be modified to match development plans as they evolve.

The results of the modeling for the Town's Colorado River augmentation supplies are summarized in Table 2. The results indicate that as Minturn begins to rely more on its junior water rights, additional Colorado River augmentation supplies should be obtained. Minturn currently has 5 acre-feet of Colorado River augmentation supplies.

Table 2
Colorado River Augmentation Requirements for Growth Scenarios

Growth Scenario	Maximum Annual Colorado River Augmentation – Historical Calls	Average Annual Colorado River Augmentation – Historical Calls
190 Growth SFEs + 730 Existing SFEs	23 af	8 af
450 Growth SFEs + 730 Existing SFEs	48 af	18 af
1,200 Growth SFEs + 730 Existing SFEs	130 af	52 af
190 Growth SFEs + 700 SFEs at Bolts Lake with 15 ac outdoor use + 730 Existing SFEs	74 af	33 af

Growth Scenario	Maximum Annual Colorado River Augmentation – Historical Calls	Average Annual Colorado River Augmentation – Historical Calls
450 Growth SFEs + 700 SFEs at Bolts Lake with 15 ac outdoor use + 730 Existing SFEs	99 af	42 af
1200 Growth SFEs + 700 SFEs at Bolts Lake with 15 ac outdoor use + 730 Existing SFEs	181 af	77 af

1). In all scenarios, the modeling evaluated 120 SFEs of growth as indoor use only (associated with anticipated future use at the School District Property).
2.) In scenarios with development in the Bolts Lake area, the outdoor irrigated area is limited to 15 acres. The augmentation modeling should be modified to match development plans as they evolve.
3.) Minturn could consider the impact of releasing Eagle River augmentation supplies to meet Colorado River calls in order to reduce the quantity of Colorado River augmentation supplies needed.

6. FUTURE WATER SUPPLY ALTERNATIVES

Minturn's existing reliance on Cross Creek water supplies lacks redundancy and is a weakness for the Town's water supply reliability. Under this planning effort, the advantages and disadvantages of various future water supply alternatives for Minturn were considered. The options evaluated included: a Cross Creek well field, an Eagle River well field, an Eagle River surface diversion, a Dowd Junction well, and potential water supplies on various nearby tributaries to the Eagle River (Two Elk, Martin, Grouse, and Game Creeks).

The two water supply alternatives most likely to provide the Town with a reliable water supply of sufficient quantity for anticipated development are an Eagle River well field or an Eagle River surface diversion. Additionally, each of these sources would allow Minturn to utilize non-Cross Creek water at times when Minturn's senior water rights have been exhausted and there is a call along Cross Creek. Therefore, these two alternate water supply options have the potential to reduce or eliminate the need for a Cross Creek augmentation supply.

As Minturn evaluates what water supplies to add to Minturn's water system in the future, it should choose supplies that will increase reliability, redundancy, and diversification of the Town's water supplies.

7. CONCLUSIONS AND RECOMMENDATIONS

Minturn continues to primarily use its senior water rights to serve the Town. Minturn currently utilizes junior water rights infrequently and often at times when augmentation is not required. It is anticipated that future water demands will be greater than existing demands because of changes in water use habits, growth, redevelopment, and other factors.

The evaluation of Cross Creek streamflows indicates that this physical supply is adequate to support the water demands of existing Minturn and contemplated growth if system losses are maintained at 20% or less and if outdoor watering in October is limited in dry years. However,

in addition to physical water supply availability, there are other constraining factors that must be considered such as the need for augmentation water and consideration of water treatment capabilities to meet current and increased future demands.

Minturn has augmentation supplies along the Eagle River and the Colorado River. Minturn may be responsible for augmenting to the Eagle River, the Colorado River, and/or to Cross Creek. Until Minturn obtains a Cross Creek augmentation supply (such as Bolts Lake storage releases) or no longer needs a Cross Creek augmentation supply, it should do the following.

- Implement a program for outdoor watering restrictions to reduce outdoor water use particularly in warm, dry months and years, in order for water use to remain within what can be supported within the limits of the senior water rights.
- Limit growth until either a Cross Creek augmentation supply or an alternate water supply is available.

Minturn needs to do at least one of the following to maintain a reliable water supply for existing customers and future growth.

- Develop an alternate (non-Cross Creek) water supply (in order to limit the need to augment Cross Creek).
- Develop Bolts Lake to provide a water supply to the Town or for Cross Creek augmentation purposes (or obtain a different supply of augmentation water for Cross Creek).
- Develop a pumpback project such as what was contemplated in Case No. 07CW225 to recirculate Eagle River water into Cross Creek.
- Obtain an agreement with the CWCB per the provision in Case No. 07CW225.

This planning effort has identified several water supply options for the future, which are summarized in Table 3 below. Each water supply option requires an actual physical source, an augmentation supply, and coverage under an augmentation plan in order to be reliable (these are the first three factors considered in Table 3).

Minturn should decide the relative importance of the factors presented in the table and could consider the costs for implementation of each option to evaluate the cost to benefit ratio. The potential project timeline and difficultly for implementing each option should also be considered along with Minturn's development and reliability goals.

Table 3
Minturn Water Supply Options Comparison

Water Supply Option	Factors Considered				
	Physical Supply to Meet Demands	Augmentation Supply Available	Covered Under Existing Augmentation Plan	Provides Redundancy	Improves Diversification
Continue on Cross Creek water	Yes	Not currently	Yes	No	No
Obtain agreement with CWCB	Yes	Not needed	Yes	No	No
Develop Eagle River well field	Yes	Yes	Yes	Yes	Yes
Develop Eagle River surface water diversion	Yes	Yes	No	Yes	Yes
Interconnect with another water supplier	Yes (depends on terms)	Not needed	Yes	Yes	Yes
Develop a non-Eagle River, non-Cross Creek water supply	Maybe	Maybe	No	Yes	Yes
Develop Bolts Lake	Yes	N/A (could provide augmenation or direct supply)	N/A	Partially	Partially

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Filing ID: 38678190
Review Clerk: Kathy Hall

DISTRICT COURT, WATER DIVISION 5, COLORADO Court Address: 109 Eighth Street, Ste. 104 Glenwood Springs, CO 81601	
CONCERNING THE APPLICATION FOR WATER RIGHTS OF: **THE TOWN OF MINTURN** **IN EAGLE COUNTY, COLORADO**	▲ **COURT USE ONLY** ▲ Case No.: 05CW262 and 05CW263 (Consolidated)
Attorneys for Applicant Town of Minturn: Meghan N. Winokur, #35973 Kylie J. Crandall, #41159 Holland & Hart LLP P.O. Box 8749 Denver, CO 80201-8749 Telephone: 303-295-8000 mwinokur@hollandhart.com kjcrandall@hollandhart.com Arthur B. Ferguson, Jr. #6041 Mark E. Hamilton, #24585 600 Main Street, Ste. 104 Aspen, CO 81611-1991 (970) 925-3476 (970) 925-9367 aferguson@hollandhart.com mehamilton@hollandhart.com	

CORRECTED FINDINGS OF FACT, CONCLUSIONS OF LAW, JUDGMENT AND DECREE OF WATER COURT IN CASE NO. 05CW262

This matter came before the Court upon the Application of the Town of Minturn ("Applicant" or "Minturn") for changes of water rights.

The Water Judge referred this Application to the Water Referee for Water Division No. 5, State of Colorado, in accordance with Article 92 of Chapter 37, Colorado Revised Statutes 1973, known as the Water Rights Determination and Administration Act of 1969. By Order entered September 13, 2006, this Application was rereferred from the Water Referee to the Water Judge. Having considered this Application and other evidence, and being fully advised in this matter, the Court finds and rules as follows:

FINDINGS OF FACT

1. The Application for Changes of Water Rights was filed on December 28, 2005 and amended August 24, 2009 (together, the "Application"). The Application was consolidated on September 30, 2008 with the Application for New Ground Water Rights filed by Minturn on December 28, 2005 in Case No. 05CW263.

2. The Application was properly published in the resume for Water Division No. 5. Timely and adequate notice of the filing of this Application was given as required by law. The Court has jurisdiction over the subject matter of this Application and over all those persons and entities who have standing to appear as parties, whether they have appeared or not.

3. None of the water rights or sources thereof involved in this Application are located within a designated ground water basin.

4. The following parties filed statements of opposition to the Application either timely or in connection with a motion to intervene: Battle Mountain Corporation, a Florida Corporation, the Colorado Water Conservation Board ("CWCB"), Arrowhead Metropolitan District, Beaver Creek Metropolitan District, Berry Creek Metropolitan District, City of Golden, Clinton Ditch & Reservoir Company, Eagle County Board of County Commissioners, Eagle County School District RE-50J, Eagle Park Reservoir Company, Eagle River Water & Sanitation District, Edwards Metropolitan District, Flattops Water Company, LLC, Four Creek Ditch Company, Ginn Battle North, LLC, Ginn Battle South, LLC, Ginn-LA Battle One, Ltd., LLLP, Ginn Clubs, City of Golden, Holland Creek Metropolitan District, Red Sky Ranch Metropolitan District, Town of Avon, Upper Eagle Regional Water Authority, Vail Associates, Inc., Vidler Water Company, Inc. and Eagle-Vail Metropolitan District. The State and Division Engineers filed a motion to intervene and a statement of opposition on October 17, 2006, which intervention was granted. J Tucker, Trustee ("Trustee"), was substituted for Battle Mountain Corporation, a Florida Corporation, by Order dated December 22, 2010. No other statements of opposition were filed, and the time for filing such statements has expired.

5. Stipulations have been entered into between Applicant and the following Objectors: Battle Mountain Corporation, a Florida Corporation, Ginn Battle North, LLC, Ginn Battle South, LLC, Ginn-LA Battle One, Ltd., LLLP, Arrowhead Metropolitan District, Beaver Creek Metropolitan District, Berry Creek Metropolitan District, City of Golden, Clinton Ditch & Reservoir Company, Eagle County Board of County Commissioners, Eagle County School District RE-50J, Eagle Park Reservoir Company, Eagle River Water & Sanitation District, Edwards Metropolitan District, Flattops Water Company, LLC, Four Creek Ditch Company, City of Golden, Holland Creek Metropolitan District, Red Sky Ranch Metropolitan District, Town of Avon, Upper Eagle Regional Water Authority, Vail Associates, Inc., Vidler Water Company, Inc., Eagle-Vail Metropolitan District, the State and Division Engineers and the CWCB. Ginn Clubs withdrew as a party. Consistent with the provisions set forth in such stipulations, the parties to such consented to the entry of the Findings of Fact, Conclusions of Law, and Judgment and Decree in Case No. 05CW262 dated July 12, 2010 ("Original Decree").

Applicant filed a Petition to Correct Substantive Errors in Decree in Case No. 05CW262 on March 15, 2011 ("Petition"), seeking to correct substantive errors in Paragraphs 8 and 11 of the Original Decree. With the exception of Trustee, all parties consented to the correction of such errors in the Original Decree and entry of these Corrected Findings of Fact, Conclusions of Law, and Judgment and Decree. By granting the Petition, the Water Court finds that the corrections to the Original Decree are no less restrictive on Applicant than the limitations contained in the Original Decree and are therefore consistent with the stipulation entered into between Applicant and Battle Mountain Corporation, a Florida Corporation, for whom Trustee was substituted.

These Corrected Findings of Fact, Conclusions of Law, and Judgment and Decree describe the post-Original Decree proceedings in Paragraph 4 and this Paragraph 5 and correct the errors contained in Paragraphs 8 and 11 of the Original Decree, and in all other respects are identical to the Original Decree.

6. Proposed Changes in Points of Diversion for Minturn Well Nos. 1 and 2:

A. Information from Previous Decree for Town of Minturn Well No. 1 ("Well 1"):

i) Date Entered: The original Decree was entered February 23, 1973 in Case No. W-1100, Water Division No. 5.

ii) Decreed Point of Diversion: Located in the Southwest 1/4 of Section 36, Township 5 South, Range 81 West of the 6th

P.M., at a point whence the Southwest Corner of said Section 36 bears South 37°56'50" West, 1325.39 feet. Well No. 1 is depicted on **Exhibit A** hereto and incorporated herein.

iii) Source: Cross Creek, tributary to Eagle River.

iv) Appropriation Date: August 31, 1962.

v) Amount: 0.5 cfs, absolute.

vi) Decreed Use: Municipal.

B. Information from previous Decree for Town of Minturn Well No. 2 ("Well 2"):

i) Date Entered: The original Decree was entered March 11, 1973 in Case No. W-1101, Water Division No. 5.

ii) Decreed Point of Diversion: Located in the Southwest 1/4 Southwest 1/4 of Section 36, Township 5 South, Range 81 West of the 6th P.M., at a point whence the Southwest Corner of said Section 36 bears South 19°32'20" West, 723.71 feet. Well No. 2 is depicted on **Exhibit A** hereto and incorporated herein.

iii) Source: Cross Creek, tributary to Eagle River.

iv) Appropriation Date: August 31, 1962.

v) Amount: 0.5 cfs, absolute.

vi) Decreed Use: Municipal.

C. Proposed Changes of Wells 1 and 2: Minturn's Application requested alternate points of diversion for Wells 1 and 2 at the following locations:

i) Well No. 3: This well diverts from the alluvium of Cross Creek and is located in the Northwest 1/4 of the Northwest 1/4, Section 2, Township 6 South, Range 81 West of the 6th P.M., at a point 950 feet from the North line and 1200 feet from the West line. Well No. 3 is currently in existence and

permitted as Well Permit No. 47794-F. Well No. 3 is depicted on **Exhibit A** hereto which are incorporated herein.

ii) Well No. 4: This well diverts from the alluvium of Cross Creek and is located in the Southeast 1/4 of the Southeast 1/4, Section 35, Township 5 South, Range 81 West of the 6th P.M., at a point 66 feet from the South line and 430 feet from the East line. Well No. 4 is currently in existence and permitted as Well Permit No. 13700-F-R. Well No. 4 is depicted on **Exhibit A** hereto.

iii) At any one or combination of wells that may be constructed in Minturn Well Field No. 1: Consisting of a single well or a combination of wells that may be constructed in Minturn Well Field No. 1, as depicted generally on **Exhibit A** hereto. Portions of Minturn Well Field No. 1 are in areas where the section lines, township and range have not been mapped by the United States Geological Survey. The wells in Minturn Well Field No. 1 will be constructed in the Cross Creek alluvium within 100 feet on either side of Cross Creek, within the following stream reach, which is described using the Universal Transverse Mercator ("UTM") coordinate system, NAD83 datum.

iv) Location of Minturn Well Field No. 1: in the alluvium within 100 feet on either side of a reach of Cross Creek commencing at a point described as 1,177 feet south and 1,440 feet west of the southwest corner of Section 36, Township 5 South, Ranch 81 West and continuing downstream along Cross Creek (100 feet on either side), to a point near the confluence of Cross Creek and the Eagle River described as 1,174 feet north and 1,965 feet east of the southwest corner of Section 36, Township 5 South, Range 81 West. Minturn Well Field No. 1 is located in areas where the Section lines, Township and Range have not been mapped by the United States Geological Service ("USGS"). Thus, the location of Well Field No. 1 is described above in terms of distances from the nearest mapped Section lines on the USGS Minturn Quadrangle map dated 1987. The Well Field No. 1 may also be described as beginning at a point with UTM coordinates approximately 378118 Easting and 4380283 Northing, and continuing downstream along Cross

Creek to the confluence with the Eagle River with UTM coordinates approximately 379172 Easting and 4381014 Northing.

Minturn Well Field No. 1, as described above, may include some lands managed by the United States Forest Service ("USFS"). Applicant does not intend to appropriate a water right on USFS lands and will not construct a well on USFS lands.

v) Any wells to be constructed in Minturn Well Field No. 1 will also be subject to the terms and conditions pertaining to the location and drilling of such wells as set forth in the decree for the water rights to Well Field No. 1 in Case No. 05CW263.

D. Diversions of the Wells 1 and 2 Water Rights at any and all of the alternate points decreed herein shall be administered in priority as surface diversions under the priorities decreed respectively in Case Nos. W-1100 and W-1101, subject to the terms and conditions regarding the CWCB instream flow rights set forth herein. Minturn shall obtain well permits from the State Engineer under section 37-90-137(2) prior to re-establishing any diversions through the original points of diversion for Minturn Well Nos. 1 and 2, and such wells shall be capped and locked until such permits are obtained.

7. Consumptive Use Limitation. The Minturn Water System Ditch water right decreed in CA 671 on June 5, 1916, at its original and relocated point of diversion decreed in CA 1137 and 1333 and alternate point of diversion decreed in 94CW355 (the "Minturn Ditch Water Rights") and the Minturn Well Nos. 1 and 2 water rights decreed in W-1100 and W-1101, with alternate points of diversion decreed in this Case No. 05CW262 at Minturn Well Nos. 3 and 4 and Well Field No.1 (the "Minturn Well Nos. 1 and 2 Water Rights") may be exercised when in priority without offset or replacement up to a maximum consumptive use of 38 acre feet per year. Included within such 38 acre feet of consumptive use, Minturn Well No. 1 (as diverted at the Minturn Well No. 3) may be exercised when in priority without offset or replacement up to a maximum consumptive use of 9.6 consumptive acre feet per year and Minturn Well No. 2 (as diverted at the Minturn Well No. 4) may be exercised when in priority without offset or replacement up to a maximum consumptive use of 2.48 consumptive acre feet per year. The consumptive use limitation in this paragraph shall apply to the Minturn Ditch

Water Right and the Minturn Well Nos. 1 and 2 Water Rights at any future alternate point of diversion for said water rights.

A. As described in Paragraph 12, the Minturn Ditch Water Rights and the Minturn Well Nos. 1 and 2 Water Rights benefit from releases of Green Mountain Reservoir, and are allowed to divert by exchange under the Operating Policy for Green Mountain Reservoir, Colorado-Big Thompson Project, Colorado as set forth in the Federal Register, Vol. 48, No. 247, pp. 56657-58 and under the exchange priorities approved in Case No. 88CW382, District court, Water Division No. 5. Under Case No. 88CW382, the exchange priority for the Minturn Ditch Water Rights is August 1, 1935; and the exchange priority for both Minturn Well Nos. 1 and 2 Water Rights is August 31, 1962.

i. References in this Paragraph 7 to the exercise of the Minturn Ditch Water Rights and Minturn Well Nos. 1 and 2 being "in priority" shall include being in priority by exchange from Green Mountain Reservoir. Releases from Green Mountain Reservoir technically constitute "an offset or replacement" for consumptive use for the Minturn Ditch Water Rights and Minturn Well Nos. 1 and 2 but shall be restricted for credit hereunder up to 38 acre feet per year as provided herein.

ii. It is understood that the 38 acre feet per year is an absolute maximum irrespective of whether it is used in priority or in priority by exchange from Green Mountain Reservoir.

B. The rate of exchange for Minturn Well Nos. 1 and 2 Water Rights shall be limited to 0.056 cfs each during the irrigation season and 0.005 cfs during the non-irrigation season.

C. Notwithstanding the foregoing provisions of this Paragraph 7, the maximum consumptive use of 9.6 consumptive acre feet per year associated with Minturn Well No. 1 (as diverted at the Minturn Well No. 3) shall be limited to 9.0 consumptive acre feet per year and the maximum consumptive use of 2.48 consumptive acre feet per year associated with Minturn Well No. 2 (as diverted at the

Minturn Well No. 4) shall be limited to 2.31 consumptive acre feet per year.

D. The exchange for the Minturn Well Nos. 1 and 2 Water Rights shall not operate at any time Minturn's wastewater returns are made downstream of the current point of wastewater returns at the Town of Avon.

E. The rate of exchange limitations in this paragraph shall also apply to the Minturn Well Nos. 1 and 2 Water Rights at any future alternate point of diversion for said water rights.

F. The consumptive use and rate of exchange limitations in this paragraph shall not be exceeded at any future alternate point of diversion for said water rights, but may be subject to a further reduction based on changed circumstances in any future change case.

8. Monthly Maximum Limitations. Collectively, the diversion of the 38 consumptive acre feet per year from the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2 Water Rights shall be limited to the following monthly maximum amounts:

A. A maximum of 0.75 consumptive acre feet per month during months of November through March.

B. A maximum of 1.0 consumptive acre feet during April.

C. A maximum of 3.5 consumptive acre feet during May.

D. A maximum of 9.75 consumptive acre feet during June.

E. A maximum of 11.5 consumptive acre feet during July.

F. A maximum of 8.5 consumptive acre feet during August; provided, however, that the maximum amount during June, July and August shall not exceed 27.5 consumptive acre feet.

G. A maximum of 5.0 consumptive acre feet during September.

H. A maximum of 2.25 consumptive acre feet during October.

9. Monthly Accounting. Minturn shall maintain monthly accounting forms to reflect the limitations set forth in Paragraph 7 and 8 above. The accounting year shall begin November 1 of each year and end October 31 the following year.

10. Additional Terms and Conditions Regarding Minturn Wells. Use of the Minturn Well Nos. 1 and 2 Water Rights shall be in conformance with the additional terms and conditions contained herein.

A. For the Minturn Well Nos. 1 and 2 Water Rights diverted at alternate points of diversion, the maximum pumping rate per well will be limited to 80 gpm each.

B. For the Minturn Well Nos. 1 and 2 Water Rights diverted at alternate point of diversion, the combined maximum instantaneous pumping rate of all wells will be limited to 160 gpm, subject to the limits on the exchange relying on Green Mountain Reservoir.

C. The Minturn Well Nos. 1 and 2 Water Rights diverted at alternate points of diversion will be subject to the limits on the exchange relying on Green Mountain Reservoir set forth in Paragraph 7.

D. Minturn will obtain a water well permit from the State Engineer's Office prior to construction and use of any well that will be used as an alternate point of diversion for the Minturn Well Nos. 1 and 2 Water Rights, consistent with the terms and conditions contained herein.

E. Any wells constructed in the Minturn Well Field No. 1, used as an alternate point of diversion for the Minturn Well Nos. 1 and 2 Water Rights, shall be located more than 600 feet from any wells that are owned by third parties and that existed prior to December 28, 2005, unless consent has been provided, or unless the well is otherwise permitted by the State Engineer in accordance with C.R.S. § 37-90-137(2)(b).

F. The changed Minturn Wells Nos. 1 and 2 Water Rights will be diverted at the alternate points of diversion only when water is physically and legally available in priority at the point on Cross Creek closest to the original points of diversion of the Minturn Well Nos. 1 and 2 Water Rights, or as otherwise approved by the Water Court in any plan for augmentation decreed in Water Division No. 5 Case No. 07CW225.

i) Such plan for augmentation shall be subject to the terms and conditions herein regarding Minturn Wells Nos. 1 and 2 and the protections for other vested water rights including without limitation, the CWCB's instream flow rights set forth herein.

G. Accounting forms consistent with the requirements set forth in this decree and acceptable to the Division Engineer will be maintained and submitted on a monthly basis. Those forms will contain, among other information required by the Division Engineer, the volumetric limits set forth for the Minturn Well Nos. 1 and 2 Water Rights and shall be consistent with the accounting forms approved and maintained in Water Division No. 5, Case Nos. 07CW225 and 05CW263, and consistent with the prevention of injury to all water rights, including without limitation, the CWCB's instream flow rights as set forth herein.

11. Consumptive Use Factors. For purposes of calculating the annual and monthly maximum consumptive use limits, Minturn will measure all diversions from the Minturn Ditch Water Right and Minturn Wells Nos. 1 and 2 Water Rights at all points of diversion. Total metered use (the total of the individual meters) during the months of November through April shall be considered inhouse uses with a consumptive use factor of 5%. The portion of the total metered use during the months of May through October that exceeds the average of the preceding November through April monthly metered use shall be considered irrigation water use with a consumptive use factor of 85%. These factors will be allocated to each of the Minturn Well Nos. 1 and 2 Water Rights and Minturn Ditch Water Right based upon the measured production of the Minturn Well Nos. 1 and 2 Water Rights which will be a total determined percentage of the total production of treated water (inclusive of the water produced by the Minturn Well Nos. 1 and 2 Water Rights) that will then provide the percentage for each well and the Minturn Ditch Water Right for accounting purposes.

A. The difference between total measured diversions and total metered use through individual user meters shall be considered system loss.

B. The determination of the method of accounting for the consumptive use associated with irrigation herein is based on the historical actual use of Applicant that was calculated at a 75% consumptive use factor in light of the nature of the irrigation within Minturn. The 85% consumptive use factor decreed herein is to be applied upon the entry of the decree as provided for in this paragraph and as accounted for in connection with the accounting forms approved

and maintained in Case No.07CW225. In the event water stored in Bolts Lake is available to Minturn as contemplated in Case No. 07CW225, Minturn agrees that the measure of its irrigation use within the place of use described in Paragraph 14 below, subject to the consumptive use factor of 85% shall be the greater of either: (1) the method set forth above; or (2) the average monthly crop irrigation requirement on a per-acre basis applicable at that time as approved by the Division Engineer and as applied to the total irrigated acreage to be reported in Minturn's monthly accounting.

12. Historic Users Pool Protection. The amounts set forth in Paragraph 7 associated with the Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights shall be deemed to continue to receive full "Historic Users' Pool" protection with annual releases from Green Mountain Reservoir, subject to the exchange limitations for Minturn Well Nos. 1 and 2 Water Rights in Paragraph 7. The Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights shall not be entitled to any Historic Users' Pool protection from Green Mountain Reservoir for any diversions that result in an excess of the 38 consumptive acre feet per year as limited and determined by the provisions of this decree.

13. Augmentation of Diversions. Any diversions from the structures decreed to the Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights that result in an excess of the 38 consumptive acre feet annual limitation and the monthly maximum limitations shall be allocated to the junior water rights decreed in Water Division No. 5, Case Nos. 06CW264 and 07CW225 (the "06CW264 and 07CW225 Priorities"), and must be fully replaced and augmented under the plan for augmentation set forth in Case No. 07CW225. During times when diversions from such structures result in the consumptive use limitations being exceeded and are operating under either or both the 06CW264 and 07CW225 Priorities, and (a) there is a call placed by a senior water right (including a senior exchange right or an exchange to which these priorities have subordinated) that is within the reach of the Eagle River between the confluence of the Eagle River and Cross Creek and the point of discharge of Minturn's municipal effluent, or (b) the Eagle River instream flow water rights within that reach are not being met, then Minturn will augment its diversions with augmentation water that is upstream of the confluence of the Eagle River and Cross Creek. The amount of such augmentation water shall be that amount required to meet the decreed instream flow and meet the senior call or call to which it has subordinated, up to the maximum amount of Minturn's out of priority diversions, reduced by applicable return flow credits (wastewater, system loss and return flows) derived from the 06CW264 and 07CW225 Priorities and junior priorities decreed in Case No. 05CW263.

A. The reference to wastewater in this Paragraph 13 is not intended to provide credit for municipal effluent returns at the regional wastewater treatment plant at Avon to reduce any obligation of Minturn to provide augmentation water to a calling water right located upstream of said point of effluent discharge.

14. Place of Use. The place of use of the Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights shall be limited to Minturn's pre-2008 water service area (Town of Minturn, school district lands known as Maloit Park, and the Pierson property) and the Palmateer, Burnett, Two Elk Creek (open space) and Kings Ranch aka West Minturn areas of the 2003 Three Mile Plan as shown in **Exhibit B** attached hereto, subject to the limitations set forth above. Any water service provided by Minturn within the Town of Minturn outside of the foregoing areas must be with other decreed water rights diverted either in priority or pursuant to a court-approved plan for augmentation.

15. Municipal Use. The Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights may be used for municipal purposes consistent with these terms and conditions, including the irrigation of plants, parks, cemeteries and gardens; provided, however, such water rights may not be used for golf course irrigation or snowmaking.

16. Instream Flows. In connection with the diversion of water under Minturn Well Nos. 1 and 2 Water Rights through Well Nos. 3 and 4 and any wells located in Well field No. 1 upstream of the points on Cross Creek closest to the location of Minturn Well Nos. 1 and 2, when the CWCB's water rights to preserve the natural environment on Cross Creek, decreed in Case No. 78W3795 are not being met, as determined by the Water Commissioner or Division Engineer, Applicant agrees to either curtail its diversions or fully augment its depletions, consistent with Case No. 07CW225 or another court-approved augmentation plan or a substitute water supply plan approved by the State Engineer, with augmentation water that is upstream of these depletions to Cross Creek. Presently, such depletions are equal to the diversions.

A. In addition to the terms and conditions of this paragraph and Paragraph 13, during times when diversions from structures decreed to the Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights result in the consumptive use limitations being exceeded and are operating under either or both the 06CW264 and 07CW225 Priorities, and (a) there is a call placed by a senior water right (including a senior exchange right or an exchange to which these priorities have subordinated) that is within the reach of the Eagle River between the confluence of the Eagle

River and Cross Creek and the point of discharge of Minturn's municipal effluent, or (b) the CWCB's Eagle River instream flow water rights within or downstream of that reach or on Cross Creek are not being met, then Minturn will augment its diversions with augmentation water that is upstream of the points of diversion. The amount of such augmentation water shall be that amount required to meet the decreed instream flow and meet the senior call or call to which it has subordinated, up to the maximum amount of Minturn's out of priority diversions, reduced by any applicable return flow credits (wastewater, system loss and return flows) derived from the 06CW264 and 07CW225 Priorities and junior priorities decreed in Case No. 05CW263.

i) The reference to wastewater in this Paragraph 16 is not intended to provide credit for municipal effluent returns at the regional wastewater treatment plant at Avon to reduce any obligation of Minturn to provide augmentation water to a calling water right located upstream of said point of effluent discharge.

B. All references in this decree to "instream flow" shall be the instream flows that are decreed to and held by the CWCB.

17. Measuring Devices. Applicant will install and maintain such water measuring devices, implement such accounting procedures, and provide such calculations as may be required by the State or Division Engineer to administer the terms of this decree. The CWCB shall have access to any such measuring device(s) at reasonable times in order to make readings therefrom.

18. No Enlargement. No enlargement of use of Minturn Well Nos. 1 and 2 Water Rights will occur as a result of the requested changes of water rights.

CONCLUSIONS OF LAW

19. The foregoing findings of fact are fully incorporated herein

20. All notices required by law have been properly made, including as required under C.R.S. § 37-92-302(3) (2005).

21. The Court has jurisdiction over the Application and over all persons or entities who had standing to appear, even though they did not do so.

22. The Application is complete, covering all applicable matters required pursuant to the Water Right Determination and Administration Act of 1969, C.R.S. §§ 37-92-101 through -602.

23. The Court has given due consideration to the Division Engineer's summary of consultation. *See* C.R.S. §37-92-302(4). A copy of the summary of consultation was properly served on all parties to the case.

24. Minturn has fulfilled all legal requirements for a decree for the requested changes of water rights, including C.R.S. §§ 37-92-302 and 37-92-305.

25. The changes of water rights described herein will not injuriously affect the owner of or persons entitled to use water under a vested water right or a decreed conditional water right.

26. The subject Application is in accordance with Colorado law. Minturn has fulfilled all legal requirements for entry of a decree in this case.

JUDGMENT AND DECREE

27. The foregoing findings of fact and conclusions of law are incorporated herein.

28. The Court hereby approves and decrees the changes of water rights for the Minturn Well Nos. 1 and 2, subject to the terms and conditions set forth.

29. The Court hereby orders the State Engineer to issue any required well permits for the wells described herein upon application to the State Engineer. Within 60 days of completion of the construction of any well within the Minturn Well Field No. 1 pursuant to a well permit, Minturn shall notify both the Court and Division of Water Resources of the precise location of the constructed well.

30. Pursuant to C.R.S. § 37-92-304(3.6), Minturn shall not construct any well on lands owned by another other than Minturn unless the right to construct such a well is obtained by consent of the landowner or the exercise of the power of eminent domain by Minturn.

31. This decree does not grant Minturn any additional property interests in lands on which structures are or will be located.

32. Nothing in this decree establishes, determines or otherwise confirms or denies the ownership of any land.

33. In consideration of the specific findings and conclusions made herein, and in conformance with C.R.S. § 37-92-304(6) (2005), as amended, the changes of water rights decreed herein shall be subject to reconsideration by the Water Judge on the question of injury to the vested water rights of others for a period of five years from the date of entry of this decree. With regard to the determination of consumptive use for irrigation within the place of use described in Paragraph 14 above or any consumptive use of Minturn's system losses described in Paragraph 11 above, the retained jurisdiction period shall be ten years in order for the Applicant and State and Division Engineers to re-evaluate whether the consumptive use determinations in Paragraph 11 continues to reflect and account for the actual consumptive use for the irrigation. During this ten year period, the State and Division Engineers shall have the right to: (1) present to the Court evidence concerning whether injury has occurred or is likely to occur without new terms and conditions to preclude such injury, or (2) seek an extension of this retained jurisdiction period until the absence of injury can be conclusively established. If no petition for reconsideration is filed within the applicable retained jurisdiction periods, retention of jurisdiction for this purpose shall automatically expire. Any party who wants the Court to reconsider the question of injury must file a verified petition with the Court, setting forth the facts that cause such injury and explaining the claimed injury. The party filing the petition shall have the burden of going forward to establish the prima facie facts alleged in the petition. If the Court finds those facts to be established, the Applicant shall thereupon bear the burden of proof to show (a) that any modification sought by the Applicant will avoid injury to other water rights, or (b) that any modification sought by the petitioner is not required to avoid injury to other water rights, or (c) that any term or condition proposed by Applicant in response to the petition does avoid injury to other water rights.

34. The Application, as decreed herein, is administrable by the State and Division Engineers. Review of determinations made by the Division Engineer or the State Engineer in administration of the subject water rights are "water matters" which the Water Court may review under its exclusive jurisdiction.

35. The findings of fact, conclusions of law, judgment and decree were the result of substantial discussions, negotiations and compromises between the applicant and the objectors pertaining to many parts of the findings, conclusions, judgment and decree. With respect to the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2 Water Rights, the findings of fact, conclusions of law and judgment and decree herein are binding and define the decreed rights and limitations of those rights and they shall be operated and administered in accordance with the provisions of this decree. With the exception of the decreed rights and limitations of the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2 Water Rights as specifically decreed herein, it is specifically understood and agreed to by the parties hereto, and found and concluded by the Court, that the acquiescence of the parties to a stipulated decree under the specific factual and

legal circumstances of this contested matter and upon the numerous and interrelated compromises reached by the parties will never give rise to any argument, claim, defense or theory of acquiescence, waiver, bar, merger, stare decisis, res judicata, estoppel, laches, or to any administrative or judicial practice or precedent, by or against any of the parties hereto in any other matter, case or dispute not involving the Minturn Ditch Water Rights or Minturn Well Nos. 1 and 2 Water Rights, nor shall testimony concerning such acquiescence of any party to a stipulated decree herein be allowed in any other matter, case or dispute not involving the Minturn Ditch Water Rights or Minturn Well Nos. 1 and 2 Water Rights. With the exception of the decreed rights and limitations of the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2 Water Rights as specifically set forth herein, all parties stipulate and agree that they do not intend the findings, conclusions, judgment and decree to have the effect of precedent or preclusion on any factual or legal issue in any other matter not involving the Minturn Ditch Water Rights or Minturn Well Nos. 1 and 2 Water Rights. With the exception of the decreed rights and limitations of the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2 Water Rights as specifically set forth herein the parties further stipulate and agree that they each reserve the right to propose or to challenge any legal or factual position in any other change of water right, plan for augmentation or other matter filed in this or any other court without limitation by these findings, conclusions, judgment and decree.

It is accordingly ordered that this judgment and decree shall be filed with the Water Clerk and shall become effective upon such filing, subject to judicial review pursuant to C.R.S. § 37-92-304, as amended.

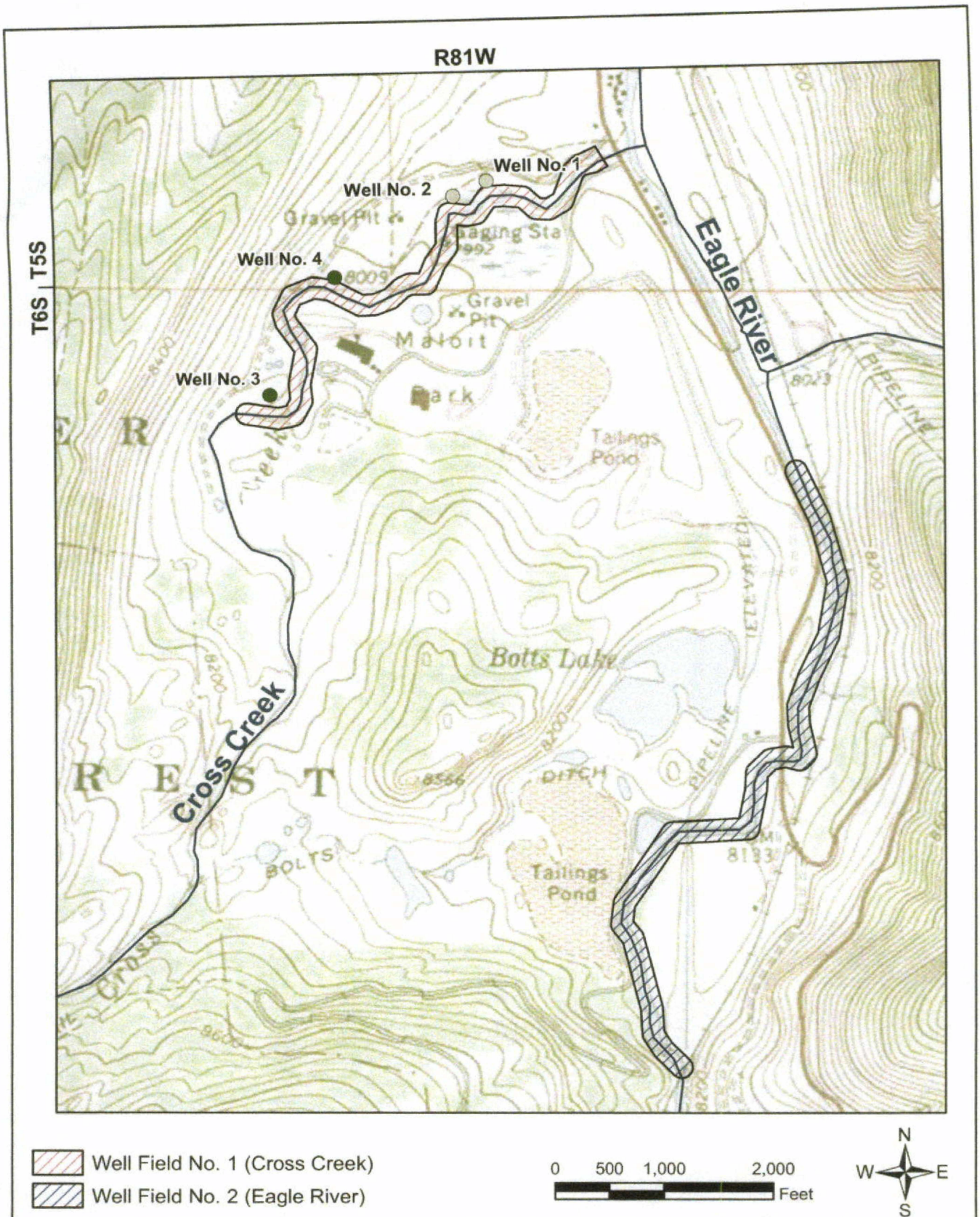
It is further ordered that a copy of this judgment and decree shall be filed with the State Engineer and the Division Engineer for Water Division No. 5.

Done at the City of Glenwood Springs, Colorado, this 13th day of July 2011, *nunc pro tunc* July 12, 2010.

BY THE COURT:

Thomas Ossola, Water Judge

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Job No.:	649.1
Date:	9-Jun-2010
Drawn:	JPB
Checked:	JTW

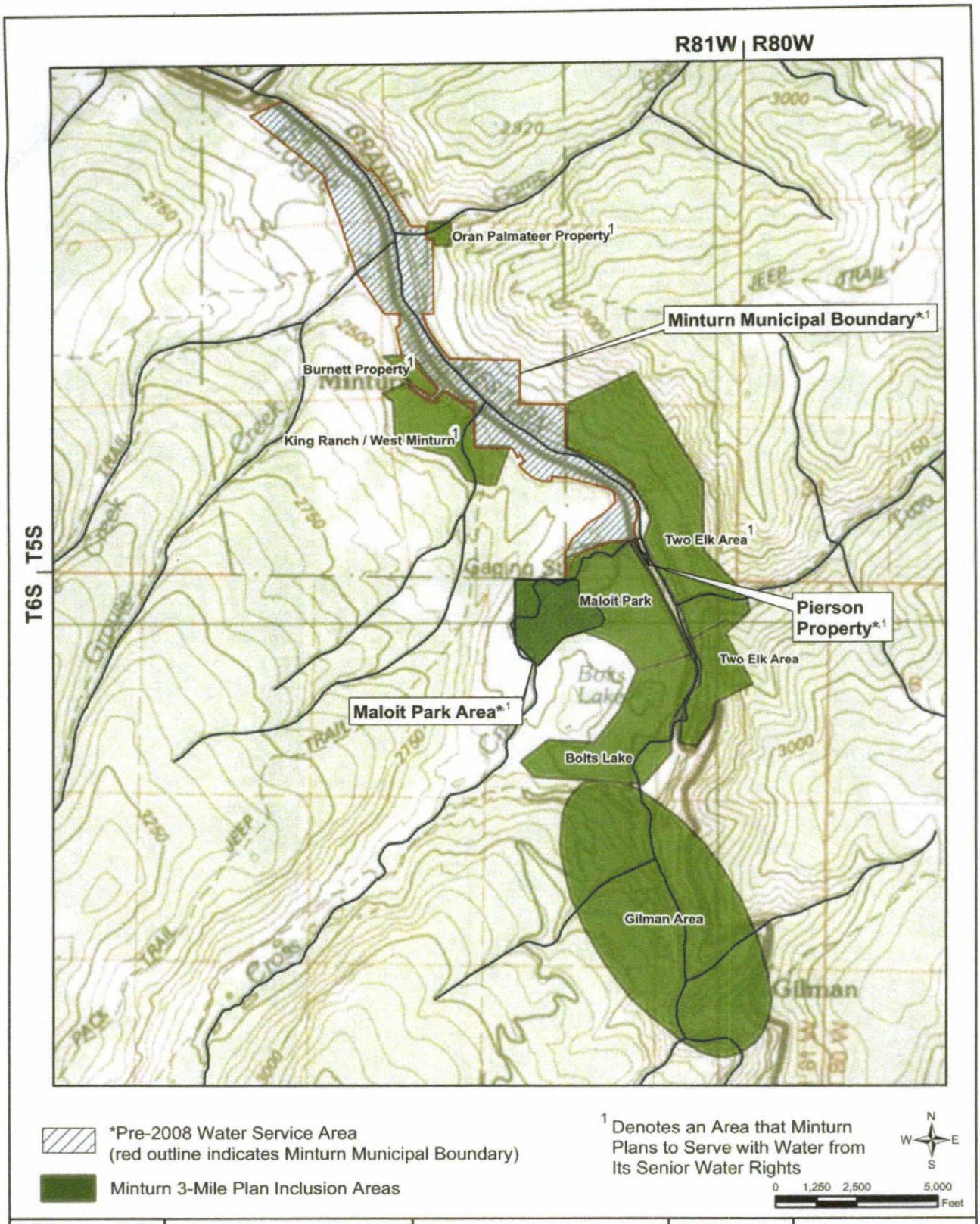
Town of Minturn
Case Nos. 05CW262 and 05CW263

Minturn Wells and Well Fields

Exhibit A

MARTIN AND WOOD WATER CONSULTANTS, INC
602 Park Point Drive
Suite 275
Golden, CO 80401
(303) 526-2600
www.martinandwood.com

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Job No.:	649.1
Date:	24-Jun-2010
Drawn:	JPB
Checked:	JTW

Town of Minturn
Case No. 05CW262
and 05CW263

Pre-2008 Water Service Areas and 2003 3-mile Plan Inclusion Areas
Exhibit B

MARTIN AND WOOD
WATER CONSULTANTS, INC.
602 Park Point Drive
Suite 275
Golden, CO 80401
(303) 526-2600
www.martinandwood.com

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CASE NUMBER: 2005CW262

DISTRICT COURT, WATER DIV. 5 Court Address: 109 Eighth Street, Ste. 104 Glenwood Springs, CO 81601	
CONCERNING THE APPLICATION FOR WATER RIGHTS OF: **THE TOWN OF MINTURN** **IN EAGLE COUNTY, COLORADO**	▲ **COURT USE ONLY** ▲ Case No.: 05CW262 and 05CW263 (Consolidated)
Attorneys for Applicant Town of Minturn: Meghan N. Winokur, #35973 Kylie J. Crandall, #41159 Holland & Hart LLP P.O. Box 8749 Denver, CO 80201-8749 Telephone: 303-295-8000 mwinokur@hollandhart.com kjcrandall@hollandhart.com Arthur B. Ferguson, Jr. #6041 Mark E. Hamilton, #24585 600 Main Street, Ste. 104 Aspen, CO 81611-1991 (970) 925-3476 (970) 925-9367 aferguson@hollandhart.com mehamilton@hollandhart.com	

FINDINGS OF FACT, CONCLUSIONS OF LAW, JUDGMENT AND DECREE OF THE WATER COURT IN CASE NO. 05CW263

This matter came before the Court upon the Application of the Town of Minturn ("Applicant" or "Minturn") for new ground water rights.

Having considered this Application and other evidence, and being fully advised in this matter, the Court finds and rules as follows:

FINDINGS OF FACT

1. On December 28, 2005, Applicant filed the Application for New Ground Water Rights (the "Application"). The Application was consolidated on September 30, 2008 with the Application for Changes of Water Rights filed by Minturn on December 28, 2005 and amended on August 24, 2009 in Case No. 05CW262.

2. The Application was properly published in the resume for Water Division No. 5. Timely and adequate notice of the filing of this Application was given as required by law. The Court has jurisdiction over the subject matter of this Application and over all those persons and entities who have standing to appear as parties, whether they have appeared or not.

3. None of the water rights or sources thereof involved in this Application are located within a designated ground water basin.

4. The following parties filed statements of opposition to the Application either timely or in connection with a motion to intervene: Battle Mountain Corporation, a Florida Corporation, Arrowhead Metropolitan District, Beaver Creek Metropolitan District, Berry Creek Metropolitan District, City of Golden, Clinton Ditch & Reservoir Company, Eagle County Board of County Commissioners, Eagle County School District RE-50J, Eagle Park Reservoir Company, Eagle River Water & Sanitation District, Edwards Metropolitan District, Flattops Water Company, LLC, Four Creek Ditch Company, Ginn Battle North, LLC, Ginn Battle South, LLC, Ginn-LA Battle One, Ltd., LLLP, Ginn Clubs, Holland Creek Metropolitan District, Red Sky Ranch Metropolitan District, Town of Avon, Upper Eagle Regional Water Authority, Vail Associates, Inc., Vidler Water Company and Eagle-Vail Metropolitan District. No other statements of opposition were filed, and the time for filing such statements has expired.

5. Stipulations have been entered into between Applicant and the following Objectors: Battle Mountain Corporation, a Florida Corporation, Ginn Battle North, LLC, Ginn Battle South, LLC, Ginn-LA Battle One, Ltd., LLLP, Arrowhead Metropolitan District, Beaver Creek Metropolitan District, Berry Creek Metropolitan District, City of Golden, Clinton Ditch & Reservoir Company, Eagle County Board of County Commissioners, Eagle County School District RE-50J, Eagle Park Reservoir Company, Eagle River Water & Sanitation District, Edwards Metropolitan District, Flattops Water Company, LLC, Four Creek Ditch Company, Holland Creek Metropolitan District, Red Sky Ranch Metropolitan District, Town of Avon, Upper Eagle Regional Water Authority, Vail Associates, Inc., Vidler Water Company and

Eagle-Vail Metropolitan District. Ginn Clubs withdrew as a party. Such stipulations have consented to the entry of this findings of fact, conclusions of law, and judgment and decree in Case No. 05CW263 consistent with the provisions set forth in such stipulations.

6. Application for Confirmation of Ground Water Rights for Minturn Well Fields:

A. Names of Structures: Minturn Well Field Nos. 1 and 2 (collectively "Minturn Well Fields").

B. Legal description: The Minturn Well Fields are depicted generally on **Exhibit A** hereto and incorporated herein. Portions of the Minturn Well Fields are in areas where the section lines, township and range have not been mapped by the United States Geological Survey. Any new wells in the Minturn Well Fields will be constructed in the alluvium within 100 feet of Cross Creek (Minturn Well Field No. 1) or the Eagle River (Minturn Well Field No. 2) within the following stream reaches, which are described using the Universal Transverse Mercator ("UTM") coordinate system, NAD83 datum.

i) Location of Minturn Well Field No. 1: in the alluvium within 100 feet on either side of a reach of Cross Creek commencing at a point described as 1,177 feet south and 1,440 feet west of the southwest corner of Section 36, Township 5 South, Ranch 81 West and continuing downstream along Cross Creek (100 feet on either side), to a point near the confluence of Cross Creek and the Eagle River described as 1,174 feet north and 1,965 feet east of the southwest corner of Section 36, Township 5 South, Range 81 West. Minturn Well Field No. 1 is located in areas where the Section lines, Township and Range have not been mapped by the United States Geological Service ("USGS"). Thus, the location of Well Field No. 1 is described above in terms of distances from the nearest mapped Section lines on the USGS Minturn Quadrangle map dated 1987. The Well Field No. 1 may also be described as beginning at a point with UTM coordinates approximately 378118 Easting and 4380283 Northing, and continuing downstream along Cross Creek to the confluence with the Eagle River with UTM

coordinates approximately 379172 Easting and 4381014 Northing.

ii) Location of Minturn Well Field No. 2: in the alluvium within 100 feet on either side of a reach of the Eagle River commencing at a point described as 1,580 feet south and 1,727 feet west of the southeast corner of Section 36, Township 5 South, Range 81 West and continuing downstream along the Eagle River (100 feet on either side), to a point 7,325 feet south and 2,677 feet west of the southeast corner of Section 36, Township 5 South, Range 81 West. Minturn Well Field No. 2 is located in areas where the Section lines, Township and Range have not been mapped by the USGS. Thus, the location of Well Field No. 2 is described above in terms of distances from the nearest mapped Section lines on the USGS Minturn Quadrangle map dated 1987. The Well Field No. 2 may also be described as beginning at a point with UTM coordinates approximately 379329 Easting and 4378407 Northing, and continuing downstream along the Eagle River to a point with UTM coordinates approximately 379652 Easting and 4380103 Northing.

The Minturn Well Fields may include some lands managed by the United States Forest Service ("USFS"). Applicant does not intend to appropriate a water right on USFS lands and will not construct a well on USFS lands.

Any wells constructed in the Minturn Well Fields will be located more than 600 feet from any wells that are owned by any other party, unless consent by the owner has been provided, or unless the well is otherwise permitted by the State Engineer, in accordance with C.R.S. § 37-90-137(2)(b).

C. Source of Well Field No. 1: ground water tributary to Cross Creek.

D. Source of Well Field No. 2: ground water tributary the Eagle River.

E. Appropriation information:

i) Date of initiation of appropriation: December 20, 2005

ii) How appropriation was initiated: By formation of requisite intent to appropriate coupled with actions manifesting such an intent sufficient to put third parties on notice, including but not limited to: site investigations and water supply planning by water resources consultants; and development of a water supply master plan for Minturn, based upon the projected future water requirements to serve the Minturn at full buildout.

F. Date water applied to beneficial use: N/A.

G. Amount claimed: 2.5 cfs, conditional. Minturn proposes to develop only as many wells as are necessary in the Minturn Well Fields for cumulative maximum diversions of 2.5 cfs under the 2005 priority decreed herein. So long as Minturn complies with the terms and conditions of the Decree in this case and obtains a well permit, amendment of the Decree will not be required each time a new well location is determined. Minturn is entitled to have as many wells as are necessary to divert a cumulative maximum diversion of 2.5 cfs under the 2005 priority of the underground water right for the Minturn Well Fields, and to be issued well permits by the State Engineer to construct and use ground water under the priority of the Minturn Well Fields, so long as the well permit applications confirm that operation of the wells will be subject to the terms and conditions of this Decree.

H. Proposed use: Municipal. The Minturn Well Fields may be used for municipal purposes consistent with these terms and conditions, including the irrigation of plants, parks, cemeteries and gardens; provided, however, such water rights may not be used for snowmaking. Diversions may be used directly or stored within municipal system storage tanks for subsequent release and use. Expansion of Minturn's population is anticipated to continue to occur in the future within Minturn's current and anticipated water service area, including its annexed areas and other lands within the 2003 Three Mile Plan as shown on **Exhibit B**, and such expansion may be served, in part, by diversions at the Minturn Well Fields under this Decree.

I. Diversions from the Minturn Well Fields under this Decree shall be administered in priority as surface diversions under the 2005 priority decreed herein and may continue to divert when out-of-

priority under the terms and conditions of the plan for augmentation and exchange decreed in Water Division No. 5 Case No. 07CW225 or pursuant to a court approved plan for augmentation or exchange which provides for the replacement of out-of-priority depletions from these new underground water rights decreed herein.

J. Consistent with the requirements of the Minturn Municipal Code, Minturn agrees that, prior to the authorization of the sale of any lot in any phase of any development of the Battle Mountain Planned Unit Development or other project on Battle Mountain Annexation Parcels Nos. 1 through 9 and any other Battle Mountain Property annexed into Minturn, the source for augmentation, including without limitation Bolts Lake, will be physically and legally available or otherwise constructed to and be operable with a capacity sufficient to provide augmentation water to support the water service for such phase pursuant to the provisions of the decree in Case No. 07CW225.

CONCLUSIONS OF LAW

7. The foregoing findings of fact are fully incorporated herein.

8. All notices required by law have been properly made, including as required under C.R.S. § 37-92-302(3) (2005). The Court has jurisdiction over the Application and over all persons or entities who had standing to appear, even though they did not do so.

9. The Application is complete, in accordance with Colorado law, and covers all applicable matters required pursuant to the Water Right Determination and Administration Act of 1969, C.R.S. §§ 37-92-101 through -602.

10. The Court has given due consideration to the Division Engineer's summary of consultation. *See* C.R.S. §37-92-302(4). A copy of the summary of consultation was properly served on all parties to the case. The matters raised in the summary of consultation have been addressed in this Decree.

11. Minturn has fulfilled all legal requirements for a decree for the subject conditional underground water rights, including C.R.S. §§ 37-92-302 and 37-92-305.

12. Minturn has established that water can and will be diverted and beneficially used under the subject conditional water rights for the Minturn Well Fields,

and that this water supply project can and will be completed with diligence and within a reasonable time.

