



AGENDA

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 and times of agenda items listed are approximate and intended as a guideline for the Town Council.

MEETING OF THE MINTURN TOWN COUNCIL

Minturn Town Center 302 Pine Street
Minturn, CO 81645 • (970) 827-5645

Wednesday September 15, 2021

The public is welcome to join the meeting in person or using the following methods:

<https://us02web.zoom.us/j/84152456736>

Or join by phone:

US: +1 301 715 8592 or +1 651 372 8299

Webinar ID: 841 5245 6736

Regular Session – 5:30pm

MAYOR – John Widerman

MAYOR PRO TEM – Earle Bidez

COUNCIL MEMBERS:

Terry Armistead

George Brodin

Eric Gotthelf

Gusty Kanakis

Tom Sullivan

When addressing the Council, please state your name and your address for the record prior to providing your comments. Please address the Council as a whole through the Mayor. All supporting documents are available for public review in the Town Offices – located at 302 Pine Street, Minturn CO 81645 – during regular business hours between 8:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays.

Regular Session – 5:30pm

1. Call to Order

- Roll Call
- Pledge of Allegiance

The Minturn Town Council will open the Regular Meeting at 5:30pm for the purpose of convening into Executive Session. At (approximately) 6:30pm the Council will convene into Regular Session for the remainder of the meeting.

EXECUTIVE SESSION

- 2. Executive Session:** An Executive Session pursuant to Section 24-6-402(4)(f) for the purpose of discussing the Town Manager’s annual review and contract and for the purpose of Conferencing with the Town Attorney pursuant to C.R.S. 24-6-402(3)(b) for the purposes of receiving legal advice on title issues of certain Town property – Metteer/Sawyer

OPEN SESSION – APPROXIMATELY 6:30PM

- 3. Public comments on items which are ON the consent agenda or are otherwise NOT on the agenda as a public hearing or action item. (5-minute time limit per person)**
A Consent Agenda is contained in this meeting agenda. The consent agenda is designed to assist making the meeting more efficient. Items left on the Consent Agenda may not be discussed when the Consent Agenda comes before the Council. If any Council member wishes to discuss a Consent Agenda item, please tell me now and I will remove the item from the Consent Agenda and place it in an appropriate place on the meeting agenda so it can be discussed when that item is taken up by the Board. Do any Council members request removal of a Consent Agenda item?

- September 1, 2021 Meeting Minutes Pg 4
- September 7, 2021 Special Meeting Minutes Pg 18

- 4. Approval of the Consent Agenda**

- 5. Approval of Agenda**

- Items to be Pulled or Added
- Declaration of Conflicts of Interest

- 6. Special Presentations**

- Council Comments/Committee Reports (10 min)

PUBLIC HEARINGS AND/OR ACTION ITEMS

- 7. Public Hearing/Action Item:** A Public Hearing for the purposes of informing citizens and soliciting public input, written or oral, regarding the Minturn Water Tanks Project Needs Assessment (PNA) and Environmental Assessment (EA). – Metteer/Peterson/Gordon Pg 22
- 8. Public Hearing/Action Item:** Ordinance 09 – Series 2021 an ordinance authorizing a loan agreement with the Colorado Water Resources and Power Development Authority and a related bond for the purpose of financing improvements to the Town’s water storage system – Mann Pg 226

9. Public Hearing/Action Item: Resolution 30 – Series 2021 A Resolution updating and approving the Water Capital Improvement Plan – Metteer/Gordon Pg 275

10. Public Hearing/Action Item: Resolution 31 – Series 2021 A Resolution approving a Regional Transit Authority Memorandum of Understanding – Metteer Pg 283

DISCUSSION / DIRECTION ITEMS

11. Discussion / Direction Item: 2022 Water Rate Review – Metteer/Mann Pg 294

12. Discussion / Direction Item: Holy Cross Energy Transmission Line Comment Period Pg 296

COUNCIL INFORMATION / UPDATES

13. Staff Updates (5 Min)

- Manager’s Report Pg 304
- Future Agenda Items Pg 313

MISCELLANEOUS ITEMS

14. Future Meeting Dates

- a) Council Meetings:
- October 6, 2021
 - October 20, 2021
 - November 3, 2021
 - November 17, 2021

15. Other Dates:

16. Adjournment



OFFICIAL MINUTES

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 and times of agenda items listed are approximate and intended as a guideline for the Town Council.

MEETING OF THE MINTURN TOWN COUNCIL

Minturn Town Center 302 Pine Street
Minturn, CO 81645 • (970) 827-5645

Wednesday September 1, 2021

The public is welcome to join the meeting in person or using the following methods:

<https://us02web.zoom.us/j/88967020496>

Or join by phone:

US: +1 301 715 8592 or +1 651 372 8299

Webinar ID: 889 6702 0496

Regular Session – 5:30pm

**MAYOR – John Widerman
MAYOR PRO TEM – Earle Bidez**

COUNCIL MEMBERS:

Terry Armistead
George Brodin
Eric Gotthelf
Gusty Kanakis
Tom Sullivan

These minutes are formally submitted to the Town of Minturn Town Council for approval as the official written record of the proceedings at the identified Council Meeting. Additionally, all Council meetings are tape-recorded and are available to the public for listening at the Town Center Offices from 8:30am – 2:00 pm, Monday through Friday, by contacting the Town Clerk at 970/827-5645 302 Pine St. Minturn, CO 81645.

Regular Session – 5:30pm

1. Call to Order

- Roll Call

The meeting was called to order by Mayor John W. at 5:32pm using a hybrid in-person and ZOOM on-line meeting format.

Those present include: Mayor John Widerman, Mayor Pro Tem Earle Bidez and Town Council

members Terry Armistead, George Brodin, Eric Gotthelf (via Zoom), Gusty Kanakis, and Tom Sullivan.

Staff present: Town Manager Michelle Metteer (via Zoom), Town Planners Scot Hunn (Via Zoom) and Madison Harris, Town Attorney Michael Sawyer (via Zoom), and Town Treasurer/Town Clerk Jay Brunvand.

- Pledge of Allegiance

2. Public comments on items which are ON the consent agenda or are otherwise NOT on the agenda as a public hearing or action item. (5-minute time limit per person)

3. Approval of Consent Agenda (5Min)

A Consent Agenda is contained in this meeting agenda. The consent agenda is designed to assist making the meeting more efficient. Items left on the Consent Agenda may not be discussed when the Consent Agenda comes before the Council. If any Council member wishes to discuss a Consent Agenda item, please tell me now and I will remove the item from the Consent Agenda and place it in an appropriate place on the meeting agenda so it can be discussed when that item is taken up by the Board. Do any Council members request removal of a Consent Agenda item?

- August 18, 2021 Meeting Minutes
- Resolution 28 – Series 2021 A Resolution approving an Intergovernmental Agreement for the Master Interceptor Aerial Crossing and Bridge between Eagle River Water and Sanitation District, the County of Eagle, and the Town of Minturn – Metteer
- Planner Review – 76 Meek

Terry A. asked to move 76 Meek, it will be taken up as 8a.

Motion by Terry A., second by George B., to approve the Consent Agenda of September 1, 2021 as amended. Motion passed 7-0.

4. Approval of Agenda

- Items to be Pulled or Added
- Declaration of Conflicts of Interest

George B. asked to add an Executive Session to end of meeting at the end of the meeting.

Motion by George B., second by Terry A., to approve the September 1, 2021 agenda as amended. Motion passed 7-0.

5. Special Presentations

- Council Comments/Committee Reports (10 min)

Gusty K. attended a NWCCOG a meeting and updated.

Terry A. noted the USFS Holy Cross powerline project has added an additional comment period due to COVID. This changes the original notification to allow for the additional 30day comment period which will beginning in September. Comments can be made in person at the Dowd Jct USFS office or online. Any findings the USFS issues are only for the forest land, not private. She noted the extreme moose activity in the area. They are mean and keep your pets leashed.

Earle B. stated this is the final comment period and urged all to make comments.

John W. noted he will be stepping down and resigning from the Board. His last meeting will be 9/15/21. He has purchased a home and will be moving from the town. The Council thanked John for his service.

6. Liquor Authority

- Anonima Art Fest – Anonima Art Fest, a 501(c)(3), Request for Special Event Permit Event Date September 11, 2021; Little Beach Park 800 Cemetery Rd; Crys Shannon – Brunvand

Council is asked to approve a Special Event Permit for the Anonima Art Fest for an event to be held on September 11, 2021 at Little Beach Park located at 801 Cemetery Road Loop Minturn, CO. The attached documentation indicates the compliance with the posting of the site and the event.

Ms. Crys Shannon, applicant, outlined the event as an art fest with music. There will be food and drink available and should be a good time for all. It is a family-oriented event running 2pm to 9pm.

Public comment opened

No comment

Public comment closed

Motion by Earle B., second by Gusty K., to approve the proposed Special Event Permit to sell Malt, Vinous and Spirituous liquor beverages to be located as defined in the attached application as presented with the following conditions:

- The application was received on August 18, 2021. The Notice Of Public Hearing on his matter was posted on the premises by the Town Clerk on Tuesday August 20, 2021 at least 10 days prior to the Council Meeting consideration.
- That the selling of liquor in the manner currently proposed in the application is not in violation of the Minturn Municipal Code.
- Staff requests at least one T.I.P.S., or equivalent, certified server be present, and at least one person to check ID's be present at all times while alcoholic beverages are sold.
- Staff requests each entrance/exit and premises be monitored and secure to ensure crowd control and that no outside liquor is introduced to the event or removed from the event.

PUBLIC HEARINGS AND/OR ACTION ITEMS

7. **Public Hearing/Action Item:** Resolution 29 – Series 2021 a Resolution approving a Community/Master Plan contract – Metteer

Michelle M. stated the last Community Plan (also known as a Master Plan) was conducted in 2009. Traditionally, master plans are updated on a consistent basis to ensure the Town leadership stays on track with the collective vision of the community. The updating of the Community Plan is expected to be approximately a 1-year process with extensive public engagement to realign the goals of the town with the vision of the community. Multiple Open Houses, planning commission meetings, and council meetings will be a part of this endeavor. The RFP and SE Group Proposal (included with this memo) are a good source to understand the extensive nature of the process and public collaboration. The proposal also identifies the deliverables expected by the end of the process. \$229,985 (\$130,000 approved in the 2021 budget & \$100,000 awarded through a DOLA Energy and Mineral Impact Assistance Fund). Separately, and not included in the discussion, will be the option for dedicating \$20,000 in the 2022 budget toward the update of a Downtown Minturn Design Guideline Booklet.

Scot H. noted the timeline to get to this point tonight.

Michelle M. then introduced Gabby Voeller, SE Group. Ms. Voeller introduced her company and experience. She then summarized how the process for Minturn will work and a tentative timeline. The full project is anticipated to run through early summer 2022.

Motion by Gusty K., second by George B., to approve Resolution 29 – Series 2021 as presented. Motion passed 7-0.

8. **Public Hearing/Action Item:** Ordinance 07 – Series 2021 an Emergency Ordinance enacting a moratorium to the acceptance and processing of any new land use applications for design review, conditional use review, and limited use review for non-retail uses located on the street level of the 100 Block Commercial Zone – Sawyer

Michael S. presented the zoning for the 100 Block Commercial Zone in the Old Town Character Area provides that the primary purpose for this area of Town is to provide convenient commercial services to residents and visitors and to promote the development of the Town's primary retail area in order to generate sales tax. The existing zoning allows for certain non-retail uses on the "street level" as a matter of right (e.g. professional activities), some by limited use (e.g. clubs) and some by conditional use (e.g. duplexes). Based upon recent inquiries and land use submittals, there is concern that additional street level non-retail uses could locate within the 100 block and dilute the commercial services and retail nature of this zone district. Due to the emergency created by this situation, the Council is presented with an emergency ordinance enacting a moratorium. The moratorium would apply to the acceptance and processing of any new land use applications for design review, conditional use review, and limited use review for non-retail uses located on the street level of the 100 Block Commercial Zone. The moratorium would also apply to processing and issuance of any business license for a non-retail business seeking to locate

within a space on the street level of the 100 Block Commercial Zone.

Two important points:

- A. This moratorium will NOT apply to any applications which have already been filed on the date of its enactment.
- B. As an emergency ordinance it must be approved unanimously.

Tom S. asked if this would stop the further demolition of associated buildings. Michael S. stated the emergency is based on the use, not the associated demolition. If Staff received direction, they would bring back a second Emergency Ordinance that would cover that.

Terry A. asked if anything was retail or will it be restrictive of WHAT retail we want to help guide our Community Plan. We can take comments at any time to address this. An Emergency Ordinance can only be in effect for 90days. We need to stick within that timeframe. Any ongoing discussion could be addressed in the final non-Emergency Ordinance. The intent is to restrict use now and then modify the code as comments direct during the 90day window.

Scot H. noted staff and the Planning Commission have looked at Chapter 16 for over a year. This is still moving forward. Again, this action is simply to address the prohibition of non-retail on the first floor because that is a pressing point that we are facing today.

Earle B. discussed the use tables. In the past a use not listed in the use table is compared to what is there and a similar use is used. He stated if it is not in the use table then perhaps, we should have non-listed uses addressed by Council to ensure the use follows the intent of the Town long term vision.

Tom S. was concerned that our historical or traditional vision buildings be addressed to avoid more demolition which dramatically changes our current vision. Discussion ensued as to how a demolition permit works. It was noted this is a very short process at staff level. The demo permit is designed for safety and removal of utilities more so than the aesthetic value of the structure.

Terry A. stated the Emergency Ordinance, the “gaming” of the Code, and the demolition permit process are three separate process that need to be addressed separately. However, she felt they did need to be addressed soon. Scot H stated we have no historic designations and this would be a good time to have this discussion again.

Regarding the demolition process, Michael S. stated we could return with a second Emergency Ordinance to address this allowing for a 90day review period that would allow a concerted look at this. It was discussed that this is not limited to the 100 block.

Eric G. asked if restaurants are a retail outlet; Michael S. identified that retail is a use that provides more than a nominal sales tax contribution. A restaurant would fall in to a retail use.

Michelle M. asked if we could consider some form of lodging tax. She recommended it state nominal sales or lodging tax as well.

Public Hearing Opened
No Public Comment
Public Hearing Closed

Motion by Terry A., second by George B., to approve Ordinance 07 – Series 2021 an Emergency Ordinance enacting a moratorium to the acceptance and processing of any new land use applications for design review, conditional use review, and limited use review for non-retail uses located on the street level of the 100 Block Commercial Zone as amended to include lodging tax. Motion passed 7-0.

Discussion ensued as to the need for changes to our Demolition Permit process and the historical building issue. Was that something that could be done during the 90day window provided by the Emergency Ordinance process? Michael S. stated that we could continue the window through a non-Emergency Ordinance.

It was directed unanimously that an Emergency Ordinance be brought forward at the next meeting regarding the Demolition Permit and the historical value concern.

8A: 76 Meek:

Terry A. asked regarding the conditions applied to a Planning review. She stated if a condition such as snow storage is placed on the approval, would they need to come back to the Planning Commission to show they met the condition? Scot H. stated the conditions are given to staff as direction to ensure they are met prior to a building permit issuance. This direction and conditions must be met, and Staff ensures they are, prior to the building permit issuance but that normally the applicant does not go back to the Commission.

Other clarification questions were discussed regarding procedures of PUD's and such.

Motion by Terry A., second by Tom S., to approve final of 76 Meek. Motion passed 7-0.

DISCUSSION AND/OR DIRECTION ITEMS

9. Discussion/Direction: Battle Mtn default – Metteer/Sawyer

Michael S. presented at the August 18 Town Council Meeting, Council directed staff to send a notice of default letter to Battle Mountain. The notice of default identifies the various obligations that Battle Mountain has failed to perform since “Final Approval” of the annexation occurred in 2019. The defaults listed have occurred under the Annexation Agreement, the Water Service Agreement, the Wastewater Service Agreement, and the 2012 Agreement Regarding Escrows and Funding. The notice was sent on August 26. The notice was hand delivered the same day to Tim McGuire. As such, the “cure period” identified in the various agreements starts as of the August 26 delivery. The cure period is two to four weeks depending on the type of default. The Notice of Default letter is included at Attachment A at the end of these minutes.

Gusty K. asked regarding the Bolts and Arminda Ditch, was the Ditch not owned by the School

District? It is known a part is owned by them but it is not determinate if ALL of the ditch is owned by them so it was included.

Michael S. updated on the various financial obligations laid out in the Letter of Demand on request of Earle B.

Tom S. asked if the EPA knew they were owed, Michael S. will look in to this.

10. Discussion/Direction: 2022 Budget updates: Little Beach Park – Brunvand/Mette

Jay B. summarized the discussion noting the intent is to have Council give more direction throughout the development of the annual budget in order to include any direction given in the initial draft. This would then allow more time during the public review and public hearings for larger items of interest. This request is to allow Council to discuss and give direction on the Little Beach Park playground equipment which is falling in to disrepair and becoming a liability for our insurance coverage,

Discussion ensued as to what Zehren & Assoc is contracted to provide.

Direction was to budget for Option 2, a replacement of the playground equipment, and to encourage grants and lots of input and check backs.

COUNCIL INFORMATION / UPDATES

11. Staff Updates (5 Min)

- Manager's Report

Water Tank(s) Construction Loan

Minturn has been approved for the \$3,000,000 loan toward the construction of two new water tanks. This will be included in the water rates discussion Council is scheduled to have on September 15, 2021.

Water Treatment Plant Loan Pre-Qualification

Minturn's first pre-qualification loan discussion is scheduled for Tuesday, August 31, 2021. Included participants are Minturn, CDPHE, SGM and CWRPDA – Colorado Water Resources Power and Development Authority. This loan/bond application will be for approximately \$6,500,000.

CDPHE Assistance Grant Fund Application

I have applied for an assistance grant through CDPHE. This grant application is for \$25,000 and would be utilized toward the initial engineering and design work of a new water treatment plant.

More information:

The Assistance Grants Program supports public water systems that are interested in committing to

excellence but lack the financial resources to do so. These grants are intended to:

- Help these systems reach or maintain more consistent compliance with the Colorado Primary Drinking Water Regulations.
- Address a potential or existing water quality challenge.
- Grants can be awarded up to \$25,000 with a total of \$150,000 to be awarded annually. Projects must be completed within the calendar year they are awarded.

Taylor Ave Safety Concerns

Residents in the Taylor Ave neighborhood have expressed safety concerns stemming from the “s-curve” by the RR track crossing as well as pedestrian-vehicle interface issues and speeding in the area. I have started spending more time in the Taylor Ave area and have also reached out to residents for additional feedback. I anticipate once I’m better educated with the dynamics Minturn will need to review options for improving the vehicular and multi-modal use of the neighborhood.

Two Elk Sub Area Master Planning Process

I have scheduled a meeting with Zehren & Associates for a progress report on the Two Elk Master Planning efforts. This meeting is scheduled for Wednesday, September 8th with more information to follow.

Code Compliance – Abandoned Vehicles – Vehicles in violation are now actively being towed.

Michelle M. encouraged all water users to learn of our water restrictions and to adhere. We are at a low point in the annual river flow and we need to conserve.

She stated and invited Council to come to Town Hall to see the artificial grass samples in her office. She noted some grass would stay such as in our parks, but some options could be installed in an effort to save water.

She congratulated the Colorado Mtn College Scholarship winners.

- 12. Executive Session:** An Executive Session to conference for the purpose of consulting with the Town Attorney(s) under CRS 24-6-402(4)(b) and for the purpose of determining positions relative to matters that may be subject to negotiations, developing strategy for negotiations, and/or instructing negotiators under CRS 24-6-402(4)(e) – Battle Mountain

Motion by John W., second by George B., to convene in Executive Session to conference for the purpose of consulting with the Town Attorney(s) under CRS 24-6-402(4)(b) and for the purpose of determining positions relative to matters that may be subject to negotiations, developing strategy for negotiations, and/or instructing negotiators under CRS 24-6-402(4)(e) – Battle Mountain. Motion passed 7-0.

Those included in the Executive Session were the Council present, Town Manager Michelle M. and Town Attorney Michael S.

- Future Agenda Items

Ordinances for bond council and loans.

Ordinances for Demolition Permits and Historical Value concerns

MISCELLANEOUS ITEMS

13. Future Meeting Dates

- a) Council Meetings:
- September 15, 2021
 - October 6, 2021
 - October 20, 2021
 - November 3, 2021

14. Other Dates:

- Last Summer Market – September 4, 2021
- Labor Day – September 6, 2021 – Office Closed

15. Adjournment

Motion by Terry A., second by Earle B., to adjourn at 8:25pm. Motion passed 7-0.

John Widerman, Mayor

ATTEST:

Jay Brunvand, Town Clerk

Attachment A

Karp Neu Hanlon^{PC}
ATTORNEYS AT LAW

www.mountainlawfirm.com

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*Direct Mail to Glenwood Springs

August 26, 2021

Munsey Ayers, Esq. Otten Johnson Robinson Neff + Ragonetti 950 17 th Street, Suite 1600 Denver, CO 80202 Sent via Certified US Mail and by Email	Tim McGuire Battle Mountain Entities 444 Eagle River Street Minturn, CO 81645 Sent via Personal Delivery Battle Mountain Entities P.O. Box 56 Minturn, CO 81645 Sent via Certified US Mail and Email
Battle One Developer, LLLP 1942 Boradway Street, Suite 314C Boulder, CO 80302 Sent via Certified US Mail	Battle Two Developer, LLLP 1942 Boradway Street, Suite 314C Boulder, CO 80302 Sent via Certified US Mail
Battle One Developer, LLLP 3284 Northside Parkway NW, Suite 570 Atlanta, GA 30327 Sent via Certified US Mail	Battle Two Developer, LLLP 3284 Northside Parkway NW, Suite 570 Atlanta, GA 30327 Sent via Certified US Mail
Battle North, LLC 1942 Boradway Street, Suite 314C Boulder, CO 80302 Sent via Certified US Mail	Battle South, LLC 1942 Boradway Street, Suite 314C Boulder, CO 80302 Sent via Certified US Mail
Battle North, LLC 3284 Northside Parkway NW, Suite 570 Atlanta, GA 30327 Sent via Certified US Mail	Battle South, LLC 3284 Northside Parkway NW, Suite 570 Atlanta, GA 30327 Sent via Certified US Mail
Ginn Development Company LLC Attn: William H. Weber P.O. Box 56 Minturn, CO 81645 Sent via Certified US Mail	Ginn Development Company LLC Attn: Robert F. Masters 1 Hammock Beach Parkway Palm Coast, FL 32137 Sent via Certified US Mail
The Ginn Companies, LLC Attn: Legal Department 31 Lupi Court, Suite 130 Palm Coast, FL 32137 Sent via Certified US Mail	Sarah J. Baker, Esq. Sarah J. Baker PC P.O. Box 425 Edwards, CO 81632 Sent via Certified US Mail

Bennett Raley, Esq. Trout, Raley, Montano, Witwer & Freeman 1120 Lincoln Street, Suite 600 Denver, CO 80203-2141 Sent via Certified US Mail	Battle One A Developer, LLC 171 17 th Street NW, Suite 1575 Atlanta, GA 30363 Sent via Certified US Mail
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RE: Notices of Default

To Whom it May Concern:

The law firm of Karp Neu Hanlon represents the Town of Minturn (“Town” or “Minturn”). The Town is a party to agreements with all, or a portion of, the following entities (as such entities may have been merged, reconstituted or renamed):

Ginn Battle North, LLC, Ginn Battle South, LLC, Ginn-LA Battle One, Ltd., LLLP, Ginn LA-Battle 1A, Ltd., LLLP, Battle One Developer, LLLP, Battle Two Developer, LLLP, Battle North, LLC, and Battle South, LLC (collectively, the “Battle Entities”).

The agreements pertinent to this correspondence are:

Battle Mountain Annexation Agreement and Vested Property Rights Development Agreement dated February 27, 2008 adopted by Ordinance 10 – Series 2008 (“Annexation Agreement”)

Water Service Agreement dated February 27, 2008 adopted by Ordinance 11 – Series 2008 (“Water Service Agreement”)

Wastewater Service Agreement dated March 15, 2006 (“Wastewater Service Agreement”)

Agreement regarding Escrows and Funding dated February __, 2012 and approved by Resolution 5 – Series 2012 (“2012 Agreement”) (collectively the “Battle Mountain Agreements”).

This Notice of Default is sent pursuant to Section 7.7 c. of the Annexation Agreement, Section 19 b.ii. of the Water Service Agreement and any other provision in the Battle Mountain Agreements that provides for notice and/or an opportunity to cure a default.

Under the Battle Mountain Agreements, many contractual obligations were triggered by “Final Approval.” Under Section 1.1 of the Annexation Agreement, “In the event that a Legal Challenge, as defined herein, is filed on or before such sixty-first day, Final Approval shall not be deemed to have occurred unless and until such Legal Challenge is resolved in a manner that is final and not subject to appeal that upholds the validity of all of the Resolutions and Ordinances . . .” There was a legal challenge to validity of the ordinances and resolutions associated with the

annexation of the Battle Mountain property by Jeff Tucker. The Legal Challenge filed by Tucker was dismissed by the Eagle County District Court on September 5, 2019. The period to appeal that decision ended on October 24, 2019 (49 days after dismissal). As such, Final Approval under the Annexation Agreement occurred on October 24, 2019.

Annexation Agreement

- A. Under Section 2.2, “within thirty days after Final Approval, Ginn will deliver to the Town additional security in accordance with Section 7.23 such that the total security delivered by Ginn under this Section 2.2. equals 125% of the estimated cost” of constructing Bolts Lake reservoir. Battle Mountain has failed to deliver the security.
- B. Under Section 4.2 b., “Ginn, at its cost, agrees to begin permitting, implementation and subsequent construction of the Town Traffic Improvement Plan pertaining to Main Street improvements upon the latest to occur of (i) thirty days after final approval . . .” Ginn has failed to start the permitting process and implementation for the Town Traffic Improvement Plan for Main Street.
- C. Under Section 4.5 o., “Ginn will provide to the EPA a performance bond or letter of credit in the amount equal to 125% of the sum of the estimated costs identified in the FI/FS for Alternatives 2 through 9 for remediation of the Bolts Lake Character Area . . . The performance bond or letter of credit will be in accordance with Section 7.23, in a form acceptable to the Town and approved by EPA.” Battle Mountain has failed to deliver the form of security to the Town and to deliver a valid security instrument to EPA.

Water Service Agreement

- A. Under Section 5 b., “Within 30 days of Final Annexation Approval, Ginn Entities shall dedicate and convey to Minturn, in accordance with Paragraph 5 e. [of the Water Service Agreement] the water rights owned by Ginn Entities for Bolts Ditch and Arminda Ditch.” Battle Mountain has failed to convey its interests in the Bolts and Arminda Ditches to Minturn.
- B. Under Section 6 b.i., “Applications for all relevant permits and approvals for Bolts Lake . . . shall be filed no later than twelve months after Final Annexation Approval. Ginn Entities shall use commercially reasonable best efforts to obtain all necessary permits and approvals.” Battle Mountain has failed to file applications for such permits and approvals.
- C. Under Section 7 c., “Within 30 days of Final Annexation Approval, Ginn Entities shall convey, free and clear of any encumbrances or claims by any third party, a permanent easement to Minturn for operation, maintenance, repair and use for water storage purposes, but excluding recreational or any other access by the public, for Bolts Lake, together with appropriate easements for Minturn to divert water into and

release from Bolts Lake.” Battle Mountain has failed to convey such easements to Minturn.

- D. Under Section 7 d., “. . . Ginn Entities agree to use commercially reasonable best efforts to obtain any and all required governmental approvals and permits. In the event that, despite such efforts, Ginn Entities cannot obtain the required approvals within five years from execution of this Agreement, Ginn Entities shall be responsible for providing replacement storage and capacity for the Town Bolts Lake Capacity [160 acre-feet] at a location upstream of Dowd Junction that is acceptable to Minturn and capable of providing an equivalent water supply to the Town in quantity and quality as would have been available if Bolts Lake had been rehabilitated as described in Paragraph 7.a [of the Water Service Agreement].” Battle Mountain has failed to provide such replacement storage and capacity to Minturn.
- E. Under Section 14 a., “Within thirty days of Final Annexation Approval, Ginn will provide security to Minturn in the amount of 125% of the estimated costs of the Water Treatment Plant, Potable Storage and Town Main” Battle Mountain has failed to provide such security to Minturn.

Wastewater Service Agreement

Under section 2.a.vi., Battle Mountain is required to finalize a work schedule that includes target dates for property acquisition, government permits, design and construction of a wastewater treatment plant. Battle Mountain has failed to present and obtain approval for a work schedule as required under the Wastewater Service Agreement.

2012 Agreement

Under Section 14 of the 2012 Agreement it provides: “If the parties fail to enter into the Future Funding Agreement by January 1, 2015 . . . then until (A) the parties enter into the Future Funding Agreement or (B) the parties abandon their efforts to amend the existing Annexation Agreement and the Tucker cases are resolved, whichever occurs first, Developer will fund budgeted fees and costs actually incurred by the Town after January 1, 2015 for: . . . The payment of \$15,000 each month to the Town for administrative fees;” Battle Mountain stopped making the required payments of \$15,000 per month in December 2018, but did make a \$30,000 payment in March 2019 which was credited to the Battle Mountain obligations for December 2018 and January 2019. Battle Mountain is in default through August 2021 in the amount of \$465,000.

Cure

As provided in Section 7.7 c. of the Annexation Agreement: “If default is a failure to pay any amount of money due pursuant to this Agreement or to post security as provided herein, then such default shall be cured within thirty (30) days after notice of default is given to the defaulting party. If such default constitutes a breach or violation of any term or provision of this Agreement

Page 5

other than the payment of a monetary amount or the posting of a letter of credit, the defaulting party shall have thirty (30) days after written notice of default is given to the defaulting party within which to institute corrective action and shall proceed diligently thereafter to cure the default within no more than six months . . .”

As provided in Section 19.b.ii. of the Water Service Agreement: “Except as otherwise required or allowed under this Agreement, in the event of default by one Party in the performance of its obligations under this Agreement, written notice of such default shall be given to the defaulting Party by the nondefaulting Party. If the default is a failure to pay any amount of money due pursuant to the terms of this Agreement or to post a letter of credit or other security as provided herein, then such default shall be cured within two (2) weeks after notice of default is given to the defaulting Party. If such default constitutes a breach or violation of any term or provision of this Agreement other than the payment of a monetary amount or the posting of a letter of credit, the defaulting Party shall have four (4) weeks within which to institute corrective action and shall proceed diligently thereafter to cure the default within no more than six months from the date of the notice of default, or such larger period of time as the Parties may mutually agree is appropriate given the nature of the specific default.”

The Town looks forward to the Battle Entities curing these defaults within the two to four-week periods provided under the Battle Mountain Agreements.

Very truly yours,

KARP NEU HANLON, P.C.



Michael J. Sawyer

MJS:

cc: Town of Minturn
Meghan Winokur, Esq.
Geoff Anderson, Esq.



OFFICIAL MINUTES

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 and times of agenda items listed are approximate and intended as a guideline for the Town Council.

SPECIAL MEETING OF THE MINTURN TOWN COUNCIL

**Minturn Town Center 302 Pine Street
Minturn, CO 81645 • (970) 827-5645**

Wednesday September 7, 2021

The public is welcome to join the meeting in person or using the following methods:

<https://us02web.zoom.us/j/87579045523>

Or join by phone:

US: +1 301 715 8592 or +1 651 372 8299

Webinar ID: 875 7904 5523

Regular Session – 7:00pm

**MAYOR – John Widerman
MAYOR PRO TEM – Earle Bidez**

COUNCIL MEMBERS:

Terry Armistead
George Brodin
Eric Gotthelf
Gusty Kanakis
Tom Sullivan

These minutes are formally submitted to the Town of Minturn Town Council for approval as the official written record of the proceedings at the identified Council Meeting. Additionally, all Council meetings are tape-recorded and are available to the public for listening at the Town Center Offices from 8:30am – 2:00 pm, Monday through Friday, by contacting the Town Clerk at 970/827-5645 302 Pine St. Minturn, CO 81645.

Regular Session – 5:30pm

1. Call to Order

- Roll Call

The meeting was called to order by Mayor John W. at 7:00pm using a hybrid in-person and ZOOM on-line meeting format.

Those present include: Mayor John Widerman, Mayor Pro Tem Earle Bidez and Town Council

members Terry Armistead (via Zoom), George Brodin, Eric Gotthelf (via Zoom), and Gusty Kanakis. Note: Tom Sullivan was excused absent.

Staff present: Town Manager Michelle Metteer, Town Attorney Michael Sawyer (via Zoom), and Town Treasurer/Town Clerk Jay Brunvand.

- Pledge of Allegiance
- 2. **Public comments on items which are ON the consent agenda or are otherwise NOT on the agenda as a public hearing or action item. (5-minute time limit per person)**
- 3. **Approval of Agenda**
 - Items to be Pulled or Added
 - Declaration of Conflicts of Interest

Motion by Gusty K., second by Eric G., to approve the September 7, 2021 Special Meeting Agenda as presented. Motion passed 6-0. Note: Tom Sullivan was excused absent.

- 4. **Special Presentations**
 - Council Comments/Committee Reports (10 min)

PUBLIC HEARINGS AND/OR ACTION ITEMS

- 5. **Public Hearing/Action Item:** Ordinance 08 - Series 2021 an Emergency Ordinance regarding Demolition Permits – Sawyer

Michael Sawyer outlined the concerns prompting the Emergency action. The zoning for the 100 Block Commercial Zone in the Old Town Character Area provides that the primary purpose for this area of Town is to provide convenient commercial services to residents and visitors and to promote the development of the Town’s primary retail area in order to generate sales tax. Many of the Town’s small businesses that generate a meaningful portion of the Town’s sales tax are located within historic structures located within the 100 Block Commercial Zone. Based upon recent inquiries, there is concern that an alarming number of historic structures located within the 100 Block could be demolished in the near future. This could have a detrimental impact on the Town’s business community, tourism, and generation of sales tax to maintain the functioning of the Town’s budget.

Due to the emergency created by this situation, the Council is presented with an emergency ordinance enacting a moratorium on the acceptance and processing of development permits seeking to demolish structures in the 100 Block. The moratorium would last through December 6, 2021.

George B. expressed concerned with the speed of which a normal demolition permit can be obtained and how this is not necessarily restricted to the 100 block of Main St. and that it is not a more public process. It was clarified this is a temporary change to allow staff time to review the existing code and possible repercussions of a demolition.

Earle B. asked how this is affected by the Takings Laws. Michael S. outlined how takings are defined and how this does not fall into those limits. It was stated that zoning is not a taking and this would fall into the zoning regulations in order to preserve the health and wellbeing of the community.

Note: Terry A. arrived in person at the meeting at 7:18pm.

Discussion ensued on historical preservations. Michael S. stated that is a specialized area of the law.

Terry A. replied to the concern of the need for rush. She stated a PUD or other development would take minimum a few months and a demolition can take place in a few days. This 90 moratorium will allow Council and Staff time to review the issues and investigate the needs present. It was noted this is the tail end of the building season so this would not affect many. Terry A. asked what can be done from the staff level. Michelle M. stated the legal aspect would require outside representation. Some work would be out sourced but it is do-able by shuffling the order of priority items.

Earle B. stated staff is working on Chpt 16 and with items becoming urgent, other items get pushed back. The concern of the demolition process is one such whereby it moves to the front, something else must move down the list.

John W. stated he agreed this was a reasonable time to review this matter with a larger conversation. This Emergency simply gives 90 days to hold that conversation.

George B. agreed these questions need to be asked. He wanted to look more at community heritage not necessarily historical preservation.

Public Hearing opened.

Ms. Lynn Teach, 253 Main St, as a business owner she stated many customers come to Minturn for the local charm and the shopping with the store owners. She felt maintaining that for the citizens and the visitors was very important. She felt part of that charm is the buildings that house the shops and restaurants.

Public Hearing closed

Motion by Gusty K., second by George B., to approve Ordinance 08 – Series 2021 an Emergency Ordinance of the Town of Minturn, Colorado enacting a moratorium on the acceptance and processing of applications for Development permits authorizing demolition within the 100-block Commercial Zone of the Old Town Character area as presented. Motion passed 6-0. Note: Tom Sullivan was excused absent.

COUNCIL INFORMATION / UPDATES

6. Staff Updates (5 Min)

- Manager's Report

Michelle M. stated the newspaper is asking for comment from the Mayor regarding the Superfund Cleanup site by Battle Mtn. She stated we have filed several letters and comments with Battle Mtn recently and wanted to ensure the Council still wanted to authorize the comment request.

The direction was Yes, proceed with comments. The cleanup is very important and should remain a priority for this area.

- Future Agenda Items

MISCELLANEOUS ITEMS

7. Future Meeting Dates

- a) Council Meetings:
- September 15, 2021
 - October 6, 2021
 - October 20, 2021
 - November 3, 2021
 - November 17, 2021

8. Other Dates:

9. Adjournment

Motion by Terry A., second by Earle B., to adjourn at 7:46pm. Motion passed 6-1. Note: Tom Sullivan was excused absent.

John Widerman, Mayor

ATTEST:

Jay Brunvand, Town Clerk



To: Minturn Town Council
From: Michelle Metteer
Date: September 15, 2021
RE: Public Hearing – Minturn Water Tanks Project

REQUEST: A Public Hearing for the purposes of informing citizens and soliciting public input, written or oral, regarding the Minturn Water Tanks Project Needs Assessment (PNA) and Environmental Assessment (EA).

INTRODUCTION:

The Minturn Town Council has identified communication and transparency as a cornerstone of the Town's Strategic Plan and how business will be done within the community. This public discussion is one more effort to facilitate an open dialogue between the Council and the community.

ANALYSIS:

The Town of Minturn has been conducting public discussions on the overall water system as well as specific infrastructure for many years. Most recently these public discussions have taken place with the approval of the Water CIP in September of 2019 and again with the update of the Water CIP in December of 2020. In both of the aforementioned discussions, a new water tank was identified as a project need and in the December 2020 discussion, the Town Council modified the Water CIP to approve the construction of two tanks to allow for redundancy.

The two new tanks will come at an approximate cost of \$3,200,000 which is a significant sum for repayment by the Minturn water system users. It is important to ensure proper notice of this cost is provided to the rate payers and to allow individuals the ability to provide comment or feedback prior to construction commencing.

COMMUNITY INPUT: Ongoing. The Council and staff seek any additional comments/feedback in relation to the Minturn water tanks construction project.

BUDGET / STAFF IMPACT: \$3,200,000

STRATEGIC PLAN ALIGNMENT:

[Practice fair, transparent and communicative local government](#)

RECOMMENDED ACTION OR PROPOSED MOTION: Public Hearing only. No action requested.

ATTACHMENTS:

- Legal Notice of Meeting
- Public Needs Assessment (PNA) Form
- PNA Review Letter
- Minturn Tank Environmental Assessment

Ad #: 0000712408-01

Customer: TOWN OF MINTURN,

Your account number is: 1032852

PROOF OF PUBLICATION

VAIL DAILY

STATE OF COLORADO

COUNTY OF EAGLE

I, Mark Wurzer, do solemnly swear that I am Publisher of the VAIL DAILY, that the same daily newspaper printed, in whole or in part and published in the County of Eagle, State of Colorado, and has a general circulation therein; that said newspaper has been published continuously and uninterruptedly in said County of Eagle for a period of more than fifty-two consecutive weeks next prior to the first publication of the annexed legal notice or advertisement and that said newspaper has published the requested legal notice and advertisement as requested.

The VAIL DAILY is an accepted legal advertising medium, only for jurisdictions operating under Colorado's Home Rule provision.

That the annexed legal notice or advertisement was published in the regular and entire issue of every number of said daily newspaper for the period of 1 insertion; and that the first publication of said notice was in the issue of said newspaper dated 8/10/2021 and that the last publication of said notice was dated 8/10/2021 in the issue of said newspaper.

In witness whereof, I have here unto set my hand this day, 8/20/2021.



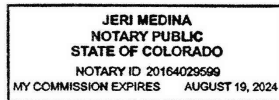
Mark Wurzer, Publisher

Subscribed and sworn to before me, a notary public in and for the County of Eagle, State of Colorado this day 8/20/2021.



Jeri Medina, Notary Public

My Commission Expires: August 19, 2024



Legal Notice

**Notice of Public Hearing for Minturn Water Tanks Project
Minturn, Colorado**

Date: September 15, 2021
Time: 5:30 pm
Location: Minturn Town Hall & via Zoom
Address: 302 Pine Street (for in-person)
Minturn, Colorado
Topic: Minturn Water Tanks

Remote Access: <https://us02web.zoom.us/j/84152456736> or 301 715 8592 or 651 372 8299

A public hearing will be conducted for informing citizens and soliciting public input, written or oral, regarding the **Minturn Water Tanks Project** Needs Assessment (PNA) and Environmental Assessment (EA) (if applicable). The PNA is a report detailing the project as proposed, including project necessity, alternatives, and components. The PNA also describes how the project is being funded. The reports are being submitted to the Colorado Department of Public Health and Environment (CDPHE) to qualify the Town of Minturn for a State Revolving Fund Loan.

37765 DWR03 – Project Needs Assessment
\$3,000,000

Copies of the PNA and EA (if applicable) are available for public review prior to the Public Hearing at the following location:
Town of Minturn, 302 Pine St, Minturn, Colorado
Online at: www.minturn.org

The point of contact for the (Insert Borrower Name) is Michelle Metteer, Town Manager, 970-445-2418

Town of Minturn
Michelle Metteer
Town Manager

Published in the Vail Daily on August 10, 2021.
0000712408



Drinking Water Project Needs Assessment (PNA) Form

Water Quality Control Division

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: Town of Minturn Water Storage Tanks

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. Visit <http://fedgov.dnb.com/webform> and <https://www.sam.gov/portal/public/SAM/> for details. Note: you will be required to obtain both of these items prior to loan execution.

1. Applicant Information:

First Name: michelle Middle Name: _____ Last Name: metteer

Phone Number: 970-827-5645

Mailing Address1: 301 boulder st #309 Mailing Address2: _____

City: minturn State: CO Zip Code: 81645

E-mail: manager@minturn.org

Consulting Engineer Information:

First Name: ryan Middle Name: _____ Last Name: gordon

Phone Number: 970-618-3804

Mailing Address1: 118 6th street suite 200 Mailing Address2: _____

City: Glenwood Springs State: CO Zip Code: 81601

E-mail: ryang@sgm-inc.com

Self-Certification:

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

Yes No

2. Executive Summary

This project is to replace an existing bolted steel water tank that is outdated and is leaking with 2 new reinforced concrete tanks that will serve all of the Town's populace. The new tanks will allow the Town to replace aging/failing infrastructure, provide 2 tanks to provide system redundancy, upgrade to reinforced concrete to reduce O&M costs and extend the service life of the asset, and provide increased water storage capacity to accommodate modest growth and to address deficient fire flow capacity. Site for tanks is on Town owned property adjacent to the existing water treatment plant.

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: 970-827-5645 Fax: 970-827-5545

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: 02/06/2021

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.

None

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.

All records pertaining to the operation and water quality are maintained and are available for the public to review. Records are stored electronically on Dropbox and Carbonite and documents can be accessed by the public at Town Hall. A physical copy of the documents are also kept at the offices of the ORC at 13863 W LaSalle Pl, Lakewood CO 80228. Records include water quality, microbiological and chemical samples, storage tank inspections, public notices, cross connection device maintenance records, sanitary survey documentation, backflow prevention and cross connection documents. Records are maintained for at a minimum of the timeframe listed in Regulation 11.

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.

see attachment 7

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

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

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.

The existing bolted steel water tank leaks treated water reducing the availability of water for other beneficial uses. The tank is at the end of its useful life. The tank site does not have the required security measures (fencing etc).

4.2 Existing facility limitations

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

The single tank that serves the Town leaves the Town vulnerable if the tank needs to be taken offline which would result in severe water restrictions and trucking in water.

4.3 Operations and Maintenance Issues

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

The existing tank is located at the end of a steep and challenging road which makes servicing the tank and general O&M duties difficult. Major construction, renovation or repair of the existing tank will require extensive upgrades to the access road.

5. Existing Facilities Analysis

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

- Not applicable (for distribution and storage projects, 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	High water quality and highly reliable source. Tend to see higher turbidity (~10 NTUs) during runoff and low turbidity (>0.5 NTU) during non-runoff times; other water quality parameters are low.
Well #3	GroundWater	High water quality and highly reliable. No water quality concerns. Water rights restrict the amount of water that can be pumped from well.
Well #4	GroundWater	High water quality and highly reliable. No water quality concerns. Water rights restrict the amount of water that can be pumped from the well

5.1.2 Water Rights (TMF: Technical-3)

The current water portfolio is sufficient to meet current demands. The Town holds senior water rights on the surface water diversion on Cross Creek. The Town holds junior water rights on wells 3 and 4. The Town has undeveloped water rights on the Eagle River that are in the planning stages to bring on-line to create a secondary water source and support future development.

5.2 Existing treatment– Required for treatment and supply projects only

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

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.

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.

The location and size of the tanks included storage for potential regional growth and to improve/increase the amount of fire flow storage and to improve/increase the distribution system pressure.

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

Please describe.

The project will allow the Town to better manage water age and water quality.

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's 2 pressure zones will be combined through this project. This will allow the deficiency of fire flow storage in the Maloit Park zone to be corrected as well as be able to improve the ability to move water and manage water age/water quality.

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: 510

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.

see CIP in attachment 17
The Town has generated demand projections based on Single Family Equivalents (SFEs) which is defined a detailed in the CIP.

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.

see CIP in attachment 17.

The Town has undeveloped water rights along the Eagle River that are in the planning stages of being developed to create a secondary water source and additional water sources for future growth.

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.

see CIP in attachment 17.

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.

see CIP in attachment 17.

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 : no alternatives

Alternative 1 Description (2000 character limit):

New water storage tanks are needed - the Town tank was leaking and at the end of its life and the Maloit Park tank was undersized based on fire flow storage. A site selection analysis was performed to determine the location for the new tanks.

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

Alternative 1 Advantages and Disadvantages (2000 character limit):

Alternative 2 Title : _____

Alternative 2 Description (2000 character limit):

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

Alternative 2 Advantages and Disadvantages (2000 character limit):

Alternative 3 Title : _____

Alternative 3 Description (2000 character limit):

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

Alternative 3 Advantages and Disadvantages (2000 character limit):

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 rationale.

Most logical and cost effective option to improve water storage concerns.

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

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

Tank capacity has been sized to include emergency and equalization storage (based on current and future development). The water surface elevation in the tank has been set to provide the required fire flow and system pressure by modeling the Town's water system.

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.

There are no treatment processes associated with this project. Tank will be designed to current codes and regulations.

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.

The tank site will not impact floodplains, wetlands or streams. The tank site is within the severe winter range of elk and deer; however, outside of construction, there won't be impacts to wildlife. Construction will not occur during sensitive times and will be coordinated with CPW.

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.

The tanks will be constructed on Town owned property and no additional property or easements are necessary

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.

The tank site has large boulders scattered around the surface and it is expected that large boulders may be encountered during construction.

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.

O&M efforts will not change

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.

It is estimated that the construction of the tanks will be ~\$2.8 Million

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?

8.10 Green Project Reserve

Check one or more green category that applies to the project:

- Green Infrastructure
 Water Efficiency
 Energy Efficiency
 Environmentally Innovative

Describe any green components incorporated into the selected alternative.

None

The system must reference the most recent copy of the EPA Green Project Reserve guidance and procedures. These references are available on the CDPHE WQCD GLU website under "Green Project Reserve": <https://www.colorado.gov/pacific/cdphe/wq-green-project-reserve>
 Include a business case for the project as Attachment 21, if applicable.

8.11 Environmental Checklist

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

8.12 Project Implementation

8.12.1 Proposed Schedule

Loan application _____	Design Plans (60 day review period) _____
Advertisement for bids _____	Award Contracts _____
Start Construction _____	Complete Construction _____

8.12.2 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

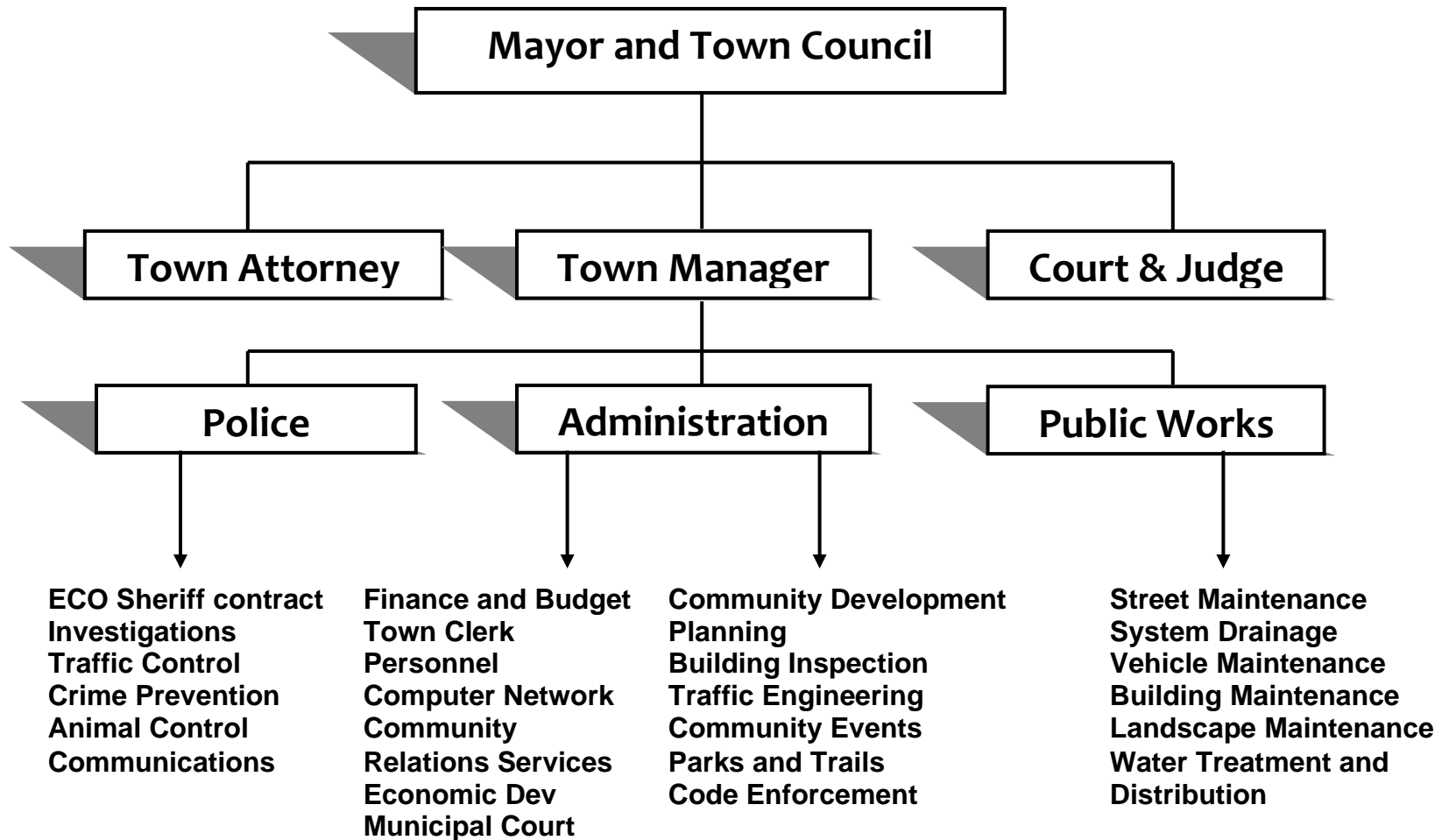
<u>Assumptions/Data</u>	<u>Information Source</u>
Current System Population _____ People	_____
Current Service Area Population (If providing water to neighboring community) _____ People	_____
Population Growth Rates _____ % increase/year	_____
Average Daily per Capita Flow Rate _____ Gallons per capita day	_____
Maximum Daily per Capita Flow Rate _____ Gallons per capita day	_____
Peak Hour Factor _____ Gallons per capita day	_____

ATTACHMENT 1

ENGINEER SEAL



**TOWN OF MINTURN
COLORADO
2021**



MINTURN TOWN OF
Calendar Year 2020 Monitoring Schedule
Mailing Address: PO BOX 309 MINTURN, CO 81645

Public Water System ID	Water System Name	Federal System Type	State Source Type	Service Connections	Population
CO0119510	MINTURN TOWN OF	Community	Surface Water	550	1200
Primary County	Minimum Certification for Treatment Operator	Minimum Certification for Distribution System Operator	Last Inspection	Seasonal	Water Hauler
EAGLE	C	1	09/24/2018	No	No

Contact Information			
All public water systems are required to maintain an Administrative Contact, Treatment Operator (if applicable), Distribution System Operator (if applicable), and Owner. If the information below is incorrect or blank please send us a contact update form. This form and operator certification information is available by visiting wqcdcompliance.com/forms .			
Administrative Contact	Treatment Operator	Distribution System Operator	Owner
MICHELLE METTEER	JOHN VOLK	JOHN VOLK	MICHELLE METTEER

General Information

Samples must be collected at the location specified in the Monitoring Plan or Record of Approved Waterworks.

- Schedules are updated every Wednesday evening. Please contact your specialist with questions wqcdcompliance.com or call us at 303-692-3556.
- System info, online records, public notices, violations, and sample results (bottom of page).
- Laboratory sample results must be analyzed by a certified laboratory using a certified method. Results must be submitted using the Online Portal wqcdcompliance.com/login and not as email attachments.
- Please identify the Facility ID and Sample Point ID (listed below) when submitting sample results. Facility and Sample Point IDs are used to identify general sample site locations.
- All systems that treat groundwater with a chemical disinfectant must monitor residuals at the entry point(s) to the distribution system **at least once per week**. The entry point residual must not be below 0.2 mg/L for more than 72 hours. When groundwater is treated with surface water or is 4-log approved the system must comply with the monitoring requirements in the 'Non-Distribution System Sample Schedules' section and the disinfectant residual level requirements in the 'Facility Specific Levels' section.

Monitoring Information

Distribution System Sample Schedules		
Facility ID	Facility Name	Facility Type
DS001	DISTRIBUTION SYSTEM	Distribution System
Microorganisms and Disinfectants		
TOTAL COLIFORM BACTERIA (TCR) Sample Schedule:		Collection Period:
2 sample(s) per Month during the collection period		January 1, 2020 to December 31, 2020
Sample Point ID(s) (Sample Point Name):		
RTOR (ROUTINE ORIGINAL)		
RPOT (REPEAT OTHER)		
RPOR (REPEAT ORIGINAL)		
RPDN (REPEAT DOWNSTREAM)		
RPUP (REPEAT UPSTREAM)		
For raw water source samples (i.e. non-distribution) use the Facility ID and Sample Point ID listed at the end of this monitoring schedule		

PWS ID: CO0119510
MINTURN TOWN OF

Report Generation Date: September 2, 2020

2020 Monitoring Schedule Page 1 of 11

This monitoring schedule is based on the system's current inventory and is subject to change. *Water systems are responsible for promptly reporting schedule errors or omissions.* Errors or omissions on monitoring schedules do not prohibit the Water Quality Control Division from enforcing monitoring requirements set forth by the Regulations.

Distribution System Sample Schedules		
Facility ID	Facility Name	Facility Type
DS001	DISTRIBUTION SYSTEM	Distribution System
Microorganisms and Disinfectants		
FREE CHLORINE Sample Schedule:		
Measure every time you collect a TOTAL COLIFORM BACTERIA (TCR) sample		
Disinfection Byproducts		
HAA5s (Stage 2) Sample Schedule:		*Collection Period:*
1 sample(s) per sample point for a TOTAL of 1 sample(s) per Quarter during the collection period		January 1, 2020 to December 31, 2020
Collection Restriction: Sample(s) must be collected, at a minimum , in the following months: February , May (Peak Month) , August , November		Compliance Check: February **Result(s) Received** May (Peak Month) **Result(s) Received** August **Result(s) Received** November
State Sample Point ID(s) (System Location ID(s)): DBP002 (HWY 24)		
TTHMs (Stage 2) Sample Schedule:		*Collection Period:*
1 sample(s) per sample point for a TOTAL of 1 sample(s) per Quarter during the collection period		January 1, 2020 to December 31, 2020
Collection Restriction: Sample(s) must be collected, at a minimum , in the following months: February , May (Peak Month) , August , November		Compliance Check: February **Result(s) Received** May (Peak Month) **Result(s) Received** August **Result(s) Received** November
State Sample Point ID(s) (System Location ID(s)): DBP001 (TAYLOR AVE)		
Lead and Copper		
LEAD AND COPPER Sample Schedule:		Collection Period:
20 sample(s) per 6 Months during the collection period		January 1, 2020 to December 31, 2020
Each sample must be reported with a State Assigned Sample Point ID (LCR###).		Compliance Check: 1st 6 Months **Result(s) Received** 2nd 6 Months
SAMPLES MUST BE COLLECTED FROM THE HIGHEST RISK SITES LISTED IN THE LEAD AND COPPER SAMPLE POOL INFORMATION AT THE END OF THIS MONITORING SCHEDULE.		

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Non-Distribution System Sample Schedules

<u>Facility ID</u>	<u>Facility Name</u>	<u>Facility Type</u>	<u>Sample Point ID</u>	<u>Sample Point Name</u>	<u>Sample Point Type</u>
001	SLOW SAND FILTER NO 3	Treatment Plant	001	FINISHED TURBIDITY	Water System Facility

Daily Schedules

TURBIDITY (CFE) Sample Schedule:

1 sample **every 4 Hours** during the collection period

Collection Period:

While Operating

Note: Sample(s) collected at a location representative of the combined filtered water

<u>Facility ID</u>	<u>Facility Name</u>	<u>Facility Type</u>	<u>Sample Point ID</u>	<u>Sample Point Name</u>	<u>Sample Point Type</u>
007	MASTER METER C12 SAMPLE SITSOURCE	Transmission Main (Mainfold)	007	ENTRY POINT	Entry Point

Daily Schedules

FREE CHLORINE (ENTRY POINT RESIDUAL) Sample Schedule:

3 sample(s) **per Day** during the collection period

Collection Period:

While Operating

LOG INACTIVATION Sample Schedule:

3 sample(s) **per Day** during the collection period

Collection Period:

While Operating

3 Year Schedules

COMBINED RADIUM (-226 & -228) Sample Schedule:

1 sample(s) **per 3 Years**

Collection Period:

January 1, 2020 to December 31, 2022

SYNTHETIC ORGANICS GROUP Sample Schedule:

1 sample(s) **per 3 Years**

Collection Period:

January 1, 2020 to December 31, 2022

9 Year Schedules

COMBINED URANIUM Sample Schedule:

1 sample(s) **per 9 Years**

Collection Period:

January 1, 2020 to December 31, 2028

GROSS ALPHA, WITHOUT RADON & URANIUM Sample Schedule:

1 sample(s) **per 9 Years**

Collection Period:

January 1, 2020 to December 31, 2028

***Collection Restriction:** Sample(s) **must** be collected at the **same time** as the COMBINED URANIUM sample(s)*

Satisfied Schedules

FLUORIDE Sample Schedule:

1 sample(s) **per Year**

Collection Period:

January 1, 2020 to December 31, 2020
Sample Result(s) Received

INORGANICS GROUP Sample Schedule:

1 sample(s) **per Year**

Collection Period:

January 1, 2020 to December 31, 2020
Sample Result(s) Received

This monitoring schedule is based on the system's current inventory and is subject to change. *Water systems are responsible for promptly reporting schedule errors or omissions.* Errors or omissions on monitoring schedules do not prohibit the Water Quality Control Division from enforcing monitoring requirements set forth by the Regulations.

Non-Distribution System Sample Schedules

<u>Facility ID</u>	<u>Facility Name</u>	<u>Facility Type</u>	<u>Sample Point ID</u>	<u>Sample Point Name</u>	<u>Sample Point Type</u>
007	MASTER METER C12 SAMPLE SITSOURCE	Transmission Main (Mainfold)	007	ENTRY POINT	Entry Point

Satisfied Schedules

<u>NITRATE Sample Schedule:</u>			<u>Collection Period:</u>		
1 sample(s) per Year			January 1, 2020 to December 31, 2020 **Sample Result(s) Received**		
<u>VOLATILE ORGANICS GROUP Sample Schedule:</u>			<u>Collection Period:</u>		
1 sample(s) per Year			January 1, 2020 to December 31, 2020 **Sample Result(s) Received**		
<u>NITRITE Sample Schedule:</u>			<u>Collection Period:</u>		
1 sample(s) per 9 Years			January 1, 2020 to December 31, 2028 **Sample Result(s) Received**		

<u>Facility ID</u>	<u>Facility Name</u>	<u>Facility Type</u>	<u>Sample Point ID</u>	<u>Sample Point Name</u>	<u>Sample Point Type</u>
012	SLOW SAND FILTER NO 2	Treatment Plant	012	FINISHED TURBIDITY	Water System Facility

Daily Schedules

<u>TURBIDITY (CFE) Sample Schedule:</u>			<u>Collection Period:</u>		
1 sample every 4 Hours during the collection period			While Operating		
Note: Sample(s) collected at a location representative of the <u>combined filtered water</u>					

<u>Facility ID</u>	<u>Facility Name</u>	<u>Facility Type</u>	<u>Sample Point ID</u>	<u>Sample Point Name</u>	<u>Sample Point Type</u>
013	SLOW SAND FILTER NO 1	Treatment Plant	013	FINISHED TURBIDITY	Water System Facility

Daily Schedules

<u>TURBIDITY (CFE) Sample Schedule:</u>			<u>Collection Period:</u>		
1 sample every 4 Hours during the collection period			While Operating		
Note: Sample(s) collected at a location representative of the <u>combined filtered water</u>					

<u>Facility ID</u>	<u>Facility Name</u>	<u>Facility Type</u>	<u>Sample Point ID</u>	<u>Sample Point Name</u>	<u>Sample Point Type</u>
014	CROSS CREEK SWTP DISINFECTION	Treatment Plant	014	MICROBIAL	Entry Point

Daily Schedules

<u>FREE CHLORINE (ENTRY POINT RESIDUAL) Sample Schedule:</u>			<u>Collection Period:</u>		
3 sample(s) per Day during the collection period			While Operating		
<u>LOG INACTIVATION Sample Schedule:</u>			<u>Collection Period:</u>		
3 sample(s) per Day during the collection period			While Operating		

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Compliance and Public Notice Schedules

Sanitary Survey Significant Deficiency

Activity Name	Activity Due Date	Activity Completion Date
RESOLVE SIGNIFICANT DEFICIENCY/VIOLATION - R529	February 8, 2019	October 14, 2018
RESOLVE SIGNIFICANT DEFICIENCY/VIOLATION - F330	March 31, 2019	March 30, 2019
RESOLVE SIGNIFICANT DEFICIENCY/VIOLATION - M610	March 31, 2019	March 30, 2019
RESOLVE SIGNIFICANT DEFICIENCY/VIOLATION - M613	March 31, 2019	March 30, 2019
RESOLVE SIGNIFICANT DEFICIENCY/VIOLATION - M614	March 31, 2019	March 30, 2019
RESOLVE SIGNIFICANT DEFICIENCY/VIOLATION - M615	March 31, 2019	March 30, 2019
RESOLVE SIGNIFICANT DEFICIENCY/VIOLATION - T119	June 30, 2020	Activity Not Completed
RESOLVE SIGNIFICANT DEFICIENCY/VIOLATION - T119	June 30, 2020	Activity Not Completed

Public Notice Schedules - Certificate of Delivery and Notice must be submitted within 10 days after providing notification Forms available at wqcdcompliance.com/pn

Activity Name	Activity Due Date	Activity Completion Date
MAIL/HAND DELIVER NOTICE TO CONSUMERS: FAILURE TO MEET CROSS CONNECTION CONTROL AND/OR BACKFLOW PREVENTION REQUIREMENTS - CROSS CONNECTION RULE	February 10, 2019	May 31, 2019
MAIL/HAND DELIVER NOTICE TO CONSUMERS: FAILURE TO MEET CROSS CONNECTION CONTROL AND/OR BACKFLOW PREVENTION REQUIREMENTS - CROSS CONNECTION RULE	February 10, 2019	May 31, 2019
MAIL/HAND DELIVER NOTICE TO CONSUMERS: FAILURE TO MEET CROSS CONNECTION CONTROL AND/OR BACKFLOW PREVENTION REQUIREMENTS - CROSS CONNECTION RULE	October 11, 2019	May 31, 2019
MAIL/HAND DELIVER NOTICE TO CONSUMERS: FAILURE TO MEET CROSS CONNECTION CONTROL AND/OR BACKFLOW PREVENTION REQUIREMENTS - CROSS CONNECTION RULE	October 11, 2019	May 31, 2019
MAIL/HAND DELIVER NOTICE TO CONSUMERS: FAILURE TO MEET STORAGE TANK REQUIREMENTS - STORAGE TANK RULE	October 11, 2019	May 31, 2019
MAIL/HAND DELIVER NOTICE TO CONSUMERS: MONITORING, ROUTINE (IESWTR/LT1), MAJOR MONITORING, ROUTINE (IESWTR/LT1), MAJOR - TURBIDITY	October 11, 2019	May 31, 2019

Lead and Copper Compliance Schedule - Schedule Closed Visit wqcdcompliance.com/lcr for more information

Activity Name	Activity Due Date	Activity Completion Date
WQP MONITORING	November 30, 2019	January 7, 2020
SOURCE WATER PB/CU DATA SUBMITTAL	March 31, 2020	December 4, 2019
TREATMENT RECOMMENDATIONS	March 31, 2020	March 31, 2020

Compliance and Public Notice Schedules

CCR Compliance Schedule - Schedule Closed
Your 2020 DRAFT CCR will be posted at wqcdcompliance.com/ccr in March

Activity Name	Activity Due Date	Activity Completion Date
SUBMIT CCR REPORT TO STATE	June 30, 2020	June 1, 2020
SUBMIT CERTIFICATE OF DELIVERY	June 30, 2020	June 1, 2020

Lead Consumer Notification - Delivery to consumers is required within 30 days after receipt of data from laboratory

Activity Name	Activity Due Date	Activity Completion Date
SUBMIT ONE (1) LEAD CONSUMER NOTICE AND CERTIFICATE OF DELIVERY	September 30, 2020	July 28, 2020
SUBMIT ONE (1) LEAD CONSUMER NOTICE AND CERTIFICATE OF DELIVERY	March 31, 2021	Activity Not Completed

Lead and Copper Compliance Schedule
Visit wqcdcompliance.com/lcr for more information

Activity Name	Activity Due Date	Activity Completion Date
OPTIMUM CORROSION CONTROL INSTALL	June 1, 2022	Activity Not Completed

Facility Specific Levels

Facility ID	Facility Name	Facility Type
DS001	DISTRIBUTION SYSTEM	Distribution System
Analyte Name	Level	Level Type
FREE CHLORINE	0.2 mg/L	Minimum
FREE CHLORINE	4.0 mg/L	Maximum
Facility ID	Facility Name	Facility Type
007	MASTER METER C12 SAMPLE SITSOURCE	Transmission Main (Mainfold)
Analyte Name	Level	Level Type
LOG INACTIVATION	1.0 Ratio	Minimum
GIARDIA LAMBLIA INACTIVATION	1.0 Log	Minimum
VIRUS INACTIVATION	2.0 Log	Minimum
FREE CHLORINE (ENTRY POINT RESIDUAL)	0.2 mg/L	Minimum
Facility ID	Facility Name	Facility Type
014	CROSS CREEK SWTP DISINFECTION	Treatment Plant
Analyte Name	Level	Level Type
LOG INACTIVATION	1.0 Ratio	Minimum
GIARDIA LAMBLIA INACTIVATION	1.0 Log	Minimum
VIRUS INACTIVATION	2.0 Log	Minimum
FREE CHLORINE (ENTRY POINT RESIDUAL)	0.2 mg/L	Minimum

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Facility Specific Levels		
Facility ID 001	Facility Name SLOW SAND FILTER NO 3	Facility Type Treatment Plant
Analyte Name	Level	Level Type
TURBIDITY	5 NTU	Maximum
TURBIDITY	1 NTU	95th Percentile
Facility ID 012	Facility Name SLOW SAND FILTER NO 2	Facility Type Treatment Plant
Analyte Name	Level	Level Type
TURBIDITY	5 NTU	Maximum
TURBIDITY	1 NTU	95th Percentile
Facility ID 013	Facility Name SLOW SAND FILTER NO 1	Facility Type Treatment Plant
Analyte Name	Level	Level Type
TURBIDITY	5 NTU	Maximum
TURBIDITY	1 NTU	95th Percentile

Backflow Prevention and Cross-connection Control (BPCCC) Reminders:

- Annual BPCCC Reports need to be completed by May 1, 2020 for activities completed in 2019.
- The required survey compliance ratio for 2019 is 0.90, unless you have a CDPHE approved alternate ratio.
- The required assembly testing ratio for 2019 is 0.80 and the required method inspection ratio is 0.90.
- Annual BPCCC reports should **only be submitted to us if a violation occurred**. Reports and supporting calculations will be reviewed during your next sanitary survey, however, we can request this information at any time.
- The 2020 required survey compliance ratio is 1.0 and will need to be documented in the May 1, 2021 BPCCC annual report.
- The 2020 required assembly testing ratio is 0.90, and will need to be documented in the May 1, 2021 BPCCC annual report.
- For more information regarding the requirements and how to compile a report please visit wqcdcompliance.com/forms or submit specific questions to cdphe_wqcd_fss_questions@state.co.us.

Storage Tank Reminders:

All storage tanks within the distribution must be inspected quarterly unless an alternative storage tank inspection schedule has been established and included in the written inspection plan. An alternative storage tank inspection schedule is subject to our review and revision, generally during a sanitary survey, but alternative inspection schedules can be requested by us at any time.

All storage tanks within the distribution are required to undergo a comprehensive tank inspection every five years. The first five-year cycle for completion of comprehensive tank inspections is due December 31, 2021.

Facility Information				Sample Point Information	
Facility ID	Active Status	Facility Name	Facility Type	Sample Point ID	Sample Point Name
001	A	SLOW SAND FILTER NO 3	Treatment Plant	001	FINISHED TURBIDITY
004	A	CROSS CREEK	Intake	004	RAW
005	A	WELL NO 3	Well	005	RAW

006	A	WELL NO 4	Well	006	RAW
007	A	MASTER METER C12 SAMPLE SITSOURCE	Transmission Main (Manifold)	007	ENTRY POINT
008	A	STORAGE TANK NO 1	Storage	008	NOT ENTRY POINT
009	A	MALOIT PARK TANK	Storage	009	DIST TANK
010	A	TREATMENT FOR WELL NO 4	Treatment Plant	NO ACTIVE SAMPLING POINT	NO ACTIVE SAMPLING POINT
011	A	CLEARWELL PUMP FACILITY	Pump Facility	NO ACTIVE SAMPLING POINT	NO ACTIVE SAMPLING POINT
012	A	SLOW SAND FILTER NO 2	Treatment Plant	012	FINISHED TURBIDITY
013	A	SLOW SAND FILTER NO 1	Treatment Plant	013	FINISHED TURBIDITY
014	A	CROSS CREEK SWTP DISINFECTION	Treatment Plant	014	MICROBIAL
DS001	A	DISTRIBUTION SYSTEM	Dist System/Zone	DBP001	TAYLOR AVE
				DBP002	HWY 24
				RPDN	REPEAT DOWNSTREAM
				RPOR	REPEAT ORIGINAL
				RPOT	REPEAT OTHER
				RPUP	REPEAT UPSTREAM
				RTOR	ROUTINE ORIGINAL
				TCR001	TC01
				TCR002	TC02
				TCR003	TC03
				TCR004	TC04
				TCR005	TC05
				TCR006	TC06
				TCR007	TC07
TCR008	TC08				
TCR009	TC09				
TCR010	TC10				
002	I	WELL - ABANDONED	Well	002	RAW
003	I	WELL - ABANDONED	Well	003	RAW

Lead and Copper Sample Pool Information

The supplier must collect lead and copper samples from different **Department - approved** sample sites below until the minimum number of samples required is collected. Contact your compliance specialist if there are questions about unapproved sites. The supplier can add, manage, or inactivate unavailable sample sites on the Data Portal at wqcdcompliance.com/login under My...Sample Sites. Sites have been grouped by sampling priority based on tier level:

- If present, **Tier 1** sites must be sampled unless reported as an unavailable high risk site.
- If present, **Tier 2** sites must only be sampled after all Tier 1 sites have been sampled or have been reported as an unavailable high risk site.
- If present, **Tier 3** sites must only be sampled after all Tier 1 and 2 sites have been sampled or have been reported as an unavailable high risk site.
- If present, **Non-Tier, Representative** sites must only be sampled after all Tier 1, 2, and 3 sites have been sampled or have been reported as an unavailable high risk site.

Unavailable high risk site reporting form is available at wqcdcompliance.com/lcr

TIER 1 - HIGHEST RISK SITES

State Assigned Sample Site ID (Required on Lab Chain of Custody)	Location Identifier	Current Status
LCR003	LCR003	Active - Sampling - Approved
LCR004	LCR004	Active - Sampling - Approved
LCR013	LCR013	Active - Sampling - Approved
LCR014	LCR014	Active - Sampling - Approved
LCR015	LCR015	Active - Sampling - Approved
LCR016	LCR016	Active - Sampling - Approved
LCR017	LCR017	Active - Sampling - Approved
LCR019	LCR019	Active - Sampling - Approved
LCR020	LCR020	Active - Sampling - Approved
LCR021	LCR021	Active - Sampling - Approved
LCR022	LCR022	Active - Sampling - Approved
LCR023	LCR023	Active - Sampling - Approved
LCR024	LCR024	Active - Sampling - Approved
LCR018	LCR018	Inactive - Unavailable or Unsafe - Not Approved

TIER 2 - SECOND HIGHEST RISK SITES

State Assigned Sample Site ID (Required on Lab Chain of Custody)	Location Identifier	Current Status
LCR025	LCR025	Active - Sampling - Approved

TIER 3 - THIRD HIGHEST RISK SITES

State Assigned Sample Site ID (Required on Lab Chain of Custody)	Location Identifier	Current Status
LCR002	LCR002	Active - Sampling - Approved
LCR005	LCR005	Active - Sampling - Approved
LCR006	LCR006	Active - Sampling - Approved
LCR007	LCR007	Active - Sampling - Approved
LCR011	LCR011	Active - Sampling - Approved
LCR012	LCR012	Active - Sampling - Approved
LCR026	LCR026	Active - Sampling - Approved
LCR027	LCR027	Active - Sampling - Approved
LCR028	LCR028	Active - Sampling - Approved
LCR029	LCR029	Active - Sampling - Approved
LCR030	LCR030	Active - Sampling - Approved
LCR008	LCR008	Inactive - Unavailable or Unsafe - Not Approved
LCR009	LCR009	Inactive - Unavailable or Unsafe - Not Approved
LCR010	LCR010	Inactive - Unavailable or Unsafe - Not Approved

NO NON-TIER, REPRESENTATIVE - FOURTH HIGHEST RISK SITES HAVE BEEN IDENTIFIED

Time Period Definitions

Time Period	Start Date	End Date
First Quarter	January 1, 2020	March 31, 2020
Second Quarter	April 1, 2020	June 30, 2020
Third Quarter	July 1, 2020	September 30, 2020
Fourth Quarter	October 1, 2020	December 31, 2020
First 6 Months	January 1, 2020	June 30, 2020
Second 6 Months	July 1, 2020	December 31, 2020
Year	January 1, 2020	December 31, 2020

Analyte Group Definitions

Analyte Group Name	Analytes in Group	Number of Analytes in Group
INORGANICS GROUP	ANTIMONY ARSENIC BARIUM BERYLLIUM CADMIUM CHROMIUM MERCURY NICKEL SELENIUM SODIUM THALLIUM	11

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Analyte Group Definitions		
Analyte Group Name	Analytes in Group	Number of Analytes in Group
SYNTHETIC ORGANICS GROUP	1,2-DIBROMO-3-CHLOROPROPANE 2,4,5-TP 2,4-D ALDICARB ALDICARB SULFONE ALDICARB SULFOXIDE ATRAZINE BENZO(A)PYRENE BHC-GAMMA CARBOFURAN CHLORDANE DALAPON DI(2-ETHYLHEXYL) ADIPATE DI(2-ETHYLHEXYL) PHTHALATE DINOSEB DIQUAT ENDOTHALL ENDRIN ETHYLENE DIBROMIDE HEPTACHLOR HEPTACHLOR EPOXIDE HEXACHLOROBENZENE HEXACHLOROCYCLOPENTADIENE LASSO METHOXYCHLOR OXAMYL PENTACHLOROPHENOL PICLORAM SIMAZINE POLYCHLORINATED BIPHENYLS (PCB) TOXAPHENE	31
VOLATILE ORGANICS GROUP	1,1,1-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHYLENE 1,2,4-TRICHLOROBENZENE 1,2-DICHLOROETHANE 1,2-DICHLOROPROPANE BENZENE CARBON TETRACHLORIDE CHLOROBENZENE CIS-1,2-DICHLOROETHYLENE DICHLOROMETHANE ETHYLBENZENE O-DICHLOROBENZENE P-DICHLOROBENZENE STYRENE TETRACHLOROETHYLENE TOLUENE TRANS-1,2-DICHLOROETHYLENE TRICHLOROETHYLENE VINYL CHLORIDE XYLENES (TOTAL)	21

This monitoring schedule is based on the system's current inventory and is subject to change. *Water systems are responsible for promptly reporting schedule errors or omissions.* Errors or omissions on monitoring schedules do not prohibit the Water Quality Control Division from enforcing monitoring requirements set forth by the Regulations.



**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.

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.

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 of 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

Sample Backflow Prevention and Cross-connection Control Program

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 complies 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:

- Assembly or method type;
- Assembly or method location;
- Assembly make, model and serial number;
- Assembly size;
- Test date; and,
- Test result (pass/fail).

Certified Cross-Connection Control Technician information:

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

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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.

SECTION II – APPROVAL, DESIGN, AND INSTALLATION

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.

SECTION II – APPROVAL, DESIGN, AND INSTALLATION

- 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.

SECTION II – APPROVAL, DESIGN, AND INSTALLATION

- 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	X	
	Shutdown WTP	x	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	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	
WTP Maintenance	PLC program modifications, alarm setpoints, etc.		x	
	WTP equipment, chemicals, consumables (includes instrument calibration)		x	
	Slow sand filter cleaning and conditioning	x	x	
Distribution	Placing slow sand filters online		x	
	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	



TOWN OF MINTURN
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treasurer@minturn.org

**FROM THE DESK OF
JAY BRUNVAND, CLERK/TREASURER**

MEMORANDUM

TO: Michelle Metteer, Town Manager
FROM: Jay Brunvand, Treasurer/Clerk
CC:
DATE: January 14, 2021
RE: Project Needs Assessment – Budget Narrative

The Minturn Annual Budget is prepared annually as a plan for the following fiscal year. All processes are in conformance with Federal, State, and local requirements and is prepared using current GASB regulations and standards using modified accrual accounting practices. The Town has nine separate funds of which two are major Fund programs; the General Fund and the Enterprise Fund. All Funds are audited annually by a certified outside audit firm and all audits are submitted to the State of Colorado Department of Local Affairs as required by State standards.

The General Fund accounts for collection of all property and sales taxes legally approved by the voters of the Town of Minturn and expenses thereto. The Enterprise Fund is a fee-based Fund established for the accounting of all water and trash services in the Town.

The budget process begins in early May of each year with a zero-based budget. As part of this process a calendar is developed laying forth Staff meetings, Town Manager review and a public schedule of Town Council review and Public Hearings. The Staff department Directors review their sections for special request, fixed asset purchases, Capital Improvement Plan needs, and compliance with the Town's adopted Strategic Plan. This information is then compiled in to a draft Priority Based budget by the Town Treasurer.

As required by law, the budget is submitted to the Town Council during the first regularly scheduled Council Meeting in October no later than October 15th of each year. No less than one Public Hearing is held on the draft budget. The document is approved by Ordinance which requires two separate readings whereby a Public Hearing is held for each ordinance. All approvals are completed and the final reading of appropriation Ordinances are held during the first regularly scheduled Council Meeting of December. This approval schedule allows sufficient time for the required submittal of the Mill Levy to the Eagle

County Commissioners to be included in their county wide certification of all Mill Levy's in the County.

A complete fee schedule is adopted as part of the Budget process. This fee schedule includes the annual setting of water rates and debt service funding for the Water and Trash Enterprise Fund. All required escrow reserves for existing bonds are included in the Restricted Cash reserve for each fund as required by the bond documents. Following is summary of fees estimated ten years out. This rate schedule is reviewed annually to ensure all funding needs are sufficient for operations and approved Capital Improvements in accordance with the adopted Capital Improvement Plan for both the General Fund and the Enterprise Fund.

		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Base Rate/SFE		\$ 86.50	\$ 82.19	\$ 90.41	\$ 94.93	\$ 99.68	\$ 107.65	\$ 110.88	\$ 110.88	\$ 110.88	\$ 110.88	\$ 110.88
Debt Service Rate/SFE			\$ 7.81	\$ 20.32	\$ 20.32	\$ 26.02	\$ 43.51	\$ 43.51	\$ 43.51	\$ 46.67	\$ 46.67	\$ 46.67
Volumetric/1,000 gallons		\$ 5.07	\$ 6.50	\$ 6.83	\$ 7.17	\$ 7.52	\$ 8.13	\$ 8.37	\$ 8.37	\$ 8.37	\$ 8.37	\$ 8.37
Average User	4,237	\$ 86.50	\$ 117.54	\$ 139.65	\$ 145.61	\$ 157.58	\$ 185.59	\$ 189.86	\$ 189.86	\$ 193.02	\$ 193.02	\$ 193.02
6,000 gallon User	6,000	\$ 86.50	\$ 129.00	\$ 151.68	\$ 158.25	\$ 170.84	\$ 199.92	\$ 204.61	\$ 204.61	\$ 207.77	\$ 207.77	\$ 207.77

Town of Minturn																				
Enterprise Fund - 20yr Cash Flow Projection																				
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Beginning Cash Balance	1,292,135.00	1,816,603.00	2,318,608.00	2,792,480.00	3,256,859.00	3,818,335.00	2,643,445.00	3,456,319.00	4,288,898.00	4,728,990.00	5,524,296.77	6,263,009.57	6,193,262.96	6,663,132.98	7,070,635.44	6,813,723.99	7,090,288.30	7,298,152.02	6,835,070.85	6,898,730.37
Income																				
Water User Fees	1,121,057.00	1,236,800.00	1,361,316.00	1,495,194.00	1,639,058.00	1,793,572.00	1,866,136.00	1,938,702.00	2,011,270.00	2,011,270.00	2,011,270.00	2,011,270.00	2,011,270.00	2,011,270.00	2,011,270.00	2,011,270.00	2,011,270.00	2,011,270.00	2,011,270.00	2,011,270.00
Water Debt Service Fees	204,884.00	204,884.00	290,524.00	509,242.00	505,626.00	539,735.00	621,837.00	617,862.00	613,760.00	613,760.00	613,760.00	613,760.00	613,760.00	613,760.00	613,760.00	613,760.00	613,760.00	613,760.00	613,760.00	613,760.00
Water Meter install	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
Water Tap Fees	481,237.00	495,674.00	510,543.00	525,859.00	541,634.00	557,882.00	574,618.00	591,856.00	609,611.00	609,611.00	609,611.00	609,611.00	609,611.00	609,611.00	609,611.00	609,611.00	609,611.00	609,611.00	609,611.00	609,611.00
Bond Proceeds	2,500,000.00	0.00	9,848,230.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00
Total Income	4,327,178.00	1,957,358.00	12,030,613.00	2,550,295.00	2,706,318.00	2,911,189.00	3,082,591.00	3,168,420.00	3,254,641.00	3,254,641.00	3,254,641.00	3,254,641.00	3,254,641.00	3,254,641.00	3,254,641.00	3,254,641.00	3,254,641.00	3,254,641.00	3,254,641.00	3,254,641.00
Expenses																				
Operating Expenses	1,225,509.00	1,272,214.00	1,449,465.00	1,761,386.00	1,828,975.00	1,920,589.00	2,036,316.00	2,111,104.00	2,193,210.00	2,259,006.30	2,326,776.49	2,396,579.78	2,468,477.18	2,542,531.49	2,618,807.44	2,697,371.66	2,778,292.81	2,861,641.59	2,947,490.84	3,035,915.57
Add Back Depreciation	-245,176.00	-254,838.00	-379,740.00	-620,881.00	-629,543.00	-659,920.00	-712,010.00	-720,673.00	-734,071.00	-745,082.07	-756,258.30	-767,602.17	-779,116.20	-790,802.95	-802,664.99	-814,704.97	-826,925.54	-839,329.42	-851,919.36	-864,698.15
Purchase of Capital Assets	2,500,000.00	250,000.00	9,750,000.00	250,000.00	250,000.00	2,130,000.00	250,000.00	250,000.00	660,000.00	250,000.00	250,000.00	1,000,000.00	400,000.00	400,000.00	1,000,000.00	400,000.00	400,000.00	1,000,000.00	400,000.00	400,000.00
Interest-Existing Debt	8,042.00	7,707.00	7,408.00	7,097.00	6,772.00	6,434.00	6,082.00	5,714.00	5,332.00	5,332.00	5,332.00	5,332.00	5,332.00	5,332.00	5,332.00	5,332.00	5,332.00	5,332.00	5,332.00	5,332.00
Interest-Future Debt	104,770.00	102,582.00	255,434.00	405,058.00	396,240.00	387,140.00	377,750.00	368,058.00	358,056.00	358,056.00	358,056.00	358,056.00	358,056.00	358,056.00	358,056.00	358,056.00	358,056.00	358,056.00	358,056.00	358,056.00
Costs of Issuance	134,400.00	0.00	393,929.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Principal-Existing Debt	6,799.00	7,134.00	7,433.00	7,744.00	8,069.00	8,407.00	8,759.00	9,127.00	9,509.00	9,509.00	9,509.00	9,509.00	9,509.00	9,509.00	9,509.00	9,509.00	9,509.00	9,509.00	9,509.00	9,509.00
Principal-Future Debt	68,366.00	70,554.00	72,812.00	275,512.00	284,329.00	293,429.00	302,820.00	312,511.00	322,513.00	322,513.00	322,513.00	322,513.00	322,513.00	322,513.00	322,513.00	322,513.00	322,513.00	322,513.00	322,513.00	322,513.00
Total Expense	3,802,710.00	1,455,353.00	11,556,741.00	2,085,916.00	2,144,842.00	4,086,079.00	2,269,717.00	2,335,841.00	2,814,549.00	2,459,334.24	2,515,928.19	3,324,387.61	2,784,770.97	2,847,138.55	3,511,552.45	2,978,076.70	3,046,777.27	3,717,722.17	3,190,981.48	3,266,627.41
Net Income Exp	524,468.00	502,005.00	473,872.00	464,379.00	561,476.00	-1,174,890.00	812,874.00	832,579.00	440,092.00	795,306.77	738,712.81	-69,746.61	469,870.03	407,502.45	-256,911.45	276,564.30	207,863.73	-463,081.17	63,659.52	-11,986.41
Ending Fund Balance	1,816,603.00	2,318,608.00	2,792,480.00	3,256,859.00	3,818,335.00	2,643,445.00	3,456,319.00	4,288,898.00	4,728,990.00	5,524,296.77	6,263,009.57	6,193,262.96	6,663,132.98	7,070,635.44	6,813,723.99	7,090,288.30	7,298,152.02	6,835,070.85	6,898,730.37	6,886,743.96

COLORADO INTERGOVERNMENTAL RISK SHARING AGENCY
(CIRSA)
CERTIFICATE OF PARTICIPATION
FOR PROPERTY/CASUALTY COVERAGES
issued to the

Town of Minturn

CIRSA hereby certifies that the above-named entity is a participating member of CIRSA for property/casualty coverages for the coverage period of January 1, 2020 to January 1, 2021.

CIRSA liability coverages for the coverage period will be as described in a CIRSA liability policy and Pennsylvania Manufacturers' Association Insurance Company reinsurance policy which will provide the liability and errors and omissions coverages summarized below. CIRSA property and crime coverages for the coverage period will be as described in a CIRSA property policy, excess policies from the carriers identified on the attached Property Coverage Schematic, and deductible buy-back policy from participating Lloyds Syndicate market insurers.

The coverages, conditions of membership, and other provisions applicable to CIRSA property/casualty members are described in CIRSA's Bylaws and Intergovernmental Agreement, coverage and/or excess/reinsurance coverage policies, and general policies adopted by the members, as from time to time amended.

The types and monetary limits of the coverages to be provided to CIRSA property/casualty members for the coverage period shall be as described below. The scope, terms, conditions, and limitations of the coverages shall be governed by the applicable policies and/or excess/reinsurance policies, the CIRSA Bylaws and Intergovernmental Agreement, and other applicable documents.

- I. TYPES OF COVERAGES** (subject to the limit on CIRSA's liability as described in Section II below):
- A. Property coverage (including auto physical damage and public relations, privacy breach, and cyber extortion expense)
 - B. Liability coverage:
 - 1. General liability
 - 2. Auto liability
 - 3. Law enforcement liability
 - 4. Public Officials errors and omissions liability
 - 5. Security and privacy breach liability
 - C. Crime coverage (including employee dishonesty and money and securities)

II. CIRSA LOSS FUNDS, RETENTIONS, EXCESS INSURERS/REINSURERS, AGGREGATE LIMITS, AND MEMBER DEDUCTIBLES:

For the coverages described in Section I, CIRSA shall be liable only for payment of the applicable self-insured retentions and only to a total annual aggregate amount for CIRSA members as a whole of the amount of the applicable CIRSA loss fund for the coverage period. There shall be no aggregate excess coverage over any loss fund.

Coverages in excess of CIRSA's self-insured retentions shall be provided by the applicable excess insurers and/or reinsurers in applicable excess and reinsurance policies and shall be payable by those excess insurers and/or reinsurers.

The limits of coverage provided by the excess insurers and/or reinsurers for the coverage period shall be described in the coverage documents issued to the members. Sublimits, aggregate and other limits shall apply as provided in said documents.

CIRSA LOSS FUND AMOUNTS FOR THE COVERAGE PERIOD:

Loss fund amounts are as adopted or amended from time to time by the Board of Directors based on the members in the property/casualty pool for the year. Information on current loss fund amounts is available from the CIRSA Chief Financial Officer.

CIRSA SELF-INSURED RETENTIONS FOR THE COVERAGE PERIOD:

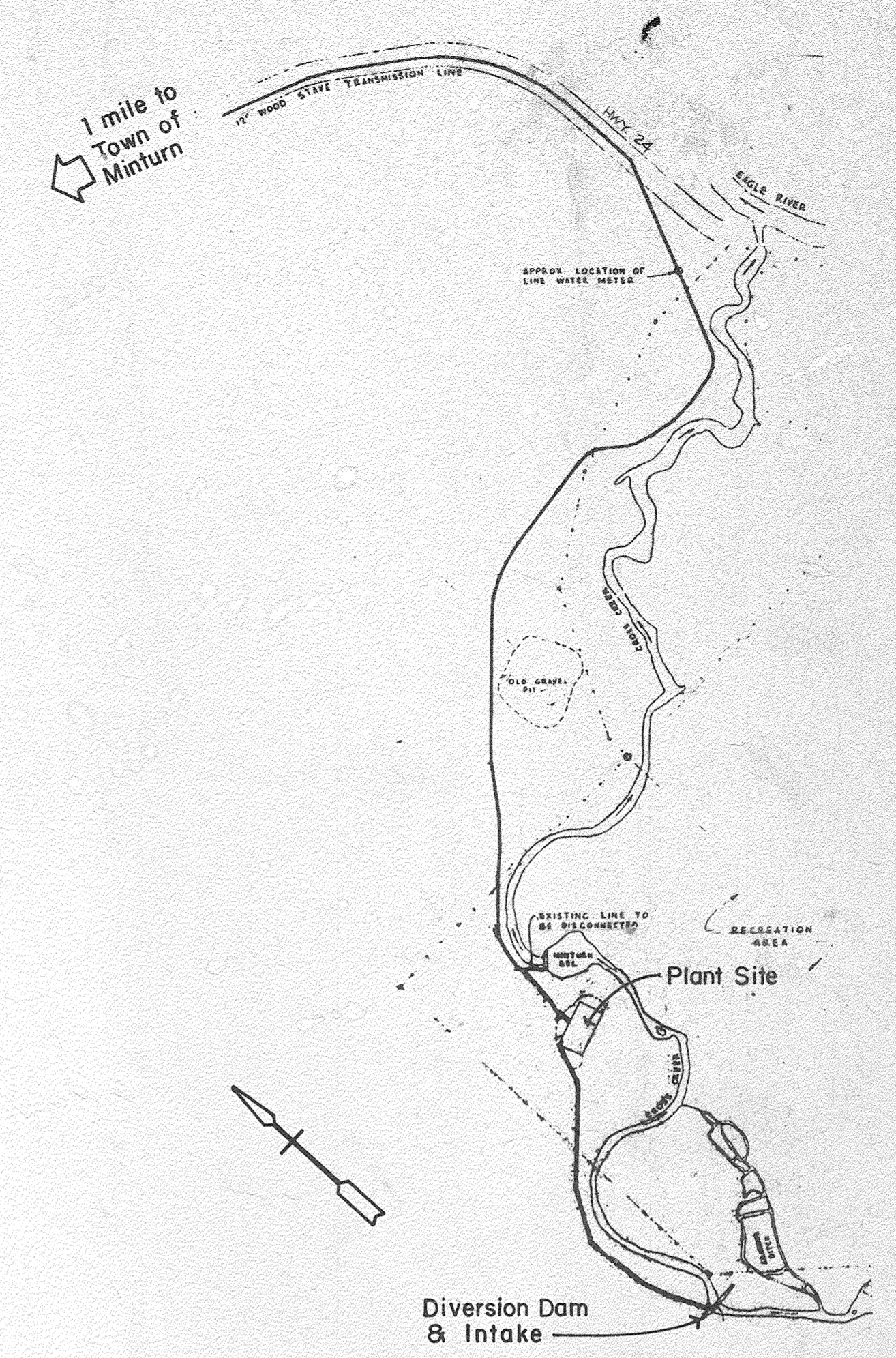
- A. \$1,000,000 each and every loss and/or occurrence property*
- B. \$100,000 each claim/annual aggregate public relations and security breach
- C. \$1,000,000 each and every loss and/or occurrence liability
- D. \$1,000,000 each and every claim Public Officials liability
- E. \$500,000 each claim/annual aggregate security and privacy liability
- F. \$150,000 each and every loss and/or occurrence crime

*Subject further to CIRSA retention of first \$5,000,000 each and every hail/wind loss and/or occurrence

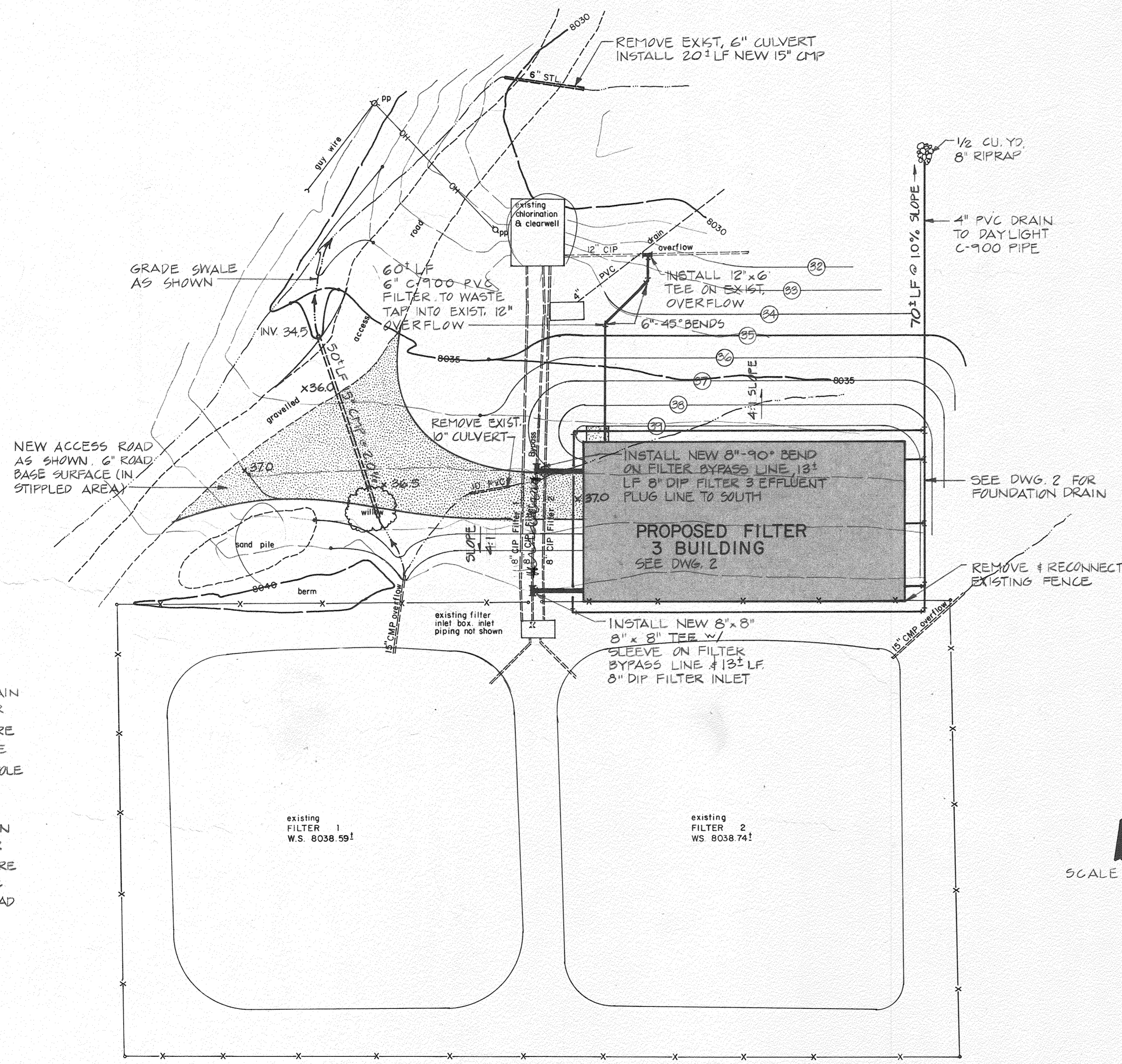
EXCESS INSURERS/REINSURERS FOR THE COVERAGE PERIOD:

- A. Property: Per Property Coverage Schematic attached
- B. Liability: Pennsylvania Manufacturers' Association Insurance Company (reinsurance)
- C. Excess Crime: AIG

Under Treatment Plant Plot
 Filter 3
 1991



LOCATION MAP

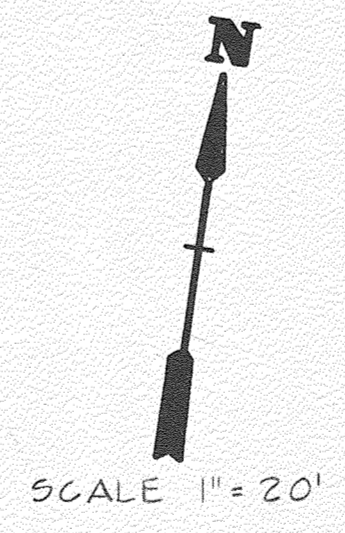


LEGEND

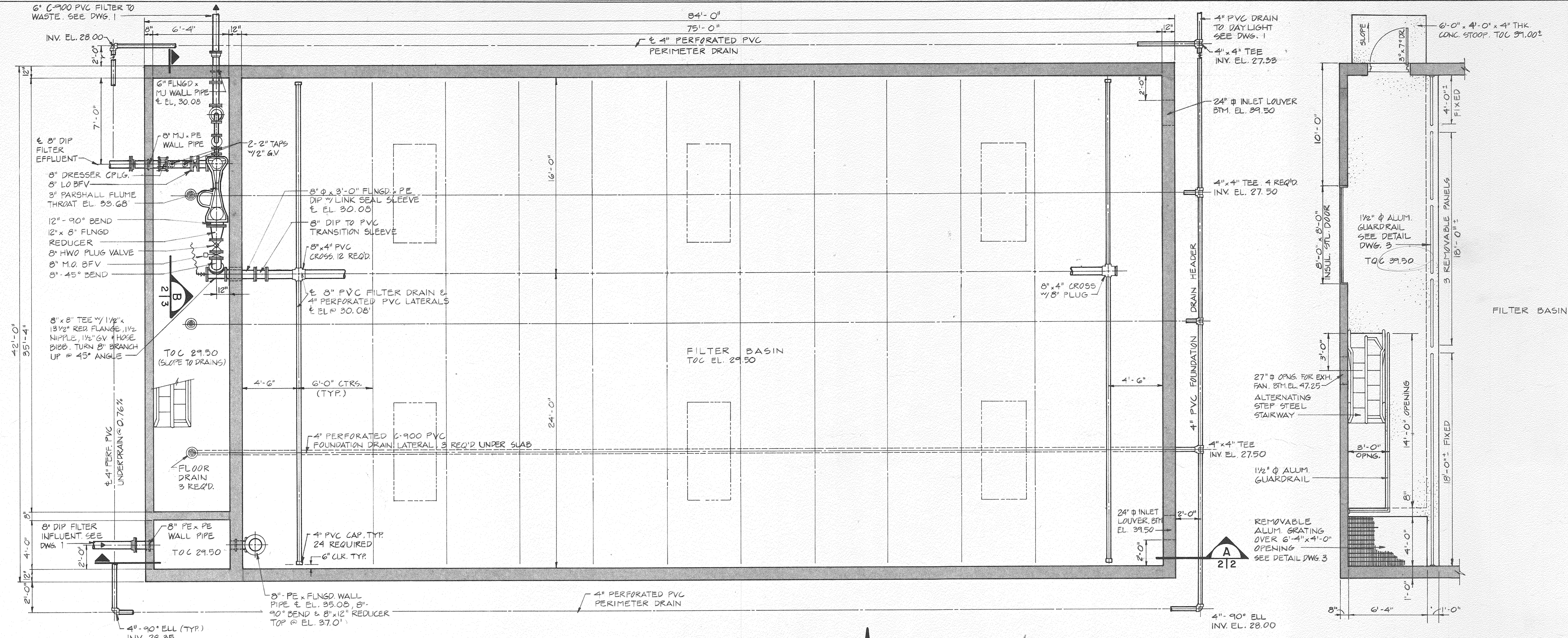
	EXISTING PIPE MAIN
	EXISTING CONTOUR
	EXISTING STRUCTURE
	EXISTING DRAINAGE
	EXISTING POWER POLE
	EXISTING FENCE
	PROPOSED PIPE MAIN
	PROPOSED CONTOUR
	PROPOSED STRUCTURE
	PROPOSED DRAINAGE
	PROPOSED ACCESS ROAD

DRAWING INDEX

Drawing no.	Title
1	SITE PLAN
2	BUILDING PLAN & SECTION
3	SECTIONS AND DETAILS
4	EXISTING FILTER REHABILITATION
E1	ELECTRICAL SITE PLAN, ETC
E2	UPPER/LOWER LEVEL ELECTRICAL PLANS

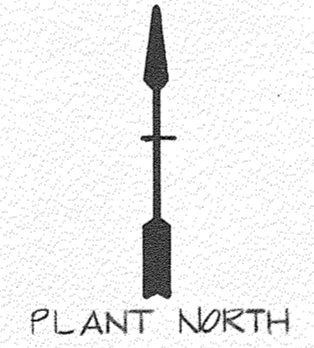


TOWN OF MINTURN, COLORADO	
Water Treatment Plant Filter Addition	
SITE PLAN	
PROJECT NUMBER 72-40.005	McLAUGHLIN WATER ENGINEERS, Ltd. 2420 ALCOTT ST. DENVER, CO 80211
DESIGN DRAWN	UG: 1991
DRAWING NUMBER	1

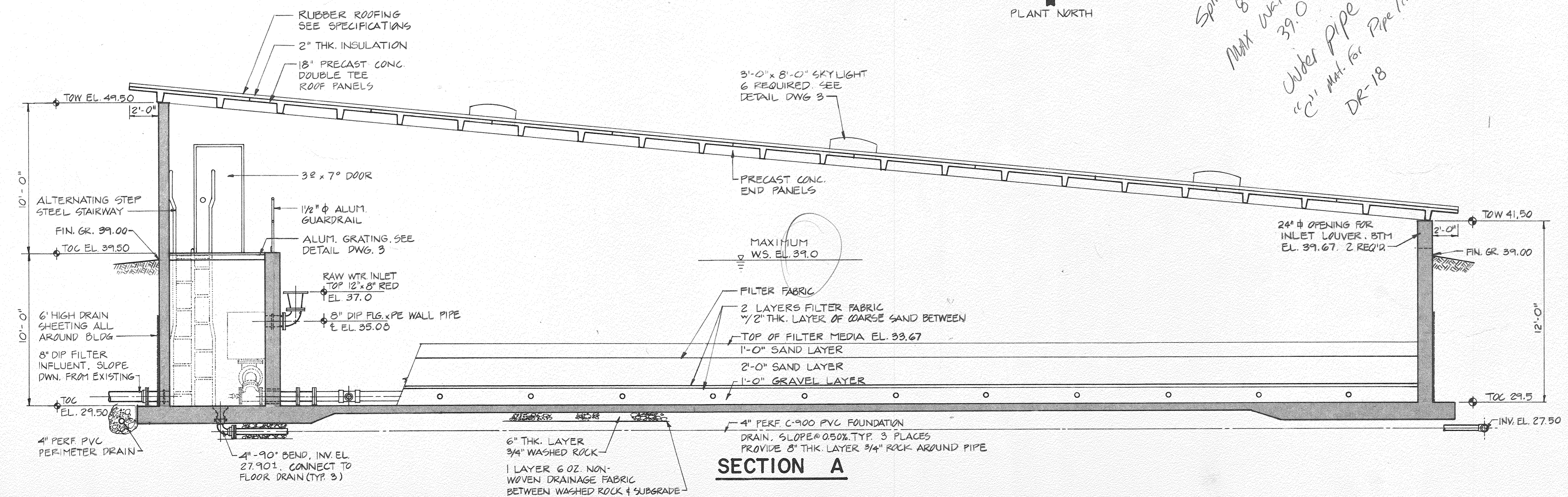


FILTER BUILDING - LOWER LEVEL PLAN
SCALE 1/4" = 1'-0"

PARTIAL PLAN - UPPER LEVEL
SCALE 1/4" = 1'-0"

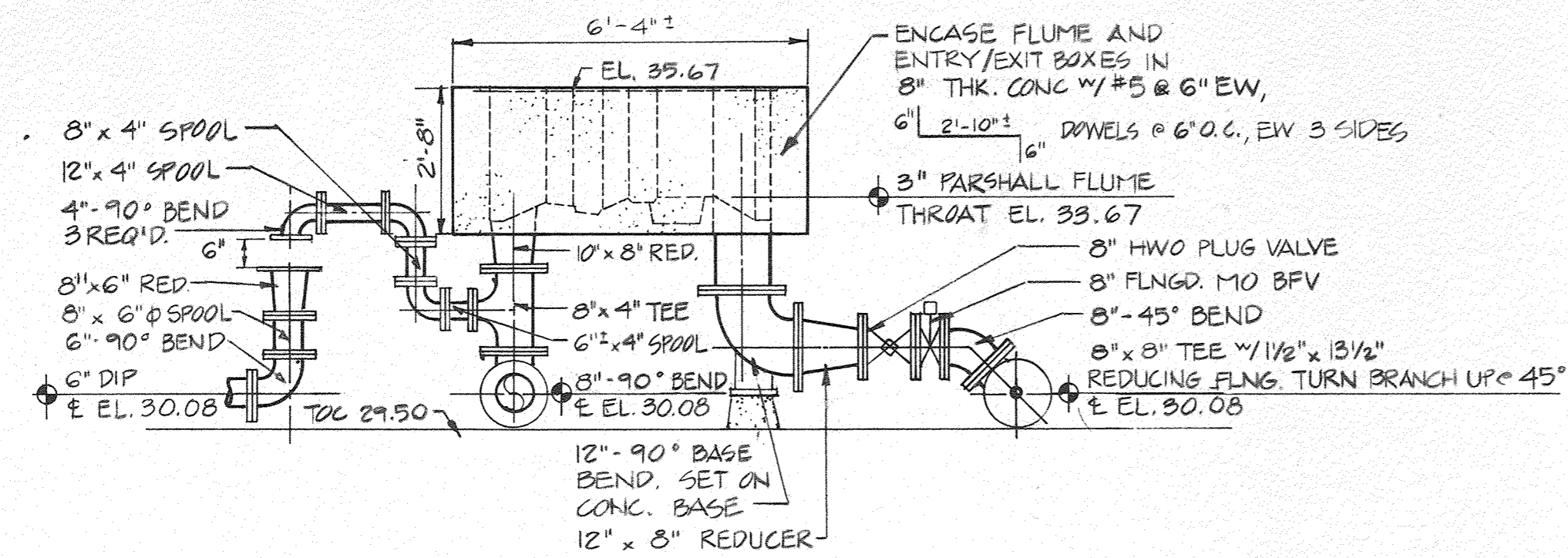


*NE corner
Splitter =
8040.17
Max water
39.0
Under pipe spec.
"C" mat. for pipe lines
DR-18*

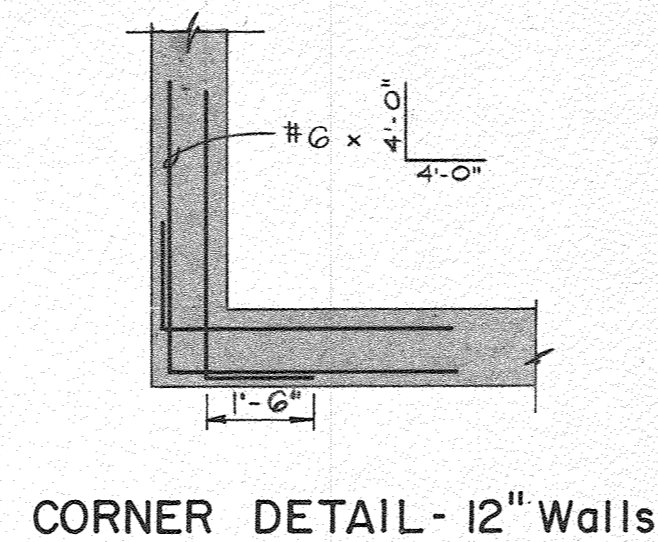


SECTION A

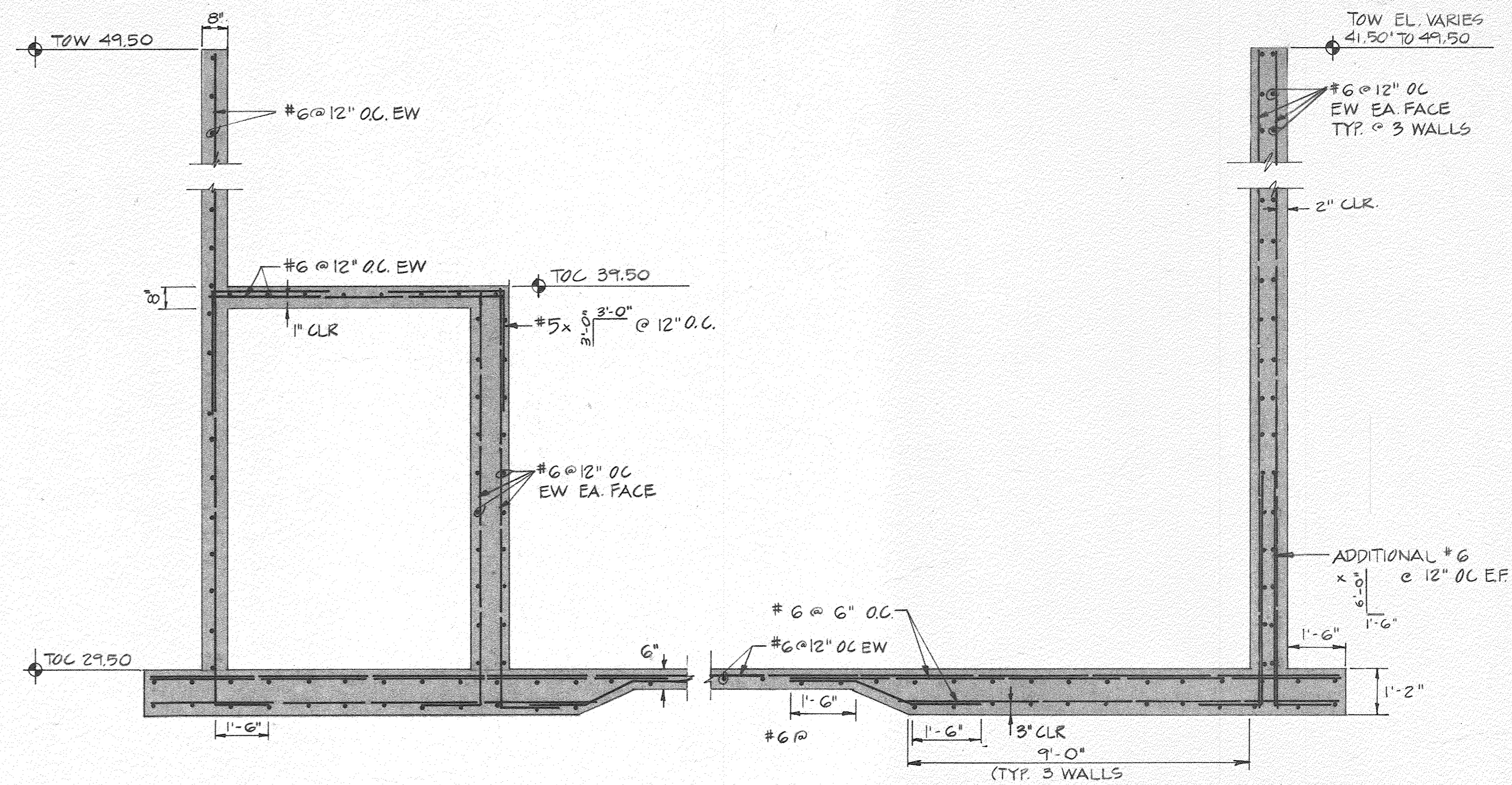
TOWN OF MINTURN, COLORADO	
Water Treatment Plant Filter Addition	
BUILDING PLAN & SECTION	
PROJECT NUMBER 72 - 40.005	MWE McLAUGHLIN WATER ENGINEERS, Ltd. 2420 ALCOTT ST. DENVER, CO 80211
DESIGN <i>Blm</i>	DATE AUG. 1991
DETAIL <i>H</i>	DRAWING NUMBER 2
CHECK <i>Blm</i>	



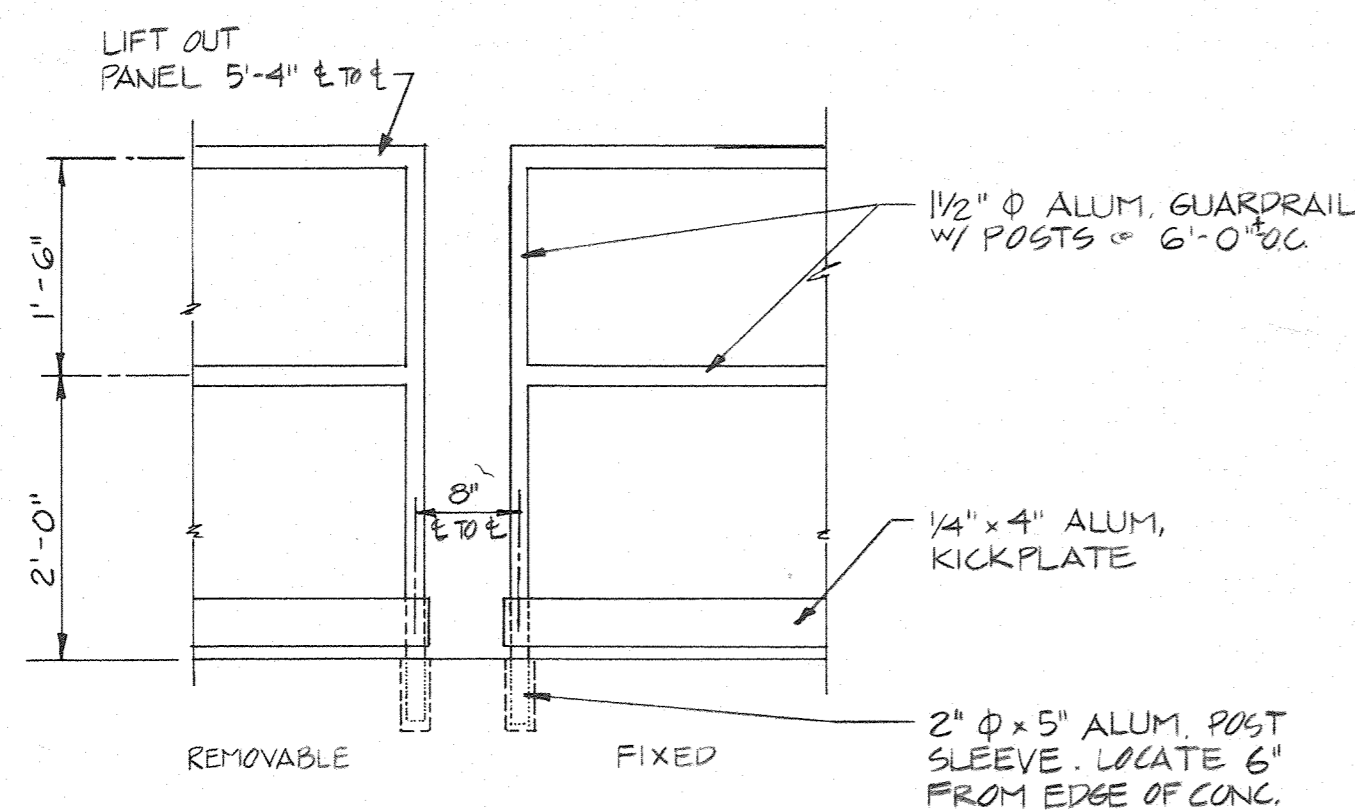
FILTER EFFLUENT DETAILS-SECTION B
SCALE 3/8" = 1'-0"



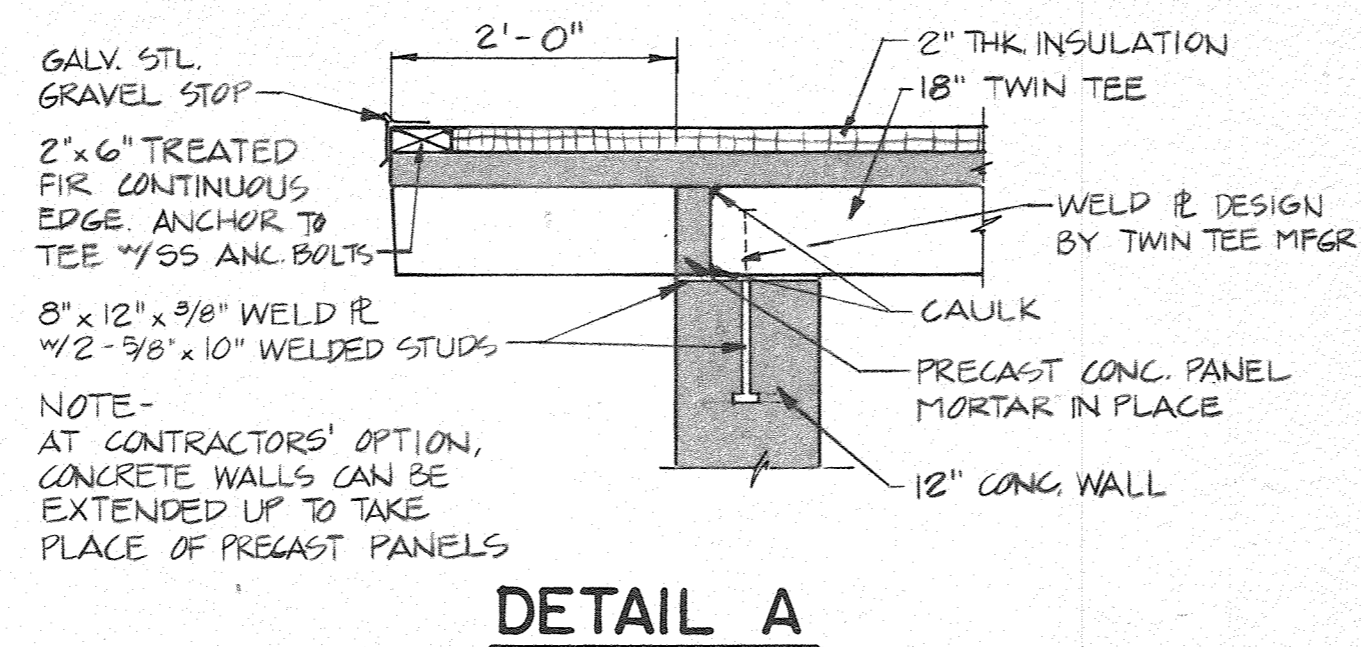
CORNER DETAIL - 12" Walls



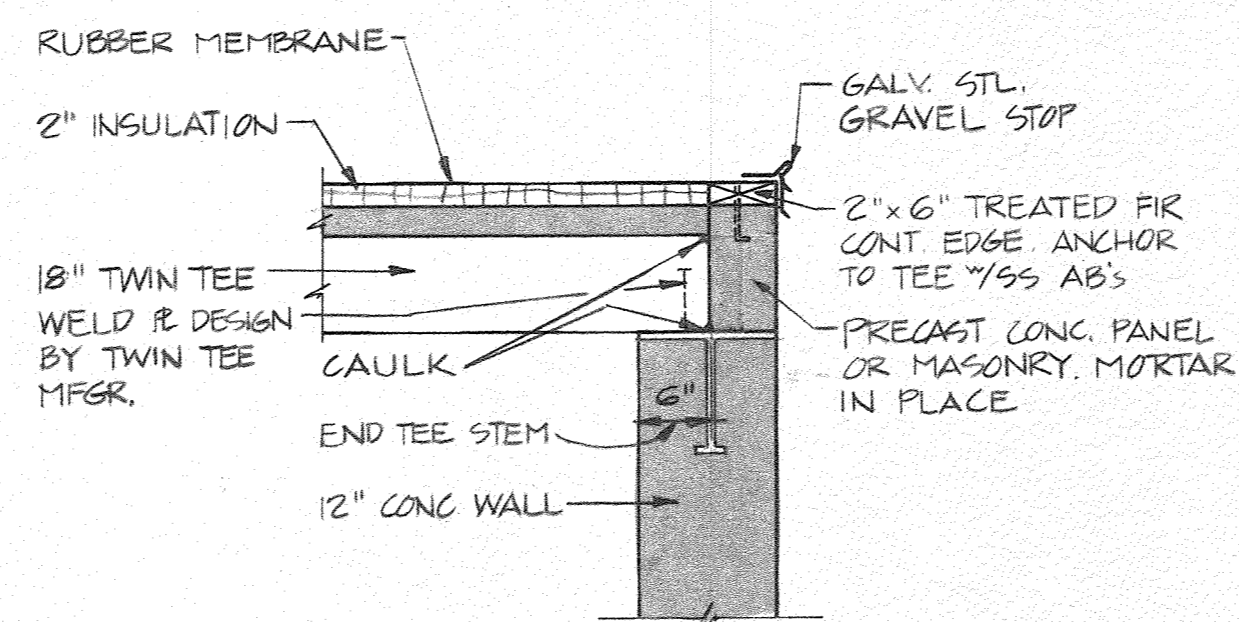
FILTER BUILDING - REINFORCING DETAILS
SCALE 3/8" = 1'-0"



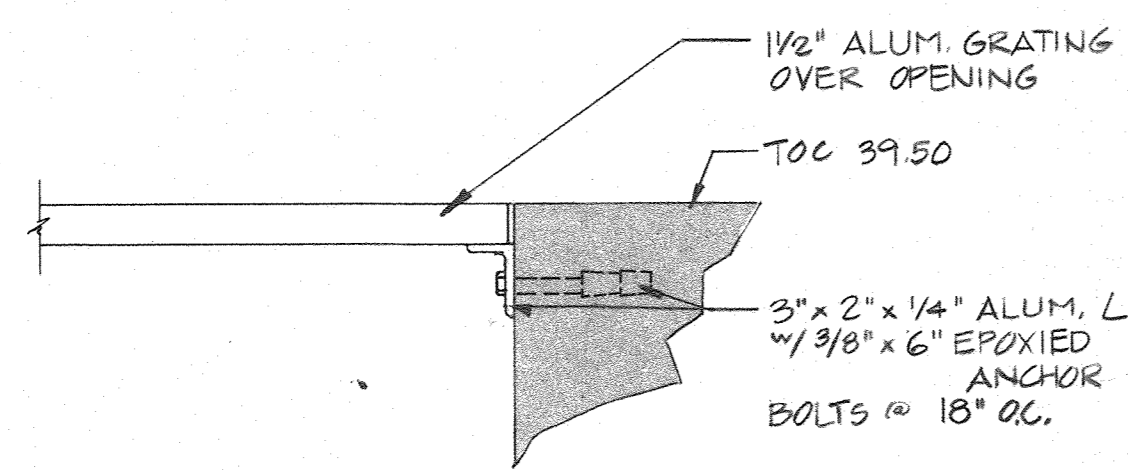
GUARDRAIL DETAIL
SCALE 3/4" = 1'-0"



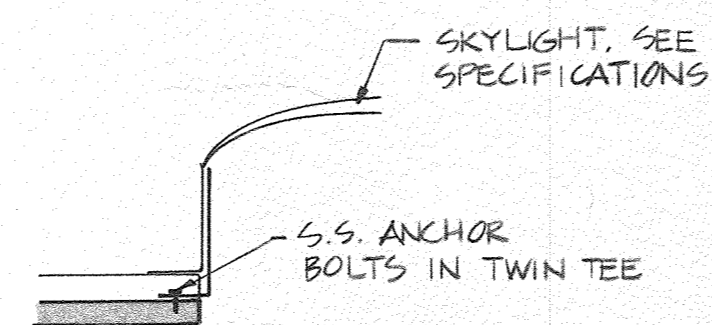
DETAIL A



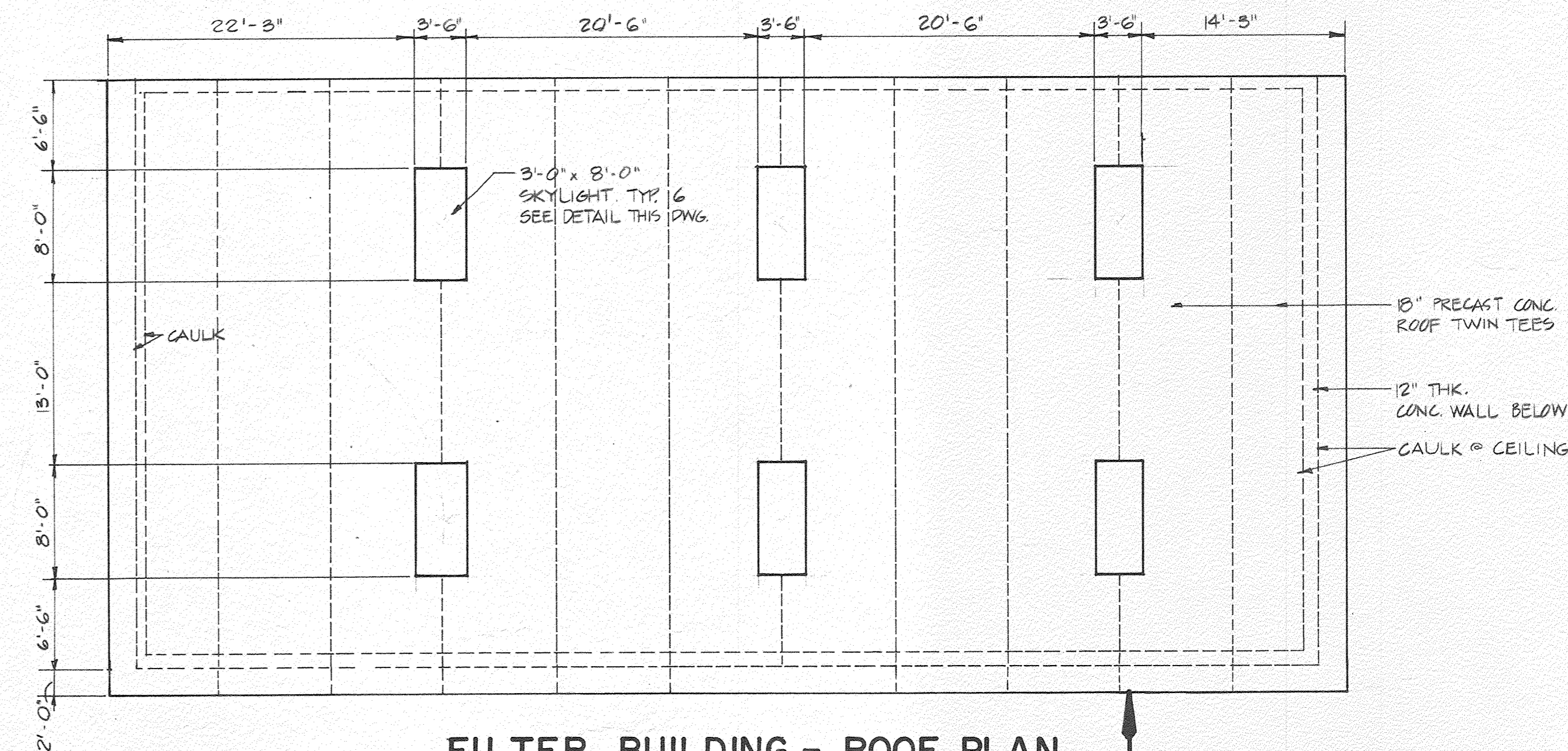
DETAIL B



GRATING SUPPORT DETAIL
SCALE 1/2" = 1'-0"



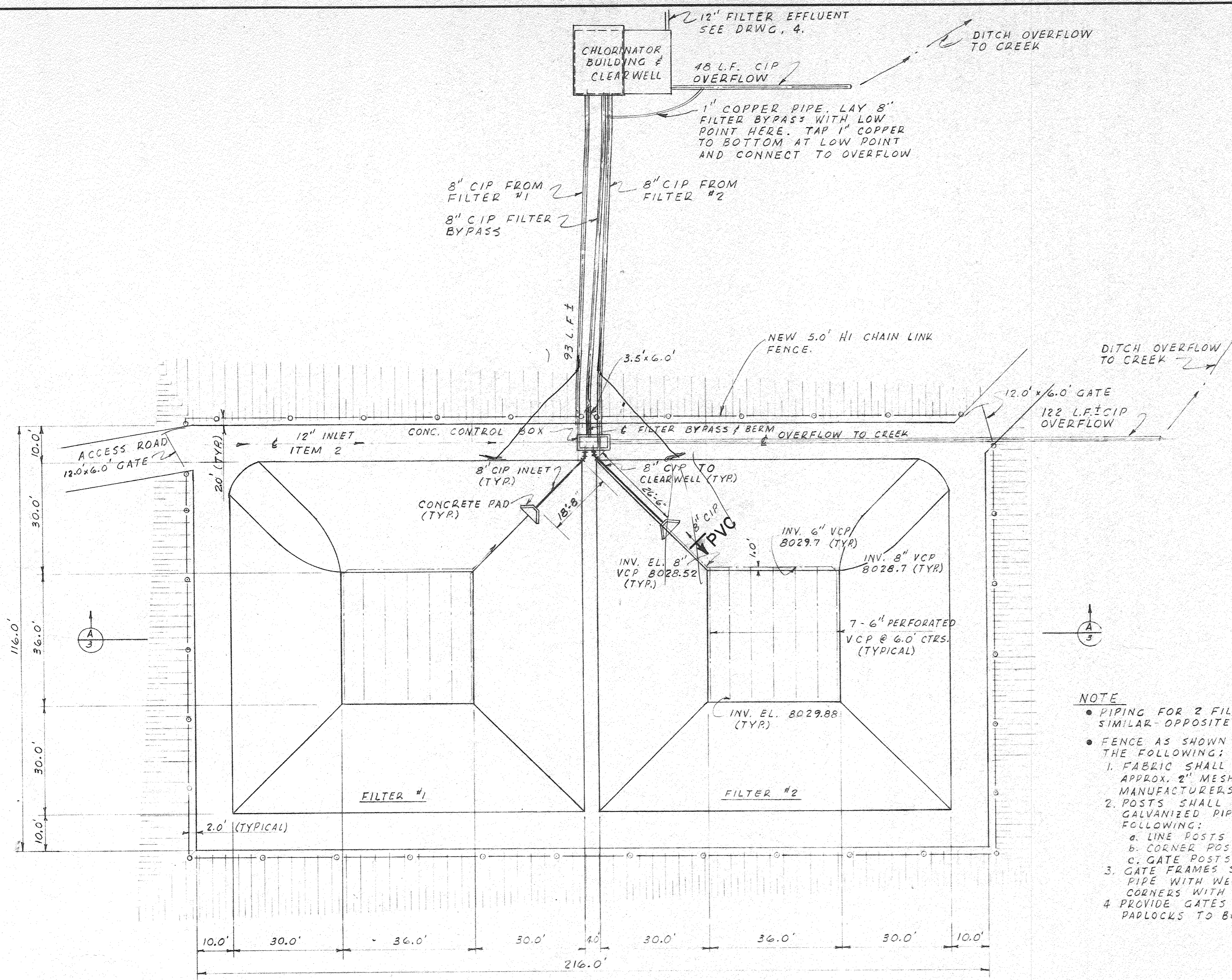
SKYLIGHT DETAIL



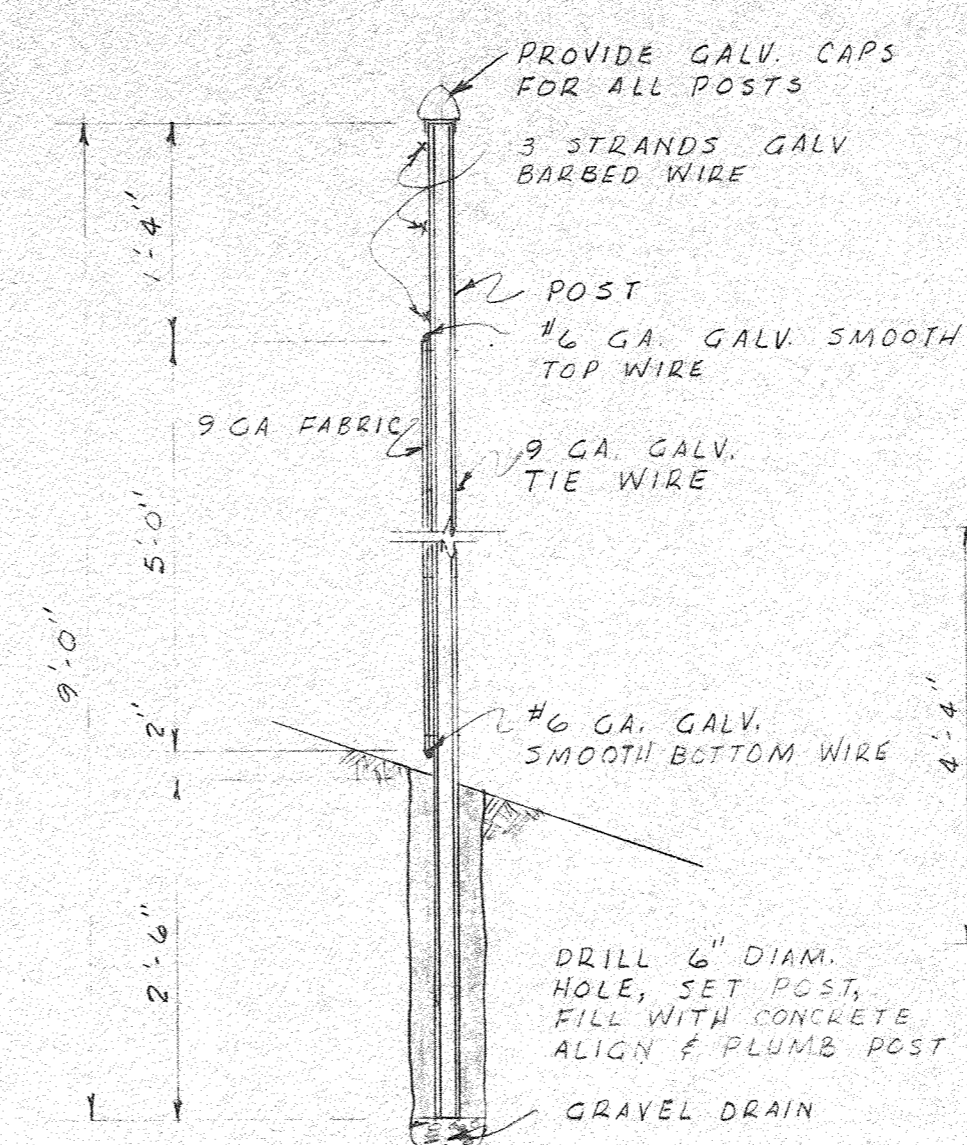
FILTER BUILDING - ROOF PLAN
SCALE 1/8" = 1'-0"

PLANT NORTH

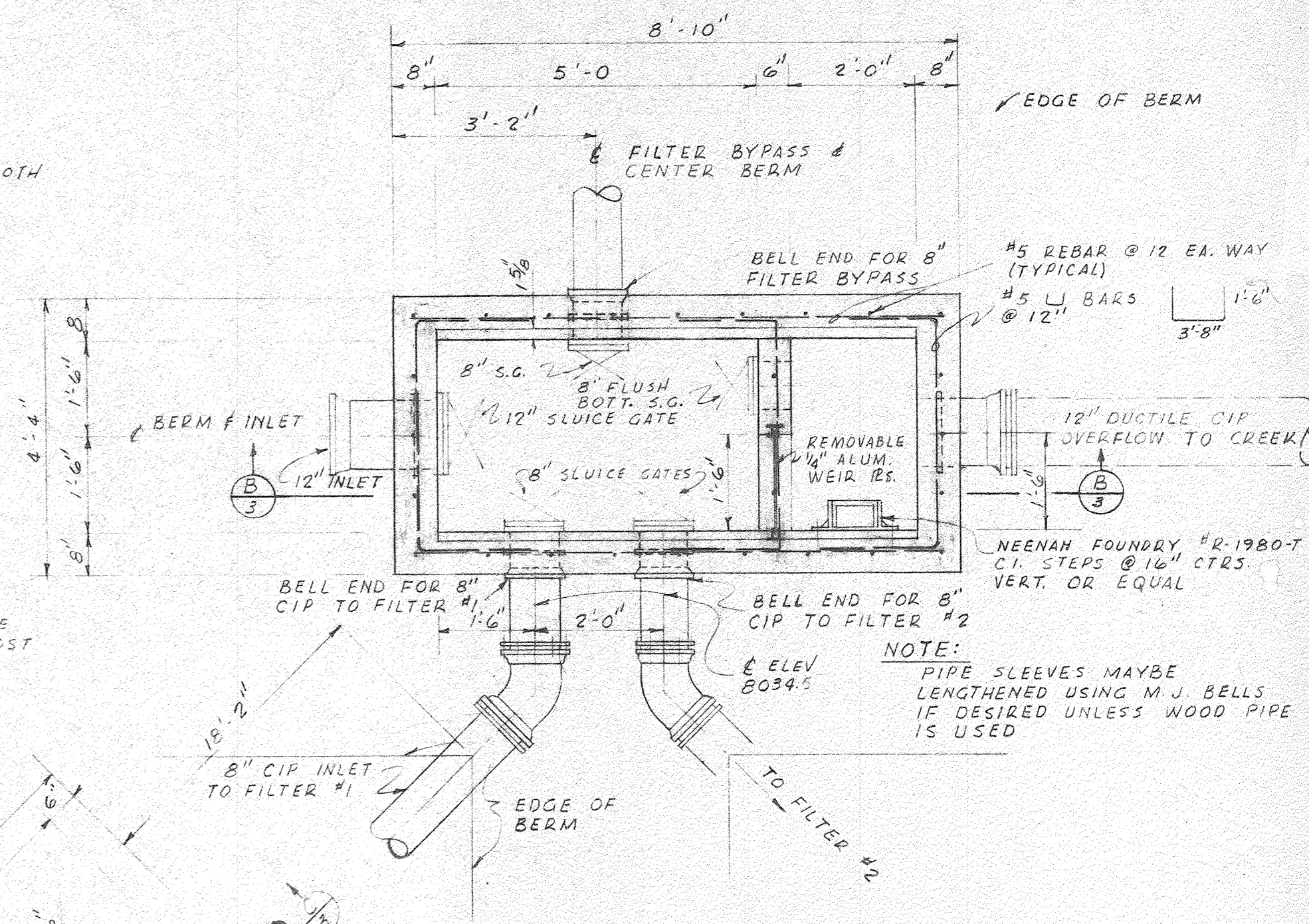
TOWN OF MINTURN, COLORADO	
Water Treatment Plant Filter Addition	
SECTIONS AND DETAILS	
PROJECT NUMBER 72-40.005	MW McLAUGHLIN WATER ENGINEERS, Ltd. 2420 ALCOTT ST. DENVER, CO 80211
DESIGN DETAIL CHECK	DATE AUG. 1991
DRAWING NUMBER	



FILTER PLAN
SCALE 1" = 20'-0"



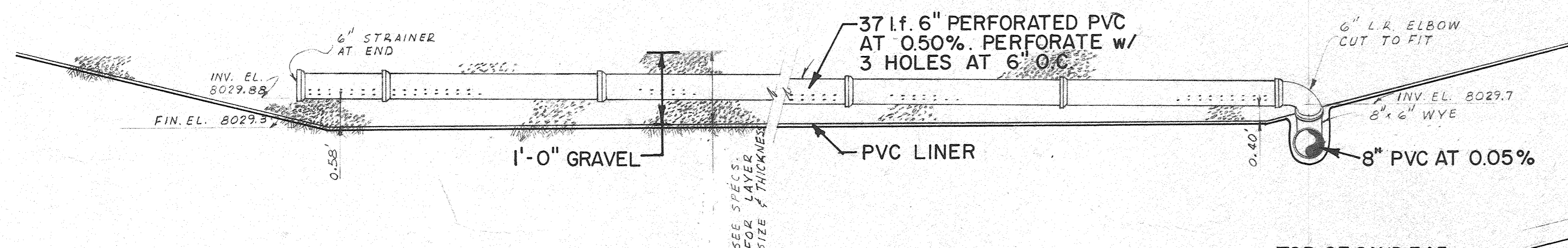
TYPICAL POST DETAIL
SCALE 3/8" = 1'-0"



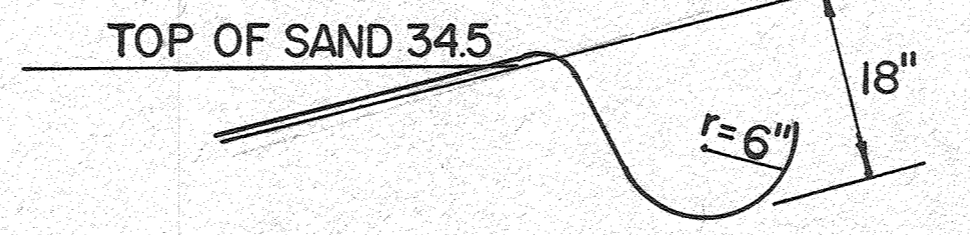
PLAN INFLUENT CONTROL BOX
SCALE 1/2" = 1'-0"

PLAN CONCRETE PAD
SCALE 1/2" = 1'-0"

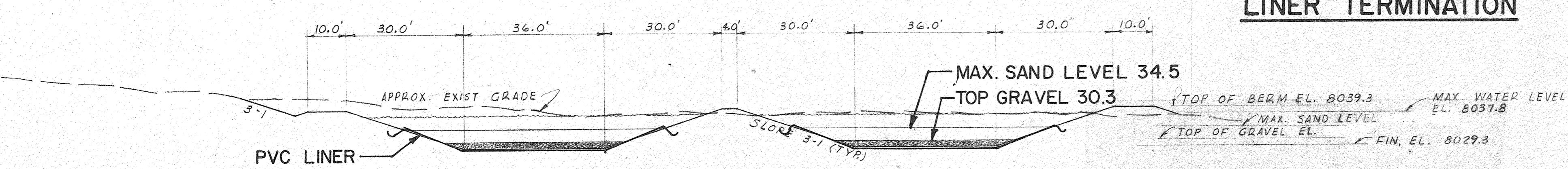
- NOTE**
- PIPING FOR 2 FILTERS SIMILAR - OPPOSITE HAND
 - FENCE AS SHOWN SHALL CONFORM TO THE FOLLOWING:
 1. FABRIC SHALL BE 9 GA. GALVANIZED WIRE APPROX. 2" MESH INSTALLED ACCORDING TO MANUFACTURERS RECOMMENDATIONS.
 2. POSTS SHALL BE OF STANDARD WEIGHT GALVANIZED PIPE CONFORMING TO THE FOLLOWING:
 - a. LINE POSTS 2" O.D. @ 10.0' CTRS. MAX.
 - b. CORNER POSTS 2 1/2" O.D.
 - c. GATE POSTS 3" O.D.
 3. GATE FRAMES SHALL BE 1 1/2" STD. WT. GALV. PIPE WITH WELDED CONSTRUCTION AND REINFORCED CORNERS WITH FILLER TO MATCH FENCE FABRIC.
 4. PROVIDE GATES WITH LOCKING DEVICE & PADLOCKS. PADLOCKS TO BE KEYED ALIKE.