13. The Minturn Well Fields are individual components of Minturn's integrated water supply system, which provides for Minturn's current level of municipal water service and for a reasonable expectancy of expanded municipal water service over time. Consequently, in subsequent diligence proceedings for the subject Minturn Well Fields water rights, work on any one feature of Minturn's supply system shall be considered in finding that reasonable diligence has been shown in the development of the Minturn Well Fields water rights and for all features of the water supply system, *see* C.R.S. § 37-92-301(4)(b).

JUDGMENT AND DECREE

14. The foregoing findings of fact and conclusions of law are incorporated herein.

15. The Court hereby confirms and decrees conditional underground water rights for the Minturn Well Fields, as more fully described herein.

16. The Court hereby orders the State Engineer to issue any required well permits for wells to be constructed in the Minturn Well Fields, upon application to the State Engineer and the State Engineer's determination of compliance with the appropriate conditions set forth herein. Within 60 days of completion of the construction of any well within the Minturn Well Fields pursuant to a well permit, Minturn shall notify both the Court and Division of Water Resources of the precise location of the constructed well.

17. Any well constructed in a specified Minturn Well Field within 100 feet of either Cross Creek or the Eagle River shall be deemed to be a headgate well with the depletions being instantaneous. Such well shall be administered as a headgate well.

18. No wells constructed to divert under the Minturn Well Field water rights shall be permitted to operate when not in priority, unless pursuant to the plan for augmentation and exchange decreed in Water Division No. 5, Case No. 07CW225 or a decreed plan for augmentation or exchange or administrative approved substitute water supply plan.

19. Minturn will provide monthly accounting to the Division Engineer on an accounting form approved by the Division Engineer, which shall include the name of the well, its location, in which Well Field it is located, its daily pumpage and its daily depletion, the effective daily call, and, if augmented pursuant to a court-approved plan

for augmentation, the source and location of water for augmentation or substitution by exchange. Accounting forms acceptable to the Division Engineer will be maintained and submitted on a monthly basis. Those forms will contain information required by the Division Engineer and shall be consistent with the accounting forms approved and maintained in Water Division No. 5, Case No. 07CW225 and 05CW262 as this latter case relates to Well Field No. 1.

20. Any wells constructed in the Minturn Well Fields shall be located more than 600 feet from any wells that are owned by third parties and that existed prior to December 28, 2005, unless consent has been provided, or unless the well is otherwise permitted by the State Engineer, in accordance with C.R.S. § 37-90-137(2)(b).

21. As provided in C.R.S. § 37-92-304(3.6), Minturn shall not construct any well on lands owned by another other than Minturn unless the right to construct such a well is obtained by consent of the landowner or the exercise of the power of eminent domain by Minturn.

22. This decree does not grant Minturn any additional property interests in lands on which structures are or will be located.

23. Nothing in this decree establishes, determines or otherwise confirms or denies the ownership of any land.

24. In connection with the diversion of water under Minturn Well Field Nos. 1 and 2, the following terms and conditions shall apply. In order to satisfy a senior call downstream on the Eagle River or to satisfy the Colorado Water Conservation Board's water rights on Cross Creek, decreed in Case No. W-3795, and on the Eagle River, decreed in Case Nos. W-3788, W-3796, 80CW134, 80CW126 and 80CW124 as determined by the Water Commissioner or the Division Engineer, Applicant agrees to either: curtail its diversions, or replace the depletions in time and amount, upstream from the place where the depletions impact the river system

A. In addition to the terms and conditions of this Paragraph 24, during times when the Minturn Well Fields water rights are diverting under the priorities decreed herein, and (a) there is a call placed by a senior water right (including a senior exchange right or an exchange to which the Minturn Well Fields priorities have subordinated) that is within the reach of the Eagle River between the upper most reach of the Minturn Well Field No. 2 on the Eagle River and the point of discharge of Minturn's municipal effluent, or (b) the CWCB's Eagle River instream flow water rights within or downstream of that reach or on Cross Creek are not being met, then

Minturn will augment its diversions with augmentation water that is upstream of the points of diversion. The amount of such augmentation water shall be that amount required to meet the decreed instream flow and meet the senior call or call to which the Minturn Well Fields priorities have subordinated up to the maximum amount of Minturn's out of priority diversions, reduced by any applicable return flow credits (wastewater, system loss and return flows) derived from the 06CW264 and 07CW225 Priorities and junior priorities decreed in Case No. 05CW263.

i) The reference to wastewater in this Paragraph 24 is not intended to provide credit for municipal effluent returns at the regional wastewater treatment plant at Avon to reduce any obligation of Minturn to provide augmentation water to a calling water right located upstream of said point of effluent discharge.

B. All references in this decree to "instream flow" shall be the instream flows that are decreed to and held by the CWCB

25. Applicant will install and maintain such water measuring devices, implement such accounting procedures, and provide such calculations as may be required by the State or Division Engineer to administer the terms of this decree. The CWCB shall have access to any such measuring device(s) at reasonable times in order to make readings therefrom.

26. The water rights and priority granted herein are based on the appropriation date confirmed herein and on the filing of the application in this case in the Water Court in the year 2005. The water rights and priority shall be administered as having been filed in 2005, and shall be junior to all water rights granted pursuant to applications filed in previous years. As between all water rights applied for in the same calendar year, priorities shall be determined by historical dates of appropriation and shall not be affected by the date of application or the date of entry of ruling.

27. If Minturn wishes to maintain the conditional water rights decreed herein, it shall file an application for a finding of reasonable diligence on or before the last day of the month and year specified below, or make a showing on or before then that the conditional water rights have become absolute water rights by reason of the completion of the appropriations.

28. The findings of fact, conclusions of law, judgment and decree were the result of substantial discussions, negotiations and compromises between the applicant

and the objectors pertaining to many parts of the findings, conclusions, judgment and decree. With respect to the Minturn Well Field water rights, the findings of fact, conclusions of law and judgment and decree herein are binding and define the decreed rights and limitations of those rights and they shall be operated and administered in accordance with the provisions of this decree. With the exception of the decreed rights and limitations of the Minturn Well Field water rights as specifically decreed herein, it is specifically understood and agreed to by the parties hereto, and found and concluded by the Court, that the acquiescence of the parties to a stipulated decree under the specific factual and legal circumstances of this contested matter and upon the numerous and interrelated compromises reached by the parties will never give rise to any argument, claim, defense or theory of acquiescence, waiver, bar, merger, stare decisis, res judicata, estoppel, laches, or to any administrative or judicial practice or precedent, by or against any of the parties hereto in any other matter, case or dispute not involving the Minturn Well Field water rights, nor shall testimony concerning such acquiescence of any party to a stipulated decree herein be allowed in any other matter, case or dispute not involving the Minturn Well Field water rights. With the exception of the decreed rights and limitations of the Minturn Well Field water rights as specifically set forth herein, all parties stipulate and agree that they do not intend the findings, conclusions, judgment and decree to have the effect of precedent or preclusion on any factual or legal issue in any other matter not involving the Minturn Well Field water rights. With the exception of the decreed rights and limitations of the Minturn Well Field water rights as specifically set forth herein the parties further stipulate and agree that they each reserve the right to propose or to challenge any legal or factual position in any other change of water right, plan for augmentation or other matter filed in this or any other court without limitation by these findings, conclusions, judgment and decree.

29. The Application, as decreed herein, is administrable by the State and Division Engineers. Review of determinations made by the Division Engineer or the State Engineer in administration of the subject water rights is a "water matter" which the Water Court may review under its exclusive jurisdiction.

30. It is accordingly ordered that this judgment and decree shall be filed with the Water Clerk and shall become effective upon such filing, subject to judicial review pursuant to C.R.S. § 37-92-304, as amended.

31. It is further ordered that a copy of this judgment and decree shall be filed with the State Engineer and the Division Engineer for Water Division No. 5.

Done this 6th day of July 2010.

BY THE COURT:

Thomas Ossola, Water Judge

THE MONTH FOR FILING AN APPLICATION FOR A FINDING OF REASONABLE DILIGENCE SHALL BE July, 2016.

4832532_7.DOC

DISTRICT COURT, GARFIELD COUNTY, COLORADO WATER DIVISION NO. 5 Garfield County Courthouse 109 Eighth Street, Suite 104 Glenwood Springs, CO 81601-3303	**EFILED Document** **CO Garfield County District Court 9th JD** **Filing Date: Nov 11 2011 8:37AM MST** **Filing ID: 40845842** **Review Clerk: Kathy Hall** **▲ COURT USE ONLY ▲**
CONCERNING THE APPLICATION FOR WATER RIGHTS OF: Town of Minturn **In Eagle, Grand and Pitkin Counties, Colorado**	Case No.: 06CW264 and 07CW225 (Consolidated)

Name:	Arthur B. Ferguson, Jr., #6041 Mark E. Hamilton #24585
Address:	HOLLAND & HART LLP 600 Main Street, Ste. 104 Aspen, CO 81611-1991
Telephone:	(970) 925-3476
Facsimile:	(970) 925-9367
E-mail:	aferguson@hollandhart.com mehamilton@hollandhart.com
Name:	Meghan N. Winokur, #35973 Kylie J. Crandall #41159
Address:	HOLLAND & HART LLP 555 Seventeenth Street, Suite 3200 Post Office Box 8749 Denver, Colorado 80201-8749
Telephone:	(303) 295-8000
Facsimile:	(303) 295-8261
Email:	mwinokur@hollandhart.com kjcrandall@hollandhart.com

CORRECTED FINDINGS OF FACT, CONCLUSIONS OF LAW, JUDGMENT AND DECREE OF WATER COURT IN CASE NO. 07CW225

This matter came before the Court upon the Application of the Town of Minturn ("Applicant" or the "Town") for new water rights, for approval of a plan for

augmentation including exchange, and for conditional appropriative rights of exchange (hereinafter, the "Application.")

The Water Judge referred this Application to the Water Referee for Water Division No. 5, State of Colorado, in accordance with Article 92 of Chapter 37, Colorado Revised Statutes 1973, known as the Water Rights Determination and Administration Act of 1969. By Order entered December 31, 2008, this Application was rereferred from the Water Referee to the Water Judge. Having considered this Application and other evidence, and being fully advised in this matter, the Court finds and rules as follows:

I. FINDINGS OF FACT

1. Name and address of the Town:

The Town of Minturn
c/o General Counsel
302 Pine Street
Minturn, CO 81645

2. The Town filed the Application on December 20, 2007. The Application was consolidated on September 28, 2009 with the Application for Conditional Surface and Water Storage Rights filed by the Ginn Battle South, LLC, Ginn Battle North, LLC, Ginn-LA Battle One, LTD., LLLP, Ginn-LA Battle One A, LLC and Ginn Battle Development Company ("Battle Mountain Entities") on December 28, 2006, and amended on October 3, 2007 and December 19, 2007 in Case No. 06CW264.

3. The Application was properly published in the resume for Water Division No. 5. Timely and adequate notice of the filing of this Application was given as required by law. The Court has jurisdiction over the subject matter of this Application and over all of the parties in this case.

4. None of the water rights or sources thereof involved in this Application are located within a designated ground water basin.

5. The following parties filed Statements of Opposition to the Application either timely or in connection with a motion to intervene: City of Aurora, Colorado Water Conservation Board ("CWCB"), Battle Mountain Limited Liability Company, Sensible Housing Co., Inc., Battle Mountain Corporation, State Board of Land Commissioners, Eagle County Board of County Commissioners, Eagle County School District RE-50J, Colorado River Water Conservation District ("River District"), Town of Red Cliff, Town of Avon, Town of Gypsum, Homestake Partners, Public Service

Company of Colorado, Ginn Battle South, LLC, Ginn Battle North, LLC, Ginn-LA Battle One, LTD., LLLP, Ginn-LA Battle One A, LLC, Ginn Development Company, LLC, Arrowhead Metropolitan District, Beaver Creek Metropolitan District, Berry Creek Metropolitan District, Colorado Division of Wildlife and the Wildlife Commission ("CDOW"), Eagle Park Reservoir Company, Eagle River Water & Sanitation District ("ERWSD"), Eagle-Vail Metropolitan District, Edwards Metropolitan District, State and Division Engineers, Battle Mountain Entities, Holland Creek Metropolitan District, Red Sky Ranch Metropolitan District, United States Forest Service, Upper Eagle Regional Water Authority (the "Authority"), and Vail Associates, Inc. J Tucker, Trustee ("Trustee"), was substituted for Battle Mountain Limited Liability Company, Sensible Housing Co., Inc., and Battle Mountain Corporation by Order dated December 29, 2010. No other statements of opposition were filed, and the time for filing such statements has expired.

6. Stipulations. The Town has reached stipulations with the following parties for entry of the decree herein: Ginn Battle South, LLC, Ginn Battle North, LLC, Ginn-LA Battle One, LTD., LLLP, Ginn-LA Battle One A, LLC, CWCB, Battle Mountain Limited Liability Company, Sensible Housing Co., Inc., Battle Mountain Corporation, State Board of Land Commissioners, Eagle County Board of County Commissioners, Eagle County School District RE-50J, River District, Town of Red Cliff, Town of Avon, Town of Gypsum, Public Service Company of Colorado, Arrowhead Metropolitan District, Beaver Creek Metropolitan District, Berry Creek Metropolitan District, CDOW, Eagle Park Reservoir Company, ERWSD, Eagle-Vail Metropolitan District, Edwards Metropolitan District, State and Division Engineers, Battle Mountain Entities, Holland Creek Metropolitan District, Red Sky Ranch Metropolitan District, United States Forest Service, the Authority, and Vail Associates, Inc. Homestake Partners, City of Aurora and Ginn Development Company, LLC withdrew their statements of opposition. Consistent with the provisions set forth in such stipulations, the parties to such consented to the entry of the Findings of Fact, Conclusions of Law, and Judgment and Decree in Case No. 07CW225 dated October 5, 2010 ("Original Decree") consistent with the provisions set forth in such stipulations.

Applicant filed a Petition to Correct Substantive Errors in Decree in Case No. 07CW225 on March 15, 2011 ("Petition"), seeking to correct substantive errors in Paragraphs 11.C. and 11.F. of the Original Decree. With the exception of Trustee, all parties consented to the correction of such errors in the Original Decree and entry of these Corrected Findings of Fact, Conclusions of Law, and Judgment and Decree. The Water Court granted the Petition by Amended Order dated May 4, 2011, finding that the corrections to the Original Decree are no less restrictive on Applicant than the limitations contained in the Original Decree and are therefore consistent with the stipulation entered into between Applicant, Battle Mountain Limited Liability

Company, Sensible Housing Co., Inc. and Battle Mountain Corporation, a Florida Corporation, for whom Trustee was substituted.

These Corrected Findings of Fact, Conclusions of Law, and Judgment and Decree describe the post-Original Decree proceedings in Paragraph 5 and this Paragraph 6 and correct the errors contained in Paragraphs 11.C. and 11.F. of the Original Decree, and in all other respects are identical to the Original Decree.

CONDITIONAL WATER RIGHT

7. Minturn Municipal Diversion:

A. The Minturn Municipal Diversion may divert from any of the following alternate points of diversion:

i. Minturn Water System Ditch: The existing point of diversion for the Minturn Water System Ditch is decreed at a point on the Westerly bank of Cross Creek from whence the section corner common to Sections 35 and 36 of Township 5 South, Range 81 West of the 6th P.M. bears North 38º43'20" East a distance of 2531.38 feet. A supplemental description for this location is the following GPS Coordinates: Lat. 39.561318 N, Long. 106.419787 W.

ii. Minturn Water System Ditch Diversion Structure No. 2: Located on the right (east) bank of Cross Creek at a point approximately 9,748 feet west of the line common to Range 80 and 81 West and 1,967 feet South of the line common to Townships 5 and 6 South of the 6th P.M. A supplemental description for this location is the following GPS Coordinates: Lat 39.561356 N, Long. 106.419239 W.

iii. Bolts Ditch Headgate: The existing point of diversion is located at a point on Cross Creek from whence the SW corner of Section 35, Township 5 South, Range 81 West of the 6th P.M. bears North 28 degrees West 6,350 feet. The GPS coordinates for the point of diversion have been confirmed to be Lat 39.550483 N, Long. 106.421317 W. In the future, reference to the GPS coordinates shall be the applicable legal description.

iv. Maloit Park Diversion Structure: Located within 500 feet upstream or downstream of a point on the right bank of Cross Creek that is approximately 9,131 feet west of the line common to Range 80 and 81 West and 1,238 feet south of the line common to Townships 5 and 6 South of the 6th P.M.

v. Lower Cross Creek Diversion Structure: Located within 500 feet upstream or downstream of a point on the right bank of Cross Creek that is

approximately 357 feet east of the West section line and 93 feet north of the South section line of Section 36, Township 5 South, Range 81 West of the 6th P.M.

vi. Minturn Well No. 3 Enlargement: Located in the NW1/4 of the NW1/4, Section 2, Township 6 South, Range 81 West of the 6th P.M., at a point 950 feet from the North line and 1200 feet from the West line. Well No. 3 is currently in existence and permitted as Well Permit No. 47794-F.

vii.Minturn Well No. 4 Enlargement: Located in the SE1/4 of the SE1/4, Section 35, Township 5 South, Range 81 West of the 6th P.M., at a point 66 feet from the South line and 430 feet from the East line. Well No. 4 is currently in existence and permitted as Well Permit No. 13700-F-R.

viii. Eagle River Pumpback: Located within a reach of the Eagle River within 1000 feet downstream of a point described as located in the SE¼ of the SW¼ of Section 36, Township 5 South, Range 81 West of the 6th P.M., at a point 1,328 feet from the South section line and 2,193 feet from the West section line. The legal description of the location of the diversion structure will be provided to the Division Engineer upon construction of the diversion structure.

ix. Dowd Junction Pumpback: Located within a reach of the Eagle River within 1000 feet downstream or upstream of a point described as located in the NW¼ of the NW¼ of Section 22, Township 5 South, Range 81 West of the 6th P.M., at a point 1,415 feet from the North section line and 2,011 feet from the West section line. The legal description of the location of the diversion structure will be provided to the Division Engineer upon construction of the diversion structure.

A map generally depicting the locations of the alternate points of diversion described above is attached as **Exhibit A** and is hereby incorporated.

B. Appropriation Date: December 19, 2007.

C. Source:

i. Paragraphs 7.A.i – vii: Cross Creek, tributary to Eagle River, tributary to Colorado River.

ii. Paragraphs 7.A.viii – ix (Pumpback): Eagle River, tributary to Colorado River.

D. Amount:

i. A maximum of 8 cfs, conditional, at any one or combination of the alternate points of diversion described above and in combination with any diversions under the direct flow water rights decreed in Case No. 06CW264 as described in paragraph 9.C ("Battle Mountain Water Rights"). With respect to Cross Creek, diversions at any one or combination of the alternate points of diversion on Cross Creek described above or in combination with the Battle Mountain Water Rights diverting from Cross Creek may occur at a combined peak daily diversion of 12 cfs and a maximum daily total of 16 acre feet ("af"). When diversions are occurring on both the Eagle River and Cross Creek, the combined diversions are limited to a maximum daily average of 8 cfs. Diversions for the first direct use may be made through Bolts Lake to the Town's water treatment plant(s) or other locations of direct use, but no storage of water shall occur under the first use of this direct flow right.

ii. Diversions from the Eagle River Pumpback and Dowd Junction Pumpback (collectively, "Pumpback") for recirculation use as described below may be made at a maximum rate of 12 cfs and shall not be subject to the limitations set forth in Paragraph 7.D.i.

iii. Limitations on Minturn Well Nos. 3 and 4 Enlargement: 225 gpm, conditional, for each of the Minturn Well Nos. 3 and 4 Enlargements. Such diversions shall be included in the maximum cumulative diversions described above.

E. Use:

i. Paragraphs 7.A.i – ix: Aesthetics, piscatorial, recreational, domestic, irrigation, commercial, industrial, and municipal. Return flows from the Minturn Municipal Diversion water right may be used for augmentation credits and excess return flows from the Minturn Municipal Diversion water right may be used for exchange as provided below. Diversions of the Minturn Municipal Diversion water right shall be placed to beneficial consumptive use directly. To the extent that the depletions from any such consumptive use are out of priority, then such depletions will be accounted for and augmented under the plan for augmentation described herein. The place of use, as depicted on **Exhibit B**, shall be within the Town's current and anticipated water service area, which includes the Town, the Town's annexed areas, other lands within the Town's 2003 Three Mile Plan, and those lands that are the subject of the project known as the Battle Mountain Project.

ii. Paragraphs 7.A.viii – ix (Pumpback):

(1) Pumpback recirculation use: Diversions of the Pumpback may be delivered via a closed pipeline system to Cross Creek above the points of diversion of the Augmented Water Rights, the Eagle River above the points of

diversion of the Augmented Water Rights described herein, or the Eagle River near the Cross Creek and Eagle River confluence or any combination thereof. Such diversions may be used to enhance stream flows in Cross Creek and the Eagle River, including without limitation the replacement of out-of-priority depletions or out-of-priority diversions, as appropriate, to ensure that minimum instream flows decreed to the CWCB on Cross Creek and the Eagle River in the reaches where the Town may divert water are not injured. The Division Engineer may assess transit losses on the water delivered to the stream by the Pumpback as it travels downstream to the original point of diversion. Such transit losses will be replaced with releases from upstream storage or the amount of the transit losses will be diverted with the diversion amount to replace such transit losses. Applicant shall provide prior notice to the Division Engineer or Water Commissioner of any Pumpback recirculation use so that any transit losses may be determined and assessed. The determination and assessment of such transit losses for the affected reach shall be consistent with any transit losses otherwise assessed by the Division Engineer for the affected reach at the same time.

(2) Reuse and successive use of return flows: The Pumpback may also divert for direct use or for storage in Bolts Lake for later use any excess return flows derived from the in priority or fully augmented diversion and use of the Augmented Water Rights or excess augmentation water released from storage in Bolts Lake or under the Town's contractual rights for Eagle Park Reservoir Water under Paragraph 10.D. Such diversions of excess return flows derived from the in priority or fully augmented diversion and use of the Augmented Water Rights or excess augmentation water may be released for re-diversion for direct reuse or successive use by the Augmented Water Rights and may be diverted into storage in Bolts Lake directly or by exchange for later release and use. The determination of excess return flows or excess augmentation water shall be made consistent with the terms and conditions of this decree, and the accounting for such excess return flows or excess augmentation water shall be made in a manner approved or required by the Division Engineer consistent with Paragraph 37 of this decree.

(3) The parties acknowledge that one possible alignment for the Dowd Junction Pumpback may be across CDOW property located on the east side of the Eagle River. Applicant does not have any current authorization from the CDOW to cross such property. Accordingly, in the event Applicant determines the most appropriate alignment for the Pumpback is across the CDOW property, Applicant will consult with and seek appropriate authorization from the CDOW in accordance with applicable laws, rules, and regulations. Nothing herein authorizes the use of the CDOW property for any purpose.

PLAN FOR AUGMENTATION, INCLUDING EXCHANGES

8. Introduction. The subject plan for augmentation, including exchanges, is intended to provide for a long term reliable and dependable source of supply of municipal water for the Town in addition to the water provided by the Town's senior water rights. The Minturn Water System Ditch water right decreed in CA 671 on June 5, 1916, at its original and relocated point of diversion decreed in CA 1137 and CA 1333 and alternate point of diversion decreed in Case No. 94CW355 (the "Minturn Ditch Water Right") together with the Minturn Well Nos. 1 and 2 water rights decreed in W-1100 and W-1101, with alternate points of diversion decreed in Case No. 05CW262 at Minturn Well Nos. 3 and 4 and Well Field No. 1 (the "Minturn Well Nos. 1 and 2 Water Rights") will be used for the continued municipal service needs of the Town up to an annual consumptive use of 38 af as provided herein, and subject to the terms and conditions of the decrees in Case Nos. 05CW262 and 05CW263. This plan for augmentation is to provide the necessary municipal water supplies for a reasonable expectancy of expanded municipal water service over time, as contemplated herein. All out-of-priority depletions of the Augmented Water Rights as described below will be augmented in time, place and amount as provided herein in order to prevent injury to vested water rights.

9. Water rights to be augmented (collectively, "Augmented Water Rights"):

A. Minturn Municipal Diversion. See Paragraph 7.

B. Minturn Well Field Nos. 1 and 2. Minturn Well Field Nos. 1 and 2 decreed in Case No. 05CW263, Water Division 5 (collectively, "Minturn Well Fields"):

i. Appropriation date: December 20, 2005.

ii. Source of Well Field No. 1: ground water tributary to Cross Creek.

iii. Source of Well Field No. 2: ground water tributary to the Eagle River.

iv. Amount: 2.5 cfs, conditional. The Town proposes to develop only as many wells as are necessary in the Minturn Well Fields for cumulative maximum diversions of 2.5 cfs under the 2005 priority decreed in Case No. 05CW263. So long as the Town complies with the terms and conditions of the decree in Case No. 05CW263 and obtains a well permit, amendment of the decree in Case No. 05CW263 will not be required each time a new well location is determined. The Town is entitled to have as many wells as are necessary to divert a cumulative maximum diversion of 2.5 cfs under the 2005 priority of the underground water right for the Minturn Well Fields, and to be issued well permits by the State Engineer to construct and use ground water

under the priority of the Minturn Well Fields, so long as the well permit applications confirm that operation of the wells will be subject to the terms and conditions of the decree in Case No. 05CW263.

v. Use: Municipal. The Minturn Well Fields may be used for municipal purposes consistent with these terms and conditions, including the irrigation of plants, parks, cemeteries and gardens; provided, however, such water rights may not be used for snowmaking. Diversions may be used directly or stored within municipal system storage tanks for subsequent release and use.

vi. Legal description: The Minturn Well Fields are depicted generally on **Exhibit C** hereto and incorporated herein. Portions of the Minturn Well Fields are in areas where the section lines, township and range have not been mapped by the United States Geological Survey. Any new wells in the Minturn Well Fields will be constructed in the alluvium within 100 feet of Cross Creek (Minturn Well Field No. 1) or the Eagle River (Minturn Well Field No. 2) within the following stream reaches, which are described using the Universal Transverse Mercator ("UTM") coordinate system, NAD83 datum.

(1) Location of Minturn Well Field No. 1: in the alluvium within 100 feet on either side of a reach of Cross Creek commencing at a point described as 1,177 feet south and 1,440 feet west of the southwest corner of Section 36, Township 5 South, Ranch 81 West and continuing downstream along Cross Creek (100 feet on either side), to a point near the confluence of Cross Creek and the Eagle River described as 1,174 feet north and 1,965 feet east of the southwest corner of Section 36, Township 5 South, Range 81 West. Minturn Well Field No. 1 is located in areas where the Section lines, Township and Range have not been mapped by the United States Geological Service ("USGS"). Thus, the location of Well Field No. 1 is described above in terms of distances from the nearest mapped Section lines on the USGS Minturn Quadrangle map dated 1987. The Well Field No. 1 may also be described as beginning at a point with UTM coordinates approximately 378118 Easting and 4380283 Northing, and continuing downstream along Cross Creek to the confluence with the Eagle River with UTM coordinates approximately 379172 Easting and 4381014 Northing.

vii. Location of Minturn Well Field No. 2: in the alluvium within 100 feet on either side of a reach of the Eagle River commencing at a point described as 1,580 feet south and 1,727 feet west of the southeast corner of Section 36, Township 5 South, Range 81 West and continuing downstream along the Eagle River (100 feet on either side), to a point 7,325 feet south and 2,677 feet west of the southeast corner of Section 36, Township 5 South, Range 81 West. Minturn Well Field No. 2 is located in areas where the Section lines, Township and Range have not been mapped by the

USGS. Thus, the location of Well Field No. 2 is described above in terms of distances from the nearest mapped Section lines on the USGS Minturn Quadrangle map dated 1987. The Well Field No. 2 may also be described as beginning at a point with UTM coordinates approximately 379329 Easting and 4378407 Northing, and continuing downstream along the Eagle River to a point with UTM coordinates approximately 379652 Easting and 4380103 Northing.

C. The Battle Mountain Water Rights. The Battle Mountain Water Rights decreed in Case No. 06CW264 (Water Division 5) are described as follows:

i. 2006 Cross Creek Direct Flow Water Right:

(1) Alternate points of diversion:

(a) Bolts Ditch Headgate: See Paragraph 7.A.iii.

(b) Minturn Water System Ditch: See Paragraph 7.A.i.

(2) Appropriation Date: December 28, 2006

(3) Source: Cross Creek, tributary to Eagle River.

(4) Amount: 8 cfs, conditional, at any one or combination of the alternate points of diversion under the Battle Mountain Water Rights described in this Paragraph 9(C)(i), or in combination with diversions under the Battle Mountain Water Rights described below and diversions under the Minturn Municipal Diversion water right decreed herein. Such diversions from Cross Creek shall be allowed to divert at the combined peak daily diversion of 12 cfs and a maximum daily total of 16 af. When diversions are occurring on both the Eagle River and Cross Creek, the combined diversions are limited to a maximum daily total of 16 af.

(5) Decreed uses: Domestic, municipal use by the Town, irrigation (including watering of lawns, landscaping, parks and grounds), snowmaking, wetlands and habitat purposes, recreation, industrial, commercial, fire protection, construction, street sprinkling, piscatorial, aesthetic, augmentation, replacement, substitution and exchange, including reuse and successive use to extinction as approved in Case No. 06CW264, including reuse and successive use by re-diversion or exchange for direct uses or to storage for later release to meet augmentation obligations or any other use decreed in Case No. 06CW264. Irrigation and snowmaking are limited as described below in Paragraph 9.C.v of this decree. Diversions for the first direct use may be made through Bolts Lake to the Town's water treatment plant(s) or other

locations of direct use, but no storage of water shall occur under the first use of this direct flow right.

ii. 2007 Cross Creek Direct Flow Water Right:

(1) Alternate points of diversion:

(a) Minturn Water System Ditch Diversion Structure No. 2: See Paragraph 7.A.ii.

(b) Maloit Park Diversion Structure: See Paragraph 7.A.iv.

(c) Lower Cross Creek Diversion Structure: See Paragraph 7.A.v.

(2) Appropriation Date: December 19, 2007.

(3) Source: Cross Creek, tributary to Eagle River.

(4) Amount: 8 cfs, conditional, at any one or combination of the alternate points of diversion described above in this Paragraph 9(C)(ii), or in combination with diversions under the Battle Mountain Water Rights described above and below and diversions under the Minturn Municipal Diversion water right decreed herein. Such diversions from Cross Creek shall be allowed to divert at the combined peak daily diversion of 12 cfs and a maximum daily total of 16 af. When diversions are occurring on both the Eagle River and Cross Creek, the combined diversions are limited to a maximum daily average of 8 cfs.

(5) Decreed uses: Domestic, municipal use by the Town, irrigation (including watering of lawns, landscaping, parks and grounds), snowmaking, wetlands and habitat purposes, recreation, industrial, commercial, fire protection, construction, street sprinkling, piscatorial, aesthetic, augmentation, replacement, substitution and exchange, reuse and successive use to extinction as approved in Case No. 06CW264, including reuse and successive use by re-diversion or exchange for direct uses or to storage for later release to meet augmentation obligations or any other use decreed in Case No. 06CW264. Irrigation and snowmaking are limited as described below in Paragraph 9.C.v of this decree. Diversions for the first direct use may be made through Bolts Lake to the Town's water treatment plant(s) or other locations of direct use, but no storage of water shall occur under the first use of this direct flow right.

iii. 2006 Eagle River Direct Flow Water Right:

(1) Alternate Points of Diversion:

(a) Ginn Eagle River Diversion No. 2 (near Bolts Lake):

i) Legal Description: a proposed diversion to be located on or adjacent to the Eagle River in an unsurveyed portion of Eagle County that, when surveyed, will likely be in the NE 1/4 of NE 1/4 of Section 11 of Township 6 South, Range 81 West, of the 6th P.M. Eagle County, Colorado, at a point 5465 feet West of the line common to Range 80 and 81 West, and 7265 feet South of the line common to Townships 5 and 6 South.

(b) Ginn Eagle River Diversion No. 3 (near Bolts Lake):

i) Legal Description: a proposed diversion to be located on or adjacent to the Eagle River in an unsurveyed portion of Eagle County that, when surveyed, will likely be in the NW 1/4 of SW 1/4 of Section 1 of Township 6 South, Range 81 West, of the 6th P.M. Eagle County, Colorado, at a point 4000 feet from the North section line and 4465 feet from the East section line.

(2) Appropriation Date: October 13, 2006.

(3) Source: Eagle River.

(4) Amount: 8 cfs, conditional, at any one or combination of the alternate points of diversion described in this Paragraph 9(C)(iii), but limited to a total of 8 cfs in combination with diversions under the Battle Mountain Water Rights described above and the Minturn Municipal Diversion water right decreed herein.

When diversions are occurring on both the Eagle River and Cross Creek, the combined diversions are limited to a maximum daily average of 8 cfs.

(5) Decreed uses: Domestic, municipal use by the Town, irrigation (including watering of lawns, landscaping, parks and grounds), snowmaking, wetlands and habitat purposes, recreation, industrial, commercial, fire protection, construction, street sprinkling, piscatorial, aesthetic, augmentation, replacement, substitution and exchange, including reuse and successive use to extinction as approved in Case No. 06CW264, including reuse and successive use by re-diversion or exchange for direct uses or to storage for later release to meet augmentation obligations or any other use decreed in Case No. 06CW264. Irrigation and snowmaking are limited as described below in Paragraph 9.C.v of this decree. Diversions for the first direct use may be made through Bolts Lake to the Town's water treatment plant(s) or other locations of direct use, but no storage of water shall occur under the first use of this direct flow right.

iv. The alternate points of diversion of the Battle Mountain Water Rights are generally depicted on **Exhibit D** hereto and incorporated herein.

v. Irrigation and Snowmaking. The Battle Mountain Project will be limited to no more than 50 acres of landscape irrigation demand, and water for snowmaking as available using the water rights decreed in 06CW264 and 07CW225 (snowmaking will be interruptible if and to the extent needed to provide water to remainder of development; current estimate is for approx 100 af per year of snowmaking capacity). No full scale golf course (9 or 18 holes) or and any other golf course will be included within 50 acres of landscaping (may be minor putting green etc). There shall be no irrigation over the Consolidated Tailings Pile ("CTP") other than as required to establish and maintain native vegetation, and perform the CERCLA remedial actions. A map showing the location of the CTP is attached as **Exhibit E**. The functional integrity of the CTP cap shall not be jeopardized by the establishment of native vegetation.

(1) Notwithstanding the current estimate above, the maximum amount of water allowed to be used for snowmaking is 300 af per year. The foregoing reference to 50 acres of landscape irrigation demand is intended to be a limit on all irrigation including watering of lawns, landscaping, parks and grounds.

D. In the event any diversions for direct use of the Minturn Municipal Diversion or the Battle Mountain Water Rights are transported through an open ditch, carriage and transit losses shall be calculated in a manner approved by the Division Engineer and augmented under this plan for augmentation if the diversions are out of priority.

10. Water rights to be used for augmentation (collectively, "Augmentation Water Rights"):

A. Bolts Lake (decreed in Case No. 96CW324):

i. Legal description:

(1) Location of dam for Bolts Lake is located in Homestead Entry Survey No. 40, Homestead Entry No. 021, containing a portion of the W½ of Section 1, and the E½ of Section 2, Township 6 South, Range 81 West of the 6th P.M. Eagle County, Colorado, and in Homestead Entry Survey No. 41, Homestead Entry No. 022, containing a portion of the SW¼ of Section 1, S½ of Section 2, N½ of Section 11, and NW¼ of Section 12, Township 6 South, Range 81 West of the 6th P.M Eagle County, Colorado. All sections and portions of sections are projected, as this area is unsurveyed.

(2) Water will be diverted at the following alternate points of diversion on Cross Creek to fill Bolts Lake:

(a) Minturn Water System Ditch: See Paragraph 7.A.i.

(b) Bolts Ditch Headgate: See Paragraph 7.A.iii.

ii. Source: Cross Creek.

iii. Appropriation date: September 14, 1995.

iv. Date of original decree: July 28, 1999 (Case No. 96CW324 (Water Division 5)).

v. Amount:

(1) Capacity of Reservoir: 320 af, conditional.

(2) Rate of diversion for filling of Reservoir: 30.0 cfs, conditional.

vi. Decreed use: Domestic, irrigation, fire protection, stock watering, commercial, industrial, municipal, power, recreation, fish and wildlife, and all other purposes related to the provision of a water supply within the now existing and future service area of the Town, for all beneficial uses by and for the benefit of the Town, and for reuse, successive use, right of disposition, substitution, exchange and augmentation purposes.

vii. Physical description of Reservoir:

(1) Surface area of high water line: 22 acres.

(2) Maximum height of dam in feet: 30 feet.

(3) Length of dam in feet: 485 feet.

viii. Reservoir capacity:

(1) Total capacity: 320 af.

(2) Active capacity: 316 af.

(3) Dead storage: 4 af.

(4) Remarks: At the time of this decree, the reservoir dam has been breached and no water is presently stored in the reservoir.

ix. Use of the Bolts Lake water right decreed in Case No. 96CW324 to provide water service to the Battle Mountain Project area is limited to the extent such property is within the Town 's water service area.

B. 2006 Bolts Lake Storage Right (decreed in Case No. 06CW264):

i. Bolts Lake:

(1) Legal Description for Bolts Lake: the existing off-channel reservoir known as Bolts Lake is located in Homestead Entry Survey No. 40, Homestead Entry No. 021, containing a portion of the W ½ of Section 1 and the E ½ of Section 2, Township 6 South, Range 81 West of the 6th P.M. Eagle County, Colorado, and in Homestead Entry Survey No. 41, Homestead Entry No. 022, containing a portion of the SW ¼ of Section 1, S ½ of Section 2, N ½ of Section 11 and NW ¼ of Section 12, Township 6 South, Range 81 West of the 6th P.M., Eagle County, Colorado. The enlarged Bolts Lake will be located in the E ½ of Section 2, Township 6 South, Range 81 West and the W ½ of Section 1, Township 6 South, Range 81 West of the 6th P.M., Eagle County, Colorado. All section and portions are projected, as this area is unsurveyed.

(2) The approximate coordinates of the center of the proposed Bolts Lake dam is Lat. 39d 33m 22.828s N, Long. 106d 24m 11.831s W.

ii. Water will be diverted at the following alternate points of diversion on Cross Creek and the Eagle River to fill Bolts Lake:

(1) Bolts Ditch Headgate: See Paragraph 7.A.iii.

(2) Minturn Water System Ditch: See Paragraph 7.A.i.

(3) Ginn Eagle River Diversion No.2 (near Bolts Lake): See Paragraph 9.C.iii(1)(a)(i).

(4) Ginn Eagle River Diversion No.3 (near Bolts Lake): See Paragraph 9.C.iii(1)(b)(i).

iii. Diversion rates to fill Bolts Lake: 30 cfs, conditional at any one or combination of the alternate points described above for diversions from Cross Creek and 50 cfs, conditional at any one or combination of the alternate points described above for diversion from Eagle River.

iv. Appropriation Date: December 28, 2006.

v. Amount: 100 acre-feet, conditional.

vi. Decreed uses: Domestic, municipal use by the Town, irrigation (including watering of lawns, landscaping, parks and grounds), snowmaking, wetlands and habitat purposes, recreation, industrial, commercial, fire protection, construction, street sprinkling, piscatorial, aesthetic, augmentation, replacement, substitution and exchange, with the right for reuse and successive use to extinction as approved in Case No. 06CW264. Irrigation and snowmaking are limited as described in Paragraph 9.C.v of this decree.

C. <u>2007 Bolts Lake Storage Right (decreed in Case No. 06CW264 and decreed herein)</u>:

i. Legal Description for Bolts Lake: As described in Paragraph 10.A.ii.(1) above.

ii. Water will be diverted from Cross Creek at the following alternate points of diversion to fill Bolts Lake:

(1) Bolts Ditch Headgate: Paragraph 7.A.iii.

(2) Minturn Water System Ditch: See Paragraph 7.A.i.

(3) Minturn Water System Ditch Diversion Structure No. 2: See Paragraph 7.A.ii.

(4) Maloit Park Diversion Structure: See Paragraph 7.A.iv.

(5) Lower Cross Creek Diversion Structure: See Paragraph 7.A.v.

(6) Minturn Well No. 3 Enlargement: See Paragraph 7.A.vi.

(7) Minturn Well No. 4 Enlargement: See Paragraph 7.A.vii.

iii. Water will be diverted from Eagle River at the following alternate points of diversion to fill Bolts Lake:

(1) Ginn Eagle River Diversion No.2 (near Bolts Lake): See Paragraph 9.C.iii(1)(a)(i).

(2) Ginn Eagle River Diversion No.3 (near Bolts Lake): See Paragraph 9.C.iii(1)(b)(i).

(3) Eagle River Pumpback: See Paragraph 7.A.viii.

(4) Dowd Junction Pumpback: See Paragraph 7.A.ix.

iv. Diversion rates to fill Bolts Lake: 30 cfs, conditional at any one or combination of the alternate points described above for diversions from Cross Creek and 50 cfs, conditional at any one or combination of the alternate points described above for diversion from Eagle River.

v. Appropriation Date: December 19, 2007.

vi. Amount: 790 af, conditional, with the right to refill in the amount of 600 af for recreation and aesthetic purposes only within the year of refill. Any carryover of water stored under the first fill or the refill under this water right will be booked over in the following year to the first fill under this water and as such can be used for all purposes listed below.

vii.Decreed uses: Domestic, municipal use by the Town, irrigation (including watering of lawns, landscaping, parks and grounds), snowmaking, wetlands and habitat purposes, recreation, industrial, commercial, fire protection, construction, street sprinkling, piscatorial, aesthetic, augmentation, replacement, substitution and exchange, with the right for reuse and successive use to extinction as approved in Case

No. 06CW264. Irrigation and snowmaking are limited as described in Paragraph 9.C.v of this decree.

viii. The Court finds that Battle Mountains Entities' second amended application filed in Case No. 06CW264 on December 19, 2007 and the Town's application filed herein on December 20, 2007 contemplated and properly noticed the intended integrated use of the diversion structures described in Paragraphs 10(C)(ii) and (iii) to divert water into storage in Bolts Lake under a December 19, 2007 appropriation date. Accordingly, all such structures were approved in Case No. 06CW264 and herein as points of diversion for the 2007 Bolts Lake Storage Right.

ix. Physical description of reservoir (when enlarged):

(1) Total storage capacity: 1,210 af (including the 320 af decreed in Case No. 96CW324, and the 890 af claimed in Case No. 06CW264). Applicant intends to construct Bolts Lake with 1,210 af of active capacity. However, Applicant shall confirm with the Division Engineer the active and dead capacity of Bolts Lake prior to the first release of water from the reservoir for its decreed beneficial uses or for any use under the augmentation plan decreed herein.

x. The design, construction, operation and monitoring of Bolts Lake shall be in accordance with the terms and conditions of the attached **Exhibit F**, and said terms and conditions may be amended from time to time by the parties to said **Exhibit F** without approval by the Water Court. **Exhibit F** is intended to implement and control environmental remediation in the Bolts Lake area and is not intended to affect the administration of the Bolts Lake water rights. To the extent this decree conflicts with the environmental remediation requirements of **Exhibit F** which are necessary to implement the remediation of the Bolts Lake area, the environmental requirements of **Exhibit F** shall control. To the extent any future amendments of the agreement in **Exhibit F** conflict with the administration of the water rights under this decree to prevent injury to vested water rights, the terms and conditions of this decree shall control.

(1) The parties to **Exhibit F**, Bolts Lake Stipulation May 6, 2010, are the Applicant herein, Battle Mountain Entities, and the following Objectors: Arrowhead Metropolitan District, Beaver Creek Metropolitan District, Berry Creek Metropolitan District, Eagle Park Reservoir Company, ERWSD, Eagle-Vail Metropolitan District, Edwards Metropolitan District, Holland Creek Metropolitan District, Red Sky Ranch Metropolitan District, the Authority, and Vail Associates, Inc.

xi. The locations of the Augmentation Water Rights from the decree in Case Nos. 96CW324 and 06CW264 are generally depicted on **Exhibit G** hereto and incorporated herein.

D. Colorado River Water supply sources. The Town may seek to contract with the River District for up to a maximum of 100 af per year of Colorado River Contract Water, subject to availability and the River District's Marketing Policy then in effect, from sources described below. The amount of water that may be used for augmentation from the Colorado River Water supply sources shall be limited by that amount of water that the Town has contracted for during any specific year. Any time the Town increases the amount of water under contract with the River District, within the 100 af per year limitation, the Town shall provide to the Division Engineer a copy of the contract and evidence of timely payment therefor. Upon prior confirmation of the availability of such water by the Division Engineer, the Town may incorporate the use of such amount of water into this plan for augmentation.

If the Town desires to include additional Colorado River Contract Water, pursuant to a contract with the River District, beyond the 100 af described above, in this augmentation plan, the Town must provide written notice by certified mail to all Objectors, the Division Engineer and the Court of the intent to use such water, and such notice shall include copies of applicable agreements under which the Town's use may occur. Objectors and the Division Engineer shall have 30 days to file any objections with the Court regarding the use of such water, and the Court shall retain jurisdiction to resolve any disputes regarding the use of such additional water. If no objections are filed with the Court within the time allowed, the Town may use the additional Colorado River Contract Water in this augmentation plan.

i. Wolford Mountain Reservoir: The River District owns and operates Wolford Mountain Reservoir (f/k/a Gunsight Pass Reservoir) which has the following water right:

(1) Legal description of place of storage: The dam is located in Grand County in the SW ¼ of the NE ¼ of Section 25, T. 2 N., R. 81 W., 6th P.M. The intersection of the dam axis (Sta. D19+35.61) with the West Access Road (Sta. WR50+55.05) occurs at a point which bears S. 53º24'56" E. a distance of 3,395.51 feet from the NW corner of said Section 25; the bearing of said dam axis from Sta. 19+35.61 to Sta. 0+00 being S. 75º 28' 29" E.

(2) Source: Muddy Creek and its tributaries.

(3) Previous storage decrees:

Case No. 87CW283:
Decree Date: November 20, 1989.
Court: District Court, Water Div. No. 5.
Amount: 59,993 af
Appropriation Date: December 14, 1987
Use: All beneficial uses, including but not limited to domestic, municipal, agricultural and recreational uses.

Case No. 95CW281:
Decree Date: August 26, 1997.
Court: District Court, Water Div. No. 5.
Amount: 6,000 af (enlargement).
Appropriation Date: Jan. 16, 1995.
Use: All beneficial uses by and for the benefit of the inhabitants of the River District, including but not limited to domestic, municipal, industrial, irrigation, agricultural, piscatorial, recreational and environmental mitigation.

Case No. 98CW237:
Decree Date: July 6, 2000.
Court: District Court, Water Div. No. 5.
Amount: 30,000 af (refill).
Appropriation Date: Nov. 17, 1998.
Use: Certain of the beneficial uses previously adjudicated for Wolford Mountain Reservoir in Cases No. 87CW283 and 95CW281.

ii. Ruedi Reservoir: The River District is entitled to deliveries of water from Ruedi Reservoir pursuant to contract with the U.S. Bureau of Reclamation:

(1) Legal description of place of storage: Ruedi Reservoir is located in Sections 7, 8, 9, 11 and 14 through 18, T. 8 S., R. 84 W., 6th P.M., in Eagle and Pitkin Counties. The dam axis intersects the right abutment at a point whence the SW corner of Section 7, T. 8 S., R. 84 W. of the 6th P.M., bears N. 82º 10'W. a distance of 1,285 feet.

(2) Source: Frying Pan River

(3) Previous storage decrees:

Civil Action No. 4613:
Decree Date: June 20, 1958.

Court: Garfield County District Court.
Amount: 140,697.3 af, reduced to 102,369 af pursuant to order of the District Court, Water Div. No. 5 in Case No. W-789-76.
Appropriation Date: July 29, 1957.
Use: Domestic, municipal, irrigation, industrial, generation of electrical energy, stock watering and piscatorial.

Case No. 81CW34:
Decree Date: April 8, 1985.
Court: District Court, Water Div. No. 5.
Amount: 101,280 af (refill).
Appropriation Date: Jan. 22, 1981.
Use: Irrigation, domestic, municipal, generation of electrical energy, stock watering, industrial, piscatorial, recreation and maintenance of sufficient storage reserves to fulfill contractual obligations and provide stored water for recreation in times of drought.

iii. Ruedi Reservoir water will not be used as a source of water for the Town's Colorado River Contract Exchanges or Augmentation Exchanges when a call by a senior water right or a water right to which the Town's Colorado River Contract Exchanges or Augmentation Exchanges has subordinated is being administered by the Division No. 5 Engineer on the Colorado or Eagle Rivers upstream of the confluence of the Roaring Fork River and the Colorado River.

E. Eagle Park Reservoir Project Water. Water from the Eagle Park Reservoir Project may be made available pursuant to a contract with the River District or ERWSD. ERWSD has agreed to make available to the Town up to 50 af per year from Eagle Park Reservoir or Homestake Reservoir or both under terms and conditions set forth in the Settlement Agreement between ERWSD and the Town dated May 6, 2010 and any other agreement or lease between ERWSD and the Town regarding such water. At such time that the Town and ERWSD enter into a lease for Eagle Park Reservoir Project Water, the Town shall provide a copy of the same to the Division Engineer, together with any amendments thereto upon their execution. To confirm that sufficient Eagle Park Reservoir Project Water remains available on an annual basis to the Town for releases under the plan for augmentation decreed herein, the Town's accounting provided for in Paragraph 37 shall specifically account for the water leased and released to the Town by ERWSD. This accounting shall be included as part of Town's general monthly and yearly accounting required herein. The foregoing notwithstanding, no use of the Eagle Park Reservoir Project water shall occur under this plan without such additional accounting by the Town as may be required by the

Division Engineer as necessary to confirm the availability of such water. The above described 50 af of Eagle Park Reservoir Project Water may only be used to meet full build out within the Town's pre-2008 service area (Town of Minturn, school district lands known as Maloit Park, and the Pierson property) and the Palmateer, Burnett, Two Elk Creek and Kings Ranch aka West Minturn areas of the 2003 Three Mile Plan; provided, however, such water may be used for the Battle Mountain Project on terms mutually agreeable to the Town, Battle Mountain Entities and ERWSD.

In addition to the 50 af described above, the Town is entitled to an annual delivery of 20 af of water from the Eagle Park Reservoir Project, pursuant to the Water Supply Contract entered into between the Town and the River District, and in accordance with the terms and conditions set forth therein. The Battle Mountain Entities are also entitled to an annual delivery of 20 af of water from the Eagle Park Reservoir Project, pursuant to the Water Supply Contract entered into between the Battle Mountain Entities and the River District, and in accordance with the terms and conditions set forth therein.

The Town's ability to use additional water beyond the 90 af described above from the Eagle Park Reservoir Project may be derived from an appropriate agreement with an owner of such water rights, including, without limitation, the River District or ERWSD, subject to all accounting provisions of this Paragraph 10.E. If the Town desires to include such additional water from the Eagle Park Reservoir Project in this augmentation plan, the Town must provide written notice by certified mail to all Objectors, the Division Engineer and the Court of the intent to use such water, and such notice shall include copies of applicable agreements under which the Town's use may occur. Objectors and the Division Engineer shall have 30 days to file any objections with the Court regarding the use of such water, and the Court shall retain jurisdiction to resolve any disputes regarding the use of such additional water. If no objections are filed with the Court within the time allowed, the Town may use the additional Eagle Park Reservoir Project water in this augmentation plan. Any water that may be delivered from the Eagle Park Reservoir Project pursuant to a lease with ERWSD is derived from the Eagle Park Reservoir or Homestake Reservoir as specifically described below. Any water that may be delivered from the Eagle Park Reservoir Project pursuant to a contract with the River District is derived from the River District's Eagle River supply sources as specifically described below.

i. Eagle Park Reservoir is decreed by the District Court in and for Water Division No. 5 in Case Nos. 92CW340 and 93CW301, for a combined total capacity of 27,600 af, with an appropriation date of March 16, 1991, for 5300 af, and May 18, 1993, for 22,300 af, together with the right to divert at the rate of 80 cfs under the August 10, 1956 appropriation date of the Pando Feeder Canal pursuant to the decree of the Water Court in Case No. 97CW288, for mining, milling, industrial,

snowmaking, municipal, domestic, stock watering, recreation, fish and wildlife, irrigation, agricultural, exchange, replacement, augmentation and all other beneficial purposes. The north abutment of the dam crest is located approximately 160 feet north of the south section line and 650 feet east of the west section line of Section 28, T. 7 S., R. 79 W., 6th P.M., Eagle County, Colorado. The source of Eagle Park Reservoir is the East Fork of the Eagle River including runoff, surface flow and seepage from the area above the reservoir and tributary thereto, and water tributary to Tenmile Creek a tributary of the Blue River. In addition to the tributary area upstream of the reservoir, the specific points of diversion into storage for Eagle Park Reservoir are as follows:

(1) The East Fork Interceptor Ditch, which has a capacity of 48 cfs and diverts from unnamed tributaries of the East Fork of the Eagle River at the following points, all of which are located in Eagle County, Colorado:

(a) 900 feet south of the north section line and 1100 feet west of the east section line of Section 5, T. 8 S., R. 79 W., 6th P.M.

(b) 1250 feet south of the north section line and 700 feet east of the west section line of Section 4, T. 8 S., R. 79 W., 6th P.M.

(c) 1200 feet north of the south section line and 800 feet east of the west section line of Section 33, T. 7 S., R. 79 W., 6th P.M.

(d) Runoff, surface flow, and seepage from the area above the East Fork Interceptor Ditch as it runs between the above-described points of diversion and Eagle Park Reservoir.

(2) The Chalk Mountain Interceptor Ditch, which has a capacity of 12 cfs and diverts runoff and seepage as it runs a distance of approximately 3.4 miles from Fremont Pass, located in the W1/2 of Section 11, T. 8 S., R. 79 W., 6th P.M., northwesterly along State Highway 91 and the south side of Robinson Tailing Pond, thence westerly to the south of Chalk Mountain Reservoir and Robinson Reservoir, thence northwesterly to Eagle Park Reservoir. The Chalk Mountain Interceptor Ditch diverts water from the headwaters of Tenmile Creek in Summit County and from the headwaters of the East Fork of the Eagle River in Eagle County.

(3) The East Interceptor Ditch, which has a capacity of 20 cfs and runs northeasterly from a point whence the northeast corner of Section 2, T. 8

S., R. 79 W., 6th P.M. bears North 77°20' East a distance of850 feet at the north fork of McNulty Creek, thence along the east side of Robinson and Tenmile Tailing Ponds into Supply Canal No. I described below. The East Interceptor Ditch diverts water from the north fork of McNulty Creek and surface flow, seepage, and runoff from watersheds above it that are tributary to Tenmile Creek.