UNDERDRAIN DETAIL
SCALE 1" = 2'-0"

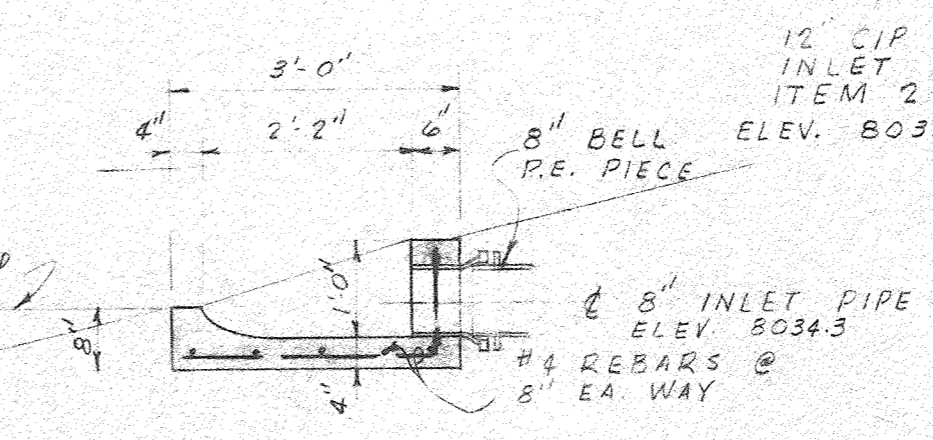


LINER TERMINATION

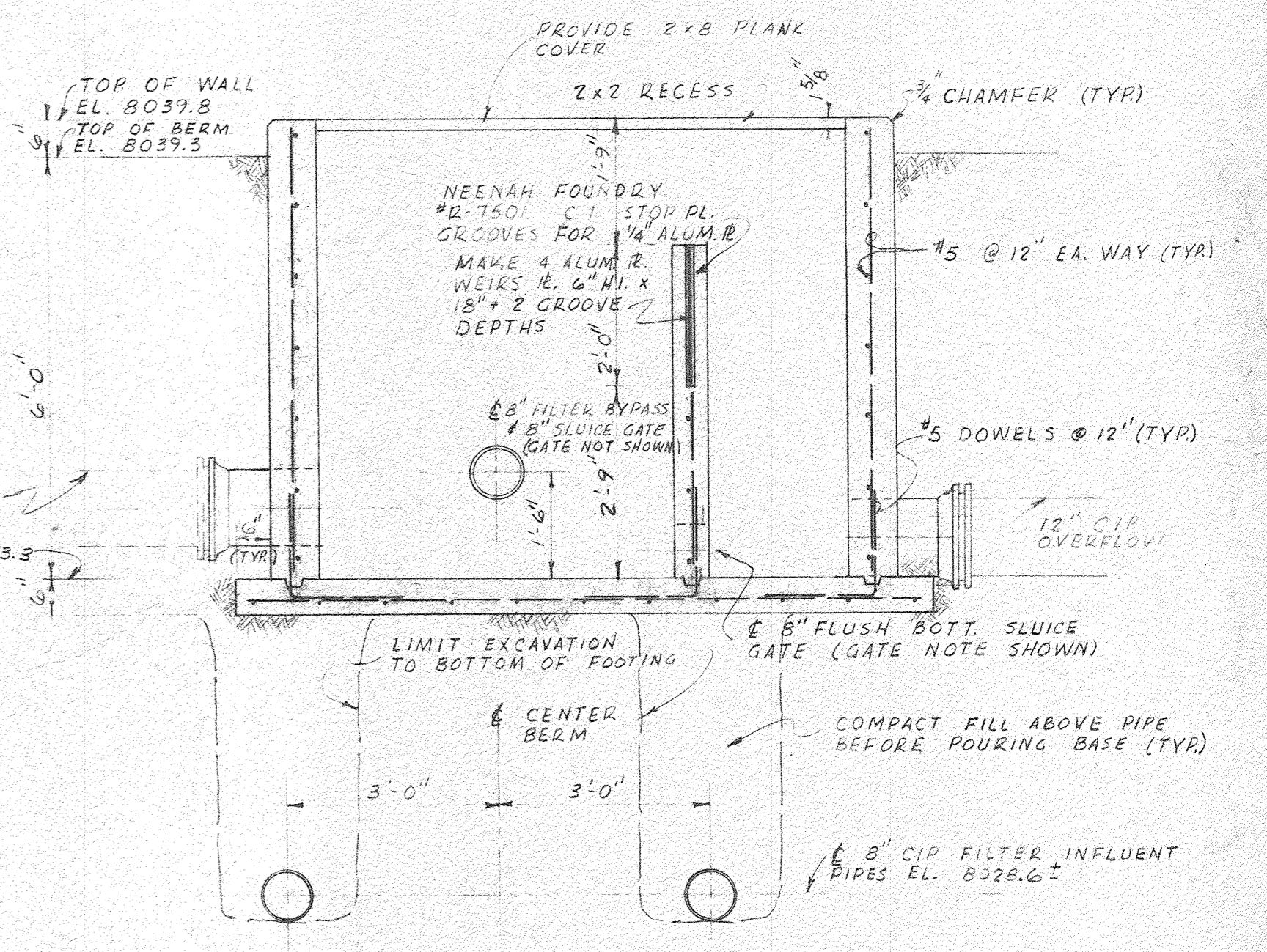


SECTION A
SCALE 1" = 20'

- Filter Rehabilitation consists of:**
1. Removal of existing media and underdrain
 2. Installation of PVC Liner
 3. Replacement of underdrain with PVC pipe, same size and layout as the original design
 4. Replacement of media, see specifications, similar to proposed filter



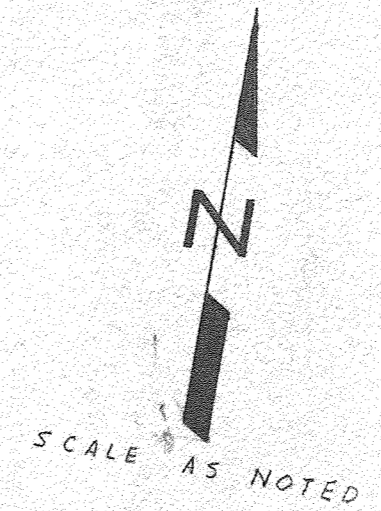
SECTION C
SCALE 1/2" = 1'-0"

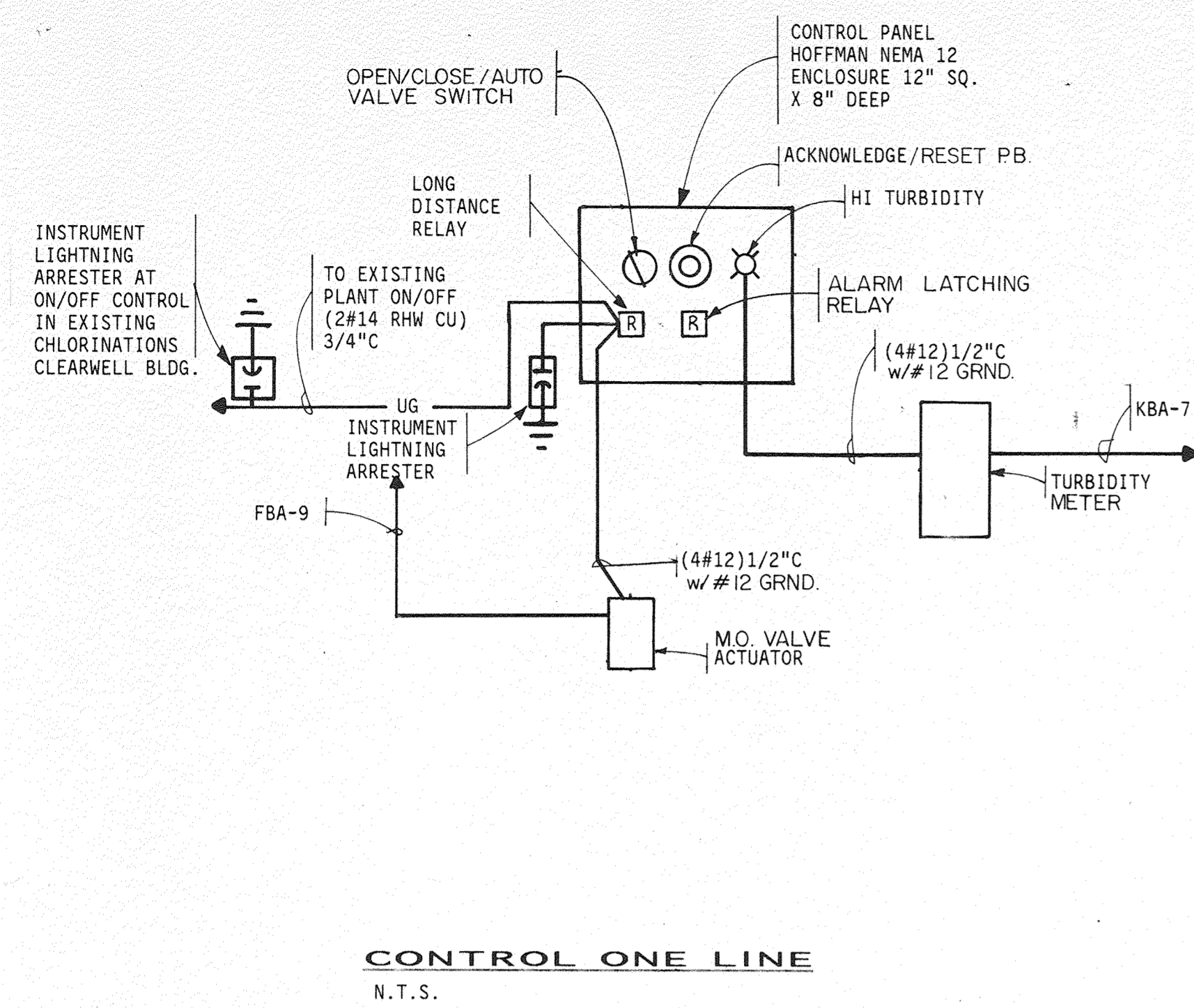


SECTION B
SCALE 1/2" = 1'-0"

EXISTING FILTER REHABILITATION

NO.	REVISION	DATE	BY	CHK'D	APPR.
MINTURN, COLORADO WATER SUPPLY IMPROVEMENTS ITEM 3 FILTER PLAN & DETAILS					
					DESIGN R.C.M.E. DRAWN T.E.C. CHK'D R.C.M.E.
					DATE AUG., 1963 PROJECT C-167 DRAWING
C. W. HOPER & ASSOCIATES UTILITIES ENGINEERS					





LIGHTING FIXTURE SCHEDULE							
TYPE	LAMPS	DESCRIPTION	FINISH	MOUNTING	MANUFACT.	CAT. NO.	VOLT.
A	2-F40CW	4' LONG VAPORTITE, WET LOCATION, HIGH IMPACT ACRYLIC LENS.	WHITE ABS PLASTIC	SURFACE	LITHONIA	DMW240AR-WLF	120
B	1-LU50/D	50W HPS WALL PACK. POLYCARBONATE HOUSING & POLYCARBONATE LENS.	BRONZE	WALL SURFACE +7'-6" AFF	HUBBELL	NRG301	120
C	1-Q 500 T3/CL	QUARTZ 500 WATT FLOOD LIGHT, WIDE BEAM SPREAD.	ALUM	1'-0" BELOW ROOF	HUBBELL	OL 505-WIDE	120
	WITH UNIT	EMERGENCY BATTERY PACK NEMA 3R.	STD	8'-0" AFF	CHLORIDE	NMR-50-IQ-2	120

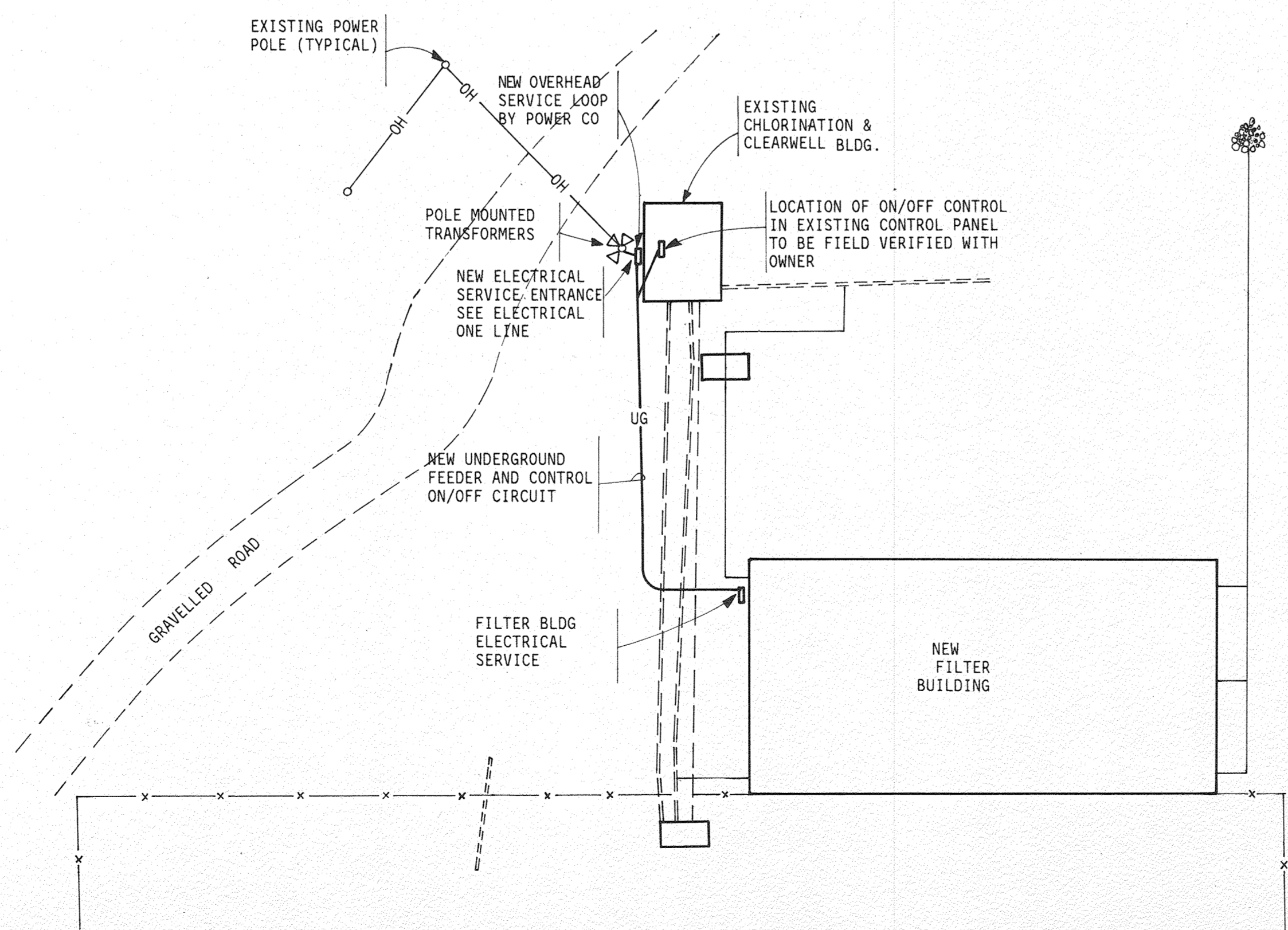
MECHANICAL EQUIPMENT SCHEDULE									
DESCRIPTION	HP	KW	AMP	VOLT	WIRE	COND	BREAKER	SWITCH & FUSE	REMARKS
EUH 1,2	* ELECTRIC UNIT HEATERS	10	24	240 3 PH	3#10/8 10GRD	1/2"	30/3	30/3/RT 30A LPN-R	SEE DWGS *
EF 1	EXHAUST FAN 1	1/3		120	2#12/8 12GRD	1/2"	20/1	Sto/RT	INTERLOCK W/(2) MOTORIZED LOUVERS
TP 1	TEMPORARY PUMP 1	3		240 1 PH	2#10/8 10GRD	3/4"	40/2	30/2/RT 25A FRN-R	SEE DWGS
TP 2	TEMPORARY PUMP 2	3		240 1 PH	2#10/8 10GRD	3/4"	40/2	30/2/RT 25A FRN-R	SEE DWGS

* NOTES:
 1. EUH ARE CHROMALUX LUH-10-43 W/ WR-80 REMOTE THERMOSTAT.
 2. PROVIDED BY ELECTRICAL CONTRACTOR.

PANELBOARD SCHEDULE									
PANEL	ACTIVE CIRCUIT	SPARES	VOLT.	PH W. MAINS	NO. OF SECT.	POLES/SECT.	MOUNTING	DEMAND	TYPE
FBA	7-20/1	2-20/1	120/240	1 3	100A MLO	1 12	SURFACE	6.6KVA	NEMA 3R
FBB	2-40/2, 2-30/3	2-20/3	240	3 3	150A MLO	1 24	SURFACE	41.6KVA	NEMA 3R

GENERAL CONSTRUCTION NOTES

- ALL PHASES OF THE ELECTRICAL WORK SHALL BE COORDINATED WITH ENGINEER. WORK SHALL BE DONE IN A FASHION TO CAUSE AS LITTLE INCONVENIENCE AS POSSIBLE TO OWNER.
- ELECTRICAL CONTRACTOR SHALL NOT DEFACE ANY AREAS WHERE REMODELING EXPANSION IS NOT BEING DONE.
- TERMINATING AND SPLICING: MAKE ALL JOINTS AND SPLICES IN BRANCH CIRCUIT WIRING WITH APPROVED SOLDERLESS TOOL APPLIED OR TWIST-ON CONNECTORS, IN THE VARIOUS BOXES, GUTTERS, AND SIMILAR LOCATIONS, BUT NOT IN RACEWAYS. LEAVE SUFFICIENT SLACK TO PERMIT TWO (2) OR MORE SPLICES OR JOINTS TO BE REMADE IN CASE OF FAULT.
- ELECTRICAL CONTRACTOR SHALL RECEIVE, FROM SYSTEM SUPPLIERS, ALL WIRING DIAGRAMS FOR ALL EQUIPMENT, PRIOR TO ANY ROUGH-IN, TO ASSURE PROPER ELECTRICAL CHARACTERISTICS ARE PROVIDED. ELECTRICAL CONTRACTOR SHALL PROVIDE ENGINEER WRITTEN NOTIFICATION PRIOR TO ROUGH-IN, THAT ALL WIRING DIAGRAMS HAVE BEEN RECEIVED AND REVIEWED FOR CORRECTNESS. ANY INCORRECT WIRING OR DEVICES INSTALLED BY ELECTRICAL CONTRACTOR WITHOUT WIRING DIAGRAMS SHALL BE CORRECTED AT ELECTRICAL CONTRACTOR'S EXPENSE.
- EXACT ELECTRICAL DEMOLITION REQUIREMENTS NOT SHOWN ON DRAWINGS. ELECTRICAL CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING TO DETERMINE EXACT DEMOLITION WORK TO BE DONE AND SHALL INCLUDE ALL DEMOLITION COSTS IN THEIR BID.
- RELOCATIONS: OWNER RESERVES THE RIGHT TO RELOCATE ANY ELECTRICAL DEVICE, UP TO A DISTANCE OF 12', BEFORE INSTALLATION WITHOUT EXTRA CHARGE FROM ELECTRICAL CONTRACTOR.
- ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY. EXACT LOCATION OF ALL SYSTEMS AND EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH OTHER TRADES PRIOR TO ANY INSTALLATION. WHERE EXACT LOCATIONS ARE NECESSARY, THEY ARE DIMENSIONED ON THIS DRAWING. WHERE THERE IS A QUESTION OF ADEQUATE CLEARANCE OR COORDINATION BETWEEN TRADES, THIS CONTRACTOR SHALL PREPARE SHOP DRAWINGS FOR ENGINEER'S REVIEW. ON ALL SPECIAL SYSTEMS REQUIRING DRAWINGS BY LICENSED INSTALLATION CONTRACTORS, SUCH AS FIRE PROTECTION, SUCH DRAWINGS SHALL BE SUBMITTED WITHIN 30 DAYS AFTER AWARD OF CONTRACT.
- CALL UTILITY COMPANIES (POWER, GAS, WATER, SEWER, TELEPHONE, CABLE TV, ETC.) IN ADVANCE BEFORE TRENCHING FOR THE MARKING OF THEIR UNDERGROUND UTILITIES. ALSO CONTRACTOR SHALL LOCATE ALL ON-SITE UTILITIES SUCH AS SECONDARY SERVICE FEEDERS, UNDERGROUND ELECTRICAL BRANCH CIRCUITS, SPRINKLER LINES, ETC. PRIOR TO TRENCHING. ANY CUT OR DAMAGED UNDERGROUND UTILITIES SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE.



LEGEND		LEGEND		LEGEND	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	INDICATES NL OR EM CIRCUIT	-LV	LOW VOLTAGE CIRCUIT		PT'S
	SPOT LIGHT		CIRCUIT TURNS UP		GROUND BUS
	INDICATES AIMING DIRECTION		CIRCUIT TURNS DOWN		GROUND
	EXIT LIGHT		UNDERGROUND TELEPHONE RUN		WEATHERHEAD
	EMERGENCY BATTERY LIGHT W/ LAMPS		UNDERGROUND SECONDARY OR PRIMARY SERVICE		FLAG NOTE
	INDICATES NO HEADS		SURFACE RACEWAY		MECHANICAL EQUIPMENT SYMBOL
	REMOTE EM LIGHTS		PLUG STRIP AS NOTED		SPECIAL EQUIPMENT SYMBOL
	LIGHTING OUTLET: CEILING RECESSED		MOISTURE OR EXPLOSION PROOF SEAL		SWITCH & FUSE
	LIGHTING OUTLET: WALL MOUNTED		HOME RUN		ANN UNNUNCIATOR
	FLUORESCENT FIXTURE: SURFACE		A-PANEL DESIGNATION		ARCH ARCHITECT
	POLE MOUNTED FIXTURE		1,3,5 CIRCUIT NUMBER, 4 CONDUCTORS UO		BFG BELOW FINISHED GRADE
	FLUORESCENT FIXTURE: WALL MOUNTED		FLUORESCENT FIXTURE RECESSED IN GRID		BKR BREAKER
	FLUORESCENT FIXTURE: RECESSED DRYWALL		DARK LINE WEIGHT DENOTES EXISTING (ONE LINE)		BWE BAKED WHITE ENAMEL CONDUIT
	FLUORESCENT STRIP		LIGHT LINE WEIGHT DENOTES EXISTING (ONE LINE)		MCP MOTOR CIRCUIT PROTECTOR
	TRACK FIXTURE		REDUCED VOLTAGE - AUTO TRANSFORMER NON REVERSING CLOSED TRANSITION STARTER		AUTO AUTOMATIC THROW-OVER SWITCH
	SINGLE POLE SWITCH 20 AMP UO		MOTOR OUTLET & CONNECTION		AC ABOVE COUNTER
	DOUBLE POLE SWITCH 20 AMP UO		MAGNETIC STARTER OR CONTACTOR		AFF ABOVE FINISHED FLOOR
	3-WAY SWITCH 20 AMP UO		DISCONNECT SWITCH		AFG ABOVE FINISHED GRADE
	4-WAY SWITCH 20 AMP UO		N.F. - NON FUSED		AIC AMP. INTERRUPTING CAPACITY
	KEYED SWITCH 20 AMP UO		F - FUSED		MLO MAIN LUG ONLY
	PILOT SWITCH SW. ON. LT. ON. 20A UO		PUSHBUTTON STATION		MC MECHANICAL CONTRACTOR
	SWITCH WITH THERMAL OVERLOAD 20 AMP UO		TIME SWITCH		MECH MECHANICAL
	SSU SWITCHED FUSED 20A UO		PHOTO CELL ELEC.		MTD MOUNTED
	COMBINATION SWITCH/RECEPTACLE		LIGHTNING ARRESTER		MCB MAIN CIRCUIT BREAKER
	SINGLE POLE SW. 20 AMP UO		J-BOX: CEILING		PHL PANEL
	a-SWITCHING 3-THREE WAY		J-BOX: WALL		PHR PHASE
	SWITCH VARIABLE SPEED		DUPLEX RECEPTACLE SPLIT WIRED		PWR POWER
	SWITCH LOW VOLTAGE		MULTI-CELL FLOOR BOX		PC PULL CHAIN
	DUPLEX RECEPTACLE		SPECIAL PURPOSE OUTLET AS NOTED		RT RAIN TIGHT, NEMA 3R
	-GROUND FAULT INTERRUPTER		CLOCK OUTLET 1/2-6" AFF UO		RECEP RECEPTACLE
	ELECTRIC WATER COOLER		TELEPHONE OUTLET: W-WALL P-PAYPHONE 54" AFF UO		SS SAFETY SWITCH
	AUTOMATIC DOOR SWITCH		FIRE ALARM CONTROL PANEL		SPDT SINGLE POLE DOUBLE THROW
	DOUBLE DUPLEX RECEPTACLE		FIRE ALARM ANNUNCIATOR PANEL		SPST SINGLE POLE SINGLE THROW
	FLUSH FLOOR DUPLEX OUTLET		MANUAL PULL STATION 6" AFF UO		S/N SOLID NEUTRAL
	MAIN DISTRIBUTION PANEL		AUDIBLE HORN 7'-6" AFF UO		SPR SPARE
	A-TRANSFORMER DESIGNATION		AUDIBLE BELL 7'-6" AFF UO		SPC SPACE
	TELEPHONE TERMINAL BOARD		CRT OUTLET		SW SWITCH
	ELECTRICAL PANEL		SMOKE DETECTOR: CEILING		T-STAT THERMOSTAT
			THERMAL DETECTOR: CEILING		TRANSF TRANSFORMER
			DOOR CLOSER		TYP TYPICAL
			DUCT HEAT DETECTOR		UC UNDER COUNTER
			DUCT SMOKE DETECTOR		UNO UNLESS OTHERWISE NOTED
			EXTERIOR HORN & LIGHT		V VOLTS
			REMOTE INDICATING LIGHT		W WATTS
			FLOW SWITCH		WP WEATHERPROOF
			TAMPER SW.: OS & Y		W/O WITHOUT
			END OF LINE RESISTOR		W/ WITH
			AMPLIFIER		LOD LIGHTING OUTLET: CEILING SURFACE
			VOLUME CONTROLLER: WALL 6" AFF UO		L-OUT LIGHTING OUTLET: CEILING SURFACE A-FIXTURE TYPE B-SWITCHING
			TELEVISION OUTLET 12" AFF UO		GFI GROUND FAULT INTERRUPTER
			SPEAKER		PH PHASE MONITOR
			MICROPHONE OUTLET		MCC MOTOR CONTROL CENTER
			INDICATES EXISTING DEVICE TO REMAIN		GRG GALVANIZED RIGID CONDUIT
			INDICATES EXISTING DEVICE TO BE REMOVED		LW/C LOW WATER CUT-OFF
			EXISTING CIRCUIT RUN TO BE REMOVED		RO REMOTE OFF OR RUN OFF PUSHBUTTON
			SELECTOR SWITCH, HAND-OFF-AUTOMATIC		VSC VARIABLE SPEED CONTROL
			TELEPHONE OUTLET BOX		HLO HIGH/LOW/OFF NOT TO SCALE
			SOLENOID		MCP MOTOR CONTROL PANEL
			PRESSURE SWITCH		X-MITER TRANSMITTER
			MOTOR CONTACTOR 3 DESIGNATES STARTER SIZE		CPT CONTROL POWER TRANSFORMER
			RESET TIMER		CLT CIRCUIT
			ELECTRODE HOLDER/PROBES		CLG CEILING
			ELECTRIC HEATER		DISC DISCONNECT
			MANUAL THERMAL OVERLOAD SWITCH - DIAGRAMMATIC		DN DOWN
			FLAT LEVEL CONTROL - DIAGRAMMATIC		DPDT DOUBLE POLE DOUBLE THROW
			START/STOP PB STATION		DPST DOUBLE POLE SINGLE THROW
			TRANSFORMER - DIAGRAMMATIC		EC ELECTRICAL CONTRACTOR
			TIME CLOCK		ELEC ELECTRICAL
			TIME DELAY RELAY		EM EMERGENCY
			COMBINATION MOTOR STARTER AND DISCONNECT		EXIST EXISTING
			REMOTE/OFF/AUTO SELECTOR SWITCH		FIX FIXTURE
			LIMIT SWITCH		FLUOR FLUORESCENT
			LIMIT SWITCH CONTROL EQUIPMENT		FLR FLOOR
			PILOT LIGHT		GC GENERAL CONTRACTOR
			ELECTRIC/PNEUMATIC VALVE		GRG GALVANIZED RIGID CONDUIT
					GRD GROUND
					ISC AMP. SHORT CIRCUIT AVAILABLE
					J-BOX JUNCTION BOX
					LTG LIGHTING
					LOC LOCATION
					MDP MAIN DISTRIBUTION PANEL
					S-SURFACE PEDESTAL

ELECTRICAL ENGINEERS
 R J MCNUTT AND ASSOCIATES, INC.
 1015 37TH AVENUE COURT/SUITE 202
 GREELEY, COLORADO 80634
 FAX: (303) 351-0903
 GREELEY (303) 356-3093 • DENVER (303) 654-1441

CERTIFIED CONSULTING ENGINEER
 RONALD J. MCNUTT

TOWN OF MINTURN
 WATER TREATMENT PLANT EXPANSION
 ELECTRICAL SITE PLAN, LEGEND, LIGHT FIXTURE AND MECHANICAL EQUIPMENT SCHEDULE

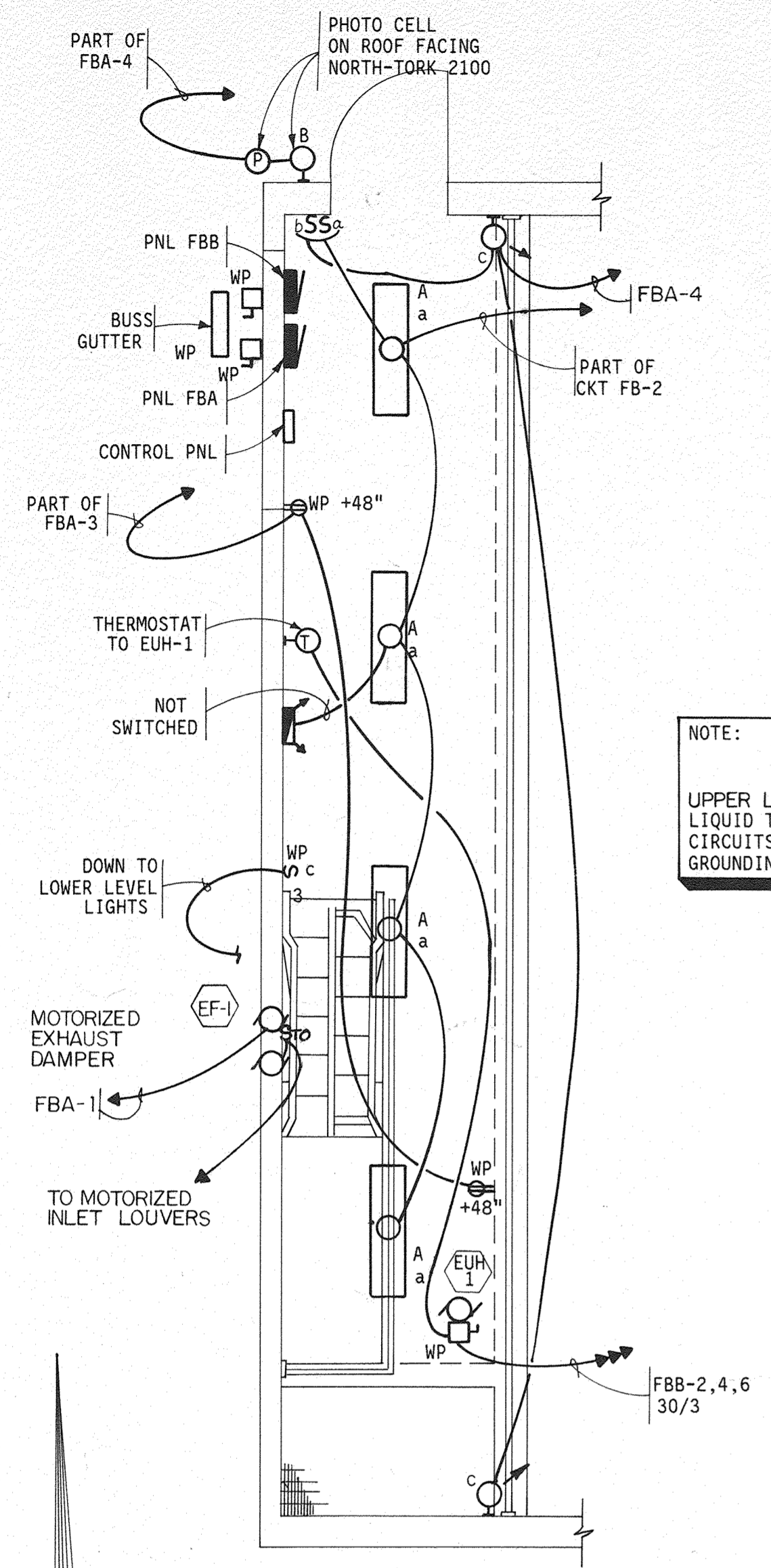
THIS SEAL AND SIGNATURE AFFIXED TO THIS DRAWING IS VERIFICATION THAT THIS PROJECT HAS BEEN DESIGNED IN ACCORDANCE WITH UBC 1985 CHAPTER 53 ENERGY STANDARDS AND THAT THE DESIGN MEETS OR EXCEEDS THE ESTABLISHED ENERGY EFFICIENCY STANDARDS.

PROJECT NUMBER 72-040.014
 DESIGN ALJ
 DETAIL CAM/CKF
 CHECK RJM/RB

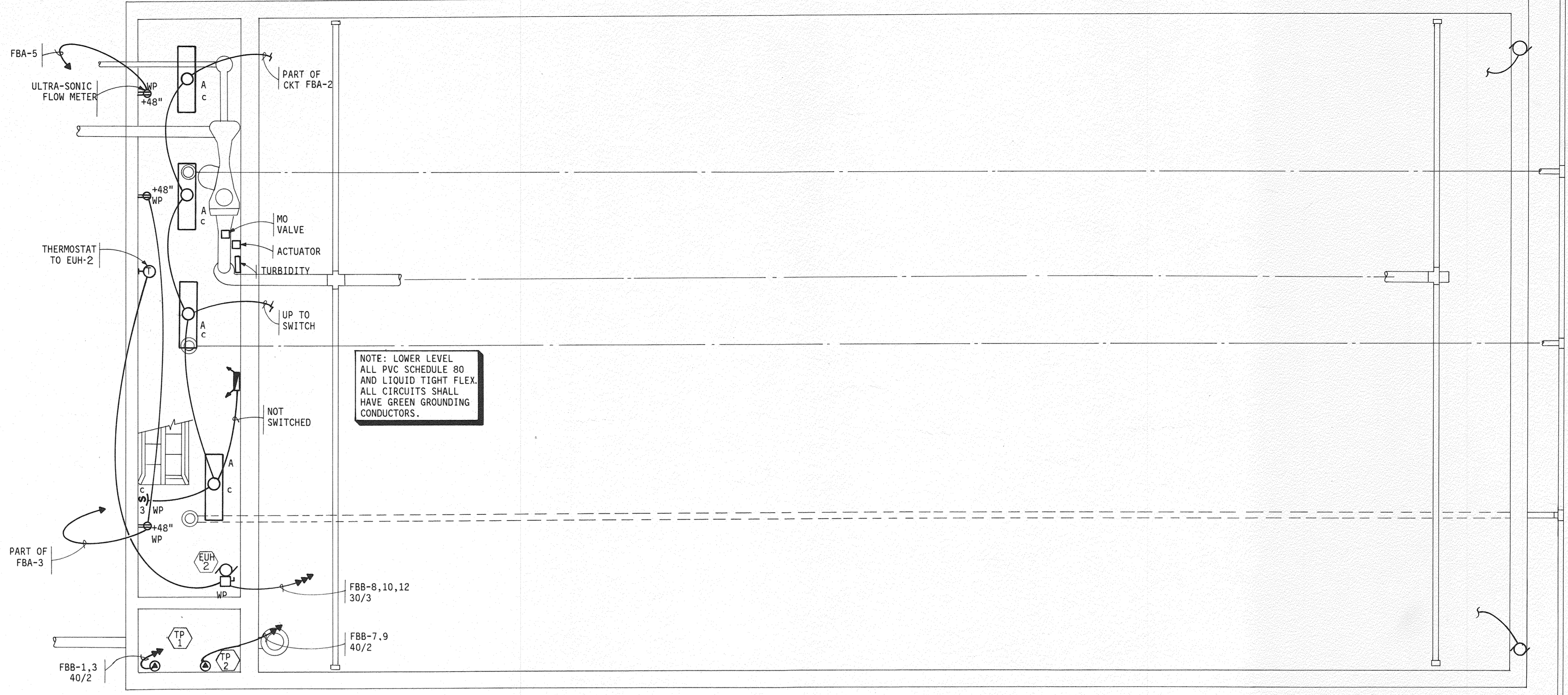
DATE AUGUST 1991
 DRAWING NUMBER E-1

McLAUGHLIN WATER ENGINEERS, Ltd.
 2420 ALCOTT ST. DENVER, CO 80211

NOTE: GENERAL:
USE RHW INSULATION ONLY
FOR ALL CONDUCTORS.



NOTE:
UPPER LEVEL GRC.
LIQUID TIGHT FLEX. ALL
CIRCUITS SHALL HAVE GREEN
GROUNDING CONDUCTORS.

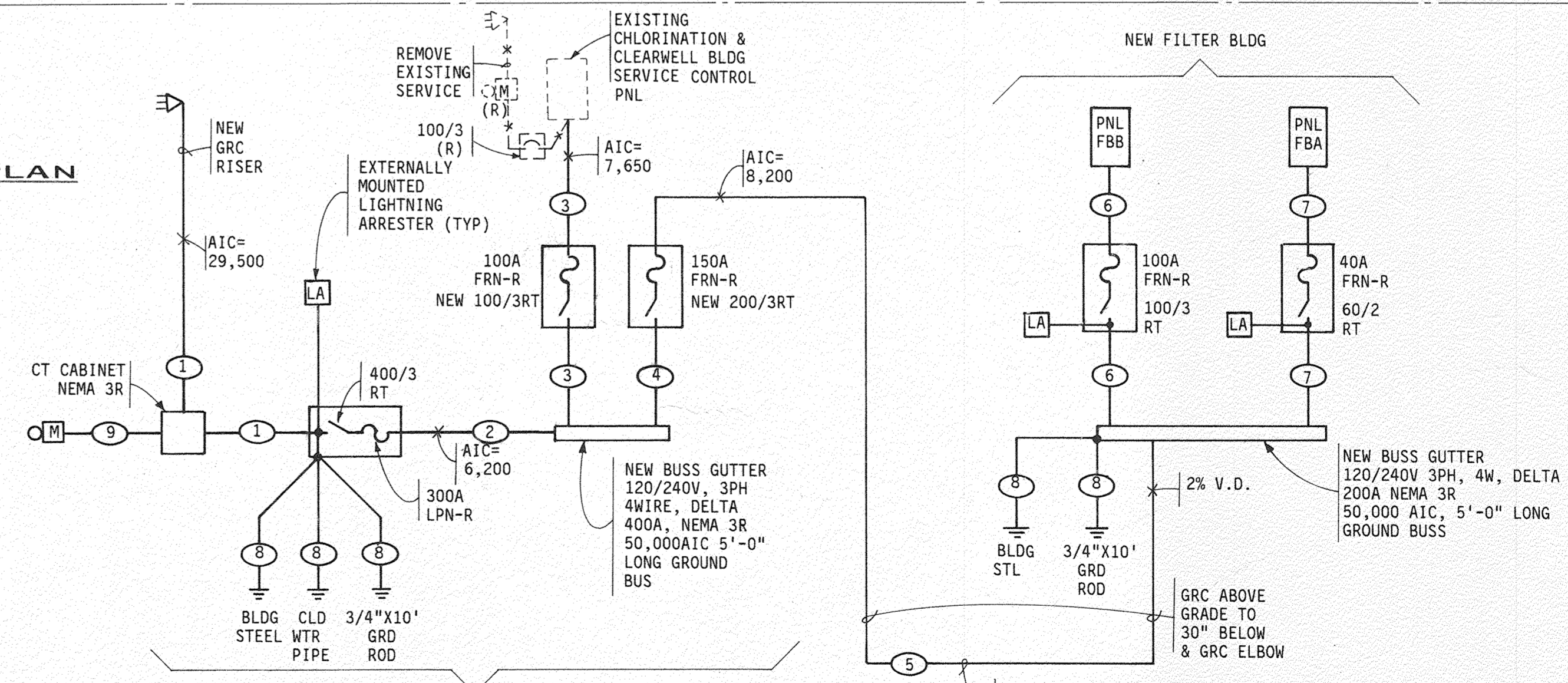


NOTE: LOWER LEVEL
ALL PVC SCHEDULE 80
AND LIQUID TIGHT FLEX.
ALL CIRCUITS SHALL
HAVE GREEN GROUNDING
CONDUCTORS.

**UPPER LEVEL
ELECTRICAL PLAN**
SCALE: 1/4"=1'-0"

LOWER LEVEL ELECTRICAL PLAN
SCALE: 1/4"=1'-0"

FEEDER SCHEDULE	
KEY	DESCRIPTION
1	(4#350 MCM RHW CU) 3" GRC
2	(4#350 MCM RHW CU & #2 GRD) 3 1/2" GRC
3	(4#1 RHW CU & #8 GRD) 2"C
4	(4#1/0 RHW CU & #6 GRD) 2 1/2"C
5	(4#2/0 RHW CU & #4 GRD) 3"C
6	(3#8 RHW & #8 GRD) 2"C
7	(3#8 RHW & #8 GRD) 1"C
8	(#2 CU) 3/4"C
9	1 1/4"C.

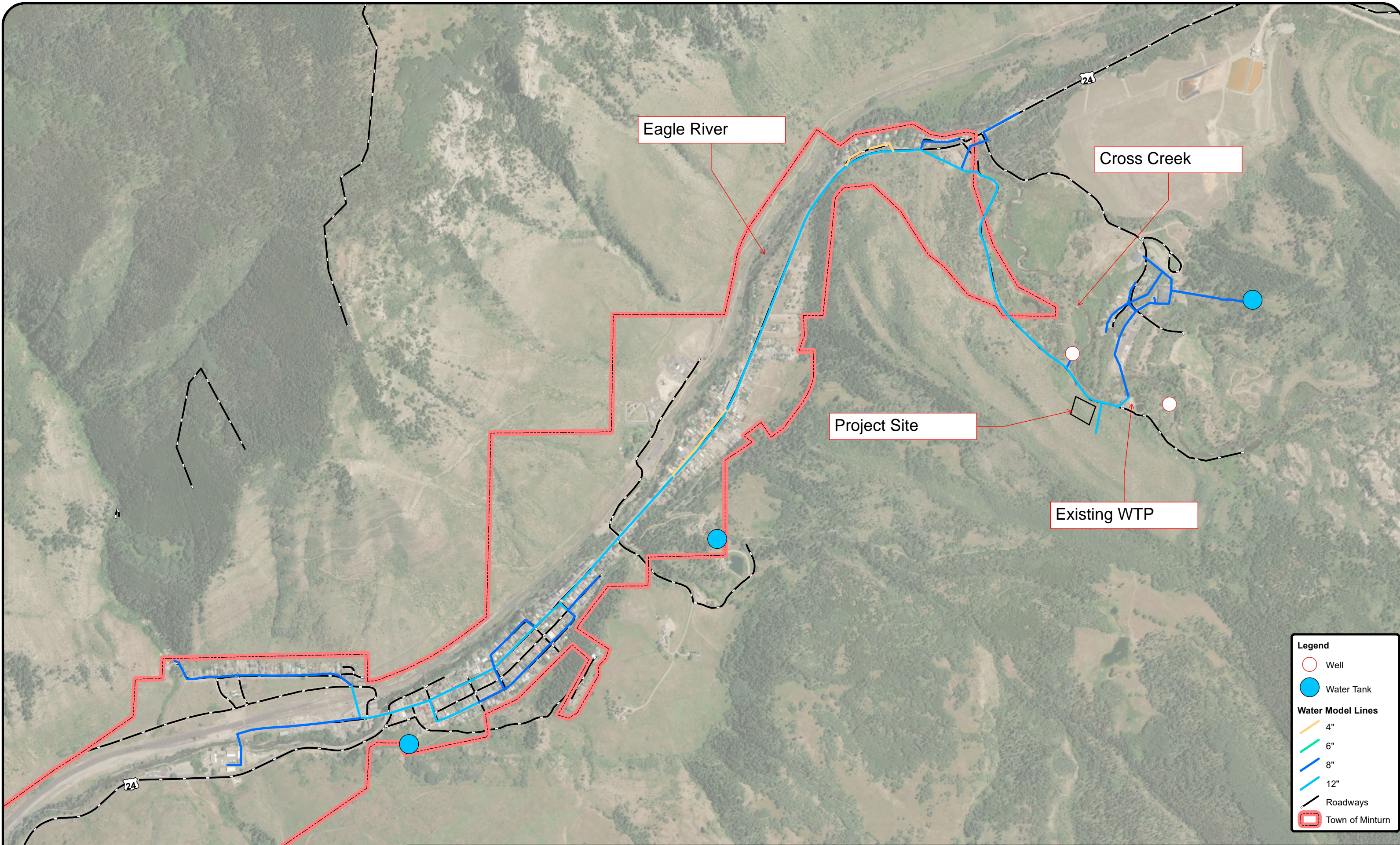


ELECTRICAL ONE LINE
N.T.S.

SECONDARY VOLTAGE
120/240VOLT 3PH, 4WIRE, DELTA

ELECTRICAL ENGINEERS
R J McHUIT AND ASSOCIATES, INC.
1015 37TH AVENUE COURT/SITE 802
GREELEY, COLORADO 80634
PH: (303) 351-0903
GEELEV (303) 356-3093 • DENVER (303) 654-1441

TOWN OF MINTURN	
WATER TREATMENT PLANT EXPANSION	
LOWER AND UPPER LEVEL ELECTRICAL PLANS	
MWE McLAUGHLIN WATER ENGINEERS, Ltd. 2420 ALCOTT ST. DENVER, CO 80211	
PROJECT NUMBER 72-040.014	DATE AUGUST 1991
DESIGN ALJ	DRAWING
DETAIL CAM	
CHECK RJM/RB	



Legend

- Well
- Water Tank

Water Model Lines

- 4"
- 6"
- 8"
- 12"
- Roadways
- Town of Minturn

SGM
 118 W. Sixth St., Suite 200
 Glenwood Springs, CO 81601
 970.945.1004
www.sgm-inc.com

Town of Minturn
 Water System

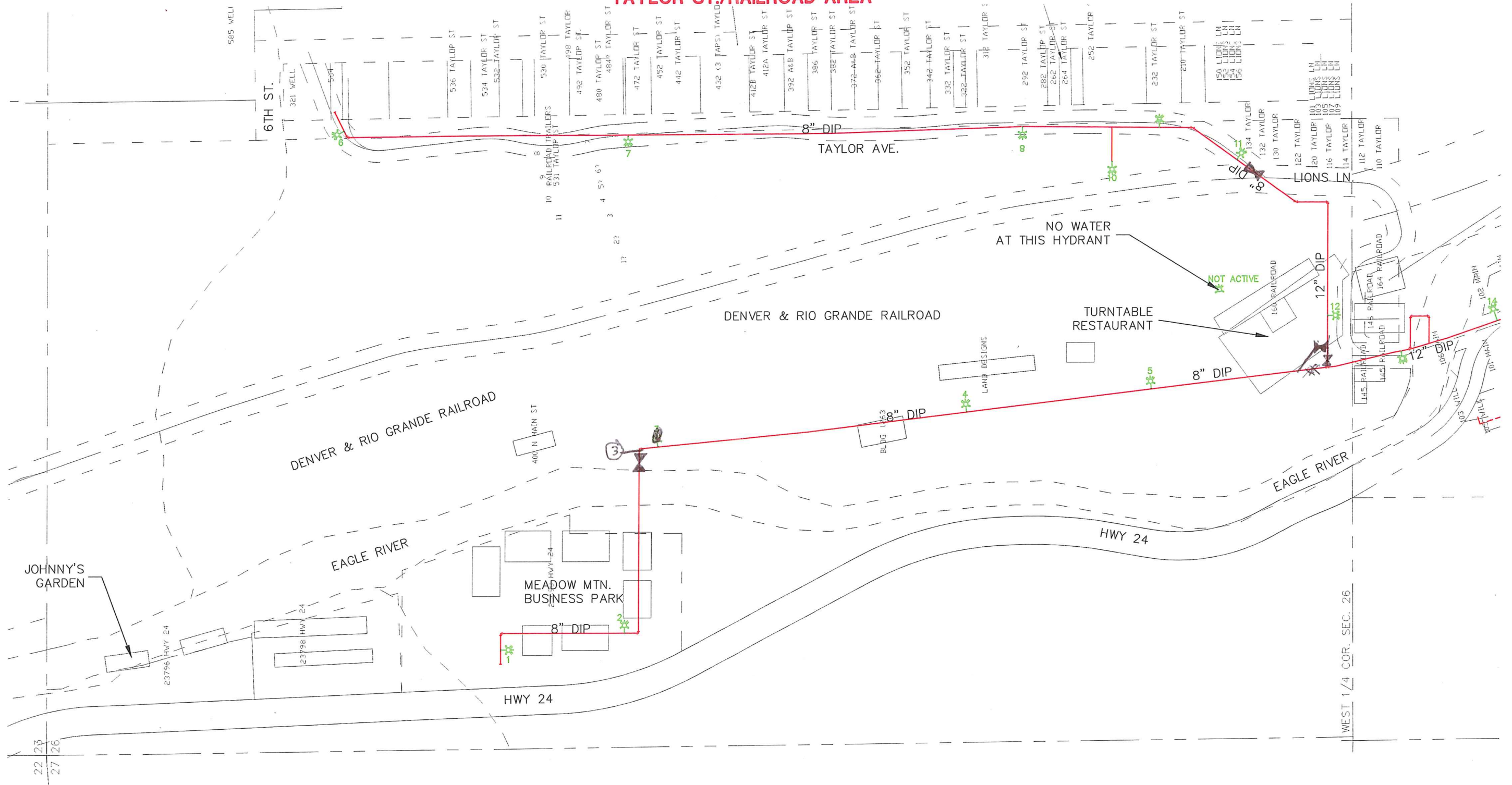
Date:	01/15/21	Job No.	2017-258.011	Map by:	SKirk
Data Sources:	SGM Inc, Eagle Co, Esri				
File:	I:\2015\2015-373-TownOfVail\001-StormWaterMap\H-Dwgs\GIS\MXD's\Mapbooks\Vail_SW_Mapbook_Overview_042715.mxd				
The information displayed above is intended for general planning purposes. Refer to legal documentation/data sources for descriptions/locations.					

0 0.25 0.5 Miles




1 inch = 1,000 feet

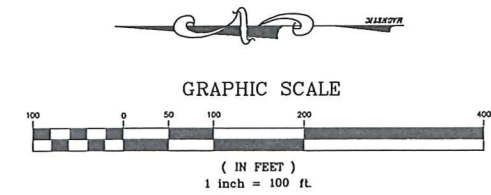
80

WATER SYSTEM MAP MINTURN, COLORADO TAYLOR ST./RAILROAD AREA

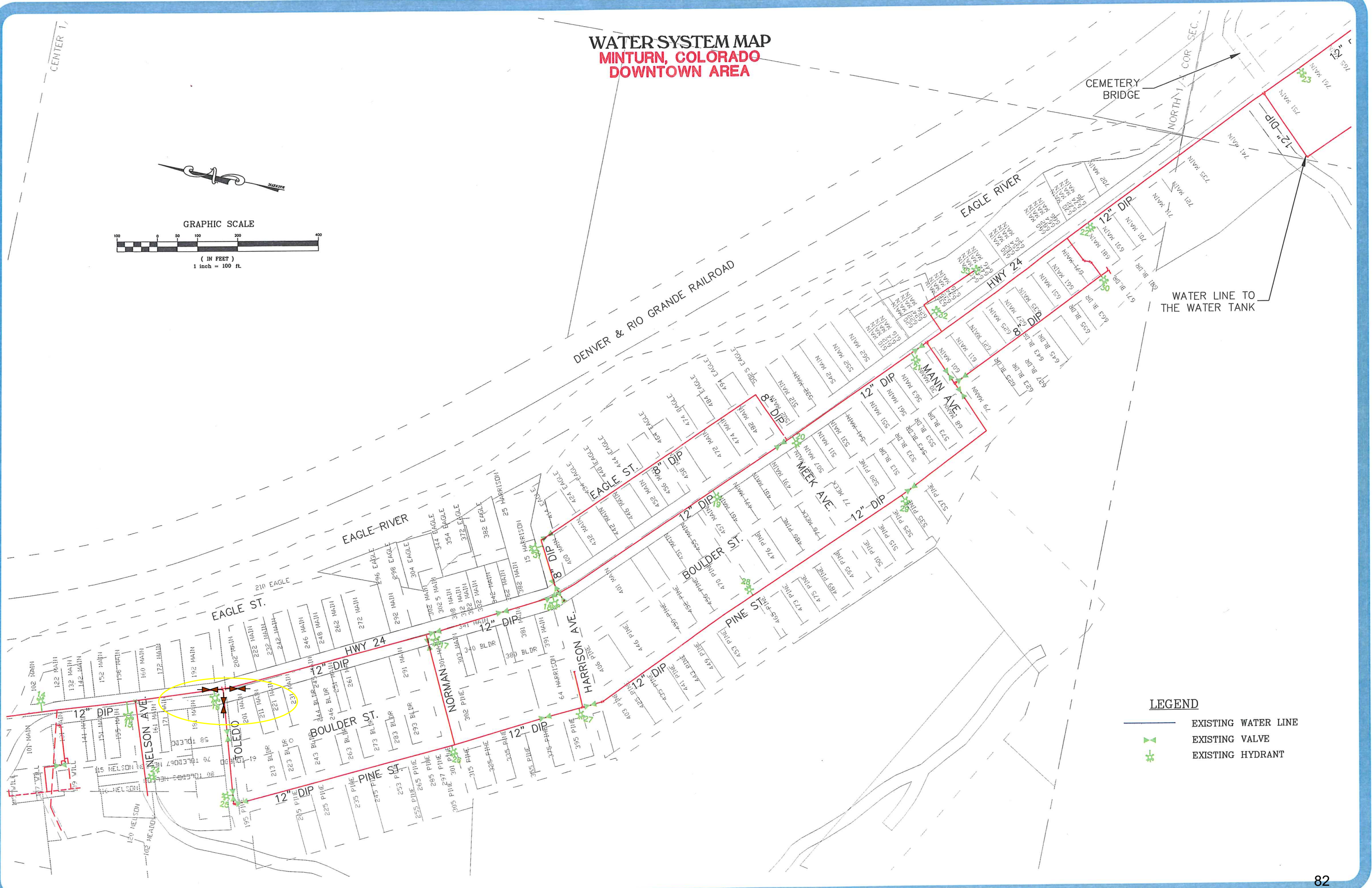
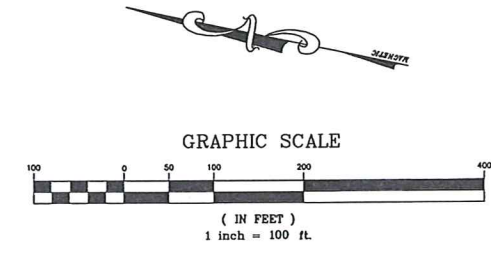


LEGEND

-  EXISTING WATER LINE
-  EXISTING VALVE
-  EXISTING HYDRANT



WATER SYSTEM MAP MINTURN, COLORADO DOWNTOWN AREA



WATER LINE TO
THE WATER TANK

LEGEND

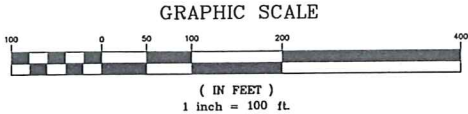
- EXISTING WATER LINE
- EXISTING VALVE
- EXISTING HYDRANT

WATER SYSTEM MAP MINTURN, COLORADO SOUTH TOWN AREA

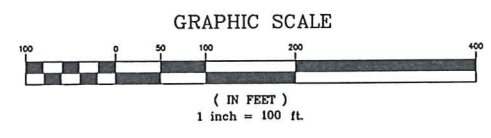
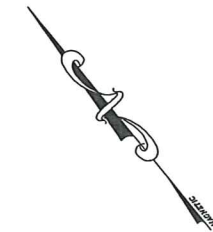


LEGEND

- EXISTING WATER LINE
- ✕ EXISTING VALVE
- ✿ EXISTING HYDRANT



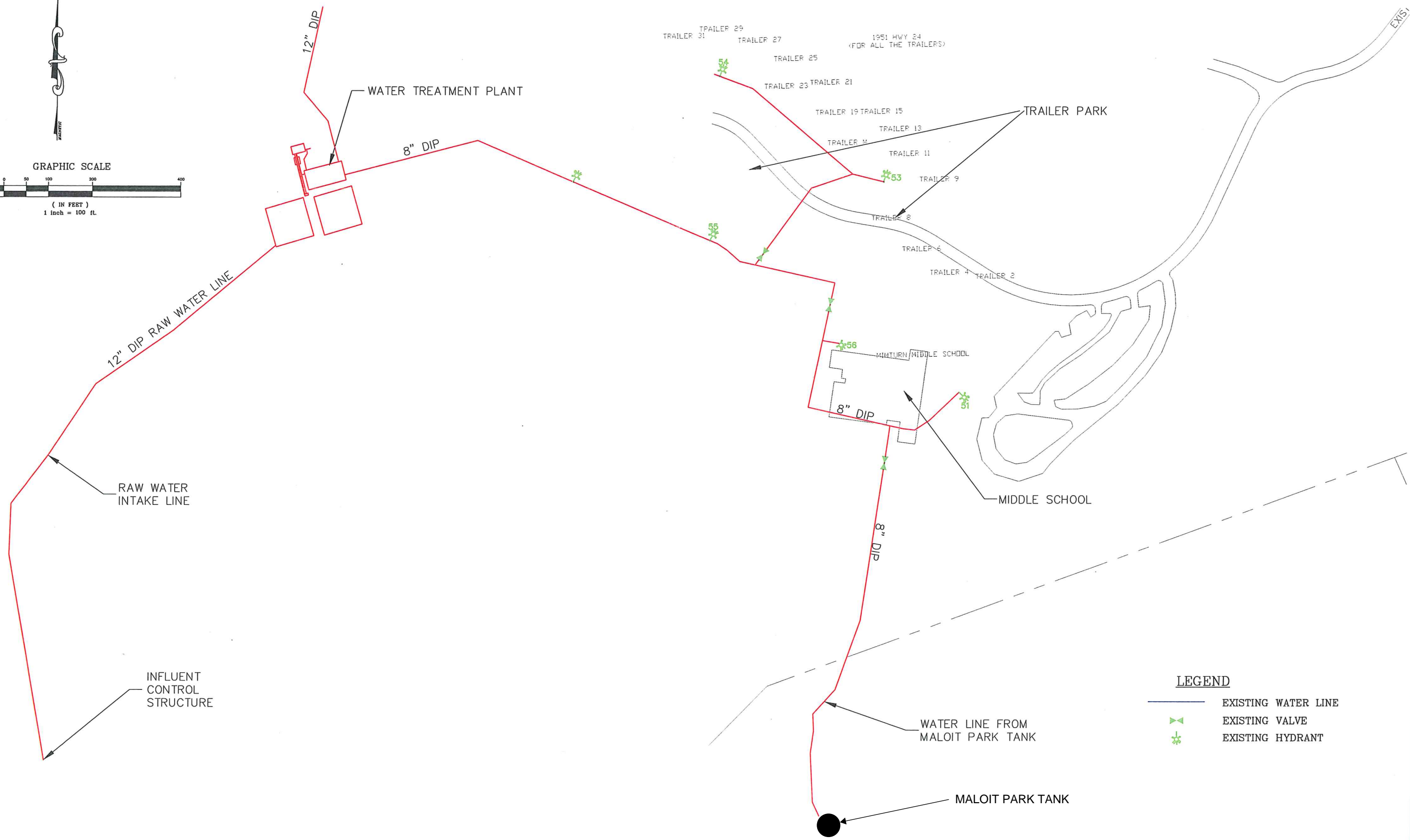
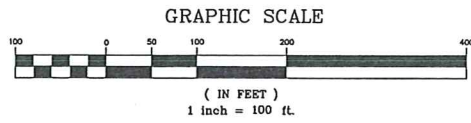
WATER SYSTEM MAP
MINTURN, COLORADO
TWO ELKS/PIERSON PROPERTY



LEGEND

- EXISTING WATER LINE
- ⋈ EXISTING VALVE
- ⋈ EXISTING HYDRANT

WATER SYSTEM MAP
MINTURN, COLORADO
MALOIT PARK AREA



LEGEND

-  EXISTING WATER LINE
-  EXISTING VALVE
-  EXISTING HYDRANT

ENVIRONMENTAL CHECKLIST

Use the Discussion and References space at the end of each section to document your responses. For example, explain how you determined the level of impact and document the reasoning if checking PA (possible adverse) for any resource. Attach additional pages if necessary.

1. Brief project description, including identification of selected alternative:
2. Describe if the project will improve or maintain water quality, and if the project addresses a TMDL, and/or Watershed Management Plan.
3. Provide latitude and longitude of the proposed project (if a transmission / distribution / collection line identify the center point not the whole line):
4. Provide discharge (WW) or source (DW) information: N/A
5. Provide NPDES/PWSID number:
6. Provide primary waterbody name and waterbody ID, secondary name (if available), and State designated surface water use:

7. Did your analysis consider how this project impacts community planning efforts in other areas (i.e. transportation, housing, etc.)?

Y = Yes N = No PA = Possible Adverse

1. Physical Aspects - Topography, Geology and Soils

- Y ___ N ___ PA ___ a. Are there physical conditions (e.g., steep slopes, shrink-swells soils, etc.) that might be adversely affected by or might affect construction of the facilities?
- Y ___ N ___ PA ___ b. Are there similar limiting physical conditions in the planning area that might make development unsuitable?
- Y ___ N ___ PA ___ c. Are there any unusual or unique geological features that might be affected?
- Y ___ N ___ PA ___ d. Are there any hazardous areas (slides, faults, etc.) that might affect construction or development?

Discussion and References:

2. Climate

- Y ___ N ___ PA ___ a. Are there any unusual or special meteorological constraints in the planning area that might result in an air quality problem?
- Y ___ N ___ PA ___ b. Are there any unusual or special meteorological constraints in the planning area that might affect the feasibility of the proposed alternative?

Discussion and References:

3. Population

- Y ___ N ___ PA ___ a. Are the proposed growth rates excessive (exceeding State projections, greater than 6% per annum for the 20 year planning period)?
- Y ___ N ___ PA ___ b. Will additional growth be induced or growth in new areas encouraged as a result of facilities construction?
- Y ___ N ___ PA ___ c. Will the facilities serve areas which are largely undeveloped areas at present?

Discussion and References:

4. Housing, Industrial and Commercial Development and Utilities

- Y ___ N ___ PA ___ a. Will existing homes or business be displaced as a result of construction of this property?
- Y ___ N ___ PA ___ b. Will new housing serviced by this facility affect existing facilities, transportation patterns, environmentally sensitive areas, or be in special hazard or danger zones?
- Y ___ N ___ PA ___ c. Will new housing create strains on other utilities and services - policies, power, water supply, schools, hospital care, etc.?

Discussion and References:



5. Economics and Social Profile

Y ___ N ___ PA ___ a. Will certain landowners benefit substantially from the development of land due to location and size of the facilities?

Y ___ N ___ PA ___ b. Will the facilities adversely affect land values?

Y ___ N ___ PA ___ c. Are any poor or disadvantaged groups especially affected by this project?

Discussion and References:

6. Land Use

Y ___ N ___ PA ___ a. Will projected growth defeat the purpose of local land use controls (if any)?

Y ___ N ___ PA ___ b. Is the location of the facilities incompatible with local land use plans?

Y ___ N ___ PA ___ c. Will inhabited areas be adversely impacted by the project site?

Y ___ N ___ PA ___ d. Will new development have adverse effects on older existing land uses (agriculture, forest land, etc.)?

Y ___ N ___ PA ___ e. Will this project contribute to changes in land use in association with recreation (skiing, parks, etc.), mining or other large industrial or energy developments?

Discussion and References:

7. Floodplain Development

Y ___ N ___ PA ___ a. Does the planning area contain 100 year floodplains?
If yes -

Y ___ N ___ PA ___ b. Will the project be constructed in a 100 year floodplain?

Y ___ N ___ PA ___ c. Will the project serve direct or indirect development in a 100 year floodplain anywhere in the planning area?

Discussion and References:

8. Wetlands

Y ___ N ___ PA ___ a. Does the planning area contain wetlands as defined by the U.S. Fish and Wildlife Service?

If yes -

Y ___ N ___ PA ___ b. Will any structure of the facility be located in wetlands?

Y ___ N ___ PA ___ c. Will the project serve growth and development which will directly or indirectly affect wetlands?

Discussion and References:

9. Wild and Scenic Rivers

Y ___ N ___ PA ___ a. Does the planning area contain a designated or proposed wild and scenic river?
If yes -

Y ___ N ___ PA ___ b. Will the project be constructed near the river?

- Y ___ N ___ PA ___ c. Will projected growth and development take place contiguous to or upstream from the river segment?
- Y ___ N ___ PA ___ d. Will the river segment be used for disposal of effluent?
- Discussion and References:

10. Cultural Resources (Archeological/Historical)

- Y ___ N ___ PA ___ a. Are there any properties (historic, architectural, and archeological) in the planning area which are listed on or eligible for listing on the National Register of Historic Places?
- If yes -
- Y ___ N ___ PA ___ b. Will the project have direct or indirect adverse impacts on any listed or eligible property?

Discussion and References:

11. Flora and Fauna (including endangered species)

- Y ___ N ___ PA ___ a. Are there any designated threatened or endangered species or their habitat in the planning area?
- Y ___ N ___ PA ___ b. Will the project have direct or indirect adverse impacts on any such designated species?
- Y ___ N ___ PA ___ c. Will the project have direct or indirect adverse impacts on fish, wildlife or their habitat including migratory routes, wintering or calving areas?
- Y ___ N ___ PA ___ d. Does the planning area include a sensitive habitat area designed by a local, State or Federal wildlife agency?

Discussion and References:

12. Recreation and Open Space

- Y ___ N ___ PA ___ a. Will the project eliminate or modify recreational open space, parks or areas of recognized scenic or recreational value?
- Y ___ N ___ PA ___ b. Is it feasible to combine the project with parks, bicycle paths, hiking trails, waterway access and other recreational uses?

Discussion and References:

13. Agricultural Lands

- Y ___ N ___ PA ___ a. Does the planning area contain any environmentally significant agricultural lands (prime, unique, statewide importance, local importance, etc.) as defined in the EPA Policy to Protect Environmentally Significant Agricultural Lands dated September 8, 1978?
- Y ___ N ___ PA ___ b. Will the project directly or indirectly encourage the irreversible conversion of Environmentally Significant Agricultural Lands to uses which result in the loss of these lands as an environmental or essential food production resource?

Discussion and References:

14. Air Quality

- Y ___ N ___ PA ___ a. Are there any direct air emissions from the project (e.g., odor controls, sludge incinerator) which do not meet Federal and State emission standards contained in the State Air Quality Implementation Plan (SIP)?
- Y ___ N ___ PA ___ b. Is the project service area located in an area without an approved or conditionally approved SIP?
- Y ___ N ___ PA ___ c. Is the increased capacity of the project greater than 1 mgd?
- Y ___ N ___ PA ___ d. Do the population projections used in the facilities plan exceed the State or area wide projections in the SIP by more than 5%?
- Y ___ N ___ PA ___ e. Does the project conform to the requirements of the SIP? (See EPA regulations under Section 316 of the Clean Air Act.)
- Y ___ N ___ PA ___ f. Is the project inconsistent with the SIP of an adjoining State that may be impacted by the Project?
- Y ___ N ___ PA ___ g. Does the project violate national ambient Air Quality Standards in an attainment or unclassified area?
- Y ___ N ___ PA ___ h. Will the facilities create an odor nuisance problem?

Discussion and References:

15. Water Quality and Quantity (Surface/Groundwater)

- Y ___ N ___ PA ___ a. Are present stream classifications in the receiving stream being challenged as too low to protect present or recent uses?
- Y ___ N ___ PA ___ b. Is there a substantial risk that the proposed discharge will not meet existing stream standards or will not be of sufficient quality to protect present or recent stream uses?
- Y ___ N ___ PA ___ c. Will construction of the project and development to be served by the project result in non-point water quality problems (sedimentation, urban stormwater, etc.)?
- Y ___ N ___ PA ___ d. Will water rights be adversely affected by the project?
- Y ___ N ___ PA ___ e. Will the project cause a significant amount of water to be transferred from one sub-basin to another (relative to the 7-day, 10 year flow of the diverted basin)?
- Y ___ N ___ PA ___ f. Will stream habitat be affected as a result of the change in flow or stream bank modification?
- Y ___ N ___ PA ___ g. Are stream conditions needed for deciding upon the required limitations inadequately specified in the 208 Plan? If so, have the wasteload allocations calculations been performed and approved by the State and EPA?
- Y ___ N ___ PA ___ h. Is an Antidegradation Review required?
- Y ___ N ___ PA ___ i. Will the project adversely affect the quantity or quality of a groundwater resource?
- Y ___ N ___ PA ___ j. Does the project adversely affect an aquifer used as a potable drinking water supply?
- Y ___ N ___ PA ___ k. Are there additional cost effective water conservation measures that could be adopted by community to reduce sewage generation?

Discussion and References:

16. Public Health

- Y ___ N ___ PA ___ a. Will there be adverse direct or indirect noise impacts from the project?
- Y ___ N ___ PA ___ b. Will there be a vector problem (e.g., mosquito) from the project?

Y ___ N ___ PA ___ c. Will there be any unique public health problems as a result of the project (e.g., increased disease risks)?

Discussion and References:

17. Solid Waste (Sludge Management)

Y ___ N ___ PA ___ a. Will sludge disposal occur in an area with inadequate sanitary landfills or on land unsuitable for land application?

Y ___ N ___ PA ___ b. Are there special problems with the sludge that makes disposal difficult (hazardous, difficult to treat)?

Y ___ N ___ PA ___ c. Is the technology selected for sludge disposal controversial?

Discussion and References:

18. Energy

Y ___ N ___ PA ___ a. Are there additional cost effective measures to reduce energy consumption or increase energy recovery which could be included in this project?

Discussion and References:

19. Land Application

Y ___ N ___ PA ___ a. Has a new or unproven technique been selected?

Y ___ N ___ PA ___ b. Is there considerable public controversy about the project?

Y ___ N ___ PA ___ c. Will the project require additional water rights or impact existing water Rights?

Y ___ N ___ PA ___ d. Is the project multi-purpose?

Discussion and References:

20. Regionalization

Y ___ N ___ PA ___ a. Are there jurisdictional disputes or controversy over the project?

Y ___ N ___ PA ___ b. Is conformance with the 208 plan in question?

Y ___ N ___ PA ___ c. Is the proliferation of small treatment plants and septic systems creating a significant health problem?

Y ___ N ___ PA ___ d. Have inter-jurisdictional agreements been signed?

Discussion and References:

21. Public Participation

Y ___ N ___ PA ___ a. Is there a substantial level of public controversy?

Y ___ N ___ PA ___ b. Is there adequate evidence of public participation in the project?

Discussion and References:

22. Environmental Laws

Y ___ N ___ PA ___ a. Does the project threaten to violate any State, Federal or local law or requirement imposed to protect the environment?

Discussion and References:

Prepared By: _____
Name, Title, and Affiliation

Date: _____



TOWN OF MINTURN – WATER RIGHTS OVERVIEW CHART¹

WATER RIGHTS	DATE OF DECREE	CASE NO.	APPROPRIATION DATE	DECREED AMOUNT	DECREED USE	SOURCE
Minturn Water System Ditch	6/5/1916	C.A. 671 94CW355 (approving alternate point of diversion on Eagle River for certain uses as described in decree)		Originally decreed for 7 cfs, absolute Limitations imposed in 97CW161, 05CW262 & 07CW225. <i>See</i> decrees for details	Municipal purposes	Cross Creek
Minturn Municipal Diversion	11/11/2011	07CW225 16CW3125 (finding of diligence & making right absolute in part) 16CW3124 approving alternate points of diversion	12/19/2007	8 cfs (absolute in part & conditional in part); Well Nos. 3 and 4 Enlargements: 225 gpm each	Municipal purposes	Cross Creek and the Eagle River

¹ This chart was prepared for use in connection with the Town’s application for approval of a loan from the State of Colorado’s Revolving Loan Fund. It provides only an overview of the Town’s water rights, which are subject to detailed terms and conditions set forth in the decrees referenced in this chart and certain other agreements, including volumetric and place of use limitations.

WATER RIGHTS	DATE OF DECREE	CASE NO.	APPROPRIATION DATE	DECREED AMOUNT	DECREED USE	SOURCE
Bolts Lake	7/28/1999	96CW324 05CW130 & 12CW77 (findings of diligence)	09/14/1995	320 AF (conditional) Fill rate: 30 cfs	Municipal and augmentation uses as described in decrees	Cross Creek
Minturn Well No. 1	2/23/1973 7/13/2011	W-1100 05CW262 (approving alternate points of diversion)	8/31/1962	0.5 cfs (absolute) Limitations imposed in 05CW262 & 07CW225	Municipal purposes	Cross Creek
Minturn Well No. 2	3/11/1973 7/11/2011	W-1101 05CW262 (approving alternate points of diversion)	8/31/1962	0.5 cfs (absolute) Limitations imposed in 05CW262 & 07CW225	Municipal purposes	Cross Creek
Minturn Well Field No. 1	7/6/2010	05CW263 16CW3059 (finding of diligence)	12/20/2005	2.5 cfs (conditional)	Municipal purposes	Cross Creek

WATER RIGHTS	DATE OF DECREE	CASE NO.	APPROPRIATION DATE	DECREED AMOUNT	DECREED USE	SOURCE
Minturn Well Field No. 2	7/6/2010	05CW263 16CW3059 (finding of diligence)	12/20/2005	2.5 cfs (conditional)	Municipal purposes	Eagle River
Augmentation Exchanges	11/11/2011	07CW225		12 cfs (conditional)	Augmentation by exchange	See decree for details
Effluent Exchanges	11/11/2011	07CW225		Up to 5 cfs (conditional)	Augmentation by exchange	Municipal effluent
Eagle River Contract Exchanges	11/11/2011	07CW225		20 cfs (conditional)	Augmentation by exchange	Eagle River Contract Water
Colorado River Contract Exchanges	11/11/2011	07CW225		20 cfs (conditional)	Augmentation by exchange	Colorado River Contract Water

II. Plan for Augmentation

CASE NO.	DATE OF DECREE	AUGMENTED WATER RIGHTS	AUGMENTATION SOURCES	DESCRIPTION OF PLAN
07CW225	11/11/2011	Minturn Municipal Division Minturn Well Field Nos. 1 and 2 Battle Mountain Entities' water rights decreed in Case No. 06CW264	Bolts Lake 320 AF (decreed in 96CW324) 2006 & 2007 Bolts Lake storage rights (Battle Mountain Entities' water rights decreed in 06CW264)	See decree

CASE NO.	DATE OF DECREE	AUGMENTED WATER RIGHTS	AUGMENTATION SOURCES	DESCRIPTION OF PLAN
			Up to 100 AF of Colorado River Contract Water (from Colorado River Water Conservation District) Up to 90 AF of Eagle River Contract Water (from Colorado River Water Conservation District or other appropriate entity)	

WATER SYSTEM CAPITAL IMPROVEMENT PLAN

TOWN OF MINTURN



August 2019

Prepared by



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WATER SYSTEM CAPITAL IMPROVEMENT PLAN

TOWN OF MINTURN

PREPARED BY
RYAN GORDON, PE

SGM Project # 2017-258.005

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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.

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 State. The reconfiguration of this pipeline will allow the Town to resolve compliance issues and more effectively use their groundwater resources.
- **Eagle River Wells.** The Town does not have a redundant water source and if Cross Creek was impaired for some reason would be out of water. Furthermore, the amount of water the Town can get from Cross Creek limits the amount of growth the Town can accommodate. By developing the Town's water rights on the Eagle River the Town can secure a secondary water source and additional water resources.

Water Treatment Plant

The Town's water plant struggles to meet State regulations during spring runoff and is limited in the quantity of 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 parameters change.

- **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 investments have not been made 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 approximately 1,100 residents.

Previous water system planning studies include:

- 2005 Preliminary Report on the Town of Minturn Water Supply Master Plan
- 2009 Town of Minturn Water Master Plan

In 2017, the Town of Minturn selected SGM to be its water engineer. In 2019, Minturn initiated this Water System Capital Improvement Plan project.

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. Because accounts are being opened and closed regularly, the number of connected SFEs varies from month to month. 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.

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

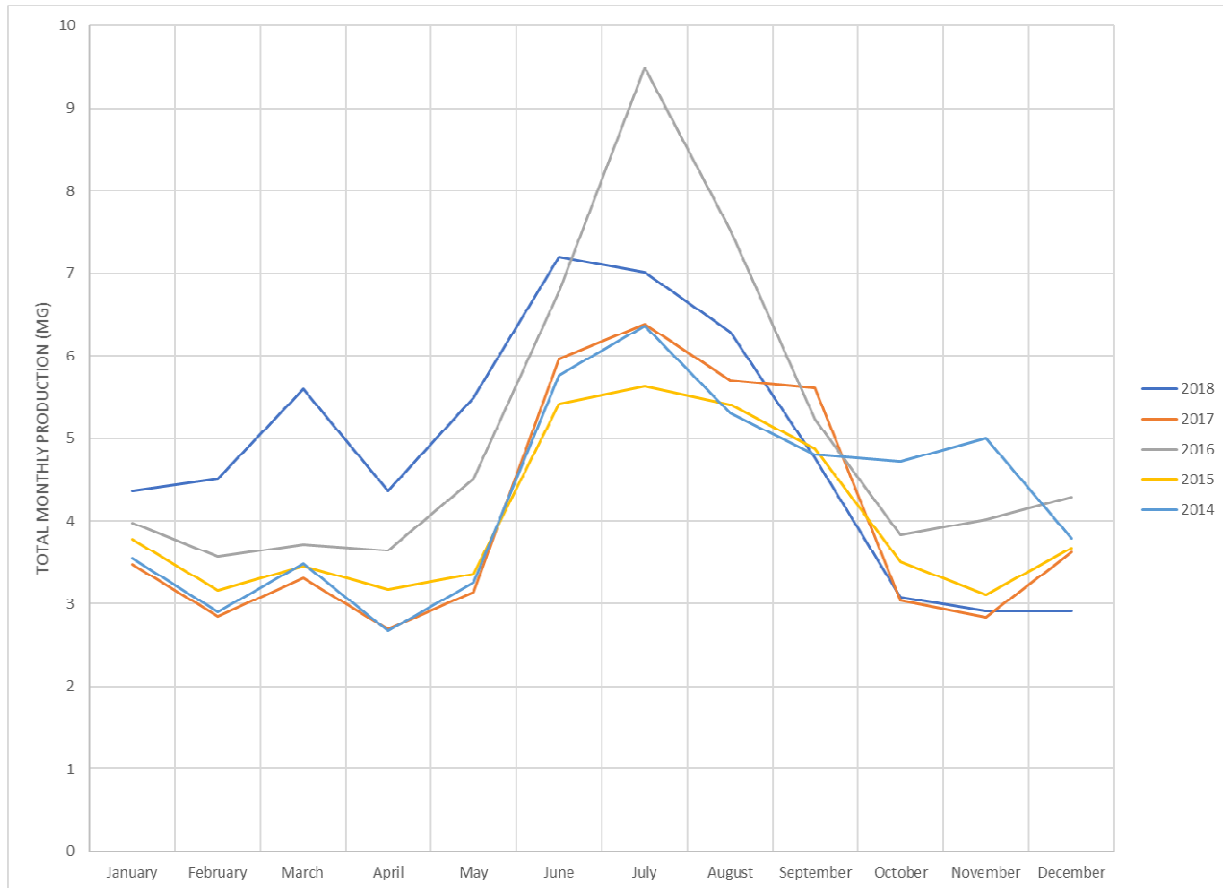


Table 2 Historical Water Produced (2014-2018)

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	2.72	0.19
Subtotal	50.87	1.95	45.51	3.05	59.08	1.52	47.19	1.44	56.70	1.81
Total	52.83		48.57		60.61		48.63		58.52	
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	4.37

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, 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 of Minturn provided SGM with information regarding four growth scenarios identified in **Table 3** as "Option 1: Cross Creek Only", "Option 2: Cross Creek plus Eagle River Wells," "Option 3A: Cross Creek plus Eagle River Wells with Battle Mountain, No ERWSD Interconnect", "3B: Cross Creek plus ERWSD Interconnect with Battle Mountain,

with ERWSD Interconnect”. The growth scenarios are largely tied to the availability of water to support the growth. These are described below.

- *Option 1: Cross Creek Only* – This option limits growth to the amount of growth that can be supported by the amount of water the Town is permitted to use from Cross Creek. This equates to approximately 170 SFE’s beyond what the Town currently uses.
- *Option 2: Cross Creek plus Eagle River Wells* – This option includes growth assumed in Option 1 (utilize Cross Creek water) and would develop additional water resources on the Eagle River through a well field to support growth. The growth most likely be realized within a 5- to 20-year period and does not include the Battle Mountain development.
- *Option 3A: Cross Creek plus Eagle River Wells with Battle Mountain, No ERWSD Interconnect* – This option includes growth assumed in Option 2 and would include the Battle Mountain development at Maloit Park and Bolts Lake ***without*** an ERWSD Interconnect.
- *Option 3B: Cross Creek plus ERWSD Interconnect with Battle Mountain, with ERWSD Interconnect* – This option includes growth assumed in Option 2 and would include the Battle Mountain development at Maloit Park and Bolts Lake ***with*** an ERWSD Interconnect.

Table 3 Development Summary

PROPERTY	Service Area	Option 1 Cross Creek Only	Option 2 SFE Increase	Scenario 3A SFE Increase	Scenario 3B SFE Increase
100 Block	Town	0	30	30	30
Infill/Union Pacific	Town	0	200	200	200
Infill (Comm/Res/Ind)	Town	50	100	100	100
School District	Maloit Park	120	120	120	120
Battle Mountain – Maloit Park	Maloit Park	0	0	200	200
Battle Mountain – Bolts Lake	Maloit Park	0	0	500	500
	Total	170	450	1150	1150

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.

Table 4 – Town Service Area Water Demands

	Additional Required Water Production (GPD)			
	SFEs	Average Daily	Max. Month	Max. Day
Option 1	50	13,000	21,400	28,500
Option 2	330	85,500	141,000	188,000
Option 3A	330	85,500	141,000	188,000
Option 3B	330	85,500	141,000	188,000

Existing Water Production Requirements (GPD)				
	SFEs	Average Daily	Max. Month	Max. Day
Existing	691	141,655	224,575	314,405
		98	156	218
Total Future Water Production Requirements (GPD w/GPM below)				
	SFEs	Average Daily	Max. Month	Max. Day
Option 1	741	154,700	246,000	343,000
		107	171	238
Option 2	1,021	227,200	365,600	502,500
		158	254	349
Option 3A	1,021	227,200	365,600	502,500
		158	254	349
Option 3B	1,021	227,200	365,600	502,500
		158	254	349

Table 5 - 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	51,282	68,376
Option 2	120	31,080	51,282	68,376
Option 3A	820	212,380	350,427	467,236
Option 3B	820	212,380	350,427	467,236
Existing Water Production Requirements (GPD)				
	SFEs	Average Daily	Max. Month	Max. Day
Existing	37	6,000	9,000	18,600
		4.2	6.3	12.9
Total Future Water Production Requirements (GPD w/GPM below)				
	SFEs	Average Daily	Max. Month	Max. Day
Option 1	157	37,080	60,282	86,976
		26	42	60
Option 2	157	37,080	60,282	86,976
		26	42	60
Option 3A	857	218,380	359,427	485,836
		152	250	337
Option 3B	857	218,380	359,427	485,836
		152	250	337

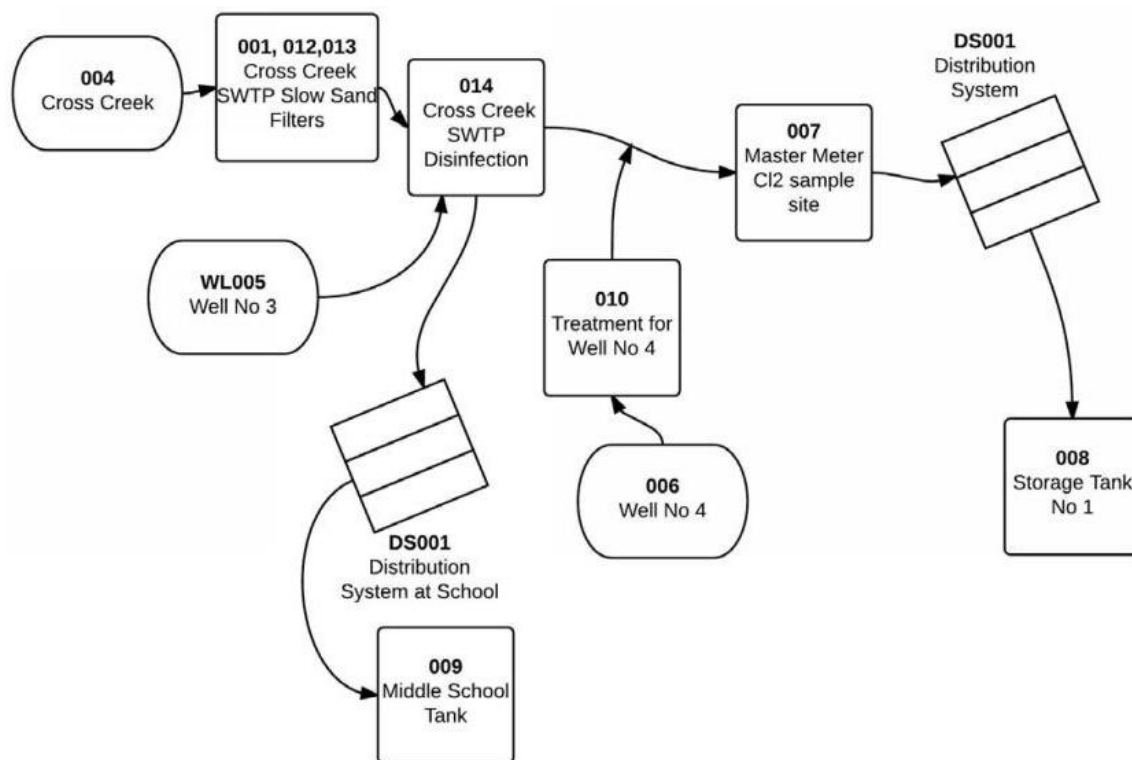
Table 6 - Overall Water Demands

Additional Required Water Production (GPD)				
	SFEs	Average Daily	Max. Month	Max. Day
Option 1	170	44,080	72,682	96,876
Option 2	450	116,580	192,282	256,376
Option 3A	1,150	297,880	491,427	655,236
Option 3B	1,150	297,880	491,427	655,236
Existing Water Production Requirements (GPD w/ GPM below)				
	SFEs	Average Daily	Max. Month	Max. Day
Existing	728	147,655	233,575	333,005
		103	162	231
Total Future Water Production Requirements (GPD w/GPM below)				
	SFEs	Average Daily	Max. Month	Max. Day
Option 1	898	191,800	306,300	429,900
		133	213	299
Option 2	1,178	264,300	425,900	589,400
		184	296	409
Option 3A	1,878	445,600	725,100	988,300
		309	504	686
Option 3B	1,878	445,600	725,100	988,300
		309	504	686

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 Availability

Evaluation of water rights and water availability is not part of this scope. However, water is one of the primary drivers in the development of the projects in this CIP. The growth options in Section 2.4 are based on the availability of water and the infrastructure to treat, store and deliver water and are tied to which water sources are utilized.

The quantity of water from Cross Creek is limited by the Town's water rights. As stated in Section 2.4, the Town can accommodate limited future growth if the Town does not expand their water portfolio. It is estimated that approximately 170 SFEs of additional growth can be accommodated by using only Cross Creek water.

The Town has water rights along the Eagle River and can develop wells which can be used to satisfy current or future growth. The Eagle River water could be used as a redundant water source for the Town.

2.6.2 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 becomes impaired 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; either develop the Town's existing Eagle River water rights or construct an interconnection to the ERWSD system. Developing the Eagle River water 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, the State 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 Town's 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. 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**.

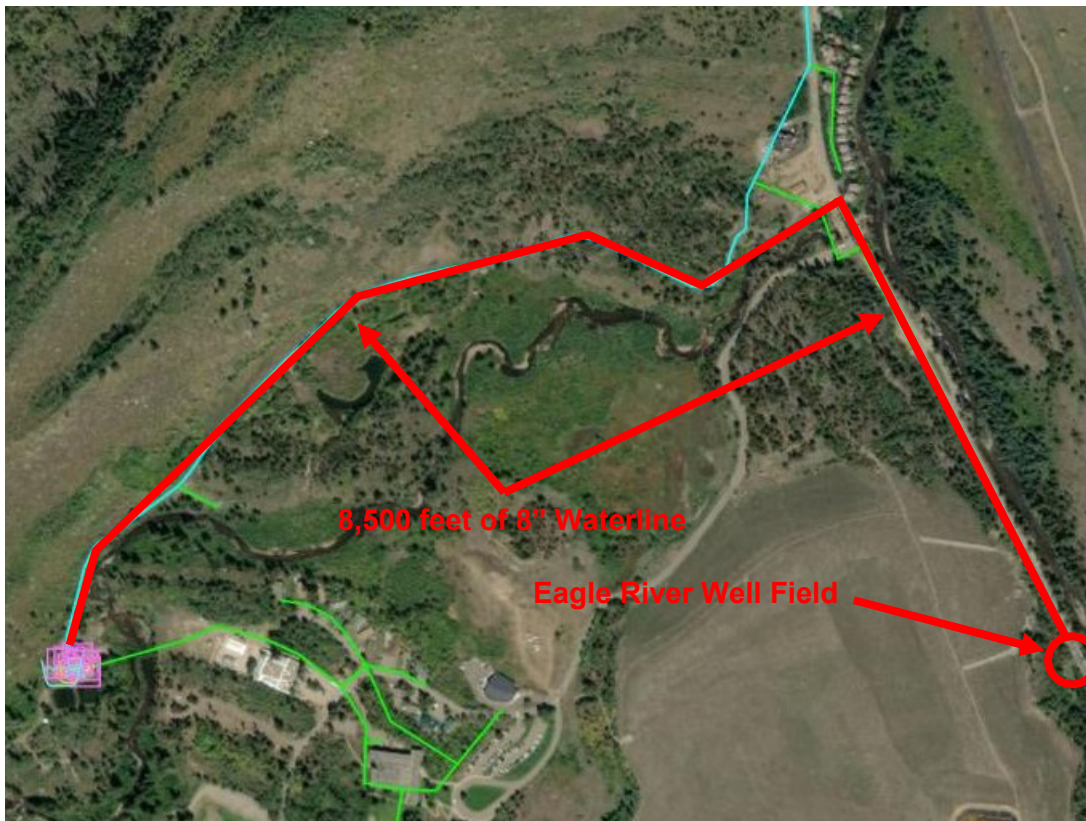


Figure 4 - Eagle River Wells and Pipeline

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 State 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 an 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 hypochlorite 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, the State has determined the piping configuration does not meet State 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 the State 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.							

Chlorine Disinfection

Disinfection is achieved using chlorine to maintain a chlorine 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. In order to meet disinfection, water is “batched” in the clearwell. The clearwell is filled with filtered water and dosed with chlorine 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 State 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 sustainable 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.
 - 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 Water Treatment Plant Improvements Summary⁹ 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	\$4.29M
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 life 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 4.1.2.

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. This memorandum will discuss the latter concrete design and construction methods.

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
<p>Bolted Steel (AWWA D103)</p>	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
<p>Welded Steel (AWWA D100)</p>	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
<p>Concrete Tank AWWA D110 Wire-Wound Tank</p>	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 1 st 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 2 nd 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	
30			
Year	Maintenance Scheduled	Total Price	
45	Full abrasive blast and re-application of interior coating	\$187,000	Total 3 rd 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	
45			
Year	Maintenance Scheduled	Total	Total 4 th

		Price	Maintenance Cycle Cost \$401,100
60	Full abrasive blast and re-application of interior coating	\$187,000	
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	Total 1 st Maintenance Cycle Cost \$84,000
30	Minor crack and concrete spall repair	\$75,000	
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	Total 2 nd Maintenance Cycle Cost \$141,750
60	Crack and concrete spall repair	\$75,000	
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	Total 3 rd Maintenance Cycle Cost
90	Crack and concrete spall repair	\$75,000	

90	Replacement roof access hatches and roof vents	\$30,000	\$186,375
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 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 prestressed 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 14 summarizes the current water storage capacities versus calculated storage needs. **Table 15** 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

Tank (Capacity, Gal)	Storage Required for Current Conditions				Deficit
	Emergency (Gal)	Equalization (Gal)	FireFlow (Gal)	Total (Gal)	
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
	Max water rights on Cross Creek					
Option 1	Minturn Tank (600,000)	150,000	83,000	270,000	503,000	0
	Maloit Park Tank (108,000)	38,000	22,000	270,000	330,000	222,000
	Scenario 1					
Option 2	Minturn Tank (600,000)	183,000	102,000	270,000	555,000	0
	Maloit Park Tank (108,000)	89,000	51,000	270,000	410,000	302,000
	Scenario 2					
Option 3a	Minturn Tank (600,000)	235,000	130,000	270,000	635,000	35,000
	Maloit Park Tank (108,000)	207,000	115,000	270,000	592,000	484,000
	Scenario 3					
Option 3b	Minturn Tank (600,000)	347,000	192,000	270,000	809,000	209,000
	Maloit Park Tank (108,000)	207,000	115,000	270,000	592,000	484,000

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.
- **Maloit Park:** If the Battle Mountain development is pursued, install a new 12" transmission line between the new Maloit Park Tank and the Battle Mountain development. (See **Figure 6**).

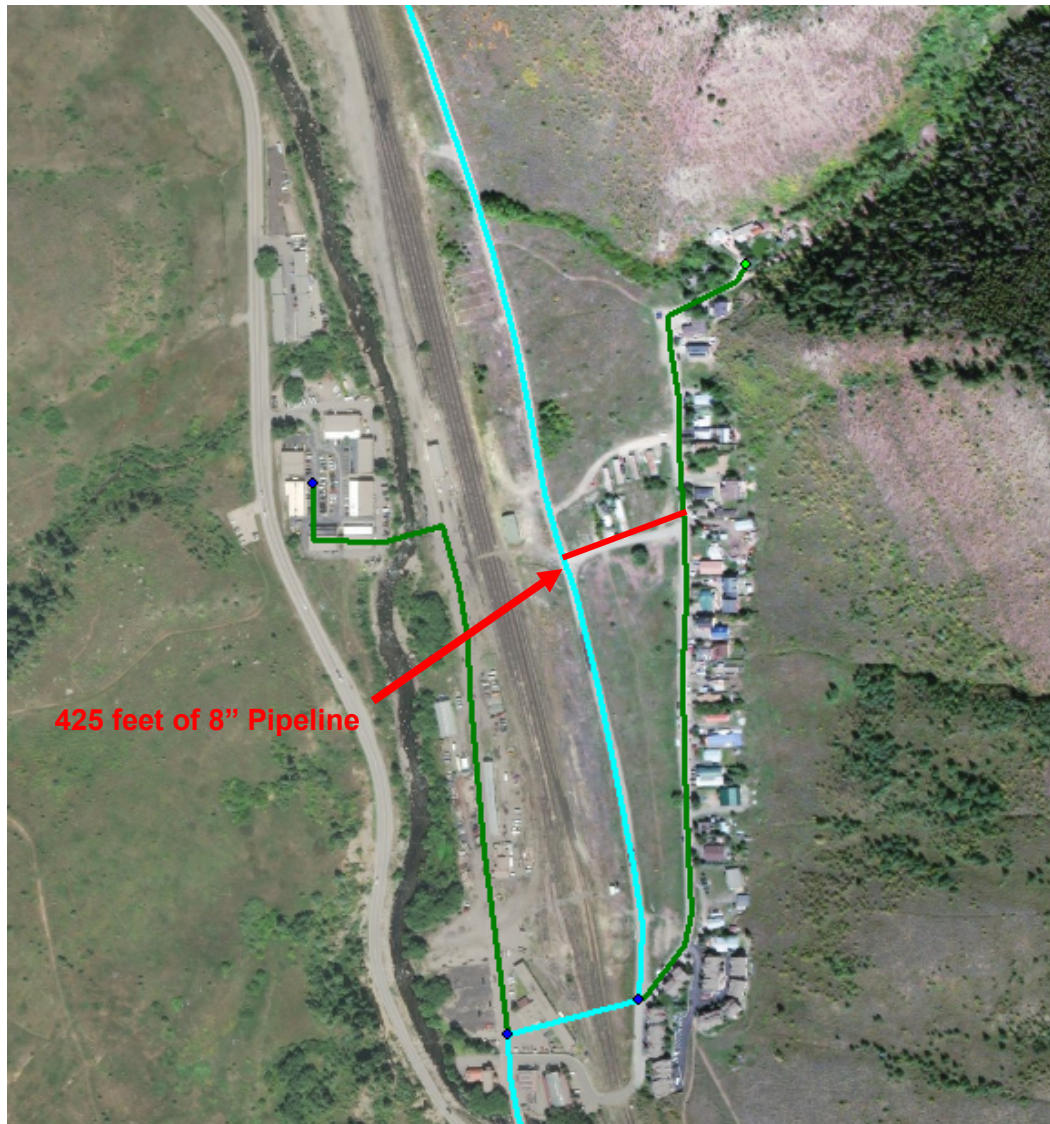


Figure 5 - 4th Avenue Loop Line

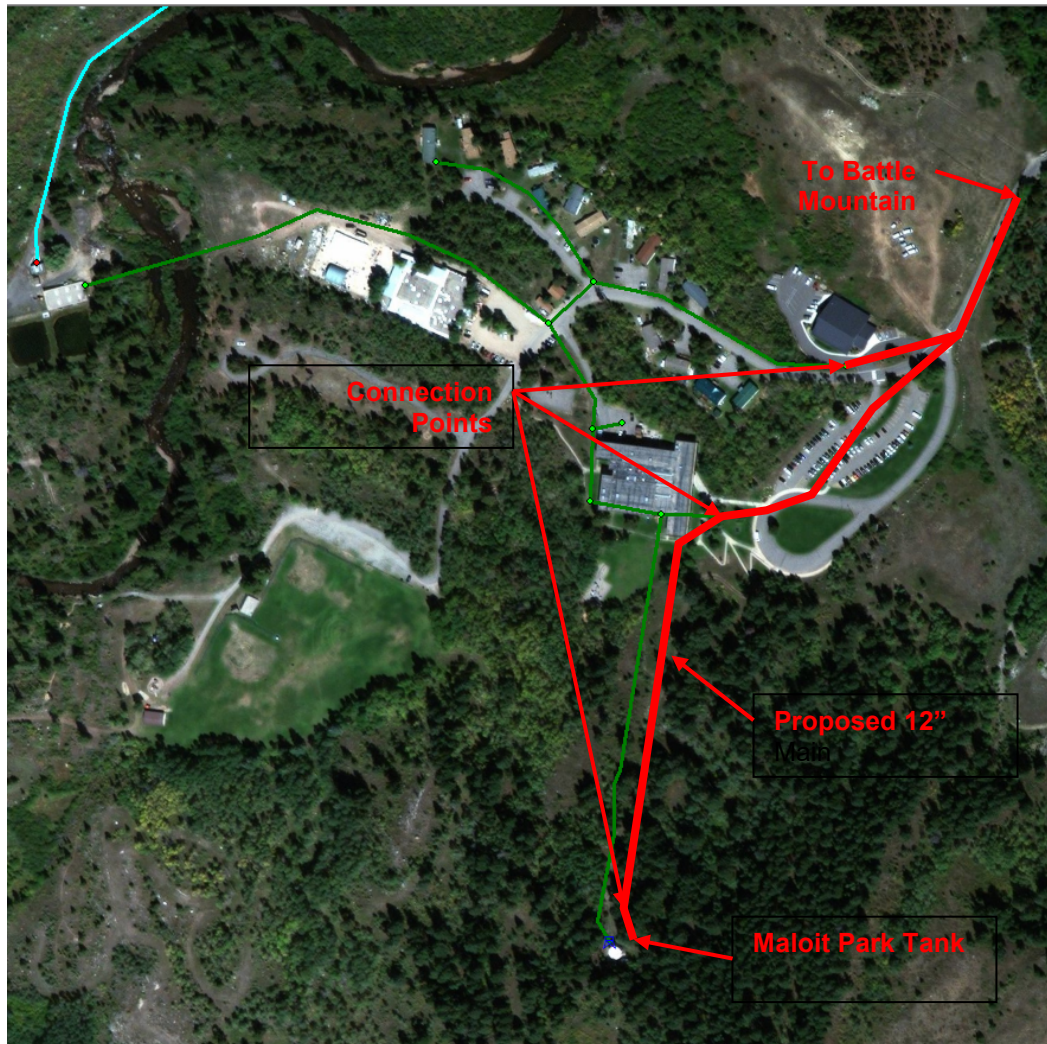


Figure 6 Proposed 12" Maloit Park Line

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 velocities are outside the maximum recommendations 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 deliver the quantity of water necessary during 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

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 7**. Waterline can be bored beneath the Eagle River, hung on the existing bridge or installed across the river with an aerial crossing.



Figure 7 - Bellm Bridge Pipeline

Water Storage –

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 8**.
 - 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 8 - 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 Town's 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 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.

5.8 Water Distribution System Improvements Summary

The following table summarizes the distribution system improvements detailed in the previous sections. 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	Upgrade aging water meters	\$2.5M
Water Meter Replacement Program	Replace gaining watermains	\$250K

6.0 Recommended Improvements Summary

This chapter summarizes the recommended water system improvements identified in Chapters 2 through 5.

Table 19 Recommended Water System Improvements – Option 1

Projects	Description	Purpose	Cost
TIER 1 - 1 TO 3 YEAR TIME HORIZON			
Construct a new Minturn Tank	Replace existing Minturn Tank with a 600,000 gallon tank	Address leaking and failing tank, address tank decencies and provide additional storage for future growth scenarios	\$ 1,600,000
Construct new Maloit Park Tank	Construct a new 250,000 gallon concrete water tank on the existing tank site. Project would include the demolition of the existing tank.	Provide adequate water storage to meet demand and fireflow needs	\$ 900,000
Connect Well 4 to existing clearwell	Construct approximately 900 feet of 4" pipe from Well 4 to the existing clearwell	Come into compliance with State regulations and to fully utilize groundwater resources.	\$ 230,000
Invest/Install leak detection system	Implement a leak detection system	Allow the Town to track and repair water leaks	\$ 50,000
Systematic Waterline Replacement Program	Systematic replacement of the Town's waterlines	Replace aging waterlines to reduce water loss and maintain the value of the distribution system	\$ 2,500,000
Develop a Town GIS system	Create a comprehensive GIS mapping system of the Town's water and public infrastructure	GIS allows the Town to more efficiently manage public infrastructure and capture institutional knowledge.	\$ 15,000
Water Meter Replacement Program	Replace water meters throughout Town	Replace aging water meters with new water meters to better record water usage and reduce water loss	\$ 250,000
TIER 1 - 3 TO 5 YEAR TIME HORIZON			
Construct new membrane plant at existing plant site designed to treat Cross Creek and Eagle River water	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.	The existing slow sand filters have limited production capacity and rehabilitating the filters to improve performance carries a risk that the filters may not perform as expected. Additionally, sand filters have operational challenges during winter due to cold water temperatures, limited ability to treat different water sources and increased regulatory pressures.	\$ 4,290,000
Repairs and Modifications to the clearwell	Make repairs to the existing clearwell and modifications to piping and controls.	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	\$ 100,000
Raw Water Intake Improvements	Install finer screening		\$ 25,000
TIER 1 - 5 TO 10 YEAR TIME HORIZON			
Connect Maloit Park Service Area to Town Service Area	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.	Provide an interconnect the Maloit Park Service Area and the Town Service Area to allow water to be delivered to either service area from the other to provide system redundancy.	\$ 1,310,000
Replace waterline in Eagle River at Bellm Bridge	Construct approximately 150 feet of 12" waterline across the Eagle River at Bellm Bridge	The current pipe is exposed on the bottom of the Eagle River and has the potential to be damaged by debris in Eagle River has an increased risk of deterioration due to its location.	\$ 570,000
TOTAL TIER 1			\$ 11,840,000
TIER 2 - 10 TO 20 YEAR HORIZON			
Upsize Maloit Park Tank waterline	Construct approximately 900 feet of new 12" waterline from the Maloit Park Tank to the Ski and Snowboard Academy	Increase the amount of fireflow and reduce pipe velocities	\$ 280,000
Loop Taylor Street	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.	Loop piping to increase available fire flow in the area	\$ 130,000
TOTAL TIER 2			\$ 410,000
CIP TOTAL			\$ 12,250,000

Table 20 Recommended Capital Improvements Projects - Option 2

Projects	Category	Description	Purpose	Cost
TIER 1 - 1 TO 3 YEAR TIME HORIZON				
Construct a new Minturn Tank	Tank	Replace existing Minturn Tank with a 650,000 gallon tank	Address leaking and failing tank, address tank deficiencies and provide additional storage for future growth scenarios	\$ 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.	Provide adequate water storage to meet demand and fireflow needs	\$ 900,000
Connect Well 4 to existing clearwell	Treatment	Construct approximately 900 feet of 4" pipe from Well 4 to the existing clearwell	Come into compliance with State regulations and to fully utilize groundwater resources.	\$ 230,000
Invest/Install leak detection system	O&M	Implement a leak detection system	Allow the Town to track and repair water leaks	\$ 50,000
Systematic Waterline Replacement Program	Pipeline	Systematic replacement of the Town's waterlines	Replace aging waterlines to reduce water loss and maintain the value of the distribution system	\$ 2,500,000
Develop a Town GIS system	O&M	Create a comprehensive GIS mapping system of the Town's water and public infrastructure	GIS allows the Town to more efficiently manage public infrastructure and capture institutional knowledge.	\$ 15,000
Water Meter Replacement Program	O&M	Replace water meters throughout Town	Replace aging water meters with new water meters to better record water usage and reduce water loss	\$ 250,000
TIER 1 - 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.	The existing slow sand filters have limited production capacity and rehabilitating the filters to improve performance carries a risk that the filters may not perform as expected. Additionally, sand filters have operational challenges during winter due to cold water temperatures, limited ability to treat different water sources and increased regulatory pressures.	\$ 4,290,000
Repairs and Modifications to the clearwell	Treatment	Make repairs to the existing clearwell and modifications to piping and controls.	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	\$ 100,000
New Well Field and pipeline to connect wells to WTP	Water Supply	Drill 3 new wells at the confluence of the Eagle River and Cross Creek. Includes property acquisition, drilling wells, constructing well building, well pumps and pipeline to the existing WTP site.	Provide additional water supply to support future growth and provide the Town with a redundant water supply	\$ 5,220,000
Raw Water Intake Improvements	Treatment	Install finer screening		\$ 25,000
TIER 1 - 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.	Provide an interconnect the Maloit Park Service Area and the Town Service Area to allow water to be delivered to either service area from the other to provide system redundancy.	\$ 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	The current pipe is exposed on the bottom of the Eagle River and has the potential to be damaged by debris in Eagle River has an increased risk of deterioration due to its location.	\$ 570,000
TOTAL TIER 1				\$ 17,130,000
TEIR 2 - LOW PRIORITY PROJECTS - 10 TO 20 YEAR HORIZON				
Upsize Maloit Park Tank waterline	Pipeline	Construct approximately 900 feet of new 12" waterline from the Maloit Park Tank to the Ski and Snowboard Academy	Increase the amount of fireflow and reduce pipe velocities	\$ 280,000
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.	Loop piping to increase available fire flow in the area	\$ 130,000
TOTAL TIER 2				\$ 410,000
CIP TOTAL				\$ 17,540,000

Table 21 Recommended Capital Improvements Projects - Option 3A

Projects	Category	Description	Purpose	Cost
TIER 1 - 1 TO 3 YEAR TIME HORIZON				
Construct a new Minturn Tank	Tank	Replace existing Minturn Tank with a 650,000 gallon tank	Address leaking and failing tank, address tank deficiencies and provide additional storage for future growth scenarios	\$ 1,670,000
Construct new Maloit Park Tank	Tank	Construct a new 510,000 gallon concrete water tank on the existing tank site. Project would include the demolition of the existing tank.	Provide adequate water storage to meet demand and fireflow needs	\$ 1,550,000
Connect Well 4 to existing clearwell	Treatment	Construct approximately 900 feet of 4" pipe from Well 4 to the existing clearwell	Come into compliance with State regulations and to fully utilize groundwater resources.	\$ 230,000
Invest/Install leak detection system	O&M	Implement a leak detection system	Allow the Town to track and repair water leaks	\$ 50,000
Systematic Waterline Replacement Program	Pipeline	Systematic replacement of the Town's waterlines	Replace aging waterlines to reduce water loss and maintain the value of the distribution system	\$ 2,500,000
Develop a Town GIS system	O&M	Create a comprehensive GIS mapping system of the Town's water and public infrastructure	GIS allows the Town to more efficiently manage public infrastructure and capture institutional knowledge.	\$ 15,000
Water Meter Replacement Program	O&M	Replace water meters throughout Town	Replace aging water meters with new water meters to better record water usage and reduce water loss	\$ 250,000
TIER 1 - 3 TO 5 YEAR TIME HORIZON				
Construct new membrane plant at existing plant site designed to treat Cross Creek and Eagle River water	Treatment	Construct a new WTP 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. A new pipeline and pumps from the new well field is included.	The existing slow sand filters have limited production capacity and rehabilitating the filters to improve performance carries a risk that the filters may not perform as expected. Additionally, sand filters have operational challenges during winter due to cold water temperatures, limited ability to treat different water sources and increased regulatory pressures.	\$ 4,719,000
Repairs and Modifications to the clearwell	Treatment	Make repairs to the existing clearwell and modifications to piping and controls.	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	\$ 100,000
New Well Field and pipeline to connect wells to WTP	Water Supply	Drill new wells at the confluence of the Eagle River and Cross Creek. Includes property acquisition, drilling wells, constructing well building and well pumps, pipeline and appurtenances to new WTP	Provide additional water supply to support future growth and provide the Town with a redundant water supply	\$ 5,220,000
Raw Water Intake Improvements	Treatment	Install finer screening		\$ 25,000
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.	Provide an interconnect the Maloit Park Service Area and the Town Service Area to allow water to be delivered to either service area from the other to provide system redundancy.	\$ 1,310,000
TIER 1 - 5 TO 10 YEAR TIME HORIZON				
Replace waterline in Eagle River at Bellum Bridge	Pipeline	Construct approximately 150 feet of 12" waterline across the Eagle River at Bellum Bridge	The current pipe is exposed on the bottom of the Eagle River and has the potential to be damaged by debris in Eagle River has an increased risk of deterioration due to its location.	\$ 570,000
TOTAL TIER 1				\$ 18,209,000
TEIR 2 - 10 TO 20 YEAR HORIZON				
Upsize Maloit Park Tank waterline	Pipeline	Construct approximately 900 feet of new 12" waterline from the Maloit Park Tank to the Ski and Snowboard Academy	Increase the amount of fireflow and reduce pipe velocities	\$ 280,000
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.	Loop piping to increase available fire flow in the area	\$ 130,000
TOTAL TIER 2				\$ 410,000
CIP TOTAL				\$ 18,619,000

Table 22 Recommended Capital Improvements Projects - Option 3B

Projects	Category	Description	Purpose	Cost
TIER 1 - 1 TO 3 YEAR TIME HORIZON				
Construct a new Minturn Tank	Tank	Replace existing Minturn Tank with a 650,000 gallon tank	Address leaking and failing tank, address tank deficiencies and provide additional storage for future growth scenarios	\$ 1,670,000
Construct new Maloit Park Tank	Tank	Construct a new 510,000 gallon concrete water tank on the existing tank site. Project would include the demolition of the existing tank.	Provide adequate water storage to meet demand and fireflow needs	to be paid by Battle and School District
Invest/Install leak detection system	O&M	Implement a leak detection system	Allow the Town to track and repair water leaks	\$ 50,000
Systematic Waterline Replacement Program	Pipeline	Systematic replacement of the Town's waterlines	Replace aging waterlines to reduce water loss and maintain the value of the distribution system	\$ 2,500,000
Develop a Town GIS system	O&M	Create a comprehensive GIS mapping system of the Town's water and public infrastructure	GIS allows the Town to more efficiently manage public infrastructure and capture institutional knowledge.	\$ 15,000
Water Meter Replacement Program	O&M	Replace water meters throughout Town	Replace aging water meters with new water meters to better record water usage and reduce water loss	\$ 250,000
TIER 1 - 3 TO 5 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.	Provide an interconnect the Maloit Park Service Area and the Town Service Area to allow water to be delivered to either service area from the other to provide system redundancy.	to be paid by Battle
TIER 1 - 5 TO 10 YEAR TIME HORIZON				
Replace waterline in Eagle River at Bellm Bridge	Pipeline	Construct approximately 150 feet of 12" waterline across the Eagle River at Bellm Bridge	The current pipe is exposed on the bottom of the Eagle River and has the potential to be damaged by debris in Eagle River has an increased risk of deterioration due to its location.	\$ 570,000
Construct new membrane plant at existing plant site designed to treat Cross Creek and Eagle River water	Treatment	Construct a new WTP 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. A new pipeline and pumps from the new well field is included.	The existing slow sand filters have limited production capacity and rehabilitating the filters to improve performance carries a risk that the filters may not perform as expected. Additionally, sand filters have operational challenges during winter due to cold water temperatures, limited ability to treat different water sources and increased regulatory pressures.	\$ 4,290,000
TOTAL TIER 1				\$ 9,345,000
TEIR 2 - 10 TO 20 YEAR HORIZON				
Upsize Maloit Park Tank waterline	Pipeline	Construct approximately 900 feet of new 12" waterline from the Maloit Park Tank to the Ski and Snowboard Academy	Increase the amount of fireflow and reduce pipe velocities	\$ 280,000
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.	Loop piping to increase available fire flow in the area	\$ 130,000
Raw Water Intake Improvements	Treatment	Install finer screening		\$ 25,000
TOTAL TIER 2				\$ 435,000
CIP TOTAL				\$ 9,780,000



June 8, 2021

Michelle Metteer
Town of Minturn
PO Box 309
Minturn, CO 81645

Re: Town of Minturn Drinking Water Revolving Fund (DWRF)
Project Needs Assessment Approval
DWRF Project No. 141781D-T

Dear Michelle:

The Colorado Department of Public Health and Environment, Water Quality Control Division, has determined the town's Project Needs Assessment, through substantial review, is hereby approved and recommended to proceed through the SRF process with the following conditions:

Technical, Managerial and Financial (TMF) Review:

The TMF Capacity Review of the Mt. Crested Butte WSD has been completed. Funding through DWRF is recommended with the following requirements:

Based on the TMF capacity criteria of the DWRF program, we found the following mandatory financial requirements.

Financial Criterion #F-3: User Charge System

While the 2020 audit and/or additional review may result in a more favorable evaluation, the initial evaluation showed that user fee increases were likely to be necessary, and the project cost has now increased from \$2,250,000 to \$2,800,000.

Financial Analysis Update

- In addition to the analysis previously provided, based on 2019 audited financial information, a \$2,800,000 loan with 2.25% interest rate and 20-year term would require an additional \$147,743 in annual revenue or \$16.87 per tap per month to meet the coverage ratio requirement of 110%.
- If the proposed infrastructure is judged to last at least 30 years, a 30-year term will be available. Based on 2019 audited financial information, a \$2,800,000 loan with 2.25% interest rate and 30-year term would require an additional \$92,848 in annual revenue or \$10.60 per tap per month to meet the coverage ratio requirement of 110%.
- There may have been some one-time expenses in 2019 that caused operating expenditures to be higher than normal.

Environmental Review:

The final environmental determination was deemed a Environmental Assessment (EA). The environmental



review is still under evaluation. Please note that prior to construction, the project must receive environmental clearance requiring a Finding of No Significant Impact (FONSI) must be published with a 30-day public comment period elapsed following the date of publication. Please contact the Grants and Loans Unit Environmental Coordinator, Matt Alms at matt.alms@state.co.us for more information regarding the status of environmental clearance.

Engineering Design Review:

Prior to construction, the project must receive Final Plans and Specifications for Construction Approval from the Water Quality Control Division Engineering Section or receive acceptance of self-certification for eligible projects. If you have questions regarding the status, please contact the WQCD Engineering Section review engineer Jeffrey Hlad, 303-692-6276, jeffrey.hlad@state.co.us or contact CDPHE.WQEngReview@state.co.us

Should you have any questions, please contact me at 303-691-4018, or by email at sean.oliver@state.co.us. We look forward to working with you on completing this important project.

Sincerely,



Sean Oliver
Project Manager
Grants and Loans Unit
Water Quality Control Division

cc: Ryan Gordon, SGM Inc.
Jeffrey Hlad, ES Senior Review Engineer, WQCD Engineering Section
Joe McConnell, Department of Local Affairs
Matt Alms, Environmental Coordinator, WQCD Grants and Loans Unit
Mark Henderson, Unit Manager, WQCD Grants and Loans Unit

Enclosure: Financial Analysis



TRENDS	2016	2017	2018	2019	2020
Population	1,075	1,072	1,076	1,081	
Number of Water Taps	725	725	730	730	740
Assessed Value (\$000)	27,230	26,593	27,732	28,510	30,313
Actual Value (\$000)				263,491	
Median Household Income (\$)			87,500		
MHI - State (\$)			68,811		
Median House Value (\$)			645,800		
MHV - State (\$)			313,600		
Monthly Water Rate (\$)	73.32	79.00	82.38	86.50	82.19
Residential Water Tap Fee (\$)	9,500	10,600	11,520	22,155	23,263
Total Water Revenue (\$)	706,698	769,737	805,170	912,970	
Tap/Development Fees (\$)	48,000	0	0	94,975	
Water Operating Revenue (\$)	658,698	769,737	833,275	817,995	
Water Operating Expenses (\$)	658,077	598,271	713,779	847,753	
Water Net Operating Income (\$)	621	171,466	119,496	-29,758	
Water Debt (\$)	189,276	183,433	177,462	171,197	
Total Debt (\$)	1,064,276	853,433	632,462	401,197	
Water Debt Service (\$)	15,091	14,842	14,841	14,840	
Water Debt Service/Tap/Month (\$)	1.73	1.71	1.69	1.6940639	
Water Fund Reserves (\$)	1,166,180	1,291,544	1,348,735	1,382,956	

CURRENT INDICATORS	2019	Weak	Average	Strong
Total Debt per Capita (\$):	371	>\$2,000	\$1,000 - 2,000	X <\$1,000
Total + New Debt/Capita (\$):	2,961	X >\$2,000	\$1,000 - 2,000	<\$1,000
Total Debt/Tap (\$):	550	>\$5,000	\$2,500-5,000	X <\$2,500
Total Debt + New Debt/Tap (\$):	4,385	>\$5,000	X \$2,500-5,000	<\$2,500
Current Water Debt/Tap (\$):	235	>\$2,000	\$1,000 - 2,000	X <\$1,000
Current Water + New Water Debt/Tap (\$):	4,070	X >\$2,000	\$1,000 - 2,000	<\$1,000
Total Debt/Assessed Value:	1.41%	>50%	25-50%	X <25%
Total Debt + New Water Debt/Assessed Value:	11.23%	>50%	25-50%	X <25%
Total Debt/Actual Value:	0.15%	>10%	5-10%	X <5%
Total Debt + New Water Debt/Actual Value:	1.21%	>10%	5-10%	X <5%
Curr. Water Debt + New Debt/Tap/MHI:	4.65%	>20%	10-20%	X <10%
Water Fund Current Ratio (CA/CL):	3805%	<100%	100-200%	X >200%
Water Fund Reserves/Current Expense:	136%	<50%	50-100%	X >100%
Water Operating Ratio (OR/OE):	96%	X <100%	100-120%	>120%
Coverage Ratio (TR-OE)/DS:	439%	<110%	110-125%	X >125%
Coverage Ratio (TR-OE)/DS Excluding Tap Fees:	-201%	X <110%	110-125%	>125%
Coverage Ratio with New Loan:	34%	X <110%	110-125%	>125%
Coverage Ratio with New Loan Excluding Tap Fees:	-16%	X <110%	110-125%	>125%
Current Annual Water Rates/MHI:	1.19%	>3.0%	1.5-3.0%	X <1.5%
Current Water Rates + New Water Debt Service/MHI:	1.46%	>3.0%	1.5-3.0%	X <1.5%
Operation and Maintenance Reserve:	163%	<25%	25-50%	X >50%
		6	1	14





Environmental Assessment Water Storage Tanks Town of Minturn, Colorado



January 22, 2021

Prepared for:
Colorado Department of Health & Environment
Grants and Loans Unit
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Public Works Department
Town of Minturn
301 Boulder Street #309
Minturn, CO 81645

Prepared by:
SGM
118 West Sixth Street, Suite 200
Glenwood Springs, CO 81601


www.sgm-inc.com

Environmental Assessment

Water Storage Tanks Project

Town of Minturn, Colorado

Prepared for:

Town of Minturn
c/o Michelle Metteer, Town Manager
301 Boulder Street #309
Minturn, CO 81645

Sean Oliver, Project Manager
Water Quality Control Division
Colorado Department of Public Health and Environment
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#2017-258.010

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1. SUMMARY

1.1. Project Identification

Water Storage Tanks
Town of Minturn
301 Boulder Street #309
Minturn, CO 81645

1.2. Contact Person

Michelle Metteer, Town Manager
Town of Minturn
301 Boulder Street #309
Minturn, CO 81645
Phone: 970-827-5645
Email: mmetteer@minturn.org

1.3. Abstract

The Project would entail the construction of two, 50-foot diameter, 40-foot tall, reinforced concrete tanks, to store treated potable water for use by the Town of Minturn. The storage of each tank would be approximately 335,000 gallons, for a combined storage amount of 750,000 gallons. These water storage tanks would receive treated water from the adjacent Water Treatment Plant (WTP), pumped up to the tanks through an approximately 300-foot long buried, steel pipeline. There would be no additional water depletions beyond existing, decreed amounts. From the storage tanks, water would be gravity fed to the town down a new, approximately 300-foot buried, steel pipeline, which would then tie into the existing potable water delivery pipeline, buried in the unnamed access WTP access road. The new water storage tanks would be located on lands owned by the Town of Minturn.

This project would replace one existing bolted steel tank, that is outdated and leaking, and is needed to ensure reliable delivery of potable water to the Town residents and businesses. The total project cost is estimated at \$2.8 million with a requested loan amount of \$2.8 million.

1.4. Comment Period

In conformance with the requirements of the National Environmental Policy Act and the Colorado Environmental Review Process, a Finding of No Significant Impact (FNSI) will be subject to a 30-day public review period. The FNSI will be distributed to interested persons and agencies for their review. The FNSI will be available for public review at the Colorado Department of Public Health and Environment. Any comments received will be given due consideration. Comments should be addressed to:

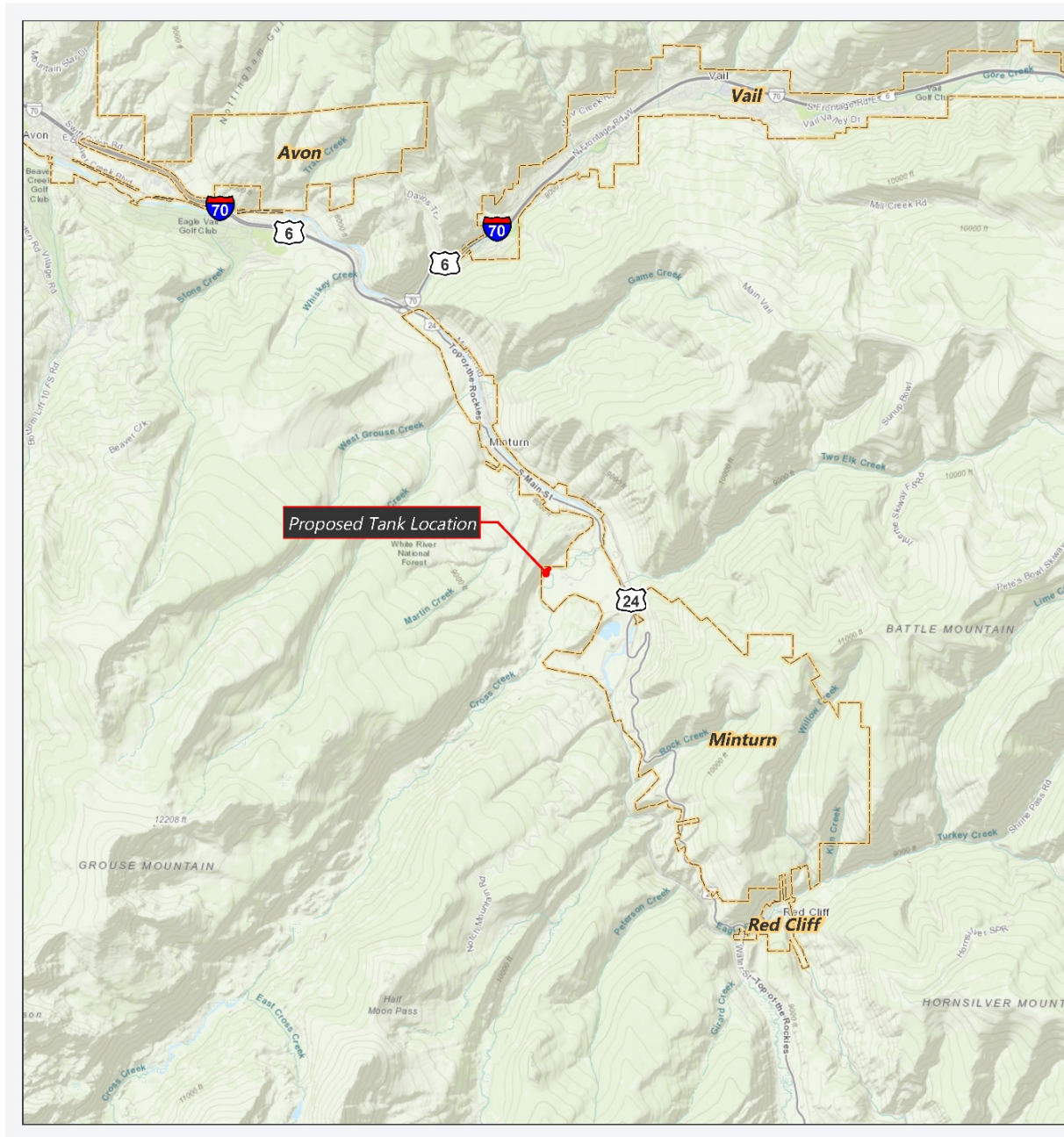
Eric Petterson, Senior Scientist
SGM
118 West Sixth Street, Ste. 200
Glenwood Springs, CO 81601
ericp@sgm-inc.com

2. PURPOSE AND NEED FOR ACTION

Utilities make a crucial contribution to economic development and growth and bring important social benefits. Utilities are essential services that play a vital role in economic and social development. The Water Tanks Project is a vital part of daily operations for the Town of Minturn. Without reliable water storage and delivery, reliable sources of potable water for Town residents and business would be compromised.

The existing single water tank is in need of replacement to store and convey the quantities and quality of potable water at the pressures necessary to maintain reliable delivery. The Town of Minturn has had a steady increase in population increasing the need for updating old infrastructure.

Figure 1: Vicinity Map



VICINITY MAP

Minturn Tank

LEGEND

- Proposed Tank Location
- Municipality

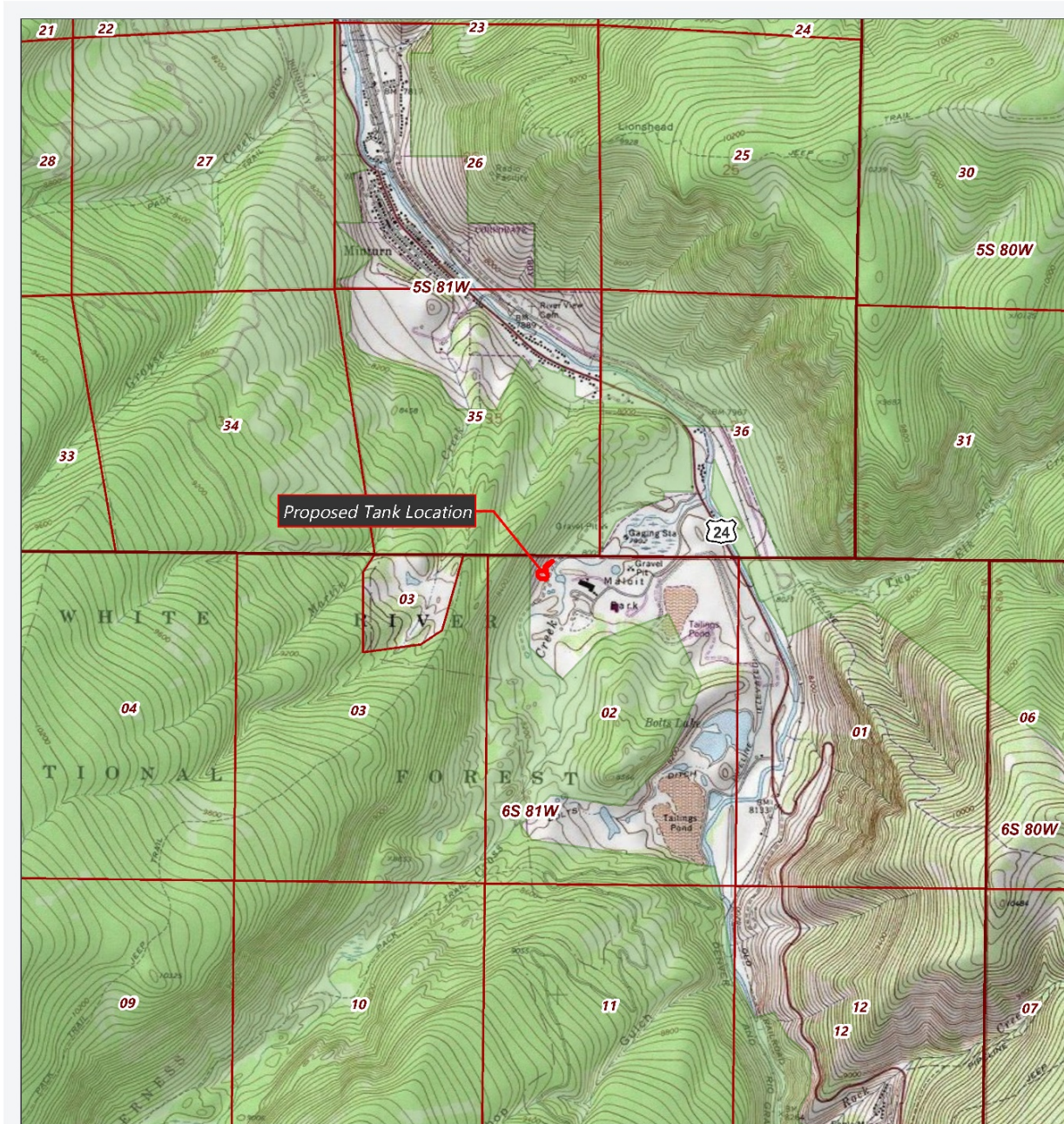
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 www.sgm-inc.com

Date: 11/9/2020
 Location: 39.5659, -106.41846
 Created By: SGM
 Drawn By: JDF

0 0.75 1.5 3 Miles
 SCALE: 1" = 2 miles

Figure 2: USGS 7.5-Minute Topographic Site Map



USGS TOPOGRAPHIC MAP

Minturn Tank

LEGEND

- Proposed Tank Location
- Township/Range/Section

Land Ownership

- Forest Service
- Private

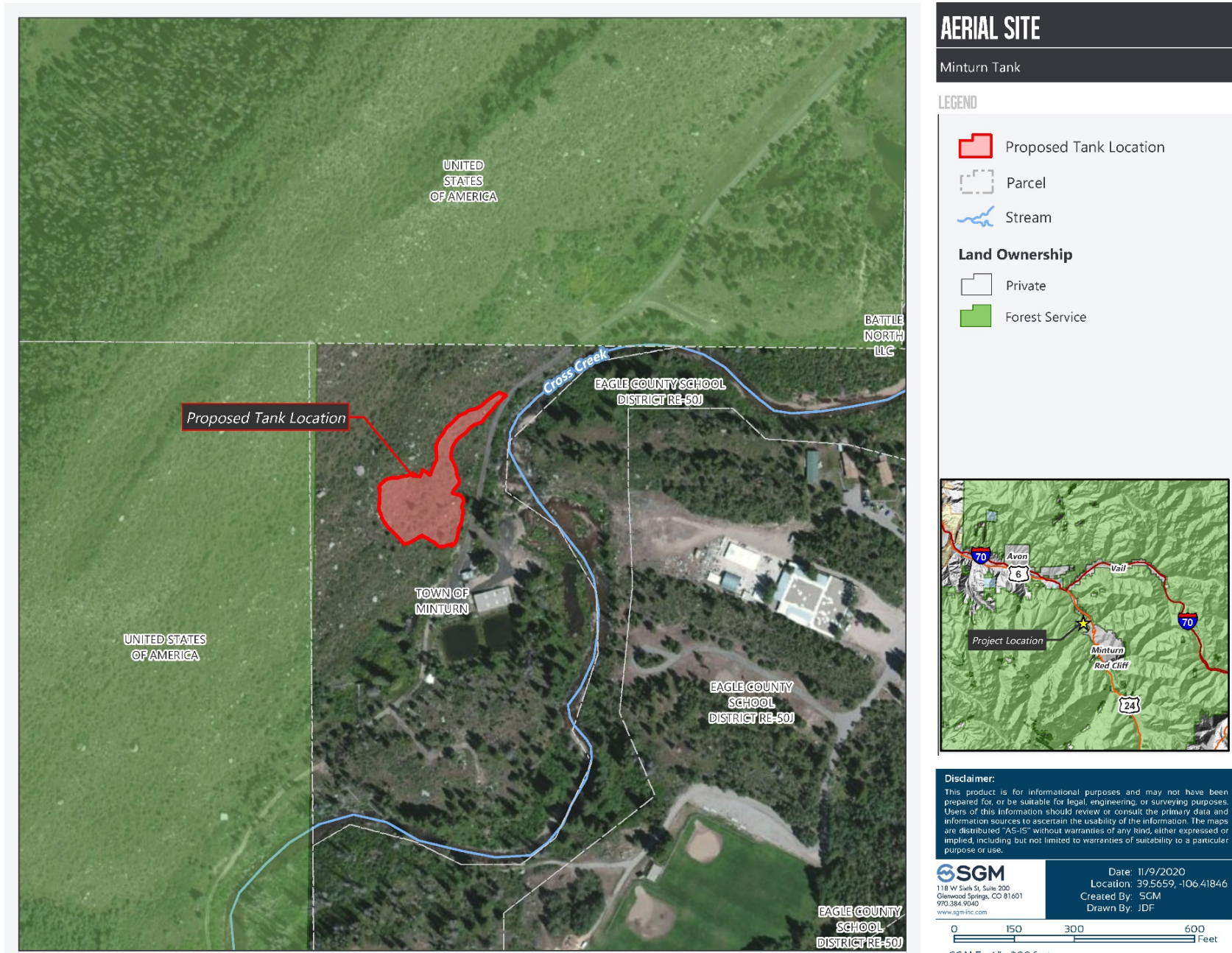
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 Location: 39.5659, -106.41846
 Created By: SGM
 Drawn By: JDF

0 1,500 3,000 6,000 Feet
 SCALE: 1" = 3,000 Feet

Figure 3: Aerial Site Map



3. PROJECT SUMMARY

Feasibility studies were conducted by the Town of Minturn and SGM to determine options for minimizing impacts to natural resources, as well as visual impacts and minimizing impacts to other landowners. As previously discussed, the age and limited volume of the existing water tank necessitated the need for new, replacement water tanks. The current tank location is too small to contain the new tanks and is within an important visual corridor for the Town; the Town also wanted the new tank location to be in proximity to existing infrastructure, as well as on Town lands, if practicable. The Town investigated seven various locations, until deciding on the current location. Other locations were encumbered by visual impacts, wetlands, other property owners being unduly impacted, or the need to see easements from the federal government.

Given these logistical constrictions, the final location was settled upon as the least environmentally damaging alternative. Nevertheless, the proposed location does occur within big game winter ranges.

3.1. Project and Construction Summary

The proposed water storage tank site is located on a steep (40 percent), south facing, shrub-covered hillside. Soils in this area are comprised of gravelly loams, underlain by very gravelly loams, with large boulders (ranging in size from 20-foot diameters, down to 6-inch material). In the summer of 2020, the Town of Minturn began construction, or at least roughing in the access road and storage tank pad site, before the Town determined the pursue CDPHE assistance and funding.

Approximately 330-foot of an access road was cut into the hillside, using heavy equipment (a large trackhoe and bulldozer). Because of the boulder substrate, large boulders were sidecast to create a level, drivable grade. The water storage tank pad site is approximately 0.75 acres in size. Given the steep slopes, retaining walls on the cut and fill sides of the pad would be constructed later in the process, using local rock salvaged from the excavation operations.



Partial view of water storage tank pad, still under construction.



View looking down access road from pad site, still under construction.

Two 12-inch, ductile iron, pipelines would service the site. These pipelines would be installed via typical open-trenching methods. The construction corridor for the pipelines would be approximately 30-foot wide, to accommodate sidecasting of soils, staging, and lowering in of the pipelines. Most of the disturbances would be within previously disturbed areas for the tank pad, the access road, or the WTP access road. As mentioned, the delivery line would be within the access road itself. Approximately 0.45 miles of the WTP access road cross National Forest System lands, managed by the White River National Forest.