(4) The Supply Canal No.1, which has a capacity of 10 cfs and diverts water from the following tributaries of Tenmile Creek at the following points:

(a) On the west bank of Humbug Creek at a point whence the southwest corner of Section 18, T. 7 S., R. 78 W. bears South 71 °35' West a distance of 3250 feet.

(b) On the south bank of Mayflower Creek at a point whence the northeast corner of Section 24, T. 7 S., R. 79 W., 6th P.M. bears North 16°55' East a distance of 2250 feet.

(c) Runoff, surface flow, and seepage from the area above the Supply Canal No.1 as it runs between the above-described points of diversion and the Climax Mill.

(5) The Supply Canal No.2, which has a capacity of 10 cfs and diverts water from the following tributaries of Tenmile Creek at the following points:

(a) On the west bank of Searle Creek at a point whence U.S.L.M. Kokomo bears South 45°58' East 3740 feet (located in the NW1/4 of the SE1/4 of Section 13, T. 7 S., R. 79 W., 6th P.M.).

(b) On the south bank of Kokomo Creek at a point whence U.S.L.M. Kokomo bears North 39°36' east 2635 feet (located in the SE1I4 of Section 22, T. 7 S., R. 79 W., 6th P.M.).

(c) Runoff, surface flow, and seepage from the area above the Supply Canal No.2 as it runs between

the above-described points of diversion and the Climax Mill.

(6) The East Fork Pumping Plant, which has a capacity of 6 cfs and diverts from the East Fork of the Eagle River at a point in the SE1/4 NE1/4 of Section 32, T. 7 S., R. 79 W., 6th P.M. at a point whence the NE corner of said Section 32 bears N. 31 °53' E. a distance of 2414 feet.

Eagle Park Reservoir is augmented by exchange by decree of the Water Court in Case No. 95CW348 and the East Fork Pumping Plant is augmented by exchange by decree of the Water Court in Case No. 03CW211.

ii. Exchange Supply. Pursuant to a Memorandum of Understanding dated effective as of April 21, 1998 (the "MOU") among the City of Aurora, the City of Colorado Springs, the River District, Climax Molybdenum Company, Vail Associates, Inc., the Authority, and the ERWSD; and the Water Exchange Agreement dated June 17, 1998 among Aurora, Colorado Springs, and the Eagle Park Reservoir Company, Aurora and Colorado Springs agreed to make up to 500 af of water available for West Slope use from facilities owned and operated by Aurora and Colorado Springs in exchange for up to 800 af of replacement water from the West Slope participants. The River District's 100 shares of Class B stock in the Eagle Park Reservoir Company entitle the River District to up to 100 af per year of consumptive beneficial use water to be derived from fully consumable water annually diverted by and/or stored in the following structures owned and controlled by Aurora and Colorado Springs:

(1) Homestake Project. Homestake Reservoir, also known as Elliott-Weers Reservoir, was decreed by the Eagle County District Court in Civil Action No. 1193 for 83,338.98 af conditional, 43,504.7 af of which is now absolute. This reservoir is located on Homestake Creek with a dam being located whence the NW Corner of Section 31, T.7 S., R. 80 W., 6th P.M. bears N. 58°30.6' E. 24,659 feet from the East dam abutment and N. 62°25.8' E. 25,746 feet from the West dam abutment. The sources of supply of said Reservoir are the East Fork of Homestake Creek, the Middle Fork of Homestake Creek and Homestake Creek. The right to the annual release of this Homestake Reservoir water is obtained pursuant to (1) the 2004 Water Exchange Agreement dated June 21, 2004, among the City of Aurora, the Eagle Park Reservoir Company, the River District, ERWSD, the Authority and Vail Associates, Inc., and the Water Exchange Agreement dated June 17, 1998, among the foregoing parties and the City of Colorado Springs, as all such agreements are modified by the Consolidated Water Exchange Agreement dated January 5, 2010, among the foregoing parties and the City of Colorado Springs; and (2) the 2004 Homestake Reservoir Agreement dated July 22, 2004, among the Eagle Park Reservoir Company, the River District, ERWSD, the

Authority and Vail Associates, Inc., and the April 21, 1998 Homestake Reservoir Agreement between these same parties.

(2) Camp Hale Project. Aurora and Colorado Springs may provide to the River District water released from those surface and ground water storage rights sought by Aurora and Colorado Springs in Cases No. 88CW449 and 95CW272, District Court for Colorado Water Division No. 5.

River District Contractors' use of augmentation water from Homestake Reservoir made available through contract or other arrangement with the Eagle Park Reservoir Company shall be dependent upon the continued existence of, and conditions set forth in, the Water Exchange Agreement dated June 17, 1998 between the Cities of Aurora and Colorado Springs and the Eagle Park Reservoir Company, together with any modifications thereto, or constraints thereon, as may be necessitated by the decree entered in Case No. 98CW270, Water Division No. 5.

Additional Information for Homestake Project. The detailed descriptions of the structures decreed by the Eagle County District Court in Civil Action No. 1193 for the Homestake Project are set forth below.

Structure	**Amount**
French Creek Intake. S. 82°18.3' E. 20988 ft to NW corner Sec. 31, T. 7 S., R. 80 W.	60.1 cfs
Fancy Creek Intake. N85°10.5' E. 25280 ft. to NW corner Sec. 31, T. 7 S., R. 80 W.	38.6 cfs
Missouri Creek Intake. N. 77°12.4' E. 28800 ft. to NW corner Sec. 31, T. 7 S., R. 80 W.	39.8 cfs
Sopris Creek Intake. N. 74°7.6' E. 29848 ft. to NW corner Sec. 31 T. 7 S., R. 80 W.	41.3 cfs

East Fork Conduit. The East Fork Conduit diverts water from the East Fork of Homestake Creek pursuant to its appropriation of 70.8 cubic feet per second of time absolute and 189.2 cubic feet per second of time conditional therefrom and conveys these waters to Homestake Reservoir for conveyance to Homestake Tunnel or storage in the reservoir, said East Fork Conduit having a capacity of 260 cubic feet per second of time and total length of approximately 3093 feet. The point of diversion of said conduit is on East Fork Homestake Creek at a point whence the Northwest corner of Section 31, T. 7 S., R. 80 W. bears N. 55°40.5' E., 22,917 feet.

Homestake Tunnel. Homestake Tunnel under the Continental Divide for the conveyance of water into the Arkansas River Basin with its intake located at a point under Homestake Reservoir whence the Northwest corner of Section 10, T. 9 S., R. 81 W., 6th P.M. bears S. 15°27'08" E. 26,173.03 feet appropriates a maximum amount of 10 cubic feet per second of time conditional of water seeping and percolating into Homestake tunnel from former Water District No. 37 areas and 300 cubic feet per second of time absolute from Middle Fork of Homestake Creek, at its said Northerly portal, its point of diversion; said tunnel has a length of 27,400 feet and a capacity of 700 cubic feet per second of time. The tunnel will convey out of former Water District No. 37 up to 700 cubic feet per second of time of waters appropriated by the tunnel from the Middle Fork of Homestake Creek, together with water appropriated by the tunnel from the Homestake Creek and East Fork Conduits and Homestake Reservoir, to an outlet at a point from where the Northwest corner of Section 10, T. 9 S., R. 81 W., 6th P.M. bears N. 6°40'52" E., a distance of 2,173.54 feet.

Homestake Reservoir. Homestake Reservoir, also known as Elliott-Weers Reservoir, has capacity of 83,338.98 af conditional, is located on Homestake Creek with a dam whence Homestake Peak bears S. 73°26' E. 10,477 feet from the easterly end thereof and S. 74°57' E. 13,347 feet from the westerly end thereof, said dam having a maximum height of 411.5 feet and a length of 3,380 feet. The sources of supply of said reservoir are Homestake Conduit (the sources of this conduit as herein above set forth), East Fork Conduit (the source of this conduit as herein above set forth), the Middle Fork of Homestake Creek and Homestake Creek, and said

reservoir has appropriated for storage 83,338.98 af annually from said sources. Homestake Reservoir also conveys water from Homestake Conduit and East Fork Conduit to Homestake Tunnel. Existing Homestake Reservoir has a storage capacity of 43,504.7 af absolute and is located on Homestake Creek with a dam whence the NW Corner of Section 31 T. 7 S., R. 80 W., 6th P.M. bears No. 58°30.6' E. 24,659 feet from the East dam abutment and N. 62°25.8' E. 25,746 feet from the West dam abutment, said dam has a maximum height of 265.0 feet and a length of 1996 feet.

The sources of supply of said existing Homestake Reservoir are Homestake Conduit, East Fork Conduit, the Middle Fork of Homestake Creek and Homestake Creek. Existing Homestake Reservoir has appropriated 43,504.7 af annually from said sources and also conveys water from Homestake Conduit and East Fork Conduit to Homestake Tunnel.

11. Statement of Plan for Augmentation.

A. Provision of Municipal Water Service. The Town has requested approval of this plan for augmentation, including exchanges, to replace all out-of-priority depletions associated with the provision of municipal water service by the Town. Such water service is anticipated to include a reasonable expectancy of expanded municipal water service in the future within the Town's current and anticipated water service area, which includes the Town, the Town's annexed areas, other lands within the Town's 2003 Three Mile Plan, and those lands that are the subject of the project known as the Battle Mountain Project, subject to the terms and conditions set forth herein. The Town's current and anticipated water service area is depicted on the map attached as **Exhibit B**.

Under this plan for augmentation, any out-of-priority depletions associated with the Augmented Water Rights will be replaced in time, place and amount by the provision of augmentation supplies from any one or combination of the Augmentation Water Rights. Unless otherwise provided for herein, augmentation is required only in the event of a senior call recognized and administered by the Division Engineer or Water Commissioner against the Augmented Water Rights. For purposes of determining the level of consumptive use depletions, the factors set forth in Paragraph 11.F. and 11.K (industrial use) shall apply. The specific administration and operation of the determination of the time, place and amount of augmentation supplies necessary to replace out-of priority depletions (after calculating appropriate credits for wastewater, system loss and other return flows) shall be made in accordance with the accounting forms established in accordance with Paragraph 37 and such other

applicable terms and conditions set forth herein. With respect to the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2 Water Rights, as described herein, the provisions of Paragraphs 11.B. through 11.J. shall specifically apply in addition to such other applicable terms and conditions set forth herein and the terms and conditions of Case No. 05CW262.

B. Consumptive Use Limitation. The Minturn Water System Ditch water right decreed in CA 671 on June 5, 1916, at its original and relocated point of diversion decreed in CA 1137 and 1333 and alternate point of diversion decreed in 94CW355 (the "Minturn Ditch Water Right") and the Minturn Well Nos. 1 and 2 water rights decreed in W-1100 and W-1101, with alternate points of diversion decreed in Case No. 05CW262 at Minturn Well Nos. 3 and 4 and Well Field No.1 (the "Minturn Well Nos. 1 and 2 Water Rights") may be exercised when in priority without offset or replacement up to a maximum consumptive use of 38 af per year. Included within such 38 af of consumptive use, Minturn Well No. 1 (as diverted at the Minturn Well No. 3) may be exercised when in priority without offset or replacement up to a maximum consumptive use of 9.6 consumptive af per year and Minturn Well No. 2 (as diverted at the Minturn Well No. 4) may be exercised when in priority without offset or replacement up to a maximum consumptive use of 2.48 consumptive af per year. The consumptive use limitation in this paragraph shall apply to the Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights at any future alternate point of diversion for said water rights.

i. As described in Paragraph 11.G, the Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights benefit from releases of Green Mountain Reservoir, and are allowed to divert by exchange under the Operating Policy for Green Mountain Reservoir, Colorado-Big Thompson Project, Colorado as set forth in the Federal Register, Vol. 48, No. 247, pp. 56657-58 and under the exchange priorities approved in Case No. 88CW382, District Court, Water Division No. 5. Under Case No. 88CW382, the exchange priority for the Minturn Ditch Water Right is August 1, 1935; and the exchange priority for both Minturn Well Nos. 1 and 2 Water Rights is August 31, 1962.

(1) References in this Paragraph 11.B to the exercise of the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2 Water Rights being "in priority" shall include being in priority by exchange from Green Mountain Reservoir. Releases from Green Mountain Reservoir technically constitute "an offset or replacement" for consumptive use for the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2 Water Rights but shall be restricted for credit hereunder up to 38 af per year as provided herein.

(2) It is understood that the 38 af per year is an absolute maximum irrespective of whether it is used in priority or in priority by exchange from Green Mountain Reservoir.

ii. The rate of exchange for Minturn Well Nos. 1 and 2 Water Rights shall be limited to 0.056 cfs each during the irrigation season and 0.005 cfs during the non-irrigation season.

iii. Notwithstanding the foregoing provisions of this Paragraph 11.B, the maximum consumptive use of 9.6 consumptive af per year associated with Minturn Well No. 1 (as diverted at the Minturn Well No. 3) shall be limited to 9.0 consumptive af per year and the maximum consumptive use of 2.48 consumptive af per year associated with Minturn Well No. 2 (as diverted at the Minturn Well No. 4) shall be limited to 2.31 consumptive af per year.

iv. The exchange for the Minturn Well Nos. 1 and 2 Water Rights shall not operate at any time the Town's wastewater returns are made downstream of the current point of wastewater returns at the Town of Avon.

v. The rate of exchange limitations in this paragraph shall also apply to the Minturn Well Nos. 1 and 2 Water Rights at any future alternate point of diversion for said water rights.

vi. The consumptive use and rate of exchange limitations in this paragraph shall not be exceeded at any future alternate point of diversion for said water rights, but may be subject to a further reduction based on changed circumstances in any future change case.

C. Monthly Maximum Limitations. Collectively, the diversion of the 38 consumptive af per year from the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2 Water Rights shall be limited to the following monthly maximum amounts:

i. A maximum of 0.75 consumptive af per month during months of November through March.

ii. A maximum of 1.0 consumptive af during April.

iii. A maximum of 3.5 consumptive af during May.

iv. A maximum of 9.75 consumptive af during June.

v. A maximum of 11.5 consumptive af during July.

vi. A maximum of 8.5 consumptive af during August; provided, however, that the maximum amount during June, July and August shall not exceed 27.5 consumptive af.

vii. A maximum of 5.0 consumptive af during September.

viii. A maximum of 2.25 consumptive af during October.

D. Monthly Accounting. The Town shall maintain monthly accounting forms to reflect the limitations set forth in Paragraphs 11.B and 11.C above. The accounting year shall begin November 1 of each year and end October 31 the following year. Such accounting shall be provided to ERWSD and the Authority.

E. Minturn Wells. Use of the Minturn Well Nos. 1 and 2 Water Rights shall be in conformance with the additional terms and conditions contained in the decree in Case No. 05CW262.

F. Consumptive Use Factors. For purposes of calculating the annual and monthly maximum consumptive use limits under paragraphs 11.B and 11.C, the Town will measure all diversions from the Minturn Ditch Water Right and Minturn Wells Nos. 1 and 2 Water Rights at all points of diversion. Total metered use (the total of the individual meters) during the months of November through April shall be considered inhouse uses with a consumptive use factor of 5%. The portion of the total metered use during the months of May through October that exceeds the average of the preceding November through April monthly metered use shall be considered irrigation water use with a consumptive use factor of 85%. These factors will be allocated to each of the Minturn Well Nos. 1 and 2 Water Rights and Minturn Ditch Water Right based upon the measured production of the Minturn Well Nos. 1 and 2 Water Rights which will be a total determined percentage of the total production of treated water (inclusive of the water produced by the Minturn Well Nos. 1 and 2 Water Rights) that will then provide the percentage for each well and the Minturn Ditch Water Right for accounting purposes.

i. Upon implementation of the plan for augmentation, all water uses within the Town will be metered, including but not limited to individual water users and the Town's own municipal uses. There will be no unmetered water use accounts. Meters are and shall be monitored on a regular and continual basis and are and will be tested as appropriate to confirm normal function.

ii. The difference between total measured diversions and total metered use through individual user meters shall be considered system loss.

(1) The "total measured diversions" is defined as total production of treated water which is the sum of the water delivered from the water treatment plant(s) and the water produced from wells that is delivered into the water distribution system. To the extent the Town uses raw water that is not treated at the treatment plant, such raw water diversions will be metered and the metered amounts will be added to the total amount of treated water. For the pre-2008 Water Service Area, the Town shall calculate system loss on an annual basis and use the calculated annual system loss from the prior year for the current year. For all other water service areas, the Town shall calculate system loss on an annual basis based upon the difference in the amount of water measured at the master meter for each service area and sum of the amount measured at the individual meters. The current water treatment plant does not have any consumption of water since water that is not treated or otherwise metered returns to the stream at the water treatment plant site. To the extent a new water treatment plant is constructed and there is consumptive use associated with it such consumptive use will be accounted for in a manner approved by the Division Engineer.

iii. The determination of the method of accounting for the consumptive use limitations under Paragraph 11.B associated with irrigation herein is based on the retrospective, historical actual use of Applicant that was calculated at a 75% consumptive use factor in light of the nature of the irrigation within the Town.

The 85% consumptive use factor decreed herein is to be applied upon the entry of the decree as provided for in this paragraph and as accounted for in connection with the accounting forms approved and maintained in this case. In the event water stored in Bolts Lake is available to the Town as contemplated in this case, the Town agrees that the measure of its irrigation use within the place of use described in Paragraph 11.H below, subject to the consumptive use factor of 85%, shall be the greater of either: (1) the method set forth above in Paragraph 11.F; or (2) the amount of water applied to irrigation use based on the average monthly crop irrigation requirement on a per-acre basis applicable at that time as approved by the Division Engineer and as applied to the total irrigated acreage to be reported in the Town's monthly accounting. The Town, the CWCB, and the State and Division Engineers agree that the foregoing sentence is consistent with the intent of Paragraph 11.B(2) of the decree in Case No. 05CW262.

iv. Battle Mountain Entities or the Town or both may also fully or partially offset and replace all out-of-priority depletions attributable to the Battle Mountain Project under subsequent augmentation plans approved by the Court.

G. Historic Users' Pool Protection. The amounts set forth in Paragraph 11.B associated with the Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights shall be deemed to continue to receive full "Historic Users' Pool"

protection with annual releases from Green Mountain Reservoir, subject to the exchange limitations for Minturn Well Nos. 1 and 2 Water Rights in Paragraph 11.B. The Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights shall not be entitled to any Historic Users' Pool protection from Green Mountain Reservoir for any diversions that result in an excess of the 38 consumptive af per year as limited and determined by the provisions of this decree.

H. Place of Use. The place of use of the Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights shall be limited to the Town's pre-2008 water service area (the Town, school district lands known as Maloit Park, and the Pierson property) and the Palmateer, Burnett, Two Elk Creek and Kings Ranch aka West Minturn areas of the 2003 Three Mile Plan as shown in **Exhibit H** attached hereto, subject to the limitations set forth above. Any water service provided by the Town within the Town outside of the foregoing areas must be with other decreed water rights diverted either in priority or pursuant to this or another court-approved plan for augmentation.

I. Municipal Use. The Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights may be used for municipal purposes consistent with these terms and conditions, including the irrigation of plants, parks, cemeteries and gardens; provided, however, such water rights may not be used for golf course irrigation or snowmaking.

J. Augmentation of Diversions. Any diversions from the structures decreed to the Minturn Ditch Water Right and the Minturn Well Nos. 1 and 2 Water Rights that result in an excess of the 38 consumptive af annual limitation and the monthly maximum limitations shall be allocated to the junior water rights decreed in Water Division No. 5, Case No. 06CW264 and this case, Case No. 07CW225 (the "06CW264 and 07CW225 Priorities"), and must be fully replaced and augmented under the plan for augmentation set forth herein. During times when diversions from such structures result in the consumptive use limitations being exceeded and are operating under either or both the 06CW264 and 07CW225 Priorities, and (a) there is a call placed by a senior water right (including a senior exchange right or an exchange to which these priorities have subordinated) that is within the reach of the Eagle River between the confluence of the Eagle River and Cross Creek and the point of discharge of the Town's municipal effluent, or (b) the Eagle River instream flow water rights within that reach are not being met, then the Town will augment its diversions with augmentation water that is upstream of the confluence of the Eagle River and Cross Creek. The amount of such augmentation water shall be that amount required to meet the decreed instream flow and meet the senior call or call to which it has subordinated, up to the maximum amount of the Town's out of priority diversions, reduced by applicable return flow credits (wastewater, system loss and return flows) derived from

the 06CW264 and 07CW225 Priorities and junior priorities decreed in Case No. 05CW263 as specifically provided herein.

i. The reference to wastewater in this Paragraph 11.J is not intended to provide credit for municipal effluent returns at the regional wastewater treatment plant at Avon to reduce any obligation of the Town to provide augmentation water to a calling water right located upstream of said point of effluent discharge. Similarly, in the event the wastewater treatment plant is relocated upstream of Avon, municipal effluent returns will not reduce any obligation of the Town to provide augmentation water to a calling water right located upstream of said point of effluent discharge.

ii. The non-wastewater return flows (from system losses, irrigation, and snowmaking) accrue to different reaches of Cross Creek and of the Eagle River. The specific reaches of the Eagle River will be credited with those return flows that accrue to the river above such specific reaches. All such non-wastewater return flows accrue to the Eagle River above its confluence with Gore Creek. The different return flow accrual reaches of Cross Creek and the Eagle River are depicted on **Exhibit I**, attached hereto and incorporated herein, which also depicts the different CWCB instream flow reaches of Cross Creek and the Eagle River.

iii. In addition, such return flows are the subject of various delayed ground water return flow factors depending upon the location of their origin. Five different zonal areas are identified in the Town's current and anticipated water service area. These five different zonal areas are: (1) the pre-2008 Water Service Area, (2) the non-Battle Mountain Three Mile Areas not presently served, (3) the Bolts Lake Area of the Battle Mountain property adjacent to the Eagle River, (4) the Cross Creek area of the Battle Mountain property adjacent to Cross Creek, and (5) the Mountain Area of the Battle Mountain property. These are identified on the map attached hereto as **Exhibit I** and incorporated herein. Each zonal area has different delayed ground water return flow factors based on the location's specific hydrogeologal and geological information. These delayed ground water return flow factors for each of the five different zonal areas are set forth in Tables 7.1 through 7.5, attached hereto as **Exhibit J** and incorporated herein. Table 7.1 addresses the Minturn Pre-2008 Water Service Area; Table 7.2 addresses the Minturn Three Mile Area; Table 7.3 addresses the Bolts Lake Area of the Battle Mountain property; Table 7.4 addresses the Cross Creek Area of the Battle Mountain property; and Table 7.5 addresses the Mountain Area of the Battle Mountain property.

The irrigation use calculations for the Minturn pre-2008 Water Service Area shall be determined in accordance with the provisions of Paragraph 11.F. All irrigation uses in the three Battle Mountain property zonal areas will be metered

separately from other uses and the irrigation use calculations will be based upon the total metered irrigation use for each area. With respect to the Minturn Three Mile Plan Area, if the irrigation uses are not specifically metered, then the amount of water applied to irrigation use shall be based on the average monthly crop irrigation requirement on a per-acre basis applicable at that time as approved by the Division Engineer and as applied to the total irrigated acreage to be reported in the Town's monthly accounting. The system loss for each zonal area is determined in accordance with the provisions of Paragraph 11.F.ii.(1) and Tables 9.2 through 9.6, attached hereto as part of **Exhibit K** and incorporated herein.

Tables 9.2 through 9.6 set forth the accounting format for the calculation of return flow credits for each zonal area identified above. The methodology is basically the same for each zonal area. For each zonal area the system loss is calculated first. Then the irrigation return flow is calculated. The sum of these two calculations is the total ground water return flow. The applicable zonal area's monthly lag factors are then applied to the ground water return flow in a manner to calculate the total lagged ground water return flow credit on a daily basis.

Return flow credits shall only be applied to those reaches of the Eagle River that are downstream of the accrual of all of such return flows. All non-wastewater return flows from all five zonal areas accrue to the Eagle River above the confluence with Gore Creek and shall be credited at that point. All return flows from the three Battle Mountain property zonal areas accrue to the Eagle River above the confluence with Cross Creek and shall be credited at that point. **Exhibit I** depicts these stream reaches, the zonal areas, and the locations of the return flow accruals to Cross Creek and the Eagle River. Tables 9.9A through 9.9F attached hereto as a part of **Exhibit K** allocate these credits to the different instream flow reaches of the Eagle River between Homestake Creek upstream and the Colorado River downstream based on whether they are upstream of the upstream end of each defined reach. The downstream reaches are appropriately credited with the calculated upstream return flows. Wastewater return flow credits shall only be applied to those reaches of the Eagle River that are downstream of the reach into which discharges are made from a wastewater treatment plant.

iv. Snowmaking Return Flow Accounting. The calculation of snowmaking return flow assumes that the consumptive use associated with snowmaking activity is 20 percent. The Town has the ability to maintain dominion and control of the water diverted for snowmaking purposes and may recapture the snowmaking return flows. The determination of credits for snowmaking return flows shall be made consistent with the terms and conditions of this decree, and the accounting for such credits shall be made in a manner approved or required by the Division Engineer consistent with Paragraph 37 of this decree.

Snowpack Measurement. The quantity and timing of snowmelt and snowmaking return flows will be calculated based upon measurement of snowpack depth during the snowmelt season. The snowpack measurement methodology shall be approved by the Division Engineer prior to the Town claiming or diverting any snowmaking return flow credits to the stream under this decree. The snowpack information shall be collected from a site or sites on or near the Battle Mountain ski area as approved or required by the Division Engineer. The location, method and equipment used to measure snowpack may be modified in the future without need to amend this decree, provided that it is approved by the Division Engineer.

Applicants may seek judicial review of any decision by the Division Engineer under this paragraph, and the Court retains jurisdiction under this decree to complete any such review. The Division Engineer's determination under this paragraph shall not be given presumptive validity by the Court in any such review.

v. In addition to the other requirements for augmenting diversions under this Paragraph 11.J, whenever diversions are occurring under the Minturn Municipal Diversion water right or under the Battle Mountain Water Rights, and the CWCB's instream flow water rights on Cross Creek, decreed in Case No. W-3795, or on the Eagle River, decreed in Case Nos. W-3788, W-3796, 80CW134, 80CW126 and 80CW124 (collectively, "Instream Flow Rights") are not being met downstream of any such diversions as determined by the Water Commissioner or the Division Engineer, then the Town shall replace such diversions in time, location and amount through appropriate combinations of replacement credits and reservoir releases as necessary to prevent injury to the CWCB's Instream Flow Rights from Applicant's diversions. The determination of replacement credits for return flows from system losses, wastewater or irrigation resulting from the in-priority or fully-augmented diversions of the Augmented Water Rights shall be made consistent with the terms and conditions of this decree, and the accounting for such credits for return flows shall be made in a manner approved by the Division Engineer consistent with Paragraph 37 of this decree. To the extent there is a call recognized and administered by the Division Engineer or Water Commissioner for an exchange senior to the Minturn Municipal Diversion water right or the Battle Mountain Water Rights, which exchange operates on the Eagle River in the reaches where the Town is diverting under either the Minturn Municipal Diversion water right or the Battle Mountain Water Rights, then the Town shall replace such diversions in time, location and amount through appropriate combinations of replacement credits and reservoir releases as necessary to prevent injury to such an exchange right from Applicant's diversions.

(1) To the extent any wastewater plant discharges the Town's treated wastewater downstream of the point or points of diversion for municipal use, Minturn will replace such municipal diversions in time, location and amount to

prevent injury to the CWCB's Instream Flow Rights unless the Town and the CWCB execute an agreement to the contrary pursuant to the CWCB's procedures for the approval of such an agreement.

K. Projected Project Assumptions and Consumptive Use Factors. Under the Minturn 2009 Community Plan, the Town anticipates its projected growth over a 30-year planning horizon without the Battle Mountain Project area to include 3,352 persons, 1,323,850 square feet of commercial floor area, 211,267 square feet of industrial floor area, and 30.7 acres of irrigation from the municipal water system. The Battle Mountain Project area planning anticipates a projected build out of 1,884 SFEs for population, 270,000 square feet of commercial space and 45.0 acres of irrigation. An SFE for purposes of this decree is 2.3 persons per dwelling with a requirement of 88 gallons of water per person per day. In-building use for commercial space is projected to be 6/10ths of an SFE per 1000 square feet and for industrial space is projected to be 4/10ths of an SFE per 1000 square feet. Based on the anticipated mix of uses and the water use assumptions set forth in the attached **Exhibit L**, certain consumptive use factors were developed to be applied to the projected municipal diversions as set forth in the attached **Exhibit M** (these consumptive use factors are projections and not express limitations on the mix of uses). Based on this information, the projected total annual consumptive use of water resulting from the Town's anticipated growth inclusive of the Battle Mountain Project, area will average approximately 200 af per year. It is also anticipated that the projected mix of uses may change over time as the Town grows. The mix of uses may change, provided the maximum depletions contemplated by this plan are not exceeded. All industrial use of water shall be considered to have 5% consumptive use rate unless such industrial use consumes water as a part of a normal industrial process. In such event, the consumptive use of such industrial water will be assessed by the Town as approved by the Division Engineer and accounted for herein accordingly. This plan for augmentation is approved to augment up to a maximum of 300 af of consumptive use per year. The Town will submit an annual report of the consumptive use for the previous accounting year to the Division Engineer as a part of the Town's annual accounting hereunder.

L. Augmentation Exchanges. As part of the Conditional Rights of Exchange described in Paragraph 12 below, the Town has requested approval of a plan to augment by exchange out-of-priority depletions resulting from diversions at any one or combination of the Augmented Water Rights. The exchange reaches will vary, depending on: (1) the location of the delivery of augmentation water to the stream and the location of the accrual to the stream of return flows (from system loss, irrigation, and snowmaking) resulting from diversion and use of the Augmented Water Rights and (2) the location of the point of diversion of the Augmented Water Rights. Exchange replacement sources for the Augmentation Exchanges include: (1) the Augmentation

Water Rights described in Paragraph 10; (2) stream accretions attributable to return flows from system losses and irrigation resulting from the in-priority or fully-augmented diversion and use of the Augmented Water Rights; (3) stream accretions attributable to snowmaking return flows resulting from the snowmaking use of Bolts Lake water under the Battle Mountain Water Rights; and (4) wastewater discharges attributable to the in-priority or fully-augmented diversion and use of the Augmented Water Rights. An exchange matrix showing all exchange-from and exchange-to points for the exchanges as well as the exchange rate for each exchange reach is attached hereto as **Exhibit N** and incorporated herein. One example of the Augmentation Exchanges could be the use of the augmented Minturn Municipal Diversion water right diverting from Cross Creek at the Minturn Water System Ditch structure. Considering for this example only the use of the out-of-priority diversion within the Town's current service area, three exchanges would comprise the Augmentation Exchanges. The first exchange could be that from the release of augmentation water from Bolts Lake to the Eagle River in the vicinity of its confluence with Cross Creek. This exchange could run from said confluence upstream along Cross Creek to the Minturn Water System Ditch structure. The second exchange could run from the Eagle River shortly above its confluence with Gore Creek, upstream along the Eagle River to its confluence with Cross Creek, then upstream along Cross Creek to the Minturn Water System Ditch structure. The source of water for this exchange could be the accruals to the Eagle River of system loss and irrigation return flows resulting from the diversion and use of water from any of the Augmented Water rights. The third exchange that could occur would run from the Eagle River at the outfall of the existing Avon wastewater treatment plant upstream along the Eagle River to its confluence with Cross Creek, then upstream along Cross Creek to the Minturn Water System Ditch structure. The source of water for this exchange (the Effluent Exchange) could be the treated wastewater resulting from the Town's in-priority or fully-augmented diversion and use of the Minturn Municipal Diversion water right. In this example, these three exchanges would comprise the totality of the Augmentation Exchanges. Only those return flows that exceed those return flows otherwise allocated to and accounted for as credits for purposes of determining the augmentation requirements herein may be exchanged into storage, subject to the provisions set forth herein.

The maximum combined instantaneous rate of exchange is 12 cfs, conditional, for any combination of Augmented Water Rights augmented by exchange by any combination of the Augmentation Exchanges. The priority date of the exchange is December 19, 2007, subject to the provisions of Paragraph 12.D.

M. Water Quality. The water to be provided for augmentation is of a quality and quantity in order to meet the requirements for which the water has been

used by senior downstream appropriators, and therefore meets the requirements of C.R.S. § 37-92-305(5).

N. Bolts Ditch. The Town agrees that Bolts Lake, or any other lake or reservoir, cannot be filled under the priority of the Bolts Ditch decreed in Eagle County District Court in Civil Action No. 572, as amended in Civil Action Nos. 970 and 1344. The Town further agrees that it will seek to change the Bolts Ditch Headgate alternate point of diversion of the Minturn Municipal Diversion decreed in this Case No. 07CW225 (appropriation date of December 19, 2007) within the first six-year diligence period. The requested change in point of diversion will seek to move the Bolts Ditch Headgate point of diversion out of the Holy Cross Wilderness unless within such six-year diligence period (1) the point of diversion in the Holy Cross Wilderness is specifically authorized by the President of the United States, (2) the boundary of the Holy Cross Wilderness is moved with the result that such point of diversion is outside of the wilderness area, or (3) this point of diversion is confirmed by Congress to be specifically included as a part of the authorization of the Homestake Reservoir Project within the Holy Cross Wilderness Area. No diversions will occur until such change is approved by the Water Court. If such change is not applied for within the first six year diligence period, the Bolts Ditch Headgate alternate point of diversion will be abandoned by Applicant.

O. Sufficient Augmentation. Consistent with the requirements of the Minturn Municipal Code, the Town agrees that, prior to the authorization of the sale of any lot in any phase of any development of the Battle Mountain Planned Unit Development or other project on Battle Mountain Annexation Parcels Nos. 1 through 9 and any other Battle Mountain Property annexed into the Town, the source for augmentation, including without limitation Bolts Lake, will be physically and legally available or otherwise constructed to and be operable with a capacity sufficient to provide augmentation water to support the water service for such phase pursuant to the provisions of this decree.

P. Non-Injury. If operated and administered pursuant to the terms of this decree, the plan for augmentation, including all of the exchanges, will prevent injury to vested or decreed conditional water rights. The plan provides for the Town to provide adequate replacement water necessary to meet the lawful requirements of a senior diverter at the time and location and to the extent that the senior would be deprived of his or her lawful entitlement by the Town's diversions.

CONDITIONAL RIGHTS OF EXCHANGE

12. The Town seeks approval to operate the following conditional rights of exchange with a date of appropriation of December 19, 2007.

A. Augmentation Exchanges. The Augmentation Exchanges described in Paragraph 11.L above, includes the Effluent Exchanges (up to a maximum of 5 cfs), for a projected maximum combined instantaneous exchange rate of 12 cfs. The Effluent Exchanges will exchange treated water released from the wastewater treatment plant or plants that provide treatment service for water distributed in the Town's municipal water system to the points of diversion for the Augmented Water Rights and/or the Augmentation Water Rights. The most downstream terminus of the Effluent Exchanges is the outfall of the wastewater treatment plant operated by the ERWSD in Avon, located in the NW1/4 of Section 12, Township 5 South, Range 82 West, 6th P.M. ("Avon WWTP"). Other downstream termini for the Effluent Exchanges may include any other upstream wastewater treatment plant(s) utilized by the Town for treatment of municipal wastewater and located upstream from the Avon WWTP (including without limitation any wastewater treatment plant permitted and located in the future at the previously identified Dowd Junction site, a Cross Creek site or other site within the Battle Mountain annexation lands). The upstream termini of the Effluent Exchanges are the points of diversion of the Augmented Water Rights, and/or the Augmentation Water Rights previously identified herein. To the extent that the Town has augmentation credits in excess of the need for actual augmentation under this plan, the Town may exchange such unused augmentation credits upstream into Bolts Lake from appropriate exchange-from points identified under Paragraph 11.L, subject to transit losses to be assessed by the Division Engineer as such excess augmentation water travels to the designated exchange-from point. The determination of augmentation credits shall be made consistent with the terms and conditions of this decree, and the accounting for such augmentation credits shall be made in a manner approved by the Division Engineer consistent with Paragraph 37 of this decree.

B. Eagle River Contract Exchanges. The Eagle River Contract Exchanges will exchange fully-consumable water made available pursuant to the terms of this decree by lease with ERWSD or contract with the River District, or other appropriate entity from the Eagle Park Reservoir Project, into storage in Bolts Lake. For the exchange to Bolts Lake, the downstream terminus of the exchange is the confluence of the Eagle River and Cross Creek, which is located in the SE1/4 of the SW1/4 of section 36, T5S, R81W, in the 6th P.M. at a point 3175 feet from the east section line, and 1300 feet from the south section line, and the upstream-most termini of the Eagle River Contract Exchanges is Bolts Ditch Headgate on Cross Creek, subject to any changes or abandonment under Paragraph 11.N. The maximum rate of the Eagle River Contract Exchanges is 20 cfs, conditional. The Eagle River Contract Exchanges are separate from the Augmentation Exchanges using water from the Eagle Park Reservoir Project.

C. Colorado River Contract Exchanges. The Colorado River Contract Exchanges will exchange fully-consumable water made available by contract with the

River District from Wolford Mountain Reservoir, Ruedi Reservoir or both into storage in Bolts Lake. The downstream terminus for the exchange of Wolford Mountain Reservoir releases is the confluence of the Eagle River and the Colorado River, which is located in the SW1/4 of the NE1/4 of section 5, T5S, R86W, in the 6th P.M. at a point 2100 feet from the east section line, and 2880 feet from the south section line. The downstream terminus for the exchange of Ruedi Reservoir releases is the confluence of the Roaring Fork River and Colorado River, which is located in the SE1/4 of the NW1/4 of section 9, T6S, R89W, in the 6th P.M. at a point 2940 feet from the east section line, and 3150 feet from the south section line. The upstream-most termini of the Colorado River Contract Exchanges are Bolts Ditch Headgate on Cross Creek, subject to any changes or abandonment under Paragraph 11.N, and Ginn Eagle River Diversion No. 2 on the Eagle River. The maximum rate of the Colorado River Contract Exchanges is 20 cfs, conditional. The Colorado River Contract Exchanges are separate from the Augmentation Exchanges using water from Wolford Mountain Reservoir and/or Ruedi Reservoir.

D. Exchange Subordination. The exchanges decreed herein shall subordinate to and shall operate as junior in priority to any exchanges that may be subsequently decreed in Water Division No. 5 Case Nos. 09CW28, 09CW191 and 09CW192. To the extent that either the instream flow or the senior exchanges in the approximately 8100 foot reach of the Eagle River upstream of the Avon wastewater treatment plant are being adversely affected by the Town's diversions, the Town and the affected parties agree to discuss, in good faith, alternatives to address such effects, including without limitation, releases from the Town's allocated storage in Eagle Park or Homestake Reservoirs, releases from Bolts Lake, or the Town paying the pumping costs otherwise incurred by the Authority by operating its raw water booster to divert the amount of water at the Metcalf Ditch headgate that is reduced due to the Town's upstream out of priority depletion. In its sole discretion, the Authority shall determine which alternative to implement.

i. The CWCB, the State and Division Engineer and CDOW are not parties to this Paragraph 12.D. Nothing in this Paragraph 12.D allows the Instream Flow Rights be adversely affected or to prevent the CWCB from placing a call under its Instream Flow Rights.

E. The exchanges decreed herein shall only operate when in priority and shall not operate when the instream flows are not being met on a reach either in the Eagle River or Cross Creek that is within the subject exchange reach. The operation of the exchanges shall not cause the instream flows to fall below their decreed rates.

F. The Town will provide notice to the Division Engineer and the Water Commissioner before operation of any exchange decreed herein.

II. CONCLUSIONS OF LAW

13. The foregoing findings of fact are fully incorporated herein.

14. All notices required by law have been properly made, including as required under C.R.S. § 37-92-302(2) and (3).

15. The Court has jurisdiction over the Application and over all persons or entities who had standing to appear, even though they did not do so.

16. The Application is complete, covering all applicable matters required pursuant to the Water Right Determination and Administration Act of 1969, C.R.S. §§ 37-92-101 through -602.

17. Applicant has fulfilled all legal requirements for a decree for the requested water rights, including C.R.S. §§ 37-92-302 and 37-92-305.

18. Applicant has fulfilled all legal requirements for a decree for the requested plan for augmentation, including exchange, including without limitation C.R.S. §§ 37-92-302 and 37-92-305.

19. Applicant has fulfilled all legal requirements for a decree approving and confirming the requested conditional rights of exchange, including without limitation C.R.S. §§ 37-92-302 and 37-92-305.

20. If operated and administered according to the terms of this decree, pursuant to C.R.S. § 37-92-305(8), the plan for augmentation will be sufficient to permit the continuation of diversions when curtailment would otherwise be required to meet a valid senior call for water because Applicant can provide adequate replacement water necessary to meet the lawful requirements of a senior diverter at the time and location and to the extent that the senior would be deprived of his or her lawful entitlement by Applicant's diversions. Pursuant to section 37-92-305(8)(c), the State Engineer shall curtail all out-of-priority diversions, the depletions from which are not so replaced to prevent injury to vested water rights.

21. Subject to Paragraph 41, the Court hereby concludes the Town has established that water can and will be diverted under the subject conditional water rights decreed herein and will be beneficially used, and that this water supply project can and will be completed with diligence and within a reasonable time.

22. The conditional water rights and conditional rights of exchange decreed herein are individual components of the Town's integrated water supply system. Consequently, in subsequent diligence proceedings, work on any one feature of the Town's municipal supply system shall be considered in determining whether reasonable diligence has been shown in the development of water rights for all features of the Town's water supply system, *see* C.R.S. § 37-92-301(4)(b).

23. If operated in accordance with the terms and conditions of this decree, the plan for augmentation, including Augmentation Exchanges, Eagle River Contract Exchanges and Colorado River Contract Exchanges, described herein will prevent injury to senior vested or decreed conditional water rights.

24. The subject Application is in accordance with Colorado law. Applicant has fulfilled all legal requirements for entry of a decree in this case.

III. JUDGMENT AND DECREE

25. The foregoing findings of fact and conclusions of law are fully incorporated herein.

26. The Court hereby approves and decrees the conditional Minturn Municipal Diversion water right and the conditional rights of exchange, subject to terms and conditions set forth herein.

27. The Court hereby orders the State Engineer to issue any required well permits for the wells described herein, consistent with the provisions of this decree and pursuant to section 37-90-137(2), C.R.S., upon application to the State Engineer. Within 60 days of completion of any well within the Minturn Well Field Nos. 1 and 2 pursuant to a well permit, the Town shall notify both the Court and Division of Water Resources of the precise location of the constructed well.

28. As provided in C.R.S. § 37-92-304(3.6), the Town shall not construct any well on lands owned by another other than the Town unless the right to construct such a well is obtained by consent of the landowner or the exercise of the power of eminent domain by the Town.

29. The Town shall not construct any facilities for the diversion and delivery of the water rights decreed herein on lands owned by another other than the Town unless the right to construct the same is obtained by consent of the landowner or the exercise of the power of eminent domain by the Town.

30. This decree does not grant the Town any additional property interests in lands on which structures are or will be located. Furthermore, the Water Court makes no determination regarding title to any real property.

31. In connection with the diversion of water under the junior priorities decreed herein, the following terms and conditions shall apply. In order to satisfy a senior call downstream on the Eagle River or to satisfy the Colorado Water Conservation Board's water rights on Cross Creek, decreed in Case No. W-3795, or on the Eagle River, decreed in Case Nos. W-3788, W-3796, 80CW134, 80CW126 and 80CW124 as determined by the Water Commissioner or the Division Engineer, Applicant agrees to either curtail its diversions, or replace the out-of-priority depletions or out-of-priority diversions, as appropriate, in time and amount, upstream from the place where such depletions or diversions impact the river system.

32. The Court hereby decrees and approves the plan for augmentation, including all of the exchanges, described herein.

33. Transit losses charged in the delivery of the augmentation water, including water delivered through the Pumpack to enhance stream flows, may be assessed by the Division Engineer subject to review by this Court upon petition by the Applicant or any Objectors.

34. In consideration of the specific findings and conclusions made herein, and in conformance with C.R.S. § 37-92-304(6) (2005), as amended, the plan for augmentation decreed herein shall be subject to reconsideration by the Water Judge on the question of injury to the vested water rights of others for a period commencing on the date of this decree and extending for five years after Applicant provides written notification by certified mail to all objectors, the Division Engineer and the Court that Bolts Lake has been constructed as contemplated by this decree or for five years after Applicant provides written notice by certified mail to all objectors, the Division Engineer and the Court that Bolts Lake will not be constructed as contemplated by this decree. Without limiting the Court's foregoing retained jurisdiction, the Court shall specifically retain jurisdiction for the same period as defined above for the purpose of reconsidering whether any system losses contemplated under Paragraph 11.J.iii are consumed before returning to the stream. With regard to the determination of consumptive use for irrigation within the place of use described in Paragraph 11.H above or any consumptive use of the Town's system losses described in Paragraph 11.F above, the retained jurisdiction period shall be ten years in order for the Applicant and State and Division Engineers to re-evaluate whether the consumptive use determinations in Paragraph 11.F continue to reflect and account for the actual consumptive use for the irrigation. During such periods of retained jurisdiction, the State and Division Engineers shall have the right to: (1) present to the Court evidence

concerning whether injury has occurred or is likely to occur without new terms and conditions to preclude such injury, or (2) seek an extension of this retained jurisdiction period until the absence of injury can be conclusively established. If no petition for reconsideration is filed within the applicable retained jurisdiction periods, retention of jurisdiction for this purpose shall automatically expire. Any party who wants the Court to reconsider the question of injury must file a verified petition with the Court, setting forth the facts that cause such injury and explaining the claimed injury. The party filing the petition shall have the burden of going forward to establish the prima facie facts alleged in the petition. If the Court finds those facts to be established, the Applicant shall thereupon bear the burden of proof to show: (a) that any modification sought by the Applicant will avoid injury to other water rights, (b) that any modification sought by the petitioner is not required to avoid injury to other water rights, or (c) that any term or condition proposed by Applicant in response to the petition does avoid injury to other water rights.

35. This Decree does not and cannot affect the finality of any other decree mentioned herein. Notwithstanding any retained jurisdiction provisions herein, this decree is final and appealable upon entry. The Court expressly determines that there is no just reason for delay and expressly directs the entry of judgment.

36. Measuring Devices. In order to assure the operation of the augmentation and exchange plan, Applicant will install and maintain such water measuring devices, implement such accounting procedures, and provide such calculations as may be required by the State or Division Engineer to administer the terms of this decree, including the plan for augmentation. The CWCB shall have access to any such measuring device(s) at reasonable times in order to make readings therefrom. Applicant shall file an annual report consistent with the accounting forms provided for herein with the Division Engineer by November 15 of each year summarizing diversions and replacements made under this plan as provided herein.

37. Accounting Forms. This plan for augmentation and use of the Augmented Water Rights and Augmentation Water Rights in this plan for augmentation can and will be administered by the Division Engineer, consistent with these terms and conditions, and in accordance with the accounting forms to be prepared and approved by agreement with the Division Engineer. The accounting forms attached hereto as **Exhibit K** are not decreed herein but shall constitute the initial forms for the Division Engineer's consideration along with such other accounting forms that may be developed and approved by the Division Engineer that may be necessary and appropriate to implement this plan for augmentation. The initial accounting forms shall be finalized within 90 days of the entry of the decree herein, but may be modified as requested by the Division Engineer to properly administer this decree.

38. Reuse and successive use of water diverted under the Battle Mountain Water Rights described in paragraph 9.C or under the Bolts Lake storage rights described in paragraphs 10.B and 10.C above, shall be limited to the extent Applicants can demonstrate dominion and control through measurement, engineering or accounting or by approval in a future decree or substitute water supply plan. Such reuses and successive uses and the reuses and successive uses of the water rights that are the subject of this decreed plan for augmentation will be measured and accounted for consistent with the provisions of this decree and the accounting provisions set forth in Paragraph 37.

39. If the Town wishes to maintain the conditional water rights decreed herein, it shall file an application for a finding of reasonable diligence on or before the last day of the month and year specified below, or make a showing on or before then that the conditional water rights have become absolute water rights by reason of the completion of the appropriations.

40. The findings of fact, conclusions of law, judgment and decree were the result of substantial discussions, negotiations and compromises between the applicant and the objectors pertaining to many parts of the findings, conclusions, judgment and decree. With respect to the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2 Water Rights, the findings of fact, conclusions of law and judgment and decree in Case No. 05CW262 and as set forth herein are binding and define the decreed rights and limitations of those rights and they shall be operated and administered in accordance with the provisions of the decree in Case No. 05CW262 and as set forth herein. With the exception of the decreed rights and limitations of the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2 Water Rights as specifically decreed in Case No. 05CW262 and as set forth herein, or the rights decreed herein subject to the provisions of Paragraphs 34 and 41, it is specifically understood and agreed to by the parties hereto, and found and concluded by the Court, that the acquiescence of the parties to a stipulated decree under the specific factual and legal circumstances of this contested matter and upon the numerous and interrelated compromises reached by the parties will never give rise to any argument, claim, defense or theory of acquiescence, waiver, bar, merger, stare decisis, res judicata, estoppel, laches, or to any administrative or judicial practice or precedent, by or against any of the parties hereto in any other matter, case or dispute not involving the Minturn Ditch Water Rights or Minturn Well Nos. 1 and 2 Water Rights or the rights decreed herein subject to the provisions of Paragraphs 34 and 41, nor shall testimony concerning such acquiescence of any party to a stipulated decree herein be allowed in any other matter, case or dispute not involving the Minturn Ditch Water Rights or Minturn Well Nos. 1 and 2 Water Rights or the rights decreed herein subject to the provisions of Paragraphs 34 and 41. With the exception of the decreed rights and limitations of the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2

Water Rights as specifically set forth in the decree in Case No. 05CW262 and as set forth herein or the rights decreed herein subject to the provisions of Paragraphs 34 and 41, all parties stipulate and agree that they do not intend the findings, conclusions, judgment and decree to have the effect of precedent or preclusion on any factual or legal issue in any other matter not involving the Minturn Ditch Water Rights or Minturn Well Nos. 1 and 2 Water Rights or the rights decreed herein subject to the provisions of Paragraphs 34 and 41. With the exception of the decreed rights and limitations of the Minturn Ditch Water Right and Minturn Well Nos. 1 and 2 Water Rights as specifically set forth in the decree in Case No. 05CW262 and as set forth herein or the rights decreed herein subject to the provisions of Paragraphs 34 and 41, the parties further stipulate and agree that they each reserve the right to propose or to challenge any legal or factual position in any other change of water right, plan for augmentation or other matter filed in this or any other court without limitation by these findings, conclusions, judgment and decree.

A. Paragraph 40 is not intended to affect the parties' rights in future diligence proceedings or proceedings under the retained jurisdiction provision of this decree.

41. The direct flow water rights decreed to the Minturn Municipal Diversion and the Battle Mountain Water Rights may be duplicative in the event both water rights are used by the Town in connection with the Town's current and anticipated water service area as depicted on **Exhibit B**, which includes, the Town, the Town's annexed areas, other lands within the Town's 2003 Three Mile Plan, and those lands that are the subject of the project known as the Battle Mountain Project. Accordingly, during the first six year diligence period for such water rights, the Town and the Battle Mountain Entities shall have the burden of proof and shall address the issue of duplication. In the first six-year diligence proceeding, the Court shall have jurisdiction to reduce or eliminate water rights as necessary to eliminate any duplication of appropriations or to promote the efficient use of the water and administration of and accounting for such direct flow water rights. Nothing in this paragraph is intended to otherwise limit the Court's normal jurisdiction over future diligence proceedings.

42. The Application, as decreed herein, is administrable by the State and Division Engineers. Review of determinations made by the Division Engineer or the State Engineer in administration of the subject water rights are "water matters" which the Water Court may review under its exclusive jurisdiction.

Accordingly, it is ordered that this judgment and decree shall be filed with the Water Clerk and shall become effective upon such filing, subject to judicial review pursuant to C.R.S. § 37-92-304, as amended.

Further, it is ordered that a copy of this judgment and decree shall be filed with the State Engineer and the Division Engineer for Water Division No. 5.

Done at the City of Glenwood Springs, Colorado, this 11th day of November, 2011, entered *nunc pro tunc* October 5, 2010.

THE MONTH FOR FILING AN APPLICATION FOR A FINDING OF REASONABLE DILIGENCE SHALL BE October, 2016.

BY THE COURT:

/s/ Thomas W. Ossola

_____
Thomas W. Ossola
Water Judge
Water Division No. 5

5101160_2

State of Colorado)
) SS In the District Court,
County of Eagle) 671

In the matter of the application Of the Town of Minturn,a Municipal Corporation for an adjudication of its priority of right to the use of water for Domestic, Powerand Engine purposes, from Cross Crsek,a tributary to Eagle River,in Water District,No.37,State of Colorado.

And

In the matter of the Denver & Rio Grande Railroad Company, a Corporation, for an adjudication of its right to change its point of diversion from Booco Creek to Cross Creek and an adjudication of its right to the use of water from Cross Creek for beneficial purposes other than irrigation, in said Water District No. 37, State of Colorado.

FINDINGS AND DECREE,

Now on this 5th day of June,A.D.1916, it being one of the Juridical days of the June A.D. 1915 term, of the District Court,Fifth Judicial District Sitting Within and for Eagle County,State of Colorado

The Court being present in the persons of Honorable Charles Cavender,Judge; Barney L.Whatley,Esq. District Attorney; Marion J.Henry Sheriff; and Charles W. Coursen, Clerk;this matter comes on regularly for hearing and adjudication before the Court upon the joint petition of the Town of Minturn and the Denver & Rio Grande Railroad Company for an adjudication of the towns right to the use of water for domestic milling and engine Purposes from Cross Creek, a tributary of the Eagle River, and an adjudication of the right of the Denver & Rio Grande Railroad Company for an adjudication of its right to change its point of diversion from Booco Creek to Cross Creek; said petitioners appearing by its counsel, W.J.Meehan, Esq. and no protest of the claims of the petitioners being presented and there being no objections or exceptions to the hearing of the evidence concerning said Minturn water system,ditch or to the r rightof the Denver & Rio Grande Railroad Company's right to change its point of diversion, or to the entry of the findings and decree concerning the same hereinafter refered to, and the matter now being heard pursuant to the Order of this Court dated the 11th day of May,A.D.1916, the same was heard and considered and the Court doth find:

That notice of said Order and hearing thereof was given insaid manner and form and within the time provided in said Order of this Court by the Clerk, by publishing said notice in not less than one public newspaper in each of the counties into which Water District No.37,State of Colorado extends; Eagle County; and that said notice contained a copy of said Order of May 11th 1916, and was published in said newspaper not less than once in each week until four(4) successive weekly publicationshad been made and published; the last of which was made and published on a day previous to the day fixed for the commencement of said hearing; that the notice so published in Eagle County was published in the Eagle County News; that said paper has been published continuously during a period of more than twenty-six (26) consecutive weeks prior to the first publications of said notice and was and is a newspaper within the meaning and requirement of the laws of the State of Colorado:

It further appearing to the Court; that said notice was also served on all parties to this proceeding who have filed any claim or claims for the use of water for domestic purposes from said Cross Creek, claiming priorities of right to the use of water for beneficial purposes in said Water District, No. 37, at least 10 days prior to the time of said Hearing , that the only party or parties who have filed any statement or statements of claim or claims in this proceeding and who are thereby entitled to notice other than by posting or publication were and are Charles W. Coursen, Charles W. Craven, as president of the Cross Creek Hydraulic Company; Mrs. Kate Goodrich; L.J.Bolt: F.S. BOLT;and M.E.Bolt: that said parties were duly served with notice within the time and in accordance with the provisions of said Order; and

It further appearing to the Court and the Court doth find that e each and all of said notices as given, published and served were in all things given, published and served within the time and in the manner provided by said Court by Order of May 11th, 1916, and that all persons associations and corporations entitled to notice of this proceeding were duly notified thereof in the manner provided by law and in accordance with the orders of this Court; and the Court having heard the evidence adduced as well as having considered the evidence heretofore taken on the part of the Town of Minturn and on the part of the Denver & Rio Grande

Railroad Company in this matter and being fully advised in the premises, as to the

MINTURN WATER SYSTEM DITCH;

the Court Doth Find:

That the petitioner herein, the Town of Minturn, is a Municipal Corporation under the laws of Colorado, and is a Town of about 500 inhabitants, and that in order to insure a supply of pure water for the use of the inhabitants, the Board of Trustees of the said Town, at a Regular meeting, selected Cross Creek as a source of said water supply for the use of said Town, and caused to be appropriated and applied to beneficial use, seven cubic feet of water per second of time of the waters of said Cross Creek

That the said waters of Cross Creek are brought to the town of Minturn by means of a pipe line ditch and used by the inhabitance of said town for domestic and other beneficial purposes.

That the headgate of said Minturn Water System ditch is situate in the County of Eagle and State of Colorado, upon the North Bank of Cross Creek from which said ditch draws its of water, at a point whence the Northwest Corner of Section 35, Twp. 5 South Range 81 West of the 6th P.M. bears North 60° 35' W. 6678 feet.

Beginning at a point above designated as the location of the headgate thereof and running thence 1320 feet North and thence in a Northwesterly direction to the Town of Minturn.

That the length of said ditch is about 11951.4 feet; that the width of said ditch is about two feet; that the depth of said ditch is about five feet; that the grade of said ditch is about 2½ per mile.

That the date of appropriation of water by original construction was the 1st day of April, A.D.1912.

IT IS THEREFORE CONSIDERED, ADJUDGED AND DECREED by the Court, that there be allowed to flow into said Minturn Water System ditch from Cross Creek, a tributary of Eagle River, for the use and benefit of the Town of Minturn and its successors, seven cubic feet of water per second of time; that the said Minturn Water System be numbered 2 with domestic Priority No. 40 as of the 1st day of April

A.D. 1912, in the Records of this Court for Water District No. 37, State of Colorado.

It is further Ordered, Adjudged and Decreed, that the petitioner the Town of Minturn, shall erect and maintain at its own expense, some approved measureing devise, and that all water taken from said stream over and above the amount herein decreed shall be returned to said stream at or near the headgate of said ditch.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that these Findings and Decree shall be subject to the same general provisions and conditions as are in the General Decrees of this Court made and entered in and for Water District No. 37, State of Colorado, and that after the waters of Cross Creek shall have been used for the beneficial purposes aforesaid, by means of the Minturn Water System Ditch, the unused waters shall be returned to the stream not more that a mile below the Town of Minturn.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that the waters of Cross Creek hereinbefore decreed to the Town of Minturn are decreed to said Town for Domestic Fire, Mechanical and such other like purposes and no water shall be sold for irrigation purposes for use outside the incorporate limits of the Town of Minturn:

Provided However, that the town may sell water to the Denver and Rio Grande Railroad Company for use in its steam engines or like uses or may sell for power purposes.

And the Court doth further find:

As to the Bocco Creek Pipe Line and the Minturn Pumping Plant of TheDenver and Rio Grande Railroad Company;

That the petitioner herein, The Denver and Rio Grande Railroad Company, is a corporation organized and doing business under and by virtue of the laws of the State of Colorado, and that in order to insure a supply of water for the use of the said Company at its tanks at Minturn Eagle County, Colorado, there was appropriated and applied to beneficial for domestic and mechanical purposes, 0.2143 cubic feet per second of time of the waters of Bocco Creek as of date, June 4th 1886; said diversionwas made at a point in the NE¼ NW¼ of Sec. 26 Twp. 5 South Range 81 West 6th P.M..

That on the 31st day of December 1903, at the same point of di-

version, a further appropriation of the waters of Bocco Creek was madeby the petitioner and an additional 0.0979 cubic feet per second of time was diverted and used for the purposes aforesaid.

That on the 31st day of November, 1909, this petitioner made additional appropriation of 0.2446 cubic feet of water per second of time of the waters of said Creek, Said diversion was made at a point in the SW¼ SE¼ Of Sec. 25, Township 5 South Range 81 West 6th P.M. about 1500 feet further up the stream fromthe intake of the aforementioned diversion.

Said waters of Bocco Creek are brought to the storeage tanks of said petitioner at its yards in Minturn, Colorado, by means of a pipe line ditch,3694 feet in length, said water is conveyed through a 6' pipe with a capacityof 0.5570 cubic feet per second of time.

The Court doth further find, that on the 31st day of Dec. 1891 said petitioner installed a pumping plant and commenced to use the waters of Eagle River from a so-called Spring on the North bank of said river in the SE¼ of the NW¼ of Sec. 26 Township 5 South Range 81 West 6th P.M. by which 0.4452 cubic feet per second of time of the waters of Eagle River were diverted and applied to beneficial use in and around the Engine House at its yards in the said Town of Minturn, Colorado.

The Court doth further find; that on the 5th day of February, 1913, this petitioner changed its point of diversion from Bocco Creek to Cross Creek at the intake of the above described Minturn Water System Ditch, and by arrangement with the Town of Minturn, used said Minturn Water System Ditch for conveying the specified amounts of water to its tanks at Minturn, Colorado.

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED BY THE COURT, THAT the said petitioner, The Denver and Rio Grande Railroad Company, be and is hereby allowed to change its point of diversion from Bocco Creek to Cross Creek; that therebe allowed to flow into said Minturn Water System Ditch from Cross Creek, for the use and benefit of the Denver and Rio Grande Railroad Company its successors and assigns:

0.2143 cubic feet per second of time, with domestic priority No. [illegible] as of the 4th day of June, 1[illegible], and 0.0979 cubic feet per

that the total amount of water so decreed is 0.557 cubic feet of water per second of time, of the waters of C Cross Creek; Ditch number 9a with Domestic Priority No.10a of said Water District No.37.

of time with Domestic Priority No. 12 as of the 31st day of Dec. 1902, and 0.2448 cubic feet per second of time with Domestic Priority No. 12 as of the 31st day of Dec. 1909, of the Records of this Court for Water District No. 37, State of Colorado.

It is Further Ordered, Adjudged and Decreed by the Court that there be allowed to flow into the Minturn Pumping Plant from Eagle River for the use and benefit of the Denver & Rio Grande Railroad Company its successors and assigns, 0.4452 cubic feet of water per second of time that the said Minturn Pumping Plant be No. 9a with Domestic Priority 10a as of the 1st day of July, 1891, in the Records of this Court for Water DistrictNo. 37, State of Colorado.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that this petitioner may have the right and privilege of taking said amount of water from C Cross Creek through the said Minturn Water System Ditch: PROVIDED HOWEVER that said petitioner shall not take from Cross Creek and from Eagle River at one and the same time, but when the said water is taken from Eagle River a like amount shall be deducted from its supply from Cross Creek

IT IS FURTHER ORDERED that the said priorities are granted subject to all intervening rights of other appropriators who are using and Taking water from Cross Creek between the intake of the Minturn Water System Ditchand the confluence of Bocco Creek and Eagle River.

It is Further Ordered that the petitioners herein, pay the costs of this proceeding and that execution issue therefor.

Done officially in open Courtat Red Cliff, Eagle County, State of Colorado, this 8th day of June, A.D. 1916.

Chas. Cavender; Judge.

State of Colorado }
} ss In the District Court.
County of Eagle }

I, Chas. W. Courson Clerk of the District Court, Fifth Judicial District, Sitting Within and for Eagle County, do hereby certify the above and foregoing to be a full and complete copy of the above and foregoing decree as shown by the Records of said Court.

In Witness Whereof I have hereunto set my hand and affixed the official Seal at my office in Red Cliff, this 31st day of July, 1916.

Chas. W. Courson
Clerk.

IN THE DISTRICT COURT IN AND FOR
WATER DIVISION NO. 5
STATE OF COLORADO

CASE NO. W- 1100

FILED
IN WATER COURT
Division No. 5
NOV 16 1972
STATE OF COLORADO
Elaine Dickson
WATER CLERK
By

IN THE MATTER OF THE)
APPLICATION FOR)
WATER RIGHTS OF)
THE TOWN OF MINTURN)
IN THE EAGLE)
RIVER OR ITS TRIBUTARIES)
)
TRIBUTARY INVOLVED:)
CROSS CREEK)
IN EAGLE COUNTY)

RULING OF THE REFEREE

ABSOLUTE DECREE FOR
UNDER GROUND WATER RIGHTS

And the Referee having made the investigations required by Article 21 of Chapter 148, C.R.S. 1963, as amended does hereby make the following ruling, to wit:

This application was referred to the Water Referee of Water Division No. 5 on the 12th day of July, 1972.

1. Name of Applicant and Address: Town of Minturn, 124 Main Street, Minturn, Colorado
2. The name of the structure is Town of Minturn Well No. 1.
3. The Legal description of the structure is: The well is located in the SW¼ of Section 36, T. 5 S., R. 81 W. of the 6th P.M. at a point whence the Southwest Corner of said Section 36 bears S. 37°56'50" W. 1325.39 feet.
4. The depth of the well is 60 feet.
5. The date of initiation of appropriation is August 1962.
6. The amount of water claimed is 0.5 cubic foot per second of time.
7. The use of the water is Municipal.
8. The State Engineer's number is none.
9. The Priority date is August 31, 1962.
10. The date of the application was June 29, 1972.

It is the ruling of the Referee that the statements in the application are true and that the above described water right is approved and granted the indicated priority; subject, however, to all earlier priority rights of others.

It is accordingly ordered that this ruling shall become effective upon filing with the Water Clerk, subject to Judicial review as provided by law.

Done at the City of Glenwood Springs, Colorado this 17th day of November, 1972.

Water Referee
Water Division No. 5
State of Colorado

No protest was filed in this matter.
The foregoing ruling is confirmed and approved, and is made the Judgment and Decree of this court.

Dated: February 23, 1973

Water Judge

IN THE DISTRICT COURT IN AND FOR
WATER DIVISION NO. 5
STATE OF COLORADO

CASE NO. W- 1101

FILED
IN WATER COURT
Division No. 5
NOV 16 1972
STATE OF COLORADO
Clerk

IN THE MATTER OF THE APPLICATION FOR WATER RIGHTS OF THE TOWN OF MINTURN IN THE EAGLE RIVER OR ITS TRIBUTARIES

TRIBUTARY INVOLVED: CROSS CREEK
IN EAGLE COUNTY

RULING OF THE REFEREE

ABSOLUTE DECREE FOR UNDER GROUND WATER RIGHTS

And the Referee having made the investigations required by Article 21 of Chapter 148, C.R.S. 1963, as amended does hereby make the following ruling, to wit:

This application was referred to the Water Referee of Water Division No. 5 on the 12th day of July, 1972.

1. Name of Applicant: The Town of Minturn
   Address: 124 Main Street, Minturn, Colorado
2. The name of the structure is Town of Minturn Well No. 2.
3. The Legal description of the structure is: The well is located in the SW¼SW¼ of Section 36, T. 5 S., R. 81 W. of the 6th P.M. at a point whence the Southwest Corner of Said Section 36 bears S. 19°32'20" W. 723.71 feet.
4. The depth of the well is 80 feet.
5. The date of initiation of appropriation is August 1962.
6. The amount of water claimed is 0.5 cubic foot per second of time.
7. The use of the water is Municipal.
8. The State Engineer's number is none.
9. The Priority date is August 31, 1962.
10. The date of the application was June 29, 1972.

It is the ruling of the Referee that the statements in the application are true and that the above described water right is approved and granted the indicated priority; subject, however, to all earlier priority rights of others.

It is accordingly ordered that this ruling shall become effective upon filing with the Water Clerk, subject to Judicial review as provided by law.

Done at the City of Glenwood Springs, Colorado this 17th day of November, 1972.

Water Referee
Water Division No. 5
State of Colorado

No protest was filed in this matter
The foregoing ruling is confirmed
and approved, and is made the
Judgment and Decree of this court.

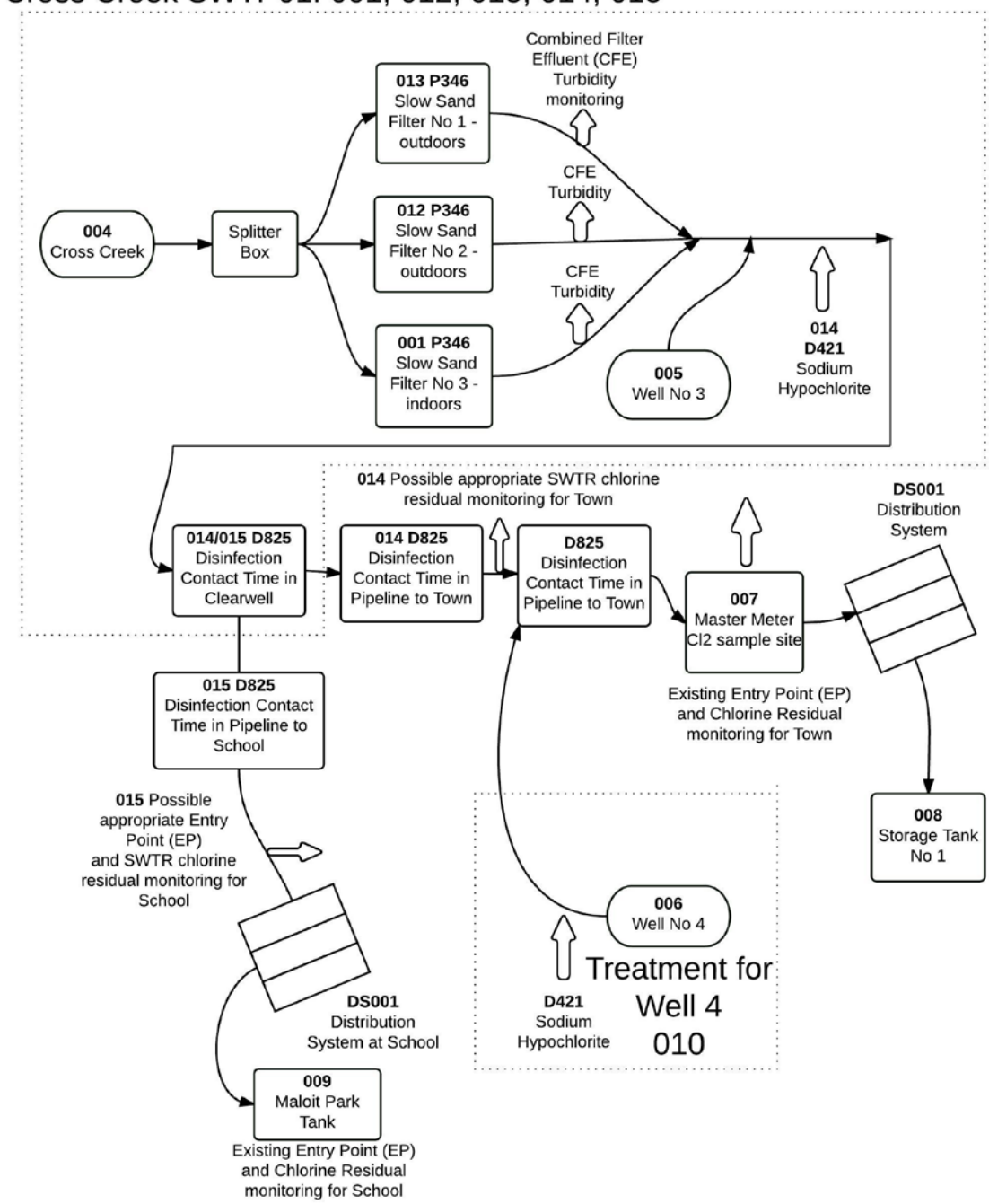
Dated: March 16, 1973

Water Judge

Process Schematic

PWSID: CO0119510

WTP Name: Cross Creek SWTP (Slow Sand filters: 001, 012, 013 and disinfection: 014) and Treatment for Well 4 (010)



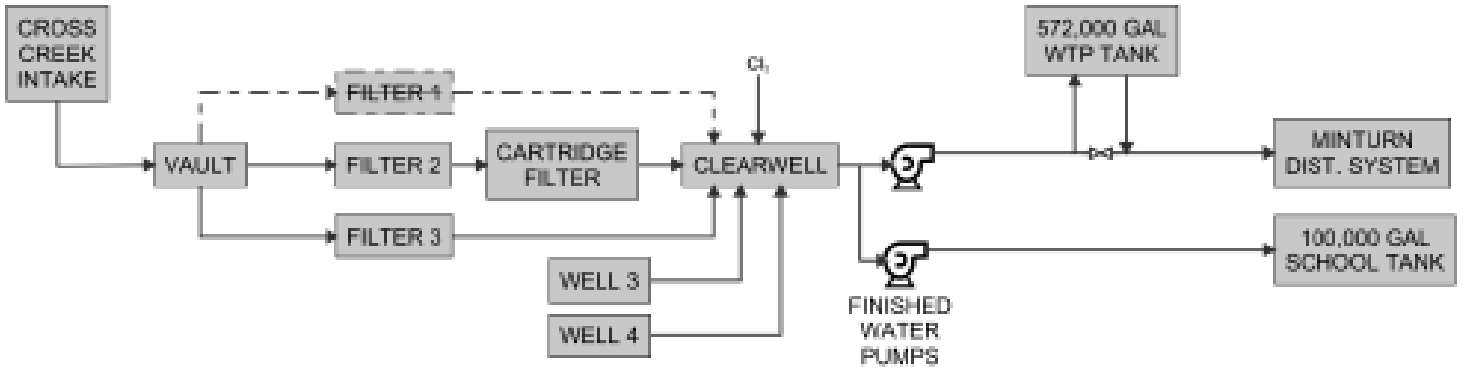


Figure 2. Process Flow Diagram - Existing Treatment Process

The existing infrastructure which may be able to be reused by a new facility would include Filters 1 and/or 2, Filter 3, miscellaneous yard piping, and the 572,000-gallon storage tank.

COLORADO
Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

For Agency Use Only:
Permit Number Assigned
COG641- _____
App Rec'd_____

Application for COLORADO DISCHARGE PERMIT SYSTEM (CDPS)
General Permit Water Treatment Plant Wastewater

Please print or type. Original signatures are required. All items must be completed accurately and in their entirety for the application to be deemed complete. Incomplete applications will not be processed until all information is received which will ultimately delay the issuance of a permit. If more space is required to answer any question, please attach additional sheets to the application form. Applications MAY be submitted by mail or hand delivered to:
Colorado Department of Public Health and Environment Water Quality Control Division
4300 Cherry Creek Drive South WQCD-P-B2 Denver, Colorado 80246-1530

OR
Digitally signed documents may be emailed to
cdphe.wqrecordscenter@state.co.us
Do not follow up with a mailed-in hard copy.

This application is for use by all water treatment plant **wastewater** dischargers. It is applicable for coverage under a general permit or an individual permit.

PERMIT INFORMATION
Reason for Application: ☒ NEW CERT
☐ RENEW CERT EXISTING CERT #_____

Applicant is: ☐ Property Owner ☐ Contractor/Operator

A. Contact Information

Permittee (If more than one please add additional pages)

Organization Formal Name: Town of Minturn

1. **Permittee** the person **authorized to sign and certify** the permit application. This person receives all permit correspondences and is **legally responsible** for compliance with the permit.

Responsible Position (Title): Town Manager
Currently Held By (Person): Michelle Metter
Telephone No: 970-827-5645
email address manager@minturn.org
Organization: Town of Minturn
Mailing Address: PO Box 309
City: Minturn State: CO Zip: 81645
This form must be signed by the Permittee to be considered complete.

Per Regulation 61: In all cases the permit application shall be signed as follows:
a) In the case of corporations, by a responsible corporate officer. For the purposes of this section, the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the application originates.
b) In the case of a partnership, by a general partner.
c) In the case of a sole proprietorship, by the proprietor.
d) In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official

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2. **DMR Cognizant Official (i.e. authorized agent)**—the person or position authorized to **sign and certify** reports required by permits including Discharge Monitoring Reports [DMR's], Annual Reports, Compliance Schedule submittals, and other information requested by the Division. The Division will send pre-printed reports (e.g. DMR's) to this person. If more than one, please add additional pages. ☐ Same as 1) Permittee

Responsible Position (Title): ORC

Currently Held By (Person): John Volk

Telephone No: 970-389-4491

Email address jvolk@wqcpllc.com

Organization: Water Quality Control Professionals LLC

Mailing Address: 13863 W La Salle Pl

City: Lakewood State: CO Zip: 80228

Per Regulation 61: All reports required by permits, and other information requested by the Division shall be signed by the permittee or by a duly authorized representative of that person. A person is a duly authorized representative only if:
(i) The authorization is made in writing by the permittee;
(ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a **named individual** or any individual occupying a named position); and
(iii) The written authorization is submitted to the Division.

3. **Site/Local Contact**—contact for questions regarding the facility & discharges authorized by this permit
☐ Same as Permittee—Item 1

Responsible Position (Title): ORC

Currently Held By (Person): John Volk

Telephone No: 970-389-4491

Email address jm_volk@msn.com

Organization: Water Quality Control Professinals LLC

Mailing Address: 13863 W La Salle Pl

City: Lakewood State: CO Zip: 80228

4. **Operator in Responsible Charge** ☐ Same as Permittee—Item 1

Operator Number 10098

Legal Name: John M Volk

Telephone No: 970-389-4491

Email address: jvolk@wqcpllc.com

Company: Water Quality Control Professinals LLC

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5. Billing Contact (if different than the permittee)

Responsible Position (Title): Treasurer
Currently Held By (Person): Jay Brunvand
Telephone No: 970-827-5645 Ext 1
Email address treasurer@minturn.org
Organization: Town of Minturn
Mailing Address: PO Box 309
City: Minturn State: CO Zip: 81645

6. Other Contact Types (check below) Add pages if necessary:

Responsible Position (Title): _____
Currently Held By (Person): _____
Telephone No: _____
Email address _____
Organization: _____
Mailing Address: _____
City: _____ State: _____ Zip: _____

□ Environmental Contact
□ Facility Inspection Contact
□ Consultant
□ Compliance Contact
□ Property Owner

□ *Other* _____

B. Permitted Project/Facility Information

1. Project/Facility Name Town of Minturn Water Treatment Facility
Street Address or cross streets 1931 Hwy 24
City, State and Zip Code Minturn, CO 81645 County Eagle

Type of Facility Ownership

☒ City Government ☐ Corporation ☐ Private ☐ Municipal or Water District
☐ State Government ☐ Mixed Ownership _____

Legal Description

Directions from nearest major cross streets

From the intersection of Cross Creek Rd. and Hwy 24
head North 250' Take Left on dirt road. Follow Dirt road for
4,325' to WTF.

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B. Permitted Project/Facility Information continued

2. Facility Latitude/Longitude—List the latitude and longitude of the excavation(s) resulting in the discharge(s). If the exact excavation location(s) are not known, list the latitude and longitude of the center point of the construction project. **If using the center point, be sure to specify that it is the center point of construction activity.**

001A Latitude 39°33'53.73"N Longitude 106°25'5.28"W (e.g., 39.703°, 104.933°')
degrees (to 3 decimal places) degrees (to 3 decimal places)

Horizontal Collection Method: ☐ GPS Unspecified ☐ Interpolation Map – Map Scale Number_____

Reference Point: ☐ Project/Facility Entrance ☐ Project/Facility Center/Centroid

Horizontal Accuracy Measure (WQCD Requires use of NAD83 Datum for all references)_____
(add additional pages if necessary)

3. Facility Activity

Standard Industrial Code (SIC Code) 36000 _____ _____ _____

Facility Industrial/Business Activity

Describe the primary industrial and/or business activities which take place on site. If this is a seasonal operation, list the months of operation:

Surface water treatment facility for the Town of Minturn's potable water.

4. Production: List the principal product(s) produced and maximum production rate.

Membrane filtration backwash water (27 gpm), chemical clean in place waste (1 gpm). 28 gpm maximum production rate.

5. Intermittent Discharges

A discharge is intermittent unless it occurs without interruption during the operating hours of the facility, except for maintenance, process change or similar shutdown. A discharge is seasonal if it occurs only during certain parts of the year.

Except for storm runoff, are any discharges intermittent or seasonal? ☒ YES ☐ NO

Describe the frequency, duration, and flow rate of each discharge occurrence, except for storm runoff, spillage, or leaks:

The water treatment facility is being designed to create a low volume waste stream. Under normal conditions, the backwash waste will be sent to the existing slow sand filter, filtered, then sent back to the raw water intake. When the slow sand filter is off line for cleaning, the backwash waste will be collected in the existing clearwell retrofit for backwash waste storage to be discharged to Cross Creek over the course of 24 hours. This is estimated to occur every 6 months to annually.

CIPs are expected to occur every 30 days. The CIP waste will be neutralized and discharged back to Cross Creek over the course of 24 hours.

6. Location Map : A location map designating the facility property, intake points, discharge points, each of its hazardous waste treatment storage or disposal facilities, each well where fluids from the facility are injected underground, those wells, springs, other surface water bodies and drinking water wells listed in public records or otherwise known to the applicant and the receiving waters shall be sheet, or
a map of comparable scale. A north arrow shall be shown. **The map must be on paper 8.5 x 11 inches.**

7. Site sketch: A legible sketch of the facility site shall be submitted and will include buildings, roads, ditches, ponds, streams, drains, sumps, impoundment(s), land application areas, any septic systems and monitoring well locations (indicate if in place or proposed). This sketch may be the same as the one in the surface water discharge permit, if no additional information is needed. **The sketch will be on 8.5 X 11 inch paper.**

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B. Permitted Project/Facility Information continued

8. **Water Balance:** Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in item 18. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

9. **Site-specific conditions:**

   a) Does this facility have bulk storage of diesel fuel, gasoline, solvents, fertilizers, or other hazardous materials on site?
   ☒ NO ☐ YES

   b) Is this operation located within one mile of a landfill, or any mine or mill tailings? ☒ NO ☐ YES

   If **YES for either** of these, please show location of landfill, tailings, or possible groundwater contamination on the **Location Map or in the Site Sketch** (See above requirements). Please explain the location, extent of contamination, possible effect on the discharges from this facility.

10. **Chemical treatment:** Will any flocculants (settling agents or chemical additives) be used to treat water prior to discharge?
☐ NO ☒ YES

If YES, list here and include the Material Safety Data Sheet (MSDS) with the application.

Chemical Name *	Manufacturer	Purpose	In Which Waste Stream?
Sodium Thiosulfate		Dechlorination	CIP Waste
Sodium hydroxide 50%		pH adjustment	CIP Waste
Sodium Hypochlorite 10%		Membrane CIP	CIP Waste
Citric Acid 50%		Membrane CIP	CIP Waste
Sulfuric Acid 93%		Membrane CIP	CIP Waste

* If the chemical formula is unknown or confidential, provide the manufacturer's name, contact person, address and phone number
or a copy of the manufacturer's brochure, product label information or materials handling data sheet for each product used. Please
list the major constituents or active ingredient(s), if known.

11. **Used of Manufactured toxics:** The applicant must provide a list of any constituents listed in Appendices A and B which the applicant currently uses or manufactures as an intermediate or final product or by-product. If any constituents are known to be used or manufactured and are not identified in Appendices A and B, list those as well:

12. **Flow measurement:** What method of flow measurement will be used for each discharge point (e.g., v notch weir, pump capacity, parshall flume, etc.)? Designate whether currently installed or proposed. Identify the minimum and maximum flow measurement capability.

Mag meter. Size TBD. Proposed. 0-200 gpm

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13. **Improvements:** Please provide a description of any abatement requirement, abatement project and projected final compliance dates if subject to any present requirements or compliance schedules for construction, upgrading or operation of waste treatment equipment. Also include here a description of any changes to the facility since the previous permit renewal.

14. **Ground Water Discharge:** Is or will land application of any wastewater be practiced?: [X] NO [ ] YES
Briefly describe the process:

Average flows and treatment: Please provide a narrative identification of each type of process, operation, or production area which contributes wastewater to the effluent for each outfall including process wastewater, cooling waters, domestic wastewater and stormwater runoff; the average, maximum and design flow which each process contributes; and a description of the treatment the wastewater receives including the ultimate disposal of any solid or fluid wastes other than by discharge. Processes, operations or production areas may be described in general terms. The average flow of point sources composed of stormwater may be estimated. The basis for the rainfall event and the method of estimation must be indicated.

Use additional pages as needed

OUTFALL NUMBER	WASTEWATER SOURCE	TREATMENT USED	AVG FLOW MGD*	DESIGN ** FLOW MGD*	DAILY MAX FLOW MGD*
001	Minturn WTP Backwash	Settling	0.005	0.038	0.040
001	Minturn WTP CIP	Chemical neutralization	0.002	0.002	0.005

*MGD - Million gallons/day
**If sediment pond, indicate approximate volume of water.

For each outfall to surface water or discharge to ground water, provide latitude/longitude and receiving water

OUTFALL	LATITUDE	LONGITUDE	RECEIVING WATERS* * Give Formation Name for Discharges to Ground Water
001	39°33'55.22"N	106°25'2.03"W	Cross Creek

Are the receiving waters, indicated above, a ditch or storm sewer? [X] NO [ ] YES

YES, submit documentation that the owner of the ditch or storm sewer allows this discharge. No permit will be processed unless documentation of approval is received.

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Discharge Quality: Analytical data for the following parameters, unless waived by the Division, shall be submitted from at least one composite sampling of each surface process water discharge point as well as state waters upstream of each discharge. Instream sampling is not required if upstream flow is intermittent or representative instream data exists. See instructions.

PARAMETER	DETECTION LEVEL	PARAMETER	DETECTION LEVEL
Total Dissolved Solids, mg/l	10	Dissolved Aluminum, mg/l	0.05
Flow, MGD	NA	Total Residual Chlorine, mg/	0.05
pH, s.u.	NA	Total Suspended Solids, mg/l	0.00025
Oil and Grease, mg/l	5	Alkalinity, mg/l	0.05
Hardness, mg/l	10	Temperature, C Winter	NA
Temperature, C Summer	NA		

Additional monitoring:

All applicants must review the parameters listed in Appendix A and Appendix B to this application, and indicate whether it knows or has reason to believe that these pollutants are present. For every pollutant expected to be discharged, the applicant must briefly describe the reasons the pollutant is expected to be discharged, and report any quantitative data is has for any pollutant.

Additional WET Testing: All applicants must identify any biological toxicity tests which have been performed within the last 3 years on any of the discharges or the receiving water in relation to a surface discharge from this facility.

Activity duration: When did the activity commence? TBD What is the estimated life of the activity from which the discharge(s) identified in item 13 originate? Indefinate years.

Pollution Prevention Plans: Please describe any pollution prevention or best management plans currently in place which could result in the improvement of water quality. These could include solvent recycling programs, material containment procedures, education, etc.

Please include any other information which you feel the Division should be aware of in drafting this permit.

Other Environmental Permits: Does this facility currently have any environmental permits or is it subject to regulation, under any of the following programs? Mark which of the other permits/programs the facility has obtained or is in the process of obtaining or is subject to regulation under.

Under item other mark "yes" if the facility has any of the following permits:

a.) Prevention of Significant Deterioration (PSD) program under the Clean Air Act;
b.) Non-attainment Program under the Clean Air Act; or
c.) National Emission Standards for Hazardous Pollutants (NESHAPS) under the Clean Air Act.
d.) CERCLA

Permit name	Yes	No	Date applied for	Permit no.
Colorado Division of Minerals and Geology		X		
Underground Injection Control		X		
Dredge or Fill permit, Section 404 – Army Corps of Engineers		X		
Resource Conservation and Recovery Act (RCRA)		X		
CDPS Stormater		X		
Colorado State Air Pollution Program		X		
Other				

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REQUIRED SIGNATURES:

Signature of Applicant: The legally responsible party must be either the owner and/or operator of the facility. Refer to Part B of the instructions for additional information.

This form must be signed by the permittee to be considered complete. **Per Regulation 61**, in all cases, it shall be signed as follows:

a) In the case of corporations, by a responsible corporate officer. For the purposes of this section, the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the application originates.
b) In the case of a partnership, by a general partner.
c) In the case of a sole proprietorship, by the proprietor.
d) In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Signature of **Legally Responsible party** (Part A item 1-submission must include original signature) — Date signed

Michelle Metteer — Town Manager

Name (printed) — Title

Signature of **Operator** (submission must include original signature) — Date signed

John M Volk — ORC

Name (printed) — Title

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Appendix A - Priority Pollutants

Organic Toxic Pollutants in Each of Three Fractions in Analysis by Gas Chromatography/Mass Spectroscopy(GC/MS).

VOLATILES
Acrolein
Acrylonitrile
Benzene
Bromoform
Carbon Tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane
2-Chloroethylvinyl Ether
Chloroform
Dichlorobromomethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethylene
1,2-Dichloropropane
1,3-Dichloropropylene
Ethylbenzene
Methyl Bromide
Methyl Chloride
Methylene Chloride
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
Toluene
1,2-Trans-dichloroethylene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethylene
Vinyl Chloride

ACID
2-Chlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
4,6-Dinitro-o-cresol
2,4-Dinitrophenol
2-Nitrophenol
4-Nitrophenol
P-chloro-m-cresol
Pentachlorophenol
Phenol
2,4,6-Trichlorophenol

BASE/NEUTRAL
Acenaphthene
Acenaphthylene
Anthracene
Benzidine
Benzo(a)anthracene
Benzo(a)pyrene
3,4-Benzofluoranthene
Benzo(ghi)perylene
Benzo(k)fluoranthene
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl) ether
Bis(2-chloroisopropyl) ether
Bis(2-ethylhexyl)phthalate
4-Bromophenyl phenyl ether
Butylbenzyl phthalate
2-Chloronaphthalene
4-Chlorophenyl phenyl ether
Chrysene
Dibenzo (a,h) anthracene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
3,3-Dichlorobenzidine
Diethyl phthalate
Dimethyl phthalate
Di-n-butyl phthalate
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Di-n-octyl phthalate
1,2-Diphenylhydrazine (as
Fluorene
Fluoranthene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorcyclopentadiene
Hexachloroethane
Indeno(1,2,3-cd) pyrene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodimethylamine
N-Nitrosodi-n-propylamine
N-Nitrosodiphenylamine
Phenanthrene
Pyrene
1,2,4-Trichlorobenzene

PESTICIDES
Aldrin
Alpha-BHC
Beta-BHC
Gamma-BHC
Heptachlor
Delta-BHC
Chlordane
4,4'-DDT
4,4'-DDE
4,4'-DDD
Dieldrin
Alpha-Endosulfan
Beta-Endosulfan
Endosulfan Sulfate
Endrin
Endrin Aldehyde
Total Recoverable Thallium
Heptachlor Epoxide
PCB-1242
PCB-1254
PCB-1221
PCB-1232
PCB-1248
PCB-1260
PCB-1016
Toxaphene

METALS, CYANIDE, AND TOTAL
Total Recoverable Antimony
Total Recoverable Beryllium
Bromide
Color
Sulfite
Surfactants
Total Magnesium
Total Molybdenum
Total Tin
Total Titanium

Appendix B - Toxic Pollutants and Hazardous Substances

Toxic Pollutants

Asbestos

Hazardous Substances

Acetaldehyde
Amyl acetate

Butyl acetate
Captan

Chlorphyrifos

2,4-D (2,4-Dichlorophenoxy acetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone
2,2-Dichloropropionic acid
Dichlorvos
Diethyl amine
Dimethly amine
Dinitrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Ethylene dibromide
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine
Kelthane Allyl alcohol Kepone Allyl chloride Malathion
Mercaptodimethur Aniline Methoxychlor Benzonitrile
Methyl mercaptan Benzyl chloride Methyl methacrylate
Methyl parathion Butylamine Mevinphos
Mexacarbate Carbaryl Monoethyl amine Carbofuran
Monomethyl amine Carbon disulfide Naled
Naphthenic acid Coumaphos Nitrotoluene Cresol
Parathion Crotonaldehyde Phenolsulfanate Cyclohexane
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
Styrene
2,4,5-T (2,4,5-Trichlorophenoxy acetic acid)

TDE (Tetrachlorodiphenyl ethane)
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]

Trichlorofan
Triethanolamine dodecylbenzenesulfonate
Triethylamine
Trimethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium dodecylbenzenesulfonate

Minturn WTP

Locations of WWTP system

Legend

Minturn 001A outfall

CIP Neutralization Building

Discharge to Cross Creek

Minturn 001A outfall

CIP waste to neutralization system

Backwash waste from WTP to slow sand filter

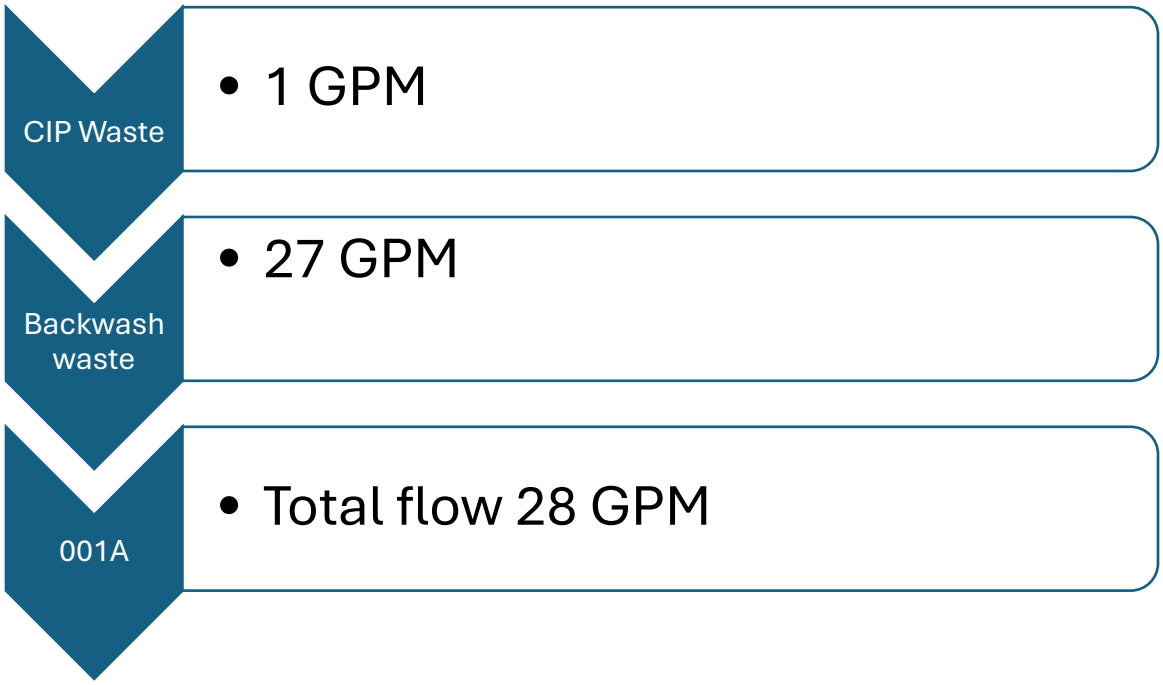
Proposed location of new WTP

Return flow from slow sand filter to raw water feed line

Google Earth

N

100 ft


CIP Waste
• 1 GPM
Backwash waste
• 27 GPM
001A
• Total flow 28 GPM

Safety Data Sheet
CAUSTIC SODA 50%

Version 1.10 Revision Date: 11/11/2023

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : CAUSTIC SODA 50%

Recommended use of the chemical and restrictions on use

Recommended use : Reserved for industrial and professional use.

Manufacturer or supplier's details

Company : Univar Solutions USA
Address 3075 Highland Pkwy Suite 200
Downers Grove, IL 60515
United States of America (USA)

Emergency telephone number:
Transport North America: CHEMTREC (1-800-424-9300)
CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: : Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals : Category 1

Acute toxicity (Oral) : Category 4

Skin corrosion : Category 1A

Serious eye damage : Category 1

Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**
P234 Keep only in original container.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical name	Weight percent
1310-73-2	Sodium hydroxide	50 - 70

Actual concentration is withheld as a trade secret
Any Concentration shown as a range is due to batch variation.

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficul-

		ty. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	:	Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. Take victim immediately to hospital.
If swallowed	:	Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Carbon dioxide (CO2) Foam Dry powder Water mist
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	No hazardous combustion products are known
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for	:	Soak up with inert absorbent material (e.g. sand, silica gel,

containment and cleaning up	acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Advice on safe handling	:	Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
Recommended storage temperature	:	16 - 65 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
1310-73-2	Sodium hydroxide	C	2 mg/m3	ACGIH
		C	2 mg/m3	NIOSH REL
		TWA	2 mg/m3	OSHA Z-1
		C	2 mg/m3	OSHA P0
		C	2 mg/m3	CAL PEL

Personal protective equipment

Respiratory protection	:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	No data available
Odour	:	No data available
Odour Threshold	:	No data available
pH	:	14
Freezing Point (Melting point/freezing point)	:	12 - 15 °C (54 - 59 °F)
Boiling Point (Boiling point/boiling range)	:	140 - 145 °C (284 - 293 °F)
Flash point	:	does not flash
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	1.5298
Density	:	12.76 lb/gal
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Thermal decomposition	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Corrosive to metals Exothermic reaction with acids.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	Freezing temperatures.

		Heat
Incompatible materials	:	Acids Metals Oxidizing agents Halogenated compounds organic nitro compounds Zinc
Hazardous decomposition products	:	Hydrogen

SECTION 11. TOXICOLOGICAL INFORMATION

Skin corrosion/irritation

Components:

1310-73-2:
Species: Rabbit
Result: Causes severe burns.

Serious eye damage/eye irritation

Components:

1310-73-2:
Species: Rabbit
Result: Risk of serious damage to eyes.

Carcinogenicity

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

STOT - single exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information	:	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):
UN1824, Sodium hydroxide solution, 8, II

IATA (International Air Transport Association):
UN1824, Sodium hydroxide solution, 8, II

IMDG (International Maritime Dangerous Goods):
UN1824, SODIUM HYDROXIDE SOLUTION, 8, II

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium hydroxide	1310-73-2	1000	2000

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Corrosive to metals
Skin corrosion or irritation
Serious eye damage or eye irritation
Acute toxicity (any route of exposure)
Specific target organ toxicity (single or repeated exposure)

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:
1310-73-2 Sodium hydroxide

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:
1310-73-2 Sodium hydroxide

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

1310-73-2 Sodium hydroxide

Pennsylvania Right To Know

1310-73-2 Sodium hydroxide
7732-18-5 Water

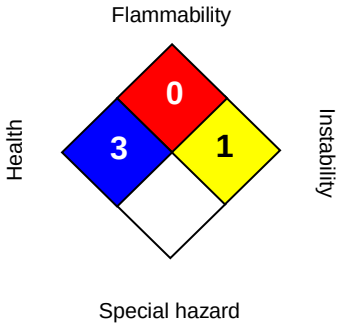
California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA	:	On TSCA Inventory
DSL	:	All components of this product are on the Canadian DSL
AICS	:	On the inventory, or in compliance with the inventory
NZIoC	:	Not in compliance with the inventory
ENCS	:	On the inventory, or in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory

SECTION16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	3/
FLAMMABILITY	0
PHYSICAL HAZARD	4

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 =Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 11/11/2023

Material number:
16212043, 16212042, 16212041, 16212039, 16212038, 16210888, 16149051, 16210426, 16208930, 16208441, 16207958, 16207089, 16206212, 16206172, 16195419, 16196593, 16203117, 16193663, 16191539, 16188943, 16188859, 16188905, 40509, 16144372, 85833, 16187875, 16187706, 16187503, 16187172, 16184289, 16184571, 16183215, 16183115,

16181535, 16174812, 16176162, 16176725, 16175550, 16177057, 16176719, 16176286, 16175611, 16175549, 16177342, 16174633, 16176146, 16175652, 16175317, 16174795, 16174563, 16176924, 16180636, 16169042, 16168322, 16168270, 16168140, 16168139, 16179411, 16169006, 16168617, 16150547, 16162842, 16162538, 16144429, 16173515, 16168911, 16162950, 16162022, 16144216, 16143594, 16162020, 16168720, 16166706, 16152119, 16173289, 16179365, 16166192, 16137935, 16161861, 16143735, 16151817, 85472, 52714, 71460, 54298, 16168314, 16146819, 16163462, 16148908, 16144035, 16166958, 16166445, 16137825, 16151508, 16151289, 16160192, 16147037, 16156058, 16155066, 16135486

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product identifier: DIXICHLOR
Synonyms: Bleach, Sodium Hypochlorite, Sodium Hypochlorite 10%
Intended use: Swimming pool chlorinator, Hard surface cleaner, Water treatment chemical, Biocides
Uses Advised Against: None identified. This is a pesticide product, do not use in a pesticide application that is not included on the label.

Company Identification
DPC Industries, Inc.
DPC Enterprises, LP
DXI Industries, Inc.
DX Terminals
PO Box 24600
Houston , TX 77229-4600

Emergency
CHEMTREC (USA) (800) 424-9300
24 hour Emergency Telephone No. (281) 457-4888
www.dxgroup.com

2. Hazard identification of the product

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 2

Label elements
Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Signal Word	**Danger**
Hazard Statements	Harmful in contact with skin. Causes severe skin burns and eye damage. Causes serious eye damage. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. May be corrosive to metals
Precautionary Statements	
Prevention	Do not breathe mist / vapors / spray. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves / eye protection / face protection. Use in well ventilated area.
Response	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN: Remove / Take off immediately all contaminated clothing. Wash with plenty of soap and water. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor / physician if you feel unwell. IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. Immediately call a POISON CENTER or doctor / physician. Wash contaminated clothing before reuse. Collect spillage.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight.
Disposal	Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

Synonyms: Bleach, Sodium Hypochlorite, Sodium Hypochlorite 10%

Ingredient	CAS Number	Percent (%)	NOTES
Sodium hypochlorite	7681-52-9	10 – 12.49	Substance classified with a health or environmental hazard.
Sodium chloride	7647-14-5	7 - 8	Substance classified with a health or environmental hazard.
Sodium hydroxide	1310-73-2	.1 - 5	Substance classified with a health or environmental hazard. Substance with a workplace exposure limit.

4. First aid measures

General	Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Inhalation	Move victim to fresh air. Call emergency medical care. Apply artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.
Eyes	Irrigate copiously with clean fresh water for at least 10 minutes, holding the eyelids apart. Get medical attention. Remove contact lenses if present and easy to do - continue rinsing.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion	If accidentally swallowed obtain immediate medical attention. Rinse mouth. Keep at rest. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content does not get into lungs.
Most important symptoms and effects, both acute and delayed	
Overview	Corrosive effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Recommended Extinguishing media	Alcohol resistant foam, CO^2, dry chemical powder, water spray. Do not use water jet.
Special hazards arising from the substance or mixture	Hydrogen chloride and chlorine. Chlorine gas rate of decomposition increases with the concentration with temperatures above 85 °F (30 °C). Do not breathe mist / vapors / spray.
Advice for fire-fighters	Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Some are oxidizers and may ignite combustibles (wood, paper, oil, clothing, etc.). Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated. TOXIC; inhalation, ingestion or skin contact with material may cause severe injury or death. Avoid any skin contact. Contact with molten substance may cause severe burns to skin and eyes. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution. **ERG Guide No.** 154

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Local authorities should be contacted if significant spill cannot be contained.
Environmental precautions	Do not allow spills to enter drains or watercourses.
Methods and material for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.

7. Handling and storage

Precautions for safe handling	Wear appropriate personal protective equipment. Do not get in eyes, on skin, on clothing. Chemical attack increases with solution strength. Use with adequate ventilation. Observe good industrial hygiene practices. Do not apply heat or direct sunlight. Temperature and product concentration affect product quality and decomposition rates.
Conditions for safe storage, including any incompatibilities	Handle containers carefully to prevent damage and spillage. Keep container tightly closed. Store in a cool and well-ventilated place. Store in a corrosive resistant container. Consult container manufacturer for additional guidance. Store away from and do not mix with incompatible materials such as acids, ammonia, urea, oxidizers, organics and metals such as nickel, copper, tin, aluminum and iron.

8. Exposure controls and personal protection

Exposure Control parameters

CAS No.	Ingestion	Source	Value
1310-73-2	Sodium hydroxide	OSHA	TWA 2 mg/m3
		ACGIH	Ceiling: 2 mg/m3
		NIOSH	C 2 mg/m3
7647-14-5	Sodium chloride	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
7681-52-9	Sodium hypochlorite.	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit

Individual protection measures, such as personal protective equipment

Respiratory	Use NIOSH/MSHA approved respirator, following manufacturer's recommendations when concentrations exceed permissible exposure limits.
Eyes	Wear face shield with safety glasses with side shields and/or safety goggles.
Skin	Chemical resistant clothing such as coveralls/apron boots should be worn. Chemical Impervious gloves.
Engineering Controls	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn. Eye wash and safety shower must be available when handling this product
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

9. Physical and chemical properties

Appearance	Clear, pale yellow, or greenish Liquid
Odor	Pungent, chlorine odor
Odor threshold	0.9 mg/m^3
pH	12 - 13
Melting point / freezing point	7 °F (-13.9 °C)
Initial boiling point and boiling range	Decomposes above 230 °F (110 °C)
Flash Point	Nonflammable
Evaporation rate (Ether = 1)	Not Established
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** Not Measured **Upper Explosive Limit:** Not Measured
Vapor pressure (mmHg)	17.5 (@ 20 °C)
Vapor Density	Not Established
Specific Gravity	1.20 - 1.40
Solubility in Water	Complete
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature (°C)	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
VOC %	Not Measured
Other information	No other relevant information.

10. Stability and reactivity

Reactivity:	Hazardous Polymerization will not occur.
Chemical stability:	Stable under normal circumstances.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Contact with incompatible materials. Acid contact will produce chlorine gas.
Incompatible materials:	Any acidic material, ammonia, urea, oxidizers, organics and metals such as nickel, copper, tin, aluminum and iron.
Hazardous decomposition products:	No hazardous decomposition products are known.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Sodium hypochlorite (7681-52-9)	5,000.00, Rat - Category: 5	10,000.00, Rabbit - Category: NA	10.50, Rat - Category: 4	No data available	No data available
Sodium chloride (7647-14-5)	1,350.00, Rabbit - Category: 4	100.00, Rat - Category: 2	40.00, Mouse - Category: NA	10,500.00, Rat - Category: NA	No data available
Sodium hydroxide (1310-73-2)	6,600.00, Mouse - Category: NA	1,350.00, Rabbit - Category: 4	600.00, Mouse - Category: NA	No data available	No data available

11. Toxicological information

Acute toxicity (cont.)

Item	Hazard
Acute Toxicity (mouth)	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.
Acute Toxicity (skin)	Harmful in contact with skin.
Acute Toxicity (inhalation)	Vapors and spray mist may irritate throat and respiratory system and cause coughing.
Skin corrosion/irritation	Causes severe skin burns and eye damage
Eye damage/irritation	Causes serious eye damage.
Sensitization (respiratory)	No data available.
Sensitization (skin)	No data available.
Germ toxicity	No data available.
Carcinogenicity	Not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA.
Reproductive Toxicity	No data available.
Specific target organ systemic toxicity (single exposure)	May cause respiratory irritation.
Specific target organ systemic Toxicity (repeated exposure)	Not Applicable.
Aspiration hazard	Not classified; however droplets of product may be aspirated into lungs, through ingestion or vomiting and may cause serious chemical pneumonia.

12. Ecological information

Toxicity: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Sodium hypochlorite (7681-52-9)	0.08, Pimephales promelas	0.032, Daphnia magna	0.40 (72 hr),Dunaliella primolecta
Sodium chloride (7647-14-5)	1,100.00, Freshwater Fish	3,310.00, Daphnia magna	Not Available
Sodium hydroxide (1310-73-2)	196.00, Poecilia reticulata	40.38, Ceriodaphnia dubia	Not Available

Persistence and degradability	There is no data available on the preparation itself.
Bioaccumulative potential	Not Measured
Mobility in soil	No data available.
Results of PBT and vPvB assessment	This product contains no PBT/vPvB chemicals.
Other adverse effects	No other effects are expected.

13. Disposal considerations

Waste treatment methods:	Do not allow into drains or water courses. Wastes and emptied containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act. Using information provided in this data sheet, advice should be obtained from the Waste Regulation Authority, whether the special waste regulations apply.
Waste from material:	The waste determination should be made in discussion between the user and the waste disposal company.
Container Management:	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

UN number:	UN1791
UN proper shipping name:	Hypochlorite solutions
Transport hazard class(es)	
DOT (Domestic Surface Transportation)	
DOT Proper Shipping Name:	Hypochlorite solutions
DOT Hazard Class **DOT Label:**	8 8
UN / NA Number:	UN1791
DOT Packing Group:	III
CERCLA/DOT RQ:	100 lbs.
Environmental hazards:	IMDG Marine Pollutant: Yes (Sodium hypochlorite)
Special precautions for user:	Not Applicable

15. Regulatory information

Regulatory Overview:	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory.	
WHMIS Classification	D2B E	
US EPA Tier II Hazards:	**Fire:**	No
	Sudden Release of Pressure:	No
	Reactive:	No
	Immediate (Acute):	Yes
	Delayed (Chronic):	No
SARA 302 Extremely Hazardous Substance:		No
SARA 311/312 Chemicals and RQs (lbs) (>0.1%) :		100
SARA 313 (TRI)		No
CAA Section 112 Hazardous Air Pollutant		No
CAA Section 112R Risk Management Plan		No
State Regulations:	**N.J. RTK Substances (>1%)**	Listed
	Penn RTK Substances (>1%)	Listed
	California Prop 65	Not Listed

16. Other information:

EPA Registration Number: 813-16

NSF Maximum Use Level (STD 60): Check BOL for facility Data. (46 to 105 mg/L)

Revision Information: 5/4/2017 – Section 3: Revised EPA registration.