Pipelines would have no less than 5-feet of backfill to the top of pipe. Topsoil would be segregated and stockpiled during excavation and then replaced during the burial process, and the original contour surface restored.

The new access road and water storage tank pad site would be surfaced with crushed rock, and then capped with road base to allow all-weather access. Snow storage would be to the downhill side of the access road, and areas on the pad would also be used for snow storage. Clearwater ditches would be installed around the pad to facilitate drainage.

The selected construction contractor will be required to produce a stormwater management plan and obtain a CDPHE Construction Stormwater Permit, as total surface disturbance would be greater than 1 acre. As such, appropriate erosion and sediment controls would be utilized. These appropriate erosion and sediment controls would be installed around the project area prior to any further earthmoving activities. Final construction would occur in the summer of 2021, after snowmelt. Construction is anticipated to last for approximately 3 months, and the target completion date is October 1st to avoid complications with early-season winter weather.



View of Water Treatment Plant from pad site.

3.2. Pre-Construction Civil Surveys

Construction surveys would be performed before final construction activities commence to identify the locations of the tanks, staging areas, centerlines of the pipelines and the boundaries of the approved workspace. Flagged or painted lath would be set along the centerline and at the edges of the work limits at intervals required to maintain line of sight. All staging areas would be marked in a similar fashion and all four corners of each staging area would be marked by flagged or painted lath. Town inspectors would be responsible for verifying that the limits of authorized construction work areas are staked prior to construction.

3.3. Clearing, Grading and Top Soiling

All topsoil, up to a depth of 6 inches (if present), would be removed from the workspaces. Topsoil would be stockpiled separate from subsoil and would not be used to pad trenches or used for foundation materials. Rock, cobble and subsoils from within the project area would not be sidecast into nearby wetlands. Gaps would be left at regular intervals in the access road to avoid ponding and excess diversion of natural runoff during storm events, and stormwater channels would be cut in the pad to allow stormwater discharge into approved areas.

Fugitive dust may be generated during construction. This would be minimized by wetting down the soils with water if necessary, minimizing traffic and limiting speeds in disturbed areas, and compacting or wetting stockpiles where appropriate.

3.4. Water Storage Tank Pad

As the pad is already roughed in, surfacing of the pad site and road will need to occur. The pad site will be compacted to 95%, to reduce the risk of settling issues. Lifts of structural fill, no deeper than 1-foot would be spread over the working surface of the pad and compacted to 95% compaction (or as directed by geotechnical report). A total of 5 lifts is expected to create a level and stable platform for the tanks. The final surface would be capped with road base.

The access road is expected to have 3 lifts of crushed rock, surfaced with road base. Stormwater swales and discharge points would be constructed along the access road to prevent erosion of the access road.

Around the edges of the pad, a stormwater trench would be constructed to help dewater the surface of the pad, as well as prevent saturation of the constructed platform. The site has limited areas to allow stormwaters to exit the site, but two sites are currently planned to discharge the clearwater trench off the pad.

3.5. Pipeline Trenching

For the pipelines, an open trench up to 4 feet wide and 8 feet deep would be dug using a trackhoe. Excavated material would be sidecast for backfilling after pipeline installation; larger rocks would be sifted out and not used to backfill around pipeline. The depth to the top of the pipeline would not be less than 5 feet. No sidecasting of excavated material outside of the project area, or into nearby wetlands would occur. No blasting is expected.

3.6. Pipeline Installation

Pipe joints would be strung along the trench and connected using restraint fittings. When necessary, pre-bent pipe would be used accommodate horizontal and vertical changes in direction. Pipe joints would be lined up end-to-end, clamped into position, and connected in accordance with applicable regulations and standards currently required for potable water pipelines. All fittings and joints would be visually inspected by a qualified inspector. Any defects discovered during such inspections would be repaired or replaced as required under the applicable regulations and standards.

Before the pipe is lowered into the trench, the pipe would be visually inspected, and any faults or scratches discovered through the inspection would be repaired.

3.7. Lowering-in and Padding

Before the pipe section is lowered into the trench, an inspection would be conducted to verify that the pipe is properly fitted, the depth of the trench is correct to provide for minimum cover requirements, and the trench bottom is free of rocks and other debris that could damage the pipe. Dewatering may be necessary where water has accumulated in the trench and would be permitted through the State. Pipe sections would be simultaneously lifted in position over the trench and lowered in place. Sifted soil fines from the excavated subsoils would provide rock-free pipeline padding and bedding. Sandbags may be used to pad the bottom of the trench instead of, or in combination with, padding with soil fines. In rocky areas, padding material or a rock shield would be used to protect the pipe.

3.8. Backfilling Pipeline

Backfilling would begin after a section of pipe has been successfully placed in the trench. Backfilling would be conducted using an excavator, bulldozer or other suitable equipment. Backfilling the trench would generally use the subsoil previously excavated from the trench except in rocky areas where imported, appropriate fill material may be needed. Backfill would be graded and compacted (where necessary for ground stability) by tamping or walking with a wheeled or tracked vehicle. Compaction would be performed until there are no voids in the trench. Any unneeded excavated materials or materials unfit for backfill would either be utilized elsewhere, or properly disposed of in conformance with applicable laws and regulations.

3.9. Hydrostatic Testing of Pipeline

The pipelines would be tested in compliance with applicable regulations. Prior to filling the pipeline for a hydrostatic test, each section of the pipeline would be cleaned by passing reinforced poly pigs through the interior of the line. Incremental segments of the pipeline would then be filled with water, pressurized and held for the duration of the test. The length of each segment tested would depend on topography and water availability. Water for hydrostatic testing would be from Town sources. All necessary permits and water quality testing would be acquired for hydrostatic testing water discharge. Test waters would not be discharged into surface waters or stream channels.

3.10. Cleanup and Restoration

Cleanup and restoration would occur after the tanks and associated infrastructure are installed, and the pipelines are installed and backfill activities are completed. Cleanup of the surface along the construction workspace and any extra workspace would include removing construction debris and final grading of disturbed areas to specified contours. Erosion control measures would be installed, and seeding would be performed in accordance with Town and Eagle County requirements.

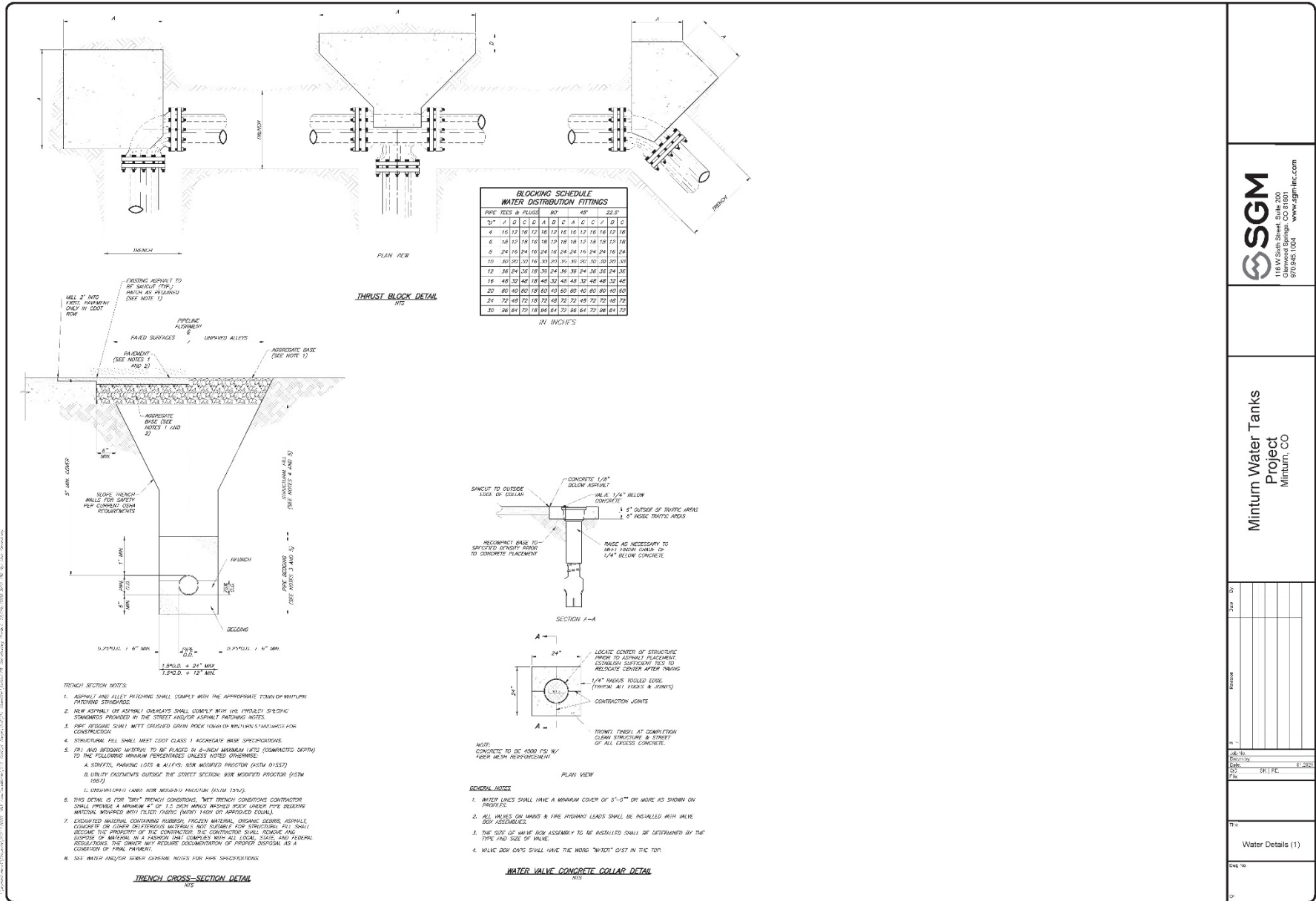
The Town would employ broadcast seed methods to ensure proper seed placement. Seed would be applied uniformly over disturbed areas with manually operated cyclone-bucket spreaders, mechanical spreaders, blowers, or by hydroseeding. Dryland seeding will be performed as soon as practical after completing construction, within the appropriate season.

See **Figures 4, 5 and 6** for water storage tanks plan and water pipeline plans.

Figure 4: Water Storage Tanks Site Plan



Figure 5: Water Pipeline Drawings



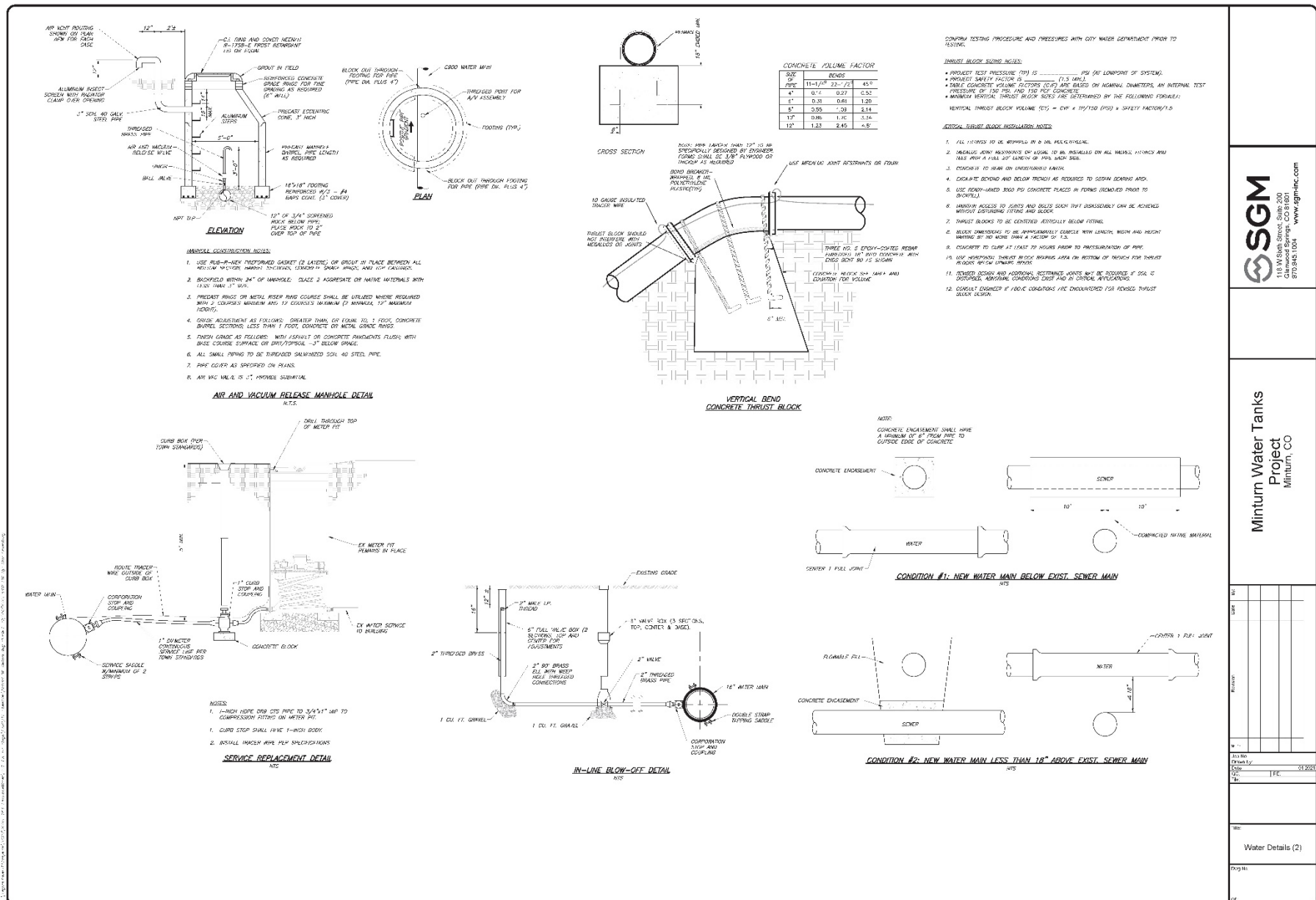
Minturn Water Tanks
Project
Minturn, CO

DATE	
REVISION	
NO.	
DATE	
BY	
CHK'D	
DATE	
BY	

SCALE: SKIPEC E:2021

Water Details (1)

Figure 6: Water Pipeline Drawings



SGM
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 Greenwood Springs, CO 81801
 970.945.1004 www.sgmhcc.com

Minturn Water Tanks
 Project
 Minturn, CO

NO.	DATE	DESCRIPTION

Drawn By: []
 Date: [] [] [] 20[]
 Title: []
 Scale: []

Water Details (2)

Proj: []
 Off: []

4. AFFECTED ENVIRONMENT

4.1. Description of the Planning Area

The project is located outside the town limits of Minturn, Colorado, in Eagle County, on lands owned by the Town. The project site is in the NE ¼ of the NE ¼ and NE ¼ of the NW ¼ of Section 2 in Township 6 South and Range 81 West of the 6th Prime Meridian. The project area is within the Minturn U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle and is shown on the Vicinity, USGS Topographic Map, and Aerial Photo maps (**Figures 1, 2 and 3**).

The primary land use and vegetation types in the Project area includes undeveloped mixed mountain shrublands, on steep south-facing slopes. At the toe of the slope is the WTP access road, and the diversion structure and WTP processing and treating waters from Cross Creek. The hillslopes are dominated by serviceberry (*Amelanchier utahensis*, and *A. alnifolia*), elk sedge (*Carex geyeri*), bitterbrush (*Purshia tridentata*), Oregon grape (*Mahonia repens*), sulfurflower (*Eriogonum umbellatum*), chokecherry (*Prunus virginianus*), penstemon (aka beardtongue; *Penstemon* spp.), sagebrush (*Artemisia tridentata* sbsp. *vaseyana*), snowberry (*Symphoricarpos rotundifolius*), blue wildrye (*Elymus glaucus*), the noxious weed yellow toadflax (*Linaria vulgaris*), and Fendler’s buckbrush (*Ceanothus fendleri*). A small patch of aspen (*Populus tremuloides*) occurs near the project area as well.



Typical conditions of mixed mountain shrublands around pad site.



Access road and pad, with WTP and Cross Creek in the background.

Using data from the nearest weather station (Vail), recorded temperatures for the reporting period (1985 to 2016) range from an average low of 5.7 degree Fahrenheit (°F) in January to an average high of 77.7°F in July. Average annual precipitation of 22.4 inches consists primarily of winter snows, and summer rain precipitation events (Western Regional Climate Center [WRCC] 2021).

The Town of Minturn produced an Economic Development Strategic Plan (EDSP) in 2016, to implement and build on the work of the 2009 Minturn Community Plan, and the Downtown Colorado Inc. Plan. Traditionally, economic development is defined as new activity that generates income and supports community needs and infrastructure.

Minturn’s strategy incorporates the following:

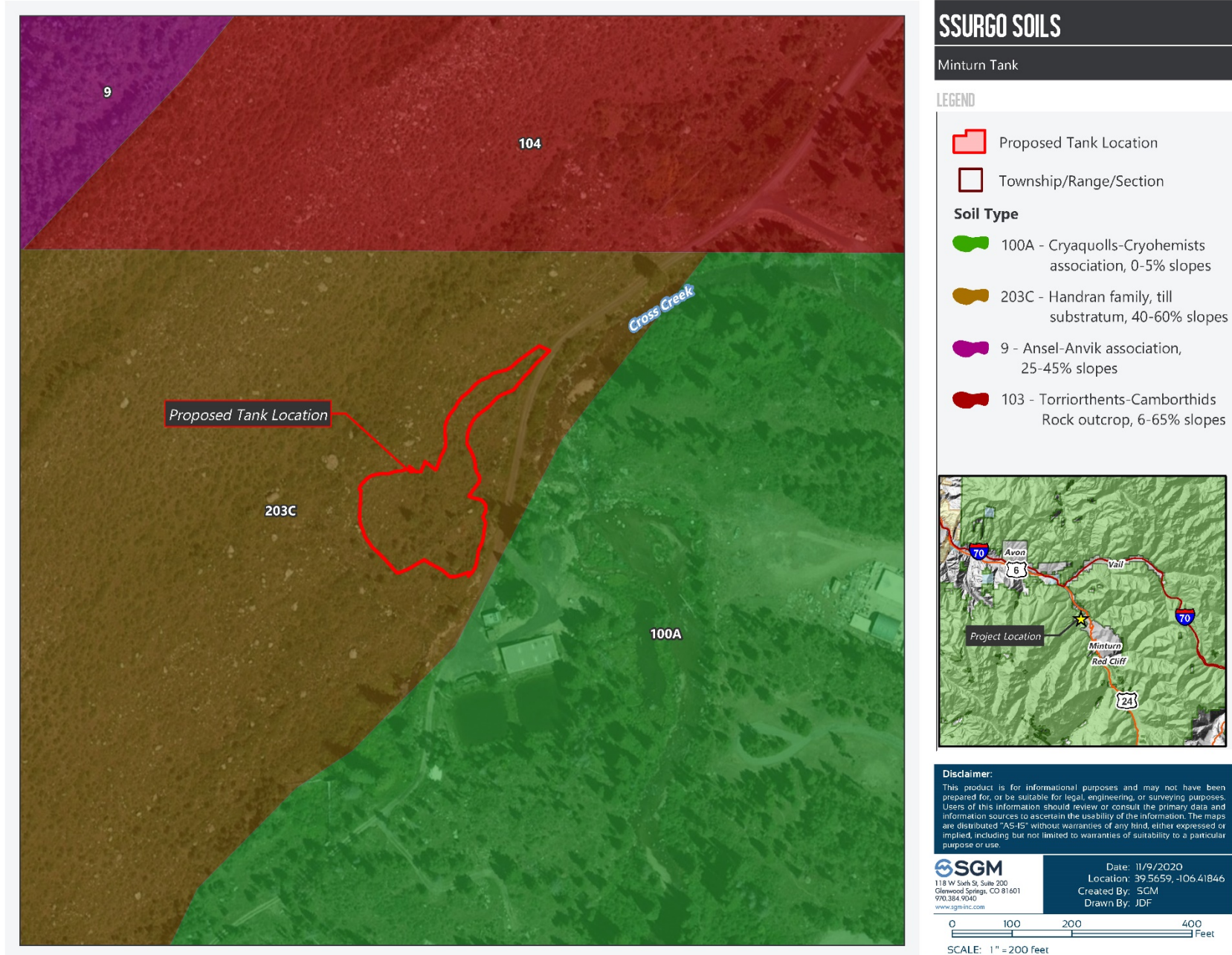
1. In small towns, community development is economic development.
2. Small towns with the most dramatic outcomes tend to be proactive and future-oriented; they embrace change and assume risk.
3. Successful community economic development strategies are guided by a broadly held local vision.
4. Defining assets and opportunities broadly can yield innovative strategies that capitalize on a community’s competitive advantage.
5. Innovative local governance, partnerships and organizations significantly enhance the capacity for community economic development.
6. Effective communities identify, measure, and celebrate short-term successes to sustain support for long-term community economic development.
7. Viable community economic development involves the use of a comprehensive package of strategies and tools, rather than a piecemeal approach.

Starting in 1975 with Capital Project Recommendations, and reiterated in the 2008 Community Improvement Needs plan, and again identified in the Minturn Community Plan and EDSP, the Town has prioritized infrastructure improvements, including water supply, as a key part of the Town’s needs to supply existing and future water needs.

4.2. Soils

The project area lies within one soil type, mapped as the *Handran family, till substratum, 40 to 60 percent slopes* (NRCS 2021; **Figure 7**). The Handran series consists of very deep, well drained soils that formed in thick stony deposits of alluvium and glacial material and material weathered from granite, basalt, sandstone, and shale. The Handran soils are on alluvial fans, moraines, mesa tops, and valley filling side slopes. This soil type is derived from igneous and sedimentary rock till, occurring along glacial moraines. The taxonomic class of this soil type is a loamy-skeletal, mixed, speractive ustic Haplocryolls. Soil profiles and textures are dominated by gravelly to very cobbly loams, with large boulders embedded in the profile.

Figure 7: Soil Types



4.3. Environmentally Sensitive Areas

Environmentally sensitive areas within the planning area include Cross Creek, which separated from the project area by the WTP access road and the WTP and is approximately 250-feet from the tank location, and around 50-feet from the nearest point along the access road. Immediately to the west of the tank location, there is a small patch of wetlands, which would be very close to the WTP to Tank pipeline. The project is also located in a Colorado Parks and Wildlife (CPW)-mapped Elk Winter Concentration and Severe Winter Range area.

4.4. Cultural Resources

Metcalf Archaeological Consultants, Inc. (Metcalf) conducted a Class III cultural resource inventory of the project area (Metcalf 2020; **Appendix A**). At the time of the investigation, the project area had already been disturbed by rough earthwork for the access road and tank pad site. Based on a file search of the COMPASS database, there are no previous surveys that overlap the Area of Potential Effect (APE). Within one mile, there are 28 previously recorded cultural resource sites and isolated finds. These resources are a mix of a small number of prehistoric isolates and sites (mostly lithic scatters), and mostly are historic sites related to the development of the area including buildings, cabins, mining features, water control features/ditches, railroad segments, roads and highways, and a pipeline (Metcalf 2021).

The project area does have some potential for both historic and prehistoric sites, based on previous recordings in the vicinity, but considering the small size of the project area and that it was disturbed by earthmoving operations, the potential of finding cultural resources is very low.

4.5. Population and Flow Projections

The current population of the Town of Minturn is estimated to be 1,145 according to the U.S. Census Bureau. The population growth since the 2010 census has increased 10.71%. Minturn experiences population fluctuations throughout the year due to the influence of tourism and seasonal service industry employees.

5. ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECT

5.1. Direct and Secondary Impacts

Construction of the access road and tank site would have direct impacts to native shrubland habitats, affecting approximately 1-acre of native mixed mountain shrublands. As this site would be in operation for at least 30 years, this conversion from current shrubland conditions to a developed site is considered to be a long-term impact. At a one-acre project footprint, these impacts to relatively common shrubland habitats are not considered a significant or notable impact; however, impacts to wintering elk and mule deer which utilize this area is of note, and is discussed more later in this report.

The site is not in proximity to any residential areas, and there would be no notable traffic impacts on residential streets. The nearest residences are over 900 feet from the project and are visually isolated from the project by topography and trees along Cross Creek.

Secondary impacts are those induced or stimulated by, or as a result of, the proposed action. These can include cumulative, social and land use impacts, among others. Cumulative impacts are the collective incremental impacts of the proposed action regardless of the entity undertaking the action. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. From the characteristics of the proposed project, and descriptive elements of the environmental setting, probable impacts are direct and/or secondary.

Potential secondary and cumulative impacts to the environment from new development, such as increased quantity and decreased quality of urban runoff, degradation of wetland and wildlife habitat and increased air pollution and noise may have temporary impacts in the planning area. Some of the more specific impacts are discussed in the following sections.

5.1.1. Traffic

Construction traffic is anticipated to include an average of 15 construction worker light vehicles (pickups) per day, and heavy truck traffic for equipment, supplies and materials would add an additional average of five vehicles per day. The WTP access road is gated and does not provide a public thoroughfare. State Highway 24 (SH-24) would be the primary access to the WTP access road. In this section of SH-24, average annual daily traffic (AADT) is approximately 2,400. The anticipated 20 vehicles a day may be extrapolated to be approximately 40-60 AADT, which would be approximately 1.6 percent to 2.5 percent of existing traffic amounts for this section of SH-24.

5.1.2. Surface Water and Groundwater Quality and Quantity

The proposed water tanks and pipelines are not expected to have short- or long-term impacts on the surface or groundwater quality or quantity of nearby waters. Short term surface impacts may occur during construction which would include increased risk of stormwater runoff and discharges. During construction, erosion and sediment controls will be implemented to minimize erosion and sedimentation and maintain water quality. No wetlands would be impacted by the access road, tank pad, or pipelines.

The project will obtain a State permit for “Stormwater Discharges Associated with Construction Activities” (Permit No. CORO30000) from WQCD, which will include a stormwater management plan (SWMP).

Groundwater

Impacts to groundwater are not anticipated. No groundwaters were intercepted during the construction of the access road or tank pad, and as the trench would be no more than approximately 7-feet deep, there are no anticipated potential impacts to aquifers or other shallow groundwater sources. If groundwater is encountered, dewatering of the pipeline trench may need to occur; the Town would cover dewatering as part of the SWMP, and no trench water discharges into Cross Creek would occur.

Water Quality

The only potential temporary impacts to surface water quality would be from temporary stormwater discharges. As previously mentioned, this project would apply for and follow a SWMP and implement use of BMPs to minimize the risk of stormwater discharges. If accidental discharges do occur from otherwise unplanned events (such as a large thunderstorm or rapid snowmelt), effects are anticipated to be temporary and minor.

As the pipeline would be carrying potable water, any ruptures or unanticipated releases would consist of clean waters, and not significant impacts to local water quality would be anticipated.

5.1.3. Wetlands

The current project footprint does not cross any wetlands (jurisdictional or non-jurisdictional). The nearest wetlands are approximately 10-feet from the WTP to tank pipeline, on a cross-slope (**Figure 8**). These wetlands will be flagged for identification and protection from inadvertent impact during construction. No indirect impacts to these, or other wetlands are anticipated primarily through the proper installation and maintenance of stormwater BMPs.

After construction, stormwater discharges from the tank pad and access road would be into upland areas and would not reach wetlands or Cross Creek.

5.1.4. Floodplains

The access road and water tank pad would not affect the 100-Year Floodplain of Cross Creek according to FEMA mapping. FEMA has designated this area Zone AE - Approximate Special Flood Hazard Area for Cross Creek (**Figure 9**).

This project is not anticipated to cumulatively change volumetric capacities or indirectly impact the floodplain when considering other reasonably foreseeable projects in the area.

Figure 8: National Wetland Inventory Map

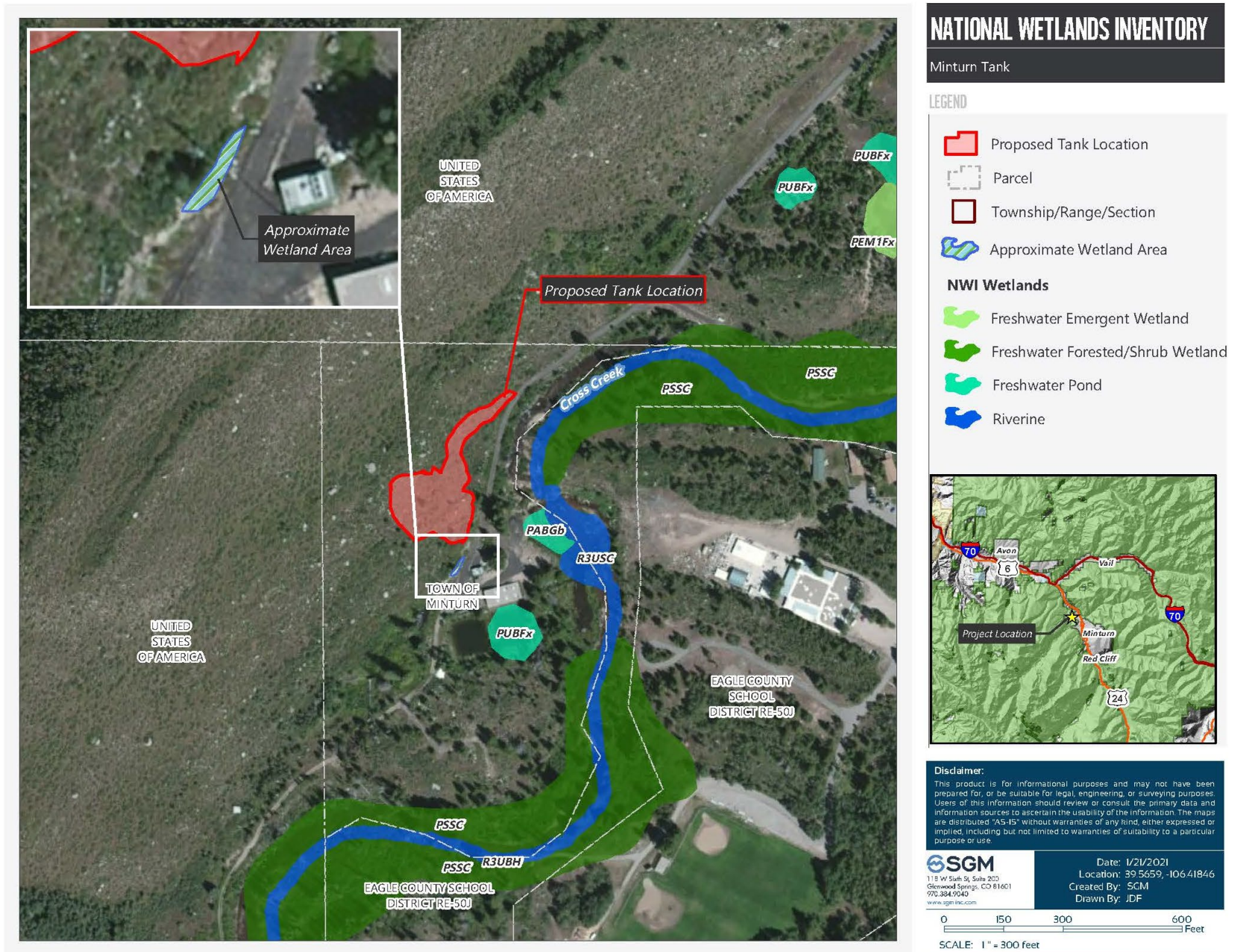
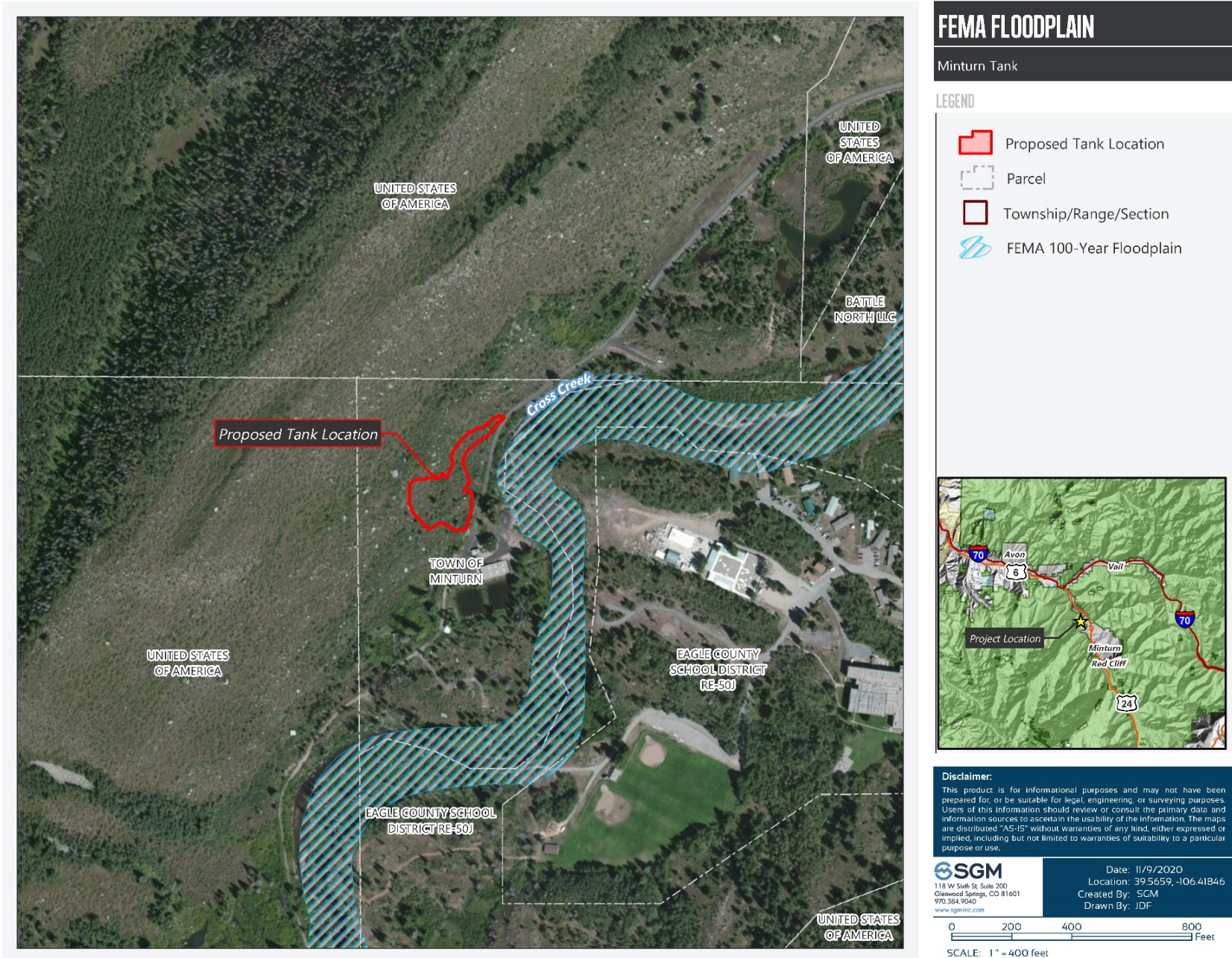


Figure 9: FEMA-mapped Floodplains



5.1.5. Terrestrial and Aquatic Plants and Wildlife

There would be loss of one acre of one type of habitat- mixed mountain shrublands. These impacts are assumed to be relatively permanent, or at least very long-term. This would remove shrubby habitat components for a variety of wildlife species, including a variety of insects, birds (resident and migratory), small mammals, large mammals, and one reptile. Given the small size of the project, this is not anticipated to result in any meaningful reduction in species population numbers in the area, but there could be some direct impacts to some individuals (such as small mammals, insects and reptiles that are not able to avoid direct impacts during construction), and long-term displacement of some species from the direct loss of 1-acre of mixed mountain shrublands. During the remainder of the project's construction, the human activities, noise, and loud equipment will likely preclude a variety of bird and mammal species from utilizing habitats around the construction area, especially during the summer months. These impacts may preclude foraging, nesting, and other activities during the construction period. Some more nocturnal species would still be able to utilize habitats around the project area when human activities cease for the day.

After construction is complete, the tanks would have very little activity associated with them- there would be no noise, lighting (aside during emergency or critical maintenance times), and staff visiting the tanks would be limited to a few times a week. Snow plowing would occur as needed, likely done coincidentally with plowing of the WTP and access road. Therefore, after construction, indirect impacts around the tanks would be very limited given a lack of noise, lighting, and other human activities.

5.1.5.1. Federally Listed Species

Threatened and endangered species are plants and animals that are legally protected under the Endangered Species Act (ESA). The requirements of this act are aimed at avoiding and not jeopardizing the existence of threatened and endangered species or their critical habitat. On November 2, 2020 a list of potential Threatened and Endangered species in the project area was requested from the U.S. Fish and Wildlife Service (USFWS) (located in **Appendix B**). Utilizing the Information for Planning and Consultation (IPAC) tool located on the USFWS website, the following species were identified as being potentially affected by activities in the project area:

Canada Lynx (*Lynx canadensis*)

Canada lynx occur in heavy timber at higher elevations, with an abundance of snowshoe hare (*Lepus americanus*), their main prey source. The project area occurs in mid-elevations, dominated by shrublands and riparian systems. Therefore, there are no habitat characteristics in the vicinity that are associated with potential lynx occupancy or transit. Because the project would not directly or indirectly impact habitats and is relatively far from potentially occupied habitats, there is no anticipated direct, indirect or cumulative impacts to lynx. The project would have **no effect** to the Canada lynx or their Critical Habitat(s).

Mexican Spotted Owl (*Strix occidentalis lucida*)

Mexican spotted owl occurs in a variety of habitats in southern Colorado, including in deep, shaded canyons with a closed canopy of Douglas-fir (*Pseudotsuga menziesii*), ponderosa pine (*Pinus ponderosa*) and other understory shrubby species. They can also occur in old growth mixed

conifers stands, usually on north-facing slopes and in canyons. They also occur in deep, well shaded sandstone canyons with ledges for roosting and nesting. The project area does not support habitat for Mexican spotted owl and is not proximal to potential habitats. This project would therefore have **no effect** on Mexican spotted owl or their Critical Habitat(s).

Yellow-billed Cuckoo (*Coccyzus americanus*)

The yellow-billed cuckoo occurs in larger river systems with large, well developed cottonwood forests, with dense understory shrubby vegetation. This species is highly migratory, generally being found in Colorado from June through late August; the rest of the year this species occurs in Central America. The nearest known occupied habitats are along the Gunnison River, approximately 80 miles southwest of the project area. The project area does not support habitat for yellow-billed cuckoo and is not proximal to potential habitats. This project would therefore have **no effect** on yellow billed cuckoo or proposed Critical Habitats.

Colorado River Endangered Fish Species

The USFWS lists the bonytail (*Gila elegans*), the Colorado pikeminnow (*Ptychocheilus Lucius*), the humpback chub (*Gila cypha*), and the razorback sucker (*Xyrauchen texanus*) as potentially being impacted by this project. These species occur in the mainstem of the Colorado River, starting around the City of Rifle, and occurring lower in the basin. These species depend on the larger, warmer stretches of the river. The project area is over 100 river miles up from potential habitats, and Cross Creek does not provide any habitats for these species. This project would not result in any additional water depletions. This project, as it would have no impacts on occupied habitats, or water quality or quantity, would have **no effect** on these species or their Critical Habitats.

Ute Ladies'-tresses (*Spiranthes diluvialis*)

This orchid species occurs in perennial wetlands, associated with mid-elevation habitats. The nearest known population is located in the Roaring Fork River basin, around the town of Carbondale and El Jebel. This species utilizes more open, sunny, and saturated wetlands; wetlands that become overgrown with willows, grasses or other vegetation do not support higher abundances. This species is also somewhat disturbance mediated. The project area is approximately 40 miles from the nearest occurrence and is approximately 1,600 feet higher in elevation than known populations. The project area does not support wetlands or other habitat components for this species. As the project does not support suitable habitats, occurs well outside of the known range of the species, and as this species does not occur down-gradient of the project, the project would have **no effect** on the Ute ladies'-tresses orchid.

5.1.5.2. Colorado Species of Concern

Colorado Parks and Wildlife's (CPW's) list of Threatened and Endangered species and Species of Greatest Conservation Need (SGCN; Tier 1 species only) was reviewed to determine if any species had potential habitat on or adjacent to the study area. While all listed species were initially considered, an elimination of unlikely species from further consideration is indicated in **Table 1** below. This decision is based on known range distributions being outside of the project area and complete habitat incompatibility.

Table 1. CPW Threatened, Endangered and Species of Greatest Conservation Need

Species ¹	Occurrence	Habitat Association	Potential Habitat in Project Area?	Potential Impact/Issue?
MAMMALS				
American pika (SGCN) <i>Ochotona princeps</i>	Throughout state in suitable habitats	Alpine, rocky habitats	No	No
Black-footed ferret (FE, SE) <i>Mustela nigripes</i>	Rio Blanco & Moffat Counties	Reintroduced to Rio Blanco County, in white-tailed prairie dog colony	No	No
Black-tailed prairie dog (SGCN) <i>Cynomys ludovicianus</i>	Eastern plains	Shortgrass prairies	No	N
Botta's pocket gopher (SGCN) <i>Thomomys bottae rubidus</i>	Northern Front Range	Foothills	No	No
Gray wolf (SE) <i>Canis lupus</i>	Northern counties, no packs in State at this time	Shrublands, forests and areas away from human habitation	No	No
Grizzly bear (SE) <i>Ursus arctos</i>	Rare visitor from Wyoming	Forests, alpine and shrublands	No	No
Fringed myotis (SGCN) <i>Myotis thysanodes</i>	Throughout Colorado in suitable habitats	Roosts in montane and foothills conifers and oakbrush; may forage to as low as greasewood and saltbush shrublands. Roosts and hibernates in caves, mines, and buildings.	Yes	Yes
Gunnison prairie dog (SGCN) <i>Cynomys gunnisoni</i>	Parks in central Colorado	Shortgrass steppe, open shrublands in parks	Yes	No
Little brown myotis (SGCN) <i>Myotis lucifugus</i>	Throughout Colorado in suitable habitats	Widespread habitat types.	Yes	Yes
Lynx (FT, SE) <i>Lynx canadensis</i>	High mountain areas with large expanses of conifer forests in Colorado	Spruce/fir and lodgepole pine forests, sometimes aspen, shrublands	No	No
New Mexico meadow jumping mouse (FE, SGCN) <i>Zapus hudsonius leuteus</i>	Southwestern counties in Colorado	Wet, lush, grassy meadows and some hydric shrublands	No	No
Olive-backed pocket mouse (SGCN) <i>Perognathus fasciatus</i>	Southern grasslands in Colorado	Arid and semiarid grasslands with sparse vegetation, sandy to clayey soils	No	No
Preble's meadow jumping mouse (FT, ST) <i>Zapus hudsonius preblei</i>	Front range of Colorado north into Wyoming	Foothills riparian areas and along front range streams	No	No
Spotted bat (SCGN) <i>Euderma maculatum</i>	Throughout Colorado in suitable habitats	Areas near cliffs, including piñon-juniper woodlands and streams or water holes within ponderosa pine or mixed coniferous forest. Usually captured around a water source, including desert pools or cattle tanks.	No	No
Townsend's big-eared bat (SGCN) <i>Plecotus townsendii townsendii</i>	Documented in Colorado in several cave locations	Semidesert shrublands, P-J, open montane forests; caves and abandoned mine roosts.	Yes	Yes
White-tailed prairie dog (SGCN) <i>Cynomys leucurus</i>	Western Colorado	Arid grasslands and sparse arid shrublands in western CO	No	No
River otter (ST) <i>Lontra canadensis</i>	Throughout state in suitable habitats	Larger rivers with high fish population levels	Yes	Yes

Species ¹	Occurrence	Habitat Association	Potential Habitat in Project Area?	Potential Impact/Issue?
Wolverine (FT, SE) <i>Gulo gulo</i>	Historical documentation several locations in Colorado-likely extinct	Boreal forests and tundra- large ungulate populations important	No	No
BIRDS				
Brown-capped rosy-finch (SGCN) <i>Leucosticte australis</i>	High mountains throughout state	Alpine and high-elevation coniferous forests	Yes	Yes
Bald eagle (SGCN) <i>Haliaeetus leucocephalus</i>	Throughout state near suitable habitats	Larger rivers and streams, near prairie dog towns	No	No
Burrowing owl (ST) <i>Athene cunicularia</i>	Mostly found in eastern grasslands, some occurrence on west slope	Arid grassland and shrublands	Yes	No
Columbian sharp-tailed grouse (SGCN) <i>Tympanuchus phasianellus columbianus</i>	Mixed grassland/shrublands in northwest Colorado	Mixed shrubland/grasslands	No	No
Ferruginous hawk (SGCN) <i>Buteo regalis</i>	Eastern plains, larger parks	Grasslands and extensive shrublands	No	No
Golden eagle (SGCN) <i>Aquila chrysaetos</i>	Throughout Colorado in suitable habitats	Open habitats in alpine, shrublands, badlands, and grasslands	Yes	Yes
Greater sage-grouse (SGCN) <i>Centrocercus urophasianus</i>	Northwestern Colorado	Large sagebrush shrublands	No	No
Sandhill crane (SGCN) <i>Grus canadensis tabida</i>	Migrant through plains, west slope and mountain valleys, some nesting in northern parks	Large wetlands	No	No
Gunnison sage-grouse (SGCN) <i>Centrocercus minimus</i>	Gunnison Basin and western counties	Sagebrush shrublands	No	No
Least tern (FE, SE) <i>Sterna antillarum</i>	Eastern plains	Larger rivers, larger reservoir beaches	No	No
Lesser prairie chicken (FT, ST) <i>Tympanuchus pallidicinctus</i>	Extreme southeastern Colorado	Great plains grasslands and shrublands	No	No
Long-billed curlew (SGCN) <i>Numenius americanus</i>	Eastern plains and larger parks	Grasslands and sparse shrublands	No	No
Mexican spotted-owl (FT, ST) <i>Strix occidentalis lucida</i>	Southwest Colorado, and along Wet Mountains, Rampart Range	Deep shaded canyons with closed canopy conifers and cliffs	No	No
Mountain plover (SGCN) <i>Charadrius montanus</i>	Eastern plains of Colorado	Summers on eastern plains in native short-grass steppe, winters in S. California & Mexico	No	No
Peregrine falcon (SGCN) <i>Falco peregrinus anatum</i>	Throughout state, but near cliffs and tall buildings	Needs tall cliffs or buildings for nesting, usually occurs near water	Yes	No
Plains sharp-tailed grouse (SE) <i>Tympanuchus phasianellus</i>	Extreme northeastern Colorado	Grasslands, river canyons	No	No
Piping plover (FT, ST) <i>Charadrius melodus circumcinctus</i>	Eastern plains	Large rivers, sandy shores around reservoirs in plains	No	No
Southern white-tailed ptarmigan (FP, SCGN) <i>Lagopus leucura altipetens</i>	Southern Rocky Mountains	Alpine habitats	No	No
Southwestern willow flycatcher (FE, SE) <i>Empidonax traillii extimus</i>	Extreme southwest Colorado, and Rio Grande River	Brushy riparian habitats at lower elevations	No	No

Species ¹	Occurrence	Habitat Association	Potential Habitat in Project Area?	Potential Impact/Issue?
Western snowy plover (SGCN) <i>Caradrius alexandrius</i>	Eastern plains	Sandy bars in rivers and around reservoirs, playas	No	No
Western yellow-billed cuckoo (SGCN) <i>Coccyzus americanus</i>	North Fork of Gunnison, Colorado, Dolores, Yampa and Rio Grande rivers	Large cottonwood stands along larger rivers	No	No
Whooping crane (FE, SE) <i>Grus americana</i>	Migrates through eastern plains, possibly San Luis Valley	Migrant	No	No
AMPHIBIANS				
Boreal toad (SE) <i>Anaxyrus boreas boreas</i>	Small disjunct populations across higher elevations in the State	Subalpine forest habitats with marshes, wet meadows, streams, beaver ponds, and lakes.	Yes	Yes
Couch's Spadefoot (SGCN) <i>Scaphiopus couchii</i>	Southeastern Colorado	Sandy, dry soils with creosote bush and mesquite	No	No
Great Plains narrowmouth toad (SGCN) <i>Castrophryne olivacea</i>	Eastern Colorado	Grasslands, edges of marshes, rocky hills	No	No
Northern cricket frog (SGCN) <i>Acris crepitans</i>	Eastern Colorado	Edges of slow-moving bodies of water	No	No
Northern leopard frog (SGCN) <i>Lithobates pipiens</i>	Common throughout mid- and lower-elevations of Colorado	Wet meadows, marshes, ponds, beaver ponds, streams.	No	No
Plains leopard frog (SGCN) <i>Rana blairi</i>	Eastern Colorado	Sunny, grassy wetlands	No	No
Wood frog (SGCN) <i>Rana sylvatica</i>	Larimer and Grand Counties	Forested wetlands	No	No
FISHES				
Arkansas darter (ST) <i>Etheostoma cragini</i>	Arkansas River drainage in eastern Colorado	Clear, shallow, spring-fed streams with moderate current and lots of rooted aquatic vegetation	No	No
Bonytail chub (FE, SE) <i>Gila elegans</i>	No known populations remain in Colorado	Large, swift-flowing waters of the Colorado River system	No	No
Brassy minnow (ST) <i>Hybognathus kankinsoni</i>	Native to Republican and South Platte basins, possibly in Colorado River drainage	Moderately clear tributary streams with sand or gravel bottoms, also in small ponds	No	No
Colorado pikeminnow (FE, ST) <i>Ptychocheilus lucius</i>	Colorado, Dolores, Green, Gunnison, San Juan, White and Yampa	Large, swift-flowing rivers that are seasonally turbid with warm backwaters	No	No
Colorado River cutthroat trout (SGCN) <i>Oncorhynchus clarkii pleuriticus</i>	Widespread localized reaches	Headwater streams and lakes	Yes	Yes
Colorado Roundtail chub (SGCN) <i>Gila robusta</i>	Colorado River through Glenwood Canyon, downstream on White River, Milk and Divide Creeks	Larger rivers of Colorado River basin	No	No
Common shiner (ST) <i>Luxilus cornutus</i>	South Platte basin	Lakes, rivers and streams, most common in the pools of streams and small rivers	No	No
Flannelmouth sucker (SGCN) <i>Catostomus latipinnis</i>	Western Colorado rivers	Utilizes mid-sized rivers and streams	No	No
Flathead chub (SGCN) <i>Platygobio gracilis</i>	Arkansas River basin	Main branches of turbid streams and rivers, fast currents with sand or gravel substrates	No	No

Species ¹	Occurrence	Habitat Association	Potential Habitat in Project Area?	Potential Impact/Issue?
Greenback cutthroat trout (FT, ST) <i>Oncorhynchus clarkia stomias</i>	Front Range mountain streams, recently on west slope	Montane clear, cold streams	No	No
Humpback chub (FE, ST) <i>Gila cypha</i>	Green, Yampa and Colorado Rivers	Pools and eddies in areas of fast-flowing, deep, turbid water, often associated with cliffs and boulders	No	No
Iowa darter (SGCN) <i>Etheostoma exile</i>	Plains rivers	Springs	No	No
Lake chub (SE) <i>Couesius plumbeus</i>	North Platte	Gravel bottomed pools and streams	No	No
Mountain sucker (SGCN) <i>Catostomus platyrhynchus</i>	Numerous small to medium streams below 8600' elevation.	Throughout west on both sides of Continental Divide-prefer clear cold creeks and small to medium rivers with rubble, gravel, or sand substrate	No	No
Northern redbelly dace (SE) <i>Phoxinus eos</i>	South Platte basin	Small slow-flowing streams and connected lakes with vegetation	No	No
Orangespotted sunfish (SGCN) <i>Lepomis humilis</i>	Widespread across middle and eastern U.S.	Shallow silt-laden waters, floodplain pools, backwater pools of larger streams on plains	No	No
Plains orangethroat darter (SGCN) <i>Etheostoma spectabile</i>	Arikaree and Republican River drainages	Small, clear, spring-fed streams with sand, gravel or rocky bottoms and no silt	No	No
Plains minnow (SE) <i>Hybognathus placitus</i>	Arkansas & South Platte basins	Main channels of rivers, also in pools below diversion projects	No	No
Razorback sucker (FE, SE) <i>Xyrauchen texanus</i>	Lower Yampa and lower Colorado Rivers	Deep, clear to turbid waters of large rivers and reservoirs, with silt, mud, or gravel substrate. Quiet, soft-bottom river backwaters	No	No
Rio Grande Chub (SGCN) <i>Gila pandora</i>	Rio Grande basin	Pools and streams with gravel substrate and overhanging banks and brush	No	No
Rio Grande cutthroat trout (SGCN) <i>Oncorhynchus clarkia virginalis</i>	Rio Grande basin	Clear, cold, swift moving creeks and streams in montane environs	No	No
Rio Grande sucker (SE) <i>Catostomas plebeius</i>	Rio Grande basin	Stream obligate using slow moving reaches	No	No
Southern redbelly dace (SE) <i>Phoxinus erythrogaster</i>	Arkansas River basin	small, low-order streams where the habitat includes permanent springs, seeps, and mats of vegetation	No	No
Stonecat (SGCN) <i>Noturus flavus</i>	South Platte and Republican basins	Fast riffles and runs in streams with sand or gravel bottoms with some rocks- found under rocks and debris	No	No
Suckermouth minnow (SE) <i>Phenacobius mirabilis</i>	South Platte and Arkansas River drainages	Shallow, clear riffles with sand and gravel substrates	No	No
REPTILES				
Triploid Checkered whiptail (SGCN) <i>Cnemidophorus neotesselatus</i>	Arkansas drainage in Eastern Colorado	Hillsides, arroyos and canyons associated w/ Arkansas River valley	No	No
Massasagua (SGCN) <i>Sistrurus catenatus</i>	Southeast Colorado below 5,500'	Dry plains grasslands and sandhills	No	No

Species ¹	Occurrence	Habitat Association	Potential Habitat in Project Area?	Potential Impact/Issue?
MOLLUSKS				
Cylindrical papershell (SGCN) <i>Anodontooides ferussacianus</i>	Boulder County	Headwater creeks and streams with silty/muddy substrates	No	No
Rocky Mountain Capshell (SGCN) <i>Acroloxus coloradensis</i>	Rocky Mountains into Canada	8,500 to 10,000' mountain lakes	No	No
Source: CPW 2015 FE = Federally Endangered; FT = Federally Threatened; SE = State Endangered; ST = State Threatened; SGCN = Species of Greatest Conservation Need				

Canada lynx has already been addressed under section **4.1 Federally Listed Species** and are not further considered in this section.

5.1.5.2.1. Bat Species

Status: Species of Greatest Conservation Need (SGCN)

The fringed myotis, little brown myotis, and Townsend's big-eared bat may all occur commonly, or incidentally in the project area. The mosaic of shrubby habitats and woodlands located in the area are suitable foraging and diurnal roosting habitat for these species. The likely limiting factor for use of the area by these bats would be the lack of caves. The numerous creeks and ponds would likely be used by these species as foraging habitat. The project location is also proximal to rocky cliffs and outcrops which provide roosting habitat and may see additional use of the area by bat species.

Surveys for these species have not occurred, and their use of the area is assumed, as the project area is within the range of these species and supports suitable habitats. Surveys would only be required if requested by agencies.

Effects of Proposed Development. Impacts to this species would likely be limited to minor decreases in available foraging habitat, and potential disturbance to foraging animals. These impacts are anticipated to be minimal due to the small scale of the project footprint and large expanses of similar foraging habitat throughout the watershed.

5.1.5.2.2. River Otter (*Lontra canadensis*)

Status: State Threatened

Northern river otter inhabits riparian habitats that may occur from low elevation deserts to high valleys of Colorado. Otters require permanent water of relatively high quality with an abundance of fish and/or crustaceans (crayfish). Otters also usually are found in streams with high flows (minimum of 10 cfs). During the winter months, otters also need streams with relatively high amounts of open, ice-free water, deep pools, and good access to the shoreline. Historically and currently in Colorado, otters are mostly commonly found in larger rivers at low or moderate elevations. Otters are also known to have colonized larger ponds, lakes and flooded gravel pits.

Fish are the primary food source for otters, particularly slow-swimming fish species. In streams where they are abundant, crayfish can make up a significant portion of otter's diet. Most research

indicates that abundant prey is needed to support otter use of an area (Mack 1985, Malville 1990, Melquist et al. 1981).

Because of the river otter's aquatic life, many aspects of the species' behavior and ecology are not well understood. They are active year-round, and do not hibernate. Otters in the Upper Colorado drainage are mostly diurnal in winter and more nocturnal in summer, with the least activity in late summer and early fall. River otters are social, forming family groups led by the adult female, who may exhibit territorial behavior. Yearling otters, unrelated juveniles, and occasional adult otters may join with family groups.

River otters use both terrestrial resting sites and dens when not actively moving. Beaver bank dens are particularly favored sites. Along the Colorado River and Eagle River, they accounted for most of the denning sites used (Andree pers. com. 2005).

Adult otters apparently have few natural predators, although individuals have been killed by bobcats, dogs, coyotes, and foxes (Fitzgerald et al. 1994). Most mortality is thought to occur from trapping and road kills. Habitat destruction and water pollution have an impact as well.

The river otter once occurred in most of the major river drainages in Colorado and was extirpated. Starting in 1976, Colorado started reintroduction efforts in several drainages, with an initial goal of establishing two populations (Goodman 1984). In 1998 a more intensive reintroduction program was started by CPW. River otters are now known to utilize the Eagle and Colorado rivers, downstream of Dowd Junction.

Effects of Proposed Development. This project is adjacent to Cross Creek. This stretch of Cross Creek and the confluence with the Eagle River is mostly iced over during the winter months and has less than 10 cfs flows. Habitats in this area could support river otter use, but likely do not support the amount of fish needed to support long-term or consistent river otter use.

Because of habitat limitations, river otter occupancy and thus impacts in the project area are likely very limited. Summertime use of dispersing males may occur, but they would likely seek deeper and larger streams. Therefore, this project should have no impact on river otters or their habitat.

5.1.5.2.3. Brown-capped Rosy Finch (*Leucosticte australis*)

Status: SGCN

Like the other rosy-finches, the brown-capped rosy-finch is a bird of the high mountains, breeding above timberline. It has the smallest range of the three American species, being found primarily in Colorado. It primarily occurs above timberline wherever proper cliffs, caves, rockslides, or old buildings provide nest sites, and where adequate feeding grounds on tundra, rock slides, snowfields, and glaciers are within commuting distance. It winters in open areas, including alpine tundra during fair weather, and in high parks, meadows, and open valleys of grass or open shrubland between mountain ranges. It commonly visits bird feeders and is seen in mountain towns during very cold and snowy weather.

Effects of Proposed Development. As this species occurs primarily in alpine habitats, it would only occur in the project area during the coldest and snowiest part of winter and would likely be drawn to bird feeders. This project would not impact nesting or foraging habitats for this species, and there would be no negative impacts to this species from the project.

5.1.5.2.4. Golden Eagle (*Aquila chrysaetos*)Status: SGCN

Bald and golden eagles are afforded additional legal protection through the Bald and Golden Eagle Protection Act (BGEPA), which provides for the protection of these eagles by prohibiting the taking, possession, and commercial use of such birds, except under certain specific conditions. Although bald and golden eagles occur in Eagle County, bald eagles typically nest in forested areas adjacent to large bodies of water and prefer tall, mature trees that afford a wide view of the surroundings. Golden eagles build nests on cliffs that often afford an unobstructed view of the surrounding habitat. Golden eagle may nest on the large cliffs to the northeast of Minturn but are not known to nest near the project area. Therefore, the occurrence of these species in the study area would likely be only temporary during foraging activities.

Effects of Proposed Development. Golden eagle may hunt the area but would not be anticipated to use the area extensively given the small size of the project area and nearby presence of Highway 24. There are no known bald or golden eagle nests in proximity to the study area. The project would not likely have any measurable impact on this species.

5.1.5.2.5. Peregrine Falcon (*Falco peregrinus anatum*)Status: SGCN

Peregrine falcons are known to nest on the cliff bands overlooking Bolts Lake. Populations declined precipitously from DDT in the 1960s and 1970s, but populations are improving throughout their range, including Colorado. But peregrine populations are still low and sensitive to disturbances. Even though collection of eggs is permitted in the state of Colorado, if collected incorrectly or by indiscriminate poachers, the nest may be abandoned.

Peregrines typically nest near the top of large prominent cliffs in either canyons, or on mesas, mountaintops, and cliff bands. Peregrine will usually change their nest location from year to year within a cliff face, selecting new ledges (perhaps due to parasite loading in previous nest sites) on which to scrape out a shallow depression for their eggs. Therefore, peregrines may end up utilizing the majority of a cliff band over a span of years (Craig and Enderson 2004). Peregrine nests are typically overlooking riparian systems that tend to provide high insect production that feeds their primary prey: white-throated swifts, doves, nighthawks, and robins.

Peregrine will generally hunt within approximately 10 miles of their nest site, so the nesting peregrines likely use the Eagle River, Cross Creek, Homestake Creek, Gore Creek, and Turkey Creek drainages.

Effects of Proposed Development. Construction of the project are not likely to impact peregrine activities. As the project area is mostly greater than 1.25 miles from the nest site, the loud noises and activity from the construction would not likely cause peregrines to abandon nesting activities in the short period that construction is proceeding, or in the years after construction. It is common knowledge that peregrines can be very tolerant of noise and human activity as witnessed by peregrines use of high-rise buildings in urban settings such as downtown Denver. Further, the presence of Highway 24 (which is less than ¼ mile from the nest) which commonly sees loud trucks using exhaust brakes, and the presence of the target-shooting range near the base of the cliff

bands, may therefore attenuate the impacts of construction noises, and these impacts should not be something foreign for the peregrines using the cliffs above the highway.

5.1.5.2.6. Boreal Toad (*Anaxyrus boreas boreas*)

Status: State Endangered

The boreal toad inhabits marshes, wet meadows, and the margins of streams, beaver ponds, lakes and glacial kettle ponds between 7,000 and 11,860 feet in Colorado (Hammerson 1999). Please see Goettl and Boreal Toad Recovery Team (BTRT 1997), the Boreal Toad Conservation Strategy Team (BTCST 1997), and Loeffler (1998) for more detailed boreal toad life history information.

Within the project area, beaver pond complexes and wetlands present in the area support potentially suitable boreal toad habitat.

Effects of Proposed Development. Boreal toads are not likely to be present in the upland areas of the project area. The development of the project would not impact the wetland habitats in Cross creek, where boreal toads may occur. There is a very low likelihood that individual boreal toads may disperse into upland areas, or be crossing the road, and see direct impacts, but this is a relatively low likelihood considering boreal toad populations in the area are very low, and most of their dispersal activities occur at night. Use of BMPs and other stormwater controls would also reduce indirect impacts to boreal toad habitats along Cross Creek.

5.1.5.2.7. Colorado River Cutthroat Trout (*Oncorhynchus clarkii pleuriticus*)

In the vicinity of the project area, Cross Creek is highly braided, with the main channel width averaging around 45-feet wide. It has a well-established riparian corridor, which has only been marginally impacted by the WTP access road in a few places. Willows, birch (*Betula occidentalis* and *B. glandulosa*), blue spruce (*Picea pungens*), and numerous understory hydric graminoids and forbs occur in this area. According to CPW data (albeit this data set is relatively old), brook trout (*Salvelinus fontinalis*), brown trout (*Salmo trutta*), rainbow trout (*Oncorhynchus mykiss*), and Colorado native cutthroat trout (*Oncorhynchus clarkii*, unknown lineage) occurred in this reach.

Cross Creek is within the range of the native cutthroat trout. More recent genetic and meristic (physical measurement) studies have clarified the situation involving native cutthroat trout in western slope streams and provided evidence of six historical native lineages of native trout in Colorado (Metcalf et al. 2012, Bestgen et al. 2013). These studies identified the greenback in the South Platte River system, the yellowfin in the Arkansas River system, the Green Lineage in the Colorado-Gunnison-Dolores River system, the Blue Lineage in the Yampa-White River system, and an extinct lineage in the San Juan River system. Additional studies, currently underway, are expected to clarify further the genetic, taxonomic, and evolutionary relationship of the five identified strains/subspecies of native cutthroat trout in Colorado.

The Blue Lineage cutthroat has been widely introduced in western Colorado. This lineage is currently being managed as a Species of Greatest Conservation Need by CPW based on its more widespread distribution, largely related to its prior use as the strain used in hatcheries for stocking programs. This lineage was commonly considered to be the Colorado River cutthroat trout.

Blue Lineage cutthroat trout are similar ecologically to other cutthroat trout species inhabiting streams of the western United States. Blue Lineage cutthroat trout favor relatively clear, cold

waters preying primarily on aquatic and terrestrial invertebrates. Existing Blue Lineage cutthroat trout populations are restricted to montane and high elevation streams and lakes where populations often have been protected by natural and man-made fish movement barriers.

Spawning begins following peak runoff flows and ends prior to the end of runoff in spring or early summer (Young 1995). Riffles or runs with the appropriate combination of depth and water velocity with clean gravels are used for spawning. Fry emerge from spawning gravels in late summer to early fall (Young 1995), but timing of fry emergence varies depending on elevation and water temperature. In streams occupied by Blue Lineage trout, deep pools, mainly created by large woody debris, have been found to be important for adults for both feeding and over-wintering habitats.

Native cutthroat trout (including Blue Lineage cutthroat trout) populations declined rapidly following immigration and settlement of Colorado in the mid- to late 1800s. Pollution from mining, stream dewatering for agriculture, commercial harvest and introduction of non-native salmonids significantly reduced their populations. Native cutthroat trout also readily interbreed with rainbow trout and do not coexist well with other introduced fishes, including brook trout or brown trout due to extreme competition and, particularly for the brown trout, heavy predation on larvae and subadults of other trout species. Introductions and subsequent habitat invasions by these non-native trout eliminated native cutthroat trout from most of their known habitat range (Young and Harig 2001). The decline of native cutthroats occurred so rapidly that their complete historic distribution is not well documented (USFWS 1998).

Genetically pure Blue Lineage trout are present in all reaches of Cross Creek totaling 8.1 miles (CRCT Recovery Team 2001, CPW WRIS maps). A Core Conservation Population is present in Cross Creek #2 and a Core Conservation Population or Conservation Population is present in Cross Creek West (i.e., the upper reaches of Cross Creek; CRCT Recovery Team 2001). Because Blue Lineage fish only persist in isolation from non-native trout, there must be barriers present on inhabited streams. Before water quality remediation, the degraded water quality of the Eagle River likely functioned as the effective barrier keeping non-native trout out of Cross Creek. However, non-native trout are now present in the Eagle River at and above the confluence with Cross Creek; therefore, barriers must also occur in upper Cross Creek at some level of effectiveness. It is uncertain where 100% effective barriers occur in Cross Creek (B. Andree, CPW pers. comm 1/7/2008). One barrier most noted is the waterfall below Reed's Meadows, approximately 6.5 to 7 miles above the Eagle River confluence (B. Andree, CPW pers. comm 1/7/2008, B. Healy USFS pers. comm. 1/10/2008). Other waterfalls are also present in steeper gradient, upper portions of the creek.

The project is separated from Cross Creek by the 16-foot wide WTP access road, and near the tank pad, the WTP facilities also separate the project area from Cross Creek. The actual construction and use of the tanks and site are relatively far from Cross Creek, and no direct or indirect impacts from the facilities would be anticipated. However, the access road leading up to the tank site does come in close proximity for extended reaches in a few places. With increased road use, sediments from the dirt road will become mobilized, especially during heavy rain events or snowmelt events. Fine sediments can be washed off the road and into Cross Creek, which could negatively impact fish habitats. Small amounts of stormwater runoff from the access road would have little impact

on the creek and habitats, given the size of the creek, and flushing abilities. However, prolonged or larger sediment events can smother aquatic macroinvertebrates (the primary prey species for trout), fill in interstitial areas in gravels, and reduce habitat effectiveness for trout. Proper road maintenance and use of BMPs along the access road during the construction period is recommended to reduce the risk of sediments reaching Cross Creek. As most of the access road is on U.S. Forest Service-managed lands, coordination on this with the USFS would need to occur.

5.1.5.3. Elk Winter Range

One of the main concerns is impacts to wintering elk. The large, south facing slopes around Cross Creek are important winter range for a large number of elk. CPW has mapped these areas as both Critical Winter Range and a Winter Concentration Area (**Figure 10**). As mentioned, approximately 1 acre of mixed mountain shrublands would be removed for the foreseeable future (a direct impact to winter range availability).

Construction would occur outside of the winter season, which runs from December 1 through April 15, and therefore there would be no indirect impacts to wintering elk utilizing the area. After construction has completed, the tanks would tank minimal maintenance and would see very low levels of human activity around them, especially during the winter months when elk may be in the area. As previously discussed, as the tank would not emit loud noises, would not have nighttime lighting (aside from critical maintenance periods), and very low levels of human visitation or activity, there should be very low indirect impacts associated with the tanks long term operations.

As a consideration for wintering elk, the Town should consider avoiding any more extensive maintenance operations until after, or outside of, the winter season (December 1 through April 15).

Figure 10: Elk Winter Ranges



ELK HABITAT

Minturn Tank

LEGEND

- Proposed Tank Location
- Township/Range/Section
- Colorado Parks and Wildlife Activity**
- Elk Winter Concentration Area
- Elk Severe Winter Range
- Elk Winter Range
- Land Ownership**
- Private
- Forest Service



Disclaimer:
 This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information. The maps are distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use.



Date: 11/9/2020
 Location: 39.5659, -106.41846
 Created By: SGM
 Drawn By: IDF



SCALE: 1" = 2,000 feet

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) focuses on regulating the “taking” of migratory birds and introduced the concept of “take” to federal law. Take (defined at 50 CFR 10.12) is “to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt” any of the foregoing can be intentional or unintentional, and occur through several means” (USFWS Migratory Bird Permits 2003). The USFWS Information for Planning and Consultation (IPaC) report (USFWS 2019), identified the olive-sided flycatcher (*Contopus cooperi*) and the rufous hummingbird (*Selasphorus rufus*) as migratory birds of concern that may occur within the study area.

Construction activities would occur during the breeding season for migratory birds (approximately May 1 to August 31), but no tree removal would occur during the nesting season. Olive-sided flycatchers may occur and nest in the large conifers along Cross Creek. The project area is approximately 170 feet from the nearest suitable nesting tree but given the location of the WTP (which is even closer to nesting trees), this species, if they do nest in the area, are already somewhat accustomed to human activities. Nevertheless, loud construction noises, cranes, and other human activities may discourage or even preclude nesting in this area for the one construction season. After construction is complete, olive-sided flycatchers would be able to nest and forage along Cross Creek with little to no impacts from the presence of the tanks.

The rufous hummingbird does not nest in Colorado; but the project area is along their migration route. Migrating individuals would be able to avoid human activities around the tank project area during their migrations, and no impacts to nesting individuals would be anticipated. After construction, the presence of the tanks would have little impact on migrating hummingbirds’ ability to forage on the hillsides around the project.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone without a permit from “taking” or disturbing bald and golden eagles, including their parts, nests, or eggs. There are some large trees located within the study area along Cross Creek, which could be suitable foraging or nesting habitat for bald eagles. However, there are no visible or historical nests in the trees. If at any time an active nest is observed, USFWS will be contacted and construction activities will be halted until further coordination on appropriate buffers and timing occurs.