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

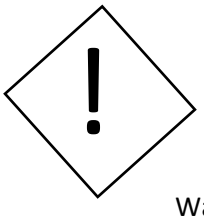
THE USER IS CAUTIONED TO PERFORM HIS OWN HAZARD EVALUATION AND TO RELY ON HIS OWN DETERMINATIONS.

SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier	WSU 50% Citric Acid
Other means of identification	None
Recommended Use	All Proper and Legal Purposes
Recommended restrictions	None Known
Manufacturer Information	
Company Name	Water Solutions Unlimited
Address	8824 Union Mills Drive Camby, IN 46113
Telephone	317-736-6868
Email	orders@getwsu.com
Emergency phone number	800-424-9300 CHEMTREC

2. Hazard(s) Identification

Physical Hazards	Not Classified
Health Hazards	Serious eye damage / eye irritation Category 2
Environmental Hazards	Not Classified
OHSA defined hazards	Not Classified
Label Elements	
Signal Word	Warning
Hazard Statement	Causes serious eye irritation
Precautionary Statement	
Prevention	Wash thoroughly after handling. Wear eye protection/face protection
Response	If in eyes; Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists. Get Medical advice/attention
Storage	Store away from incompatible materials
Disposal	Dispose of waste and residues in accordance with local authority
Hazard(s) not otherwise classified (HNOC)	none known
Supplemental Information	None

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3. Composition/ information on ingredients

Mixtures

Chemical Name	Common Name and synonyms	CAS number	%
1,2,3-PROPANETRICARBOXYLIC ACID, 2-HYDROXY-		77-92-9	50
Other components below reportable levels			

4. First-aid measures

Inhalation	Move to fresh ar. Call a physician if symptoms develop or persist
Skin Contact	Wash off with soap and water. Call a physician if symptoms develop or Persist
Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses. If present and easy to do. Continue rinsing, if eye irritation persists. Get medical advice/attention
Ingestion	Rinse mouth. Call a physician if symptoms develop or Persist
Most important symptoms/ Effects, acute & delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision
Indication of immediate medical medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed
General Information	Ensure that medical personnel are aware of the material(s) involved and they take precautions to protect themselves

5. Fire –fighting measure

Suitable extinguishing media	Water fog. Foam. Dry chemical powder, Carbon dioxide (CO2)
Unsuitable extinguishing media	Don not use water jet as an extinguisher, as this will spread the fire
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed
Special protective equipment	Self-contained breathing apparatus and full protective clothing must be worn in case of fire
And precautions for firefighters	
Firefighting equipment instructions	Move containers from fire area if you can do so without risk
Specific Methods	Use standard firefighting procedures and consider the hazards of other involved materials
General Fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective Equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from an upwind spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of SDS

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Methods and materials for Containment and cleaning up	Large Spills. Stop the flow of material, if this is without risk. Dike the spilled material where this is possible. Cover the plastic sheet to spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water Small Spills. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use/ For waste disposal, see section 13 of SDS.
Environmental precautions	Avoid discharge drains, water courses or onto the ground

7. Handling and storage

Precautions for safe handling	Avoid contact with eyes. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices
Conditions for safe storage, Including any incompatibilities	Store in original lightly closed container. Store away from incompatible materials (see section 10 of SDS).

8. Exposure Controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredients
Biological limit values	No biological exposure limits noted for the ingredient
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles)
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier
Other	Wear suitable protective clothing
Respiratory	In case of insuffiect ventilation, wear suitable respiratory equipment
Thermal Hazards	Wear appropriate thermal protective clothing when necessary
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

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9. Physical and chemical properties

Appearance	
Physical	Liquid
Form	Liquid
Color	CLEAR COLORLESS
Odor	NONE
Odor threshold	Not available
pH	
Melting point / freezing point	15 ^{o}F (-9.44 ^{O}C)
Initial boiling point and range	212 ^{O}F (100^{O}C) estimated
Flash point	Not available
Evaporation rate	Not available
Upper / lower flammability or explosive limits	
Flammability limit-lower (%)	Not available
Flammability limit-upper (%)	Not available
Explosive limit-lower (%)	Not available
Explosive limit-upper (%)	Not available
Vapor Pressure	Not available
Vapor Density	Not available
Relative Density	Not available
Solubility(ies)	
Solubility (water)	Not available
Partition coefficient	Not available
(in octanol/water)	
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Other information	
Density	10.42 lbs. /gal
Explosive properties	Not explosive
Oxidizing properties	Not oxidizing
Percent volatile	50%
Specific gravity	1.25

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport
Chemical stability	Material is stable under normal conditions
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use Page 4/7

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Conditions to avoid	Contact with incompatible materials
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known

11. Toxicological Information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected
Skin Contact	No adverse effects due to skin contact are expected
Eye Contact	Causes serious eye irritation
Ingestion	Expected to be a low ingestion hazard
Symptoms related to the physical, chemical and toxicological characteristics	Sever eye irritation. Symptoms may include stinging, tearing, redness, swelling and blurred vision
Information of toxicological effects	
Acute toxicity	Not available
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation
Serious eye damage/ eye irritation	Causes serious eye irritation
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer
Skin sensitization	This product is not expected to cause skin sensitization
Germ cell mutagenicity	No data available to indicate product or any components present greater than 0.1% are mutagenic or genotoxic
Carcinogenicity	This product is not considered to be a carcinogen by IARC,ACGIH, NYP, or OSHA
IARC Monographs –	
Overall Evaluation of Carcinogenicty	Not available
OSHA Specifically Regulated Substances (29 CFR 1910, 1001-1050)	Not listed
US National Toxicology Program (NTP) Report on Carcinogens	Not available
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects
Specific target organ toxicity – Single exposure	Not classified
Specific target organ toxicity – Repeated exposure	Not classified
Aspiration hazard	Not an aspiration hazard

12. Toxicological Information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have harmful or damaging effect on the environment

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Persistence and degradability	No data is available on the degradability of this product
Bio accumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creations potential, endocrine disruption, global warming potential (are expected from this product.

13. Disposal Considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local Disposal Regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues/unused products	Dispose of in accordance with local authorities. Empty containers or liners may Retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal

14. Transport Information

DOT	Not regulated as dangerous goods DOT information on packaging may be different from that listed

15. Regulatory Information

US federal regulations	This product is a “Hazardous chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910 1200	
TSCA section 12(b) Export Notification (40 CFR 707, Subpt. D)		Not regulated
CERCLA Hazardous Substance List (40 CFR 302.4)		Not listed
SARA 304 Emergency release notification		Not regulated
OSHA Specifically Regulated Substance (29 CFR 1910, 1001-1050)		Not listed
Superfund Amendments and Reauthorization Act of 1986 (SARA)		
Hazard Categories	Immediate Hazard	Yes
	Delayed Hazard	No
	Fire Hazard	No
	Pressure Hazard	No
	Reactivity Hazard	No
SARA 302 Extremely hazardous substance		Not listed
SARA 311/312 Hazardous		Yes – Chemical
SARA 313 (TRI Reporting)		Not regulated

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16. Other information, including date of preparation or last revision

Issue Date	**02-15-2018**	
Version #	**1**	
HMSI ratings	**Health:**	**2**
	Flammability	**0**
	Physical Hazard	**0**
NFPA ratings	**Health:**	**2**
	Flammability:	**0**
	Instability:	**0**

Disclaimer

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SAFETY DATA SHEET

1. Identification

Product identifier **Citric Acid 50%**

Other means of identification None.

Recommended use Not available.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Thatcher Company, Inc.

Address 1905 Fortune Road
Salt Lake City, UT 84104
United States

Telephone General Assistance 8-5 (801) 972-4587

E-mail Not available.

Emergency phone number Chemtrec (CCN 22106) (800) 424-9300

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Serious eye damage/eye irritation Category 2

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Warning

Hazard statement Causes serious eye irritation.

Precautionary statement

Prevention Wash thoroughly after handling. Wear eye/face protection.

Response If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage Not available.

Disposal Not available.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Citric acid		77-92-9	50
Other components below reportable levels			50

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Not applicable.
Special protective equipment and precautions for firefighters	Wear suitable protective equipment.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Provide adequate ventilation. Avoid contact with eyes. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection	Not normally needed.
Skin protection	
Hand protection	For prolonged or repeated skin contact use suitable protective gloves.
Other	Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Colorless to slightly yellow liquid
Physical state	Liquid.
Form	Liquid.
Color	Colorless or nearly colorless
Odor	Slight.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	10.34 lb/gal estimated at 20 °C
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	None known.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Health injuries are not known or expected under normal use.
Skin contact	Health injuries are not known or expected under normal use.

Eye contact	Causes serious eye irritation.
Ingestion	Health injuries are not known or expected under normal use.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity

Product	Species	Test Results
Citric acid		
Acute		
Oral		
LD50	Mouse	5040 mg/kg
	Rat	6730 mg/kg

Components	Species	Test Results
Citric acid (CAS 77-92-9)		
Acute		
Oral		
LD50	Mouse	5040 mg/kg
	Rat	6730 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Health injuries are not known or expected under normal use.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

15. Regulatory information

US federal regulations

All components are on the U.S. EPA TSCA Inventory List.
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical	No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)	Not regulated.
Food and Drug Administration (FDA)	Total food additive Direct food additive GRAS food additive

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Not regulated.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 11-08-2017

Revision date 08-17-2020

Version # 08

NFPA ratings Health: 2
Flammability: 0
Instability: 0

NFPA ratings



Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Thatcher Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision Information Product and Company Identification: Product Codes

Safety Data Sheet
SULFURIC ACID 66 DEG

Version 1.3 Revision Date: 10/26/2021

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SULFURIC ACID 66 DEG

Manufacturer or supplier's details

Company : Univar Solutions USA, Inc.

Address
3075 Highland Pkwy Suite 200
Downers Grove, IL 60515
United States of America (USA)

Emergency telephone number:
Transport North America: CHEMTREC (1-800-424-9300)
CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: : Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin corrosion : Category 1A

Serious eye damage : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P363 Wash contaminated clothing before reuse.

Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical name	Weight percent
7664-93-9	Sulfuric acid	90 - 100

Any Concentration shown as a range is due to batch variation.

Molecular formula : H2-O4-S

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Dry chemical Carbon dioxide (CO2)
Unsuitable extinguishing media	:	High volume water jet Water
Specific hazards during fire-fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	sulfur oxides
Specific extinguishing methods	:	Use a water spray to cool fully closed containers.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Advice on safe handling	:	Do not breathe vapours/dust. Avoid contact with skin and eyes.

For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Do not store near acids.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
7664-93-9	Sulfuric acid	TWA (Thoracic fraction)	0.2 mg/m3	ACGIH
		TWA	1 mg/m3	NIOSH REL
		TWA	1 mg/m3	OSHA Z-1
		TWA	1 mg/m3	OSHA P0

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	Clear, Colorless, amber
Odour	:	pungent
Odour Threshold	:	No data available
pH	:	0.3 @ 25 °C (77 °F)
Freezing Point (Melting point/range)	:	-31 - 10.56 °C (-24 - 51.01 °F)
Boiling Point (Boiling point/boiling range)	:	217 - 330 °C (423 - 626 °F)
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	< 0.3 mmHg @ 25 °C (77 °F)
Relative vapour density	:	3.4 @ 20 °C (68 °F) (Air = 1.0)
Relative density	:	1.8347 - 1.8437 @ 25 °C (77 °F) Reference substance: (water = 1)
Density	:	Estimated 1.837 g/cm3 @ 20 °C (68 °F) 15.3 - 15.4 lb/gal @ 25 °C (77 °F)
Solubility(ies) Water solubility	:	completely miscible
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Thermal decomposition	:	340 °C

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Acid reacts with most metals to release hydrogen gas which can form explosive mixtures with air. Reacts with organic materials and may cause ignition of finely divided materials on contact.
Conditions to avoid	:	Avoid contact with combustible material (paper, wool, oil).
Incompatible materials	:	Alkalis Metals carbide chlorates fuminates nitrates Organic materials Strong oxidizing agents strong reducing agents water Sulphur compounds
Hazardous decomposition products	:	corrosive vapors Sulphur oxides toxic fumes

SECTION 11. TOXICOLOGICAL INFORMATION

Skin corrosion/irritation

Product:

Remarks: Extremely corrosive and destructive to tissue.

Components:

7664-93-9:
Species: Rabbit
Result: Causes severe burns.

Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.

Components:

7664-93-9:

Species: Rabbit
Result: Risk of serious damage to eyes.

Germ cell mutagenicity

Components:

7664-93-9:

Genotoxicity in vitro	:	Test Type: Ames test Species: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: negative

Carcinogenicity

IARC	Group 1: Carcinogenic to humans	
	7664-93-9	Sulfuric acid
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.	
NTP	Known to be human carcinogen	
	7664-93-9	Sulfuric acid

STOT - single exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):
UN1830, SULFURIC ACID, 8, II

IATA (International Air Transport Association):
UN1830, SULPHURIC ACID, 8, II

IMDG (International Maritime Dangerous Goods):
UN1830, SULPHURIC ACID, 8, II

SECTION 15. REGULATORY INFORMATION

WHMIS Classification	:	D2A: Very Toxic Material Causing Other Toxic Effects D2B: Toxic Material Causing Other Toxic Effects E: Corrosive Material

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ

		(lbs)	(lbs)
Sulfuric acid	7664-93-9	1000	1000

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulfuric acid	7664-93-9	1000	1000

SARA 311/312 Hazards : Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

7664-93-9 Sulfuric acid

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

7664-93-9 Sulfuric acid

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

7664-93-9 Sulfuric acid

Pennsylvania Right To Know

7664-93-9 Sulfuric acid

7732-18-5 Water

California Prop 65

⚠ **WARNING**: This product can expose you to chemicals including Sulfuric acid, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

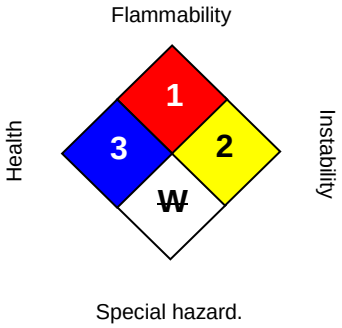
DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

NZIoC	:	Not in compliance with the inventory
ENCS	:	On the inventory, or in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory

SECTION16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	1
PHYSICAL HAZARD	2

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 =Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 10/26/2021

Material number:
16165619, 16125912, 16120122, 16103521, 16038250, 670073, 669827, 20260

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substanc-	NIOSH	National Institute for Occupational

	es List		Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

Safety Data Sheet
SODIUM THIOSULFATE PENTAHYDRATE SOLID

Version 1.0 Revision Date: 10/12/2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SODIUM THIOSULFATE PENTAHYDRATE SOLID

Manufacturer or supplier's details

Company : Univar Solutions USA, Inc.

Address 3075 Highland Pkwy Suite 200
Downers Grove, IL 60515
United States of America (USA)

Emergency telephone number:
Transport North America: CHEMTREC (1-800-424-9300)
CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: : Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

No hazardous ingredients

SECTION 4. FIRST AID MEASURES

General advice : Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of eye contact : Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

SECTION 5. FIREFIGHTING MEASURES

Hazardous combustion prod- : No hazardous combustion products are known

ucts

Further information	:	Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Avoid dust formation.
Methods and materials for containment and cleaning up	:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Provide appropriate exhaust ventilation at places where dust is formed.
Advice on safe handling	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
Conditions for safe storage	:	Electrical installations / working materials must comply with the technological safety standards.
Materials to avoid	:	No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection	:	No personal respiratory protective equipment normally required. No personal respiratory protective equipment normally required.
Eye protection	:	Safety glasses
Skin and body protection	:	Protective suit
Hygiene measures	:	General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	solid
Colour	:	No data available
Odour	:	No data available

Odour Threshold	:	No data available
pH	:	No data available
Freezing Point ()	:	48 °C (118 °F)
Boiling Point	:	No data available
Flash point	:	Not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	No data available
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Thermal decomposition	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	:	Exposure to air. Exposure to moisture
Incompatible materials	:	Lead mercury or mercury alloys silver salts sodium nitrate Strong oxidizing agents

SECTION 11. TOXICOLOGICAL INFORMATION

Carcinogenicity

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information	:	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-909-4897
Contaminated packaging	:	Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation): Not regulated as a dangerous good

UNRTDG
Not regulated as a dangerous good

IATA (International Air Transport Association): Not regulated as a dangerous good

IMDG-Code: Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	:	No SARA Hazards
SARA 302	:	This material does not contain any components with a section 302 EHS TPQ.
SARA 313	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

10102-17-7	Sodium thiosulfate, pentahydrate	

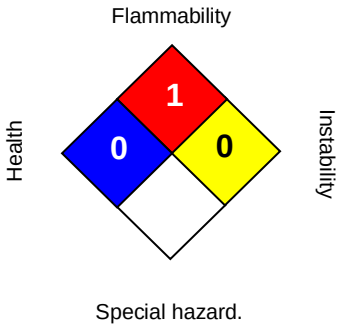
California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA	:	On TSCA Inventory
DSL	:	All components of this product are on the Canadian DSL
AICS	:	On the inventory, or in compliance with the inventory
NZIoC	:	On the inventory, or in compliance with the inventory
ENCS	:	On the inventory, or in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory

SECTION16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	0/
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 =Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 10/12/2019

Material number:
16140164,

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

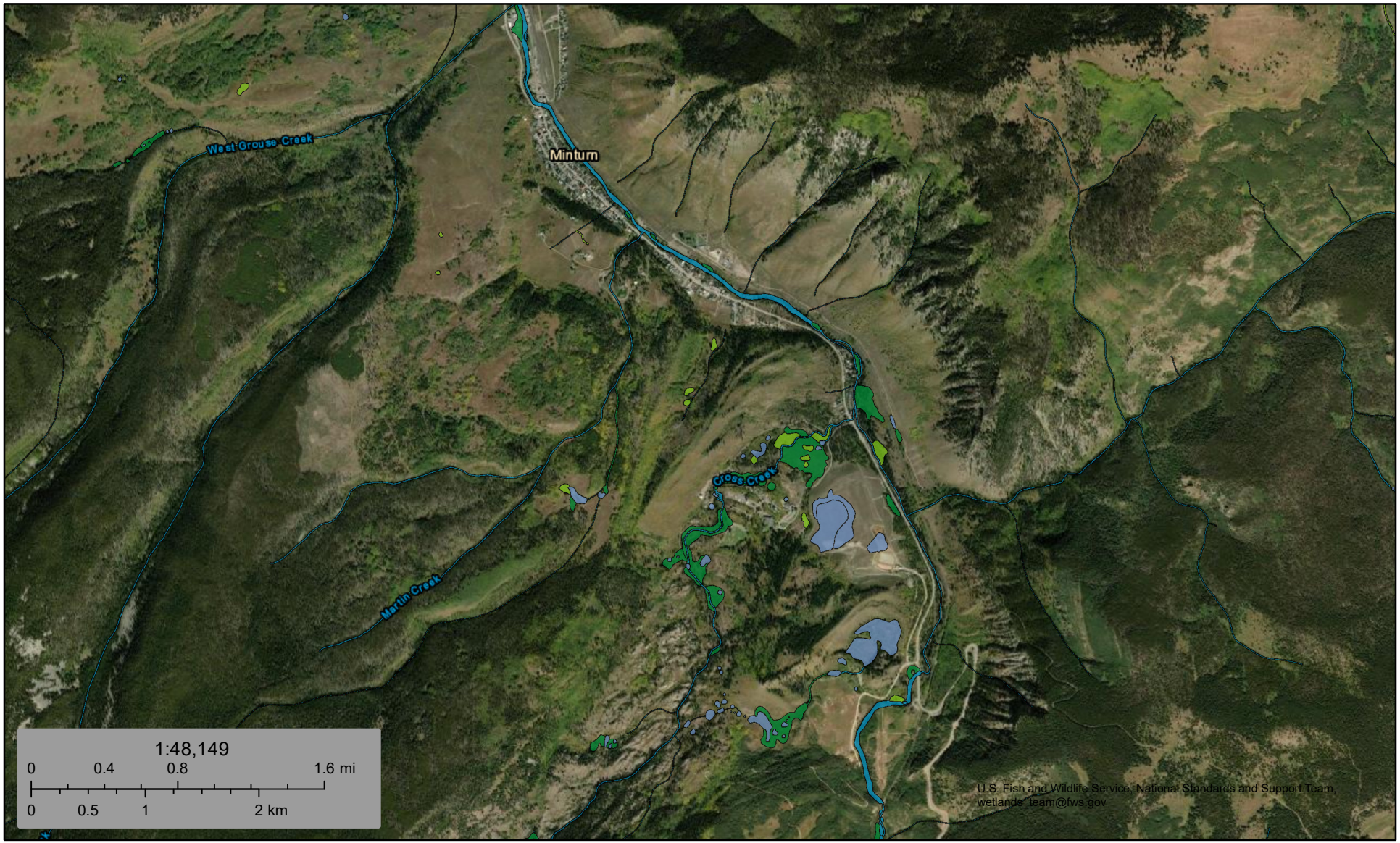


NOTES:

Swiftwater Solutions Small Systems Engineering & Operations	**PRE-QUALIFICATION APPLICATION** **Town of Minturn**	DESIGNED BY: DRAWN BY: PDY REVIEWED BY: DATE: 3/10/2022 JOB NO.: 1025	**FIGURE 1** **3-MILE VICINITY MAP**

U.S. Fish and Wildlife Service
National Wetlands Inventory

Town of Minturn Wetlands PNA Map



December 23, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

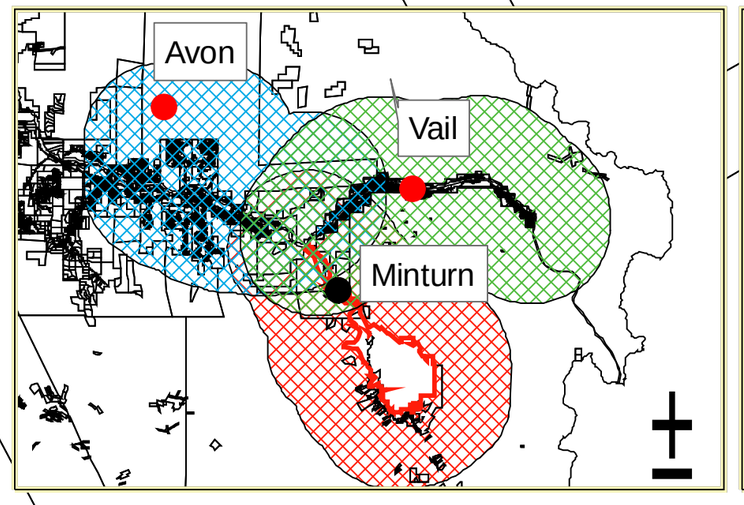
National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

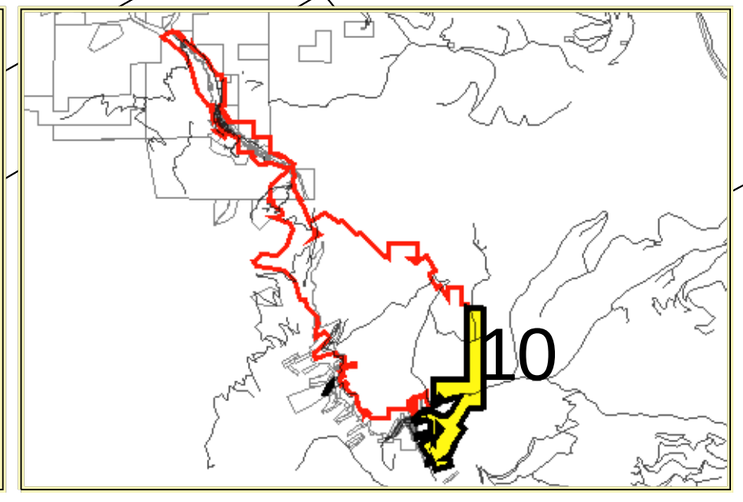
Town of Minturn 3 Mile Plan Areas
Exhibit A

1 - Palmateer Property
2 - Burnett Property
3 - King Ranch / West Minturn
4 - Two Elk Area
5 - Maloit Park Area
6 - County Road P-14
7 - North "Bone Yard"
8 - Pierson Property
9 - Eagle Vail
10 - Future 1,100 acre Ginn Annexation

Existing Town Boundary

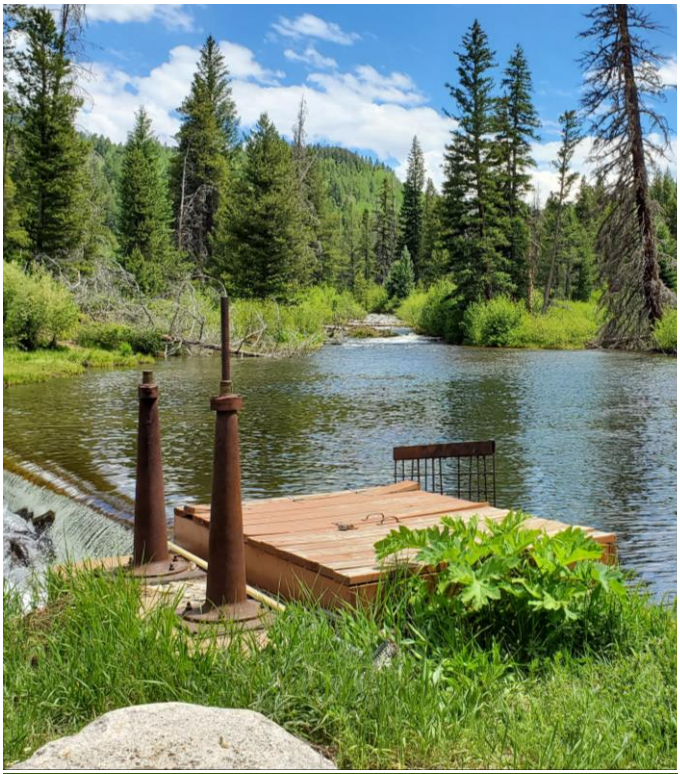
3 Mile Plan Area





0 0.25 0.5 1 1.5 2 Miles

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Treatment Process Alternatives Analysis

Minturn Water Treatment Plant

FINAL

Minturn, CO

August 1, 2023

Table of Contents

Executive Summary 5
1 Introduction & Background 7
1.1 Existing Treatment 8
1.2 Projected Water Demands 8
1.3 Justification for Upgrading Treatment 9
1.3.1 Sanitary Survey 9
1.3.2 Future Regulations 9
1.4 Disinfection Considerations for each Alternative 10
1.5 Source Water Management 10
1.6 Residuals Handling 11
2 Decision Tool and Criteria Development 14
2.1 Decision Tool Background 14
2.2 Criterion 1: Resiliency 15
2.3 Criterion 2: Operations & Maintenance 15
2.4 Criterion 3: Long-Term Reliability 15
2.5 Criterion 4: Process Modifiability 15
2.6 Criterion 5: Capacity Flexibility 15
2.7 Weighting Criteria Results 16
3 Alternative A: Rehabilitation of Existing Slow Sand Filters 17
3.1 Resiliency 19
3.2 Operations & Maintenance 21
3.3 Long-Term Reliability 21
3.4 Process Modifiability 22
3.5 Capacity Flexibility 22
4 Alternative B: Packaged Conventional Treatment Plant 24
4.1 Resiliency 25
4.2 Operations & Maintenance 26
4.3 Long-Term Reliability 27
4.4 Process Modifiability 28
4.5 Capacity Flexibility 28
5 Alternative C: Membrane Water Treatment Plant 29
5.1 Resiliency 30

5.2 Operations & Maintenance 31
5.3 Long-Term Reliability 32
5.4 Process Modifiability 32
5.5 Capacity Flexibility 32
6 Cost Analysis of Alternatives 33
7 Comparison of Alternatives 34
7.1 Alternative Qualitative Scores 34
8 Expansion of Existing Groundwater Supply 34
9 Recommendations & Conclusions 37
Appendix A – Detailed Cost Estimates 38

Figures

Figure 1. Diagrammatic Overview of Proposed WTP 7
Figure 2. Process Flow Diagram - Existing Treatment Process 8
Figure 3. Process Flow Diagram - Alternative A: Rehabilitate Slow Sand Filters 18
Figure 4. Minturn's Existing Slow Sand Filter (Filter 3) 19
Figure 5. Process Flow Diagram - Alternative B: Packaged Conventional Treatment 24
Figure 6. Example Packaged Treatment Units. Breckenridge, CO. 25
Figure 7. Example Coagulant Feed System 27
Figure 8. Pressure Filter Tanks for Adsorptive Inorganics Removal 28
Figure 9. Process Flow Diagram - Alternative C: Membrane Filtration 29
Figure 10. Typical MF/UF Membrane Skids. Bend, OR 30
Figure 11. Example of Fountain Aeration of Iron 32
Figure 12. Proximity of Wells #3 and #4 to Cross Creek 36

Tables

Table 1. Town of Minturn Existing and Projected Water Demands 9
Table 2. Raw Water Quality from Cross Creek Water 12
Table 3. Raw Water Quality and Treatment Goals for Eagle River Water 13
Table 4. Decision Making Criteria Rank and Weight 16
Table 5. Temperature Based Design Loading Rates for Rehabilitated Slow Sand Filters 1 & 2 18
Table 6. Slow Sand Filtration Disinfection Requirements 20
Table 7. Conventional Treatment Process Disinfection Requirements 26
Table 8. Membrane Filtration Disinfection Requirements 30
Table 9. Opinion of Probable Construction Cost Summary (AACE Class 4) 34
Table 10: Alternative Qualitative Scores 34
Table 11. CDPHE Groundwater Quality Performance Testing Requirements 36

Executive Summary

The Town of Minturn is evaluating the best path forward for improving the reliability of water production as their existing water treatment plant (WTP) is nearing the end of its serviceable life. A new WTP is proposed to replace the existing one which uses slow sand filtration to treat the surface water. Several alternative treatment process technologies are being considered by Minturn for the new WTP. The treatment technology alternatives under consideration are:

- Alternative A: Rehabilitation of existing slow sand direct filtration WTP
- Alternative B: Construction of new WTP using packaged conventional treatment units with dual-media filters
- Alternative C: Construction of a new WTP with membrane filtration with consideration for expansion and future preliminary treatment

The project team first went through a qualitative exercise to determine the top priorities for Minturn in the selection of the new treatment technology. The following criteria and their relative importance were developed jointly by HDR and the Minturn Water Committee during a workshop on January 12th, 2023. The criteria below are listed in the order of importance to Minturn.

1. Resiliency 35%
2. Operations & Maintenance 26%
3. Long Term Reliability 22%
4. Process Modifiability 13%
5. Capacity Flexibility 3%

Each of the three proposed alternatives were evaluated against the established quantitative criteria, independent of the other alternatives, on a scale of Very Low, Low, Moderate, Strong, and Very Strong. The following table presents how the project team ranked each alternative against each of the criteria . These rankings, in combination with the weighting of each criterion, was used to tabulate a “final score” for each alternative, shown in the last row of the same table. The final score provides a qualitative ranking of the alternatives to showcase which treatment technology best meets the priorities of Minturn.

Criteria	Alternative A: Slow Sand Filtration	Alternative B: Packaged WTP	Alternative C: Membrane WTP
Resiliency (35%)	Moderate	Strong	Very Strong
Operations & Maintenance (26%)	Strong	Moderate	Moderate
Long Term Reliability (23%)	Strong	Strong	Strong
Process Modifiability (13%)	Very Low	Strong	Very Strong
Capacity Flexibility (3%)	Low	Moderate	Very Strong
FINAL SCORE	**56**	**64**	**75**

HDR developed cost estimates for each alternative using parametric estimating tools and vendor proposals for this project. HDR prepared Class 4 Opinions of Probably Construction Costs (OPCCs) as described by the American Association of Cost Estimating (AACE), shown in the table below.

Alternative	Low Capital Cost (-15%)	High Capital Cost (+30%)	Annual O&M
A - Rehabilitation of Existing Slow Sand Filters	$5.8M	$8.9M	$120K
B - Packaged Conventional Water Treatment Plant	$10.5M	$16.7M	$200K
C - Membrane Water Treatment Plant	$9.8M	$14.9M	$150K

Based on the results of this alternative analysis, it is recommended that Minturn move forward with construction of a new membrane filtration plant. Membrae filtration provides the highest qualitative score and is thus recognized to best address the priorities Minturn has for a providing a resilient and reliable treatment system. While rehabilitation of the slow sand filters ultimately had the anticipated lowest cost of the alternatives, the drawbacks of continuing to rely on an aging technology and cutting off the option for the addition of Eagle River water in the future far outweigh the cost savings associated with the option. Membrane filtration allows Minturn to address the needs of its existing customers, while leaving open the option for future water rights.

1 Introduction & Background

The Town of Minturn (Minturn) is evaluating the best path forward for improving the reliability of water production as their existing water treatment plant (WTP) is nearing the end of its serviceable life. A new WTP is proposed to replace the existing one which uses slow sand filtration to treat the surface water. Several alternative treatment process technologies are being considered by Minturn for the new WTP. Three WTP process alternatives are proposed for evaluation against subjective criteria developed by the project team. Life cycle cost estimates for each alternative are provided separate from the qualitative evaluations so that Minturn can make a value-based decision on the best path forward. The alternatives being evaluated are:

- Alternative A: Rehabilitation of existing slow sand direct filtration WTP
- Alternative B: Construction of new WTP using packaged conventional treatment units with dual-media filters
- Alternative C: Construction of a new WTP with membrane filtration with consideration for future preliminary treatment

The evaluation will consider each alternatives' ability to meet or exceed established criteria. The project consists of a new 0.6 mgd capacity water treatment plant using water from Cross Creek, Minturn's only existing surface water source. Minturn also operates two groundwater wells which can provide up to 80 gpm each as supplemental water to the existing WTP's clearwell. The proposed infrastructure is depicted diagrammatically in Figure 1.

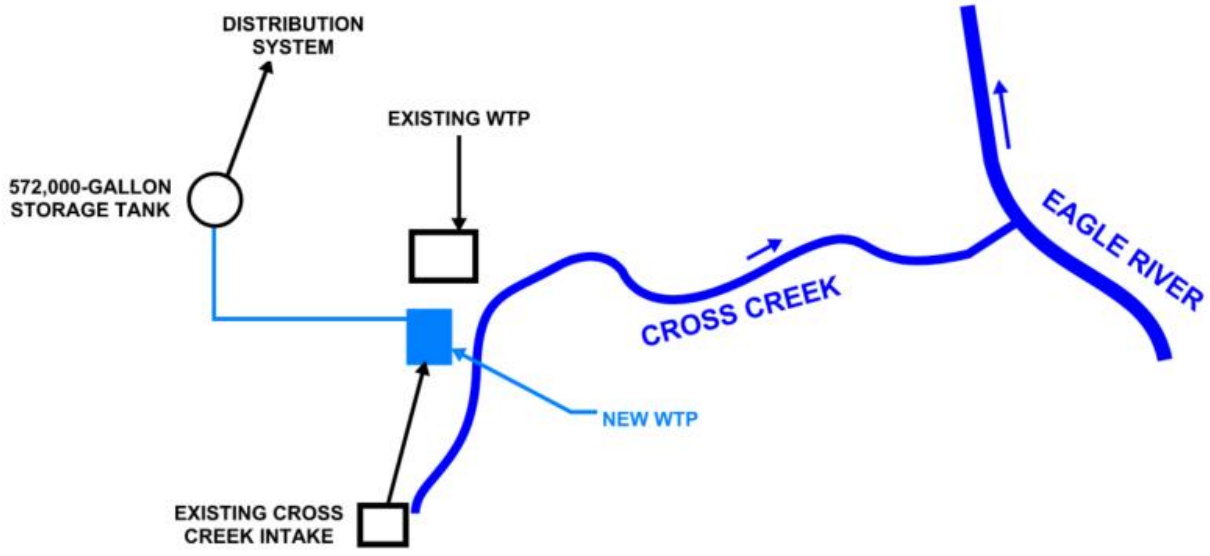


Figure 1. Diagrammatic Overview of Proposed WTP

1.1 Existing Treatment

Minturn presently operates a direct filtration WTP consisting of three slow sand filters. Filter 1 and Filter 2 are earthen pits constructed in 1963. Filter 1 is no longer in service, and Filter 2 feeds a 1.0-micron cartridge filter (Harmsco PPFS-HC-170-1) capable of producing 50 gpm of treated water. Filter 3 is a concrete lined filter constructed in 1991, capable of producing 60 gpm. A process flow diagram of the existing process is presented in Figure 2. Water treated through Filter #3 and the cartridge filter comes from a surface water diversion on Cross Creek. The water is blended together in the WTP clearwell, where chlorine is applied for disinfection, and then pumped to the Minturn distribution system.

During spring runoff, turbidity increases in Cross Creek and Filter 3 struggles to maintain turbidity compliance at the higher solids loading. Filter 3 is subsequently taken offline during spring runoff for filter skimming, where the fouled layer of sand and particles is removed and washed, a process that takes approximately 2-3 months. Filter 3 is brought back online when turbidity has declined, and the filters are clean. While Filter 3 is skimmed, groundwater is used to as the source of supply to Minturn. Groundwater wells #3 and #4 can produce up to 80 gpm each (approx. 0.25 mgd in total) to the existing clearwell where they are combined with the filtrate from the slow sand filters.

Minturn recently completed construction of a new 572,000-gallon unbaffled concrete storage tank. Minturn intends to use the tank to supply water pressure to the distribution system.

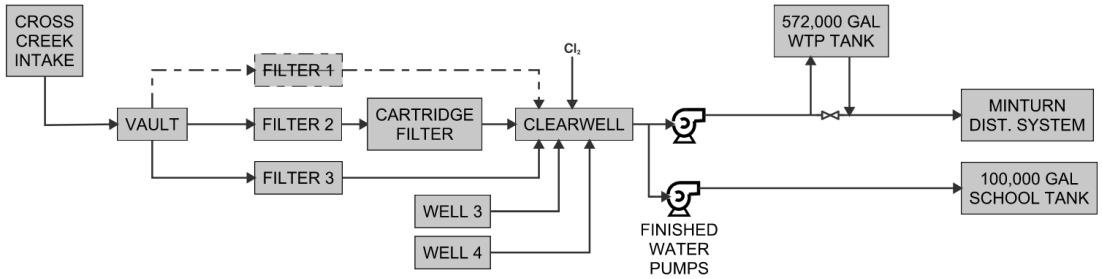


Figure 2. Process Flow Diagram - Existing Treatment Process

The existing infrastructure which may be able to be reused by a new facility would include Filters 1 and/or 2, Filter 3, miscellaneous yard piping, and the 572,000-gallon storage tank.

1.2 Projected Water Demands

Minturn's 2019 Water System Capital Improvement Plan includes a water demand analysis conducted to understand current and projected water demands for Minturn. Table 1 presents a summary of the demand analysis. The results show that the largest demand occurs during the warmer months and is expected to be 0.6 mgd. The demand drops significantly in the wintertime with less outdoor irrigation use. The new WTP flow rate will be 0.6 mgd to meet the existing demands of Minturn. To supplement the WTP, Minturn operates two storage tanks within their distribution system which provide a cumulative approximate 1.2 million gallons (Tank #3 = 572,000 gal, Tank #2 = 588,000 gal).

Table 1. Town of Minturn Existing and Projected Water Demands

Town of Minturn System Demand	Colder Months	Warmer Months
Existing Water Demand (mgd)	**0.1**	**0.4**
Projected Water Demand (mgd)[1]	**0.2**	**0.6**

1.3 Justification for Upgrading Treatment

1.3.1 Sanitary Survey

The Colorado Department of Health and Environment (CDPHE) Water Quality Control Division conducted a sanitary survey of the existing WTP in September of 2018 and observed two significant deficiencies, six violations, and four recommendations/observations. In an October 11, 2018, letter, CDPHE documented several items related to the mechanical process condition of the WTP:

- No liner present in Filters 1 and 2, requiring they be removed from service and significantly decreasing Minturn's production capacity
- Well #3 inadequate source protection; opening on side of casing
- Existing clearwell (bolted steel tank) near end of useful life and experiencing leaks

Minturn is limited in their ability to produce water under their most constrained scenario due to the removal of two slow sand filters from service. Development in Minturn is limited, and existing customers are subject to water restrictions due to the condition of the WTP.

1.3.2 Future Regulations

Minturn is proactive in their endeavors to continue to provide high quality drinking water now and in the future. Although future regulations are difficult to characterize exactly, past trends can be used to estimate what regulations Minturn may be faced with long term.

Near term future regulatory efforts are presently focused on the Lead and Copper Rule Improvements (LCRI) and Per/Polyfluoroalkyl substances (PFAS). The LCRI will address additional key issues and opportunities to reduce risk associated with lead and copper in drinking water. Although lead and copper primarily come from premise plumbing, utilities (i.e. Minturn) will handle addressing corrosion control within their distribution system. PFAS are omnipresent in the environment, and in 2021 the Environmental Protection Agency (USEPA) published their Strategic Roadmap (2021-2024). The roadmap focuses on policy, funding, rules to implement greater investment in PFAS R&D, prevention of PFAS release from point sources, and remediation of contamination. In the near term, monitoring for PFAS may be the impact to Minturn. In addition, the USEPA is evaluating the Stage 2 Disinfection Byproducts Rule to understand the presence of current and unregulated disinfection contaminants. There exists the potential for tightening of current Maximum Contaminant Limits (MCLs) that could impact Minturn's disinfection strategy in the future.

Cross Creek is the only surface water source for the new WTP. There are sufficient water rights on Cross Creek to serve the needs of Minturn and imminent planned infill development. Table 2

presents raw water quality and finished water treatment goals for the Cross Creek source water. The overall raw water quality of Cross Creek is generally good and suitable for all treatment processes being considered. Total Organic Carbon (TOC) has historically trended high in Cross Creek during spring and summer based on available data. TOC causes non-regulated aesthetic issues such as color, taste, and potential odor in water at a minimum. Whereas TOC regulated issues are related to both turbidity and disinfection byproducts. Removal of TOC through flocculation and settled is recommended to prevent formation of disinfection byproducts (regulated through distribution system monitoring).

1.4 Disinfection Considerations for each Alternative

The USEPA's Surface Water Treatment Rule (SWTR) requires surface waters be treated and disinfected to a level which provides 3-log (or 99.9%) removal of giardia and 4-log (or 99.99%) removal of viruses. To reduce dependence on and complications associated with over chlorination, the SWTR allows for well operated treatment processes to provide credit toward the total disinfection requirements. The level of disinfection credit each alternative process (sand filters, packaged conventional treatment, or membranes) provides is presented in the specific sections of this evaluation.

Disinfection credit obtained from the treatment process (e.g. filtration) is not enough to wholly satisfy the required removal of giardia and viruses, so chlorine is typically used to achieve the remaining disinfection requirements. Disinfection with chlorine is validated by the product of chlorine residual concentration and the time which the chlorine was in contact with the water (e.g. contact time). This is referred to as $CT_{required}$. Required CT values are published by USEPA and are a function of water temperature, water pH, chlorine residual concentration, and the level of log-removal required.

Minturn must provide adequate chlorine residual and contact time ($CT_{achieved}$) to validate their disinfection with chlorine (e.g. $CT_{achieved} > CT_{required}$). Each of the proposed process alternatives (sand filters, packaged conventional treatment, or membranes) are being evaluated on the condition that the new 572,000-gallon storage tank will be used as the primary disinfection volume. Modifications to the storage tank are required for the tank to be used for disinfection purposes. Currently, the inlet and outlet of the tank are too close in proximity, which results in a baffling factor of 0 per CDPHE design criteria. The addition of a run of pipe to either the inlet or outlet that extends to the opposite side of the tank would increase the distance between the two and allow the tank to be used for disinfection with a baffling factor of 0.1.

While the value of $CT_{achieved}$ is a factor of both chlorine concentration and contact time, raising the chlorine concentration increases the risk of forming disinfection byproducts (DBPs) which can be harmful to human health with frequent exposure. For this reason, increasing contact time is the preferred method of achieving an adequate CT value.

1.5 Source Water Management

Table 2 shows that Cross Creek experiences levels of total organic carbon (TOC) that are high enough to impact process recommendations. Organic carbon originates from plants, soil, and other organic matter present in the watershed. High TOC occurs in the spring and summer months

when water warms, and biological activity is highest. Water quality sampling conducted in 2023 demonstrated the TOC increased to as high as 12 mg/L during the month of April associated with spring runoff conditions. While having no health effects of its own, TOC functions as an indicator for the potential formation of DBPs such as Total Haloacetic Acids (HAA5) and Total Trihalomethanes (TTHM). In the Town of Minturn 2022 Water Quality Report, Minturn reported HAA5 samples as high as 77.1 ppb, above the MCL of 60 ppb. It is assumed these elevated HAA5 results are due to TOC spikes that occur during spring runoff when the turbidity also spikes, and that Minturn supplements with well water during these times to avoid treatment concerns. Further discussion with Minturn around the extent of any DBP exceedances is necessary to understand the nature of the DBP formation, and whether it is a one off or recurring issue.

Because of this, it is pertinent for TOC to be removed from the water, either through treatment or source water management. Different methods of removing TOC through treatment are discussed in subsequent sections. The removal of sediment and debris from the water, prior to filtration and disinfection, may lead to TOC and HAA5 levels dropping into a more manageable range.In terms of source water management, periodic dredging of Cross Creek at the intake is a potential method for improving raw water quality prior to treatment. Permitting from the US Army Corps of Engineers of other entity may be required to perform dredging.

1.6 Residuals Handling

Alternatives B and C will produce process residuals such as settled sludge and waste streams from backwashing and membrane clean-in-place (CIP) processes. The plan for both alternatives would be to convert the existing outdoor filters (Filters 1 and 2) into detention ponds to hold these residuals. The backwash/CIP waste would be neutralized before being recycled back to the front of the process a rate of < 5% to avoid overloading with TOC. Sludge would accumulate in the bottom of the ponds before being dredged and trucked away for disposal on an annual basis. Having two ponds available provides redundancy and would allow for at least one pond to be receiving residuals at all times. The footprint of the existing filters are large enough to provide an adequate amount of storage time for the plant's residuals. Residuals production from Alternative A include waste sand skimmed from the filters and is typically hauled for disposal by Minturn.

Table 2. Raw Water Quality from Cross Creek Water

Parameter	Number of Samples	Concentration (mg/L)	MCL	SMCL	Treatment Required / Treatment Goal	Comments
Arsenic	10	ND	0.01	N/A	No	Non-detect
Barium	8	MIN: 0.0059 AVG: 0.0091 MAX: 0.0112 90th: 0.0111	2	N/A	No	Sample data 90th percentile is <5% of the MCL/SMCL
Beryllium	9	ND	0.004	N/A	No	Non-detect
Cadmium	10	ND	0.005	N/A	No	Non-detect
Chromium	8	ND	0.1	N/A	No	Non-detect
Copper	8	MIN: 0.0015 AVG: 0.0030 MAX: 0.0048 90th: 0.0047	1.3	1.0	No	Sample data 90th percentile is <5% of the MCL/SMCL. Minturn will employ Caustic feed as CCT
Fluoride	8	ND	4.0	2.0	No	Minturn does not currently, nor has plans for, fluoridation
Lead	8	MIN: 0.0000 AVG: 0.0000 MAX: 0.0002 90th: 0.0001	0.015	N/A	No	Minturn will employ Caustic feed as CCT
Nitrate	13	MIN: 0.00 AVG: 0.13 MAX: 0.25 90th: 0.24	10	N/A	No	Sample data 90th percentile is <5% of the MCL/SMCL
Nitrite	8	ND	1	N/A	No	Non-detect.
Selenium	8	MIN: 0.0000 AVG: 0.0001 MAX: 0.0011 90th: 0.0003	0.05	N/A	No	Sample data 90th percentile is <5% of the MCL/SMCL
Aluminum	12	MIN: 0.012 AVG: 0.068 MAX: 0.253 90th: 0.161	N/A	0.05 - 0.2	No	Sample data 90th percentile is within the SMCL range.
Chloride	13	MIN: 0.00 AVG: 0.43 MAX: 1.53 90th: 0.73	N/A	250	No	Sample data 90th percentile is <5% of the MCL/SMCL
Iron	15	MIN: 0.040 AVG: 0.187 MAX: 0.353 90th: 0.302	N/A	0.3	No	While the 90th percentile of the data is at the SMCL, and colored water events can occur even below the SMCL, treatment is not recommended due to the lack of colored water complaints incurred at Minturn
Manganese	15	MIN: 0.0071 AVG: 0.0117 MAX: 0.0182 90th: 0.0160	N/A	0.05	No	Sample data max value is < the MCL/SMCL
pH	21	MIN: 7.2 AVG: 7.4 MAX: 7.7 90th: 7.5	N/A	6.5-8.5	**8.3 ± 0.2 s.u. 95% of the time**	Minturn will control pH >8 as a measure against corrosion control. Caustic is planned for as part of the new WTP.
Silver	8	ND	N/A	0.1	No	Non-detect.
Sulfate	14	MIN: 5.62 AVG: 13.87 MAX: 23.82 90th: 20.32	N/A	250	No	Sample data 90th percentile is <10% of the MCL/SMCL
Total Dissolved Solids	13	MIN: 27 AVG: 47 MAX: 69 90th: 63	N/A	500	No	Sample data average is <10% of the MCL/SMCL
Zinc	10	MIN: 0.001 AVG: 0.002 MAX: 0.005 90th: 0.003	N/A	5	No	Sample data 90th percentile is <5% of the MCL/SMCL
Turbidity (NTU)	26,085	MIN: 0.30 AVG: 0.70 MAX: 17.35 90th: 1.01	N/A	N/A	**≤ 0.1 NTU for 95% of readings**	At no time can turbidity go higher than 1 NTU, and samples must be ≤ 0.3 NTU in 95% of monthly samples
Hardness (mg/L as CaCO3)	12	MIN: 13.0 AVG: 23.0 MAX: 36.1 90th: 29.4	N/A	N/A	No	Water classified as Slightly Hard (17.1 – 60)
Alkalinity (mg/L as CaCO3)	11	MIN: 8.4 AVG: 14.2 MAX: 19.7 90th: 17.2	N/A	N/A	No	Lower alkalinity waters are more susceptible to changes in pH.
Total Organic Carbon	14	MIN: 1.3 AVG: 3.5 MAX: 12.0 90th: 7.2	N/A	N/A	**> 35% Removal**	General goal for limiting DBP formation potential Will require pretreatment to achieve goal
Alpha Particles (pCi/L)	N/A	MIN: AVG: MAX: 90th:	15	N/A	**< 12**	No data available. **Minturn should consider space for advanced processes for radioactive contaminants.**
Beta Particles (mrem/yr)	N/A	MIN: AVG: MAX: 90th:	4	N/A	**< 3.2**	
Radium 226 and Radium 228 (pCi/L)	N/A	MIN: AVG: MAX: 90th:	5	N/A	**< 4**	
Uranium (ug/L)	N/A	ND	30	N/A	**< 24**	

Table 3. Raw Water Quality and Treatment Goals for Eagle River Water

Parameter	Number of Samples	Concentrations (mg/L)	MCL	SMCL	Treatment Required / Treatment Goal	Comments
Arsenic	5	MIN: 0.00000 AVG: 0.00010 MAX: 0.00060 90th: 0.00040	0.01	N/A	No	Sample data 90th percentile is <5% of the MCL/SMCL
Barium	5	MIN: 0.0440 AVG: 0.0522 MAX: 0.0585 90th: 0.0573	2	N/A	No	Sample data 90th percentile is <5% of the MCL/SMCL
Beryllium	5	ND	0.004	N/A	No	Non-detect.
Cadmium	5	MIN: 0.0000 AVG: 0.0001 MAX: 0.0001 90th: 0.0001	0.005	N/A	No	Sample data 90th percentile is <20% of the MCL/SMCL
Chromium	5	MIN: 0.000 AVG: 0.000 MAX: 0.001 90th: 0.001	0.1	N/A	No	Sample data 90th percentile is <5% of the MCL/SMCL
Copper	4	MIN: 0.0013 AVG: 0.0017 MAX: 0.0020 90th: 0.0019	1.3	1.0	No	Sample data 90th percentile is <5% of the MCL/SMCL. Minturn will employ Caustic feed as CCT
Fluoride	5	ND	4.0	2.0	No	Non-detect.
Lead	4	MIN: 0.0005 AVG: 0.0013 MAX: 0.0021 90th: 0.0019	0.015	N/A	No	Sample data 90th percentile is <5% of the Action Level. Minturn will employ Caustic feed as CCT
Nitrate	4	MIN: 0.00 AVG: 0.04 MAX: 0.16 90th: 0.11	10	N/A	No	Sample data 90th percentile is <5% of the MCL/SMCL
Nitrite	4	ND	1	N/A	No	Non-detect.
Selenium	5	ND	0.05	N/A	No	Non-detect.
Aluminum	8	MIN: 0.014 AVG: 0.023 MAX: 0.034 90th: 0.031	N/A	0.05 - 0.2	No	Sample data 90th percentile is < the MCL/SMCL
Chloride	8	MIN: 1.10 AVG: 2.16 MAX: 3.30 90th: 2.87	N/A	250	No	Sample data 90th percentile is <5% of the MCL/SMCL
Iron	9	MIN: 0.319 AVG: 0.428 MAX: 0.569 90th: 0.503	N/A	0.3	**< 0.10 mg/L**	**Pre-oxidation and settling**
Manganese	8	MIN: 0.0558 AVG: 0.1343 MAX: 0.2184 90th: 0.1912	N/A	0.05	**< 0.02 mg/L**	**Pre-oxidation, settling, filtration**
pH	14	MIN: 6.2 AVG: 8.0 MAX: 8.5 90th: 8.4	N/A	6.5-8.5	**8.5 ± 0.2 s.u. 95% of the time**	**Minturn will control pH >8 as a measure against corrosion control**
Silver	4	ND	N/A	0.1	No	Non-detect.
Sulfate	9	MIN: 12.59 AVG: 30.08 MAX: 38.22 90th: 37.96	N/A	250	No	Sample data 90th percentile is <10% of the MCL/SMCL
Total Dissolved Solids	9	MIN: 59 AVG: 110 MAX: 131 90th: 127	N/A	500	No	Sample data 90th percentile is <20% of the MCL/SMCL
Zinc	5	MIN: 0.038 AVG: 0.062 MAX: 0.087 90th: 0.083	N/A	5	No	Sample data 90th percentile is <5% of the MCL/SMCL
Turbidity (NTU)	N/A	MIN: AVG: MAX: 90th:	N/A	N/A	**≤ 0.1 NTU for 95% of readings**	**At no time can turbidity go higher than 1 NTU, and samples must be ≤ 0.3 NTU in 95% of monthly samples**
Hardness (mg/L as CaCO3)	6	MIN: 62 AVG: 85 MAX: 118 90th: 107	N/A	N/A	No	Water classified as Moderately Hard (60 -120 mg/L)
Alkalinity (mg/L as CaCO3)	6	MIN: 48 AVG: 61 MAX: 80 90th: 72	N/A	N/A	No	Lower alkalinity waters are more susceptible to changes in pH.
Total Organic Carbon	9	MIN: 1.3 AVG: 2.5 MAX: 6.5 90th: 3.7	N/A	N/A	**> 35% Removal**	**General goal for limiting DBP formation potential**
Alpha Particles (pCi/L)	2	MIN: 1.3 AVG: 2.1 MAX: 2.8 90th: 2.7	15	N/A	No	Sample data 90th percentile is <20% of the MCL/SMCL
Beta Particles (mrem/yr)	1	ND	4	N/A	No	Non-detect.
Radium 226 and Radium 228 (pCi/L)	2	MIN: 0.4 AVG: 2.0 MAX: 3.5 90th: 3.2	5	N/A	**< 4**	**Treatment not required, but Minturn should consider space for advanced processes to remove should Radium 226 increase further.**
Uranium (ug/L)	4	MIN: 0.6 AVG: 0.8 MAX: 1.0 90th: 0.9	30	N/A	No	Sample data 90th percentile is <5% of the MCL/SMCL

2 Decision Tool and Criteria Development

The first step in conducting this alternatives analysis was to determine the tool that would be used to compare each of the three alternatives against each other, and the specific criteria that each alternative would be judged upon.