5.1.6. Cultural, Historical and Archeological Resources

The project area was subjected to an intensive pedestrian inventory for cultural resources (Class III Inventory) by Metcalf Archeological Consultants. At the time of the investigation, the project area had already been disturbed by rough earthwork for the access road and tank pad site. Based on a file search of the COMPASS database, there are no previous surveys that overlap the Area of Potential Effect (APE). Within one mile, there are 28 previously recorded cultural resource sites and isolated finds. These resources are a mix of a small number of prehistoric isolates and sites (mostly lithic scatters), and mostly are historic sites related to the development of the area including buildings, cabins, mining features, water control features/ditches, railroad segments, roads and highways, and a pipeline (Metcalf 2021).

The project area does have some potential for both historic and prehistoric sites, based on previous recordings in the vicinity, but considering the small size of the project area and that it was disturbed

by earthmoving operations, the potential of finding cultural resources is very low (**Appendix A**). The Cultural Resource Inventory report has also been sent to the Colorado State Historic Preservation Office (SHPO) for their review. There are no sites listed on the National or State Register of Historical Places located within the project area. Based on this assessment, there is no potential for impact to historic properties, a finding of ***no historic properties affected*** is warranted.

5.1.7. Air Quality

The project area is not within a non-attainment zone therefore air quality mitigation and control is not mandated at the federal regulatory level. According to the 2018 Air Quality Data Report for the State of Colorado, Minturn falls within the Central Mountains Region and the region is in compliance with federal air quality standards.

Air Quality Environmental Consequences

Dust generation contributes directly to air quality issues and can cause major impacts if mitigation is not put in place during construction. In addition to an increase in particulate matter from construction dust and activities, large equipment and vehicles use diesel fuel which can contribute carbon monoxide, nitrogen oxides, and other volatile organic compounds. A major source of ground level ozone is on-road vehicles. A temporary increase in such releases may be experienced during construction but will not last once construction of the proposed action is complete. After construction is completed, the water pipeline will not contribute any new sources of air pollution to the region.

Air Quality Mitigation

To mitigate air pollution issues during construction, methods such as watering and/or avoiding ground disturbing activities during high winds should be utilized. In addition, the transportation of materials and equipment should be done in the most efficient way possible to reduce frequency of trips and avoid travel on poor air quality days.

5.1.8. Environmental Justice

The proposed action takes place entirely on Town-owned lands and would therefore have minimal impacts to the socio-economic and environmental justice environment. However, it can be expected that construction of the proposed action would generate approximately 12 weeks of full-time work for a crew of 20.

During construction of the proposed action, SH-24 through Minturn may see a 1.6 to 2.5 percent increase in traffic. Once construction is complete the area will return to pre-construction traffic levels.

The last reported population for Minturn in the 2018 Census was 1,090 persons, with a median household income of \$87,500, with 5.05% of the population below the poverty level. The Town reports that 26.2% of the population is Hispanic, Latino or a mixture of both, 65.9% is white, and 3.03% is African American. The project area is outside of any residential neighborhoods.

Construction of the new water storage tanks will positively impact the community by improving water quality and ensuring each citizen has access to clean and safe drinking water. Increasing trust and understanding about the drinking water system can help lead to more confidence in

consumers utilizing the high-quality water provided by municipal systems and can help reduce costs associated with purchasing bottled water.

5.2. Unavoidable Adverse Impacts

5.2.1. Big Game Winter Range Impacts

CPW Comments. CPW Area Wildlife Manager Matt Yamashita provided comments on December 10, 2020 (**Appendix D**). They provided background information regarding declining elk populations within (and around) the project area, within the 865,000-acre (1,351 square mile) elk Data Analysis Unit (DAU) E-16. This DAU has seen elk number drop 60 percent in the past 10 years, which is an unprecedented decline. Additionally, CPW indicated that mule deer herds in this area are also below target. CPW did provide the reasons why this dramatic decrease in elk and mule deer populations have occurred in their comment letter, but a common hypothesis is increased year-round recreational pressures, among other impacts to winter range, have resulted in much lower calf production and survivorship.

In the Maloit Park area CPW stated that habitat loss and human disturbance are significant concerns for mule deer and elk. The Maloit Park area currently supports approximately 15 small homesites and the Vail Ski and Snowboard Academy. The area also supports a groomed cross country trail system and snowshoeing trails. As previously discussed in this Environmental Assessment, the south facing slopes in the greater area provide important elk (and to a less extent, mule deer) winter ranges, including Severe and Winter Concentration Areas.

CPW stated that the new 230-foot access road and two new water tanks would result in direct impacts to winter ranges, but their other concern is that with increased water supply to Minturn, this could also result in increased development in the greater Minturn and Maloit Park areas. CPW has urged the Town and CDPHE to consider the how the long-term indirect impacts of additional water supply could result in greater regional development, which could continue to impact big game species and their habitats.

CPW provided the following requests as “best management practices:”

- Construction & maintenance should occur outside of the December 1 – April 30th timeframe, annually, to protect wintering elk.
- Sites disturbed during construction should be immediately reclaimed with a CPW approved big game seed mix to provide adequate forage and reduce the potential for weeds. The site should be monitored for weeds on an annual basis.
- Any improved roads should be closed to the general public to reduce disturbance.
- Recommend holistic approach to assessing impacts to wildlife and natural resources in the local area. This locale is slated for a variety of actions that will result in both direct and indirect impacts to wildlife. CPW welcomes continued dialogue surrounding how to anticipate, minimize or avoid these impacts.

Town Response: The water storage tank project is needed for current, as well as future anticipated water needs. Failure to implement this project would put into jeopardy the fiduciary responsibility of the Town to provide its residents and businesses with reliable potable water sources.

- Construction and maintenance activities (unless emergency-related) would occur outside of the December 1 to April 30th timeframe, consistent with CPW’s request.
- Disturbed areas not needed for operations will use a CPW-approved seed mix.
- The area will be monitored, and noxious weeds will be controlled, per State and Eagle County requirements.
- The access road is currently gated and does not allow public vehicle access; the Town cannot preclude pedestrians from utilizing the road section on Forest Service lands.
 - The Town would consider working with the USFS and CPW to provide signage and a seasonal closure for pedestrian traffic on the WTP access road.
- The Town has no other development projects planned in the area around the water storage tanks; the lands around the tanks are managed by the U.S. Forest Service.
- Maloit Park is not within Town limits, and development in the Maloit Park area is under the jurisdiction of Eagle County.

Within the greater area, recreational and residential development would be regulated by both Eagle County, and the Town of Minturn (specifically on Battle Mountain parcels). At this time the Town is not processing applications for development on these lands, and if an application is provided, the Town would seek comments and input from CPW.

5.2.2. Stormwater Runoff

Construction activities could increase erosion and sedimentation and the amount of runoff generated from the site. However, BMPs will be used during construction and until the site is stabilized to minimize off-site discharges. A CDPHE-WQCD General Construction Stormwater Permit would be obtained for all the construction activities which will include a Stormwater Management Plan which would identify sediment control measures to be implemented during construction.

5.2.3. Commitment of Resources

This project has already been started, prior to the Town seeking grant monies from CDPHE. It is unknown if the Town has adequate funding to complete the project without additional grant monies.

5.2.4. Potential Wildlife Habitat Loss

Through analysis of vegetation, elevation, and habitat requirements, it was determined that no suitable habitat exists within the study area for any of the federally listed species. There would be approximately 1-acre of mixed mountain shrubland habitats impacted from this project. During construction there would be indirect impacts around the project area, reducing or precluding some wildlife use. After the construction period is over, wildlife use patterns around the project area should return to near pre-construction levels. The project is not anticipated to create any meaningful impacts to local wildlife populations or habitat availability.

5.2.5. Traffic

There will be short term 1.6 to 2.4 percent increases in traffic along SH-24 during the construction process. This may back-up or delay traffic through Minturn, especially when larger equipment is

being brought in. Some minor slowing of traffic at the SH-24 and access road may also occur from trucks entering/existing the highway during the construction process.

With the exception of construction, no other increases in traffic should occur in the project area.

5.2.6. Materials, Contamination, Chemicals, and Gases

Construction of the proposed tanks and pipeline would not require the use of contaminants except for fuel for the construction equipment and vehicles. A Spill Prevention plan will be implemented by the contractor dealing with fuel storage and transfer procedures and specific procedures to follow in the event of a spill.

Post-construction operation of the tanks and pipelines will not introduce any materials contamination, chemicals, or gases into the environment. The water tanks and pipelines will only carry potable water, so any breaks or ruptures should have no negative impacts or release of contaminants to the environment.

5.3. Mitigation of Adverse Impacts

This project would acquire a General Permit for Stormwater Discharges Associated with Construction Activities (stormwater construction permit). The plan and stipulations associated with adherence to the permit will help reduce un-mitigated stormwater discharges from the construction area, which will help reduce potential impacts to surface and ground waters in the area.

5.4. Public Participation

Scoping letters describing the project and inviting public input were mailed to potential interested parties on November 11, 2020. Two letters were received within the 45-day response period. The agencies contacted are listed in **Table 5-1**.

5.5. Reference Documents

The following documents were utilized in the preparation of this assessment:

- Class III Cultural Resource Inventory of the Proposed Town of Minturn Water Tank, Eagle County, Colorado. Metcalf Archaeological Consultants, Inc. November 11, 2020.

5.6. Agencies Contacted

A summary of agencies that were contacted is provided in **Table 5-2**. Copies of written correspondence sent to (and received from) local, state, and federal agencies contacted are provided in **Appendix C**.

Table 5-2. Agencies Contacted

Agency	Contact	Date of Initial Notification Letter	Date of Response Letter
U.S. Corps of Engineers	U.S. Army Corps of Engineers Colorado West Regulatory Office 400 Rood Ave, Room 142	November 11, 2020	None

Agency	Contact	Date of Initial Notification Letter	Date of Response Letter
	Grand Junction, CO 81501-2563		
Natural Resource Conservation Service	John E. Andrews State Conservation Engineer Building 56, Room 2604 PO Box 25426 Denver, CO 80225-0426	November 11, 2020	12/8/2020
CDPHE Air Pollution Officer	Colorado Department of Public Health and Environment Air Pollution Office Attention: Jim DiLeo 4300 Cherry Creek Drive South Denver, CO 80246-1530	November 11, 2020	None
Colorado Parks and Wildlife	Colorado Parks and Wildlife 88 Wildlife Way Glenwood Springs, CO 81601	November 11, 2020	None
Colorado State Engineer's Office	Department of Natural Resources Division of Water Resources Attn: Dick Wolfe, State Engineer 1313 Sherman St., Rm. 818 Denver, CO 80203 Division of Water Resources, Division 5 Attn: Alan Martellero 202 Center Drive Glenwood Springs, CO 81601	November 11, 2020	11/20/2020
National Park Service	Gary Weiner Regional Director 12795 Alameda Parkway Denver, CO 80225	November 11, 2020	None
Bureau of Land Management	Bureau of Land Management Colorado River Valley Field Office Attn: Larry Sandoval, Field Manager 2300 River Frontage Road Silt, CO 81652	November 11, 2020	None
United States Forest Service	U.S. Forest Service Eagle-Holy Cross Ranger District 24747 US Highway 24 Minturn, CO 81645	November 11, 2020	None
United States Fish and Wildlife Service	U.S. Fish & Wildlife Service Western Colorado Field Office 764 Horizon Drive, Building B Grand Junction, Colorado 81506-3946	November 11, 2020	None
Ute Mountain Ute Tribe	Manuel Heart Chairman	November 12, 2020	None

Agency	Contact	Date of Initial Notification Letter	Date of Response Letter
	P.O Box JJ Towaoc, CO 81334-0248		
Southern Ute Indian Tribe	Christine Sage Chairman P.O. Box 737 Ignacio, CO 81137	November 12, 2020	None
Ute Indian Tribe (Uinta & Ouray Reservation)	Luke Duncan Chairman P.O. Box 190 Ft. Duchesne, UT 84026	November 12, 2020	None

6. REFERENCES

DataUSA. 2021. Minturn, Colorado census data. Available at: <https://datausa.io/profile/geo/minturn-co>.

Town of Minturn. 2009. 2009 Community Plan. Available at:
<https://www.minturn.org/sites/g/files/vyhlf3486/f/uploads/2009communityplan.pdf>

Town of Minturn. 2016. Minturn Economic Development Strategic Plan. Available at:
https://www.minturn.org/sites/g/files/vyhlf3486/f/uploads/economic_development_strategic_plan.pdf

U.S. Fish and Wildlife Service. 2018a. National Wetlands Inventory. Available at:
<http://www.fws.gov/wetlands>. Accessed February 2018.

———. 2018b. Information for Planning and Consultation (IPaC). Available at: <http://ecos.fws.gov/ipac/>.
Accessed May 7, 2018.

———. 2018c. U.S. Fish and Wildlife Service Critical Habitat Portal. Available at:
<http://criticalhabitat.fws.gov/>. Accessed December 2018.

U.S. Geological Survey (USGS). 2013. National Hydrography Dataset. Available at: <http://nhd.usgs.gov/>.
Accessed December 2020.

7. APPENDIX A: CULTURAL RESOURCES REPORT


LIMITED-RESULTS CULTURAL RESOURCE SURVEY FORM

(Page 1 of 15)

This form (#1420) is for small scale limited results projects - block surveys less than 160 acres with linear surveys under four miles. Additionally, there should be no sites and a maximum of four Isolated Finds. This form must be typed.

I. IDENTIFICATION

1. Report Title (include County): Class III Cultural Resource Inventory of the Proposed Town of Minturn Water Tank , Eagle County, Colorado.
2. Date of Field Work: November 20, 2020
3. Form completed by: Jenean Roberts Date: 11/25/2020
4. Survey Organization/Agency: Metcalf Archaeological Consultants, Inc.
Principal Investigator: Melissa Elkins

Principal Investigator's Signature: 
Other Crew: n/a

Address: 11495 W 8th Ave. Suite #104, Lakewood, CO 80215
5. Lead Agency / Land Owner: Town of Minturn. The project requires Section 106 compliance because the town is seeking funding through the state agency Colorado Department of Public Health and Environment (CDPHE).

Contact: Eric Petterson
Address: 118 West 6th Street, Suite 200, Glenwood Springs, CO 81601
6. Client: SGM Inc.
7. Permit Type and Number: Bureau of Land Management CO C-39290
(Expires 10/1/22).
8. Report / Contract Number: Metcalf Project Number 2020.CO.110
9. Comments: _____

II. DESCRIPTION OF UNDERTAKING / PROJECT

10. Type of Undertaking: Construction of a new water tank for the town of Minturn. An existing access road will be used.
11. Size of Undertaking (acres): 3.6 Size of Project (if different) N/A

12. Nature of the Anticipated Disturbance: This project will involve the construction of a new water tank. Just over three and a half acres were inventoried for the water tank and access road improvements. Access for the water tower is an existing road that leads to the project area from Interstate 24. The anticipated disturbance for the water tank is approximately 3.6 acres which was all Class III inventoried; this acreage is defined as the area of potential affect (APE) for the current undertaking.

13. Comments: _____

III. PROJECT LOCATION

Please attach a photocopy of USGS Quad. clearly showing the project location. The Quad. should be clearly labeled with the Prime Meridian, Township, Range, Section(s), Quad. map name, size, and date. Please do not reduce or enlarge the photocopy.

14. Description: The project area is located approximately 1.75 miles southeast of the center of Minturn, in Eagle County, Colorado

15. Legal Location: Quad. Map: Minturn Date(s): 1970 (PR 1987)
Principal Meridian: 6th X NM Ute
Township: 6S Range: 81W Sec.: Unsectioned Land 1/4s

If section(s) is irregular, explain alignment method: _____

16. Total number of acres surveyed: 3.6

17. Comments: The land south of Township 5S, Range 81W is not sectioned on the USGS map. The project area is located just south of Township 5S, Range 81W, Section 35.

IV. ENVIRONMENT

18. General Topographic Setting: Located in the Middle Rocky Mountains physiographic division (Fenneman 1946), the project area is located within the Town of Minturn, on its southwestern edge, alongside the private Cross Creek subdivision, but specifically on Town of Minturn owned lands adjacent to the White River National Forest. The project area is accessed by the Cross Creek Road that begins immediately adjacent to Hwy 24 (on its west side behind a locked gate) and extends west and south for about a half mile to the proposed tank location. The APE is specifically located in the Cross Creek Valley atop a low ridge

with the higher ridges and mountains to the west and south. The ridge where the tank will be constructed slopes abruptly to the southeast. The northwest side of the location rises steeply in elevation up to 8400 feet, whereas the tank pad sits at an average elevation of 8200 feet. The bedrock geology of the larger area consists of six major categories: (1) Precambrian crystalline rocks, (2) a thin but economically significant sequence of pre-Pennsylvanian Paleozoic sedimentary rocks, (3) a thick sequence of Pennsylvanian and Permian sedimentary rocks, (4) a thin sequence of Mesozoic sedimentary rocks preserved in an area of only about a square mile (2.6 square kilometres) in the northwest corner of the quadrangle, (5) scattered Upper Cretaceous and Tertiary intrusive igneous and volcanic rocks, and (6) unconsolidated Quaternary surficial deposits, mainly of glacial origin. Specific to the project area, the Minturn Formation consists predominantly of grit, conglomerate, and sandstone in lenticular beds. These rocks are highly arkosic, micaceous, coarse grained, and poorly sorted (Tweto and Lovering 1977). Ecologically, the project area is in the sedimentary subalpine forests of the Southern Rockies (Chapman et al. 2006). The closest permanent water source to the project area is Cross Creek immediately to the east and south of APE (at a distance of less than 500 feet). Martin Creek is to the northwest.

Current Land Use: None. Adjacent trails are used for hikers from Minturn, and the areas immediately surrounding the APE (to the south and east) have existing Town of Minturn water facilities including buildings and a fenced pond. The area to the northwest of the tank location is undeveloped steep slopes.

19. Flora: The proposed pad and access road had previously been cleared of vegetation (bulldozed prior to inventory). Vegetation in the area immediately surrounding the APE consists of sagebrush, grasses, forbs, pinyon pine, and aspen trees.

20. Soils/Geology: As mapped by the United States Department of Agriculture, National Resource Conservation Service (USDA-NRCS 2020), soils within the project area are dominated by Handran family till substratum which consists of gravelly loam and gravelly sandy loam derived from igneous and sedimentary rock. In the APE, surface sediments consist of dark brown silty loam with some clay content and a large amount of small angular gravels. Construction within the tank pad has revealed a multitude of sandstone and quartzite rocks and larger boulders in a variety of sizes from small fist-sized up to 10 ft long boulders exposed in the northwest wall of the location.

21. Ground Visibility: Ground surface visibility in the majority of the APE was very good (100%) , due to previous bulldozing activities within the APE. In a small portion of the APE, on the tank pad's northwest side, there were steep slopes with some intact vegetation and large boulders, resulting in ground visibility of about 75-80%.

22. Comments: _____

V. LITERATURE REVIEW

23. Location of File Search: Colorado Office of Archaeology and Historic Preservation (OAHP) Database (a GIS clip was obtained from OAHP and this data was cross-checked with the online *Compass* database).

Date: 11/19/2020

24. Previous Survey Activity - In the project area: There are no previous surveys that overlap with the current APE.

In the general region: Fifteen previous surveys have been conducted in the one mile area surrounding the APE. Please see Table 1 and Figure 2.

25. Known Cultural Resources - In the project area: There are no previously recorded cultural resources in or overlapping the APE or in the immediate vicinity.

In the general region (summarize): Within the one-mile file search, there are twenty-eight previously recorded cultural resource sites and isolated finds (Table 2). Figure 3 depicts the twenty-four sites closest to the APE, the other three are further away and outside the 24K view. These resources are a mix of a small number of prehistoric isolates and sites (mostly lithic scatters), and mostly historic sites related to the development of the area including buildings, cabins, mining features, water control features/ditches, railroad segments, roads and highways, and a pipeline.

26. Expected Results: Expected results are based on the file search data, Metcalf's previous work in the region, historical research, and environmental characteristics. These factors suggest the possibility that historic foundations and / or debris associated with historic homesteading and pre-contact Native American sites could be present. In addition, historic roads could be present in the project vicinity.

VI. STATEMENT OF OBJECTIVES

27. The investigations reported here are required by the CDPHE and OAHP because the proposed project involves funding and permitting from CDPHE. This report facilitates the CDPHE's compliance with Section 106 of the National Historic Preservation Act (NHPA) and other applicable federal legislation and regulations by providing information on the presence of cultural resources, recommendations about resource eligibility to the National Register of Historic Places (NRHP), and recommendations for Section 106 findings pertaining to effect when historic properties are present.

VII. FIELD METHODS

28. Definitions: Site: Sites represent the locus of previous (minimum 50 years) human activity for which the preponderance of evidence suggests either one-time diagnostically interpretable use, repeated use over time, or multiple classes of activities.

IF: An isolated find refers to one or more culturally modified objects not found in the context of a site. It will indicate no evidence of interpretable use or repeated use over time. Note that this definition makes no reference to an absolute quantitative standard for the site/isolate distinction. For example: a) A discrete concentration of flakes from the same material, regardless of the number of artifacts present, likely represents a single, random event and is properly designated as an isolate, or b) A ceramic pot bust regardless of the number of sherds that remain likely also represents a single, random event and is properly recorded as an isolate.

29. Describe Survey Method: One archaeologist systematically surveyed the project area with zig-zag transects spaced at 15-20 meters apart. Because the proposed water tank pad was already bulldozed at the time of the inventory, there was a clear view of the soils and deposition, especially in the northwest wall of the bulldozed area (see photos). Field conditions were good with clear skies and cold temperatures. The ground was wet and muddy from previous snow storms, but only small patches of snow remained on the edges of the survey area.

VIII. RESULTS

30. List IFs if applicable. Indicate IF locations on the map completed for Part III.

No isolated finds (IFs) or sites were observed.

31. Using your professional knowledge of the region, why are there none or very limited cultural remains in the project area? Is there subsurface potential? The project area does have some potential for both historic and prehistoric sites, based on previous recordings in the vicinity; but considering that the project area is very small and that it was disturbed (had already been bulldozed at the time of inventory), the potential of finding cultural resources was considered very low.

References Cited

Chapman, S.S., G.E. Griffith, J.M. Omernik, A.B. Price, J. Freeouf, and D.L. Schrupp
2006 *Ecoregions of Colorado* (color poster with map, descriptive text, summary tables, and photographs). U.S. Geological Survey, Reston, Virginia.

Fenneman, Nevin M.
1946 *Physical Divisions of the United States* [map]. United States Geological Survey, Washington, D. C.

Tweto, Ogden and Thomas S. Lovering
1977 *Geology of the Minturn 15-Minute Quadrangle, Eagle and Summit Counties, Colorado*. Geological Survey Professional Paper 956.

USDA-NRCS

2020 United States Department of Agriculture, Natural Resources Conservation Service, Soil Survey. Online at https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/soils/survey/?cid=nrcs142p2_053369; accessed 11/30/2020.

Table 1. List of Previous Inventories Performed Within One Mile of the APE.

OAHP Project #	Date Conducted	Project Name	Company
EA.FS.R4	1987-03-01	Interim Report of Archaeological Investigations for the Homestake II Project, Eagle County, Colorado	Metcalf Archaeological Consultants, Inc. for the United States Forest Service
EA.FS.NR37	1988-12-12	A Cultural Resource Inventory Report for a Small Section of the Minturn Water Line on Forest Service Land in Eagle County, Colorado	U.S. Forest Service
EA.FS.R36	1999-12-02	Appendix B: Surveys of Small Timber Sales Within the Meadow Mountain Project Area: Green Bear, Sliver & DPT Timber Sales, Eagle County	U.S. Forest Service
EA.FS.NR82	10/5/1994	NESMITH SMALL TRACT ACT	Assistant District Ranger (Former Forest Archaeologist) for the USFS
MC.FS.R191	Jun-00	Western Land Group's Vassar Meadows Lex, Class III Cultural Resource Inventory, Eagle and Pitkin Counties, Colorado (CRR#15-06-15-00)	Metcalf Archaeological Consultants, Inc. on behalf of Western Land Group, Inc. for the USDA Forest Service Region 2
EA.CH.R2	1989-03-09	An Archaeological Survey of Bridges F-11-C and F-11-D on State Highway 24, Eagle County, Colorado	Colorado Department of Highways Archaeological Unit
EA.FS.R43	2002-12-01	Level Three Cultural Resource Inventory and Evaluation of Fourteen Previously Surveyed Sites, Vail Valley Cultural Resources Survey, White River National Forest and Addendum	Bral Environmental Services for the United States Forest Service White River National Forest
EA.PA.R6	2006-03-01	Ginn Company's Battle Mountain Potential Development Plan: Final Report of a Cultural Resource Inventory in Eagle County, Colorado	Metcalf Archaeological Consultants, Inc.
EA.FS.R70	2006-10-01	A Class III Cultural Resource Inventory of Two Parcels Proposed for Sale: Eagle Horse Pasture and Minturn Equipment Yard, Eagle County, Colorado White River National Forest (CRR # 2006021500063)	White River National Forest

Limited-Results Archaeological Survey Form

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OAHP Project #	Date Conducted	Project Name	Company
MC.IC.R1	1996-10-01	Historic Report for the Sage to Leadville and Malta to Canon City Segments of the Former Denver and Rio Grande Western Railroad (Tennessee Pass Route), Fremont, Chaffee, Lake, and Eagle Counties	DeLeuw, Cather & Co., Inc. and Myra L. Frank and Associates, Inc. for the US Surface Transportation Board and Union Pacific Railroad
EA.FS.R77	2008-07-17	Minturn Administrative Parcels Disposal: Parcel F-Martin Creek, Eagle County, Colorado (R200801500043)	White River National Forest
MC.FS.R438	2007-12-01	Cultural Resource Inventory of the Holy Cross Grazing Allotments, Summit and Eagle County, Colorado (CRR #2007021500019)	White River National Forest
EA.LM.NR190	2009-06-10	A Class III Inventory of Proposed Helispot Landings for the Minturn Wildland Urban Interface Stewardship Project, Eagle County, Colorado (#R2009021500071)	White River National Forest
EA.FS.R87	2011-10-01	Western Land Group: A Class III Cultural Resources Inventory of Nine Parcels for the Proposed Eagle Valley Land Exchange, Eagle County, Colorado	Metcalf Archaeological Consultants, Inc. for the White River National Forest
EA.CH.R23	2013-08-30	An Intensive Cultural Resources Inventory of US Highway 24 in Minturn, Eagle County, Colorado	Colorado Department of Transportation (CDOT)

Table 2. List of Cultural Resources Found Within One Mile of the APE.

State Site #	Resource Type	Resource Description	National Register Eligibility (from Compass)
5EA.1639.1	Historical Archaeology Historic	570 Dixon Ditch, Grouse Creek Ditch	Not Eligible
5EA.344	Historical Archaeology	Grouse Creek Cabin Site	Not Eligible
5EA.2107	Historical Archaeology	Mining	Not Eligible
5EA.2110	Historical Archaeology Historic	Water Control	Not Eligible
5EA.888	Historical Archaeology	Camp/Temporary Shelter	Not Eligible - Officially
5EA.198.20	Historical Archaeology Historic	D & RGW RR Wash Bridge, SPTC Wash Bridge, Denver & Rio Grande Western- Sage to Leadville, Southern Pacific Lines- Sage to Leadville, Milepost 298.60	Not Eligible

Limited-Results Archaeological Survey Form

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State Site #	Resource Type	Resource Description	National Register Eligibility (from Compass)
5EA.903	Historic	Minturn Workstation, Minturn Ranger Station	Not Eligible - Officially
5EA.2379	Archaeological	Open Lithic Scatter	Not Eligible
5EA.2266	Archaeological	IF	Not Eligible
5EA.2267	Archaeological	IF	Not Eligible
5EA.2380	Historical Archaeology	Water Control	Not Eligible - Officially
5EA.2381	Archaeological	Open Lithic Scatter	Not Eligible - Officially
5EA.2418	Archaeological	IF	Not Eligible
5EA.2419	Archaeological	IF	Not Eligible
5EA.2420	Historical Archaeology	Historic Isolated Find	Not Eligible
5EA.198.4	Historic	D & RGW RR 1st Eagle River Crossing Bridge, SPTC 1st Eagle River Crossing Bridge, Denver & Rio Grande Western - Sage to Leadville, Southern Pacific lines- Sage to Leadville, Milepost 283.85	Not Eligible
5EA.2384.1	Historical Archaeology Historic	Bolts Ditch	Not Eligible
5EA.2672	Archaeological	IF	Not Eligible
5EA.2671	Archaeological	IF	Not Eligible
5EA.2688	Archaeological	IF	Not Eligible - Officially
5EA.2385	Historical Archaeology Historic	Elevated Pipeline	Eligible - Officially
5EA.1690	Archaeological	Open Lithic Scatter	Needs Data
5EA.2885	Archaeological	IF	Not Eligible
5EA.2886	Historical Archaeology	Historic Isolated Feature	Not Eligible
5EA.2889.1	Historical Archaeology Historic	U.S. Highway 24 segment	Does Not Support - Linear
5EA.2911	Archaeological	IF	Not Eligible
5EA.3045	Archaeological	IF	Not Eligible
5EA.520	Historical Archaeology Historic	RedCliff-Dotsero Stage Road	No Assessment Given on Form



Overview of water tank location from access road, facing south
(Roll 20-104, unaltered image 01, 11/22/2020)



Overview of water tank location, with existing water facilities and telephone line in
background, facing southeast (Roll 20-104, unaltered image 06, 11/22/2020)



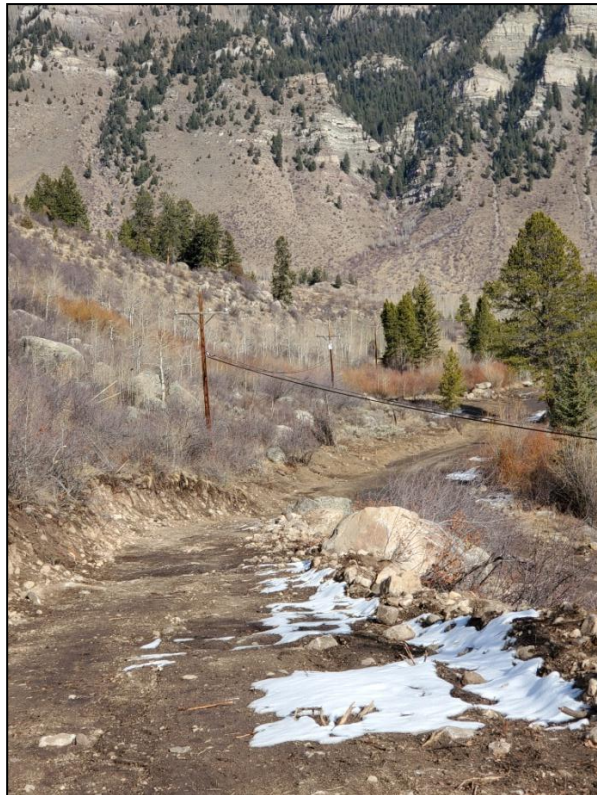
Overview of tank location towards access road
(Roll 20-104, unaltered image 08, 11/22/2020)



Overview of the tank location towards the already excavated wall
(Roll 20-104, unaltered image 04, 11/22/2020)



Close up of boulders in the excavated wall
(Roll 20-104; unaltered image 05, 11/22/2020)



View down access road, facing south
(Roll 20-104; unaltered image 14, 11/22/2020)

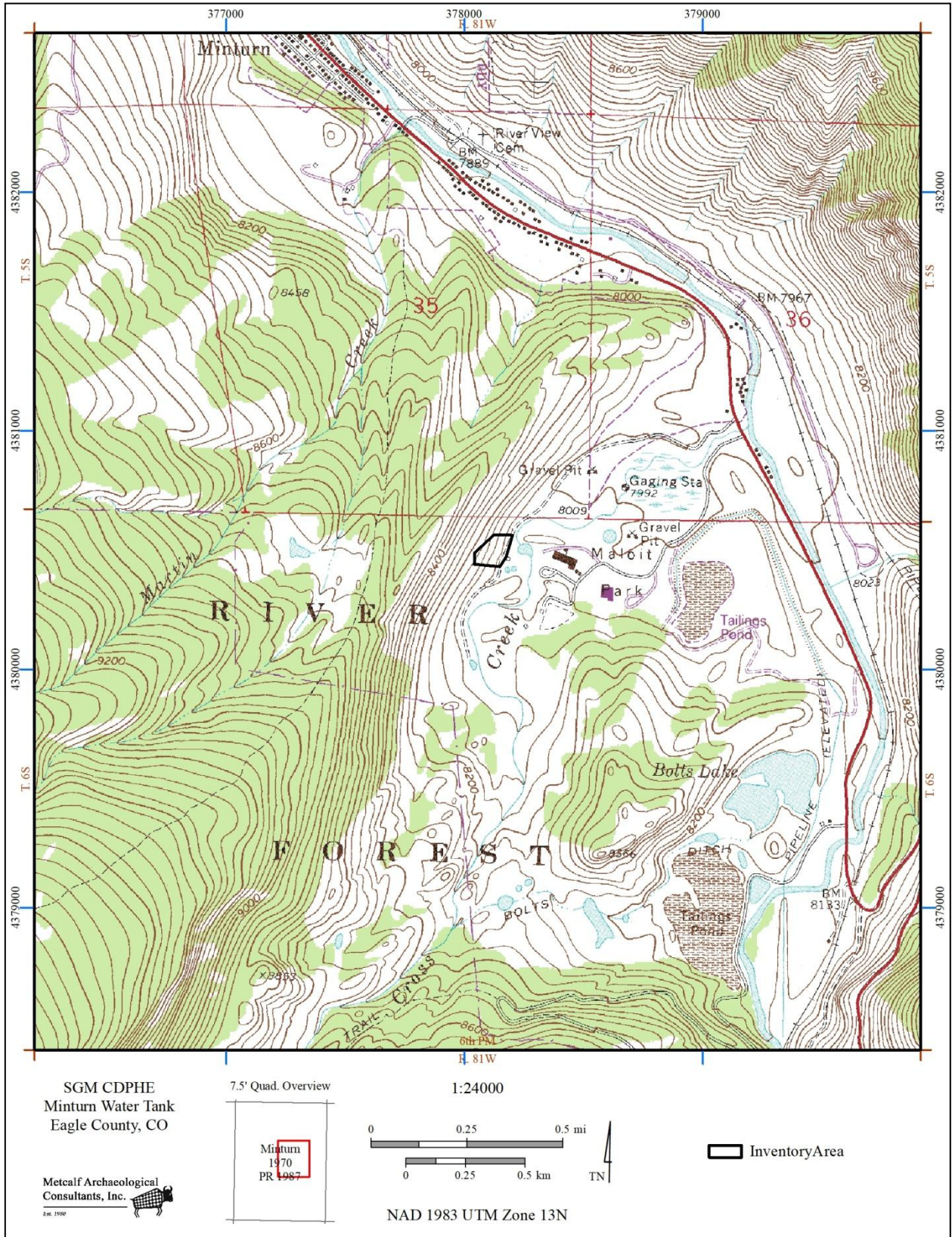


Figure 1. Location of the project APE for the proposed Town of Minturn Water Tank on the USGS 7.5' Minturn (1970; PR 1987) quadrangle map.

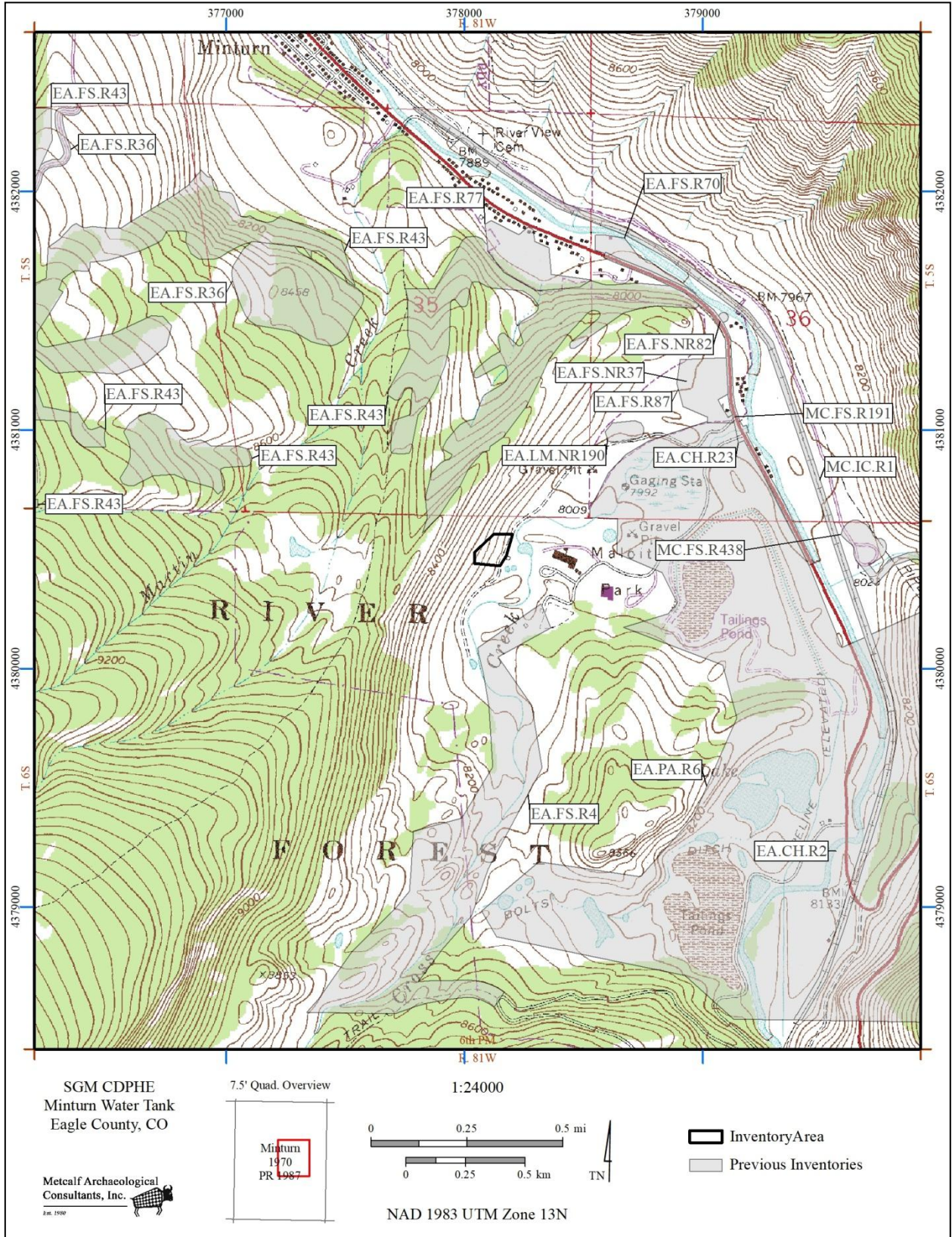


Figure 2. Location of the project APE for the proposed Town of Minturn Water Tank on the USGS 7.5' Minturn (1970; PR 1987) quadrangle map showing previous inventories.

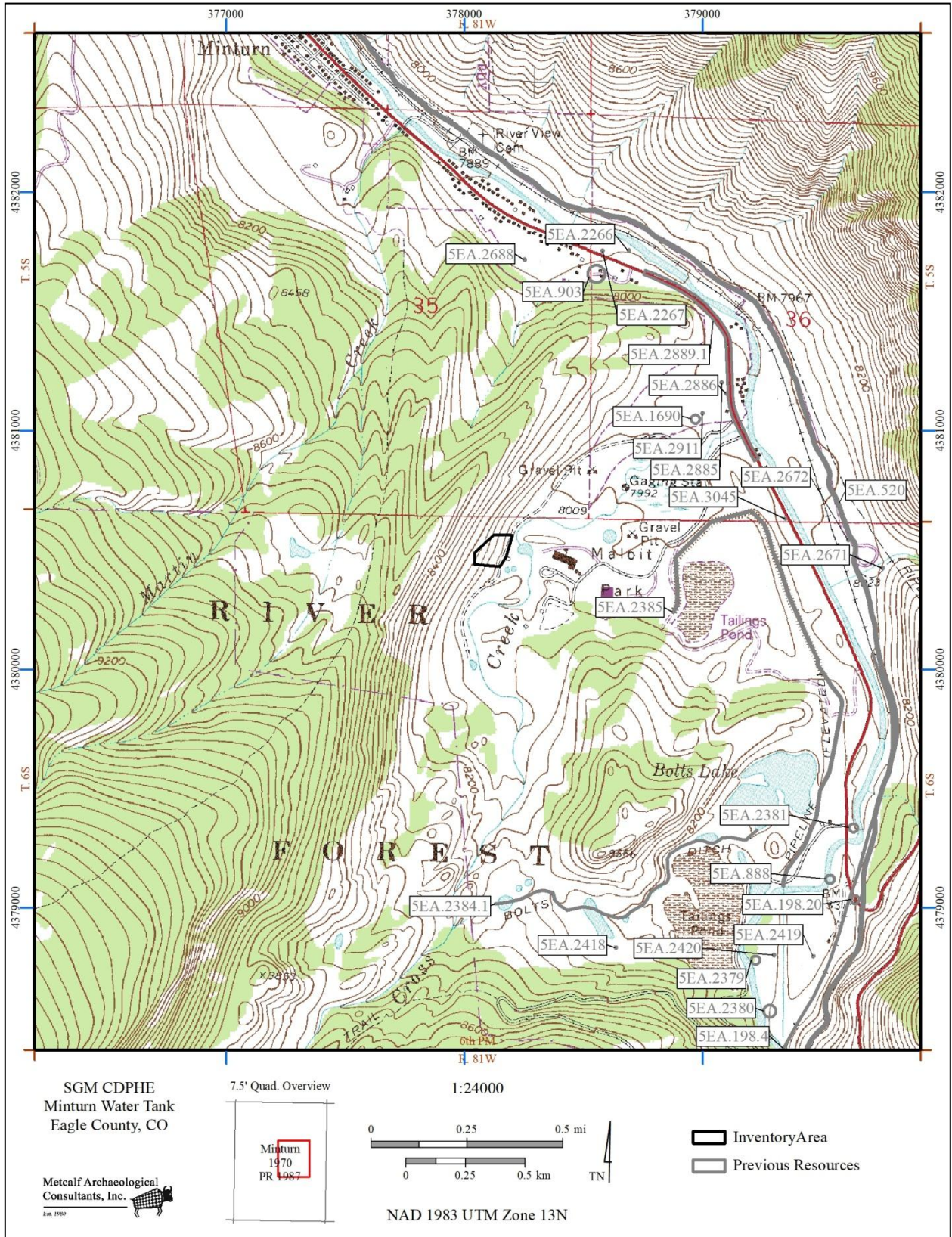


Figure 3. Location of the project APE for the proposed Town of Minturn Water Tank on the USGS 7.5' Minturn (1970; PR 1987) quadrangle map showing previously recorded sites and isolates.

8. APPENDIX B: USFWS IPAC REPORT



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Western Colorado Ecological Services Field Office

445 West Gunnison Avenue, Suite 240

Grand Junction, CO 81501-5711

Phone: (970) 628-7180 Fax: (970) 245-6933

<http://www.fws.gov/mountain-prairie/es/Colorado/>

<http://www.fws.gov/platteriver/>

In Reply Refer To:

November 02, 2020

Consultation Code: 06E24100-2021-SLI-0077

Event Code: 06E24100-2021-E-00171

Project Name: Minturn Tank

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Western Colorado Ecological Services Field Office

445 West Gunnison Avenue, Suite 240

Grand Junction, CO 81501-5711

(970) 628-7180

Project Summary

Consultation Code: 06E24100-2021-SLI-0077

Event Code: 06E24100-2021-E-00171

Project Name: Minturn Tank

Project Type: WATER SUPPLY / DELIVERY

Project Description: Proposed Tank Expansion

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.56604688044179N106.41835193053592W>



Counties: Eagle, CO

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 4 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Canada Lynx <i>Lynx canadensis</i> Population: Wherever Found in Contiguous U.S. There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened

Birds

NAME	STATUS
Mexican Spotted Owl <i>Strix occidentalis lucida</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8196	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is proposed critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/6901/office/65413.pdf	Threatened

Fishes

NAME	STATUS
<p>Bonytail <i>Gila elegans</i></p> <p>There is final critical habitat for this species. Your location is outside the critical habitat. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> Water depletions in the upper Colorado River basin adversely affect this species and its critical habitat. This species does not need to be considered if the project is outside of its occupied habitat and does not deplete water from the basin. <p>Species profile: https://ecos.fws.gov/ecp/species/1377</p>	Endangered
<p>Colorado Pikeminnow (=squawfish) <i>Ptychocheilus lucius</i></p> <p>Population: Wherever found, except where listed as an experimental population There is final critical habitat for this species. Your location is outside the critical habitat. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> Water depletions in the upper Colorado River basin adversely affect this species and its critical habitat. This species does not need to be considered if the project is outside of its occupied habitat and does not deplete water from the basin. <p>Species profile: https://ecos.fws.gov/ecp/species/3531</p>	Endangered
<p>Humpback Chub <i>Gila cypha</i></p> <p>There is final critical habitat for this species. Your location is outside the critical habitat. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> Water depletions in the upper Colorado River basin adversely affect this species and its critical habitat. This species does not need to be considered if the project is outside of its occupied habitat and does not deplete water from the basin. <p>Species profile: https://ecos.fws.gov/ecp/species/3930</p>	Endangered
<p>Razorback Sucker <i>Xyrauchen texanus</i></p> <p>There is final critical habitat for this species. Your location is outside the critical habitat. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> Water depletions in the upper Colorado River basin adversely affect this species and its critical habitat. This species does not need to be considered if the project is outside of its occupied habitat and does not deplete water from the basin. <p>Species profile: https://ecos.fws.gov/ecp/species/530</p>	Endangered

Flowering Plants

NAME	STATUS
<p>Ute Ladies'-tresses <i>Spiranthes diluvialis</i></p> <p>No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2159</p>	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds elsewhere

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

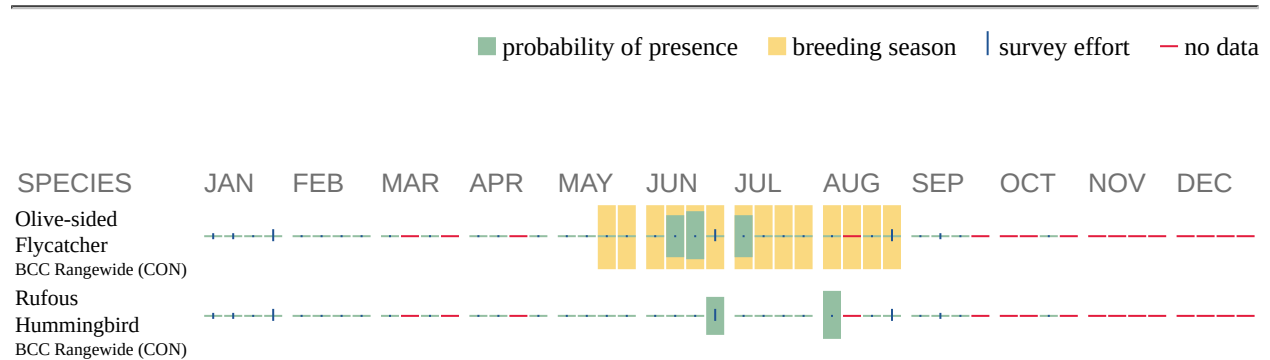
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

9. APPENDIX C: AGENCY CORRESPONDENCE

November 11, 2020

Dear Interested Party,

The Town of Minturn is in the process of performing an environmental review pursuant to the National Environmental Policy Act for the Colorado Department of Health and Environment (CDPHE) in order that it may assess the environmental impacts of installing two new fresh water tanks to store treated, potable water for municipal use.

The proposed action would entail the construction of an approximate 280-foot access road, leading up to a leveled pad approximately 0.8 acres in size. On the pad, two new steel tanks would be placed, and the tanks would be approximately 45-foot in diameter and 40-foot tall. The tanks would have a combined storage capacity of approximately 750,000 gallons of treated, potable water. Buried pipelines would run from the tanks, due south for approximately 160 feet to the adjacent water treatment plant to convey waters back and forth from the tanks. The project is located in the northwest quarter of the northwest quarter of Section 2, Township 6 South, Range 81 West (see attached map).

The Town of Minturn continues to see residential growth, and additional potable water storage capacity is needed to meet the demands of the Town to ensure reliable delivery of potable water to Town residents and businesses. Additionally, the tanks will improve the fire flow capacity of the town. The tanks would be located on Town-owned lands, within unincorporated Eagle County.

The Town of Minturn and the CDPHE requests your review of the proposal for potential impacts caused by the construction of these tanks. Please provide any comments or recommendations you may have to mitigate or avoid these impacts. We would appreciate a response within 30 days. If you need any further information or wish to discuss the project with Town staff, please contact Michelle Metteer, Town Manager at 970-827-5645 or email mmetteer@minturn.org. Please address your comments to:

Sean Oliver, Project Manager
Water Quality Control Division
Colorado Department of Public Health and Environment
WQCD-OA-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

Sean Oliver can be contacted at 303-691-4018, or at sean.oliver@state.co.us.

On behalf of the Town of Minturn,





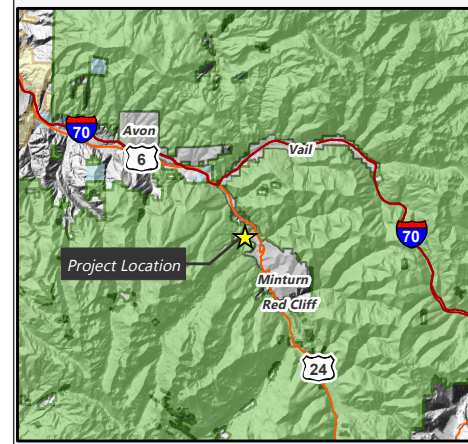
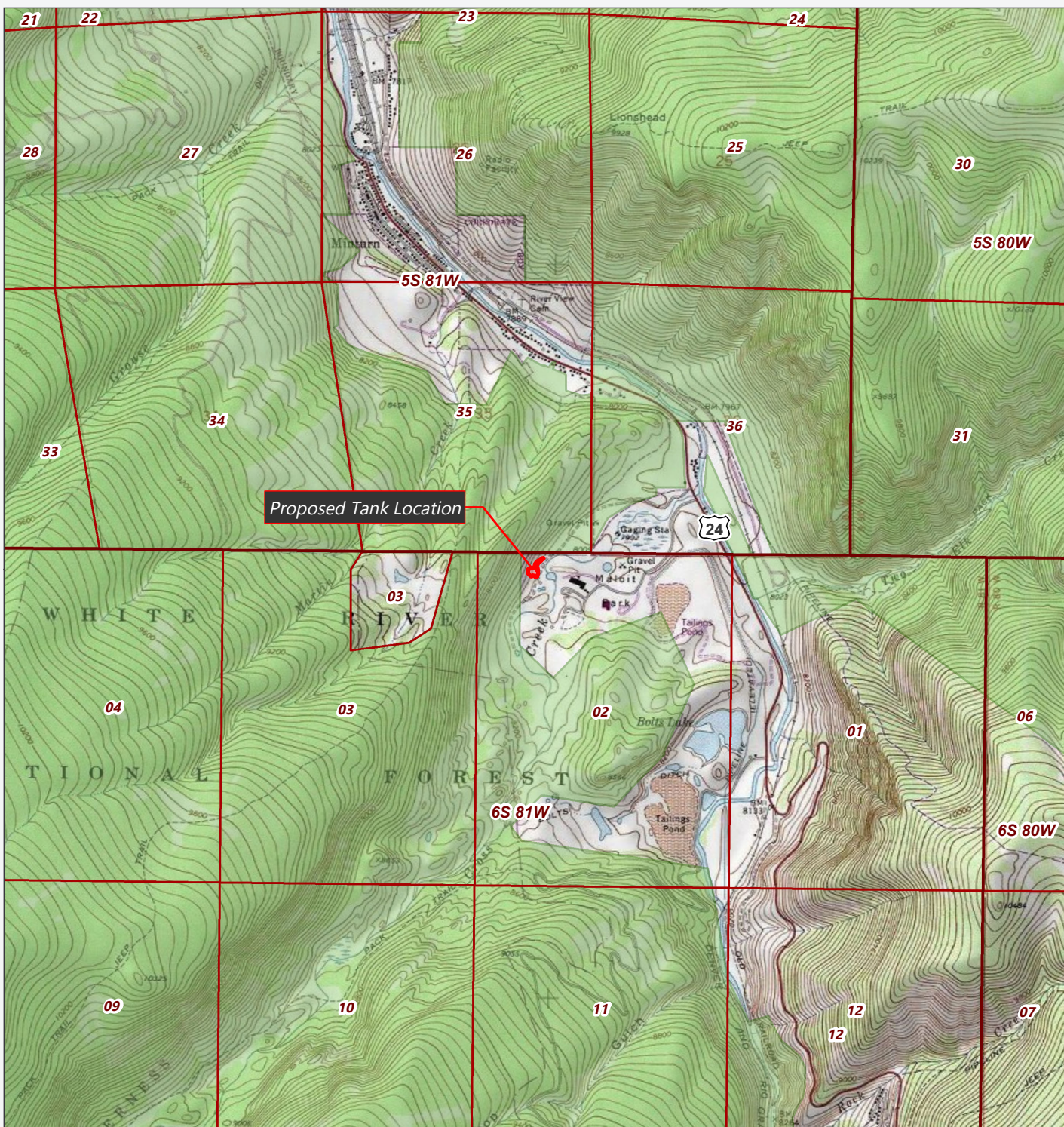
Jenna Friesen, Environmental Consultant
jennaf@sgm-inc.com
970-384-9052
SGM

USGS TOPOGRAPHIC MAP

Minturn Tank

LEGEND

-  Proposed Tank Location
-  Township/Range/Section
- Land Ownership**
-  Forest Service
-  Private



Disclaimer:
This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information. The maps are distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use.

SGM
118 W Sixth St, Suite 200
Glenwood Springs, CO 81601
970.384.9040
www.sgm-inc.com

Date: 11/9/2020
Location: 39.5659, -106.41846
Created By: SGM
Drawn By: JDF



SCALE: 1" = 3,000 feet

10. APPENDIX D: SCOPING RESPONSES



COLORADO

Parks and Wildlife

Department of Natural Resources

Glenwood Springs Service Center
0088 Wildlife Way
Glenwood Springs, Colorado 81601
P 970.947.2920 | F 970.947.2936

December 10, 2020

Sean Oliver, Project Manager
Water Quality Control Division
Colorado Department of Public Health & Environment
WQCD-OA-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

Re: Town of Minturn NEPA for Water Tanks

Dear Mr. Oliver,

Thank you for giving Colorado Parks and Wildlife (CPW) an opportunity to comment on the Town of Minturn's NEPA process regarding the water infrastructure in Maloit Park. CPW has a statutory authority to manage all wildlife species in Colorado. This responsibility is embraced and fulfilled through CPW's mission to protect, preserve, enhance, and manage the wildlife of Colorado for the use, benefit, and enjoyment of the people of the State and its visitors.

The proposed action includes: a 280-foot access road, a leveled pad 0.8 acres in size, two new steel tanks approximately 45-foot in diameter and 40-foot tall, and 160 feet of buried pipelines connecting the tanks to the adjacent water treatment plan.

The proposed action site lies within elk Data Analysis Unit (DAU) E-16, and mule deer DAU D-8. The E-16 DAU has been experiencing significant declines in elk populations, equating to a roughly 60% decline over the last 10 years. Additionally, as of the 2020 updated herd management plan for mule deer, the D-8 population is on a downward trajectory and is under CPW's established objective range. Subsequently, CPW has had to continue to reduce the mule deer population objective in the area to accommodate for continued human generated impacts and overall population decline.

Additionally, CPW has dramatically reduced hunting quotas for both elk and mule deer since the mid 2000s. Mule deer doe quotas have been reduced to negligible levels, while limited cow elk licenses have ostensibly been eliminated. These reductions in doe and cow quotas are in an attempt to protect the reproductive, fawn and calf-bearing portion of the herd. While these license reductions are absolutely necessary in CPW's attempt to recover population levels, reproductive success and recruitment into the population has failed to rebound.

Specific to the Maloit Park area, habitat loss and human disturbance continue to be significant concerns in managing the local deer and elk populations. The proposed action will result in both net loss of habitat and indirect impacts to the resource. Furthermore, this

infrastructure will pave the way for continued development. From a wildlife resource standpoint, the few remaining elk that winter in the Maloit Park area have not habituated to the increases in human disturbance and remain highly susceptible to human disturbance. As such, CPW encourages the Town of Minturn to adopt a holistic, comprehensive approach to impacts. If improvements to and expansion of infrastructure will lead to the continued urbanization of the Minturn area, these decisions should be made with the full understanding and awareness that it will result in the continued degradation and potential loss of the wildlife resource.

The following best management practices (BMPs) are suggested:

- Construction & maintenance should occur outside of the December 1 - April 30th timeframe, annually, to protect wintering elk.
- Sites disturbed during construction should be immediately reclaimed with a CPW-approved big game seed mix to provide adequate forage and reduce the potential for weeds. The site should be monitored for weeds on an annual basis.
- Any improved roads should be closed to the general public to reduce disturbance.
- Recommend holistic approach to assessing impacts to wildlife and natural resources in the local area. This locale is slated for a variety of actions that will result in both direct and indirect impacts to wildlife. CPW welcomes continued dialogue surrounding how to anticipate, minimize or avoid these impacts.

CPW appreciates the opportunity to provide comments on this project. For additional information or to request clarification on CPW's comments for this project, please contact District Wildlife Manager Devin Duval at (970) 930-5264.

Sincerely,



Matt Yamashita
Area Wildlife Manager

Cc. Devin Duval, District Wildlife Manager
Danielle Neumann, Land Use Specialist

United States Department of Agriculture



Natural Resources Conservation Service
Denver Federal Center
Building 56, Room 2604
P.O. Box 25426
Denver, CO 80225

SUBJECT: Farmland Protection Policy Act

December 8th, 2020

Sean Oliver, Project Manager
Water Quality Control Division
SGM Inc.
118 West Sixth St, Suite 200
Glenwood Springs, CO 81601

RE: Town of Minturn WWTF Improvement Project – Environmental Assessment

Dear Sean,

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to non-agricultural use. It assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland.

For the purpose of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to the FPPA requirements does not have to be currently used for cropland. Projects are subject to the FPPA requirements if they may irreversibly convert farmland to non-agriculture use and are completed by a federal agency or with assistance from a federal agency.

All aspects of this project will occur in the existing developed areas or areas committed to the storage of water and the project is not subject to the FPPA. NRCS encourages the use of accepted erosion control practices during the construction of this project.

If you have any further questions, please call at (720) 544-2855.

Thank you,

A handwritten signature in black ink, appearing to read "T. Riley Dayberry".

T. Riley Dayberry
Asst. State Soil Scientist
thomas.dayberry@usda.gov

cc:

Eugene Backhaus - State Resource Conservationist, NRCS, Denver CO
Clint Evans – State Conservationist, NRCS, Denver CO
William Shoup - State Soil Scientist, NRCS, Denver CO

Helping People Help the Land

An Equal Opportunity Provider and Employer



From: [Martellaro - DNR, Alan](#)
To: [Sean Oliver - CDPHE](#)
Cc: [Jenna Friesen](#)
Subject: Fwd: Town of Minturn
Date: Friday, November 20, 2020 3:38:21 PM
Attachments: [Town of Minturn.pdf](#)

Sean,

This email is in regard to a NEPA review for the construction of two fresh water tanks by the Town of Minturn. As proposed the tanks will store treated potable water storage within the town's municipal system. As such, the storage tanks are a part of the delivery facilities of the municipal system, and within the decreed purposes of the Town's existing municipal water rights. Therefore, the filling of the tanks can operate without adverse impacts to other vested water rights in the Colorado River Basin.

Alan

Alan Martellaro
Division Engineer, Water Division 5



P 970-945-5665 ext 5014 | C 970-948-5916
202 Center Drive
PO Box 396, Glenwood Springs, CO 81602
alan.martellaro@state.co.us | www.colorado.gov/water

----- Forwarded message -----

From: Ramsey - DNR, Heather <heather.ramsey@state.co.us>
Date: Thu, Nov 19, 2020 at 11:42 AM
Subject: Town of Minturn
To: Alan Martellaro - DNR <alan.martellaro@state.co.us>

Hi Alan, this came in the mail for you.

Heather Ramsey
Program Assistant



P 970.945.5665 x 5010 | F 970.945.8741
Office: 202 Center Drive, Glenwood Springs, CO 81601
Mailing: P.O. Box 396 Glenwood Springs, CO 81602
heather.ramsey@state.co.us | www.colorado.gov/water



To: Minturn Town Council
From: Michelle Metteer
Date: September 15, 2021
RE: Colorado Water Resources and Power Development Authority (CWRPDA) Loan Agreement

REQUEST: Approve Ordinance 09 – Series 2021

INTRODUCTION:

Initial approval for a \$3,000,000 loan at 2.25% interest over a 20-year period was authorized during the August CWRPDA Board meeting for the construction of two new water tanks located on town-owned land adjacent to the current (and future) Minturn water treatment plant.

ANALYSIS:

A CWRPDA loan is a low-interest option for obtaining infrastructure funding. Staff is still seeking congressionally directed funding to help offset some of this cost but will not know the status of that request as the request is still making its way through committees and congress.

This loan, combined with the water tanks discussion materials is the culmination of work by staff over the past year in preparation for construction of the new water tanks.

COMMUNITY INPUT: Ongoing.

BUDGET / STAFF IMPACT: \$3,000,000

STRATEGIC PLAN ALIGNMENT:

[Practice fair, transparent and communicative local government](#)

RECOMMENDED ACTION OR PROPOSED MOTION: Approve Ordinance 09 – Series 2021.

ATTACHMENTS:

- Ordinance 09 – Series 2021
- Drinking Water Revolving Fund Loan Agreement
- Drinking Water Revolving Fund Loan Repayment Schedule
- Drinking Water Revolving Fund Loan Approval Letter

TOWN OF MINTURN

ORDINANCE NO. 09 – SERIES 2021

AN ORDINANCE AUTHORIZING THE EXECUTION AND DELIVERY OF A LOAN AGREEMENT, BETWEEN THE COLORADO WATER RESOURCES AND POWER DEVELOPMENT AUTHORITY AND THE TOWN OF MINTURN, ACTING BY AND THROUGH THE TOWN OF MINTURN, WATER AND SANITATION ACTIVITY ENTERPRISE, AND THE ISSUANCE OF A GOVERNMENTAL AGENCY BOND IN AN AGGREGATE PRINCIPAL AMOUNT NOT TO EXCEED \$3,000,000 EVIDENCING THE OBLIGATION OF THE TOWN, ACTING BY AND THROUGH SUCH ENTERPRISE UNDER THE LOAN AGREEMENT, AND PRESCRIBING OTHER DETAILS IN CONNECTION THEREWITH.

WHEREAS, the Town of Minturn, Colorado (the “Town”) is a home rule municipality duly organized and existing under Article XX of the Colorado Constitution and the Town of Minturn Home Rule Charter (the “Charter”); and

WHEREAS, the Town is the owner of a municipal water system (the "System"), which System historically has been operated on a self-supporting basis with its financial operations accounted for in a water enterprise fund of the Town; and,

WHEREAS, pursuant to Section 37-45.1-103, Colorado Revised Statutes, the Charter, and Article 5 of the Town of Minturn Municipal Code (the “Code”), the Town has designated the System as a water activity enterprise (the "Water and Sanitation Activity Enterprise" or the "Enterprise") of the Town, constituting a government-owned business and “enterprise” within the meaning of Article X, Section 20 of the Colorado Constitution; and,

WHEREAS, such designation was made by the Town in Ordinance No. 19-1995, as amended by Ordinance No. 3-2019, (collectively, the "Enterprise Ordinance"), designating the System as the "Water and Sanitation Activity Enterprise," and the Enterprise Ordinance authorizes the Minturn Town Council to act as the governing body of the Enterprise, and further provides the powers of the Enterprise to include the issuance of revenue bonds; and,

WHEREAS, the Town, acting through its Town Council, hereby reaffirms the status of the Water Enterprise as an enterprise consistent with the requirements of Title 37, Article 45.1, Colorado Revised Statutes and Article X, Section 20 of the Colorado Constitution; and,

WHEREAS, the Town has made an application to the Colorado Water Resources and Power Development Authority (the "Authority") for a loan to finance system improvements including, but not limited to, replacing one of the Town’s water storage tanks that is in disrepair and replacing it with two new storage tanks (the "Project"); and

WHEREAS, the Authority has accepted such application and expressed its interest in making such loan, subject to certain conditions (the "Loan Agreement"); and

WHEREAS, the Loan Agreement will provide for the issuance by the Town, acting by and through the Enterprise, of a governmental Agency Bond in the principal amount not exceeding \$3,000,000 (the "Bond") evidencing the obligations of the Town, acting by and through the Enterprise, under the Loan Agreement; and

WHEREAS, the repayment obligations of the Bond shall constitute a special revenue obligation of the Town which is generally payable from the income for the services furnished by or the use of the System less reasonable and necessary current expenses of the Town of operating, maintaining and repairing the System and, after consideration, the Town Council has determined that the execution of the Loan Agreement and the issuance of the Bond to the Authority is to the best advantage of the Town; and

WHEREAS, except as specifically described in the Loan Agreement, the Town has no indebtedness outstanding secured by the Pledged Property (as defined in the Loan Agreement); and

WHEREAS, voter approval in advance is not required under Article X, Section 20 of the Colorado Constitution for the execution of the Loan Agreement or the issuance of the Bond; and

WHEREAS, the form of the Loan Agreement and the Bond, have been presented to the Town and made available to the Town Council; and

WHEREAS, pursuant to Sections 37-45.1-103(4) and 37-45.1-104, Colorado Revised Statutes, the Enterprise Ordinance, the Charter and the Code, the Minturn Town Council, acting as the governing body of the Enterprise, is authorized to issue revenue bonds in the name of the Enterprise.

THEREFORE, BE IT ORDAINED BY THE MINTURN TOWN COUNCIL OF THE TOWN OF MINTURN, IN EAGLE COUNTY, COLORADO:

Section 1. Pursuant to and in accordance with the State Constitution, Sections 37-45.1-103(4), 37-45.1-104, and Title 11, Article 57, Part 2, Colorado Revised Statutes, the Town Charter and the Code, the Bond shall be issued by the Town acting by and through the Enterprise. The form of the Loan Agreement setting forth the terms, conditions and details of the Bond and the procedures relating thereto, is incorporated herein by reference and is hereby approved; all Town officials and employees are hereby directed to take such actions as are necessary and appropriate to fulfill the obligations of the Town under the Loan Agreement and the Bond. The Town shall enter into the Loan Agreement and deliver the Bond in substantially the form presented to the Town at or prior to this meeting of the Town Council with such changes as the Town Attorney and the Town's bond counsel may determine to be necessary to carry out the purposes hereof and are not inconsistent herewith; provided that, in accordance with Title 11, Article 57, Part, Colorado revised Statutes, the Town Council hereby delegates to the Mayor the authority to approve the final terms of the Loan Agreement and the

Bond, subject to the limitations herein, which approval shall be evidenced by the Mayor's execution thereof. The Town attorney and bond counsel are hereby authorized to negotiate the forms of the Loan Agreement and the Bond and any changes thereto as may be necessary in the opinion of the Town Attorney and bond counsel to effectuate the intentions of the parties or to comply with the provisions of applicable law are hereby approved. The accomplishment of the Project, as defined in the Loan Agreement, is hereby authorized, approved, and ordered.

Section 2. The Mayor and the Town Clerk are hereby authorized and directed to execute and deliver to the Authority the Loan Agreement and any other documents which are required to complete and close this transaction, provided the same have been reviewed and approved by the Town Attorney.

Section 3. The Town shall issue the Bond to evidence the obligations of the Town, acting by and through the Enterprise, under the Loan Agreement. The Bond shall be in the principal amount, mature on the date, bear interest payable at the rate and on the dates, be pre-payable at the option of the Town, acting by and through the Enterprise, on the dates and at the prices, be in the form and be secured in the manner provided in the Loan Agreement; provided however, that the term of the Loan shall not exceed twenty (20) years, the maximum net effective interest rate of the Bonds shall not exceed 2.25% and the principal amount thereof shall not exceed \$3,000,000.

Section 4. The Mayor, Town Clerk and the Town Administrator of the Town are hereby authorized and directed to execute and deliver the Bond to the Authority and are designated as "Authorized Officers" as identified in Exhibit B to the Loan Agreement.

Section 5. The principal of and interest on the Bond shall be payable solely from the Pledged Property (which term is defined in the Loan Agreement). The Town irrevocably pledges the Pledged Property for the payment of the Bond and the amounts due under the Loan Agreement, on a parity with the parity lien obligations secured thereby, as described in the Loan Agreement. The Authority may not look to any general or other fund of the Town for the payment of the principal of or interest on the Bond, except the funds and accounts pledged thereto pursuant to authority of this Ordinance, and the Bond shall not constitute a debt or an indebtedness of the Town within the meaning of any constitutional or statutory provision or limitation; nor shall they be considered or held to be a general obligation of the Town; provided, however, that the Town may, but is not required to, apply any otherwise legally available moneys to the repayment of the Loan at its sole discretion.

Section 6. The Town Council hereby determines that the Enterprise is currently an enterprise within the meaning of Article X, Section 20 of the Colorado Constitution and hereby reaffirms the establishment of the System as a "water activity enterprise" within the meaning of Title 37, Article 45.1, C.R.S. The Town has and will continue to maintain the System as an "enterprise" within the meaning of Article X, Section 20 of the Colorado Constitution; provided, however, after the current calendar year the Town may disqualify the System as an "enterprise" in any year in which said disqualification does not materially, adversely affect the enforceability of the covenants made in the Loan Agreement and the Bond. In the event that the System is disqualified as an enterprise and the enforceability of the

covenants made by the Town in the Loan Agreement or the Bond are materially, adversely affected, the Town covenants to (i) immediately take all actions necessary to qualify the System as an enterprise within the meaning of Article X, Section 20 of the Colorado Constitution and (ii) permit the enforcement of the covenants made in the Loan Agreement and the Bond.

Section 7. This Ordinance is, and shall constitute, a legislative measure of the Town, acting by and through the Enterprise, and after the Bond is issued, this Ordinance shall constitute an irrevocable contract between the Town, acting by and through the Enterprise, and the Authority, and this Ordinance shall be and shall remain irrevocable until the Bond shall be fully paid, satisfied or discharged.

Section 8. This Enterprise Ordinance shall be published and shall be effective, in accordance with Charter law, seven (7) days after second publication. This Enterprise Ordinance shall be recorded in a book kept for that purpose, shall be authenticated by the signature of the Mayor and attested by the Town Clerk.

Section 9. All action not inconsistent with the provisions of this Ordinance heretofore taken by the Town or its officers and otherwise directed toward the authorization of the Loan Agreement and the Bonds and the undertaking and completion of the Project and the authorization of the Enterprise to have and in connection therewith to exercise the necessary powers is hereby ratified, approved and confirmed.

Section 10. All ordinances, bylaws, orders and other instruments, or parts thereof, inconsistent herewith are hereby repealed to the extent only of such inconsistency. This repealer shall not be construed to revive any ordinance, bylaw, order or other instrument, or part thereof, heretofore repealed.

Section 11. If any section, subsection, paragraph, clause or other provision of this Resolution shall for any reason be held to be invalid or unenforceable, the invalidity to unenforceability thereof shall not affect any of the remaining sections, subsections, paragraphs, clauses or provisions of this Ordinance.

INTRODUCED, READ BY TITLE, APPROVED ON FIRST READING AND ORDERED PUBLISHED BY TITLE ONLY AND POSTED IN FULL ON THE OFFICIAL TOWN WEBSITE THE 15th DAY OF SEPTTEMBER, 2021. A PUBLIC HEARING ON THIS ORDINNCE SHALL BE HELD AT THE REGULAR MEETING OF THE TOWN COUNCIL OF THE TOWN OF MINTURN, COLORADO ON THE 6th DAY OF OCTOBER, 2021 AT 5:30P.M. AT THE MINTURN TOWN HALL, 302 PINE STREET, MINTURN, COLORADO 81645.

TOWN OF MINTURN, COLORADO

John Widerman IV, 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 WEBSITE THIS 6th DAY OF OCTOBER, 2021.

TOWN OF MINTURN, COLORADO

John Widerman IV, Mayor

ATTEST

Jay Brunvand, Town Clerk

DRINKING WATER REVOLVING FUND

LOAN AGREEMENT

BETWEEN

**COLORADO WATER RESOURCES AND POWER
DEVELOPMENT AUTHORITY**

AND

**TOWN OF MINTURN, COLORADO, ACTING BY AND THROUGH ITS
_____ ENTERPRISE**

DATED

LOAN AGREEMENT

THIS LOAN AGREEMENT is made and entered into as of this ____ day of _____ 2021, by and between **COLORADO WATER RESOURCES AND POWER DEVELOPMENT AUTHORITY** (the "Authority"), a body corporate and political subdivision of the State of Colorado, and the **TOWN OF MINTURN, COLORADO, ACTING BY AND THROUGH ITS _____ ENTERPRISE** (the "Governmental Agency").

WITNESSETH THAT:

WHEREAS, the United States of America, pursuant to the federal Safe Drinking Water Act of 1996, assists state and local participation in the financing of the costs of drinking water system projects and said federal Drinking Water Act requires each state to establish a drinking water revolving fund to be administered by an instrumentality of the State.

WHEREAS, the Authority was created to initiate, acquire, construct, maintain, repair, and operate or cause to be operated certain water resource projects, and to finance the cost thereof;

WHEREAS, Section 37-95-107.8, Colorado Revised Statutes, has created a Drinking Water Revolving Fund to be administered by the Authority;

WHEREAS, the Authority has determined to loan certain sums to governmental agencies in Colorado to finance all or a portion of the costs of certain water resource projects;

WHEREAS, the Colorado Legislature has approved a Project Eligibility List that includes the water resource project proposed by the Governmental Agency to be financed hereunder;

WHEREAS, the Governmental Agency has made timely application to the Drinking Water Revolving Fund for a loan to finance a portion of the cost of a certain water resource project, and the Authority has approved the Governmental Agency's application for a loan from available funds in the Drinking Water Revolving Fund in an amount not to exceed the amount of the loan commitment set forth in Exhibit B hereto to finance all or a portion of the cost of such project;

WHEREAS, the Governmental Agency will issue its bond to the Authority to evidence said loan from the Authority;

NOW THEREFORE, for and in consideration of the award of the loan by the Authority, the Governmental Agency agrees to perform its obligations under this Loan Agreement in accordance with the conditions, covenants and procedures set forth herein and attached hereto as a part hereof, as follows:

ARTICLE I

DEFINITIONS

SECTION 1.01. Definitions. The following terms as used in this Loan Agreement shall, unless the context clearly requires otherwise, have the following meanings:

"Act" means the "Colorado Water Resources and Power Development Authority Act," being Section 37-95-101 et seq. of the Colorado Revised Statutes, as the same may from time to time be amended and supplemented.

"Authority" means the Colorado Water Resources and Power Development Authority, a body corporate and political subdivision of the State of Colorado duly created and validly existing under and by virtue of the Act.

"Authorized Officer" means, in the case of the Governmental Agency, the person whose name is set forth in Paragraph (7) of Exhibit B hereto or such other person or persons authorized pursuant to a resolution or ordinance of the governing body of the Governmental Agency to act as an Authorized Officer of the Governmental Agency to perform any act or execute any document relating to the Loan, the Governmental Agency Bond, or this Loan Agreement, whose name is furnished in writing to the Authority.

"Commencement Date" means the date of commencement of the term of this Loan Agreement, as set forth in Paragraph (1) of Exhibit B attached hereto and made a part hereof.

"Cost" means those costs that are eligible to be funded from draws under the Federal Capitalization Agreement capitalizing the Drinking Water Revolving Fund and are reasonable, necessary and allocable to the Project and are permitted by generally accepted accounting principles to be costs of the Project.

"Custodian" means Wells Fargo Bank National Association, or any successor appointed by the Authority as custodian of the direct loan portion of the Drinking Water Revolving Fund.

"Event of Default" means any occurrence or event specified in Section 5.01 hereof.

"Federal Capitalization Agreement" means the instrument or agreement established or entered into by the United States of America Environmental Protection Agency with the Authority to make capitalization grant payments pursuant to the Safe Drinking Water Act, as amended (42 U.S.C. Section 300f et seq.)

"Governmental Agency" means the entity that is a party to and is described in the first paragraph of this Loan Agreement, and its successors and assigns.

"Governmental Agency Bond" means the bond executed and delivered by the Governmental Agency to the Authority to evidence the Loan, the form of which is attached hereto as Exhibit D and made a part hereof.

"Loan" means the loan made by the Authority to the Governmental Agency to finance or refinance a portion of the Cost of the Project pursuant to this Loan Agreement. For all purposes of this Loan Agreement, the amount of the Loan at any time shall be the amount of the loan commitment set forth in Paragraph (4) of Exhibit B attached hereto and made a part of this Loan Agreement.

"Loan Agreement" means this Loan Agreement, including the Exhibits attached hereto, as it may be supplemented, modified, or amended from time to time in accordance with the terms hereof.

"Loan Closing" means the date upon which the Governmental Agency shall issue and deliver the Governmental Agency Bond.

"Loan Repayments" means the payments payable by the Governmental Agency pursuant to Section 3.03 of this Loan Agreement, including payments payable under the Governmental Agency Bond.

"Loan Term" means the term of this Loan Agreement provided in Paragraph (5) of Exhibit B attached hereto and made a part hereof. If the Loan is prepaid in its entirety pursuant to Section 3.06, the Loan Term shall automatically terminate.

"Pledged Property" means the source of repayment described in Paragraph (3) of Exhibit A to this Loan Agreement attached hereto and made a part hereof.

"Prime Rate" means the prevailing commercial interest rate announced by the Wall Street Journal from time to time, or, if the Wall Street Journal ceases announcing a prime rate, shall be the prevailing commercial interest rate announced by Citibank, N.A. as its prime lending rate.

"Project" means the project of the Governmental Agency described in Paragraph (1) of Exhibit A attached hereto and made a part hereof, all or a portion of the Cost of which is financed or refinanced by the Authority through the making of the Loan under this Loan Agreement.

"Project Loan Account" means the Project Loan Account established within the Drinking Water Revolving Fund.

"System" means the water system of the Governmental Agency, described in Paragraph (2) of Exhibit A, including the Project, described in Paragraph (1) of Exhibit A attached hereto and made a part hereof, for which the Governmental Agency is making the borrowing under this Loan Agreement, as such System may be modified, replaced, or expanded from time to time.

Except where the context otherwise requires, words importing the singular number shall include the plural number and vice versa, and words importing persons shall include firms,

associations, corporations, agencies and districts. Words importing one gender shall include the other gender.

ARTICLE II

REPRESENTATIONS AND COVENANTS OF GOVERNMENTAL AGENCY

SECTION 2.01. Representations of Governmental Agency. The Governmental Agency represents for the benefit of the Authority:

(a) Organization and Authority.

(i) The Governmental Agency is a governmental agency as defined in the Act and as described in the first paragraph of this Loan Agreement.

(ii) The Governmental Agency has full legal right and authority and all necessary licenses and permits required as of the date hereof to own, operate, and maintain the System, other than licenses and permits relating to the construction and acquisition of the Project that the Governmental Agency expects to receive in the ordinary course of business; to carry on its activities relating thereto; and to undertake and complete the Project. The Governmental Agency has full legal right and authority to execute and deliver this Loan Agreement; to execute, issue, and deliver the Governmental Agency Bond; and to carry out and consummate all transactions contemplated by this Loan Agreement and the Governmental Agency Bond. The Project is on the drinking water project eligibility list approved by the General Assembly of the State of Colorado pursuant to the Act and is a project that the Governmental Agency may undertake pursuant to Colorado law, and for which the Governmental Agency is authorized by law to borrow money.

(iii) The proceedings of the Governmental Agency's governing members and voters, if a referendum is necessary, approving this Loan Agreement and the Governmental Agency Bond, and authorizing their execution, issuance, and delivery on behalf of the Governmental Agency, and authorizing the Governmental Agency to undertake and complete the Project, or to cause the same to be undertaken and completed, have been duly and lawfully adopted and approved in accordance with the laws of Colorado, and such proceedings were duly approved and published, if necessary, in accordance with applicable Colorado law, at a meeting or meetings or election if necessary that were duly called pursuant to necessary public notice and held in accordance with applicable Colorado law, and at which quorums were present and acting throughout.

(iv) This Loan Agreement has been, and the Governmental Agency Bond when delivered at the Loan Closing will have been, duly authorized, executed, and delivered by an Authorized Officer of the Governmental Agency; and, assuming that the Authority has all the requisite power and authority to authorize, execute, and deliver, and has duly authorized, executed, and delivered, this Loan Agreement, this Loan Agreement constitutes, and the Governmental Agency Bond when delivered to the Authority will constitute, the legal, valid, and

binding obligations of the Governmental Agency in accordance with their respective terms; and the information contained under "Description of the Loan" on Exhibit B attached hereto and made a part hereof is true and accurate in all material respects.

(b) Full Disclosure.

There is no fact that the Governmental Agency has not disclosed to the Authority in writing on the Governmental Agency's application for the Loan or otherwise that materially adversely affects the properties, activities, prospects, or condition (financial or otherwise) of the Governmental Agency or the System, or the ability of the Governmental Agency to make all Loan Repayments, or the ability of the Governmental Agency otherwise to observe and perform its duties, covenants, obligations, and agreements under this Loan Agreement and the Governmental Agency Bond.

(c) Pending Litigation.

Except as disclosed to the Authority in writing, there are no proceedings pending, or, to the knowledge of the Governmental Agency threatened, against or affecting the Governmental Agency, in any court, or before any governmental authority or arbitration board or tribunal, that, if adversely determined, would materially adversely affect the properties, activities, prospects, or condition (financial or otherwise) of the Governmental Agency or the System, or the ability of the Governmental Agency to make all Loan Repayments, or the ability of the Governmental Agency otherwise to observe and perform its duties, covenants, obligations, and agreements under this Loan Agreement and the Governmental Agency Bond.

(d) Compliance with Existing Laws and Agreements.

The authorization, execution, and delivery of this Loan Agreement and the Governmental Agency Bond by the Governmental Agency, the observance and performance by the Governmental Agency of its duties, covenants, obligations, and agreements thereunder, and the consummation of the transactions provided for in this Loan Agreement and in the Governmental Agency Bond; the compliance by the Governmental Agency with the provisions of this Loan Agreement and the Governmental Agency Bond; and the undertaking and completion of the Project; will not result in any breach of any of the terms, conditions, or provisions of, or constitute a default under, or result in the creation or imposition of any lien, charge, or encumbrance upon, any property or assets of the Governmental Agency pursuant to any existing ordinance or resolution, trust agreement, indenture, mortgage, deed of trust, loan agreement, or other instrument (other than the lien and charge of this Loan Agreement and the Governmental Agency Bond) to which the Governmental Agency is a party or by which the Governmental Agency, the System, or any of the property or assets of the Governmental Agency may be bound, and such action will not result in any violation of the provisions of the charter or other document pursuant to which the Governmental Agency was established, or of any laws, ordinances, resolutions, governmental rules, regulations, or court orders to which the Governmental Agency, the System, or the properties or operations of the Governmental Agency, are subject.

(e) No Defaults.

No event has occurred and no condition exists that, upon authorization, execution, and delivery of this Loan Agreement and the Governmental Agency Bond, or receipt of the amount of the Loan, would constitute an Event of Default hereunder. The Governmental Agency is not in violation of, and has not received notice of any claimed violation of, any term of any agreement or other instrument to which it is a party, or by which it, the System, or its property, may be bound, which violation would materially adversely affect the properties, activities, prospects, or condition (financial or otherwise) of the Governmental Agency or the System, or the ability of the Governmental Agency to make all Loan Repayments, or the ability of the Governmental Agency otherwise to observe and perform its duties, covenants, obligations, and agreements under this Loan Agreement and the Governmental Agency Bond.

(f) Governmental Consent.

The Governmental Agency has obtained all permits and approvals required to date by any governmental body or officer for the making, observance, and performance by the Governmental Agency of its duties, covenants, obligations, and agreements under this Loan Agreement and the Governmental Agency Bond, or for the undertaking or completion of the Project and the financing or refinancing thereof; and the Governmental Agency has complied with all applicable provisions of law requiring any notification, declaration, filing, or registration with any governmental body or officer in connection with the making, observance, and performance by the Governmental Agency of its duties, covenants, obligations, and agreements under this Loan Agreement and the Governmental Agency Bond, or with the undertaking or completion of the Project and the financing or refinancing thereof. Other than those relating to the construction and acquisition of the Project, which the Governmental Agency expects to receive in the ordinary course of business, no consent, approval, or authorization of, or filing, registration, or qualification with, any governmental body or officer that has not been obtained is required on the part of the Governmental Agency as a condition to the authorization, execution, and delivery of this Loan Agreement and the Governmental Agency Bond, the undertaking or completion of the Project or the consummation of any transaction herein contemplated.

(g) Compliance with Law.

The Governmental Agency:

(i) is in compliance with all laws, ordinances, governmental rules, and regulations to which it is subject, the failure to comply with which would materially adversely affect the ability of the Governmental Agency to conduct its activities or to undertake or complete the Project, or the condition (financial or otherwise) of the Governmental Agency or the System; and

(ii) has obtained all licenses, permits, franchises, or other governmental authorizations presently necessary for the ownership of its property, or for the conduct of its activities that, if not obtained, would materially adversely affect the ability of the Governmental Agency to conduct its activities or to undertake or complete the Project, or the condition (financial or otherwise) of the Governmental Agency or the System.

(h) Use of Proceeds.

The Governmental Agency will apply the proceeds of the Loan from the Authority as described in Exhibit B attached hereto and made a part hereof (i) to finance all or a portion of the Cost; and (ii) where applicable, to reimburse the Governmental Agency for a portion of the Cost, which portion was paid or incurred in anticipation of reimbursement by the Authority.

SECTION 2.02. Particular Covenants of the Governmental Agency.

(a) Pledge of Source of Repayment.

The Governmental Agency irrevocably pledges and grants a lien upon the source of repayment described in Paragraph (3) of Exhibit A for the punctual payment of the principal of and the interest on the Loan, and all other amounts due under this Loan Agreement and the Governmental Agency Bond according to their respective terms.

(b) Performance Under Loan Agreement.

The Governmental Agency covenants and agrees to maintain the System in good repair and operating condition; to cooperate with the Authority in the observance and performance of the respective duties, covenants, obligations and agreements of the Governmental Agency and the Authority under this Loan Agreement; and, to comply with the covenants described in the Exhibits to this Loan Agreement.

(c) Completion of Project and Provision of Moneys Therefor.

The Governmental Agency covenants and agrees to exercise its best efforts in accordance with prudent water utility practice to complete the Project and to provide from the Pledged Property or other sources available to it all moneys, in excess of the total amount of loan proceeds it receives under the Loan, required to complete the Project.

(d) Disposition of the System.

During the Loan Term, the Governmental Agency shall not sell, lease, abandon, or otherwise dispose of, all or substantially all, or any substantial portion, of the System or any other system that provides revenues to provide for the payment of this Loan Agreement or the Governmental Agency Bond, except on ninety (90) days' prior written notice to the Authority and, in any event, shall not so sell, lease, abandon, or otherwise dispose of the same unless the following conditions are met: (i) the Governmental Agency shall assign this Loan Agreement in accordance with Section 4.02 hereof and its rights and interests hereunder to the purchaser or lessee of the System, and such purchaser or lessee shall expressly assume all duties, covenants, obligations, and agreements of the Governmental Agency under this Loan Agreement in writing; and (ii) the Authority shall by appropriate action determine that such sale, lease, abandonment or other disposition will not adversely affect the Authority's ability to meet its duties, covenants, obligations, and agreements under the Act, the Federal Clean Water Act, the Safe Drinking

Water Act, or any agreement between the Authority or the State of Colorado relating to any capitalization grant received by the Authority or the State of Colorado under the Federal Clean Water Act or the Safe Drinking Water Act, and in its sole discretion, approve such sale, lease, abandonment, or other disposition.

(e) Inspections; Information.

The Governmental Agency shall permit the Authority to examine, visit, and inspect, at any and all reasonable times, the property, if any, constituting the Project, and to inspect and make copies of, any accounts, books, and records, including (without limitation) its records regarding receipts, disbursements, contracts, investments, and any other matters relating thereto and to its financial standing, and shall supply such reports and information as the Authority may reasonably require in connection therewith. In addition, the Governmental Agency shall provide the Authority with copies of any official statements or other forms of offering prospectus relating to any other bonds, notes, or other indebtedness of the Governmental Agency secured from the Pledged Property and issued after the date of this Loan Agreement. At the discretion of the Authority, the Governmental Agency may be required to provide unaudited quarterly financial reports to the Authority.

(f) Cost of Project.

The Governmental Agency certifies that the Estimated Cost of the Project, as listed in Paragraph (3) of Exhibit B hereto and made a part hereof, is a reasonable and accurate estimation, and that upon direction of the Authority it shall supply the Authority with a certificate from its engineer stating that such cost is a reasonable and accurate estimation, taking into account investment income to be realized during the course of the Project, and other money that would, absent the Loan, have been used to pay the Estimated Cost of the Project.

(g) Reimbursement for Ineligible Costs.

The Governmental Agency shall promptly reimburse the Authority for any portion of the Loan that is determined not to be a Cost of the Project and that would not be eligible for funding from draws under the Drinking Water Revolving Fund. Such reimbursement shall be promptly repaid to the Authority upon written request of the Authority.

(h) Advertising.

The Governmental Agency agrees not to advertise the Project for bids until plans and specifications for the Project, if such plans and specifications require approval, have been approved by the State Department of Public Health and Environment.

(i) Commencement of Construction.

Within twelve (12) months after the Loan Closing, the Governmental Agency shall initiate construction of the Project.

(j) Interest in Project Site.

As a condition of the Loan, the Governmental Agency will demonstrate to the satisfaction of the Authority before advertising for bids for construction that the Governmental Agency has or will have a fee simple or such other estate or interest in the site of the Project, including necessary easements and rights-of-way, as the Authority finds sufficient to assure undisturbed use and possession for the purpose of construction and operation of the Project for the estimated life of the Project.

(k) No Lobbying.

No portion of the Loan shall be used for lobbying or propaganda as prohibited by 18 U.S.C. Section 1913 or Section 607(a) of Public Law 96-74.

(l) Operation and Maintenance of System.

The Governmental Agency covenants and agrees that it shall, in accordance with prudent water utility practice: (i) at all times operate the properties of its System and any business in connection therewith in an efficient manner; (ii) maintain its System in good repair, working order and operating condition; (iii) from time to time make all necessary and proper repairs, renewals, replacements, additions, betterments, and improvements with respect to its System so that at all times the business carried on in connection therewith shall be properly and advantageously conducted; provided, however, this covenant shall not be construed as requiring the Governmental Agency to expend any funds that are derived from sources other than the operation of its System or other receipts of such System that are not pledged under subsection (a) of this Section 2.02, and provided further that nothing herein shall be construed as preventing the Governmental Agency from doing so.

(m) Records; Accounts.

During the Loan Term, the Governmental Agency shall keep accurate records and accounts for its System (the "System Records"), separate and distinct from its other records and accounts (the "General Records"). Such System Records shall be maintained in accordance with generally accepted accounting principles, generally accepted government accounting standards related to the reporting of infrastructure assets and System Records and General Records shall be made available for inspection by the Authority at any reasonable time.

(n) Audits.

(i) If the Governmental Agency's System Records or General Records are audited annually by an independent accountant, then it shall furnish a copy of such annual audit(s) including all written comments and recommendations of the accountant preparing the audit to the Authority within 210 days of the close of the fiscal year audited, and the Governmental Agency shall cause its independent auditor to file with the Authority a report to the effect that the Governmental Agency is not in default of its Rate Covenant, Paragraph (4) of Exhibit A; Operations and Maintenance Reserve Fund Covenant, Paragraph (4) of Exhibit F; or Lien Representation, Paragraph (3) of Exhibit F under this Loan Agreement, which report may be a part of the annual audit or a separate document.

(ii) If the Governmental Agency's annual revenues are less than \$100,000, and the Governmental Agency elects in accordance with state law to file a short form audit exemption in lieu of performing an annual audit, then it shall provide the Authority a copy of the Exemption from Audit Form completed by a person skilled in governmental accounting practices, together with a report, also completed by a person skilled in governmental accounting practices, to the effect that the Governmental Agency is not in default of its Rate Covenant, Paragraph (4) of Exhibit A; Operations and Maintenance Reserve Fund Covenant, Paragraph (4) of Exhibit F; or Lien Representation, Paragraph (3) of Exhibit F under this Loan Agreement within 210 days of the close of the fiscal year.

(iii) If the Governmental Agency's annual revenues for any fiscal year commencing on or after January 1, 2015, are more than \$100,000, but less than \$750,000, and the Governmental Agency elects in accordance with state law to file a long form audit exemption in lieu of performing an annual audit, then it shall provide the Authority a copy of the Exemption from Audit Form completed by an independent accountant with knowledge of governmental accounting practices, together with a report, also completed by an independent accountant with knowledge of governmental accounting practices, to the effect that the Governmental Agency is not in default of its Rate Covenant, Paragraph (4) of Exhibit A; Operations and Maintenance Reserve Fund Covenant, Paragraph (4) of Exhibit F; or Lien Representation, Paragraph (3) of Exhibit F under this Loan Agreement within 210 days of the close of the fiscal year.

(o) Insurance.

During the Loan Term, the Governmental Agency shall maintain or cause to be maintained in force, insurance policies with responsible insurers or self-insurance programs providing against risk of direct physical loss, damage, or destruction of its System, at least to the extent that similar insurance is usually carried by utilities constructing, operating, and maintaining utility system facilities of the nature of the Governmental Agency's System, including liability coverage. The Governmental Agency shall pay all insurance premiums for coverage required hereby from revenues derived from the operation of the System. Nothing herein shall be deemed to preclude the Governmental Agency from asserting against any party, other than the Authority, a defense that may be available to the Governmental Agency, including, without limitation, a defense of governmental immunity.

(p) Notice of Material Adverse Change.

During the Loan Term, (i) the Governmental Agency shall promptly notify the Authority of any material adverse change in the activities, prospects, or condition (financial or otherwise) of the Governmental Agency relating to its System, or its ability to observe and perform its duties, covenants, obligations, and agreements under this Loan Agreement; (ii) the Governmental Agency shall promptly notify the Authority of any material adverse change in the activities, prospects, or condition (financial or otherwise) of the Governmental Agency relating to its ability to make all Loan Repayments from the Pledged Property, or its ability to otherwise observe and perform its duties, covenants, obligations, and agreements under this Loan Agreement and the Governmental Agency Bond.

(q) Hiring Requirements.

The Governmental Agency agrees to comply with the requirements found at Title 8, Article 17, and Title 8, Article 17.5, Colorado Revised Statutes.

(r) Additional Covenants and Requirements.

Additional covenants and requirements are included on Exhibit F attached hereto and made a part hereof. The Governmental Agency agrees to observe and comply with each such additional covenant and requirement included on Exhibit F.

(s) Continuing Representations.

The representations of the Governmental Agency contained herein shall be true at the time of the execution of this Loan Agreement and the Governmental Agency covenants not to take any action that would cause them not to be true at all times during the term of this Loan Agreement.

(t) Capacity Development.

The Governmental Agency covenants to maintain its technical, financial, and managerial capability to ensure compliance with the requirements of the Safe Drinking Water Act of 1996 under Section 1452(a)(3)(A)(i).

(u) Archeological Artifacts.

In the event that archeological artifacts or historical resources are unearthed during construction excavation, the Governmental Agency shall stop or cause to be stopped, construction activities and will notify the State Historic Preservation Office and the Authority of such unearthing.

ARTICLE III

LOAN TO GOVERNMENTAL AGENCY; AMOUNTS PAYABLE;

GENERAL AGREEMENTS

SECTION 3.01. The Loan. The Authority hereby agrees to loan and disburse to the Governmental Agency in accordance with Section 3.02 hereof, and the Governmental Agency agrees to borrow and accept from the Authority, the Loan in the principal amount equal to the Loan Commitment set forth in Paragraph (4) of Exhibit B attached hereto and made a part hereof as such Loan Commitment may be revised to reflect a reduction in the Cost of the Project prior to the initial Loan Repayment; provided, however, that the Authority shall be under no obligation to make the Loan if (i) the Governmental Agency does not deliver its Governmental Agency Bond to the Authority on the Loan Closing, or (ii) an Event of Default has occurred and is continuing under this Loan Agreement. The Governmental Agency shall use the proceeds of the Loan strictly in accordance with Section 2.01(h) hereof.

SECTION 3.02. Disbursement of the Loan. The Authority has created in the Drinking Water Revolving Fund a Project Loan Account for this Project from which the Costs of the Project shall be paid. Amounts shall be transferred into the Project Loan Account and disbursed to the Governmental Agency upon receipt of a requisition executed by an Authorized Officer, and approved by the Authority and the State Department of Public Health and Environment, in the form set forth in Exhibit G; provided that the Disbursement of the Loan may be withheld if the Governmental Agency is not complying with any of the covenants and conditions in the Loan Agreement.

SECTION 3.03. Amounts Payable.

(a) The Governmental Agency shall repay the principal of, interest on, and Administrative Fee, on the Loan **semi-annually on May 1st and November 1st** in accordance with the schedule set forth on Exhibit C attached hereto and made a part hereof, as the same may be amended or modified, commencing on the Loan Repayment Commencement Date set forth in Paragraph (8) of Exhibit B.

The Governmental Agency shall execute the Governmental Agency Bond to evidence its obligations to make Loan Repayments and the obligations of the Governmental Agency under the Governmental Agency Bond shall be deemed to be amounts payable under this Section 3.03. Each Loan Repayment shall be deemed to be a credit against the corresponding obligation of the Governmental Agency under this Section 3.03 and shall fulfill the Governmental Agency's obligation to pay such amount hereunder and under the Governmental Agency Bond. Each payment made pursuant to this Section 3.03 shall be applied to the payment of principal as set forth in Exhibit C.

(b) In addition to the payments required by subsection (a) of this Section 3.03, the Governmental Agency shall pay a late charge for any payment that is received by the Authority later than the tenth (10th) day following its due date, in an amount equal to the greater of twelve percent (12%) per annum or the Prime Rate plus one half of one percent per annum on such late payment from its due date to the date it is actually paid; provided, however, that such late charge shall not be in excess of the maximum rate permitted by law as of the date hereof.

(c) Loan Repayments pursuant to this Section 3.03 shall be made by electronic means (either by bank wire transfer or by Automated Clearing House “ACH” transfer).

SECTION 3.04. Unconditional Obligations. The Loan Repayments and all other payments required hereunder are payable solely from the Pledged Property. The obligation of the Governmental Agency to make the Loan Repayments and all other payments required hereunder shall be absolute and unconditional and shall not be abated, rebated, set-off, reduced, abrogated, terminated, waived, diminished, postponed or otherwise modified in any manner or to any extent whatsoever, while any payments due under the Loan Agreement remain unpaid regardless of any contingency, act of God, event or cause whatsoever, including (without limitation) any acts or circumstances that may constitute failure of consideration, eviction or constructive eviction, the taking by eminent domain or destruction of or damage to the Project, commercial frustration of the purpose, any change in the laws of the United States of America or of the State of Colorado or any political subdivision of either or in the rules or regulations of any governmental authority, any failure of the Authority to perform and observe any agreement, whether express or implied, or any duty, liability or obligation arising out of or connected with the Project or this Loan Agreement or any rights of set-off, recoupment, abatement or counterclaim that the Governmental Agency might otherwise have against the Authority or any other party or parties; provided, however, that payments hereunder shall not constitute a waiver of any such rights.

SECTION 3.05. Disclaimer of Warranties and Indemnification. The Governmental Agency acknowledges and agrees that (i) the Authority makes no warranty or representation, either express or implied as to the value, design, condition, merchantability, or fitness for particular purpose, or fitness for any use, of the Project or any portions thereof, or any other warranty or representation with respect thereto; (ii) in no event shall the Authority or its agents be liable or responsible for any direct, incidental, indirect, special, or consequential damages in connection with or arising out of this Loan Agreement, or the Project, or the existence, furnishing, functioning, or use of the Project, or any item or products or services provided for in this Loan Agreement; and (iii) to the extent authorized by law, the Governmental Agency shall indemnify, save, and hold harmless the Authority against any and all claims, damages, liability, and court awards, including costs, expenses, and attorney fees incurred as a result of any act or omission by the Governmental Agency, or its employees, agents, or subcontractors pursuant to the terms of this Loan Agreement, provided, however, that the provisions of this clause (iii) are not intended to and shall not be construed as a waiver of any defense or limitation on damages provided for under and pursuant to the Colorado Governmental Immunity Act (Section 24-10-101, *et seq.* C.R.S.), or under the laws of the United States or the State of Colorado.

SECTION 3.06. Option to Prepay Loan Repayments. The Governmental Agency may prepay the Loan Repayments, in whole or in part without penalty upon prior written notice (unless otherwise waived by the Authority) of not less than thirty (30) days. Prepayments shall be applied first to accrued interest and then to principal on the Loan. The Authority will amend Exhibit C to reflect any prepayment of the principal amount of the Loan.

SECTION 3.07. Source of Payment of Governmental Agency's Obligations. The Authority and the Governmental Agency agree that the amounts payable by the Governmental Agency under this Loan Agreement, including, without limitation, the amounts payable by the

Governmental Agency pursuant to Section 3.03, Section 3.05, Section 3.06, and Section 5.04 of this Loan Agreement are payable solely from the Pledged Property, and are not payable from any other source whatsoever; provided, however, that the Governmental Agency at its option, may elect to make payment from any source available to it.

SECTION 3.08. Delivery of Documents. Concurrently with the execution and delivery of this Loan Agreement, the Governmental Agency will cause to be delivered to the Authority each of the following items:

(a) an opinion of the Governmental Agency's counsel substantially in the form set forth in Exhibit E-1 hereto (such opinion or portions of such opinion may be given by one or more counsel); provided, however, that the Authority may in its discretion permit variances in such opinion from the form or substance of such Exhibit E-1 if such variances are not to the material detriment of the interests of the Authority;

(b) an opinion of the Governmental Agency's Bond Counsel substantially in the form set forth in Exhibit E-2 hereto. Such opinion must be rendered by Bond Counsel listed in the Directory of Bond Counsel published by the Bond Buyer (the "Red Book");

(c) executed counterparts of this Loan Agreement;

(d) copies of the resolutions or ordinances of the governing body of the Governmental Agency authorizing the execution and delivery of this Loan Agreement and the Governmental Agency Bond, certified by an Authorized Officer of the Governmental Agency; and

(e) such other certificates, documents, opinions, and information as the Authority may require.

Upon receipt of the foregoing documents, the Authority shall obligate the amount of the Loan Commitment set forth in Paragraph (4) of Exhibit B, and make the amount of the Loan available for the Project in accordance with the terms of this Loan Agreement.

ARTICLE IV

ASSIGNMENT

SECTION 4.01. Assignment and Transfer by Authority. The Governmental Agency expressly acknowledges that other than the right, title, and interest of the Authority under Section 3.05, Section 5.04, and Section 5.07, all right, title, and interest of the Authority in, to, and under this Loan Agreement and the Governmental Agency Bond, including, without limitation, the right to receive payments required to be made by the Governmental Agency hereunder, and to compel or otherwise enforce observance and performance by the Governmental Agency of its other duties, covenants, obligations, and agreements hereunder, may be transferred, assigned, and reassigned in whole or in part by the Authority at its sole discretion to one or more assignees

or subassignees at any time subsequent to their execution without the necessity of obtaining the consent of, but after giving prior written notice to, the Governmental Agency.

The Authority shall retain the right to compel or otherwise enforce observance and performance by the Governmental Agency of its duties, covenants, obligations, and agreements under Section 3.05 and Section 5.04.

SECTION 4.02. Assignment by Governmental Agency. Neither this Loan Agreement nor the Governmental Agency Bond may be assigned by the Governmental Agency for any reason, unless the following conditions shall be satisfied: (i) the Authority shall have approved said assignment in writing; (ii) the assignee shall be a governmental agency as defined by the Act, and the assignee shall have expressly assumed in writing the full and faithful observance and performance of the Governmental Agency's duties, covenants, agreements, and obligations under the Loan Agreement; (iii) immediately after such assignment, the assignee shall not be in default in the performance or observance of any duties, covenants, obligations, or agreements of the Governmental Agency under the Loan Agreement; and (iv) the Authority shall receive an opinion of counsel to the effect that such assignment will not violate the provisions of any agreement entered into by the Authority with, or condition of any grant received by the Authority from, the United States of America relating to the Federal Capitalization Agreement or any capitalization grant received by the Authority or the State under the Safe Drinking Water Act.

No assignment shall relieve the Governmental Agency from primary liability for any of its obligations under this Loan Agreement, and in the event of such assignment, the Governmental Agency shall continue to remain primarily liable for the performance and observance of its obligations to be performed and observed under this Loan Agreement.

ARTICLE V

DEFAULTS AND REMEDIES

SECTION 5.01. Event of Default. If any of the following events occur, it is hereby defined as and declared to be and to constitute an "Event of Default":

(a) failure by the Governmental Agency to pay, or cause to be paid, any Loan Repayment required to be paid hereunder when due, which failure shall continue for a period of thirty (30) days;

(b) failure by the Governmental Agency to make, or cause to be made, any required payments of interest and principal, redemption premium, if any, and interest on any bonds, notes, or other obligations of the Governmental Agency for borrowed money (other than the Loan and the Governmental Agency Bond), after giving effect to the applicable grace period, the payments of which are secured by the Pledged Property;

(c) failure by the Governmental Agency to observe and perform any duty, covenant, obligation or agreement on its part to be observed or performed under this Loan Agreement other

than as referred to in Paragraph (a) of this Section, which failure shall continue for a period of thirty (30) days after written notice, specifying such failure and requesting that it be remedied, is given to the Governmental Agency; provided, however, that if the failure stated in such notice is correctable, but cannot be corrected within the applicable period, the Authority may consent to an extension of such time if corrective action is instituted by the Governmental Agency within the applicable period and diligently pursued until the Event of Default is corrected;

(d) any representation made by or on behalf of the Governmental Agency contained in this Loan Agreement, or in any instrument furnished in compliance with or with reference to this Loan Agreement or the Loan, is false or misleading in any material respect; or

(e) (i) a petition is filed by or against the Governmental Agency under any federal or state bankruptcy or insolvency law, or other similar law in effect on the date of this Loan Agreement or thereafter enacted, unless in the case of any such petition filed against the Governmental Agency such petition shall be dismissed within thirty (30) days after such filing, and such dismissal shall be final and not subject to appeal; or (ii) the Governmental Agency shall become insolvent, or bankrupt or make an assignment for the benefit of its creditors; or (iii) a custodian (including, without limitation, a receiver, liquidator, or trustee of the Governmental Agency or any of its property) shall be appointed by court order, or take possession of the Governmental Agency, or its property or assets, if such order remains in effect, or such possession continues, for more than thirty (30) days.

SECTION 5.02. Notice of Default. The Governmental Agency shall give the Authority prompt telephonic notice of the occurrence of any Event of Default referred to in Section 5.01 at such time as any senior administrative or financial officer of the Governmental Agency becomes aware of the existence thereof. Any telephonic notice pursuant to this Section 5.02 shall be confirmed by the Governmental Agency in writing as soon as practicable.

SECTION 5.03. Remedies on Default. Whenever an Event of Default referred to in Section 5.01 hereof shall have occurred and be continuing, the Authority shall have the right to withhold disbursement of Loan funds remaining, and take such other action at law or in equity as may appear necessary to enforce the performance and observance of any duty, covenant, obligation, or agreement of the Governmental Agency hereunder, including, without limitation, appointment ex parte of a receiver of the System.

SECTION 5.04. Attorney's Fees and Other Expenses. In the Event of Default, the Governmental Agency shall on demand pay to the Authority the reasonable fees and expenses of attorneys, and other reasonable expenses (including, without limitation, the reasonably allocated costs of in-house counsel and legal staff) incurred by the Authority in the collection of Loan Repayments or any other sum due hereunder, or in the enforcement of the performance or observation of any other duties, covenants, obligations, or agreements of the Governmental Agency.

SECTION 5.05. Application of Moneys. Any moneys collected by the Authority pursuant to Section 5.03 hereof shall be applied (a) first, to pay any attorney's fees, or other fees and expenses owed by the Governmental Agency pursuant to Section 5.04 hereof, (b) second, to pay

principal due and payable on the Loan, and (c) third, to pay any other amounts due and payable under this Loan Agreement.

SECTION 5.06. No Remedy Exclusive; Waiver; Notice. No remedy herein conferred upon or reserved to the Authority is intended to be exclusive, and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Loan Agreement, or now or hereafter existing at law or in equity. No delay or omission to exercise any right, remedy, or power accruing upon any Event of Default shall impair any such right, remedy, or power, or shall be construed to be a waiver thereof, but any such right, remedy, or power may be exercised from time to time and as often as may be deemed expedient. In order to entitle the Authority to exercise any remedy reserved to it in this Article, it shall not be necessary to give any notice, other than such notice as may be required in this Article V.

SECTION 5.07. Retention of Authority's Rights. Notwithstanding any assignment or transfer of this Loan Agreement pursuant to the provisions hereof, or anything else to the contrary contained herein, the Authority shall have the right upon the occurrence of an Event of Default to take any action, including (without limitation) bringing an action against the Governmental Agency at law or in equity, as the Authority may, in its discretion, deem necessary to enforce the obligations of the Governmental Agency to the Authority pursuant to Section 5.04, Section 3.03, and Section 3.05 hereof.

SECTION 5.08. Default by the Authority. In the event of any default by the Authority under any covenant, agreement, or obligation of this Loan Agreement, the Governmental Agency's remedy for such default shall be limited to injunction, special action, action for specific performance, or any other available equitable remedy, designed to enforce the performance or observance of any duty, covenant, obligation, or agreement of the Authority hereunder, as may be necessary or appropriate. The Authority shall on demand pay to the Governmental Agency the reasonable fees and expenses of attorneys, and other reasonable expenses, in the enforcement of such performance or observation.

ARTICLE VI

MISCELLANEOUS

SECTION 6.01. Notices. All notices, certificates, or other communications hereunder shall be sufficiently given and shall be deemed given when hand-delivered or mailed by registered or certified mail, postage prepaid, to the Governmental Agency at the address specified on Exhibit B attached hereto and made a part hereof, and to the Authority, at the following address:

Colorado Water Resources and Power
Development Authority
1580 Logan Street, Suite 620
Denver, Colorado 80203
Attention: Executive Director

Such address may be changed by notice in writing.

SECTION 6.02. Binding Effect. This Loan Agreement shall inure to the benefit of, and shall be binding upon, the Authority and the Governmental Agency, and their respective successors and assigns.

SECTION 6.03. Severability. In the event any provision of this Loan Agreement shall be held illegal, invalid, or unenforceable by any court of competent jurisdiction, such holding shall not invalidate, render unenforceable, or otherwise affect, any other provision hereof.

SECTION 6.04. Amendments, Supplements and Modifications. This Loan Agreement may not be amended, supplemented, or modified without the prior written consent of the Authority and the Governmental Agency.

SECTION 6.05. Execution in Counterparts. This Loan Agreement may be executed in several counterparts, each of which shall be an original, and all of which shall constitute but one and the same instrument.

SECTION 6.06. Applicable Law and Venue. This Loan Agreement shall be governed by and construed in accordance with the laws of the State of Colorado, including the Act. Venue for any action seeking to interpret or enforce the provisions of this Loan Agreement shall be in the Denver District Court.

SECTION 6.07. Consents and Approvals. Whenever the written consent or approval of the Authority shall be required under the provisions of this Loan Agreement, such consent or approval may only be given by the Authority unless otherwise provided by law, or by rules, regulations or resolutions of the Authority.

SECTION 6.08. Captions. The captions or headings in this Loan Agreement are for convenience only and shall not in any way define, limit, or describe, the scope or intent of any provisions or sections of this Loan Agreement.

SECTION 6.09. Further Assurances. The Governmental Agency shall, at the request of the Authority, authorize, execute, acknowledge, and deliver, such further resolutions, conveyances,

transfers, assurances, financing statements, and other instruments, as may be necessary or desirable for better assuring, conveying, granting, assigning, and confirming, the rights and agreements, granted or intended to be granted, by this Loan Agreement and the Governmental Agency Bond.

SECTION 6.10. Recitals. This Loan Agreement is authorized pursuant to and in accordance with the Constitution of the State of Colorado and all other laws of the State of Colorado thereunto enabling. Specifically, but not by way of limitation, this Loan Agreement is authorized by the Governmental Agency pursuant to Title 37, Article 45.1 C.R.S., Title 31, Article 35, Part 4, C.R.S., and Title 11, Article 57, Part 2, C.R.S and shall so recite in the Governmental Agency Bond. Such recitals shall conclusively impart full compliance with all provisions and limitations of such laws and shall be conclusive evidence of the validity and regularity of the issuance of the Governmental Agency Bond, and the Governmental Agency Bond delivered by the Governmental Agency to the Authority containing such recital shall be incontestable for any cause whatsoever after its delivery for value.

IN WITNESS WHEREOF, the Authority and the Governmental Agency have caused this Loan Agreement to be executed, sealed and delivered, as of the Commencement Date set forth on Exhibit B hereto.

**COLORADO WATER RESOURCES AND
POWER DEVELOPMENT AUTHORITY**

(SEAL)

By: _____
Executive Director

ATTEST:

By: _____
Assistant Secretary

**TOWN OF MINTURN, COLORADO, ACTING
BY AND THROUGH ITS _____
ENTERPRISE**

(SEAL)

By: _____
Mayor

ATTEST:

By: _____
Town Clerk

IN WITNESS WHEREOF, the Authority and the Governmental Agency have caused this Loan Agreement to be executed, sealed and delivered, as of the Commencement Date set forth on Exhibit B hereto.

**COLORADO WATER RESOURCES AND
POWER DEVELOPMENT AUTHORITY**

(SEAL)

By: _____
Executive Director

ATTEST:

By: _____
Assistant Secretary

**TOWN OF MINTURN, COLORADO, ACTING
BY AND THROUGH ITS _____
ENTERPRISE**

(SEAL)

By: _____
Mayor

ATTEST:

By: _____
Town Clerk

EXHIBIT A

(1) **Description of the Project**

The project consists of replacing one of the Town's water storage tanks that is in disrepair and replacing it with two new storage tanks.

(2) **Description of the System**

"System" shall mean, (i) any facility, plant, works, system, building, structure, improvement, machinery, equipment, fixture or other real or personal property, relating to the collection, treatment, storage and distribution of water that is owned, operated or controlled by the Governmental Agency, including, without limitation, the Project (ii) any renewal, replacement, addition, modification or improvement to (i) above, and (iii) all real or personal property and rights therein and appurtenances thereto necessary or useful or convenient for the effectiveness of the purposes of the Governmental Agency in the transmission, treatment, storage and distribution of water.

(3) **Pledged Property**

The Pledged Property shall consist of Net Revenue, as defined below:

"*Net Revenue*" means the Gross Revenue after deducting the Operation and Maintenance Expenses.

"*Gross Revenue*" means all income and revenues directly or indirectly derived by the Governmental Agency from the operation and use of the System, or any part thereof, including without limitation, any rates, fees (including without limitation plant investment fees and availability fees), and charges for the services furnished by, or the use of, the System, and all income attributable to any past or future dispositions of property or rights, or related contracts, settlements, or judgments held or obtained in connection with the System or its operations, and including investment income accruing from such moneys; provided however, that there shall be excluded from Gross Revenue: ad valorem property taxes; any moneys borrowed and used for providing Capital Improvements; any money and securities, and investment income therefrom, in any refunding fund, escrow account, or similar account, pledged to the payment of any bonds or other obligations; and any moneys received as grants or appropriations from the United States, the State of Colorado or other sources, the use of which is limited or restricted by the grantor or donor to the provision of Capital Improvements or for other purposes resulting in the general unavailability thereof, except to the extent any such moneys shall be received as payments for the use of the System, services rendered thereby, the availability of any such service, or the disposal of any commodities therefrom.

"*Capital Improvements*" means the acquisition of land, easements, facilities and equipment (other than ordinary repairs and replacements), and the construction or

reconstruction of improvements, betterments, and extensions, for use by, or in connection with, the System.

“*Operation and Maintenance Expenses*” means all reasonable and necessary current expenses of the Governmental Agency, paid or accrued, for operating, maintaining and repairing the System, including without limitation legal and overhead expenses of the Governmental Agency directly related to the administration of the System, insurance premiums, audits, professional services, salaries and administrative expenses, labor and the cost of materials and supplies for current operation; provided however, that there shall be excluded from Operation and Maintenance Expenses any allowance for depreciation, payments in lieu of taxes or franchise fees, expenses incurred in connection with Capital Improvements, payments due in connection with any bonds or other obligations, and expenses that are otherwise paid from ad valorem property taxes.

(4) **Rate Covenant**

The Governmental Agency shall establish and collect such rates, fees, and charges for the use or the sale of the products and services of the System as, together with other moneys available therefor, are expected to produce Gross Revenue (as defined in Paragraph (3) of this Exhibit A to this Loan Agreement) for each calendar year that will be at least sufficient for such calendar year to pay the sum of:

- (a) all amounts estimated to be required to pay Operation and Maintenance Expenses (as defined in Paragraph (3) of this Exhibit A of this Loan Agreement) during such calendar year;
- (b) a sum equal to 110% of the debt service due on the Governmental Agency Bond for such calendar year and debt service coming due during such calendar year on any obligations secured by a lien on the Pledged Property which lien is on a parity with the lien of this Loan Agreement on the Pledged Property, in each case computed as of the beginning of such calendar year;
- (c) the amount, if any, to be paid during such calendar year into any debt service reserve account in connection with any obligations secured by a lien on the Pledged Property which lien is on a parity with the lien of this Loan Agreement on the Pledged Property;
- (d) a sum equal to the debt service on any obligations secured by a lien on the Pledged Property which lien is subordinate to the lien of this Loan Agreement on the Pledged Property for such calendar year computed as of the beginning of such calendar year; and
- (e) amounts necessary to pay and discharge all charges and liens or other indebtedness not described above payable out of the Gross Revenue during such calendar year.

EXHIBIT B

DESCRIPTION OF THE LOAN

- (1) Commencement Date:
- (2) Name and Address of Governmental Agency:
Town of Minturn, Colorado, Acting By And Through Its _____ Enterprise
301 Boulder Street #309; P.O. Box 309
Minturn, CO 80488
- (3) Estimated Cost of the Project: \$3,000,000.00
- (4) Maximum Principal Amount of Loan Commitment: \$3,000,000.00
- (5) Loan Term: 20 years
- (6) Interest Rate: 2.25% annually
- (7) Authorized Officers: (please list at least two people that will be authorized to take action on this loan, including the ability to withdraw funds)
- (8) Loan Repayment Commencement Date: November 1, 2022
- (9) Execution Date:

EXHIBIT C
REPAYMENT SCHEDULE

EXHIBIT D

GOVERNMENTAL AGENCY BOND

FOR VALUE RECEIVED, the undersigned **TOWN OF MINTURN, COLORADO, ACTING BY AND THROUGH ITS _____ ENTERPRISE** (the "Governmental Agency"), hereby promises to pay to the order of the **COLORADO WATER RESOURCES AND POWER DEVELOPMENT AUTHORITY** (the "Authority") the principal amount of Three Million and 00/100 Dollars (\$3,000,000.00), or such lesser amount as shall be loaned to the Governmental Agency pursuant to the Loan Agreement dated as of____, 2021, by and between the Authority and the Governmental Agency (the "Loan Agreement"), at the times and in the amounts determined as provided in the Loan Agreement, at Two and One Quarter percent interest (2.25%), subject to late charges on late payments as provided in Section 3.03 (b) of the Loan Agreement, and payable on the dates and in the amounts determined as provided in the Loan Agreement.

This Governmental Agency Bond is issued pursuant to the Loan Agreement and is issued in consideration of the loan made thereunder (the "Loan") and to evidence the obligations of the Governmental Agency set forth in Section 3.03 thereof. This Governmental Agency Bond is subject to assignment or endorsement in accordance with the terms of the Loan Agreement. All of the definitions, terms, conditions, and provisions of the Loan Agreement are, by this reference thereto, incorporated herein as a part of this Governmental Agency Bond.

Pursuant to the Loan Agreement, disbursements to the Governmental Agency shall be made in accordance with written instructions upon the receipt by the Authority of requisitions from the Governmental Agency executed and delivered in accordance with the requirements set forth in Section 3.02 of the Loan Agreement.

This Governmental Agency Bond is entitled to the benefits, and is subject to the conditions, of the Loan Agreement. The obligations of the Governmental Agency to make the payments required hereunder shall be absolute and unconditional without any defense or right of set-off, counterclaim, or recoupment by reason of any default by the Authority under the Loan Agreement, or under any other agreement between the Governmental Agency and the Authority, or out of any indebtedness or liability at any time owing to the Governmental Agency by the Authority, or for any other reason.

This Governmental Agency Bond is subject to optional prepayment under the terms and conditions, and in the amounts, provided in Section 3.06 of the Loan Agreement. The obligation of the Governmental Agency to make payments under the Loan Agreement and this Governmental Agency Bond is payable solely from the Pledged Property, except for reserves created in connection with the Loan.

This Governmental Agency Bond does not constitute a debt or an indebtedness of the Governmental Agency within the meaning of any constitutional or statutory limitation or provision, and shall not be considered or held to be a general obligation of the Governmental Agency. The payment of this Governmental Agency Bond is not secured by an encumbrance, mortgage or other pledge of property except for such property and moneys pledged for the payment of the Governmental Agency Bond.

For the payment of this Governmental Agency Bond, the Governmental Agency shall enforce the Rate Covenant set forth in Paragraph (4) of Exhibit A to the Loan Agreement, shall promptly collect all revenues of the System, and shall take all necessary action to collect any revenues that are in default.

If an "Event of Default" as defined in Section 5.01 of the Loan Agreement occurs, the remedies on default set forth in Section 5.03 of the Loan Agreement shall be available to enforce the obligations of the Governmental Agency that are evidenced by this Governmental Agency Bond.

This Governmental Agency Bond is issued under the authority of and in full conformity with the Constitution and laws of the State of Colorado, including without limitation, Article X, Section 20 of the Constitution, Title 31, Article 35, Part 4, C.R.S.; Title 37, Article 45.1; certain provisions of Title 11, Article 57, Part 2, C.R.S. (the "Supplemental Public Securities Act"), and pursuant to the Loan Agreement. Pursuant to §11-57-210, of the Supplemental Public Securities Act, this recital is conclusive evidence of the validity and regularity of the issuance of the Governmental Agency Bond after its delivery for value. Pursuant to §31-35-413, C.R.S., this recital conclusively imparts full compliance with all the provisions of said statutes, and this Governmental Agency Bond issued containing such recital is incontestable for any cause whatsoever after its delivery for value.

IN WITNESS WHEREOF, the Governmental Agency has caused this Governmental Agency Bond to be duly executed, sealed and delivered, as of this ___ day of _____ 2021.

(SEAL)

**TOWN OF MINTURN, COLORADO,
ACTING BY AND THROUGH ITS
_____ ENTERPRISE**

ATTEST:

By: _____
Mayor

By: _____
Town Clerk

EXHIBIT E-1

OPINION OF GOVERNMENTAL AGENCY COUNSEL

[LETTERHEAD OF COUNSEL TO GOVERNMENTAL AGENCY]

[DATED : Closing Date]

Colorado Water Resources and
Power Development Authority

Ladies and Gentlemen:

[insert "I am an attorney" or "We are attorneys"] admitted to practice in the State of Colorado and [insert "I" or "we"] have acted as counsel to **TOWN OF MINTURN, COLORADO, ACTING BY AND THROUGH ITS _____ ENTERPRISE** (the "Governmental Agency"), of the State of Colorado, which has entered into a Loan Agreement (as hereinafter defined) with the **COLORADO WATER RESOURCES AND POWER DEVELOPMENT AUTHORITY** (the "Authority"), and have acted as such in connection with the authorization, execution and delivery by the Governmental Agency of its Loan Agreement and Governmental Agency Bond (as hereinafter defined).

In so acting [insert "I" or "we"] have examined the Constitution and laws of the State of Colorado and the [charter/by-laws/proceedings relating to organization] of the Governmental Agency. [insert "I" or "We"] have also examined originals, or copies certified or otherwise identified to [insert "my" or "our"] satisfaction, of the following:

- (a) the Loan Agreement, dated as of _____ (the "Loan Agreement") by and between the Authority and the Governmental Agency;
- (b) the proceedings of the governing body of the Governmental Agency relating to the approval of the Loan Agreement and the execution, issuance and delivery thereof on behalf of the Governmental Agency, and the authorization of the undertaking and completion of the Project (as defined in the Loan Agreement);
- (c) the Governmental Agency Bond, dated as of _____ (the "Governmental Agency Bond") issued by the Governmental Agency to the Authority to evidence the Loan(as defined in the Loan Agreement);
- (d) the proceedings of the governing body of the Governmental Agency relating to the issuance of the Governmental Agency Bond and the execution, issuance and delivery thereof to the Authority (the Loan Agreement and the Governmental Agency Bond are referred to herein collectively as the "Loan Documents");

(e) all outstanding instruments relating to the bonds, notes or other indebtedness of or relating to the Governmental Agency.

[insert "I" or "We"] have also examined and relied upon originals, or copies certified or otherwise authenticated to [insert "my" or "our"] satisfaction, of such other records, documents, certificates and other instruments, and made such investigation of law as in [insert "my" or "our"] judgment [insert "I" or "we"] have deemed necessary or appropriate to enable [insert "me" or "us"] to render the opinions expressed below.

Based upon the foregoing, [insert "I am" or "we are"] of the opinion that:

(1) The Governmental Agency is a "governmental agency" within the meaning of the Authority's enabling legislation and is a (_____) of the State of Colorado with the full legal right and authority to execute the Loan Documents.

(2) The Governmental Agency has the full legal right and authority to carry on the business of the System (as defined in the Loan Agreement) as currently being conducted and as proposed to be conducted, and to undertake and complete the Project.

(3) The proceedings of the Governmental Agency's governing body authorizing the Governmental Agency to undertake and complete the Project were duly and lawfully adopted and approved in accordance with [applicable resolution] applicable Colorado law at meetings duly called pursuant to necessary public notice and held in accordance with applicable Colorado law at which quorums were present and acting throughout and were published in accordance with applicable Colorado law.

(4) The proceedings of the Governmental Agency's governing body approving the Loan Documents and authorizing their execution, issuance and delivery on behalf of the Governmental Agency have been duly and lawfully adopted and approved in accordance with [the applicable resolution] applicable Colorado law, at meetings duly called pursuant to necessary public notice and held in accordance with applicable Colorado law, and at which quorums were present and acting throughout and were published in accordance with applicable Colorado law.

(5) To the best of [insert "my" or "our"] knowledge, after such investigation as [insert "I" or "we"] have deemed appropriate, the authorization, execution and delivery of the Loan Documents by the Governmental Agency, the observation and performance by the Governmental Agency of its duties, covenants, obligations and agreements thereunder and the consummation of the transactions contemplated therein and the undertaking and completion of the Project do not and will not contravene any existing law or any existing order, injunction, judgment, decree, rule or regulation of any court or governmental or administrative agency, authority or person having jurisdiction over the Governmental Agency or its property or assets or result in a breach or violation of any of the terms and provisions of, or constitute a default under, any existing bond resolution, trust agreement, indenture, mortgage, deed of trust, ordinance, order, or other agreement to which the Governmental Agency is a party or by which it, the System, or its property or assets is bound.

(6) To the best of [insert "my" or "our"] knowledge, after such investigation as [insert "I" or "we"] have deemed appropriate, all approvals, consents or authorizations of, or registrations of or filings with, any governmental or public agency, authority or person required to date on the part of the Governmental Agency in connection with the authorization, execution, delivery and performance of the Loan Documents and the undertaking and completion of the Project, other than licenses and permits relating to the construction and acquisition of the Project which [insert "I" or "we"] expect the Governmental Agency to receive in the ordinary course of business, have been obtained or made.

(7) To the best of my knowledge, after such investigation as I have deemed appropriate, except as disclosed in writing to the Authority, there is no litigation or other proceeding pending or threatened in any court or other tribunal of competent jurisdiction (either State or Federal) that (1) questions the creation, organization or existence of the Governmental Agency; or the validity, legality or enforceability of the Loan Documents; or the undertaking or completion of the Project; or (2) if adversely determined, could (a) materially adversely affect (i) the financial position of the Governmental Agency; (ii) the ability of the Governmental Agency to perform its obligations under the Loan Documents; (iii) the security for the Loan Documents; or (iv) the transactions contemplated by the Loan Documents; or (b) impair the ability of the Governmental Agency to maintain and operate its system.

This opinion is rendered on the basis of Federal law and the laws of the State of Colorado as enacted and construed on the date hereof. [insert "I" or "We"] express no opinion as to any matter not set forth in the numbered paragraphs herein.

[insert "I" or "We"] hereby authorize Carlson, Hammond, & Paddock, L.L.C., General Counsel to the Authority, to rely on this opinion as if [insert "I" or "we"] had addressed this opinion to them in addition to you.

Very truly yours,

EXHIBIT E-2

OPINION OF GOVERNMENTAL AGENCY BOND COUNSEL

[LETTERHEAD OF BOND COUNSEL TO GOVERNMENTAL AGENCY]

[DATED: Closing Date]

Colorado Water Resources and
Power Development Authority

Ladies and Gentlemen:

[insert "I am an attorney" or "We are attorneys"] admitted to practice in the State of Colorado and [insert "I" or "we"] have acted as bond counsel for **TOWN OF MINTURN, COLORADO, ACTING BY AND THROUGH ITS _____ ENTERPRISE** (the "Governmental Agency"), of the State of Colorado, which has entered into a Loan Agreement (as hereinafter defined) with the **COLORADO WATER RESOURCES AND POWER DEVELOPMENT AUTHORITY** (the "Authority"), and have acted as such in connection with the authorization, execution, and delivery by the Governmental Agency of the Loan Agreement and Governmental Agency Bond (as hereinafter defined).

In so acting [insert "I" or "we"] have examined the Constitution and laws of the State of Colorado and [charter/by-laws/proceedings relating to organization] of the Governmental Agency. [insert "I" or "We"] have also examined originals, or copies certified or otherwise identified to [insert "my" or "our"] satisfaction, of the following:

(a) the Loan Agreement, dated as of _____ (the "Loan Agreement"), by and between the Authority and the Governmental Agency;

(b) the proceedings of the governing body of the Governmental Agency relating to the approval of the Loan Agreement, and the execution, issuance, and delivery thereof by the Governmental Agency, and the authorization of the undertaking and completion of the Project (as defined in the Loan Agreement);

(c) the Governmental Agency Bond, dated as of _____ (the "Governmental Agency Bond"), issued by the Governmental Agency to the Authority to evidence the Loan (as defined in the Loan Agreement);

(d) the proceedings of the governing body of the Governmental Agency relating to the issuance, of the Governmental Agency Bond, and the execution, issuance, and delivery thereof to the Authority (the Loan Agreement and the Governmental Agency Bond are referred to herein collectively as the "Loan Documents"); and

(e) all outstanding instruments relating to the bonds, notes, or other indebtedness of, or relating to the Governmental Agency.

[insert "I" or "We"] have also examined and relied upon originals, or copies certified or otherwise authenticated to [insert "my" or "our"] satisfaction, of such other records, documents, certificates, and other instruments, and made such investigation of law as in [insert "my" or "our"] judgment [insert "I" or "we"] have deemed necessary or appropriate to enable [insert "me" or "us"] to render the opinions expressed below.

Based upon the foregoing, [insert "I am" or "we are"] of the opinion that:

(1) The Governmental Agency is a "governmental agency" within the meaning of the Authority's enabling legislation.

(2) The Governmental Agency has full legal right and authority to execute the Loan Documents and the Governmental Agency has full legal right and authority to observe and perform its respective duties, covenants, obligations, and agreements thereunder; subject, however, to the effect of, and to restrictions and limitations imposed by or resulting from, bankruptcy, insolvency, moratorium, reorganization, debt adjustment, or other similar laws affecting creditors' rights generally (Creditor's Rights Limitations), heretofore or hereafter enacted.

(3) The Governmental Agency has pledged the Pledged Property described in Paragraph (3) of Exhibit A to the Loan Agreement for the punctual payment of the principal on the Loan and all other amounts due under the Loan Documents according to their respective terms, and the Authority has a first lien on such Pledged Property, but not an exclusive first lien. *****Only include "but not an exclusive first lien" if there is parity debt***** No filings or recordings are required under the Colorado Uniform Commercial Code in order to provide a first lien on such Pledged Property, and all actions have been taken as required under Colorado law to insure the priority, validity, and enforceability of such lien.

(4) The Loan Documents have been duly authorized, executed, and delivered by the authorized officers of the Governmental Agency; and, assuming in the case of the Loan Agreement, that the Authority has all the requisite power and authority to authorize, execute and deliver, and has duly authorized, executed, and delivered the Loan Agreement, the Loan Documents constitute the legal, valid, and binding obligations of the Governmental Agency enforceable in accordance with their respective terms; subject, however, to the effect of, and to restrictions and limitations imposed by, or resulting from, Creditor's Rights Limitations or other laws, judicial decisions, and principles of equity relating to the enforcement of contractual obligations generally, provided that no opinion is expressed herein regarding the validity or enforceability of Section 3.05 of the Loan Agreement or any other provision thereof that purports to require the Governmental Agency to indemnify or hold any party harmless.

(5) To the best of our knowledge, after such investigation as we have deemed appropriate, the authorization, execution, and delivery of the Loan Documents by the Governmental Agency, the observance and performance by the Governmental Agency of its duties, covenants, obligations, and agreements thereunder, and the consummation of the transactions contemplated therein, do not and will not contravene any existing law, or result in a breach or violation of any of the terms and provisions of, or constitute a default under, any outstanding

instruments relating to the bonds, notes, or other indebtedness of, or relating to, the Governmental Agency.

(6) To the best of our knowledge, after such investigation as we deemed appropriate, all approvals, consents, or authorizations of, or registrations of or filings with, any governmental or public agency, authority, or person required to date on the part of the Governmental Agency in connection with the authorization, execution, delivery, and performance of the Loan Documents have been obtained or made.

****If the Governmental Agency constitutes an Enterprise under TABOR, the following paragraph should be included in the Bond Counsel opinion:**

(7) The execution and delivery of the Loan Documents are not subject to the limitations of Article X, Section 20 of the Colorado Constitution, since the Governmental Agency as defined in the Loan Agreement constitutes an enterprise under said Article X, Section 20 on the date of such execution and delivery. The performance of the Loan Documents is not subject to the limitations of said Article X, Section 20, as long as the Governmental Agency continues to qualify as an enterprise under said Article X, Section 20. If the Governmental Agency ceases to be an enterprise under said Article X, Section 20, during the Loan Term, the Loan Documents will continue to constitute legal, valid and binding obligations of the Governmental Agency enforceable in accordance with their respective terms; subject, however, to (a) Creditor's Rights Limitations or other laws, judicial decisions and principles of equity relating to the enforcement of contractual rights generally and (b) subject to the next sentence, the revenue and spending limitations of said Article X, Section 20. If the Governmental Agency at any time ceases to be an enterprise under said Article X, Section 20, (i) the **City/District/Town** may continue to impose and increase fees, rates and charges without voter approval; (ii) all revenues of the Governmental Agency used to pay Loan Repayments will be included in the Governmental Agency fiscal year spending limit under Section 7(d) of said Article X, Section 20 except that debt service changes and reductions are exceptions to, and not part of, the Governmental Agency revenue and spending bases and limits; and (iii) if the Governmental Agency is required to reduce spending in order to comply with its fiscal year spending limit under Section 7(b) of said Article X, Section 20, the Governmental Agency will first be required to reduce spending for purposes for which it does not have an obligation under law or by contract prior to reducing spending required to comply with the other covenants contained in the Loan Documents.

****If the Governmental Agency does not constitute an Enterprise under TABOR, the following paragraph should be included in the Bond Counsel opinion:**

(7) The Governmental Agency has complied with the requirements of Article x, Section 20 of the Colorado Constitution in connection with the execution and delivery of the loan documents.

This opinion is rendered on the basis of Federal law and the laws of the State of Colorado as enacted and construed on the date hereof. We express no opinion as to any matter not set forth in the numbered paragraphs herein.

[insert "I" or "We"] hereby authorize Carlson, Hammond & Paddock, L.L.C., General Counsel to the Authority, to rely on this opinion as if [insert "I" or "we"] had addressed this opinion to them in addition to you.

Very truly yours,

EXHIBIT F

ADDITIONAL COVENANTS AND REQUIREMENTS

(1) Rate Study.

In the event that Gross Revenue collected during a fiscal year is not sufficient to meet the requirements set forth in the Rate Covenant contained in Paragraph (4) of Exhibit A to this Loan Agreement, the Governmental Agency shall, within 90 days of the end of such fiscal year, cause an independent firm of accountants or consulting engineers, to prepare a rate study for the purpose of recommending a schedule of rates, fees, and charges for the use of the System that, in the opinion of the firm conducting the study will be sufficient to provide Gross Revenue to be collected in the next succeeding fiscal year that will provide compliance with the Rate Covenant described in Paragraph (4) of Exhibit A to this Loan Agreement. Such a study shall be delivered to the Authority. The Governmental Agency shall within six months of receipt of such study, adopt rates, fees, and charges for the use of the System, based upon the recommendations contained in such study, that provide compliance with said Rate Covenant. Notwithstanding the foregoing, the Authority may, from time to time, in its sole and absolute discretion and pursuant to such terms and restrictions it may specify, waive in writing the requirement that a rate study be performed by the Governmental Agency.

(2) Additional Bonds.

(a) Senior Lien Bonds. The Governmental Agency covenants that it will not issue any obligations payable out of, or secured by a lien or charge on, the Pledged Property that is superior to the lien or charge of this Loan Agreement on the Pledged Property.

(b) Parity Lien Bonds. The Governmental Agency covenants that it will not issue any obligations payable out of, or secured by a lien or charge on, the Pledged Property that is on a parity with the lien or charge of this Loan Agreement on the Pledged Property, unless the Governmental Agency certifies to the Authority that Net Revenue (as defined in Paragraph (3) of Exhibit A to this Loan Agreement) for any 12 consecutive months out of the 18 months preceding the month in which such obligations are to be issued was at least equal to the sum of (a) 110% of the maximum annual debt service due in any one year on (i) this Loan Agreement and (ii) all other outstanding obligations of the Governmental Agency payable out of, or secured by a lien or charge on, the Pledged Property that is on a parity with the lien or charge of this Loan Agreement on the Pledged Property, and (iii) such proposed obligations to be issued, and (b) the maximum annual debt service due in any one year on all obligations payable out of, or secured by a lien or charge on, the Pledged Property that is subordinate to the lien or charge of this Loan Agreement on the Pledged Property.

(c) Subordinate Lien Bonds. The Governmental Agency covenants that it will not issue any obligations payable out of, or secured by a lien or charge on, the Pledged Property that is subordinate to the lien or charge of this Loan Agreement on the Pledged Property, unless the Governmental Agency certifies to the Authority that for any 12 consecutive months out of the 18 months preceding the month in which such obligations are to be issued Net Revenue (as defined in Paragraph (3) of Exhibit A to this Loan Agreement) was at least 100% of the maximum

annual debt service due in any one year on (a) all obligations outstanding during such period that are payable out of, or secured by a lien or charge on, the Pledged Property and (b) such proposed obligations to be issued.

(d) Net Revenue Adjustment. In calculating revenue coverage for purposes of the issuance of additional parity or subordinate lien bonds, the Governmental Agency may adjust Net Revenue to reflect any rate increases adopted in connection with the issuance of additional obligations by adding to the actual Net Revenue for the period examined an estimated sum equal to 100% of the estimated increase in Net Revenue that would have been realized during such period had the adopted rate increase been in effect during all of such period.

(e) Refunding Bonds. Notwithstanding the foregoing, the Governmental Agency may issue refunding obligations payable out of, or secured by a lien or charge on, the Pledged Property, without compliance with the requirements stated above, provided that the debt service payments on such refunding obligations do not exceed the debt service payments on the refunded obligations during any calendar year.

(3) Lien Representation.

The Governmental Agency has disclosed the following bonds, notes or other evidence of indebtedness of the Governmental Agency issued, or contractual obligations incurred, having a lien on the Source of Repayment of equal rank with the lien and charge on the Source of Repayment of the Governmental Agency Bond: {insert description of the parity lien obligations} (the "Parity Lien Obligations"). The Source of Repayment is free and clear of any pledge, lien, charge, or encumbrance thereon, or with respect thereto, other than that of the Parity Lien Obligations, that is of equal rank with the obligation of the Governmental Agency Bond. Further, the Source of Repayment is free and clear of any pledge, lien, charge, or encumbrance thereon, or with respect thereto, that is prior to the obligation of the Governmental Agency Bond.

(4) Operation and Maintenance Reserve Fund. The Governmental Agency shall maintain an operation and maintenance reserve in an amount equal to three months of operation and maintenance expenses, excluding depreciation, of the System as set forth in the annual budget for the current fiscal year. Said reserve may be in the form of unobligated fund balances, or other unobligated cash or securities (i.e. capital reserves), or may be in a separate segregated fund and shall be maintained as a continuing reserve for payment of any lawful purpose relating to the System. If the operation and maintenance reserve falls below this requirement, the shortfall shall be made up in 24 substantially equal monthly installments beginning the second month after such shortfall.