2.1 Decision Tool Background

Process alternatives were evaluated using a Multi-Criteria Decision Analysis tool called decisionSPACE™, a proprietary program developed by HDR. A series of evaluations were conducted throughout the analysis that ultimately result in a final score of each alternative, described below:

Step 1 of the evaluation is to identity a list of qualitative criteria, or goals, specific to Minturn that are the top priorities influencing selection of the new WTP process. The list included the following:

- Capacity flexibility
- Long-term reliability
- Operations & maintenance
- Process modifiability
- Resiliency

The criteria is further defined in the following sections and in Table 4. The criteria were then evaluated against each other to determine which are more or less important and to develop a criterion specific multiplier, or weight, of each qualitative criterion that reflects the level of relative importance.

Step 2 involves evaluation of each proposed alternative against the established criteria. The evaluation ranks an alternative based on its ability to meet a specific criterion on a scale of **Very Low (Worst), Low, Moderate, Strong,** and **Very Strong (Best)**, independent of all other proposed alternatives. These ratings, in combination with the weighting of each criterion, are used to tabulate a "final score" for each alternative. The results of the evaluations were analyzed alongside the estimated capital costs and the estimated annual operations & maintenance cost.

Descriptions of the criteria developed for the analysis are presented in this section and the final scores for each alternative are presented in Section 6.

The following criteria and their relative importance were developed jointly by HDR and the Minturn Water Committee during a workshop on January 12th, 2023. The criteria below are listed in the order of importance to Minturn.

2.2 Criterion 1: Resiliency

Minturn's top priority is to select an alternative that provides resiliency to the water supply. Alternatives will be rated based on their ability to meet the following:

- Meet the demand of the existing customers
- Treat Cross Creek water compliant with established finished water quality goals (See Table 2)
- Maintains treatment capacity during high turbidity events, such as spring runoff in Cross Creek

2.3 Criterion 2: Operations & Maintenance

Minturn employs a contract-based operations company to operate and maintain the existing WTP. The existing WTP is not staffed every day, and Minturn desires a similar level of staffing for the future WTP. Alternatives will be rated based on their respective ability to meet the following:

- Ability to remotely monitor and operate the process
- The level of staffing and level of operator certification required
- The expected maintenance frequency
- Locality and availability of replacement parts and service

2.4 Criterion 3: Long-Term Reliability

Minturn requires the selected WTP process alternative to provide long-term reliability for the water system. Alternatives will be rated based on their ability to meet the following:

- The expected equipment lifespan should be close to 30 years

2.5 Criterion 4: Process Modifiability

Looking forward, Minturn expects that the selected alternative can be modified to adapt to more stringent water quality regulations. Additionally, the alternatives will be evaluated for the ability to treat Eagle River source water, as Minturn is actively trying to acquire a water right on that source. Alternatives will be rated based on their ability to meet the following:

- Degree of modification required to treat Eagle River water (See Table 3)
- Degree of modification required to meet more stringent future water quality regulations

2.6 Criterion 5: Capacity Flexibility

The selected alternative must provide some level of flexibility in treatment capacity to Minturn. This criterion considers the proposed WTP process' ability to turn down to meet low demand conditions and the impact that starting and stopping the process has on water quality. Alternatives will be rated based on their ability to meet the following:

- Water production rate turndown
- Ability to start and stop the process without significant impacts to water quality

2.7 Weighting Criteria Results

HDR and Minturn ranked the relative importance of each of the individual criteria to establish a final weighting. Many high-importance rankings, creates a higher weighting value. Similarly, many low-importance rankings create a lower weighted value. The relative importance and resulting weights are presented in Table 4. The arrows indicate the relative importance of each criterion as it compares to the other four. The weighting for each criterion is applied in the tabulation of the final score for each alternative.

Table 4. Decision Making Criteria Rank and Weight

Criterion		1 Resiliency	2 Operations & Maintenance	3 Long Term Reliability	4 Process Modifiability	5 Capacity Flexibility	Weight
1	Resiliency		→	↗	↗	↑	35%
2	Operations & Maintenance			→	↗	↑	26%
3	Long Term Reliability				↗	↑	22%
4	Process Modifiability					↑	13%
5	Capacity Flexibility						3%

↑	Is extremely more important than	↑	Is much more important than	↗	Is more important than	→	Is as important as
↓	Is extremely less important than	↓	Is much less important than	↘	Is less important than		

3 Alternative A: Rehabilitation of Existing Slow Sand Filters

Of the three existing slow sand filters, only Filter 3 is in use and in compliance with CDPHE drinking water regulations. A 2018 Sanitary Survey discovered Filters 1 and 2 are unlined, and thus do not comply with CDPHE drinking water regulations. Filter 1 has been completely decommissioned and Filter 2 has been retrofitted into a roughing filter with a 1-micron cartridge filter treating its filtrate prior to disinfection. Filter 3 is housed within a below grade, covered concrete structure with a surface area of 3,000 square feet (75 ft x 40 ft). Filter 3 has a capacity of 60 gpm (based on feedback from operations staff), corresponding to a rate of filtration of 28.8 gpd/sf (0.02 gpm/sf).

Discussions with CDPHE revealed that rehabilitation of Filters 1 and 2 is an acceptable alternative for Minturn but did stipulate certain upgrades that must be met for permitting. These upgrades include lining the filters and providing a structure over the filters to protect them from freezing in the winter and algal growth in the summer. The approach laid out for Alternative A is in accordance with CDPHE direction.

The existing earthen filters (Filters 1 and 2) are trapezoidal with a 3:1 slope and a bottom surface area of 1,300 square feet (approximately 36 ft square). New Filters 1 and 2 would be constructed within the footprint of existing filters and similar in design to the existing Filter 3. The new filters would be constructed of cast in place concrete with vertical sidewalls, allowing the surface area of each filter to be increased to approximately 4,800 square ft, or 60 ft x 80 ft. Rehabilitating Filters 1 and 2 would increase the potential production capacity of the WTP by increasing the available filter footprint. CDPHE regulates the nominal rate of filtration between 45 and 150 gallons per day per square foot (gpd/sf) of sand area.

In colder climates, slow sand filters are typically operated at a lower filtration rate to increase contact time in the filter bed for the biological removals to occur. It is recommended that a rate of filtration less than 72 gpd/sf is used when water temperatures are less than 5 °C. Filter 3's rate of filtration has been recorded as low as 28 gpd/sf providing evidence that a slower rate of filtration is required to treat Cross Creek raw water. During warmer months, a design filtration rate of 144 gpd/sf was selected as faster throughput is expected in the rehabilitated filters with warmer temperatures. Table 5 presents the recommended design filtration rates and resulting treatment capacity of the rehabilitated filters and shows the rehabilitated slow sand filters can meet the seasonal water demands presented in Table 1.

Table 5. Temperature Based Design Loading Rates for Rehabilitated Slow Sand Filters 1 & 2

Design Parameter	Colder Months	Warmer Months
Water Temperature (°C)	< 5	> 5
Design Rate of Filtration (gpd/sf)	72	144
Individual Filter Capacity (gpd)[1]	345,600	691,200
Firm Treatment Capacity (mgd)[2]	0.45	0.8
Total Treatment Capacity (mgd)[3]	0.90	1.5

[1] Filters 1 & 2 are 60 ft x 80 ft.

[2] Filter 3 is 75 ft x 40 ft and produces a maximum of 60 gpm (0.1 mgd). Filters 1 and 3 are online producing 0.35 mgd and 0.1 mgd respectively. Filter 2 is out of service.

[3] All filters online

The existing slow sand filter 3 struggles to keep up with the solids loading from elevated turbidity experienced during spring runoff, is subsequently taken offline during this time for annual maintenance, and the groundwater wells are utilized as the source of supply. During spring runoff, the TOC is also observed to spike, and switching to the wells allows Minturn to supplement with a lower TOC water and avoid potential DBP issues related to higher TOC. CDPHE recognizes this as an acceptable operational strategy for Minturn and does not have issue as along as it is part of Minturn's operational plan. However, the wells are only capable of producing approximately 0.25 mgd if utilized simultaneously, and cannot meet the existing water demand of Minturn during spring runoff when the slow sand filters are expected to be unusable.

Figure 3 presents the existing WTP process flow diagram with the rehabilitations and modifications thereto being considered by Alternative A. Roughing filters will be installed upstream of the slow sand filters to improve filter performance due to the known elevated turbidity that occurs during spring runoff and are required by CDPHE if the raw water turbidity is known to be greater than 10 NTU. Roughing filters will reduce the solids loading that increases during spring runoff and reduce the frequency of filter skimming that will be inevitable with increased production, particularly in the summer season. It is important to note that roughing filters are only practical at reducing solids loading when the solids are particulate, and not colloidal. Further analysis of the raw water quality would be necessary to determine the type of solids in the water supply.

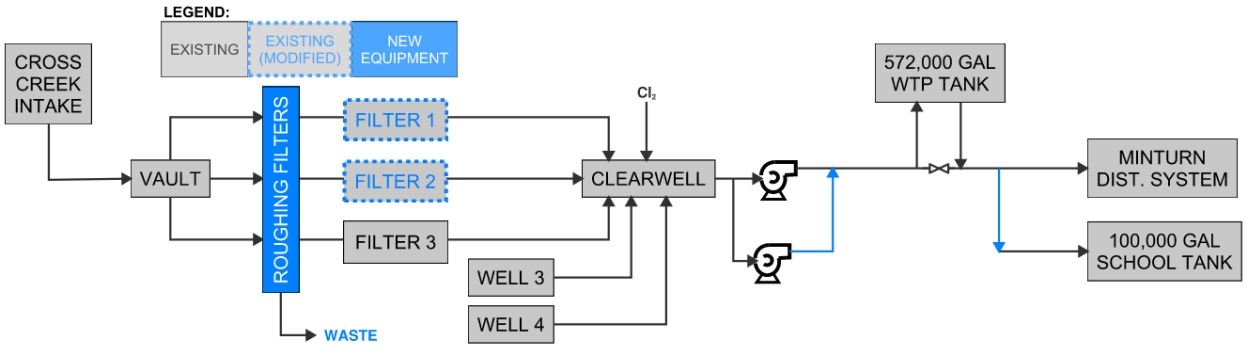


Figure 3. Process Flow Diagram - Alternative A: Rehabilitate Slow Sand Filters

Filter rehabilitation involves complete removal of the existing earthen Filters 1 and 2, excavation, subgrade prep, and construction of the new cast in place filter basins. The basins and surrounding walkways could incorporate some of the foundation which will be needed to support an enclosure required for new slow sand filter installations. An enclosure is required to provide both a cover and freeze protection, both of which are required for plan approval to be issued by CDPHE.



Figure 4. Minturn's Existing Slow Sand Filter (Filter 3)

While rehabilitation of Filters 1 and 2 would increase the current production and address regulatory compliance, it does not resolve issues such as treating high turbidity and high TOC water. Further, future WTP expansions (if necessary) are not possible given the large area required for this technology.

3.1 Resiliency

Rehabilitation of the existing slow sand filters, in addition to the currently operating Filter 3, would provide Minturn with adequate WTP capacity to meet the design flow.

Slow sand filtration is permitted for use by CDPHE on the condition that the raw water turbidity is less than 10 NTU and less than 15 color units. Data available at the time of this evaluation indicates Cross Creek turbidity can exceed these thresholds during spring runoff, but for much of the year, the turbidity is sufficiently low for the filters to perform well. However, a complete set of data during spring runoff has not been collected as the slow sand filters are offline during that time due to high turbidity and strategically scheduled maintenance cleanings. It is typical for raw water turbidity in Colorado mountain streams to exceed 10 NTU during spring runoff and during and during/after wildfire events in the watershed. Minturn's operator for the existing WTP indicates that Filter 3 has struggled to produce turbidity compliant filtrate in the past during spring runoff. With the added concern of elevated TOC contributing to elevated DBPs during spring runoff, the slow sand filters are not expected to perform well during these periods. Therefore, the

groundwater wells are brought online as the main source of supply. CDPHE recognizes this as an acceptable operating strategy, so long as Minturn has an operational plan and adequate storage to maintain water production.

Roughing filters are required by CDPHE to ensure compliance with CDPHE design criteria (feed water turbidity to slow sand filters < 10 NTU) and maximize filter performance. An example of roughing filters are fine basket strainers, which would require a building, electricity, controls/communication, and generate a waste stream which would need to be managed. As noted above, it is not a surefire solution for reducing solids loading, as it depends on the type of solids present in the water supply. If the solids are colloidal, roughing filters will not be an effective solution.

The disinfection requirements of a slow sand filtration WTP are presented in Table 6. Slow sand filters can provide up to 2-log of credit for both giardia and viral components.

Table 6. Slow Sand Filtration Disinfection Requirements

	SWTR Disinfection Requirements	Slow Sand Filtration Credit	log-disinfection required by chlorine	$CT_{required}$ (Note 1)
Giardia	3-log	2-log	1-log	87
Viruses	4-log	2-log	2-log	4

Notes
1. $CT_{required}$ based on filtered water quality of:
   Temperature = 5 ºC
   pH = 8.5
   Chlorine residual concentration of 1 mg/L

To achieve adequate disinfection of slow sand filter water with a residual of 1 mg/L chlorine, 870 minutes of disinfection contact time is required. This time is determined by dividing the $CT_{required}$ value (87) by the baffling factor (0.1). Under these conditions, the storage tank provides sufficient disinfection up to a flow of 0.95 mgd, which is higher than the design flow of 0.6 mgd. Because groundwater requires less disinfection contact time, contributions from wells #3 and #4 would need to be managed separately from that of the filtered surface water to accurately track disinfection compliance.

Rehabilitation of the existing slow sand filters does allow for increased treatment capacity within the existing footprint. However, slow sand filters are likely non-viable without pre-treatment in the form of roughing filters installed upstream of them. Sand filters are only permissible when the source water they are treating does not exceed 10 NTU. Given the high variable nature of turbidity in Colorado streams, it is unlikely Cross Creek will always be less than 10 NTU, especially during spring runoff and post wildfire. Furthermore, TOC values have recently been recorded as high as 12 mg/L, and slow sand filters will not be able to remove enough TOC to adequately meet Minturn's DBP reduction goals. During these high turbidity or high TOC events, Minturn can utilize wells #3 and #4 as the main water source albeit at a flow that is less than Minturn's existing and projected water demands. So long as Minturn maintains adequate storage during high demand periods, the reduced flow rate from the wells is likely not an issue. This means that Minturn could successfully provide water throughout the year with the combination of the rehabbed filters and

the wells. For these reasons, the slow sand filter alternative was given a rating of **moderate** with respect to resiliency.

3.2 Operations & Maintenance

Minturn has operated the existing slow sand filtration WTP for the past sixty years. The process operates wholly under gravity and little day-to-day operator attention is required beyond observation. There is little instrumentation monitoring the process itself, thus remote operability of slow sand filters is non-applicable.

A slow sand filtration WTP producing up to 0.6 mgd would require a C-level operator (2nd from bottom-most tier); the current and planned operations team for the rehabilitated facility hold A-level treatment licenses which are the highest tier available. The daily operations include monitoring the flow rate, recording the headloss of the filter in operation, and any necessary water quality recording. The proposed modifications for filter rehabilitation would not impact the need for additional licensure nor significantly impact the ability for Minturn to acquire a new operations team should the need arise.

Maintenance of slow sand filters largely requires periodic skimming of the top several inches to remove filtered particles and reduce filtration resistance. The filter to be skimmed must be removed from service, drained, and dried prior to removing the top layer. Minturn has historically conducted this maintenance once per year for skimming during spring runoff as the existing filters have struggled to treat the highly turbid water. As Minturn increases the WTP capacity and operates the filters more consistently throughout the years, the skimming frequency will increase to maintain the filter capacity resulting in an increase in time spent by staff on maintenance. In the past, when Minturn was producing closer to 10 million gallons of water per month (approximately 0.25 mgd), the filters were taken offline every 3-4 months for cleaning. The groundwater wells can be used during these high turbidity periods to reduce the maintenance burden on the filters.

Replacement parts for slow sand filters consist of replacement sand, which can generally be procured from suppliers within the timeframe that coincides with planned skim maintenance. Overall slow sand filters present favorably in the status quo of Minturn's existing operation strategy and resources and were therefore given a rating of **strong**.

3.3 Long-Term Reliability

Slow sand filters benefit from longevity because of their relative simplicity. If well maintained, their ability to operate, in the capacity of which they were originally designed, is expected to exceed 30 years.

Slow sand filter flow rates are temperature dependent and will be different over the course of a year. However, the slow sand filters can meet the design flow of 0.6 mgd even with lower flowrates in the colder winter months.

Slow sand filters in Minturn possess long term reliability due to their sedentary nature; however, the ability to expand flow capacity is limited. Even still, they can meet the projected demands, giving them a rating of **strong** with respect to long-term reliability.

3.4 Process Modifiability

The slow sand filtration process is suitable only for high quality raw water with turbidity and color less than 10 NTU and 15 units, respectively. Slow sand filters, by themselves, are limited to treating water from Cross Creek, so long as the turbidity can be demonstrated as less than 10 NTU. Eagle River is known to have much higher raw water turbidity, as well as the presence of iron and manganese. The Eagle River water quality is at higher risk for contamination due to the level of adjacent development and mines draining to its watershed and will require more attention to ensure proper operation and maintenance.

To reduce iron and/or manganese (both present in Eagle River), oxidation and settling are common and typical strategies. Doing so converts dissolved inorganics to precipitates, thereby increasing turbidity and solids loading. Oxidation with permanganate will be required to remove the manganese in Eagle River; adding another chemical dose to monitor and adjust as influent levels change. Overdosing of permanganate results in pink water events that may require disposal of the affected water to prevent the occurrence at the taps. Furthermore, the increased solids loading from the oxidized precipitates will increase the filter skimming and maintenance frequency, adding more operational burden to Minturn.

Pilot testing will be required to ensure the slow sand filters could treat Eagle River water prior to developing it as a new source for a slow sand filter WTP. It is unlikely the results of the pilot test would be favorable for slow sand filtration. Without pilot testing, it is hard to predict the slow sand filter design parameters for the Eagle River source. The use of roughing filters will improve the performance on Eagle River; however, the use of filtration to pretreat for slow sand filters is a marginal pursuit. Coupled with pre-treatment for dissolved inorganics, Minturn would effectively be installing a WTP process for the sole purpose of maintaining slow sand filter compliance. At this point, there are better and more typical available technologies to treat water. Furthermore, selection of slow sand filters as the treatment technology does not demonstrate Minturn is actively working towards a successful solution to treat Eagle River raw water and runs the risk of losing access to water rights for Eagle River.

Continuing the operation of the slow sand filters with Eagle River source water adds significant need for additional treatment processes and maintenance for Minturn. Due to their inherit limitations with treating highly turbid waters and the potential risk of losing water rights to Eagle River, slow sand filters exhibit little to no process modifiability and were therefore given a rating of **very low**.

3.5 Capacity Flexibility

Due to the biological process necessary for efficient removal, slow sand filters require a healthy biology within the top layer of the filter called the “schmutzdecke”. Therefore, sand filters rely on steady state operations at generally constant flow rates to not disrupt the microorganisms doing all the work. Ideally, the slow sand filters are run at a constant flow rate with minimal “start/stop” operations.

Additionally, the flow rate through the filter bed is critical to maintain that biological removal. Operating at too high of flow, can reduce the efficacy of the biology present in the bed. Conversely,

operating at too low of flow can negatively impact the biology by allowing the water too much time in the filter bed. The minimum production rates from the two rehabilitated filters and Filter 3 are 96 gpm and 60 gpm, respectively. Therefore, the minimum production range of a rehabilitated slow sand WTP is 60 gpm or 0.1 mgd.

Slow sand filters maintain the turndown and flexibility to meet low demand conditions that are often present at Minturn, especially in the low demand winter months. The filters do rely on steady state operations for optimal removal, and a “start/stop” operation could result in less efficient removal. Additionally, slow sand filters may suffer from turbidity breakthrough upon startup and lack the ability to waste water until turbidity drops back down into an acceptable range. Due to these drawbacks with starting and stopping, Alternative A was given a rating of **low** with respect to capacity flexibility.

4 Alternative B: Packaged Conventional Treatment Plant

A packaged conventional treatment plant improves upon the existing treatment process by adding pre-treatment consisting of rapid mixing, flocculation, and settling, followed by dual-media filtration within the same container. Each container, or treatment unit, is referred to as a treatment train. Each treatment train mimics the conventional water treatment process, which is commonly employed and widely successful in treating surface water in Colorado. The system would include two 0.3 mgd treatment trains. The proposed process flow diagram for a new packaged treatment plant is presented in Figure 5.

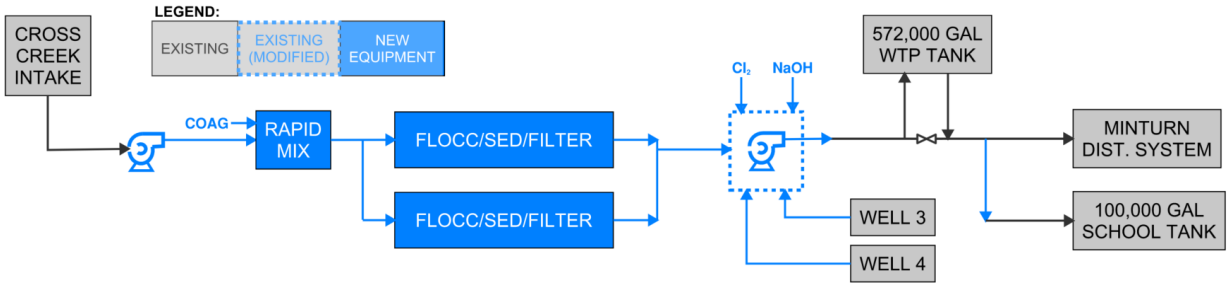


Figure 5. Process Flow Diagram - Alternative B: Packaged Conventional Treatment

When operated properly, the conventional treatment process is capable of treating challenging water with turbidity exceeding 80 NTU. Packaged treatment trains are advantageous to Minturn because of their small footprint and low relative cost compared to a distributed facility with cast-in-place concrete tanks. Their compact nature is a result of steel tank construction and compact arrangement of the process tankage and ancillary supporting equipment such as piping, motors, and valves. An example of a packaged treatment unit is presented in Figure 6.



Figure 6. Example Packaged Treatment Units. Breckenridge, CO.

Settling and filtration both create a waste stream in the form of residuals, or sludge. The sludge produced is typically between 0.1% and 0.5% total solids. The existing outdoor filters (Filters 1 and 2) would be converted into holding ponds for backwash waste and other process residuals. A new building to house the packaged treatment process would be constructed in the unoccupied area owned by Minturn to the south of the existing filters. Filter 3 could ultimately serve as a pumping station where clarified water from the backwash ponds is recycled to the front of the process.

4.1 Resiliency

Packaged conventional treatment units are typical for WTPs of the size and scale being considered by Minturn. The proposed two 0.3 mgd rated trains were selected to provide water at the design WTP capacity of 0.6 mgd. Packaged conventional treatment units can meet the demand of the existing Minturn distribution system.

The disinfection requirements of a conventional filtration WTP are presented in Table 7. A well operated conventional process can provide up to 2.5-log of credit towards disinfection for giardia and 2-log of credit for viral components. These credits reduce the amount of disinfection that must be achieved by chlorine addition, lowering chemical costs, and reducing the potential for DBP formation.

Table 7. Conventional Treatment Process Disinfection Requirements

	SWTR Disinfection Requirements	Conventional Treatment Credit	log-disinfection required by chlorine	$CT_{required}$ (Note 1)
Giardia	3-log	2.5-log	0.5-log	43
Viruses	4-log	2-log	2-log	4

Notes 1. $CT_{required}$ based on filtered water quality of:
Temperature = 5 ºC
pH = 8.5
Chlorine residual concentration of 1 mg/L

To achieve adequate disinfection following conventional filtration with a residual of 1 mg/L chlorine, 430 minutes of disinfection contact time is required. This time is determined by dividing the $CT_{required}$ value (43) by the baffling factor (0.1). Under these conditions, the existing 572,000-gallon unbaffled storage tank provides sufficient disinfection at the 0.6 mgd design flow. The conventional treatment process is highly capable of treating Cross Creek water, is resilient to high turbidity events, and provides for higher disinfection credit allowing Minturn to better manage chlorine and disinfection byproducts. Because groundwater requires less disinfection contact time, contributions from wells #3 and #4 would need to be managed separately from that of the filtered surface water to accurately track disinfection compliance.

Water from Cross Creek is immensely treatable by conventional packaged treatment units, and, if operated properly, is robust against high turbidity water (>100 NTU) such as that found during spring runoff or after the watershed experiences a wildfire event. Additionally, the intrinsically present pretreatment makes Alternative B the best process for removing TOC. Alternative B was given a rating of **strong** with respect to resiliency.

4.2 Operations & Maintenance

There exists a moderate level of motorized equipment, valves, and instrumentation on packaged treatment trains. Each these components can be controlled with a SCADA system that can be operated remotely and automatically. However, it is not recommended to perform a media filter backwash remotely. Backwashing should occur while an operator is in attendance. This requirement may necessitate more frequent visits from operations staff. Additionally, the quantity and complexity of automated equipment is directly proportional to the amount of maintenance required.

The conventional process requires use of a coagulant for flocculation and sedimentation to work effectively; an example chemical storage and feed system of the scale suitable for Minturn is presented in Figure 7. Coagulants consist of a metal salt (e.g. aluminum sulfate) which encourages agglomeration of particles in raw water into larger particles called floc particles. Floc particles are heavier than water and, provided enough time, will settle to the bottom of a tank where they are removed from the process as residuals (or sludge). Application of coagulant introduces a degree of complexity to the operation and would require daily operator involvement to ensure there are no line clogs or leaks in the chemical feed system.



Figure 7. Example Coagulant Feed System

A packaged media filtration WTP producing up to 0.6 mgd would require an A-level operator (highest tier); the current and planned operations team for the new facility hold A-level treatment licenses. The proposed modifications would not impact the need for additional licensure but may impact the ability for Minturn to acquire a new operations team should the need arise.

With the high number of componentry and complexity of the process, maintenance frequency is difficult to predict, but it will be more intensive compared to a slow sand filter process. Most conventional WTPs in Colorado are staffed daily and establish weekly, monthly, quarterly, and annual maintenance schedules for various components.

If selected as an alternative, suppliers of packaged conventional treatment units located in Colorado would be given preference. Additionally, Minturn would be encouraged to stock select spare parts and components in the event of a failure.

Overall, a packaged conventional treatment process has a high degree of required operator involvement due to complexity of operation and chemical feed. Maintenance intervals are increased due to the number of components and steel tank construction. For these reasons, Alternative B was given a rating of **moderate** for operations and maintenance.

4.3 Long-Term Reliability

Steel tanks that hold water experience failures over time due to the corrosive environment in which they reside. Failures are generally minor (e.g. leak at weld seem), but repairs require the unit be completely taken offline and patched. It is not uncommon to have steel tanks be in service for more than 20 years; however, it is likely those tanks will have undergone several in place repairs.

The componentry bolted to the steel tank supporting the process is expected to require replacement on a more regimented schedule. Flocculator chains will likely require maintenance every six months to a year as the chain links stretch and break. Filter media should be replaced in kind every 7 to 10 years. Valves, valve motors, and other miscellaneous equipment should be replaced on an as needed basis and a store of commonly replaced materials should be established by Minturn to minimize downtime.

Overall, the long-term reliability of a packaged conventional treatment process is moderate to high. There are many components that require regimented attention, but a quality manufactured system should last at least 20 years without need for major repairs. For these reasons, Alternative B was rated as **strong** in the realm of long-term reliability.

4.4 Process Modifiability

Packaged conventional treatment units are limited in their ability to treat water they were not originally designed to treat. Additional unit processes may be required to remove dissolved iron and manganese present in the Eagle River. The building and hydraulics of the process should be designed to allow for insertion of polishing processes downstream of the filters, such as pressurized ion exchange or greensand vessels, as presented in Figure 8.



Figure 8. Pressure Filter Tanks for Adsorptive Inorganics Removal

Alternatively, some level of pre-oxidation should be considered. The packaged flocculation and settling basins may not provide enough reaction time for the oxidation-precipitation reaction to reach full yield, so a dedicated reaction basin upstream of the pre-treatment is recommended. This will ensure particulate iron and manganese are introduced to the pre-treatment process where they can coagulate and settle with other particles in the raw water. Without sufficient reaction time, manganese may chemically adsorb onto the filter media and disruptions in water quality could elute the same into the finished water and risk water aesthetics.

The degree of modifiability to a packaged conventional treatment process is limited with respect to the treatment units themselves. Flexibility can be built into the design to accommodate anticipated future process requirements, giving Alternative B a rating of **strong**.

4.5 Capacity Flexibility

Packaged treatment trains can typically be turned down to about 50% of the rated flow. In this instance, each treatment train could be operated as low as 0.15 mgd (50% of 0.3 mgd) providing an estimated treatment range of 0.15 mgd to 0.6 mgd. Starting and stopping a conventional treatment process is challenging. It takes some time for the process to reach steady state and for the coagulant dose to be optimized. Each time a unit starts, it will need to be wasted – meaning filtrate would be routed to the backwash waste ponds until the effluent turbidity is within finished water quality goals. This process typically takes several minutes.

Packaged treatment trains are generally flexible in their ability to turn down but struggle with sporadic start and stoppage. Due to these struggles, Alternative B was given a rating of **moderate** for capacity flexibility.

5 Alternative C: Membrane Water Treatment Plant

Microfiltration (MF) and/or ultrafiltration (UF) membranes represent state-of-the-art filtration technology, do not require pre-treatment to function effectively, and offer an absolute barrier to particles and pathogens common in surface water. They are common and successful in treating Colorado surface waters. Membranes typically benefit from a smaller relative footprint which would fit within the proposed WTP building space.

Membranes typically operate as a direct filtration process, meaning the membranes can effectively operate with little to no pre-treatment depending on the influent water quality parameters. Direct membrane filtration can effectively handle influent turbidity up to 20 NTU without the need for pre-treatment. However, in the presence of elevated total organic carbon (TOC) and other dissolved inorganic contaminants, pre-treatment is recommended to enhance removal efficiencies of those constituents as membrane filtration alone does not meet target removals.

With the Cross Creek TOC spikes discussed in Section 1.4, seasonally operated pretreatment can be implemented should Minturn opt to treat Cross Creek during spring runoff rather than rely on well water to supplement. Coagulant would be added to flocculate suspended and organic materials in the water so that it may be filtered and removed by the membrane system. Downstream of chemical addition, the water would enter the Flocculation Tank, which will consist of a vertical tank and a top mounted mixer. A sweep-flocculation mechanism will occur in this tank, thereby allowing agglomeration of the suspended and organic materials. A vast majority of the coagulated solids will remain in suspension and carry over to the membrane system for removal through filtration. Equipment costs for this type of partial pre-treatment range from $150,000 - $250,000 and are included in the cost estimates developed for Alternative C because while this system would be operated seasonally, the infrastructure would remain in place.

Direct filtration is proposed as Cross Creek water has little dissolved inorganic contaminants throughout much of the year and seasonally operated equipment is planned for periods of high TOC which membranes struggle to remove without pre-treatment. Oxidation would be required to treat Eagle River water for iron and manganese followed by settling to ensure iron and manganese does not carry over to the membranes. The treatment plant would include two 0.3 mgd membrane skids. The proposed process flow diagram for a new membrane treatment plant is presented in Figure 9.

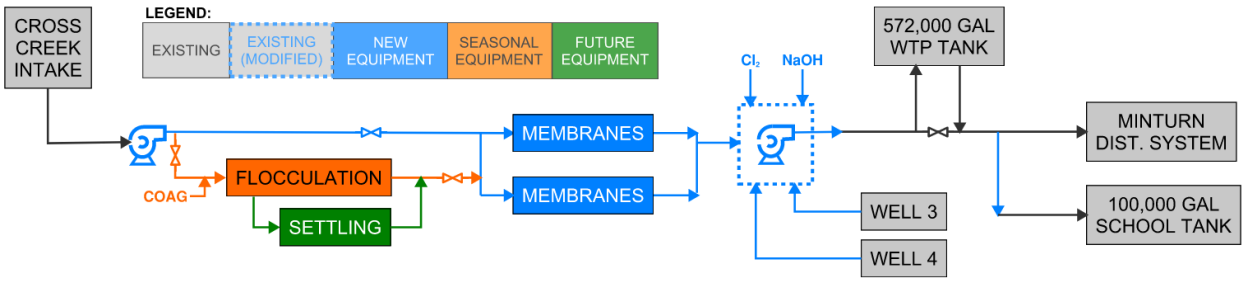


Figure 9. Process Flow Diagram - Alternative C: Membrane Filtration

Membrane skids are made up of many modules, as displayed in Figure 10. Skids are highly automated which simplifies their operation when compared to a conventional filtration treatment plant. The existing outdoor filters (Filters 1 and 2) would be converted into holding ponds for backwash waste. A new building to house the membrane skids and requisite chemical storage systems would be constructed in the unoccupied area owned by Minturn to the south of the existing filters. Filter 3 could ultimately serve as a pumping station where clarified supernatant from the backwash ponds is recycled to the front of the process.



Figure 10. Typical MF/UF Membrane Skids. Bend, OR.

5.1 Resiliency

The proposed two 0.3 mgd rated skids were selected to provide water at the design WTP capacity of 0.6 mgd. The proposed membrane skids can meet the demand of the existing Minturn distribution system with room to spare.

The disinfection requirements of a membrane filtration WTP are presented in Table 8 and consider the use of either MF or UF membranes. When properly operated and validated, membrane filtration can provide 3-log of disinfection credit for giardia, but do not provide any disinfection credit for viral components.

Table 8. Membrane Filtration Disinfection Requirements

	SWTR Disinfection Requirements	Membrane Filtration Credit	log-disinfection required by chlorine	$CT_{required}$ (Note 1)
Giardia	3-log	3-log	None	n/a
Viruses	4-log	None	4-log	8

Notes
1. $CT_{required}$ based on filtered water quality of:
   Temperature = 5 ºC
   pH = 8.5
   Chlorine residual concentration of 1 mg/L

To achieve adequate disinfection of membrane treated water with a residual of 1 mg/L chlorine, 80 minutes of disinfection contact time is required. This time is determined by dividing the $CT_{required}$ value (8) by the baffling factor (0.1). Under these conditions, the existing 572,000-gallon unbaffled storage tank provides ample contact time at the design flow of 0.6 mgd. The use of membranes to treat surface water effectively allows the filtrate, or treated water, to have the same disinfection requirements of ground water, which significantly simplifies the management of chlorine dosing and reporting.

Membrane filtration provides good resiliency and would, with proper operation, produce the highest quality finished water of the three alternatives being evaluated. When considering the relatively high quality of the Cross Creek source, this alternative should have no issues treating the water to finished water quality goals, assuming turbidity and TOC remains low. If the turbidity and TOC spikes during spring runoff increase in frequency or duration, the inclusion of pretreatment would both improve membrane performance and prolong the lifespan of the membrane fibers. Another option would be to run wells #3 and #4 during periods of high TOC. Membranes combined with either wells or pretreatment would result in this alternative providing the most robust resiliency. Therefore, Alternative C was given a rating of **very strong** in this category.

5.2 Operations & Maintenance

Membrane treatment is typical for WTPs of the size and scale being considered by Minturn. Many small neighboring communities have chosen this technology for their system due to its relative simplicity to operate compared to a conventional process (e.g. no coagulation or settling required). Skids can be monitored and controlled remotely, favoring Minturn's contract operations model. There is a high degree of automated valves and monitoring equipment on a membrane skid that will increase the level of operator involvement compared to the existing slow sand filtration process; however, the level of operator involvement is expected to be less compared to a conventional treatment process.

Chemicals consisting of chlorine, an acid (typically citric acid), and a base (typically sodium hydroxide) are used during membrane cleaning cycles. The cleaning cycles are generally automated, and the equipment can be designed and furnished by the membrane supplier.

A membrane WTP producing up to 0.6 mgd would require a B-level operator (2nd from highest tier); the current and planned operations team for the new facility hold A-level treatment licenses (highest tier available). The proposed facility would not impact the need for additional licensure, nor is it expected to impact the ability for Minturn to acquire a new operations team should the need arise. Minturn's existing operations team has experience with membrane WTPs, and it is their preferred process to operate.

With the high number of valves, fittings, and membrane modules on each skid, maintenance frequency is difficult to predict. However, many membrane WTPs in Colorado are not staffed daily. Still, Minturn should establish weekly, monthly, quarterly, and annual maintenance schedules for various components to avoid downtime associated with repair.

If selected as an alternative, membrane skid suppliers located in Colorado would be given preference. Additionally, Minturn would be encouraged to stock select spare parts and components in the event of a failure. Membrane modules are typically not stocked as a spare item, as they need to be kept wet for prolonged storage durations.

Overall, a membrane filtration process poses a reduced level of operator involvement because of its relative simplicity to operate remotely with no coagulation. Maintenance intervals are increased due to the number of components that come with each membrane skid. For these reasons, Alternative C was given a rating of **moderate** in terms of operation and maintenance.

5.3 Long-Term Reliability

The expected lifespan of the membrane modules, which make up the skid, are approximately 7 to 10 years before needing to be replaced. However, the lifespan of membranes is heavily dependent on how they are operated. Methods for extending the lifespan of membranes include pre-treatment, proper cleaning using either clean in place (CIP) procedures, or through chemically enhanced backwashes. It is also recommended to run two skids simultaneously at half capacity to stay below the critical flux; above which fouling is more likely to occur. Flux is the measure of the rate of flow through a single square foot of membrane surface area (e.g. gal/ft^2/day). Higher flux results in more frequent backwashing and cleaning, so lowering loading and fouling potential on the membranes can help to prolong their useful life. The skids include structural framing, supports, and valves which should be able to last up to 30 years with proper maintenance. Overall, Alternative C was given a rating of **strong** with respect to long-term reliability.

5.4 Process Modifiability

To be able to treat water from Eagle River, pretreatment trains would need to be added to the treatment process. A process including both pretreatment and membranes would be the most robust treatment system of the three alternatives, and the lowest risk solution for meeting future water quality standards. As part of the pretreatment, some level of pre-oxidation would need to be added to successfully remove the higher levels of iron and manganese in the Eagle River. Oxidation of dissolved iron by aeration is successfully employed and can be accomplished with fountains (pictured in Figure 11) or aeration towers. The proposed pre-treatment would include flocculation and high rate settling designed around settling oxidized metal compounds.



Figure 11. Example of Fountain Aeration of Iron

The expanded treatment process shown in Figure 9 is the most robust in terms of ability to treat Eagle River water and Cross Creek during spring runoff. Membranes provide a better ability to meet future CDPHE regulations than either slow sand or conventional filtration. For these reasons, Alternative C was given a rating of **very strong** in this category.

5.5 Capacity Flexibility

Membrane skids can be successfully turned down at least 50% of their design flow rate, meaning that each skid could run as low as 0.15 mgd. This flexibility means that periods of low demand would not be a major issue. Further, membrane skids are highly resistant to complications associated with starting and stopping. In fact, a membrane skid may start and stop every 20 minutes as it goes through a short backwash cycle. However, membrane systems are designed for continuous operations, meaning that both skids would need to be run year-round, even during the winter when flows are minimal. In winter months, the two skids would operate in a cycle with one skid operating and one backwashing or primed to come online when the operating skid requires backwashing. This will ensure that both skids remain in continuous operation. Overall, a

membrane WTP provides the highest capacity flexibility of the alternatives being considered, resulting in a rating of **very strong**.

6 Cost Analysis of Alternatives

Within the past couple of years, costs for materials, equipment, and freight have been increasing at significant levels. In addition, lead times for equipment and materials have increased. Supply chain issues have created construction market uncertainty on scheduling sub-contractors and overall completion certainty. This combination has produced a potentially volatile situation for utility owners around the country. On one hand, general contractors are drastically holding down fees (and, by default, bid prices) in order to obtain work, but then are exercising force majeure clauses for substantial change orders or adjustment of completion schedules. A project owner would be wise to retain a higher than usual contingency and seek bid and performance bonds on projects that may not normally require them. HDR has prepared opinions of probable construction cost (OPCCs) for the alternatives described in this report. The OPCCs presented in Table 9 are Class 4 as described by the American Association of Cost Estimating (AACE); they are provided with an accuracy range of -15% to +30%.

Since HDR has no control over the costs of labor, materials, equipment, or services or over the selected Contractor's methods of determining prices, HDR does not guarantee that proposals, bids, or actual project construction costs will not vary from the OPCCs prepared. For the OPCCs prepared for the improvements described in this report, HDR has included the following items:

- General contingency for miscellaneous items for estimating at a planning or programming level – 40%.
- Contractor General Conditions, Mobilization, and Demobilization – 8 to 10%.
- Contractor Overhead and Profit – 8 to 10%.
- Contractor Bonds and Insurance – 2%.
- It should be noted that the OPCCs in this report are in 2023 dollars, and escalation costs have not been included.

The capital cost data used as the basis of the estimates for the improvements at the WTP were compiled from a mixture of previous project bid tabs from recent HDR projects and vendor pricing for the specific process equipment associated with each alternative. Detailed cost backup supporting these estimates is available in Appendix A.

Table 9. Opinion of Probable Construction Cost Summary (AACE Class 4)

Alternative	Low Capital Cost (-15%)	High Capital Cost (+30%)	Annual O&M
A - Rehabilitation of Existing Slow Sand Filters	$5.8M	$8.9M	$120K
B - Packaged Conventional Water Treatment Plant	$10.5M	$16.7M	$200K
C - Membrane Water Treatment Plant	$9.8M	$14.9M	$150K

7 Comparison of Alternatives

A qualitative score was tabulated for each alternative after the Alternatives Analysis workshop held on March 20th, 2023. The score for each was determined by the ratings of each of the five criteria and the relative weights of each criteria.

7.1 Alternative Qualitative Scores

Table 10 provides a summary of the ratings for each alternative, culminating in the final qualitative score for each.

Table 10: Alternative Qualitative Scores

Criteria	Alternative A: Slow Sand Filtration	Alternative B: Packaged WTP	Alternative C: Membrane WTP
Resiliency (35%)	Moderate	Strong	Very Strong
Operations & Maintenance (26%)	Strong	Moderate	Moderate
Long Term Reliability (22%)	Strong	Strong	Strong
Process Modifiability (13%)	Very Low	Strong	Very Strong
Capacity Flexibility (3%)	Low	Moderate	Very Strong
FINAL SCORE	**56**	**64**	**75**

From a qualitative perspective, membranes are the most favorable alternative with respect to being able to meet Minturn's goals for a robust, reliable, and flexible water treatment process. Packaged treatment with conventional filtration placed second of the three alternatives. The process was rated as even or just below membranes in all five categories. Slow sand filtration was the lowest scoring alternative due to its lack of flexibility and inability to treat Eagle River water.

8 Expansion of Existing Groundwater Supply

Upon completion of the analysis of the three surface water treatment alternatives presented thus far, a fourth alternative was proposed to address the treatment capacity issues of the existing WTP. Minturn expressed interest in investigating the possibility of increasing the capacity of the existing wells (Wells #3 and #4) such that Minturn could rely solely on the groundwater supply to meet the water demands and eliminate their dependence on challenging treatment of available

surface water. Because this potential alternative is reliant on the groundwater supply in Minturn, it was not included in the alternatives analysis that focuses on the three surface water treatment process alternatives. This analysis of the groundwater wells will focus on answering three pertinent questions:

1. Will the Minturn's water rights allow for expanded withdrawals from the wells?
2. Do the existing wells have capacity (or yield) to produce at the required rate (0.6 mgd cumulative)?
3. Will the wells be classified as a ground water source at the increased production rate?

Do Minturn's existing water rights allow for expanded use of the groundwater wells?
In short, yes. The existing water right on Cross Creek could be modified with an "alternative point of diversion" to allow Minturn to exercise its right to that water (with the conditions of consumptive use) from the wells. This process would require going through water court to amend the water right and would be subject to contest.

Do the existing wells have capacity (or yield) to produce at the required rate?
Minturn presently operates two groundwater wells (Wells #3 and #4) at a capacity of 80 gpm each. The wells are used to supplement the surface water treatment plant during the spring runoff when the surface water becomes more difficult to treat. Minturn's well permit allows for up to 225 gpm to be diverted from each well, but pumping limitations result in a maximum flow rate of 80gpm. To increase the yield, larger pumps and casing improvements are necessary to address the pumping limitations.

To determine if the wells are capable of producing at a higher yield, a well test is needed. A well test is performed by a licensed well contractor wherein the well is inspected, cleaned (if necessary), and outfitted with a temporary pump that is designed to pump at the target flow rate. The well is pumped for several days while the water level in the well casing is monitored. Minturn, in cooperation with Martin & Wood Water Consultants is currently reviewing proposals from several well pumpers to perform this testing in the summer of 2024. Both wells need to be yield tested to confirm they are capable of meeting the required 0.6 mgd total demand. Any production capacity less than this negatively impacts the viability of the wells being the only source of water supply in Minturn.

If the wells can produce water at 225 gpm each, will that water still be classified as groundwater (thus not requiring treatment)?

Increasing the well production from 80 gpm to 225 gpm introduces the potential for the water coming from the wells to be influenced by the water in Cross Creek. If that were to occur, this would classify the well water as Ground Water under the Direct Influence (GWUDI) of surface water. shows the location of the wells #3 and #4 which are approximately 160 ft and 80 ft away, respectively, from Cross Creek. Given their proximity to Cross Creek and shallow depth (between 60 and 70 ft to bottom of well), the wells are in a type III aquifer which requires a GWUDI evaluation.

Minturn performed a GWUDI evaluation on the wells in 2017 which resulted in a groundwater classification while the wells were producing at 80 gpm. At the increased flow rate there exists real potential for the groundwater to be influenced by the surface water at the flow rates needed by Minturn prompting a change in classification to GWUDI. Additional data at 225 gpm needs to be collected to evaluate whether the wells are GWUDI at the higher production rate. GWUDI water must be treated the same as surface water; if the wells are found to be GWUDI, this alternative is non-viable.

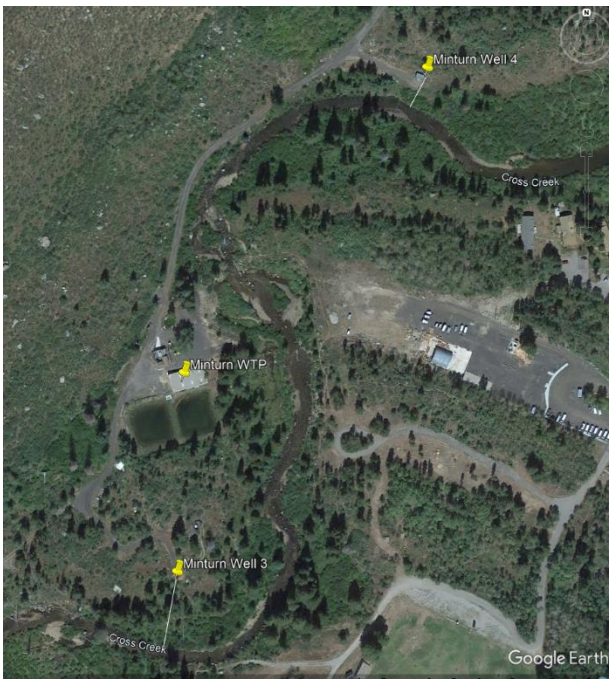


Figure 12. Proximity of Wells #3 and #4 to Cross Creek

Minturn, HDR, and CDPHE had a conference call in June 2023 to discuss the specific requirements of evaluating a well for GWUDI based on their Policy 003. The testing requirements for a GWUDI evaluation are summarized in Table 11. The results from Well #4 will apply to Well #3, as Well #4 is the more conservative well to analyze given it's closer proximity to Cross Creek. The earliest Minturn can proceed with this GWUDI evaluation is April 1st, 2024. The sampling period runs through October 2024. Therefore, Minturn may not have a decision on the groundwater classification at 225gpm until the end of 2024.

Table 11. CDPHE Groundwater Quality Performance Testing Requirements

Parameter	Location	Frequency	Sampling Dates
Temperature, Turbidity and Conductivity	Well #4 and Cross Creek	2 times per 7-day period	April 1st – October 31st
Total Coliform (with E. Coli)	Well #4	1x month	April 1st – October 31st
Total Aerobic Bacterial Spores	Well #4 and Cross Creek	3 times	April 1st – April 30th July 1st - August 31st September 1st – October 31st
Microscopic Particulate Analysis (MPA)	Well #4	3 times	April 1st – April 30th July 1st - August 31st September 1st – October 31st

9 Recommendations & Conclusions

Based on the results of this alternative analysis, it is recommended that Minturn move forward with construction of a new membrane filtration plant. It resulted in the highest qualitative score and is recognized to best address the priorities Minturn has for a providing a resilient and reliable treatment system. While rehabilitation of the slow sand filters ultimately had the lowest cost of the alternatives, the drawbacks of continuing to rely on an aging technology and cutting off the option for the addition of Eagle River water in the future far outweigh the cost savings associated with the option. Membrane filtration allows Minturn to address the needs of its existing customers, while leaving open the option for future development and water rights.

Appendix A – Detailed Cost Estimates

OPINION OF PROBABLE CONSTRUCTION COST
ALTERNATIVE A - SLOW SAND FILTER RECONSTRUCTION

#	Component		Quantity	Unit	Estimated Cost	Total	*Notes*
	Process Mechanical						
	Sand Filter Underdrains	Qty (2) 60x80 Filters	4800	SF	$ 40	$ 192,000	*Perforated Pipe*
	Sand Filter Media & Support Gravel	Qty (2) 60x80 Filters, 4 ft sand, 1 ft gravel +10%	2078	CY	$ 200	$ 415,556	*Red Flint Sand quote @ $150/CY for sand/gravel.*
	Roughing Filters	Building, Self clenaing Strainers	1	LS	$ 250,000	$ 250,000	
	Structural - Sub and Superstructure						
	Cast-in-place filter basin - Slab	12" thick bottom slab	280	CY	$ 500.00	$ 140,000	
	Cast-in-place filter basin - Walls/Spread Footings	7 ft deep spread footing walls, extedned 8 ft above grade	227	CY	$ 800.00	$ 181,867	
	Cast-in-place building foundation - Spread Footings	7 ft deep spread footing walls	131	CY	$ 800.00	$ 104,948	
	Cast-in-place Walkways around Filters	6 ft wide, perimeter access	47	CY	$ 500.00	$ 23,333	
	Metal Truss Roof System	Enclsure req'd to cover filters	10656	SF	$ 150.00	$ 1,598,400	
	Finished Water Metering Vault	Precast Structure	1	LS	$ 45,000.00	$ 45,000	
A	**Unit Processes + Buildings + Demolition = Subtotal 1**					$ 2,951,103.70	
B	Sitework + Soil Conditions				10%	$ 295,110.37	
C	Piping, Valves, Manholes				5%	$ 147,555.19	
D	Mechanical				2%	$ 59,022.07	
E	Electrical				5%	$ 147,555.19	
F	Instrumentation and Controls				3%	$ 88,533.11	
G	**Construction Subtotal 2 = A+B+C+D+E+F**					**$ 3,688,879.63**	
H	Miscellaneous Elements Not Itemized				40%	$ 1,475,551.85	
I	**Construction Subtotal 3 = G + H**					**$ 5,164,431.48**	
J	General Conditions, Mobilization, Demobilization				8%	$ 413,154.52	
K	**Construction Subtotal 4 = I + J**					**$ 5,577,586.00**	
L	General Contractor Overhead + Profit				8%	$ 446,206.88	
M	**Construction Subtotal 5 = K + L**					**$ 6,023,792.88**	
N	Bonds + Insurance				2%	$ 120,475.86	
O	**Construction Total Today = M + N**					**$ 6,144,268.74**	
P	Projection to Midpoint of Construction = 3.5%/year X 3 years				10%	$ 614,426.87	
Q	**Construction Bid Total = O + P**					**$ 6,758,695.61**	
R	Engineering, Legal, Fiscal, Administration				0%	$ -	*Not included in estimate*
S	TOTAL PROJECT OPINION OF PROBABLE CONSTRUCTION COST = Q + R					$ 6,758,695.61	
	TOTAL PROJECT OPINION OF PROBABLE CONSTRUCTION COST -15%					**$ 5,744,891.27**	
	TOTAL PROJECT OPINION OF PROBABLE CONSTRUCTION COST +30%					**$ 8,786,304.29**	

OPINION OF PROBABLE CONSTRUCTION COST
ALTERNATIVE B - PACKAGED MEDIA FILTER WTP

#	Component	Description & Assumptions	Quantity	Unit	Estimated Unit Cost	Total	*Notes*
	Process Mechanical						
	Cross Creek Pump Station	(3) Pumps/Piping/Valves/Inst inc'l Precast Vault	1	LS	$ 75,000	$ 75,000	
	Rapid Mix Tank	(1) 4,000-gal Steel, 5'D x 12'	1	EA	$ 50,000	$ 50,000	
	Rapid Mixer	(1) Radial Mixer	1	EA	$ 20,000	$ 20,000	
	Packaged Treatment Units	(3) Floc/Sed/Media Filters	1	LS	$ 1,987,500	$ 1,987,500	*Tonka Water Quote*
	Filtered Water Pump Station	(5) Submersible Pumps in Cast Vault	1	LS	$ 60,000	$ 60,000	
	Recycle Pump Station	(2) Pumps/Piping/Valves in Filter 3 Inlet Box	1	LS	$ 50,000	$ 50,000	
	Chemical Systems						
	Coagulant Storage and Dosing	1000 gal tank & feed system, (2) Pumps	1	LS	$ 27,000	$ 27,000	
	Caustic Storage and Dosing	Tote storage & feed system, (2) Pumps	1	LS	$ 15,000	$ 15,000	
	Acid Storage and Dosing	Drum/Tote storage & feed system, (2) Pumps	1	LS	$ 15,000	$ 15,000	
	Hypochlorite Storage and Dosing	500 gal tank & feed system, (2) Pumps	1	LS	$ 20,000	$ 20,000	
	Structural - Sub and Superstructure						
	Building foundation - Spread Footings	7 ft deep spread footing walls	108	CY	$ 800.00	$ 86,696	
	Building Slab	100'x90'	222	CY	$ 500.00	$ 111,111	
	Pre-Engineered Metal Building	Building with provision for expansion	9000	SF	$ 250.00	$ 2,250,000	
	Interoir Rooms	CMU Walls w/CIP deck ceiling	5	LS	$ 25,000.00	$ 125,000	
A	**Unit Processes + Buildings + Demolition = Subtotal 1**					$ 4,892,307.41	
B	Sitework + Soil Conditions				15%	$ 733,846.11	
C	Piping, Valves, Manholes				12%	$ 587,076.89	
D	Mechanical				6%	$ 293,538.44	
E	Electrical Including Generator				20%	$ 978,461.48	
F	Instrumentation and Controls				10%	$ 489,230.74	
G	**Construction Subtotal 2 = A+B+C+D+E+F**					**$ 7,974,461.07**	
H	Miscellaneous Elements Not Itemized				40%	$ 3,189,784.43	
I	**Construction Subtotal 3 = G + H**					**$ 11,164,245.50**	
J	General Conditions, Mobilization, Demobilization				10%	$ 1,116,424.55	
K	**Construction Subtotal 4 = I + J**					**$ 12,280,670.05**	
L	General Contractor Overhead + Profit				10%	$ 1,228,067.01	
M	**Construction Subtotal 5 = K + L**					**$ 13,508,737.06**	
N	Bonds + Insurance				2%	$ 270,174.74	
O	**Construction Total Today = M + N**					**$ 13,778,911.80**	
P	Projection to Midpoint of Construction = 3.5%/year X 3 years				10%	$ 1,377,891.18	
Q	**Construction Bid Total = O + P**					**$ 15,156,802.98**	
R	Engineering, Legal, Fiscal, Administration				0%	$ -	*Not included in estimate*
S	TOTAL PROJECT OPINION OF PROBABLE CONSTRUCTION COST = Q + R					$ 15,156,802.98	
	TOTAL PROJECT OPINION OF PROBABLE CONSTRUCTION COST -15%					**$ 12,883,282.53**	
	TOTAL PROJECT OPINION OF PROBABLE CONSTRUCTION COST +30%					**$ 19,703,843.87**	

OPINION OF PROBABLE CONSTRUCTION COST ALTERNATIVE C - MEMBRANE WTP							
#	Component	Description & Assumptions	Quantity	Unit	Estimated Unit Cost	Total	*Notes*
	Process Mechanical						
	Cross Creek Pump Station	(3) Pumps/Piping/Valves/Inst inc'l Precast Vault	1	LS	$ 75,000.00	$ 75,000.00	
	Membrane Influent EQ Tank	(1) 4,000-gal PE, 7.5'D x 13.5'	1	EA	$ 20,000.00	$ 20,000.00	
	Membrane System	(3) Membrane Skids @ 0.4 mgd ea	1	LS	$ 1,100,000.00	$ 1,100,000.00	*Price from Memcor and Wigen proposal*
	Feed System w/ Pumps and Strainers						
	Instrumentation						
	Backwash/CIP Skid with Pumps and Tank						
	Filtered Water Pump Station	(3) Pumps/Piping/Valves/Inst in Cast Vault	1	LS	$ 60,000.00	$ 60,000.00	
	Recycle Pump Station	(2) Pumps/Piping/Valves in Filter 3 Inlet Box	1	LS	$ 50,000.00	$ 50,000.00	
	Chemical Systems						
	Caustic Storage and Dosing	Drum/tote storage & feed system, (2) Pumps	1	LS	$ 15,000.00	$ 15,000.00	
	Acid Storage and Dosing	Drum/tote storage & feed system, (2) Pumps	1	LS	$ 15,000.00	$ 15,000.00	
	Hypochlorite Storage and Dosing	500 gal tank & feed system, (2) Pumps	1	LS	$ 20,000	$ 20,000	
	Structural - Sub and Superstructure						
	Building foundation - Spread Footings	7 ft deep spread footing walls	108	CY	$ 800.00	$ 86,696	
	Building Slab	100'x90'	222	CY	$ 500.00	$ 111,111	
	Pre-Engineered Metal Building	Building with provision for expansion	9000	SF	$ 250.00	$ 2,250,000	
	Interoir Rooms	CMU Walls w/CIP deck ceiling	5	EA	$ 25,000.00	$ 125,000	
A	**Unit Processes + Buildings + Demolition = Subtotal 1**					$ 3,927,807.41	
B	Sitework + Soil Conditions				12%	$ 471,336.89	
C	Piping, Valves, Manholes				9%	$ 353,502.67	
D	Mechanical				4%	$ 157,112.30	
E	Electrical Including Generator				20%	$ 785,561.48	
F	Instrumentation and Controls				7%	$ 274,946.52	
G	**Construction Subtotal 2 = A+B+C+D+E+F**					**$ 5,970,267.26**	
H	Miscellaneous Elements Not Itemized				40%	$ 2,388,106.90	
I	**Construction Subtotal 3 = G + H**					**$ 8,358,374.16**	
J	General Conditions, Mobilization, Demobilization				10%	$ 835,837.42	
K	**Construction Subtotal 4 = I + J**					**$ 9,194,211.58**	
L	General Contractor Overhead + Profit				10%	$ 919,421.16	
M	**Construction Subtotal 5 = K + L**					**$ 10,113,632.74**	
N	Bonds + Insurance				2%	$ 202,272.65	
O	**Construction Total Today = M + N**					**$ 10,315,905.39**	
P	Projection to Midpoint of Construction = 3.5%/year X 3 years				10%	$ 1,031,590.54	
Q	**Construction Bid Total = O + P**					**$ 11,347,495.93**	
R	Engineering, Legal, Fiscal, Administration				0%	$ -	*Not included in estimate*
S	TOTAL PROJECT OPINION OF PROBABLE CONSTRUCTION COST = Q + R					$ 11,347,495.93	
	TOTAL PROJECT OPINION OF PROBABLE CONSTRUCTION COST -15%					**$ 9,645,371.54**	
	TOTAL PROJECT OPINION OF PROBABLE CONSTRUCTION COST +30%					**$ 14,751,744.71**	

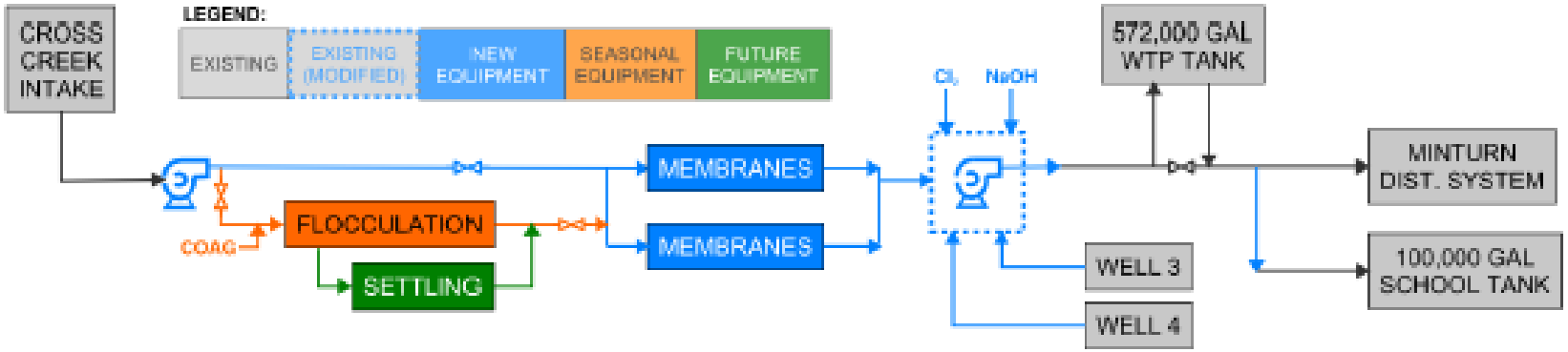


Figure 9. Process Flow Diagram - Alternative C: Membrane Filtration

Gmail

Paul Young <pyoung@sws-eng.com>

EPA/NEPA review

2 messages

Michelle Metteer <manager@minturn.org> Fri, Dec 20, 2024 at 8:16 AM
To: "Mullins, Matthew (he/him/his)" <Mullins.Matthew@epa.gov>
Cc: "sean.oliver@state.co.us" <sean.oliver@state.co.us>, Paul Young <pyoung@sws-eng.com>, "Limke, Jarod" <Jarod.Limke@hdrinc.com>

Hi Matt,
The town of Minturn is working to submit our project needs assessment for our water treatment plant application (the town plans to apply for a SRF loan). I've cc'd Paul Young on this email as he is working with Minturn to submit this application and has asked me to confirm that it will be the EPA who takes the lead on the environmental review. Just want to make sure we all stay on the same page and if I have misunderstood something, which happens frequently 😊, I'd like to make the correction now. Thanks so much.

Michelle Metteer
Town Manager
Minturn, Colorado

Mullins, Matthew (he/him/his) <Mullins.Matthew@epa.gov> Fri, Dec 20, 2024 at 1:56 PM
To: "manager@minturn.org" <manager@minturn.org>
Cc: "Oliver, Sean" <sean.oliver@state.co.us>, "pyoung@sws-eng.com" <pyoung@sws-eng.com>, "Limke, Jarod" <Jarod.Limke@hdrinc.com>

Good afternoon Michelle,

Unless another federal agency comes in, we will be the lead on the environmental review.

Sean, we will work to keep you informed of any public comment periods in relation to this project and overall progress. Let us know if you need anything or have any concerns.

Regards,

Matt Mullins - Environmental Engineer

EPA - Water Division, Region 8

Pronouns: He, Him, His (Why is this important?)

E: Mullins.Matthew@epa.gov

P: 303.312.6417

For Inquiries on Community Grants please email:

CommunityGrantsR8@epa.gov

From: Michelle Metteer <manager@minturn.org>
Sent: Friday, December 20, 2024 8:17 AM
To: Mullins, Matthew (he/him/his) <Mullins.Matthew@epa.gov>
Cc: Oliver, Sean <sean.oliver@state.co.us>; pyoung@sws-eng.com; Limke, Jarod <Jarod.Limke@hdrinc.com>
Subject: EPA/NEPA review

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

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WATER SYSTEM CAPITAL IMPROVEMENT PLAN

TOWN OF MINTURN

September 30, 2019

Prepared by

118 West Sixth Street, Suite 200
Glenwood Springs, CO 81601
970.945.1004
970.945.5948 fax

WATER SYSTEM CAPITAL IMPROVEMENT PLAN

TOWN OF MINTURN

PREPARED BY

RYAN GORDON, PE

SGM Project # 2017-258.005

Contents

0.0 Executive Summary 0-1

1.0 Introduction 1-1

1.1 Document Scope and Purpose 1-1

2.0 Water Demand Analysis and Supply Comparison 2-2

2.1 Historical Connected SFEs 2-2

2.2 Historical Water Production 2-2

2.3 Unit Water Production Requirements 2-4

2.4 Development Projections 2-4

2.5 Current and Projected Future Water Production Needs 2-5

2.6 Sources of Water 2-6

2.6.1 Water Reliability and Redundancy 2-7

3.0 Raw Water Improvement Projects 3-7

3.1 Raw Water Screening Improvements 3-8

3.2 Well 4 Pipeline Improvements 3-8

3.3 Eagle River Wells 3-8

4.0 Water Treatment Plant Analysis 4-10

4.1 WTP Background Information 4-10

4.1.1 Existing Water Facilities 4-10
4.1.2 Existing WTP Unit Processes 4-10

4.2 WTP Improvements 4-12

4.2.1 WTP Process Upgrade Alternatives Summary 4-13
4.2.2 Clearwell Repairs 4-14
4.2.3 Water Treatment Plant Improvements Summary 4-14

5.0 Water Distribution System Analysis 5-15

5.1 Water Storage 5-15

5.1.1 Minturn Water Tank Inspection and Evaluation 5-15
5.1.2 Evaluation of Tank Replacement Options 5-15
5.1.3 Water Storage Analysis – Volume 5-22

5.2 Fire Flow Delivery 5-24

5.2.1 Fire Flow Analysis Criteria 5-24

5.2.2 Fire Flow Results and Recommendations 5-24

5.3 Velocity 5-26

5.3.1 Velocity Analysis Criteria 5-26
5.3.2 Velocity Results and Recommendations 5-26

5.4 Pressure 5-26

5.4.1 Pressure Analysis Criteria 5-26
5.4.2 Pressure Analysis Results and Recommendations 5-27

5.5 Redundancy 5-27

5.5.1 Redundancy Analysis Criteria 5-27
5.5.2 Redundancy Analysis Results and Recommendations 5-27

5.6 Water Loss Management 5-29

5.7 Water Main Line Replacement 5-29

5.8 Water Distribution System Improvements Summary 5-30

6.0 Recommended Improvements Summary 6-31

List of Tables

Table 1 Recent Annual Average SFEs 2-2
Table 2 Historical Water Produced (2014-2018) 2-4
Table 3 Development Summary 2-5
Table 4 – Overall Water Demands 2-5
Table 5 - Town Service Area Water Demands 2-5
Table 6 - Maloit Park Service Area Demands 2-6
Table 7 Raw Water System Improvements Summary 3-9
Table 8 Slow Sand Filter Hydraulic Loading Rates 4-11
Table 9 Water Treatment Plant Improvements Summary 4-14
Table 10 Tank Advantages and Disadvantages 5-17
Table 11 Tank Unit Costs 5-18
Table 12 Welded Tank Maintenance Costs 5-19
Table 13 Concrete Tank Maintenance Costs 5-20
Table 14 Tank Lifecycle Costs 5-21
Table 15 Existing Water Storage Analysis 5-23
Table 16 Future Water Storage Analysis 5-23
Table 17 Fire Flow Required by Zone 5-23
Table 18 Water Distribution System Improvements Summary 5-30
Table 19 Recommended Water System Improvements – Option 1 6-32
Table 20 Recommended Capital Improvements Projects - Option 2 6-33

List of Figures

Figure 1 Historical Monthly WTP Production 2-3
Figure 2 Minturn Raw Water System Schematic 2-7
Figure 3 - Well 4 Pipeline 3-8
Figure 4 - Eagle River Wells and Pipeline 3-9
Figure 5 - 4th Avenue Loop Line 5-25
Figure 6 - Bellm Bridge Pipeline 5-28
Figure 7 - Town and Maloit Park Service Area Interconnect 5-29

0.0 Executive Summary

Supply and Demand

The Town's potable water production requirements have been steady over the past 10 years, or so. The Town is at a crossroads and has limited ability to serve additional demand with current water resources and treatment capacity. Additionally, the Town relies solely Cross Creek as their water supply.

Raw Water System

The Town maintains the ability to divert raw water from Cross Creek and groundwater from Wells 3 and 4. This plan identifies a number of projects to address multiple raw water system challenges and develop additional raw water sources.

- Conveyance Pipelines. As a result of the configuration of the Well 4 pipeline, the Town is limited in how Well 4 water is used and is not in compliance with the CDPHE. The reconfiguration of this pipeline will allow the Town to resolve compliance issues and more effectively use their groundwater resources.
- Redundancy. The Town does not have a redundant water source and if Cross Creek was impaired for some reason it would possibly be challenging for the Town to meet the water demand. Furthermore, the amount of water the Town can get from Cross Creek limits the amount of growth the Town can accommodate. By developing the Towns water rights on the Eagle River the Town can secure a secondary water source and additional physical supply.

Water Treatment Plant

The Town's water plant struggles to meet CDPHE regulations during spring runoff and is limited in the quantity of treated water it can produce. While currently able to meet demand, future demand will strain the plant, additionally, the plant may not be able to produce water if the raw water source changes.

- Filtration. The Town utilizes slow sand filtration which is a biological process and is difficult to control and is not adaptable to changing circumstances. Rehabilitation of the filters carries significant risk that the effort will not solve the issues at the plant. SGM recommends that the Town upgrade the filtration process to membrane filters which will allow the Town to utilize and adapt to different raw water sources and increase water production rates while maintaining high quality potable water.

Distribution System

The Town maintains 2 water tanks and approximately 7 miles of distribution piping.

- Water Storage. Evaluation of the Town's water storage indicates that the system is in need of significant attention. The Maloit Park Tank is currently undersized and does not meet the fireflow storage requirements and needs to be expanded to meet fireflow and

future development needs. The Minturn Tank, while currently sized adequately, is nearing the end of its useful life, is leaking and needs to be replaced.

- Water Mains. The Town's system is aging, water leaks have been a persistent problem and a replacement program have not been implemented to keep the system in good shape. To address the situation, the Town needs to implement a main replacement program that will systematically replace mains.

- Redundancy. This report includes recommendations to improve redundancy within the distribution system in order to increase water service reliability. These projects include connecting the Town Service area and the Maloit Service area.

- Water Loss. Beyond the water main replacement program, the Town should invest in a water loss detection system to effectively locate leaks that might be on the service lines or identify leaks that are not visible at the surface.

A prioritized summary of all of the recommended projects with estimated costs is provided in **Chapter 6.**

1.0 Introduction

1.1 Document Scope and Purpose

The Town of Minturn is a historic mining and railroad town incorporated in 1904. The Town owns and operates a potable water system to provide treated water to approximately 1,100 residents.

Previous water system planning studies include:

- 2009 Town of Minturn Water Master Plan

In 2017, the Town of Minturn selected SGM to be its water infrastructure engineer. In 2019, Minturn initiated this Water System Capital Improvement Plan project.

This document is not an evaluation of water availability or the Towns' water rights. This plan identifies and prioritizes critical water system capital improvement projects. The plan is intended to guide decision-making for the next 10 years as well as provide a basis for evaluating the suitability of Minturn's existing rates and fees and identifying many needed changes.

This document captures the results and recommendations compiled through a system-wide analysis. For this reason, design and cost estimates associated with each project are considered planning-level only. SGM advises Minturn to establish annual budgeting values for recommended projects it wishes to implement by initiating design in the year prior.

This document identifies projects based on the following:

- Existing and known upcoming regulatory requirements.
- Industry standards and/or AWWA recommendations.
- Staff-identified challenges.
- Water distribution system hydraulic modeling results.
- Anticipated development and projected demand associated with that development.
- Engineering judgement.

2.0 Water Demand Analysis and Supply Comparison

Chapter 2 presents historical and projected development and water demands and summarizes water sources and recommended improvements. Water demands are compared to existing water production capacity to verify that upcoming demands can be met.

2.1 Historical Connected SFEs

Minturn assigns Single Family Equivalents Equivalent Residential Units (SFEs) to its customers. Eagle River Water and Sanitation District (ERWSD) handles the billing for the Town and we are relying on ERWSD records for SFE counts. For water system planning, trends in the annual average number of SFEs are of most interest. SGM determined the average annual connected SFEs in Minturn's system by examining monthly billing records. Monthly billing records were obtained from Eagle River Water and Sanitation District (ERWSD). **Table 1** provides a summary of the historically connected SFEs for a recent 5-year period. Because the Town's water delivery system splits after the water treatment plant, we have made the distinction throughout this report between the "Maloit Park Service Area" and the "Town Service Area". Currently, there are approximately a total of 730 SFEs served by Minturn; 35.6 SFEs in the Maloit Park Service Area and 693 SFEs in the Town Service Area.

Table 1 Recent Annual Average SFEs

	Average Single-Family Equivalents					
	2014	**2015**	**2016**	**2017**	**2018**	**5-Year Average**
Town Service Area						
Commercial	83.8	84.9	84.9	84.5	87.7	104.8
Mixed Use	95.7	95.7	95.4	95.2	94.9	95.4
Residential	509	509.1	509.8	514.2	510.5	526.5
TOTAL	*688.5*	*689.7*	*690.1*	*694*	*693*	*691*
Maloit Park Service Area						
Commercial	15.5	20.6	20.6	20.6	20.6	19.6
Residential	16	16	16	17	15	16
TOTAL	*31.5*	*36.6*	*36.6*	*37.6*	*35.6*	*35.6*
Total						
Commercial	99.3	105.5	105.5	105.1	108.3	104.7
Mixed Use	95.7	95.7	95.4	95.2	94.9	95.4
Residential	525	525.1	525.8	531.2	525.5	526.5
TOTAL	**720**	**726.3**	**726.7**	**731.5**	**728.7**	**726.6**

2.2 Historical Water Production

Table 2 shows the monthly and total annual produced water volume for a recent five-year period. **Figure 1** graphically depicts the monthly data which has been recorded from the Town's master meters for each service area.

As with many water utilities, water production peaks in summer months when outdoor irrigation occurs. Peak day to average day production ratios for the Town Service Area

range from 2.0 to 3.0 for the period, which is within the range of normal peaking factors for other communities in which potable water is used for irrigation.

Peak day to average day production ratios for the Maloit Park Service Area range from 2.73 to 5.8 which are above the normal range, however, the ratios exceeded the norm in 2017 and 2018 which coincide with batching water due to challenges meeting disinfection requirements.

Figure 1 Historical Monthly WTP Production

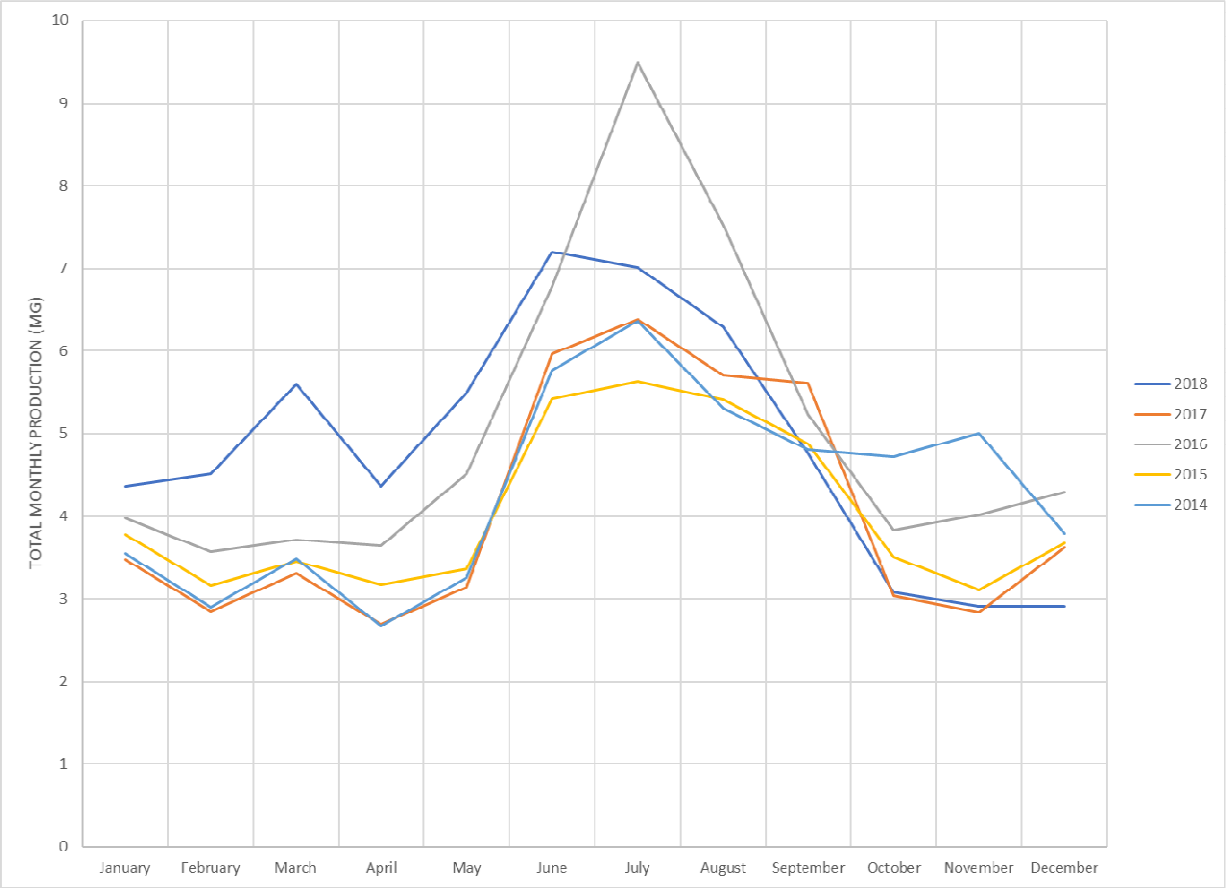


Table 2 Historical Water Produced (2014-2018)

Month	Total Produced Water (MG)									
	2014		2015		2016		2017		2018	
	Town Service Area	Maloit Service Area	Town Service Area	Maloit Service Area	Town Service Area	Maloit Service Area	Town Service Area	Maloit Service Area	Town Service Area	Maloit Service Area
January	4.63	0.12	3.63	0.14	3.87	0.11	3.38	0.09	4.27	0.09
February	2.78	0.13	3.05	0.12	3.47	0.09	2.77	0.08	4.42	0.09
March	3.34	0.14	3.28	0.17	3.60	0.12	3.22	0.09	5.50	0.10
April	2.54	0.12	3.02	0.16	3.55	0.09	2.62	0.08	4.26	0.10
May	3.10	0.16	3.12	0.24	4.38	0.14	3.00	0.14	5.36	0.14
June	5.57	0.20	5.12	0.31	6.60	0.18	5.77	0.19	6.98	0.22
July	6.14	0.23	5.20	0.42	9.31	0.18	6.22	0.17	6.81	0.21
August	5.09	0.21	4.91	0.50	7.37	0.16	5.56	0.14	6.14	0.16
September	4.60	0.21	4.36	0.52	5.10	0.13	5.47	0.13	4.59	0.16
October	4.56	0.16	3.31	0.20	3.71	0.11	2.93	0.11	2.92	0.16
November	4.86	0.14	2.99	0.12	3.93	0.09	2.74	0.10	2.72	0.19
December	3.66	0.13	3.52	0.16	4.19	0.11	3.51	0.12	2.77	0.21
Subtotal	50.87	1.95	45.51	3.05	59.08	1.52	47.19	1.44	56.75	1.83
Total	52.83		48.57		60.61		48.63		58.58	
Daily Production Statistics										
Peak Day (MGD)	0.278	0.019	0.285	0.023	0.367	0.014	0.395	0.023	0.368	0.022
Average Day (MGD)	0.139	0.005	0.125	0.008	0.161	0.004	0.129	0.004	0.156	0.005
Ratio	2.00	3.55	2.29	2.73	2.28	3.38	3.05	5.80	2.36	4.33

2.3 Unit Water Production Requirements

Unit water production requirements are defined as the daily volume of water the Town's treatment plant and wells need to produce to meet the demand of one (1) SFE of new development. SGM established the following recommended planning values based on current unit consumption rates in Minturn and other high-mountain communities as well as consideration of how water use in new development might compare to that within the existing Town, the potential impacts of a warming climate, trends in non-revenue water percentage with new development, system water loss etc. The recommended unit production values for planning are:

- Winter: 180 gpd/SFE
- Average Annual: 259 gpd/SFE
- Max. Month: 427 gpd/SFE
- Max. Day: 570 gpd/SFE

2.4 Development Projections

The Town provided SGM with information regarding two growth scenarios identified in **Table 3** as "Option 1: Cross Creek Only" and "Option 2: Cross Creek plus Eagle River

Wells." The growth scenarios are largely tied to the availability of water to support the growth. These are described below.

- *Option 1: Cross Creek Only* – Under this option the Town would continue to rely solely on Cross Creek for its water supply.
- *Option 2: Cross Creek plus Eagle River Wells* – Under this option the Town would continue to utilize Cross Creek water and also develop additional water resources on the Eagle River through a well field. This option includes moderate growth.

SGM has not evaluated if the levels of growth described below in Table 3 can be supported by the Town's water rights portfolio and augmentation supplies.

Table 3 Development Summary

		Option 1 Cross Creek Only	Option 2 Cross Creek plus Eagle River Wells
PROPERTY	**Service Area**		
Infill (Comm/Res/Ind)	Town	70	330
School District	Maloit Park	120	120
	Total	***190***	***450***

2.5 Current and Projected Future Water Production Needs

Tables 4, 5, and **6** showing projected additional, existing, and total future water production needs under the growth scenarios for the Town and Maloit Park service areas and the overall water system. Future water production figures are based on planning numbers and existing water production figures are based on actual data.

Table 4 – Overall Water Demands

	Additional Required Water Production (GPD)			
	SFEs	**Average Daily**	**Max. Month**	**Max. Day**
Option 1	190	49,210	81,100	108,300
Option 2	450	116,580	192,300	256,400
	Existing Water Production Requirements (GPD)			
	SFEs	**Average Daily**	**Max. Month**	**Max. Day**
Existing	728	147,700	233,500	333,000
	Total Future Water Production Requirements (GPD)			
	SFEs	**Average Daily**	**Max. Month**	**Max. Day**
Option 1	918	196,900	314,800	441,300
Option 2	1,178	264,300	425,900	589,400

Table 5 - Town Service Area Water Demands

	Additional Required Water Production (GPD)			
	SFEs	**Average Daily**	**Max. Month**	**Max. Day**
Option 1	70	18,130	29,890	39,900
Option 2	330	85,500	141,000	188,000

	Existing Water Production Requirements (GPD)			
	SFEs	**Average Daily**	**Max. Month**	**Max. Day**
Existing	691	141,700	224,500	314,400
	Total Future Water Production Requirements (GPD)			
	SFEs	**Average Daily**	**Max. Month**	**Max. Day**
Option 1	761	159, 800	254,500	354,400
Option 2	1,021	227,200	365,600	502,500

Table 6 - Maloit Park Service Area Demands

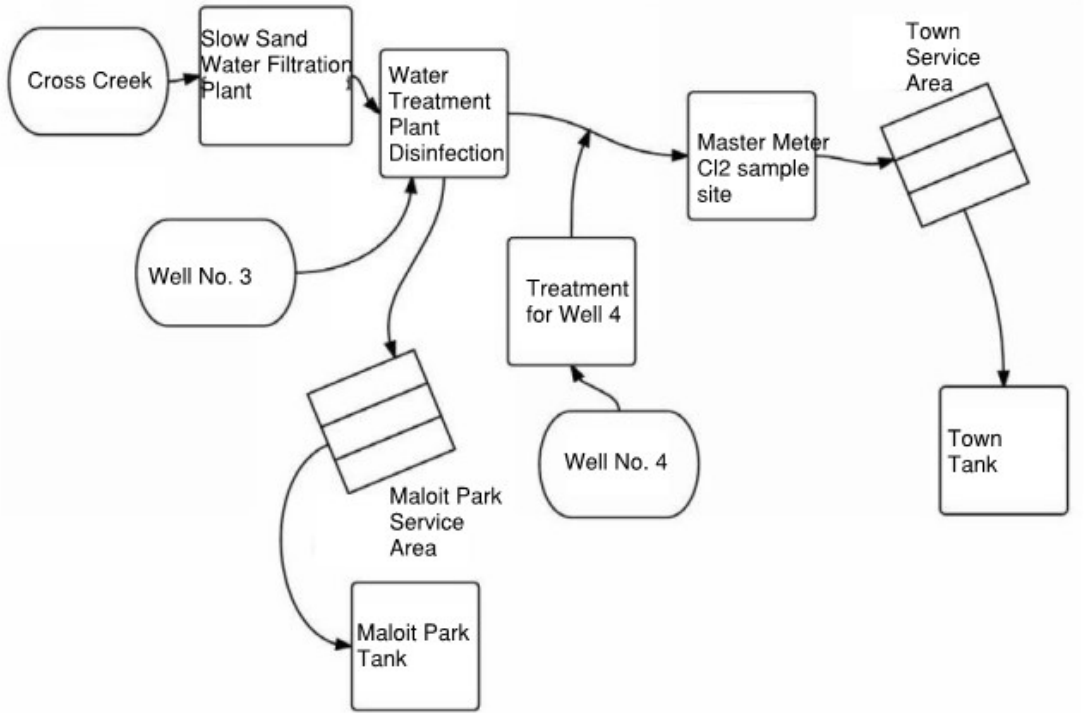
	SFEs	**Average Daily**	**Max. Month**	**Max. Day**
	Additional Required Water Production (GPD)			
	SFEs	**Average Daily**	**Max. Month**	**Max. Day**
Option 1	120	31,080	51,300	68,400
Option 2	120	31,080	51,300	68,400
	Existing Water Production Requirements (GPD)			
	SFEs	**Average Daily**	**Max. Month**	**Max. Day**
Existing	37	6,000	9,000	18,600
	Total Future Water Production Requirements (GPD)			
	SFEs	**Average Daily**	**Max. Month**	**Max. Day**
Option 1	157	37,100	60,300	87,000
Option 2	157	37,100	60,300	87,000

2.6 Sources of Water

The Town of Minturn's water supplies include surface water diverted and gravity fed from Cross Creek at a concrete diversion structure located approximately 1,600 feet upstream of the treatment plant in a 12-inch cast iron raw water pipeline.

The Town also has two groundwater wells (Well 3 and Well 4). Well 3 pumps water directly to the plant clearwell through a 4-inch pipeline. Well 4 waterline is connected to the existing transmission line from the plant to the town. This configuration does not meet CDPHE disinfection requirements and Well 4 has been classified as an emergency water supply until the Town can resolve and satisfy CDPHE disinfection requirements. **Figure 2** shows a schematic of the Town's current water system.

Figure 2 Minturn Raw Water System Schematic



2.6.1 Water Reliability and Redundancy

Currently the Town relies solely on Cross Creek and the groundwater wells for its water. Relying on a single water source carries risks to the Town in the event that Cross Creek water is limited either through low flow/drought conditions or the water quality is degraded through an event such as a forest fire or contaminated by a pollutant. It is advisable that the Town secure a secondary/redundant water source to be able to provide water to the Town if the primary water source is not available.

There are two options for a redundant water source as identified by the Town and their consultants and as presented to Council in September 2018; either develop the Town's existing Eagle River water rights or construct an interconnection to the ERWSD system. Developing the Eagle River water rights is presented in the next section. The infrastructure for interconnect with ERWSD is not analyzed in this document because future infrastructure is presumably to be provided by the future development.

3.0 Raw Water Improvement Projects

This plan includes three recommended projects to improve the raw water system. **Table 7** provides a cost estimate and proposed timing. A summary of the project is as follows.

3.1 Raw Water Screening Improvements

The existing inlet structure has a ½”x½” coarse screen to keep out large debris. The current screening openings is adequate for the slow sand filtration process, however if alternative treatment is used, better screening will assist to remove debris and protect treatment equipment.

3.2 Well 4 Pipeline Improvements

Well 4 connects to the main distribution pipeline to the Town service area. As previously discussed, CDPHE has determined this configuration is not acceptable. Additionally, this configuration does not allow Well 4 water to be delivered to the Maloit Park service area.

Constructing a new pipeline from Well 4 pump head to the existing clearwell will resolve the configuration issues and allow the Town to manage its water resources more effectively, see **Figure 3**.

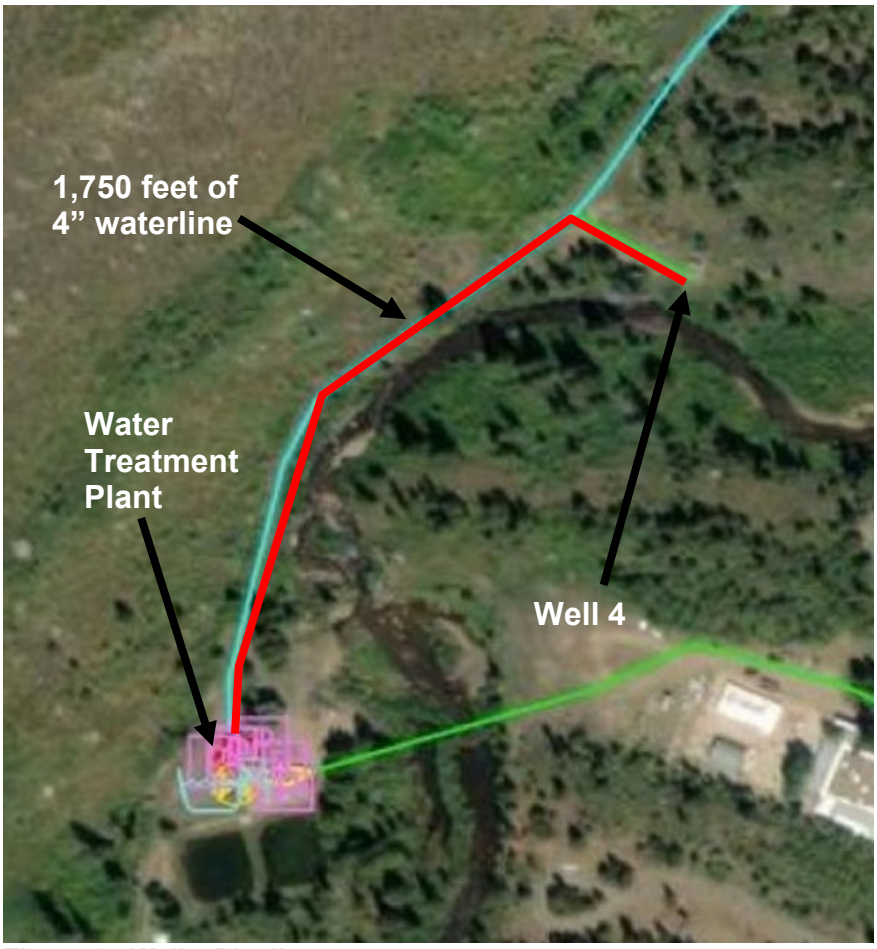


Figure 3 - Well 4 Pipeline

3.3 Eagle River Wells

Currently there is not a secondary or redundant water source available to the Town. Development of the Towns water rights on the Eagle River would provide this redundant

water supply through the development of a well field as well as provide additional water resources for future growth.

Wells would be drilled on banks of the Eagle River. Based on conversations with drilling companies, the wells would likely be drilled using a combination of air rotary and cable tool rigs. For the purpose of this CIP it is assumed that water would be pumped to the existing water treatment plant site for treatment and distribution. It is assumed that the wells would be drilled on the western bank of the Eagle River, see **Figure 4**.

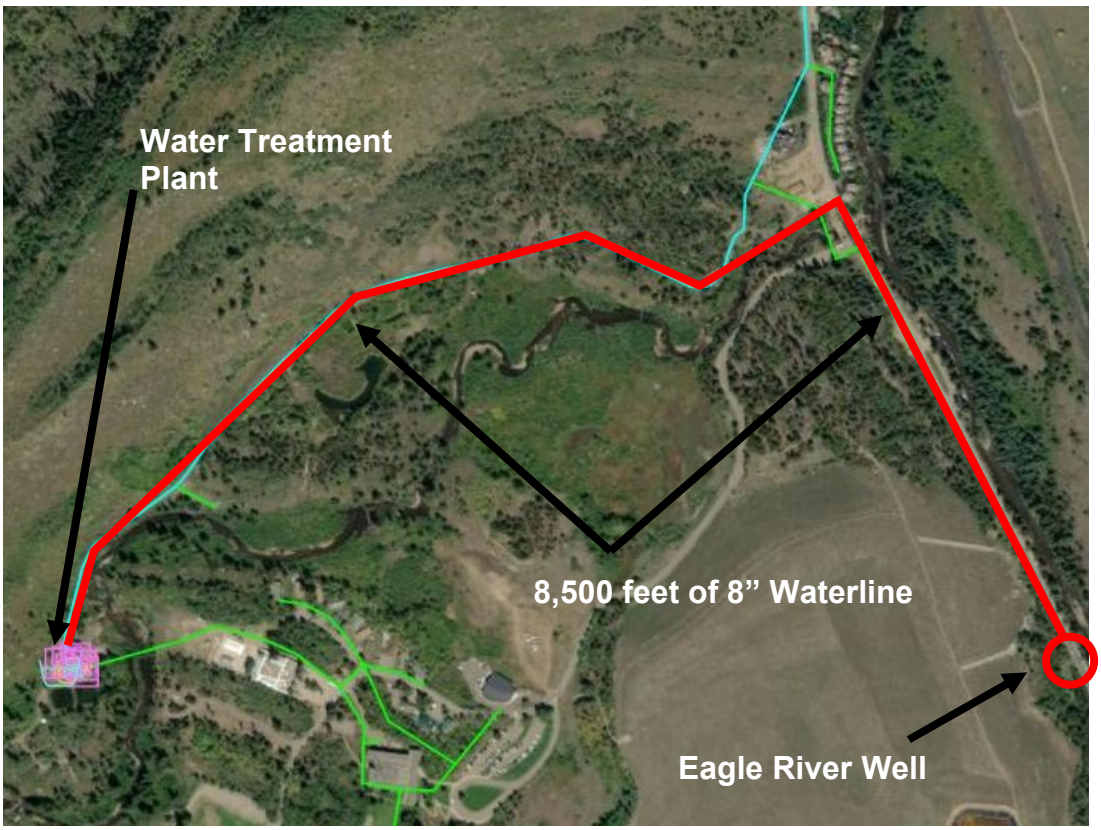


Figure 4 - Eagle River Wells and Pipeline

Table 7 Raw Water System Improvements Summary

Project	Purpose	Cost Est.
Raw Water Intake Improvements	Reduce O&M requirements and minimize sediment	$25K
Well 4 Pipeline Improvements	Come into compliance with CDPHE regulations and to fully utilize groundwater resources.	$230K
Eagle River Well Field and Pipeline	Provide additional water supply to support future growth and provide the Town with a redundant water supply	$5.2M

4.0 Water Treatment Plant Analysis

This chapter summarizes background, challenges and recommended projects associated with the Town's Water Treatment Plant (WTP).

4.1 WTP Background Information

4.1.1 Existing Water Facilities

The existing WTP consists of and intake structure off of Cross Creek, two groundwater wells (Well 3 and 4), three slow sand filters (filters 1 and 2 are located outdoors and filter 3 is indoors), a 25,000 gallon clearwell, sodium hypochlorite disinfection system and distribution pumps that deliver treated water to the Town and Maloit Park. All three filters discharge to a common clearwell through separate pipes. Sodium hypocholorite is dosed into the clearwell for disinfection.

Well 3 discharges directly to the clearwell. Well 4 feeds directly into the distribution line between the WTP and the Town. Well 4 is disinfected by sodium hypochlorite at the well pump, however, CDPHE has determined the piping configuration does not meet current regulations with regard to disinfection credits and has been categorized as an emergency supply. Well 4 cannot discharge into distribution system as currently operated unless under emergency conditions.

There are two separate distribution systems, Town Service Area and Maloit Park Service Area, that are fed from the clearwell. These systems have separate pumps, tanks and distribution pipelines.

4.1.2 Existing WTP Unit Processes

Filtration

Based on existing drawings titled "Water Treatment Plant Filter Addition," dated 1991, and discussions with Minturn staff, the filters consist of the following (note that the filters have not been deconstructed, rebuilt or rehabilitated since 1991 to allow for field verification):

- All filters have perforated PVC underdrain laterals supported in a 1 foot gravel layer.
  - Filters 1 and 2 laterals are 6"-diameter and spaced every 6 feet. The size and spacing of the perforations is unknown.
  - Filter 3 laterals are 4"-diameter and spaced every 5.5 ft. The size and spacing of the perforations is unknown.
- A geotextile fabric is provided above the gravel/laterals.
  - Filters 1 and 2 have a single layer of fabric.
  - Filter 3 has two layers of fabric with 2-inch of coarse sand between the fabrics.
- Approximately 3 to 3.5 feet of sand is provided above the collection laterals.
  - Filter 3 has a geotextile fabric between the sand layers at approximately 2 feet above the laterals.
- All filters have an overflow which sets the depth of water above the top of sand.
  - Water depth in Filters 1 and 2 is approximately 5.0 feet.
  - Water depth in Filter 3 is approximately 5.6 feet.

- Existing drawings and documentation do not provide the specifications for the gravel or filter sand. However, staff replaces sand that is removed during cleaning operations and this sand has an effective size (ES) of 0.15 to 0.3 mm and a uniformity coefficient (UC) of 3.0. These specifications meet the CDPHE criteria for sand.

The configuration of Minturn's slow sand filters generally follows accepted design practices in published design guides and literature. This includes the depth of the sand and height of water above the sand, both of which are critical components.

Filters 1 and 2 are located outdoors and are excavated into the existing ground. The filters are trapezoidal in cross section with 3:1 side slopes (horizontal:vertical). The various layers in the filters have different plan areas:

- Bottom of sand layer is 42 ft x 42 ft (1,764 sf)
- Top of the sand layer is 60 ft x 60 ft (3,600 sf)

Filter 3 is indoors and within a concrete basin. The concrete basin is 80 feet long and 40 feet wide (3,200 sf); all layers in the filter have the same area.

CDPHE design guidelines limit the maximum allowable filtration rate to 0.1 gpm/sf. **Table 5** shows that current hydraulic loadings for the existing filters are well below this maximum. Note that the CDPHE maximum loading rate does not imply that all slow sand filters can be operated successfully at that rate. It is an upper bound above which CDPHE believes the technology's application would create an unacceptably high risk to public health based on its inherent limitations.

Table 8 Slow Sand Filter Hydraulic Loading Rates

Filt. No.	Filter Area (ft^2)[1]	Filter Area (ft)[2]	Current Loading Rate (GPM/sf)[1]	Current Loading Rate (GPM/sf)[2]	Max. Loading Rate (GPM/sf)[3]	Current Flow-rate (GPM)[1]	Max. Allowed Flowrate (GPM)[3]
1	3,600	1,764	0.0167	0.034	0.1	60	360
2	3,600	1,764	0.0167	0.034	0.1	60	360
3	3,200	3,200	0.018	0.018	0.1	60	320
		Total Slow Sand Filter Capacity				180	1,040

1. Area based on top of sand layer
2. Area based on the bottom of sand layer
3. CDPHE Design Criteria for Potable Water. Water Quality Control Division. 2013.

Disinfection

Disinfection is achieved using hypochlorite to maintain a residual at the point of entry. Water from the filters and Well 3 discharged to the clearwell where chlorine is added. The clearwell is 25,000 gallons and does not have any baffling and therefore has a baffle factor of 0.1. The configuration and the size of the clearwell is not sufficient to achieve the required 1-log Giardia inactivation and 2-log virus inactivation. To achieve the required inactivation, the transmission pipelines and batching has been employed, further discussed below.

Town Service Area
The Town Service Area achieves the required disinfection requirements through the clearwell and the transmission pipeline. However, as described above, Well 4 is not able to operate due to lack of disinfection compliance.

Maloit Service Area
The Maloit Service Area cannot meet inactivation requirements using the clearwell and transmission pipeline due to contact time. In order to meet disinfection, water is "batched" in the clearwell. The clearwell is filled with filtered water and dosed with hypochlorite and held for the requirement time to achieve the required inactivation.

4.2 WTP Improvements

The slow sand filtration has served the Town well for many years, however, there are several factors and indicators that suggest this technology is not sustainable to reliably produce high quality drinking water to meet CDPHE regulations and future growth. However, it is clear that the following contributing factors warrant that the Town make significant improvements to the WTP to ensure efficient, manageable operations and reliable regulatory compliance.

- Water Quality Challenges are present during spring runoff with elevated turbidity levels in Cross Creek. The existing slow sand plant struggles to meet the permit turbidity limits during high turbidity events seen in spring runoff and the Town has had to shut down the slow sand filter plant and utilize the wells during runoff. This has been workable for the current demand but severely limits the ability of the Town to serve additional demand.
- Seasonal Operating conditions can have a significant impact on the operations, required maintenance and performance of slow sand filters. These impacts are generally more acute than for more highly engineered filtration systems and must be considered when evaluating the future use of these filters to serve the Town.
  - Winter- The outdoor filters can potentially freeze, potentially prohibiting their use for water production during the winter months. Ideally, outdoor filters should be drained and taken offline during winter to prevent ice from damaging the underdrain piping and/or disturbing the sand bed. CDPHE recommends that outdoor sand filters be enclosed.
  - The biological action of the filters, which is the key to their filtration performance, is reduced with low water temperatures. Operating at a slower filtration rate can help to counteract the effects of lower water temperature.
  - Spring - Spring runoff conditions often generate higher turbidity raw water, which typically yields shorter filter run times. Historically, Minturn has not seen turbidities greater than 5 NTU, or so, in water from Cross Creek. That said, spring runoff conditions are still the most challenging and they are concurrent with the start of the high water demand season in Minturn. Additionally, if water sources to the WTP are changed, or if there are disruptions to the Cross Creek watershed, such as a forest fire, spring runoff conditions may become more challenging in the future.
  - The filtration plant will need to be operating at peak flows during peak demand season, which occurs during the summer months. Plant operations will need to be carefully planned to ensure that the filters are cleaned and fully operational

prior to peak demand. When one of the Town's slow sand filters reaches the end of its filter run, drying, cleaning, and ripening, can require that the filter be off-line for 4+ weeks. This leaves the Town without a critical production source.

- As described in Section 3.1.2, the amount of water that the filters can produce is less than observed in other slow sand filter plants and the maximum permitted limit. The reasons for the low production is not known but could be due to blockage or clogging within the filter and it is possible the production rate may continue to fall without significant rehabilitation.
- Meeting regulatory requirements will continue to be challenging and will likely become more stringent in the future. Multiple tests are being conducted in 2019 to determine the ability and extent of the slow sand filters to produce water. While preliminary results suggest the filters are performing well, future performance will need to be validated and it is likely additional water quality testing will be necessary.

4.2.1 WTP Process Upgrade Alternatives Summary

In order to address changes to influent water quality at the WTP, a planning-level analysis was conducted to evaluate potential alternatives. The alternatives are summarized as follows:

Alternative 1. Filter Rehabilitation and Upgrades

Filter rehabilitation would entail completely removing and replacing all media, filter underdrain piping and the liner. Rehabilitation would attempt to address the low production rate and address regulatory and water quality challenges. However, rehabilitation does not guarantee that the filter issues are resolved. Slow sand filters are not mechanical, rather they are biological and there are significant risks that rehabilitation will not solve the issues and may lead to the filters not performing as designed which has been observed with other slow sand filter rehabilitations in Colorado.

CDPHE design criteria states the filters are to be indoors and while CDPHE has stated that they won't require them to be enclosed, there is a possibility that they will be required in the future. The large footprint associated with slow sand filters limit the ability to expand production in the future.

Alternative 2. Filter Replacement (Membrane Filters)

Membranes represent state-of-the-art filtration technology, are highly automated, and offer robust treatment and can handle a wide range of influent water quality conditions. Membranes have a small footprint which would fit within the existing plant site. Membranes are skid mounted and are module based therefore the capacity can be expanded easily. The systems are generally automated which simplify operation compared to conventional water filtration treatment plant.

It is assumed that existing clearwell would be repaired and kept in service as well as the Town and Maloit Park service pumps. The existing outdoor filters would be abandoned, and a new engineered metal building would be constructed in the footprint of one of the outdoor filters. The other filter would be repurposed to serve as the backwash holding pond for the membrane waste.

This analysis evaluated MEMCOR CPII low-pressure membrane ultrafiltration System. Two membrane trains, 1 duty and one standby, would be installed. Each train would house a 24 L40N membrane module capable of treating approximately 450 GPM.

Based on this information, SGM recommends that the Town pursue Alternative 2 – membrane filters. Given the costs and the risks of filter rehabilitation, the ability of membranes to manage a wide range of variable raw water parameters and the ability to easily expand plant capacity membranes are the most reliable technology to produce water for current and future conditions.

4.2.2 Clearwell Repairs

Existing clearwell has settled and groundwater is seeping in at pipe penetrations and at cracks in the concrete walls. Repairs to the existing clearwell are necessary to repair spalling concrete in the basin and repairs to ensure the clearwell is water tight. The interior of the clearwell should be repaired and recoated.

4.2.3 Water Treatment Plant Improvements Summary

Table 9 presents a summary of the water treatment plant improvement recommendations identified in this chapter.

Table 9 Water Treatment Plant Improvements Summary

Project	Purpose	Cost Est.
Construct new membrane filter plant	Improve the reliability of the water plant to deliver the quality and quantity of water needed for current and future growth	$3.8M
Construct new water plant building	New building to house membrane filtration equipment	$475K
Repairs and Modifications to the clearwell	Clearwell is cracked and needs repairs to extend the service life of the structure. The piping and controls need to be upgraded to improve the operations	$250K

5.0 Water Distribution System Analysis

Minturn maintains over 7 miles of potable water distribution piping, 2 water storage tanks, and 1 PRV station.

This chapter documents the capital improvements related to the water distribution system. Included in each improvement category is a description of the analysis criteria, assumptions and methodology used to develop recommendations.

5.1 Water Storage

Minturn maintains 2 water storage tanks (Minturn and Maloit Park tanks) and 708,000 gallons of combined stored water. The following summarizes the analysis and recommendations associated with water storage.

5.1.1 Minturn Water Tank Inspection and Evaluation

A dive inspection by Marine Diving Solutions was performed on October 3, 2015 and SGM performed an in-service floating inspection on May 7, 2019. The result of the inspection was that the existing Minturn Tank is near the end of its useful like and either significant rehabilitation or replacement is necessary. It is our recommendation to plan for a replacement of the tank as rehabilitation is a short term fix and deterioration will continue. Replacement analysis and options are presented in Section 5.1.2.

5.1.2 Evaluation of Tank Replacement Options

SGM evaluated three types of tanks: bolted steel tanks, welded steel tanks and concrete tanks.

Bolted Steel Tank

A factory-coated bolted carbon steel tank for water storage meeting the requirements of American Water Works Association (AWWA) D103.

A bolted steel water storage tank is composed of rolled steel tank panels connected at the lap joint by a bolted connection. A row of bolts, along with gasket material and sealant are used to seal each horizontal and vertical lap joint. The capacity of a bolted steel tank can be as large as 8 million gallons and typically includes an aluminum geodesic dome roof and a concrete foundation. Bolted tanks are typically factory coated for an ideal coating and curing environment, then transported and erected in the field.

Welded Steel Tank

A welded steel tank for water storage meeting the requirements of AWWA D100.

Similar to a bolted steel tank, a welded steel tank is composed of rolled carbon steel sheets or panels connected together by lap or butt-jointed welds. Due to the high strength of a welded connection, welded steel tanks are constructed to capacities up to 25 million gallons. Larger capacity welded steel tanks require roof framing members to support lateral and vertical loads. Typical foundation types include a concrete ringwall or deep foundation.

Concrete Tank

There are three design and construction methods for concrete tanks which include conventionally reinforced meeting the requirements of American Concrete Institute (ACI) 350, Wire- and Strand-Wound, Circular, Prestressed Concrete Water Tanks meeting the requirements of AWWA D110, and Tendon-Prestressed Concrete Water Tanks meeting the requirements of AWWA D115. Conventionally reinforced concrete tanks are typically designed for capacities less than 250,000-gallon capacities.

AWWA D110, Type III Strand-Wound, Prestressed Concrete Tank
D110 Type III tanks are constructed with a continuous steel diaphragm which is permanently embedded in the finished tank wall. The diaphragm acts as a water barrier within the tank wall, providing assurance of water tightness. The tanks are constructed with bonded wire prestressing applied to the exterior wall, providing multiple layers of continuous prestressing. These tanks are typically constructed with a free-standing concrete spherical dome roof eliminating the needs for internal columns and roof framing. Wall and roof sections are cast-in-place in “casting beds” and erected similar to tilt-up construction prior to installation of the bonded wire prestressing. Shotcrete is applied to the bonded wire for protection and an aesthetic finish.

AWWA D115 Tendon- Prestressed Concrete Tank
D115 tanks do not utilize a steel diaphragm within the wall, instead waterstop materials are installed at all joints to provide a water-tight tank. Tendons are placed internal to the tank wall, which is threaded through a plastic duct and hydraulically jacked. Corrosion protection is applied by injecting grout into the plastic duct. D115 tanks are typically constructed with a column-supported, moderately sloped roof.

Advantages and Disadvantages

There are advantages and disadvantages applicable to all tank construction methods. A few of each are summarized in the table below. It is SGM’s opinion the greatest disadvantage with bolted and steel tanks are the continual maintenance required throughout the life-span of the tank. Concrete tanks require very little maintenance in comparison. All construction methods have challenges related to weather. Welding and coating operations are highly affected by low temperatures and moisture. Similarly, there are challenges with on-site pre-casting of concrete panels in inclement weather.

Table 10 Tank Advantages and Disadvantages

Tank Type	Advantages	Disadvantages
Bolted Steel (AWWA D103)	Lowest capital cost	Anticipated 30- to 45-year life-span
	Reduced construction duration from factory applied coatings and quick field erection	Gaskets and sealants at bolted connections deteriorate over time; very difficult to replace and maintain
	Aluminum dome roof as a design option allows for elimination of roof framing	Very difficult to recoat
	Tanks are typically designed by the in-house tank fabrication engineer utilizing modeling software	Poor construction
		Multiple contractors needed for site work, pipeline installation and foundation construction
Welded Steel (AWWA D100)	Full replacement tank designed to current regulations and codes	Steel tariffs have increased the price of steel; steel tanks are no longer as affordable as in previous years
	Numerous qualified steel fabrication and construction companies in the industry which improves competitive pricing	Requires interior and exterior surface preparation and recoating every 15 years for life of the tank
	Full penetration welding for water-tightness	Anticipated 75-year life span; requires maintenance beyond typical sandblasting and recoating, i.e., floor plate scanning and repairs, pitting repairs and roof framing repairs and replacement
	Exterior color selection available to camouflage with surroundings	Susceptible to corrosion for life of the tank
		Dome roof is not likely an option of the size of the tank; significant roof framing required to support vertical and horizontal loads which become cumbersome for maintenance and cleaning
		Additional expense associated with internal, external and below floor plate cathodic protection
		Longer construction duration for fabrication, erection, and field coating
		Inclement weather can affect welding and coating processes
Concrete Tank AWWA D110 Wire-Wound Tank	100-year life-span; minimal maintenance required	Specialized design and construction; Preload and DN Tanks are industry leaders which reduces competitiveness in the market, i.e., limited contractors in the industry compared to steel tanks
	Improved insulation; can be buried	Longer construction duration needed for casting of wall and roof panels and cure time
	Dome roof eliminates roof framing and internal columns; improves ease of cleaning	Some spall and crack repair may be needed during life of the tank
	Watertight steel diaphragm within the wall	
	Streamlined construction	

	process, i.e., simultaneous construction of the tank walls and floor	
	Concrete can be colored, and/or architectural finishes can be used for aesthetics	
Concrete Tank AWWA D115 Tendon Prestressed Tank	100-year life-span; minimal maintenance required	Specialized design and construction; D115 tanks are typically designed by a structural engineer, constructed by a general contractor and post-tensioned by a specialty contractor
	Watertight joints provided by internal waterstop material and joint sealant	Joints may require rehabilitation during life-span
	Improved insulation; can be buried	
	Concrete can be colored, and/or architectural finishes can be used for aesthetics	

New Construction Costs

The table below summarizes anticipated tank construction costs for a 0.60 MG tank, which are applicable to the tank construction only and exclude all items typical to the site which include access, foundation, site piping, site security. All appurtenances associated with the tank such as vents, access hatches, handrail, and ladders are included in the tank construction cost.

Table 11 Tank Unit Costs

Bolted Steel Tank	Welded Steel Tank	Prestressed Concrete Tank
~$1.05/gallon	~$1.20/gallon	~$1.45/gallon

Life Cycle Analysis

While bolted steel tanks may be the most cost effective for initial capital costs, the life-span of a bolted tank is not comparable to a welded steel or concrete tank primarily due to the need to replace the tank based on the useful life of the tank.

Bolted Steel Tank Maintenance

As seen in the existing bolted steel tank, the gasket and sealant materials have deteriorated at the bolted connections causing a number of leaks. Numerous repairs have been performed on the tank by underwater dive teams. To properly rehabilitate a bolted steel tank, the gasket and sealant materials should be replaced during recoating operations which can be a significant undertaking.

Maintenance costs for a bolted steel tank are extremely difficult to estimate as it is challenging to estimate the rate of corrosion at joints and bolts, required relining/coating for corrosion protection and replacement of gaskets. It is also extremely difficult to estimate the extent of the rehabilitation as each tank tends to be somewhat unique. For this analysis, it is assumed that the tank will need to be replaced every 45 years and that the gaskets and the interior liner needs to be replaced once before the lifespan of the tank expires. We have assumed that this effort is approximately $200,000 per repair event.

Welded Steel Tank Maintenance

A welded steel tank will need to be taken offline approximately every 15 years throughout the life of the tank to replace the internal and external coating system and perform steel pitting repairs and potentially roof framing repairs and/or replacement. Anticipating a 75-year life of a welded steel tank and maintenance scheduled every 15 years, the table below summarizes the anticipated costs associated with steel tank maintenance and are listed for the 0.60 MG tank. Traditionally construction costs would be escalated when projecting; however, for simplicity, recoating costs are recorded the same for each maintenance cycle. Applicable to both steel and concrete tanks, the Town is required to inspect and clean their tanks every 5 years per the requirements of Colorado's Primary Drinking Water Rule. These costs are applicable to either construction method and are therefore excluded from the lifecycle analysis.

Table 12 Welded Tank Maintenance Costs

0.60 MG Steel Tank Maintenance Schedule and Costs			
Year	**Maintenance Scheduled**	**Total Price**	
15	Full abrasive blast and re-application of interior coating	$187,000	Total 1st Maintenance Cycle Cost **$380,100**
15	Full abrasive blast and re-application of exterior coating	$175,000	
15	Engineering / Inspection Cost (estimated as 5%)	$18,100	
Year	**Maintenance Scheduled**	**Total Price**	
30	Full abrasive blast and re-application of interior coating	$187,000	Total 2nd Maintenance Cycle Cost **$401,100**
30	Full abrasive blast and re-application of exterior coating	$175,000	
30	Magnetic Flux Leakage (MFL scan) of floor plate	$15,000	
30	Floor plate repairs	$5,000	
30	Engineering / Inspection Cost (estimated as 5%)	$19,100	
Year	**Maintenance Scheduled**	**Total Price**	
45	Full abrasive blast and re-application of interior coating	$187,000	Total 3rd Maintenance Cycle Cost **$456,750**
45	Full abrasive blast and re-application of exterior coating	$175,000	
45	Magnetic Flux Leakage (MFL scan) of floor plate	$15,000	
45	Floor plate repairs	$8,000	
45	Roof framing repairs	$50,000	
45	Engineering / Inspection Cost (estimated as 5%)	$21,750	
Year	**Maintenance Scheduled**	**Total Price**	Total 4th Maintenance

60	Full abrasive blast and re-application of interior coating	$187,000	Cycle Cost **$401,100**
60	Full abrasive blast and re-application of exterior coating	$175,000	
60	Magnetic Flux Leakage (MFL scan) of floor plate	$15,000	
60	Floor plate repairs	$5,000	
60	Engineering / Inspection Cost (estimated as 5%)	$19,100	
75	Tank Replacement		
Total Life Cycle Maintenance Cost			**$1,639,050**

Concrete Tank Maintenance

Little to no maintenance is required for AWWA D110/D115 tanks; however, concrete tanks should be inspected routinely following initial construction. Inspections should include examination of the surfaces to locate signs of possible deterioration or corrosion, including rust stains, efflorescence, cracks or leaks. The below table estimates the maintenance costs associated with a pre-stressed concrete tank.

Table 13 Concrete Tank Maintenance Costs

Concrete Tank Maintenance Schedule and Costs			
Year	**Maintenance Scheduled**	**Total Price**	
30	Minor crack and concrete spall repair	$75,000	Total 1st Maintenance Cycle Cost **$84,000**
30	Replacement gaskets and bolts on shell manways and roof access hatches; replacement vent screening	$5,000	
30	Engineering / Inspection Cost (estimated as 5%)	$4,000	
Year	**Maintenance Scheduled**	**Total Price**	
60	Crack and concrete spall repair	$75,000	Total 2nd Maintenance Cycle Cost **$141,750**
60	Replacement gaskets and bolts on shell manways and roof access hatches; replacement vent screening	$5,000	
60	Replacement anchorage for exterior and interior ladders and roof handrail	$5,000	
60	Exterior shotcrete repairs	$50,000	
60	Engineering / Inspection Cost (estimated as 5%)	$6,750	
Year	**Maintenance Scheduled**	**Total Price**	
90	Crack and concrete spall repair	$75,000	Total 3rd Maintenance Cycle Cost **$186,375**
90	Replacement roof access hatches and	$30,000	

	roof vents		
90	Replacement exterior and interior ladders	$20,000	
90	Replacement shell manway gaskets and bolts	$2,500	
90	Exterior shotcrete repairs	$50,000	
90	Engineering / Inspection Cost (estimated as 5%)	$8,875	
100	Tank Replacement		
Total Life Cycle Maintenance Cost			**$412,125**

The tables above show the costs to maintain a steel tank can far exceed the cost of a prestressed concrete tank.

Cost Summary

It is assumed that a new bolted steel tank will be replaced at year 45, and a new welded steel tank will be replaced at year 75. When the tank is at the end of the design life (every 45 years for a steel bolted tank, 75 years for a welded steel tank), the replacement cost is the present day tank cost with an assumed 1.5% yearly inflation – the replacement costs shown are future costs.

The lifecycle maintenance costs summarized in the tables above are added to the initial capital cost associated with the construction of a bolted steel, welded steel or concrete tank. The following table summarizes the 100-year lifecycle costs for different asset lifespans. It is important to note, the replacement costs listed are for the tank only.

Table 14 Tank Lifecycle Costs

100-Year Lifecycle Cost Summary			
Cost Analysis over 100-Year Lifecycle	**Bolted Steel Tank**	**Welded Steel Tank**	**Prestressed Concrete Tank**
New Construction	$627,000	$720,000	$870,000
Replacement of Bolted Steel at Tank- Age 45	$1,230,000	N/A	N/A
Replacement of Welded Steel Tank - Age 75	N/A	$2,000,000	N/A
Replacement of Bolted Steel at Tank - Age 90	$2,500,000	N/A	N/A
Maintenance Costs	$600,000	$1,639,050	$412,215
Total Cost	**$4,957,000**	**$3,223,450**	**$1,282,215**

SGM recommends the Town consider prestressed concrete tanks for the future replacement of the existing 0.60 MG tank and the Maliot Tank. SGM recommends performing a tank selection study and perform preliminary design to analyze an AWWA D110 vs D115 pre-stressed concrete tank and perform a constructability review to address operational needs based on ability to construct a new tank concurrent with the existing operational tank or removing the existing tank from operation during construction and supporting the system needs with by-pass piping.

5.1.3 Water Storage Analysis – Volume

5.1.3.1 Water Storage Volume Analysis Criteria

SGM evaluated water storage using the concept of "tank service area." A tank's service area is defined as the pressure zone on which the tank floats plus the pressure zones below if those lower zones do not have storage.

Sufficient water storage capacity should be prepared for industry-standard criteria which are determined using the volume components of demand equalization, emergency supply and fire suppression. A description of these components is as follows:

- *Equalization storage* – the volume needed to meet the instantaneous water demands in the area served by a given tank (or tanks) that occur at a rate which is greater than the capacity of available water production and pumping facilities serving that area. The difference in instantaneous water demand and delivery capacity is typically calculated as peak hour demand (PHD) less maximum day demand (MDD) since production and pumping systems are often designed with a firm capacity that meets MDD. In this study, the duration of this event is taken as 6 hours. Since PHD is often calculated as two times MDD, the target *equalization volume was set to 25% of MDD*.

- *Emergency storage* - the volume needed to meet water demands during emergency conditions or a planned maintenance activity, which reduces or eliminates the ability to deliver water to an area served by a given tank (or tanks). Such an event might include:
    - a power outage
    - a mechanical failure of a production/pumping facility
    - a break on a critical water transmission line
    - preventative maintenance activities on a production/pumping facility or critical water transmission line

  Recommendations for emergency storage volume vary. Appropriate emergency storage is site-specific because it involves balancing risk, costs, and water age. The most often cited recommendations for emergency storage volume are to meet either ADD or MDD conditions for a 24-hour period. In order to minimize water age and chlorine residual decay, SGM will target *an emergency storage volume equal to ADD*.

- *Fire storage* – the volume required to meet the controlling firefighting needs in the area served by a given tank (or tanks). For this water system, SGM met with Mick Woodworth of the Eagle River Fire Protection District (ERFPD) on June 5, 2019. Mr. Woodworth indicated that fire flow needs for Minturn would follow the International Fire Code (IFC) - latest edition; Minturn's code matches the IFC. For fire storage requirements, target fire flows are

multiplied by duration, estimated using Appendix B of the 2017 International Fire Code (IFC). Fire storage volumes assume that only one fire event occurs at a time in the service area of a tank (or tanks).

5.1.3.2 Water Storage Volume Analysis Results and Recommendations – System Wide

Table 15 summarizes the current water storage capacities versus calculated storage needs. **Table 16** provides the same information under anticipated future demand conditions. **Table 17** Fire Flow Required by Zone outlines the fire flow requirements for each tank zone.

As shown in **Table 15**, the storage requirements vary depending on which growth option is used. However, as detailed in section 4.1, the Minturn Tank should be replaced due to structural and leakage concerns.

Table 15 Existing Water Storage Analysis

	Storage Required for Current Conditions				
Tank (Capacity, Gal)	**Emergency (Gal)**	**Equalization (Gal)**	**FireFlow (Gal)**	**Total (Gal)**	**Deficit**
Minturn Tank **(600,000)**	150,000	83,000	270,000	503,000	**0**
Maloit Park Tank **(108,000)**	5,000	6,000	270,000	281,000	**173,000**

Table 16 Future Water Storage Analysis

	Tank (Capacity, Gal)	**Emergency (Gal)**	**Equalization (Gal)**	**FireFlow (Gal)**	**Total (Gal)**	**Deficit**
Option 1	Minturn Tank **(600,000)**	198,000	109,000	270,000	577,000	**0**
	Maloit Park Tank **(108,000)**	38,000	22,000	270,000	330,000	**222,000**
Option 2	Minturn Tank **(600,000)**	228,000	126,000	270,000	624,000	**24,000**
	Maloit Park Tank **(108,000)**	89,000	51,000	270,000	410,000	**302,000**

Table 17 Fire Flow Required by Zone

Service Area	**Maximum Fire Flow Location**	**Max. Fire Flow Required (GPM)**	**Duration (Hours)**	**Volume (MG)**
Town	Entire Service Area	2,250	2	0.27
Maloit Park	Entire Service Area	2,250	2	0.27

5.2 Fire Flow Delivery

5.2.1 Fire Flow Analysis Criteria

Fire flow delivery is the ability of the system to transmit target fire flows under conservative operational and demand conditions. For this evaluation these conditions are:

- Demand condition: MDD
- Minimum tank levels: 5 feet

The recently created water distribution system model was used to predict fire flow delivery throughout the system. Adequate fire flow delivery through firefighting equipment depends on maintaining residual pressure at the local fire hydrant. Furthermore, when large fire flow rates are pulled from the system, pressures drop zone-wide. Maintaining a minimum pressure throughout the distribution system is critical to keep positive pressure and eliminate potential contaminant intrusion. These two considerations lead to the following two pressure criteria, which constrain the maximum available fire flow in a given area:

- Minimum residual pressure at flowing hydrants: 20 PSI
- Minimum pressure elsewhere in the system: 20 PSI

5.2.2 Fire Flow Results and Recommendations

Simulation results indicate that 83% of nodes meet the required fireflow target of 2,250 gpm under current maximum day demand conditions. The percentage decreases for Options 2 and 3, decreasing to around 71%. Critical nodes with the lowest available fireflow are located at the end of Taylor Street, near Cross Creek Road, and throughout the lower portions of Maloit Park. Fireflow deficit in these areas can be mitigated by implementing the following improvements:

- *Taylor Street:* Install a new pipeline under 4th Avenue or 4th Street which ties into the proposed 12" line to Dowd Junction (if the interconnect is built) or extend the existing waterline from Taylor St/Minturn Rd to 4th St (See **Figure 5**). This loop would reduce hydraulic resistance between Minturn's primary storage tank and Taylor street, increasing available fire flow.
- *Cross Creek Road:* Install a PRV station near the intersection of Cross Creek Road and Highway 24 which provides water from the Maloit Park pressure zone via the new Maloit Park Tank.
    - Installing a PRV station would only be beneficial if distribution piping in Maloit Park were upsized or looped to facilitate delivery of fireflow.
    - Installing a PRV near Cross Creek Road could provide a redundant pathway for delivering finished water to the Town Zone. It would possibly reduce the Town's storage requirements by allowing emergency storage to be provided from multiple Tanks.

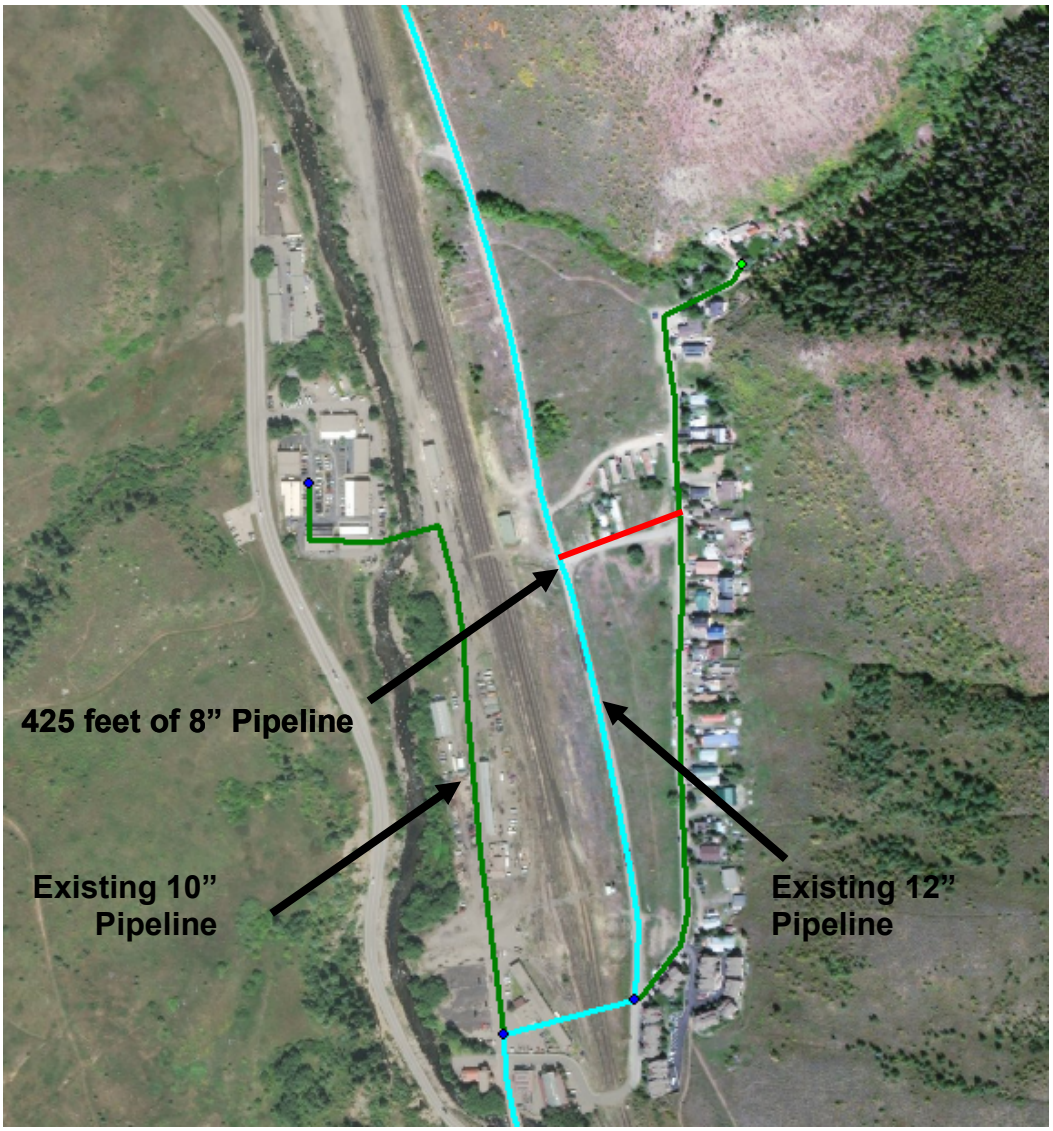


Figure 5 - 4th Avenue Loop Line

5.3 Velocity

5.3.1 Velocity Analysis Criteria

High flow velocity in pipes is undesirable because it (1) increases the potential magnitude of pressure transients, which can increase the risk of contaminant introduction or infrastructure damage (2) increases head loss and required energy consumption and (3) causes stress and wear on fittings and connections, increasing the potential for leaks and main breaks.

Recommended maximum velocity is as follows:

- Maximum day demand conditions: Velocity < 5 FPS (ideal), 7FPS (maximum)
- Peak hour demand conditions: Velocity < 10 FPS

The recently created water distribution system model was used to predict velocity in pipes throughout the system. Velocity analysis was conducted under MDD conditions with pumps running.

5.3.2 Velocity Results and Recommendations

Flow velocities throughout the Town service area and Maloit service area are generally below recommended maximums for MDD and fireflow. The only instance where pipe velcities are outside the maximum reocmmendations are in the Maloit Park service area during fireflow events where they exceed the maximum by approximately 10% which does not impair the ability to delvier the quantity of water necessary druing a fire. Therefore, there are no projects proposed to mitigate velocity concerns.

5.4 Pressure

5.4.1 Pressure Analysis Criteria

Both insufficient and excessively high pressures within the distribution system are undesirable. Low operating pressures provide less protection against backflow, increasing the possibility of system contamination. Low service pressures also can lead to customer complaints, especially regarding domestic service pressure and proper irrigation system function. High pressures increase water use, water loss, energy consumption, buried infrastructure and pump wear, work hazards, and the risk of property damage. The benefits of system design using tight pressure ranges must be balanced against the associated infrastructure costs to create the pressure zone breaks. The appropriate design pressure range for a given system is often site-specific.

Colorado Department of Public Health and Environment (CDPHE)'s 2013 Design Criteria for Potable Water Systems indicate that:

> *"The system must be designed to maintain a minimum pressure of 20 PSI at ground level at all points in the distribution system under all conditions of flow. The normal working pressure in the distribution system must be at least 35 PSI and should be approximately 60 to 80 PSI. Near storage tanks, the water main pressure will be less than the required pressures stated above. The Department expects water systems to mitigate the low pressure around storage tanks and to minimize the amount of distribution main impacted."*

SGM recommends the following normal working pressure range:

Minimum: 20 PSI
Maximum: 120 PSI

5.4.2 Pressure Analysis Results and Recommendations

Modeling results indicate that operating pressures range between **32** and **110** psi under both current and future demand conditions. The only area which fails to meet the minimum recommended pressure criteria of 55 psi is near the intersection of Highway 24 and Cross Creek Road, which is the highest point in the Town service area. Considering that the elevation of this location limits the maximum service pressure to 33 psi, model results do not indicate a supply deficiency. Therefore, the existing distribution system is adequately sized to convey system demands under current and future operating conditions.

5.5 Redundancy

5.5.1 Redundancy Analysis Criteria

A water distribution system design should minimize the likelihood and duration of service interruptions to the extent practicable. The majority of taps should be able to receive water even during planned maintenance activities and unplanned repairs or equipment failures. The Town system was analyzed with consideration given to:

- Piping - Looping and parallel piping networks
- Water storage - Gravity water storage (versus pressure tanks) and ability to take tanks offline for maintenance
- Production - Multiple water production sources

A critical component of system redundancy is having a secondary water source to supply raw water if the primary source – which is Cross Creek is limited. The secondary water source has been identified as the Eagle River Wells as described in Section 3.3 of this report.

5.5.2 Redundancy Analysis Results and Recommendations

Piping –
As with all distribution systems, elimination of all dead-end lines is not feasible. Minimization of dead-end lines, however, should be the goal. The Minturn system generally has a well-looped network outside of the primary transmission mains. However, there are areas that are limited to water delivery by a single main. Those include the following:

- The north end of Town north is fed by a single 12-inch pipe that is exposed and runs across the Eagle River at Bellm Bridge. The pipe is at risk of scour or damage from the Eagle River. It is recommended that the line be replaced – or a parallel line be installed – to mitigate the potential of a failure of this waterline, see **Figure 6**. Waterline can be bored beneath the Eagle River, hung on the existing bridge or installed across the river with an aerial crossing.

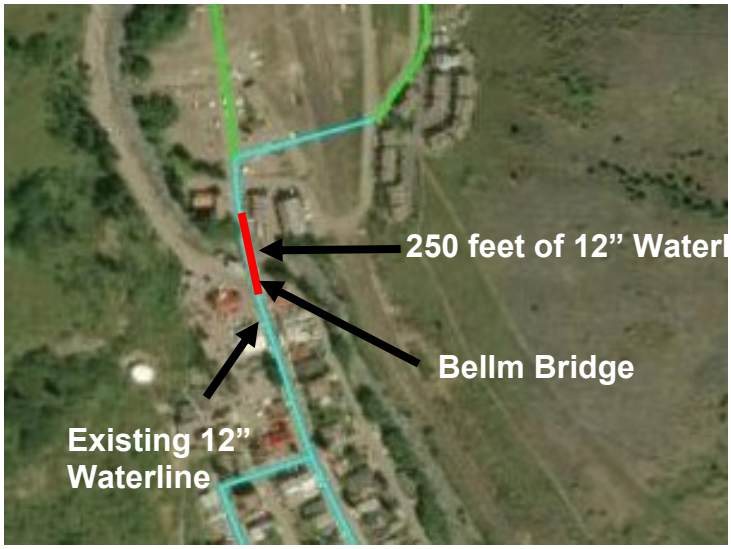


Figure 6 - Bellm Bridge Pipeline

Water Service Redundancy –
The Town and Maloit Park Service Areas are not connected and there needs to be a way to deliver water to either area if the primary feed is compromised. Additionally, water storage tanks should be drained for maintenance occasionally. However, single tank zones that are present in Minturn this can be challenging. SGM recommends:

- Interconnecting the Maloit Service Area and the Town Service area at approximately Cross Creek Drive and Highway 24 at a new PRV/BPS vault and installing a 12-inch line in Cross Creek Road to the Maloit Park service area, see **Figure 7**.
    - Recommend installing a 8-inch PRV with a 2-inch by-pass in parallel.
    - It is recommended that the vault has sufficient space to allow for pump connections to facilitate pumping water between the zones either by installing pumps in the vault or a portable pumping system.

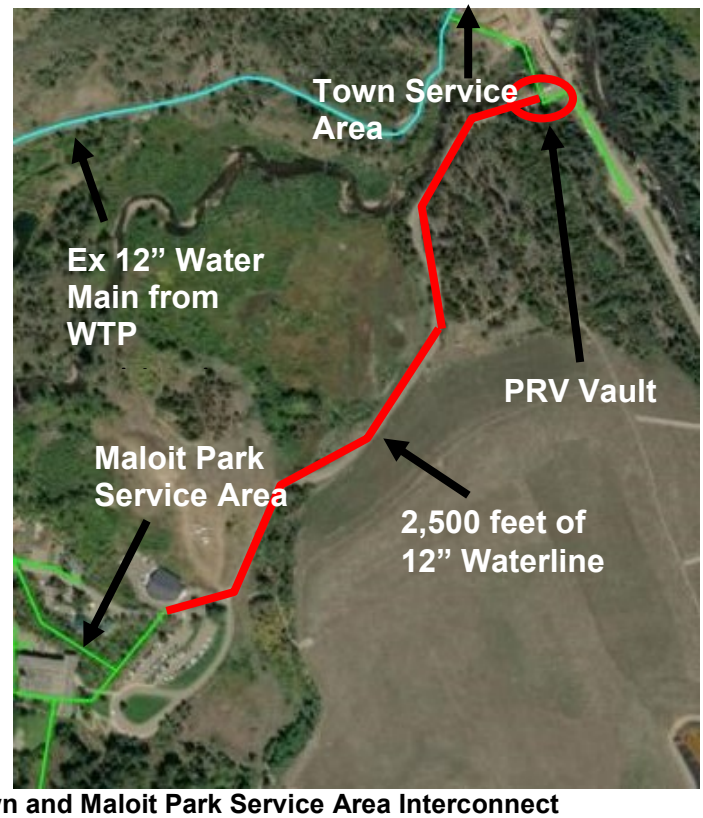


Figure 7 - Town and Maloit Park Service Area Interconnect

5.6 Water Loss Management

Water loss has been a persistent problem for the Town with water loss ranging from 30-60% which is well outside of the typical range of 10-15% for municipalities. While the Town has aggressively tracked and repaired leaks (and recent water loss figures suggests that these efforts have generally been successful), it is likely higher than normal water loss will persist. Generally, leaks have been located and repaired on service lines and not on the water mains. Furthermore, water meters on service lines have not been upgraded or calibrated and might be leaking or recording water used potentially incorrectly leading to a “paper water loss”. The following water loss management projects are recommended:

It is recommended that the Town utilize leak detection equipment to efficiently detect and locate leaks that are not observable from the surface. This will allow Town staff to find and repair leaks that would otherwise go undetected.

It is recommended that the Town initiate a water meter replacement program to upgrade the water meters to current technology.

5.7 Water Main Line Replacement

The majority of the Towns water mains are aging. The Town has not had a pipe replacement plan in place to systematically replace waterlines as they reach the end of their useful life. By delaying the replacement of aging infrastructure, there is risk of line breaks and disruptions to the system.

It is recommended that the Town establish a yearly replacement budget to be used to systematically replace aging pipes. This will help to address water leaks on the mains as new waterlines have very low permissible water loss. Additionally, the corporation stops and service lines to at least the curb stop would be replaced which would address leaks on this section of the system. It is recommended that the Town allocate $250,000 per year to fund the water main replacement plan.

5.8 Water Distribution System Improvements Summary

Table 18 summarizes the distribution system improvements detailed in the previous sections and provides a summary of the water system improvements recommended in this section.

Table 18 Water Distribution System Improvements Summary

Project	Purpose	Cost Est.
Maloit Park Tank	Address storage requirement needs	$1.67M
Minturn Tank	Address leaks and storage requirement needs	$1.55M
Bellm Bridge Waterline Replacement	Provide redundancy to the north part of Town	$570K
Maloit Park and Town Interconnect	Allow water to be moved between service areas	$1.31M
Leak Detection System	Locate leaks	$50K
Water Main Replacement Program	Replace aging watermains	$2.5M
Water Meter Replacement Program	Upgrade aging water meters	$250K

6.0 Recommended Improvements Summary

This chapter summarizes the recommended water system improvements identified in Chapters 2 through 5. The description of the development options are listed below.

- Option 1: Cross Creek Only – Under this option the Town would continue to rely solely on Cross Creek for its water supply.
- Option 2: Cross Creek plus Eagle River Wells – Under this option the Town would continue to utilize Cross Creek water and also develop additional water resources on the Eagle River through a well field. This option includes moderate growth.

Table 19 Recommended Water System Improvements – Option 1

Projects	Category	Description	Cost
1 TO 3 YEAR TIME HORIZON			
Construct a new Minturn Tank	Tank	Replace existing Minturn Tank with a 600,000 gallon tank	$ 1,600,000
Construct new Maloit Park Tank	Tank	Construct a new 250,000 gallon concrete water tank on the existing tank site. Project would include the demolition of the existing tank.	$ 900,000
Connect Well 4 to existing clearwell	Treatment	Construct approximately 900 feet of 4" pipe from Well 4 to the existing clearwell	$ 230,000
Systematic Waterline Replacement Program	Pipeline	Systematic replacement of the Town's waterlines	$ 2,500,000
Invest/Install leak detection system	O&M	Implement a leak detection system	$ 50,000
Develop a Town GIS system	O&M	Create a comprehensive GIS mapping system of the Town's water and public infrastructure	$ 15,000
Water Meter Replacment Program	O&M	Replace water meters throughout Town	$ 250,000
3 TO 5 YEAR TIME HORIZON			
Construct new membrane plant at existing plant site designed to treat Cross Creek and Eagle River water	Treatment	Install membranes in a new pre-engineered building at the existing WTP site. New components will include pre-treatment system, booster/feed pumps, membranes, clean-in-place chemical system and compressed air system. The existing clearwell and distribution pumps will remain in service.	$ 4,290,000
Repairs and Modifications to the clearwell	Treatment	Make repairs to the existing clearwell and modifications to piping and controls.	$ 100,000
Raw Water Intake Improvements	Treatment	Install finer screening	$ 25,000
5 TO 10 YEAR TIME HORIZON			
Connect Maloit Park Service Area to Town Service Area	Pipeline	Construct approximately 2,500 feet of 12" waterline from the Minturn Community Center to the intersection of Highway 24/Cross Creek Road. Project includes the construction of a pressure reducing/sustaining station in a buried vault to include the ability to install booster pumps or connect an electric or diesel powered pump to supply water to either zone.	$ 1,310,000
Replace waterline in Eagle River at Bellm Bridge	Pipeline	Construct approximately 150 feet of 12" waterline across the Eagle River at Bellm Bridge	$ 570,000
			$ 11,840,000
10 TO 20 YEAR HORIZON			
Loop Taylor Street	Pipeline	Construct approximately 425 feet of 8" pipe from the new 12" Dowd Junction waterline to the existing 8" water line in Taylor St in 4th St.	$ 130,000
			$ 130,000
			$ 11,970,000

Table 20 Recommended Capital Improvements Projects - Option 2

Projects	Category	Description	Cost
1 TO 3 YEAR TIME HORIZON			
Construct a new Minturn Tank	Tank	Replace existing Minturn Tank with a 650,000 gallon tank	$ 1,670,000
Construct new Maloit Park Tank	Tank	Construct a new 250,000 gallon concrete water tank on the existing tank site. Project would include the demolition of the existing tank.	$ 900,000
Connect Well 4 to existing clearwell	Treatment	Construct approximately 900 feet of 4" pipe from Well 4 to the existing clearwell	$ 230,000
Systematic Waterline Replacement Program	Pipeline	Systematic replacement of the Town's waterlines	$ 2,500,000
Invest/Install leak detection system	O&M	Implement a leak detection system	$ 50,000
Develop a Town GIS system	O&M	Create a comprehensive GIS mapping system of the Town's water and public infrastructure	$ 15,000
Water Meter Replacment Program	O&M	Replace water meters throughout Town	$ 250,000
3 TO 5 YEAR TIME HORIZON			
Construct new membrane plant at existing plant site designed to treat Cross Creek and Eagle River water	Treatment	Install membranes in a new pre-engineered building at the existing WTP site. New components will include booster/feed pumps, membranes, clean-in-place chemical system and compressed air system. The existing clearwell and distribution pumps will remain in service.	$ 4,290,000
Construct pretreatment system to pretreat Eagle River water	Treatment	Build concete basins and chemical feed systems to address Eagle River water quality issues.	$ 429,000
Repairs and Modifications to the clearwell	Treatment	Make repairs to the existing clearwell and modifications to piping and controls.	$ 100,000
Raw Water Intake Improvements	Treatment	Install finer screening	$ 25,000
New Well Field and pipeline to connect wells to WTP	Water Supply	Drill 3 new wells at the decreed location of the Eagle River Wells. Includes property acqusition, drilling wells, constructing well building, well pumps and pipeline to the existing WTP site.	$ 5,220,000
5 TO 10 YEAR TIME HORIZON			
Connect Maloit Park Service Area to Town Service Area	Pipeline	Construct approximately 2,500 feet of 12" waterline from the Minturn Community Center to the intersection of Highway 24/Cross Creek Road. Project includes the construction of a pressure reducing/sustaining station in a buried vault to include the ability to install booster pumps or connect an electric or diesel powered pump to supply water to either zone.	$ 1,310,000
Replace waterline in Eagle River at Bellm Bridge	Pipeline	Construct approximately 150 feet of 12" waterline across the Eagle River at Bellm Bridge	$ 570,000
			$ 17,559,000
10 TO 20 YEAR HORIZON			
Loop Taylor Street	Pipeline	Construct approximately 425 feet of 8" pipe from the new 12" Dowd Junction waterline to the existing 8" water line in Taylor St in 4th St.	$ 130,000
			$ 130,000
			$ 17,689,000

TOWN OF MINTURN, COLORADO
RESOLUTION NO. 53 - SERIES 2025

A RESOLUTION ACCEPTING A PROJECT NEEDS ASSESSMENT FOR WATER TREATMENT FACILITIES

RECITALS

A. **WHEREAS**, The Town of Minturn, in the County of Eagle and State of Colorado (the "Town"), is a home-rule municipal corporation duly organized and existing under the laws of the State of Colorado and the Town Charter; and

B. **WHEREAS,** The Town is responsible for planning, maintaining, and improving its public infrastructure and municipal services in a manner that protects public health, safety, welfare, and financial sustainability; and

C. **WHEREAS,** The Town commissioned and/or received a **Project Needs Assessment (PNA)** prepared by HDR/Swiftwater Solutions dated July 2025 which evaluates existing conditions, identifies deficiencies, assesses future needs, and provides recommendations for capital improvements and/or operational strategies related to the Minturn water collection and treatment system; and

D. **WHEREAS,** The Project Needs Assessment was developed using available data, professional engineering and/or planning judgment, and input from Town staff and stakeholders, as applicable; and

E. **WHEREAS,** The Town Council has reviewed the Project Needs Assessment and finds that it provides a reasonable and useful framework for understanding current conditions, planning future improvements, and supporting future decision-making, budgeting, grant applications, and financing efforts; and

F. **WHEREAS,** Acceptance of the Project Needs Assessment does not constitute final approval of any specific project, funding mechanism, design, or construction activity, but rather acknowledges receipt and acceptance of the document as a planning and informational tool.

NOW, THEREFORE, BE IT RESOLVED by the Town Council of the Town of Minturn, Colorado as follows:

1. **Acceptance of Project Needs Assessment**
   The Town Council hereby accepts the Project Needs Assessment prepared by HDR/Swiftwater Solutions dated July 2025.

2. **Use of the Project Needs Assessment**
   The accepted Project Needs Assessment may be used by the Town as a planning

document to support future capital improvement planning, budgeting, grant and loan applications, intergovernmental coordination, and policy discussions.

3. **No Commitment of Funds or Project Approval**
   Acceptance of the Project Needs Assessment does not obligate the Town to implement any recommendations, expend funds, or approve specific projects without further review, approval, and formal action by the Town Council.

4. **Recordkeeping**
   The Town Clerk is hereby directed to maintain a copy of the accepted Project Needs Assessment and this Resolution in the official records of the Town.

INTRODUCED, READ, APPROVED, ADOPTED AND RESOLVED this 30th day of December, 2025.

TOWN OF MINTURN

By:_____
Earle Bidez, Mayor

ATTEST:

_____
Jay Brunvand, Town Clerk

Town of Minturn, CO
Water Treatment Plant Improvements
Financing Considerations

Town Council Meeting – December 17, 2025

Water Treatment Plant Improvements

- Background & Context
  - Project design @ 90%
  - Submitted to CDPHE for approval. 3-6 month, perhaps longer, timeline.
    - March 2026 approval, at the earliest. Target delivery of funding shortly thereafter.
  - Construction start goal: Spring 2026, as soon as the ground thaws.
    - In what's already a somewhat abbreviated construction season at elevations of 8,000-9,500ft, a timely commencement assists in project delivery.
    - Specifically, earthwork and excavation components of construction can be variable at best. The more this works represents as a percentage of total project cost, the more a longer construction season becomes important, to start early and have time to address unforeseen circumstances.
- Reason for exploring alternatives
  - Timing
    - January 5th and June 5th CWRPDA application deadlines for projects over $3 million ("mm"), otherwise known as leveraged loans.
    - If approved, 2-5 months to closing. January 2026 application cycle results in an estimated May – July 2026 closing.

Assumptions for Analysis

- Inputs *(subject to change)
  - $12,000,000* project fund estimate, a conservative 9% increase from 60% design figures.
  - Interest rates* are estimates reflecting recent market conditions and are subject to change.
  - Repayment term*, or period over which annual payments are amortized, is targeted for 25-30 years. The final maturity depends on the available option.
  - The first year of principal amortization* depends on the available option.
  - A debt service reserve (“DSR”) requirement* depends on the available option. Generally calculated at the lowest of the following three calculations, per IRS regulations.
    - May be funded by bond proceeds or cash on hand.
  - Security is represented by a pledge of net revenues (e.g., gross utility revenues minus operational expenditures) of the enterprise fund.
  - The assumed debt service coverage (“DSC”) covenant mirrors that of the currently outstanding enterprise obligations – 1.10x or 110%.
  - Construction period of at least 2 years.

Preliminary Comparison Analysis

	CWRPDA	Bank Loan	Notes
Project Amount	$12,960,000	$12,000,000	Likely some premium (>6% <12%) w/CWRPDA option.
Anticipated Closing/Delivery of Funds	5/1/2026	3/1/2026	Best case scenario; CWRPDA may close as late as July.
Interest Rate	3.875%	4.300%	CWRPDA's subsidized interest rates are typically lower than alternative options.
Repayment Term	30 years	25 years	CWRPDA provides longer option (lower annual payments).
Final Maturity	30 years	Up to 20 years	The bank loan requires at least one additional financing for a long-term takeout.
First Year of Principal	2026	2027	Bank loan provides flexibility; need more info for CWRPDA.
Total Interest Paid thur first 10-years.	$4,508,078	$5,068,733	Delaying a principal payment can increase interest costs.
DSR requirement	$773,119	$725,000	Bank loan option provides flexibility; CWRPDA requires funding @ max. annual debt service.
Costs of Issuance ("COI")/Upfront Costs	$47,627	$82,500	CWRPDA provides a subsidy for COI. Bank option requires COI paid at least twice.
Par Amount (loan amount)	$13,785,000	$12,810,000	Subject to DSR requirement and COI.
Prepayment/refinancing flexibility	10 years	≤ 3 years	Bank option provides the most flexibility.

Considerations

- Tarriff risk w/bank option versus increased, but perhaps more well-known premiums with BABA/Davis Bacon/domestic sourcing requirements under the PDA.
- Construction risk still persists with the PDA option as it's hard to quantify the cost of excavation/earthwork without a deliberate contingency to address the volatilities applicable to this aspect of the project.
- Bank option provides flexibility, perhaps improved reliability of project completion while managing rate payer impact.
  - Exposed to long term interest rate risk.

Cash Flows

Direct Lending Arrangement

	1 12/1/2026	2 12/1/2027	3 12/1/2028	4 12/1/2029	5 12/1/2030	6 12/1/2031	7 12/1/2032	8 12/1/2033	9 12/1/2034
Net Revenues @ 1.10x DSC	$403,942	$798,413	$801,136	$797,885	$799,898	$801,438	$802,505	$797,599	$797,957
Annual Debt Service	$367,220	$725,830	$728,305	$725,350	$727,180	$728,580	$729,550	$725,090	$725,415
Cash Flow after Debt Service	$36,722	$72,583	$72,831	$72,535	$72,718	$72,858	$72,955	$72,509	$72,542
One Time Cash Infusion			$3,000,000						
Stabilization Draws				($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)
Net Cumulative Excess Cash Flow	$36,722	$109,948	$3,184,702	$3,212,970	$3,241,914	$3,271,506	$3,301,712	$3,332,001	$3,362,853
Montly Impact (based on debt service)	$40.80	$73.85	$70.25	$66.28	$63.79	$62.59	$62.68	$62.29	$62.32
Monthly Impact w/Stabilization	$40.80	$73.85	$70.25	$57.14	$55.02	$54.00	$54.09	$53.70	$53.73

Direct Lending Arrangement

	10 12/1/2035	11 12/1/2036	12 12/1/2037	13 12/1/2038	14 12/1/2039	15 12/1/2040	16 12/1/2041	17 12/1/2042	18 12/1/2043
Net Revenues @ 1.10x DSC	$913,422	$917,483	$916,955	$915,717	$913,770	$916,614	$918,511	$913,963	$914,205
Annual Debt Service	$830,383	$834,075	$833,595	$832,470	$830,700	$833,285	$835,010	$830,875	$831,095
Cash Flow after Debt Service	$83,038	$83,408	$83,360	$83,247	$83,070	$83,329	$83,501	$83,088	$83,110
One Time Cash Infusion									
Stabilization Draws	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)
Net Cumulative Excess Cash Flow	$3,404,741	$3,447,732	$3,491,426	$3,535,773	$3,580,719	$3,626,710	$3,673,679	$3,721,056	$3,769,284
Montly Impact (based on debt service)	$71.34	$71.66	$71.61	$71.52	$71.37	$71.59	$71.74	$71.38	$71.40
Monthly Impact w/Stabilization	$62.75	$63.06	$63.02	$62.93	$62.77	$63.00	$63.15	$62.79	$62.81

Direct Lending Arrangement

	19 12/1/2044	20 12/1/2045	21 12/1/2046	22 12/1/2047	23 12/1/2048	24 12/1/2049	25 12/1/2050	26 12/1/2051
Net Revenues @ 1.10x DSC	$919,001	$917,114	$914,282	$916,003	$916,542	$915,899	$914,073	$916,564
Annual Debt Service	$835,455	$833,740	$831,165	$832,730	$833,220	$832,635	$830,975	$833,240
Cash Flow after Debt Service	$83,546	$83,374	$83,117	$83,273	$83,322	$83,264	$83,098	$83,324
One Time Cash Infusion								
Stabilization Draws	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)
Net Cumulative Excess Cash Flow	$3,818,792	$3,868,995	$3,919,818	$3,971,688	$4,024,515	$4,078,207	$4,132,673	$4,188,319
Montly Impact (based on debt service)	$71.77	$71.63	$71.41	$71.54	$71.58	$71.53	$71.39	$71.58
Monthly Impact w/Stabilization	$63.18	$63.04	$62.81	$62.95	$62.99	$62.94	$62.80	$62.99

Direct Lending Arrangement

	27 12/1/2052	28 12/1/2053	29 12/1/2054	30 12/1/2055
Net Revenues @ 1.10x DSC	$917,637	$917,290	$915,525	$917,840
Annual Debt Service	$834,215	$833,900	$832,295	$834,400
Cash Flow after Debt Service	$83,422	$83,390	$83,230	$83,440
One Time Cash Infusion				
Stabilization Draws	($100,000)	($100,000)	($100,000)	($100,000)
Net Cumulative Excess Cash Flow	$4,245,036	$4,302,714	$4,361,241	$4,421,003
Montly Impact (based on debt service)	$71.67	$71.64	$71.50	$71.68
Monthly Impact w/Stabilization	$63.08	$63.05	$62.91	$63.09

CWRPDA Leveraged Loan

	1 12/1/2026	2 12/1/2027	3 12/1/2028	4 12/1/2029	5 12/1/2030	6 12/1/2031	7 12/1/2032	8 12/1/2033	9 12/1/2034
Net Revenues @ 1.10x DSC	$849,293	$846,560	$846,691	$846,395	$845,673	$850,025	$848,238	$846,024	$848,884
Annual Debt Service	$772,084	$769,600	$769,719	$769,450	$768,794	$772,750	$771,125	$769,113	$771,713
Cash Flow after Debt Service	$77,208	$76,960	$76,972	$76,945	$76,879	$77,275	$77,113	$76,911	$77,171
One Time Cash Infusion			$3,000,000						
Stabilization Draws				($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)
Net Cumulative Excess Cash Flow	$77,208	$155,520	$3,235,213	$3,268,774	$3,302,857	$3,337,932	$3,373,459	$3,409,405	$3,446,241
Montly Impact (based on debt service)	$85.79	$78.31	$74.24	$70.31	$67.44	$66.39	$66.25	$66.07	$66.30
Monthly Impact w/Stabilization	$85.79	$78.31	$74.24	$61.17	$58.67	$57.80	$57.66	$57.48	$57.71

CWRPDA Leveraged Loan

	10 12/1/2035	11 12/1/2036	12 12/1/2037	13 12/1/2038	14 12/1/2039	15 12/1/2040	16 12/1/2041	17 12/1/2042	18 12/1/2043
Net Revenues @ 1.10x DSC	$845,604	$847,399	$848,554	$849,069	$848,946	$848,183	$846,780	$850,238	$847,344
Annual Debt Service	$768,731	$770,363	$771,413	$771,881	$771,769	$771,075	$769,800	$772,944	$770,313
Cash Flow after Debt Service	$76,873	$77,036	$77,141	$77,188	$77,177	$77,108	$76,980	$77,294	$77,031
One Time Cash Infusion									
Stabilization Draws	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)
Net Cumulative Excess Cash Flow	$3,483,423	$3,521,420	$3,560,186	$3,599,677	$3,639,848	$3,680,653	$3,722,045	$3,764,475	$3,807,384
Montly Impact (based on debt service)	$66.04	$66.18	$66.27	$66.31	$66.30	$66.24	$66.13	$66.40	$66.18
Monthly Impact w/Stabilization	$57.45	$57.59	$57.68	$57.72	$57.71	$57.65	$57.54	$57.81	$57.59

CWRPDA Leveraged Loan

	19 12/1/2044	20 12/1/2045	21 12/1/2046	22 12/1/2047	23 12/1/2048	24 12/1/2049	25 12/1/2050	26 12/1/2051
Net Revenues @ 1.10x DSC	$849,310	$844,924	$845,398	$845,020	$849,289	$846,993	$849,344	$845,130
Annual Debt Service	$772,100	$768,113	$768,544	$768,200	$772,081	$769,994	$772,131	$768,300
Cash Flow after Debt Service	$77,210	$76,811	$76,854	$76,820	$77,208	$76,999	$77,213	$76,830
One Time Cash Infusion								
Stabilization Draws	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)
Net Cumulative Excess Cash Flow	$3,851,224	$3,895,431	$3,940,456	$3,986,234	$4,033,201	$4,080,781	$4,129,408	$4,178,503
Montly Impact (based on debt service)	$66.33	$65.99	$66.03	$66.00	$66.33	$66.15	$66.33	$66.01
Monthly Impact w/Stabilization	$57.74	$57.40	$57.44	$57.41	$57.74	$57.56	$57.74	$57.41

CWRPDA Leveraged Loan

	27 12/1/2052	28 12/1/2053	29 12/1/2054	30 12/1/2055
Net Revenues @ 1.10x DSC	$845,563	$850,431	$848,519	$845,543
Annual Debt Service	$768,694	$773,119	$771,381	$768,675
Cash Flow after Debt Service	$76,869	$77,312	$77,138	$76,868
One Time Cash Infusion				
Stabilization Draws	($100,000)	($100,000)	($100,000)	($100,000)
Net Cumulative Excess Cash Flow	$4,228,496	$4,279,806	$4,331,841	$4,384,516
Montly Impact (based on debt service)	$66.04	$66.42	$66.27	$66.04
Monthly Impact w/Stabilization	$57.45	$57.83	$57.68	$57.45

Town of Minturn
301 Boulder St #309
Minturn, CO 81645
970-827-5645
council@minturn.org
www.minturn.org

FUTURE MEETING AGENDA ITEMS

Below reflects proposed topics to be scheduled at future Town Council meetings and is informational only. Dates and topics are subject to change.

January 7, 2026:

- Resolution XX – Series 2025, A Resolution to approve the public posting places
- Resolution XX – Series 2025, A Resolution Authorizing an Impact Fee Contract Approval
- Resolution XX – Series 2025, A Resolution Approving the 2-Bedroom Apartment Conversion (Employee Housing) Contract Approval
- Resolution XX – Series 2025, A Resolution Implementing a Drug and Alcohol Testing Policy for Non-CDL Employees

January 21, 2026:

- Presentation – Flavored Tobacco Products Ban Ballot Item
- Resolution to Approve a Contract Renewal with Vail Honeywagon for Waste Hauling Services
- Eagle County School District (Maloit Park) Preliminary Subdivision Plat
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Dates to be Determined / Long Term Scheduling:

- Adoption of the updated Regional Housing Authority Action Plan
- Taylor Street Repaving (Resolution Approving a Contract for the Repaving of Taylor Street
- Traffic Calming
- Golf Cart Discussion (Discussion / Direction)
- Ordinance __ (First Reading) - An Ordinance Adopting the 2024 Model Traffic Code (with Amendments and Updated Court Fines / Fees Schedule) – Legal/Krieg & Brunvand