(5) Davis Bacon & Related Acts (DBRA). The Governmental Agency will comply with the requirements of the Davis Bacon & Related Acts, codified at 40 U.S.C. §§ 3140 through 3148.

(6) Cost Overruns. Any cost overruns associated with the Project will be the responsibility of the Governmental Agency and any additional costs to defend against contract claims will not be reimbursed through this or any future funding.

(7) Audit Requirements. For each year in which the Governmental Agency requests a disbursement from the Project Loan Subaccount, the Governmental Agency shall conduct its annual audit in accordance with the federal Single Audit Act, 31 U.S.C. 7501 et seq.

(8) American Iron and Steel Requirement. The Governmental Agency will comply with all federal requirements applicable to the Loan, including Section 436 of P.L. 113-76, Consolidated Appropriations Act, 2014, (the “Appropriations Act”) and related State Revolving Fund Policy Guidelines, which require that all of the iron and steel products (as defined in the Appropriations Act and Guidelines) used in the Project must be produced in the United States unless the Governmental Agency has requested and received a waiver from the requirement pursuant to the “waiver process” described in the Appropriations Act and Guidelines.

(9) Construction Schedule.

The Governmental Agency has provided the following estimated dates regarding the project:

- a) Advertisement for Bids Publication Date:
- b) Construction Contract Award Date:
- c) Construction Start Date:
- d) Construction Completion Date:

(10) Technical Managerial and Financial Capacity Requirement. As described in the Technical/Managerial/Financial (TMF) Capacity Evaluation Report dated August 10, 2021, resulted in the following mandatory recommendations of revenue (increasing user rates) must increase, or expenditures decrease, to meet coverage ratio requirements.

EXHIBIT G
DWRF Form of Requisition

THE TOWN OF MINTURN, COLORADO, ACTING BY AND THROUGH ITS _____
ENTERPRISE (the “Governmental Agency”)

Please submit to the following addresses:

Submit Online To:

https://ceos.colorado.gov/CO/CEOS/Public/Client/CO_CIMPLE/Shared/Pages/Main/Login.aspx

If there are any questions or technical issues, please submit your backup document via one of the methods below.

Email To: cdphe_grantsandloans@state.co.us (preferred backup method)

Or Mail To: Colorado Department of Public Health and Environment
Grants and Loans Unit WQCD-OA-B2
Attn: Project Manager
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

Or Fax To: 303-782-0390 (Call CDPHE Project Manager to confirm delivery)

Cc: CDPHE Project Manager

Cc: E-mail requisition form (Exhibit G) to the Colorado Water Resources and Power Development Authority at requisitions@cwrpda.com

This requisition is made in accordance with Section 3.02 of the Loan Agreement executed by the Colorado Water Resources and Power Development Authority on _____, 2021. Terms defined in the Loan Agreement and not otherwise defined herein shall have the same meanings when used herein.

The Governmental Agency hereby states as follows:

1. This is Requisition No _____.
2. The amount requisitioned hereunder is _____.
3. The person, firm or corporation to whom the amount requisitioned is due, or to whom a reimbursable and advance has been made, is _____.
4. The payee of the requisitioned amount is _____.
5. The manner of payment to the payee is to be wire transferred to:

Bank:

ABA No.:

Account No.:

Account Name:

Contact:

6. Attached hereto is the appropriate documentation demonstrating that the amount requisitioned hereunder is currently due or has been advanced by the Governmental Agency.

7. The amount hereby requisitioned is a proper Cost of the Project to be paid only from amounts deposited in the Project Account established for the Governmental Agency in the **Drinking Water Revolving Fund**.
8. On the date hereof, there does not exist any Event of Default under the Loan Agreement nor any condition which, with the passage of time or the giving of notice, or both, would constitute an Event of Default thereunder.
9. Estimate of total project completion percentage: _____%
- 10. The undersigned is an Authorized Officer of the Governmental Agency duly authorized in the Loan Agreement to submit the Requisition.**
11. The Governmental Agency reaffirms that all representations made by it in the Loan Agreement are true and accurate as of the date of this requisition, and that it shall continue to observe and perform all of its duties, covenants, obligations and agreements thereunder, at all times during the entire term of said Loan Agreement.

Dated: _____.

**TOWN OF MINTURN, COLORADO,
ACTING BY AND THROUGH ITS _____ ENTERPRISE**

By: _____.

Title: _____ & Authorized Officer

Print Name: _____

You should receive all payments no later than 10 working days after receipt of requisition unless otherwise notified.

1. The undersigned approves the disbursement of the requisitioned amount from the Project Loan Account established in the **Drinking Water Revolving Fund** Project Account.

**COLORADO WATER RESOURCES AND POWER DEVELOPMENT
AUTHORITY**

By: _____
Finance Director

Dated: _____

For Colorado Department of Public Health and Environment, Water Quality Control Division purposes only:

Payment approved by _____

Dated: _____

**EXHIBIT C
DRINKING WATER REVOLVING FUND
LOAN REPAYMENT SCHEDULE
TOWN OF MINTURN, ACTING BY AND THROUGH ITS ENTERPRISE, COLORADO**

Loan Number: #D21----

On or before the first of each date, commencing on November 1, 2022, the
Governmental Agency shall pay the amount set forth below:

LOAN DATE:	TBD
LOAN AMOUNT:	\$3,000,000
INTEREST RATE:	2.250%
TERM (YEARS):	20

INTEREST DATE: 10/1/2022

PAYMENT DATES	PAYMENT	PRINCIPAL	REMAINING PRINCIPAL	CALCULATED INTEREST
			\$3,000,000.00	
11/1/2022	\$15,591.74	\$9,966.74	\$2,990,033.26	\$5,625.00
5/1/2023	\$95,136.06	\$61,498.19	\$2,928,535.07	\$33,637.87
11/1/2023	\$95,136.06	\$62,190.04	\$2,866,345.03	\$32,946.02
5/1/2024	\$95,136.06	\$62,889.68	\$2,803,455.35	\$32,246.38
11/1/2024	\$95,136.06	\$63,597.19	\$2,739,858.16	\$31,538.87
5/1/2025	\$95,136.06	\$64,312.66	\$2,675,545.50	\$30,823.40
11/1/2025	\$95,136.06	\$65,036.17	\$2,610,509.33	\$30,099.89
5/1/2026	\$95,136.06	\$65,767.83	\$2,544,741.50	\$29,368.23
11/1/2026	\$95,136.06	\$66,507.72	\$2,478,233.78	\$28,628.34
5/1/2027	\$95,136.06	\$67,255.93	\$2,410,977.85	\$27,880.13
11/1/2027	\$95,136.06	\$68,012.56	\$2,342,965.29	\$27,123.50
5/1/2028	\$95,136.06	\$68,777.70	\$2,274,187.59	\$26,358.36
11/1/2028	\$95,136.06	\$69,551.45	\$2,204,636.14	\$25,584.61
5/1/2029	\$95,136.06	\$70,333.90	\$2,134,302.24	\$24,802.16
11/1/2029	\$95,136.06	\$71,125.16	\$2,063,177.08	\$24,010.90
5/1/2030	\$95,136.06	\$71,925.32	\$1,991,251.76	\$23,210.74
11/1/2030	\$95,136.06	\$72,734.48	\$1,918,517.28	\$22,401.58
5/1/2031	\$95,136.06	\$73,552.74	\$1,844,964.54	\$21,583.32
11/1/2031	\$95,136.06	\$74,380.21	\$1,770,584.33	\$20,755.85
5/1/2032	\$95,136.06	\$75,216.99	\$1,695,367.34	\$19,919.07
11/1/2032	\$95,136.06	\$76,063.18	\$1,619,304.16	\$19,072.88
5/1/2033	\$95,136.06	\$76,918.89	\$1,542,385.27	\$18,217.17
11/1/2033	\$95,136.06	\$77,784.23	\$1,464,601.04	\$17,351.83
5/1/2034	\$95,136.06	\$78,659.30	\$1,385,941.74	\$16,476.76
11/1/2034	\$95,136.06	\$79,544.22	\$1,306,397.52	\$15,591.84
5/1/2035	\$95,136.06	\$80,439.09	\$1,225,958.43	\$14,696.97
11/1/2035	\$95,136.06	\$81,344.03	\$1,144,614.40	\$13,792.03
5/1/2036	\$95,136.06	\$82,259.15	\$1,062,355.25	\$12,876.91
11/1/2036	\$95,136.06	\$83,184.56	\$979,170.69	\$11,951.50
5/1/2037	\$95,136.06	\$84,120.39	\$895,050.30	\$11,015.67
11/1/2037	\$95,136.06	\$85,066.74	\$809,983.56	\$10,069.32
5/1/2038	\$95,136.06	\$86,023.74	\$723,959.82	\$9,112.32
11/1/2038	\$95,136.06	\$86,991.51	\$636,968.31	\$8,144.55
5/1/2039	\$95,136.06	\$87,970.17	\$548,998.14	\$7,165.89
11/1/2039	\$95,136.06	\$88,959.83	\$460,038.31	\$6,176.23
5/1/2040	\$95,136.06	\$89,960.63	\$370,077.68	\$5,175.43
11/1/2040	\$95,136.06	\$90,972.69	\$279,104.99	\$4,163.37
5/1/2041	\$95,136.06	\$91,996.13	\$187,108.86	\$3,139.93
11/1/2041	\$95,136.06	\$93,031.09	\$94,077.77	\$2,104.97
5/1/2042	\$95,136.14	\$94,077.77	\$0.00	\$1,058.37
Total	\$3,725,898.16	\$3,000,000.00		\$725,898.16



COLORADO WATER RESOURCES & POWER DEVELOPMENT AUTHORITY

Logan Tower Bldg - Suite 620, 1580 Logan Street, Denver, Colorado 80203-1942
303/830-1550 · Fax 303/832-8205 · info@cwrpda.com

August 27, 2021 (Transmitted Via Email)

Michelle Metteer, Town Manager
Town of Minturn
301 Boulder Street #309; P.O. Box 309
Minturn, CO 80488

Re: Drinking Water Revolving Fund (“DWRF”) Loan Approval

Dear Ms. Metteer:

On August 25, 2021, the Board of Directors of the Colorado Water Resources and Power Development Authority approved the Town of Minturn for a \$3,000,000.00 DWRF direct loan. The loan is for a term of 20 years at an interest rate of 2.25%. The loan was approved with the following conditions: The Town increasing user rates, if necessary, sufficiently to meet the Authority’s rate covenant prior to loan execution.

We look forward to working with you and your attorneys towards a successful loan closing. Please call me at (303) 830-1550, extension 1011 or email me at areichel@cwrpda.com with any questions.

Sincerely,

A handwritten signature in black ink that reads "Austin Reichel".

Austin Reichel
Financial Analyst

CC: Michael Sawyer, (via email)
Mario Trimble, (via email)
Sean Oliver, Mark Henderson WQCD, (via email)



To: Minturn Town Council
From: Michelle Metteer
Date: September 15, 2021
RE: Capital Improvements Plan Update

REQUEST: Approval of the updated Water Capital Improvements Plan.

INTRODUCTION:

Staff has identified the need to update the Water Capital Improvements Plan on an annual basis. Included in this update is information requested from Council for the secondary water source which includes the estimated cost of the Eagle River well field as well as the estimated cost of the Eagle River surface diversion (not including legal costs).

ANALYSIS:

Council has already approved the Eagle River well field as a secondary water source for the Town. The water rights for this option, as well as an Augmentation Plan have already gone through the water court process and decrees have been obtained.

Upon further investigation of the well field, staff and consultants have identified environmental, geographic and financial complications to this secondary water source. With that in mind, staff undertook the review of an alternative secondary water source, a surface diversion at the confluence of the Eagle River and Cross Creek. Staff is seeking approval from Council on one of these options prior to moving forward.

COMMUNITY INPUT: Ongoing.

BUDGET / STAFF IMPACT: TbD

STRATEGIC PLAN ALIGNMENT:

[Practice fair, transparent and communicative local government](#)

RECOMMENDED ACTION OR PROPOSED MOTION: Approve either Water CIP Option A or B via Resolution 30 – Series 2021.

ATTACHMENTS:

- Resolution 30 – Series 2021
- Water CIP Option A
- Water CIP Option B
- Water CIP Redlined Version
- Well Field EOPC
- Surface Diversion EOPC
- Water Treatment Plant EOPC

**TOWN OF MINTURN, COLORADO
RESOLUTION 30 – SERIES 2021**

**A RESOLUTION TO UPDATE AND APPROVE THE ADOPTED
WATER SYSTEM CAPITAL IMPROVEMENTS PLAN FOR
THE MINTURN WATER PLANT AND SYSTEM WITHIN THE
TOWN OF MINTURN, COLORADO**

WHEREAS, The Town Council recognizes the need and desire to more effectively manage and maintain our water plant, system and infrastructure; and,

WHEREAS, The Town Council has previously adopted an in-depth Water Capital Improvements Plan for the Minturn Water system infrastructure as laid forth in Resolution 40 – Series 2019; and,

WHEREAS, The Town Council has previously adopted an updated version of the Water Capital Improvements Plan as laid forth in Resolution 30 – Series 2020; and,

WHEREAS, The Town of Minturn Town Council and Staff have reviewed and support the submitted updated Water System Capital Improvements Plan; and,

NOW, THEREFORE, BE IT RESOLVED by the Minturn Town Council of the Town of Minturn, that:

SECTION 1: The Minturn Town Council supports and directs approval and adopting of the updated Water Plant and System Capital Improvements Plan as detailed in Option ___ attached to this Resolution,

SECTION 2: The Minturn Town Council hereby authorizes The Town Mayor or his designee to execute any and all necessary actions to implement the proposed Capital Improvements Plan,

SECTION 3: This resolution to be in full force and effect from and after its passage and approval.

INTRODUCED, READ, APPROVED, AND ADOPTED THIS 15th DAY OF SEPTEMBER, 2021.

John Widerman, Mayor

Attests:

Jay Brunvand, Town Clerk/Treasurer



Town of Minturn
 P.O. Box 309
 301 Boulder St #309
 Minturn, CO 81645
 970-827-5645
council@minturn.org
www.minturn.org

**Town of Minturn – Water Capital Improvements Plan
 September 15, 2021
 Option A - Includes an Eagle River Well Field**

PROJECT	PROGRESS	DESCRIPTION	COST (not yet paid)
1 TO 3 YEAR TIME HORIZON			
(2) New Water Tanks	In progress	Replace existing Minturn tank with two new tanks for a total volume of 650,000. Tanks will serve Maloit park and main Town system. Includes the piping from the existing water treatment plant and piping from the tanks to the transmission line. (This eliminates the need for a new Maloit Park tank)	\$3,200,000
Connect Well 4 to existing clearwell	Completed	Construct approximately 900' of 4" pipe from Well 4 to the existing clearwell.	
Systematic Waterline Replacement Program	In progress	Systematic replacement of the Town's waterlines. (\$250,000/yr for 10 years)	\$2,250,000
Install Leak Detection System	Completed	Install a leak detection system.	
Develop a Town GS System	In Progress	Create a comprehensive mapping system of the Town's water and public infrastructure.	\$15,000
Water Meter Replacement Program	In Progress	Town-wide water meter replacement.	\$150,000
3 TO 5 YEAR TIME HORIZON			
Construct new membrane water treatment plant	Pending	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. Also includes pumps for servicing Maloit Park, new transmission main line and Town/Maloit Park interconnect.	\$6,400,000
Raw Water Intake Improvements	Pending	Install finer screening.	\$25,000
New well field and pipeline from Eagle River	Pending	Drill three wells at the decreed location of the Eagle River well field. Includes access, drilling, constructing well building, well pumps and pipeline to the existing WTP site.	\$6,560,000
Replace Water Line in Eagle River at Bellm Bridge	Pending	Construct approximately 150 feet of 12" waterline (attaching to Bellm Bridge) across the Eagle River.	\$570,000
10 TO 20 YEAR HORIZON			
Loop Taylor Street Water Line	Pending	Construct approximately 1600' of 8"/12" pipe from the intersection of Minturn Road and Taylor St north along Minturn Road to 4 Ave and to Taylor Street.	\$670,000
		TOTAL	19,840,000



Town of Minturn
 P.O. Box 309
 301 Boulder St #309
 Minturn, CO 81645
 970-827-5645
council@minturn.org
www.minturn.org

**Town of Minturn – Water Capital Improvements Plan
 September 15, 2021
 Option B - Includes an Eagle River Surface Diversion**

PROJECT	PROGRESS	DESCRIPTION	COST (not yet paid)
1 TO 3 YEAR TIME HORIZON			
(2) New Water Tanks	In progress	Replace existing Minturn tank with two new tanks for a total volume of 650,000. Tanks will serve Maloit park and main Town system. Includes the piping from the existing water treatment plant and piping from the tanks to the transmission line. (This eliminates the need for a new Maloit Park tank)	\$3,200,000
Connect Well 4 to existing clearwell	Completed	Construct approximately 900' of 4" pipe from Well 4 to the existing clearwell.	
Systematic Waterline Replacement Program	In progress	Systematic replacement of the Town's waterlines. (\$250,000/yr for 10 years)	\$2,250,000
Install Leak Detection System	Completed	Install a leak detection system.	
Develop a Town GS System	In Progress	Create a comprehensive mapping system of the Town's water and public infrastructure.	\$15,000
Water Meter Replacement Program	In Progress	Town-wide water meter replacement.	\$150,000
3 TO 5 YEAR TIME HORIZON			
Construct new membrane water treatment plant	Pending	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. Also includes pumps for servicing Maloit Park, new transmission main line and Town/Maloit Park interconnect.	\$6,400,000
Raw Water Intake Improvements	Pending	Install finer screening.	\$25,000
Eagle River Surface Diversion	Pending	A secondary water source near the confluence of the Eagle River and Cross Creek. This would be a surface diversion with pumping and piping to the Minturn water treatment plant. (Does not include legal costs)	\$2,830,000
Replace Water Line in Eagle River at Bellm Bridge	Pending	Construct approximately 150 feet of 12" waterline (attaching to Bellm Bridge) across the Eagle River.	\$570,000
10 TO 20 YEAR HORIZON			
Loop Taylor Street Water Line	Pending	Construct approximately 1600' of 8"/12" pipe from the intersection of Minturn Road and Taylor St north along Minturn Road to 4 Ave and to Taylor Street.	\$670,000
		TOTAL	16,110,000

Table 20 Recommended Capital Improvements Projects - Option 2

Projects	Category	Description	Cost	
1 TO 3 YEAR TIME HORIZON				
In Progress	Construct a new Minturn Tank	Tank	Replace existing Minturn Tank with a 650,000 gallon tank	\$ 1,670,000 \$3,200,000
	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
Complete	Connect Well 4 to existing clearwell	Treatment	Construct approximately 900 feet of 4" pipe from Well 4 to the existing clearwell	\$ 230,000
On-going	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
In Progress	Develop a Town GIS system	O&M	Create a comprehensive GIS mapping system of the Town's water and public infrastructure	\$ 15,000
In Progress	Water Meter Replacement Program	O&M	Replace water meters throughout Town	\$ 250,000
3 TO 5 YEAR TIME HORIZON				
Combined with WTP	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. Also included in this project are the Maloit Park pumps, new transmission main and Town/Maloit Park interconnection.	\$ 4,290,000 \$6,400,000
	Construct pretreatment system to pretreat Eagle River water	Treatment	Build concrete basins and chemical feed systems to address Eagle River water quality issues.	\$ 429,000
Eliminated	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 acquisition , drilling wells, constructing well building, well pumps and pipeline to the existing WTP site. Also access to well	\$ 5,220,000 \$6,600,000
5 TO 10 YEAR TIME HORIZON Also access to well field, aerial crossing,				
Combined with WTP	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	



PROJECT: Minturn Surface Water Diversion
 SGM NO.:
 DATE: 3-Sep-21
 EOPC LEVEL: Planning Level
 PREPARED BY: Ryan Gordon

ITEMS	UNIT	QUANTITY	UNIT COST	TOTAL COST
Concrete Diversion Structure	ls	1	\$ 100,000.00	\$ 100,000
Screens	ls	1	\$ 25,000.00	\$ 25,000
Valves	ls	1	\$ 15,000.00	\$ 15,000
Coffer Dam and Dewatering at Diversion	ls	1	\$ 50,000.00	\$ 50,000
Excavation for Diversion	ls	1	\$ 50,000.00	\$ 50,000
Scour Protection at Diversion	ls	1	\$ 15,000.00	\$ 15,000
Site Improvements/Access	ls	1	\$ 60,000.00	\$ 60,000
Wet Well	ls	1	\$ 35,000.00	\$ 35,000
Dewatering at Wet Well	ls	1	\$ 10,000.00	\$ 10,000
Excavation for Wet Well	ls	1	\$ 15,000.00	\$ 15,000
Pumps and Appurtenances	ls	2	\$ 25,000.00	\$ 50,000
Building	lf	1	\$ 25,000.00	\$ 25,000
Electrical and Instrumentation	ea	1	\$ 150,000.00	\$ 150,000
HVAC	ls	1	\$ 10,000.00	\$ 10,000
Piping to WTP	lf	4700	\$ 120.00	\$ 564,000
Hang Pipe on Bridge at Cross Creek	ls	1	\$ 50,000.00	\$ 50,000
Geotech	ls	1	\$ 50,000.00	\$ 50,000
Environmental	ls	1	\$ 50,000.00	\$ 50,000
Erosion Control	ls	1	\$ 15,000.00	\$ 15,000
Traffic Control	ls	1	\$ 15,000.00	\$ 15,000
Surveying	ls	1	\$ 30,000.00	\$ 30,000
Testing	ls	1	\$ 20,000.00	\$ 20,000
Agency Coordination	ls	1	\$ 25,000.00	\$ 25,000
SUBTOTAL OF EXTERIOR REHABILITATION CONSTRUCTION ITEMS: \$				1,429,000

OTHER CONSTRUCTION COSTS	UNIT	QUANTITY	UNIT COST	ESTIMATED COST
Mobilization/Demobilization	%	10%		\$ 142,900
Permits (Stormwater Permit)	%	3%		\$ 42,870
Overhead/Bonds/Insurance	%	10%		\$ 142,900
Design Engineering	%	15%		\$ 214,350
Construction Engineering	%	10%		\$ 142,900
Contingencies	%	30%		\$ 428,700
Property Acquisition			\$ 250,000.00	\$ 250,000
SUE	%	2%		\$ 28,580
SUBTOTAL OF OTHER CONSTRUCTION COSTS: \$				1,393,200

TOTAL CONSTRUCTION COSTS: \$				2,830,000
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NOTES:

- Unit prices used in developing this EOPC are based on vendor quotes and projects.
- Unit prices and total costs were based on Present Value dollars. Adjustments should be made for year of construction.
- This EOPC was prepared on the basis of SGM's experience and qualifications and represents SGM's judgment as a professional generally familiar with the industry. However, since SGM has no control over the cost of labor, materials, equipment, or services furnished by others, over contractor's methods of determining prices, or over competitive bidding or market conditions, SGM cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from SGM's EOPC.



PROJECT: Minturn WTP
 SGM NO.:
 DATE: 3-Sep-21
 EOPC LEVEL: Planning Level
 PREPARED BY: Ryan Gordon

ITEMS	UNIT	QUANTITY	UNIT COST	TOTAL COST
Membranes	ls	1	\$ 750,000.00	\$ 750,000
Pre-treatment System	ls	1	\$ 350,000.00	\$ 350,000
Pre-engineered Building	ls	1	\$ 150,000.00	\$ 150,000
Concrete for Buidling Foundation	cy	113	\$ 500.00	\$ 56,500
Site Improvements	ls	1	\$ 50,000.00	\$ 50,000
HVAC improvements	ls	1	\$ 25,000.00	\$ 25,000
Electrical/Instrumentation	ls	1	\$ 250,000.00	\$ 250,000
Pumps and Appurtenances	ls	3	\$ 25,000.00	\$ 75,000
Disinfection System	ls	1	\$ 25,000.00	\$ 25,000
Process piping	ls	1	\$ 125,000.00	\$ 125,000
Yard piping	ls	1	\$ 100,000.00	\$ 100,000
Erosion Control	ls	1	\$ 10,000.00	\$ 10,000
Disinfection/testing	ls	1	\$ 25,000.00	\$ 25,000
Survey	ls	1	\$ 20,000.00	\$ 20,000
Backup Generator	ls	1	\$ 300,000.00	\$ 300,000
Waste Storage Tank	ea	1	\$ 50,000.00	\$ 50,000
Waste Line	lf	1200	\$ 40.00	\$ 48,000
Waste Pumps and Appurtenances	ea	2	\$ 7,500.00	\$ 15,000
Clearwell	ea	1	\$ 100,000.00	\$ 100,000
Town Transmission Main	ls	3700	\$ 120.00	\$ 444,000
Dewatering	ls	1	\$ 20,000.00	\$ 20,000
Maloit Park Transmission Main	lf	1200	\$ 120.00	\$ 144,000
Aerial Crossing	ls	1	\$ 250,000.00	\$ 250,000
Fire Pump System (Maloit Park)	ls	1	\$ 200,000.00	\$ 200,000
Geotech	ls	1	\$ 10,000.00	\$ 10,000
Environmental	ls	1	\$ 40,000.00	\$ 40,000
SUBTOTAL OF EXTERIOR REHABILITATION CONSTRUCTION ITEMS: \$				3,632,500

OTHER CONSTRUCTION COSTS	UNIT	QUANTITY	UNIT COST	ESTIMATED COST
Mobilization/Demobilization	%	10%		\$ 363,250
Permits (Stormwater Permit)	%		\$ 10,000	\$ 10,000
Overhead/Bonds/Insurance	%	10%		\$ 363,250
Design Engineering	%	15%		\$ 544,875
Construction Engineering	%	10%		\$ 363,300
Contigencies	%	30%		\$ 1,089,800
SUE				\$ 15,000
SUBTOTAL OF OTHER CONSTRUCTION COSTS: \$				2,749,475

TOTAL CONSTRUCTION COSTS: \$				6,390,000
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NOTES:

- Unit prices used in developing this EOPC are based on vendor quotes and prior projects.
- Unit prices and total costs were based on Present Value dollars. Adjustments should be made for year of construction.
- This EOPC was prepared on the basis of SGM's experience and qualifications and represents SGM's judgment as a professional generally familiar with the industry. However, since SGM has no control over the cost of labor, materials, equipment, or services furnished by others, over contractor's methods of determining prices, or over competitive bidding or market conditions, SGM cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from SGM's EOPC.

MEMORANDUM

TO: Mayors and Managers in Eagle County
FROM: Tanya Allen, ECO Transit Director and Eric Heil, Avon Town Manager
RE: Memorandum of Understanding Establishing a Regional Transit Authority
DATE: August 26, 2021

INTRODUCTION: This memorandum provides an overview and background with regard to efforts to pursue a potential regional transit authority (“RTA”) to serve the Eagle River Valley. The attached Memorandum of Understanding Establishing a Regional Transit Authority Formation Committee (“MOU”) is the culmination of efforts over the last year at the Mayors and Managers meetings and the efforts of an Ad Hoc Regional Transit Optimization Committee that was formed out of a Mayors and Managers Meeting. We recognize that there are many questions posed by the formation of an RTA. The attached MOU is intended to embark on the next level of structured collaboration and focus to understand the details of a potential RTA and implement a comprehensive outreach program to inform stakeholders and receive stakeholder input.

The MOU proposes the formation of an RTA Formation Committee, an RTA Technical Committee and an RTA Community Stakeholders Committee. Eagle County, the Town of Vail and the Town of Avon are contemplated to fund Phase I of planning costs so that this effort is able to proceed by retaining a community outreach facilitator by October. Phase II contemplates funding contributions by all municipalities that would participate in this RTA planning effort in 2022. This effort is anticipated and desired to lead up to an election in November of 2022 to approve an RTA and may potentially include a tax funding question to support enhancements to regional transit services. The contemplated RTA would also include dedicated funding to support the Eagle Air Alliance and subsidies to secure new direct flights to Eagle County Regional Airport.

RTA FORMATION COMMITTEE: The RTA Formation Committee is composed of one representative of Eagle County and each municipality in Eagle County (not including Basalt). Monthly meetings will be scheduled for the RTA Formation Committee to review information, identify details and questions to address, provide input on the community stakeholder process, and ultimately provide direction on an RTA to be referred to voters. The MOU sets forth a list of minimum requirements in Paragraph 3 which tracks state statute. We would like to schedule the first RTA Formation Committee meeting in September in order to provide background information on the formation of an RTA as well as other information that has been gathered over the last year.

RTA TECHNICAL COMMITTEE: The RTA Technical Committee is a continuation of the Ad Hoc Regional Transit Optimization Committee that met over the last year with the addition of David Reid who would represent the Eagle County Regional Airport. The role of the RTA Technical Committee is to research information on estimated costs and logistics associated with various transit enhancement ideas.

RTA COMMUNITY STAKEHOLDERS COMMITTEE: This committee is envisioned to be open and inclusive to all the existing groups in the Eagle River Valley, and beyond such as Lake County and Leadville. The purpose is to facilitate community involvement.

We request that your Board or Council consider adoption of the attached MOU in September. Tanya or Eric are willing to attend Board or Council meetings to answer any questions.

Thank you, Tanya and Eric

ATTACHMENT A: Memorandum of Understanding to Establish Regional Transit Authority Formation Committee

**TOWN OF MINTURN, COLORADO
RESOLUTION 31 – SERIES 2021**

A RESOLUTION TO APPROVE AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE EAGLE COUNTY GOVERNMENT, MUNICIPALITIES WITHIN EAGLE COUNTY, AND THE TOWN OF MINTURN TO SUPPORT THE COMMITMENT OF STAFF AND FINANCIAL RESOURCES TO A REGIONAL TRANSIT AUTHORITY FORMATION COMMITTEE FOR THE PURPOSE OF RESEARCHING AND PROPOSING THE STRUCTURE OF AN RTA TO SERVE THE GREATER EAGLE RIVER VALLEY COMMUNITY PURSUANT TO CRS 43-4-601 REGIONAL TRANSPORTATION AUTHORITY LAW

WHEREAS, The Town Council recognizes the need and desire to continue to support and expand the County wide transportation system; and,

WHEREAS, The Town Council has previously considered and discussed the need to further support regional transportation needs within the Town of Minturn; and,

WHEREAS, the Town of Minturn Town Council and Staff have reviewed and support the submitted Intergovernmental Agreement; and,

NOW, THEREFOE, BE IT RESOLVED by the Minturn Town Council of the Town of Minturn, that:

SECTION 1: The Minturn Town Council supports and directs approval and adopting of this Intergovernmental Agreement as detailed in Exhibit A attached to this Resolution,

SECTION 2: The Minturn Town Council herby authorizes The Town Mayor or his designee to execute any and all necessary documents to implement the proposed Intergovernmental Agreement,

SECTION 3: This resolution to be in full force and effect from and after its passage and approval.

SECTION 4: The Minturn Town Council approves the 2022 expenditure of \$1,728.89 for the committee contribution.

INTRODUCED, READ, APPROVED, AND ADOPTED THIS 15th DAY OF SEPTEMBER, 2021.

John Widerman, Mayor

Attests: Jay Brunvand, Clerk

MEMORANDUM OF UNDERSTANDING

ESTABLISHING A REGIONAL TRANSIT AUTHORITY FORMATION COMMITTEE

STATEMENT OF PURPOSE – This Memorandum of Understanding (“**MOU**”) formalizes the agreement reached by the Eagle County government and municipalities within the contemplated boundaries of a Regional Transit Authority (“**RTA**”) in Eagle County on the commitment of staff and financial resources to a Regional Transit Authority Formation Committee (“**RTA Formation Committee**”) for the purpose of researching and proposing the structure of an RTA to serve the greater Eagle River Valley community pursuant to CRS §43-4-601 Regional Transportation Authority Law.

WHEREAS, in January 2020 a joint meeting of the Beaver Creek and Vail Economic Advisory Councils was convened to discuss regional transportation challenges at which members of the private business community expressed strong support to improve and enhance regional transit; and

WHEREAS, an ad-hoc group of Town Managers, Transit Directors, and business community leaders was convened soon afterwards to discuss, analyze, and identify challenges and opportunities related to greater coordination and integration of the regional public transportation system; and

WHEREAS, separate conversations with the EGE Air Alliance have highlighted the importance of air transportation as part of the broader regional transportation system; and

WHEREAS, each of these groups have identified the creation of a Regional Transit Authority (“**RTA**”) as a desirable way to plan, finance, implement and operate a regional public transportation system that better meets the needs of residents, visitors, and businesses in Eagle County; and

WHEREAS, the local government entities now desire to proceed with preparation of a proposed RTA and comprehensive community engagement process with the intention to refer ballot questions for the formation of a RTA and a funding question to the November 1, 2022 general election.

NOW, THEREFORE, the parties to this MOU agree as follows:

- 1. NO LEGAL OBLIGATIONS.** This MOU is only a statement of intentions to facilitate coordination among parties and shall not be construed to create, and shall not in fact create, any financial or other obligations or liabilities for any party to this MOU.
- 2. ELIGIBLE PARTIES TO THIS MOU.** The local government entities which are required to take action as part of the formation of a Regional Transit Authority and/or which currently fund and provide public transit service are eligible parties to this MOU, including Eagle County government, and municipalities in Eagle County, or Title 32 special districts with transportation powers, which are located within the boundaries of a proposed Regional Transit Authority area.

- 3. RTA FORMATION COMMITTEE.** The RTA Formation Committee shall consist of one representative of each party to this MOU. Each representative shall have one vote in matters considered by the Committee. Each party may designate a primary representative and alternates in its discretion which shall be limited to elected officials and full-time staff persons. The RTA Formation Committee shall also have the following organization duties:
- (a) Select a chair and vice chair;
 - (b) Establish a meeting schedule and timeline for completion of activities;
 - (c) Provide parameters for staff support for the RTA Formation Committee provided by participating entities;
 - (d) Establish a schedule for communications and meetings with municipal staff and elected officials to inform them on status and upcoming developments;
 - (e) Review the Scope of Work for third party facilitators and consultants to assist with community engagement and the RTA formation process;
 - (f) Determine the details of a proposed RTA, including but not limited to:
 - (1) Determine the name and purpose of the RTA, including an explanation of all regional transportation systems to be provided and preliminary expectations regarding types and service levels;
 - (2) Determine geographic boundaries, districting, and rules for modification of a regional public transportation authority;
 - (3) Determine the form of governance and board representation on the RTA;
 - (4) Recommend an initial organizational structure and staffing for the RTA;
 - (5) Recommend the structure of the relationship with existing transit systems, including recommendations related to the transfer of assets, liabilities, or personnel;
 - (6) Analyze potential dedicated funding sources and structures for public transportation and make recommendations regarding type and level;
 - (7) Recommend the structure of the relationship with the EGE Air Alliance, including recommendations related to structure, governance, and fiscal authorities; and
 - (8) Develop a proposed IGA, meeting the requirements of C.R.S. § 43-4-601, for signature by interested and eligible entities.

(g) Determine the details and wording on any ballot measures to be referred to the voters for the formation of an RTA; and

(h) Provide legal, financial, marketing and political support for a potential future ballot measure.

4. RTA TECHNICAL ADVISORY COMMITTEE . The RTA Technical Advisory Committee will be an advisory body to the RTA Formation Committee and will continue for the purpose of sharing information, analyzing costs, and submitting feedback associated with various proposals for regional transit enhancement generated by the RTA Formation Committee, and making recommendations to the RTA Formation Committee. In addition, they will assist in identifying operational issues related to proposed structures that may require additional consideration by the RTA Formation Committee. The RTA Formation Committee may change, amend, supplement, fill vacancies or remove any person on the RTA Technical Committee without notice or cause. The RTA Formation Committee may invite or add other persons or representation from other entities that may provide relevant technical advice and information. The RTA Technical Advisory Committee shall consist of the following members unless and until changed by the RTA Formation Committee:

(a) Tanya Allen, ECO Transit Director;

(b) Jen Brown, Managing Director Beaver Creek Resort Company;

(c) Paul Gorbald, Beaver Creek Transit Manager;

(d) Scott Robson, Vail Town Manager;

(e) Greg Hall, Vail Public Works and Transportation Director;

(f) Brandy Reitter, Eagle Town Manager

(g) Chris Romer, Vail Valley Partnership and Eagle Air Alliance;

(h) Brian Nolan, representative of Beaver Creek and Vail Economic Advisory Councils;

(i) Eva Wilson, Avon Mobility Director;

(j) Eric Heil, Avon Town Manager;

(k) David Reid, Director of Aviation, Eagle County Regional Airport; and

(l) Jeremy Rietmann, Gypsum Town Manager

Members of the RTA Technical Advisory Committee serve at the pleasure of the RTA Formation Committee and appointments to the committee do not constitute contractual obligations of the RTA Formation Committee or of any of its representative entities. The RTA Technical Advisory Committee

shall terminate upon establishment of an RTA as a separate legal entity pursuant to C.R.S. § 43-4-601, *et. seq.*

5. **RTA COMMUNITY STAKEHOLDERS COMMITTEE.** The RTA Community Stakeholders Committee shall consist of all interested local governments that are not parties to this MOU, interested non-profit or community organizations, and interested private business entities that desire to participate on the RTA Community Stakeholder Committee. The purpose of the RTA Community Stakeholder Committee is to facilitate the community engagement process, including the sharing and dissemination of information related to the RTA, facilitate broader understanding of the RTA formation process and the technical and financial aspects of proposed RTA operations, and facilitate providing broad community input to the RTA Formation Committee. The scheduling, organization and conduct of RTA Community Stakeholder Committee meetings shall be facilitated by a third party consultant as contemplated in this MOU.

6. **CONTEMPLATED ROLES OF AN RTA.** The specific roles of an RTA would be researched and determined during the study and community engagement process. The following list describes the potential roles of an RTA that are being contemplated at the time of executing this MOU. Parties to the MOU acknowledge and agree that the roles of a RTA as may be ultimately referred to election are expected to be revised and refined through the community engagement process.
 - (a) Assume some or all operations, assets and functions of ECO Transit and/or other transportation systems of participating entities;
 - (b) Assume some or all operations, assets and functions of the Eagle Air Alliance;
 - (c) Continue planning and development for the enhancement and operation of regional transportation system in the Eagle River Valley, to include operation and/or financial support for multimodal surface and air transportation;
 - (d) Study, design, financially support and implement, with partnerships as appropriate, first and last mile improvements to enhance transit ridership, including but not limited to the development of park and ride facilities, bus stops, and pedestrian crossings;
 - (e) Study, design, financially support and implement, with partnerships as appropriate, improvements to the regional transit system to support, advance and achieve climate action goals, including but not limited to conversion of bus fleet to zero or reduced greenhouse gas emission rolling stock, zero or reduced greenhouse gas emission transit facilities, and increase of transit ridership that reduces passenger vehicle miles travelled;
 - (f) Coordinate with the Colorado Department of Transportation (“**CDOT**”) and federal governing agencies to enhance regional transit, including but not limited to improvements to connections to the RTA area via Bustang and other statewide bus programs and increased air service to the Eagle County Regional airport;

- (g) Represent the Eagle County RTA area with regard to state and federal legislation affecting available funding to support regional transit operations and with regard to legislation affecting operations; and
- (h) Study, design, financially support and implement, other regional transportation and mobility programs and operations, such as regional e-bike sharing programs.

7. RETAINING THIRD PARTY FACILITATORS AND CONSULTANTS. A central purpose of this MOU is to reach an understanding on the retaining of third party facilitators and consultants to assist with the administrative, legal, and technical details in the formation of an RTA, assist with the community engagement process, and assist with determining consensus and community support for any ballot issues which may be referred to the voters. The Scope of Work for any third party facilitators and/or consultants shall be reviewed and approved by the RTA Formation Committee. Third party facilitators and consultants will be retained by Eagle County pursuant to such contract terms as may be approved by Eagle County, in its sole discretion. Eagle County will administer of such contracts as it deems appropriate in its sole and absolute discretion, and shall accept no responsibility for or liability associated with the product or services provided by such third party facilitators and consultants

8. FUNDING CONTRIBUTION. Funding contributions for third party facilitators and/or consultants will be based on the proportionate share of audited 2021 revenue from governmental activities recorded by each respective local government party to this MOU. Notwithstanding the foregoing, parties to this MOU may agree in writing to any other arrangement for funding contributions. An initial funding contribution is necessary to retain thirty party facilitators and consultants to commence Phase 1 work in 2021. An additional funding contribution is necessary for the Phase 2 work which is expected to begin in the 2022 budget year.

(a) Phase 1 Funding Contribution: \$30,000 is the contemplated budget to commence the work of the RTA Formation Committee in 2021, which is comprised of a budget for facilitation of committee meetings, initial community outreach, facilitating and coordinating research and consideration of transit enhancement ideas and associated funding, initial research on funding options, compiling comparison information of other regional transit authorities and preparing RTA presentation materials. Eagle County, the Town of Vail and the Town of Avon have offered to share this expense equally (\$10,000 each).

(b) Phase 2 Funding Contribution: \$170,000 is the contemplated budget to continue the work in 2022, which is comprised of \$140,000 to continue community engagement work, assist with revision to an RTA proposal including financial modelling of different options and scenarios, revise and update RTA presentation materials, and assist with the determination of any referred ballot measures and associated factual statements and information presentations related to the formation of an RTA; and a \$30,000 budget for legal advice and assistance related to RTA formation and associated funding questions.

(c) **Additional Funding Contributions:** The parties to the MOU may consider funding additional activities such as political polling by mutual agreement at a later date.

9. **ADMINISTRATIVE SUPPORT.** The Eagle County Regional Transportation Authority (“**ECRTA**”), as a department of Eagle County Government and the current regional transportation provider, has been engaged in the planning, design, and development of a regional transit system for Eagle County. ECRTA will provide administrative, technical and planning assistance to the RTA Formation Committee until the establishment of a statutory RTA, with assistance from other entities as may be mutually agreed. ECRTA’s responsibilities may include the following:

- (a) Assist the RTA Formation Committee in engaging professional and consulting services to manage the work of the RTA Formation Committee;
- (b) Act as the fiscal agent of funds received from the signatory municipalities of this MOU;
- (c) Disperse appropriate payments of funds for services rendered specifically to the RTA Formation Committee, including those of contracted consultants;
- (d) Serve as the applicant for any appropriate grant funding opportunities for which the RTA Formation Committee may be eligible for its work;

10. **TERM.** The term of this MOU shall end on November 1, 2022 unless the parties to this MOU extend the term of this MOU by written agreement. All committees created by this MOU shall be deemed disbanded upon termination of the MOU.

11. **TERMINATION.** Any party may terminate its participation in this MOU by delivering fourteen (14) days written notice to the elected board or council for the other participating entities.

12. **TABOR.** This MOU shall not create any multi-year fiscal obligation of any party to this MOU and any funding contribution or other financial commitment shall be subject to annual budget and appropriation of each party.

[SIGNATURE PAGES FOLLOW]

TOWN OF MINTURN

BY: _____

Date: _____

ATTEST: _____

Proposed RTA Formation Committee Contributions - 2022

			\$170,000.00
Estimated Funding Need			
Calculation of contribution from each municipality based upon 2020 revenue from governmental activities:			
Municipality	2020 Governmental Activities Only	% of Total	2022 Estimated Budget Contribution
Vail	\$ 78,132,309	31.15%	\$ 52,952.72
Avon	\$ 28,091,704	11.20%	\$ 19,038.63
Minturn	\$ 2,551,000	1.02%	\$ 1,728.89
Red Cliff	\$ 401,023	0.16%	\$ 271.79
Eagle (estimate)	\$ 9,360,000	3.73%	\$ 6,343.57
Gypsum	\$ 11,615,000	4.63%	\$ 7,871.85
Eagle County	\$ 120,685,777	48.11%	\$ 81,792.55
Total Revenues:	\$ 250,836,813	100.00%	\$ 170,000.00



September 10, 2021

Michelle Metteer
 Town Manager
 Original sent via email manager@minturn.org

Dear Michelle:

In follow-up to your request for assistance in determining a rate structure for the 2022 Fiscal year for the Town's Water Enterprise, UMB has reviewed the following documents:

- 2020 Audit
- 2021 CIP Update (SGM)
- EOPC Water Treatment Plant
- EOPC Well Field
- EOPC Minturn Surface Water Diversion
- Proposed Debt Schedule for 2021 CWRPDA Loan

A discussion was also had regarding the projected growth rates for the Town over the coming years, with the direction to remove the Bolts Lake Development from future consideration at this time. While the growth in that development was not slated for several years, the loss of the additional units does have an impact on the remaining rate payers, as there is less development to spread the costs of the CIP over. Below is the anticipated development absorption of new units included in the current model:

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Growth Assumptions															
Total SFE	730	750.3	753.3	773.3	793.3	821.3	852.3	894.3	936.3	978.3	1020.3	1062.3	1104.3	1146.3	
New SFE (Infill)	3	20	20	25	25	30	30	30	30	30	30	30	30	30	273
New SFE (Bolts Lake Development-Maloit Area)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New SFE (School - Maloit Park)	0	0	0	0	3	6	12	12	12	12	12	12	12	12	81

Originally, it was anticipated that the Bolts Lake Development would generate 40 additional units annually, commencing in 2023.

For purposes of Capital Planning, it is not assumed that additional borrowing will occur for the Water Treatment Plant until February of 2023 and then the Secondary Water Source Well Field Development in February 2024. As of the writing of this report, the Surface Diversion project was not included in the CIP, as there was no designation of when that project would occur.

Projects	Category	Funding	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Totals
Tier 1															0
Construct a new Minturn Tank	Tank	Revenue Debt		3,200,000											3,200,000
Construct New Membrane Plant (includes Maloit Park)	Treatment/Distrib	Revenue Debt				6,390,000									6,390,000
Raw Water Intake Improvements	Water Supply	Revenue Debt				25,000									25,000
New Well Field and pipeline to connect wells to WTP	Water Supply	Revenue Debt					6,560,000								6,560,000
Replace waterline in Eagle River at Belum Bridge	Pipeline	Revenue Debt												570,000	570,000
Loop Taylor Street	Pipeline	Revenue Debt												130,000	130,000
Annual Replacement of Main	Pipeline	Cash		250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	2,750,000
Actual CIP Costs			0	3,450,000	250,000	6,665,000	6,810,000	250,000	250,000	250,000	250,000	250,000	250,000	950,000	19,625,000

UMB Financial Services, Inc.

1670 Broadway
 Denver, CO 80202

303.839.2259 (Office)
 414.507.6981 (Cell)

umb.com

Michelle Metteer, Town Manger
September 10, 2021
Page 2

Given our analysis and the timing of future debt payments, it is our recommendation that rates remain as they were established in 2021. We base that opinion on revenue requirements and rate structure as follows:

1. Base Revenue Requirement	\$860,658	\$90.41/Month
2. Debt Service Requirement	\$38,041	\$7.81/Month
3. Estimated Volumetric Revenues	\$258,405	\$6.83/1,000 Gallons

In keeping with the past practice of Tap Fee and System Impact Fee methodology, the fees would be adjusted as follows:

1. Tap Fee	\$5,604	3.00% Increase
2. System Impact Fee (@ 1,500 sq ft)	\$6,906	3.00% Increase

While the above does fund the water main replacement program at \$250,000, it does represent a small reduction in net assets available at the end of 2022.

Sincerely yours,



James A. Mann, Senior Vice President
Public Finance Municipal Advisor

UMB Financial Services, Inc.

1670 Broadway
Denver, CO 80202

303.839.2259 (Office)
414.507.6981 (Cell)

umb.com

Glenwood Springs – Main Office

201 14th Street, Suite 200
P. O. Drawer 2030
Glenwood Springs, CO 81602

Aspen

323 W. Main Street
Suite 301
Aspen, CO 81611

Montrose

1544 Oxbow Drive
Suite 224
Montrose, CO 81402

Office: 970.945.2261

Fax: 970.945.7336

*[*Direct Mail to Glenwood Springs](#)*

DATE: September 10, 2021
TO: Minturn Mayor and Council
FROM: Karp Neu Hanlon, P.C.
RE: Holy Cross Energy Transmission Line Draft Environmental Assessment

On September 1, the White River National Forest (WRNF) opened to public comment the Draft Environmental Assessment (EA) for the Holy Cross Energy (HCE) Avon-to-Gilman Electric (115-kV) Transmission Line. The full EA and supporting documents can be found here: <https://www.fs.usda.gov/project/?project=57224>

HCE has requested federal authorization to construct portions of a new transmission line from Avon to Gilman, a length of approximately 8.9 miles, 3.4 of which is on United States Forest Service (USFS) property. 3 miles of the proposed line would be buried underground, of which 1.2 miles is on USFS property. The proposal also includes construction of 7.5 miles of access road, 2.6 miles of which is on USFS property. Federal approval of the project would only authorize construction of the 3.4 miles on USFS property, though under federal law the EA must analyze the environmental impacts of the project as a whole. This EA follows on a Scoping period from March 2020 that included a public comment period where the public could identify issues that FS should analyze. Attached to this memo is the Town's comment letter from last year.

Since last year, some changes to the proposed alignment have occurred. These include:

1. Moving the underground portion slightly to the south to avoid above ground segment on the Two Elk Shooting Range. This results in the line daylighting just north of the railroad property on Minturn Road.
2. The alignment on the USFS Holy Cross Ranger District Office parcel at Dowd Junction has changed in order to avoid access road construction in roadless areas.

We are requesting Council direction to draft a comment letter to WRNF on the draft EA. We expect to include discussion of impacts to wildlife, visual, recreation, and water resources. Additionally, the Town has a keen interest in ensuring that as much as possible of the transmission line is buried in order to mitigate wildfire risk from powerlines that has been seen throughout the West. The Town also has an interest in the development potential of the USFS District Office site and will want to ensure that vertical development there is not impaired.

TOWN OF MINTURN
301 Boulder St #309 ♦ 302 Pine Street
Minturn, CO 81645
Phone: 970-827-5645 Fax: 970-827-5545

Jay Brunvand, Treasurer
treasurer@minturn.org



Town Council
Mayor – John Widerman
Mayor Pro Tem – Earle Bidez
Councilmember – Terry Armistead
Councilmember – George Brodin
Councilmember – Brian Eggleton
Councilmember – Eric Gotthelf
Councilmember – Chelsea Winters

April 1, 2020

Scott Fitzwilliams, Forest Supervisor
White River National Forest
900 Grand Avenue
Glenwood Springs, CO 81601

Re: Holy Cross Energy Avon-to-Gilman 115-kV Transmission Line project

Dear Mr. Fitzwilliams,

Thank you for the opportunity to provide scoping comments on the Avon-to-Gilman electric transmission line (“project”), proposed by Holy Cross Energy (“HCE”). While the project is being proposed to increase electrical service reliability for several communities in eastern Eagle County, it will create a number of environmental effects that the Forest Service (“USFS”) must evaluate in its environmental assessment (“EA”). We appreciate that the USFS has committed to an additional public commenting period subsequent to the release of the draft EA. We believe that this project could potentially cause significant impacts to our community, and have outlined such concerns in this letter.

As a home rule municipality, the Town of Minturn (the “Town”) represents and promotes the interests of its residents, and is responsible for the health, safety, and welfare of the community. The Town is a close-knit community that treasures its natural resource amenities. The Town is centered on the Eagle River, which is a resource of significant importance to our residents and visitors alike. Our residents value and rely on the scenic nature, access to recreation and public lands, and dramatic mountainous setting for their well-being, economic opportunity, and quality of life.

The Town has the power, under the Local Government Land Use Control Enabling Act to plan for and regulate the use of land within the town. This includes protecting lands from activities which could endanger wildlife habitat, regulating development in hazardous areas, regulating based on the impacts on the community and surrounding areas, ensuring that the environment is protected, and that orderly use of the land can be consistent with constitutional rights.¹

Additionally, local governments are authorized to identify, designate, and regulate proposals of state interest within their jurisdiction, commonly referred to as “1041 powers.” These powers are applicable in areas that have a significant impact on natural resources of

¹ C.R.S. § 29-20-101, *et seq.*

statewide importance (such as wildlife or the Eagle River), and around areas that have key facilities such as interchanges, mass transit facilities, and other public utilities (such as around Dowd Junction).²

Based on the extensive footprint of the project through the Town, and the responsibilities the Town has to its residents, the Town appreciates that it has been designated as a cooperating agency.³

Overall, the Town has three overarching concerns about the project, as proposed:

1. Protection of the aesthetic values relative to Minturn's mountain and river corridors.
2. The issues related to the Dowd Junction/Minturn Gateway area including impacts to recreation, wildlife, future development, transportation, and access.
3. Concerns over the proximity of the project to the shooting range just south of town and resulting fire hazards and other management challenges.

Strategic Plan and Town Survey

The Town adopted its "Economic Development Strategic Plan"⁴ in 2016, acknowledging foremost that Minturn exists as part of a regional tourism and service-based economy. The Town's operating budget is heavily dependent upon sales tax revenue from small businesses set within this economic reality. This provides a critically important lens through which the Town assesses potential impacts from this proposed project. As our regional economy is especially hard hit and planning for recovery from the COVID-19 pandemic, careful consideration of economic impacts is of paramount importance.

Several objectives of the Strategic Plan are relevant to this project. One in particular is that the Town will create a multi-use river plan to include seasonal usage and environmental issues. The Town is committed to the health of the river, appropriate use restrictions and sustainable recreational access that preserve its natural benefits.

In 2019, the Town surveyed its residents to gain a better perspective on why people choose to live in Minturn, what is important to the community, and where to focus efforts and resources. Among respondents, 48% cited recreational activities as a reason for living in Minturn⁵, the second highest result after quality of life. Respondents time and again cited the proximity of the Eagle River and open space access as important assets that drives both recreational opportunities and quality of life. These results have recently been reaffirmed in the Town's 2020 community survey.

² C.R.S. § 24-65.1-101, *et seq.*

³ 40 CFR § 1501.6.

⁴ [Minturn Economic Development Strategic Plan](#)

⁵ [Town of Minturn Community Survey](#), June 2019

USFS must analyze how the project may impair the Town's goals of providing scenic recreational resources for its residents and visitors related to both public lands and the river corridor.

Scenery resources

The Town is concerned about the visual and aesthetic impacts of the project to the town. The Town's 2019 community survey indicates that scenery is important to residents, ranking as the third highest attribute (65%). Project impacts could harm the natural, mountainous setting and diminish property values and the overall scenic values of the town.

In particular, these concerns acutely apply to Dowd Junction. While the proposal would co-align with existing power lines entering Dowd Junction from Avon to the west, the project would site lines above U.S. Highway 24, adjacent to the interchange with Interstate 70 and U.S. Highway 6 (between poles 27 and 28 on the project map). These lines, strung high above the area also known as the Minturn Gateway, could have a negative visual impact that is harmful to the community. Additionally, although the alignment from poles 28-39 follows an existing utility ROW, the existing utilities are buried. A new aerial powerline would create additional visual impacts above the Eagle River from Dowd Junction south towards town.

Likewise, project locations south of Town will have negative visual impacts as visitors and residents depart Town into the mountains.

The USFS must take a hard look at the visual impacts from the aerial sections of the project and how they will affect the Dowd Junction/Minturn Gateway area and along the Eagle River south towards the transition point to underground near town. Likewise, the visual impacts to mountain scenery south of Town must be considered. The USFS should consider mandating more undergrounding of the proposed power line to mitigate these potential impacts.

Aerial development restrictions

The Town has significant interest in any aerial development limitations that the project, once complete, would impose on future development, particularly in the Dowd Junction area. The Town's longer-term interests for the Minturn Gateway include responsible commercial development, mass transit facilities, and recreational public access to Meadow Mountain. The Town has been in negotiations with the White River National Forest about the development of the Dowd Junction parcel for several years prior to this project. The intent of such development is to contribute to the Town by providing new commercial services for residents and visitors, additional sales tax revenue, and further employment and residential opportunities within the Town. Potential socioeconomic impacts to the Town's sustainable growth opportunities must be included in the USFS analysis.

Wildlife

The Town notes that Eagle County has been leading the Safe Passages for wildlife program along with Colorado Department of Transportation and other partners such as Vail Resorts. They have identified areas of concern where there is a high incidence of vehicular accidents with wildlife and a need for safe wildlife passage under or over highways. One of the areas identified is Mud Springs, which encompasses a section of I-70 from Vail to Avon that includes Dowd Junction. The Town is concerned about how the project might impact efforts to create or enhance safe wildlife movement in both the short term and over the long term. We note that several aerial poles (28 and 29 on map) are on a parcel owned by Colorado Parks and Wildlife (“CPW”) which is managed for wildlife. Likewise, an elk migration corridor that is directly adjacent to Dowd Junction may be impacted by the proposal.

Construction of the project is proposed for spring, summer and fall, based on when conditions are favorable for such activities. However, USFS should, in consultation with CPW, analyze impacts to wildlife based on season and timing. The proposed action should seek to minimize disruption to wildlife generally, and especially during critical times in the lifecycle such as calving season.

River, water quality and riparian concerns

The Town is deeply invested in being a good steward of the Eagle River, and our residents rely on the Eagle River and its tributaries for their recreational and scenic attributes. Protecting these values are of paramount importance to the Town. For example, the Town has adopted development setbacks from the river shore and invested in stormwater drainage infrastructure to protect the river from runoff impacts.

In the early 2000s the Town spearheaded the Eagle River Restoration project Phases 1 and 2 in cooperation and approval of Colorado Department of Public Health and Environment (“CDPHE”), the federal Environmental Protection Agency (“EPA”), and others to clean up the river by eliminating direct runoff of drainage to the river, and restore the natural ripple/pool river flow, riparian environment and successfully restored flora and fauna to the stream ecosystem. The Minturn River Project was a \$1.1 million, mile-long river restoration project that was funded with fines against the owners of the Eagle Mine. The restoration of the section of the river through Minturn included restoration of the river channel, planting over 34,000 native shrubs and trees, and bank stabilization. The project was part of broader recovery efforts to address impacts from mine pollution.

The proposed project alignment is close to the river through Town, especially the underground sections. The USFS must analyze a variety of potential impacts to the river, including runoff pollution/sedimentation, disruption of riparian habitat, diminishing recreation opportunities, and visual impacts during and after construction. South of Town along the route to Gilman, the project proposes many poles within feet of the Eagle River. The Town is concerned that the riverine and riparian ecology could be impacted or impaired. Visually, such close pole placement to the river will diminish the natural values of the Eagle

River, just upstream of our community. These impacts may have cumulative and unforeseen effects counter to the improvements which have been so diligently worked for by CDPHE, EPA, and the Town of Minturn

Recreational impacts

The Town is concerned that the project could have impacts on recreation. The Meadow Mountain area is an important recreational access point for residents and visitors alike. This access could be temporarily interrupted by construction of the project, or there could be more lasting impacts to recreational opportunities such as diminished scenery due to power lines and poles visible to recreationists at Meadow Mountain. We appreciate that USFS has eliminated the alternative that would have directly impacted the Meadow Mountain area.

Significant recreational opportunities exist along the Eagle River. The Town has made significant investments in access and recreational improvements to the riverfront. For example, the Town received a \$30,000 grant from Colorado Parks and Wildlife's Fishing is Fun program in 2018 to improve fishing access to the river. Also, the Town partnered with Eagle County Open Space and Eagle Valley Land Trust to acquire and protect the Boneyard Open Space under a conservation easement that facilitates access to the river. Fly-fishing has become a focal point for interacting with the river, supporting a fly shop and several local guides. In fact, the whole upper Eagle River has become a fly-fishing destination, so the entire stretch benefits the Town. The extremely close pole placement to the Eagle River upstream of the Town could diminish the natural setting that attracts anglers and boaters to our area. The USFS should look carefully to assess impacts on fishing (as well as our local guides and outfitter) and other forms of recreation along the entire stretch of the project.

There is a popular local footpath that partially is co-aligned with the project and the existing utility right-of-way, part single track and part old two track, running between Lions Lane south to Cemetery Road and the cemetery. Perhaps one mitigation to the disruption of construction to recreation in the town would be designation and improvement of this social trail. FR 762 is an important recreational access to both the shooting range as well as the Two Elk trailhead. Impacts to any of these access points should be considered by the USFS.

Wildfire hazards and risks

The Town notes that power lines can be a hazard for wildfire. Recent fires in Eagle County, including a very close call within the town have created heightened awareness of this hazard in our community. There have been two wildfires in recent years near the shooting range, both were human-caused but one was started at the shooting range by the illegal use of exploding targets. This points to the significant and ongoing hazards posed to our community associated with the unmanaged shooting range on USFS land. We note that the Lake Christine fire in 2018 tragically illustrated the wildfire risks that improper uses of shooting ranges can have on communities in Eagle County. And massive blazes caused by transmission lines in California affirm the potential that such facilities in the town can exacerbate such hazards. USFS should take a hard look at how the project could increase

wildfire hazard for the Town and anticipate what kind of mitigation would be appropriate to protect our community, as well as what kinds of visual and erosional impacts such mitigation may cause.

Geologic Hazards

Portions of the project's alignment are below steep slopes and potentially are at risk of damage from rock fall. The USFS must analyze the hazards posed from these steep slopes and how this type of damage could threaten the Town, including by increasing the risk of wildfire.

Shooting Range

The Town notes that the project proposes the transition from underground line to aerial south of town in a location that coincides with the Two Elk Shooting Range. We have noted the increased risk of wildfire already. A transmission line over the range also creates concerns about safety for shooters as well as for the electrical line itself. The USFS should consider what measures could mitigate this impact, including extending the underground section on USFS lands south beyond the range.

The Town notes that this unmanaged shooting range, on USFS lands, already is problematic for our community. While some of our residents appreciate the shooting opportunities it provides, it also poses risks of wildfire, vandalism, accidents and noise nuisance for our residents. We continue to ask that the USFS, as well as CPW, work with the Town to find ways to mitigate these concerns, including looking at alternative locations in the area for a CPW-managed shooting range.

Short Term Construction Impacts

The USFS must analyze the socioeconomic impacts during the construction phase of the project. Temporary loss of access to residences or businesses could cause economic or other interruptions. Impacts on recreation access or trail access in areas impacted by the construction of the project should also be assessed. And infrastructure impacts on Town resources, including construction traffic, must be included in such an analysis.

Areas of undergrounding versus aerial concerns

The USFS should consider alternatives that would mandate undergrounding more of the project, especially in the Dowd Junction area, to minimize the impacts listed above. While undergrounding is more expensive for the proponent in the near-term, it will help protect the environment, scenery and way of life that is important to the Town's residents and visitors alike in the long-term. Additionally, the added expense of undergrounding more of the line seems more reasonable when weighed against the high costs of a wildfire or wildlife recovery.

Thank you again for the opportunity to raise issues with this project that are important to the Town of Minturn. We look forward to working with the USFS as a cooperating agency as it conducts its analysis of impacts from this project and ultimately makes a decision.

Sincerely,

A handwritten signature in black ink, appearing to read "John Widerman". The signature is fluid and cursive, with a long horizontal stroke at the end.

John Widerman, Mayor



To: Minturn Town Council
From: Michelle Metteer
Date: September 15, 2021
RE: Town Manager Update

Eagle Valley Wildland Program

In the spring of 2021 Chief Karl Bauer, Eagle River Fire Protection District, presented the Eagle Valley Wildland Fire Program (conceptually) to the Minturn Town Council. As was identified back in April, Eagle County Government covered the cost of the first year of the program. The Wildland Program is now asking for financial contributions from the municipalities of Eagle County to support the program efforts in 2022. Of note, the Town of Vail currently has its own program and will be working alongside the Eagle Valley Wildland team.

Outlined within the program is the mitigation efforts around the Minturn Shooting Range area. Given the complexities of any work or activity on federal land, I have requested and Chief Bauer has initially agreed, to add “fuels reduction” in the area of Minturn’s assets, primarily the water treatment plant. This will result in the coordinated activity of removing dead trees and debris from the water tank area. More such areas may be identified in the future and added to the list.

A copy of the Eagle Valley Wildland Program and financial ask (which will be considered as part of the 2022 budget) are included for review.

Eagle Mine Superfund Site Stakeholder Meeting

I attended the Eagle Mine Superfund Site quarterly stakeholder meeting where progress on remediation, along with issues identified were addressed. The liberty well pump is currently out of order and a new pump should be installed later this fall. As you’ll remember, it was the deactivation of the liberty well (along with several other contributing factors) that caused the Eagle River to run orange in the 1990’s.

Removal of the pipeline on the trestle is expected to begin later this fall. A new pipeline was installed that allows crews easier access. The old pipe is contaminated and will be disposed as a hazardous material.

Moving forward I will be participating on the team that oversees the Operable Unit 3 compliance scoping session.

Taylor Ave Safety Concerns

I met with residents of Taylor Ave on the morning of Saturday, September 4th to discuss safety concerns along the corridor from the Minturn Saloon to the intersection of Taylor and Minturn Road. We walked this section, discussed variations in grade, line of sight limitations, vehicle speeds and the variety of user groups in the area. As a result of this discussion, I asked Deputy Peterson if he might observe the corridor during high-volume times (mornings and evenings) and provide his feedback. I expect this will culminate with Stolfus Engineering conducting an analysis of the area and providing recommendations for improvements.

Eagle Valley Wildland Program

Reducing wildfire risk through mitigation, suppression, and community education

2022 Program Proposal



Issue:

Twenty of Colorado's largest wildfires have occurred within the last twenty years. Four out of the five largest fires in State history have occurred within the last three years. Eagle County continues to see an elevated level of wildfire activity, and the frequency, severity, and complexity of these fires is only expected to increase in the coming years. The Sylvan Fire scorched nearly 6 square miles of timber less than one year after the Grizzly Creek Fire closed I-70 impacting interstate commerce for 2 weeks. Nationally, more than 4.8 million acres have burned in 95 large fires across 12 states in 2021. A worrisome trend points to Eagle County's increasing vulnerability to wildfire destruction.

Approximately 55,000 Eagle County residents¹ and visitors live, work and recreate in areas which, according to the Colorado State Forest Service, are directly threatened by potential wildfires; while the soaring value of improved property throughout the Eagle Valley causes overall values-at-risk to exceed those of many other Colorado communities.

Background

In response to this growing threat from uncontrolled wildfire, in 2020 the Greater Eagle and Eagle River Fire Protection Districts (GEFPD and ERFPD, respectively) collaboratively launched the Eagle Valley Wildland Program. More commonly known as EV Wildland, the intent of this joint wildland program is to reduce the overall wildfire risk of the communities it serves through effective mitigation, appropriately-scaled wildfire suppression, and collaborative community outreach and education.

In June of 2021, Eagle County entered into an IGA with GEFPD and ERFPD, by which it dedicated \$184,740 to assist EV Wildland with filling two crew lead positions and purchasing necessary equipment and supplies. Subsequently, the Gypsum Fire Protection District (GFPD) joined EV Wildland, cementing the participation by all three of the Valley's fire protection districts.

In 2022, ERFPD, GEFPD, and GFPD will jointly dedicate to wildland programming approximately \$578,000² in equipment, supplies and capital costs (this figure does not include the cost of personnel). Of critical importance, however, while the three fire districts will jointly commit this level of funding to wildfire protection, and possess the expertise and leadership to safely, effectively and efficiently oversee a comprehensive wildland program of the scope and scale necessary to meet the community's growing wildfire risk, they lack sufficient personnel to effect desired outcomes of reducing community risk through mitigation, education and suppression. Consequently, this proposal seeks funding to enhance the valley's wildland capabilities in addition to the wildland program funding already provided by the three fire districts, as cited above.

¹ US Census of July 1, 2019: <https://www.census.gov/quickfacts/eaglecountycolorado>

² Pending Board approval of Fire District budgets

Eagle Valley Wildland Program – 2022 Goals and Objectives

2022 program goals include:

- Implement risk reduction strategies in communities served by EV Wildland, in collaboration with Eagle County's Wildland Mitigation program
- Foster partnerships with other communities served by EV Wildland.
- Enhance ongoing community outreach and education efforts
- Enhance mitigation and response capabilities

Given the imperative to reduce the valley's overall wildfire risk through mitigation and response, the 2022 program endeavors to pursue numerous mitigation projects that either reduces the fuel in specific areas, or creates strategically placed fuel breaks. Acquiring the personnel and equipment necessary to pursue these projects will also enhance EV Wildland's response capabilities.

It takes hard work, good communication, and strong partnerships to effectively respond to disasters. With the risk of more frequent, more intense, and less predictable wildfires on the horizon (as well as other risks), we need to be better prepared to deal with these events, both during the event and during the long period of recovery. Investing in partnerships now will enhance our ability as a community to prepare for and face the challenges of the future.

A proposed project list for the 2022 program may be found in Appendix A.

Eagle Valley Wildland Program – 2022 Costs

To achieve its 2022 goals, EV Wildland seeks to add four crew members (wildland firefighters) along with the associated equipment and supplies to its 2022 program for a cost of \$322,222. This figure is in addition to the approximately \$578,000 the three fire districts will dedicate to wildland programming in 2022, as previously cited.

A proposed budget for the 2022 program may be found in Appendix B.

Appendix A: Project List (alphabetical order)

The following list is comprised of projects that EV Wildland has to date identified through risk assessments, or review of local Community Wildfire Protection Plans (CWPPs). Additional projects in various areas throughout the valley will be added through continuous risk assessment and CWPP review.

Note: not all of the projects in this list will be completed in 2022; rather, project completion will depend on funding, weather, prioritization of risk, and the incidence of wildfires during the 2022 wildfire season.

Arrowhead / Bachelor Gulch / Beaver Creek

- Provide technical assistance to metro district(s) as they implement Healthy Forest Plan and mitigation actions outlined in community risk assessment(s).
- Assist as necessary and feasible with removal of unhealthy trees on open space and along roadways.
- Assist with implementation of 5 alternative evacuation route improvements in Bachelor Gulch and new signage.
- Provide technical and financial assistance to HOA's as they implement property specific mitigation plans, including (but not limited to):
 - The Chateau at Beaver Creek
 - The Borders Lodge
 - Ridgepoint Townhomes
 - The Trailhead (Arrowhead)

Bellyache Ridge

- Determine feasibility of implementing mitigation projects at the communication tower, as indicated in CWPP.
- Hazardous tree removal along Bellyache Ridge Road through the entire community.
- Improve evacuation route from Bellyache Backcountry, and develop agreements with Diamond Star Ranch.
- Fuel-reduction on HOA open space (aka: Ferry's Ditch along Bellyache Ridge Road).
- Assist with technical and financial assistance on HOA Community Chipping Program.

Colorow / Cattleman's Club

- Evacuation route improvements and new signage.

Cordillera

- Divide - assist metro district with creation and implementation of fuel break on the western boundary of the community.
- Divide and Ranch - assist with hazardous tree removal along roadways.
- Ranch - assist with slash pile burning (20 piles).
- Summit - assist with slash pile burning (20 piles).
- Territories - Maintenance of evacuation route to Brush Creek Road.
- Provide wildfire hazard and Home Ignition Zone training for Grand Manors staff.
- Assist Grand Manors staff with implementation of POA wildfire mitigation ordinance.

Diamond Star Ranch

- Determine feasibility of implementing a secondary egress route for Bellyache Ridge.

Singletree

- On-going coordination and technical assistance for fuel reduction work on open space.

Town of Avon - Wildridge / Wildwood / Mountain Star

- Complete fire break plan (CWPP) - burn 60+ piles.
- Assist with Mountain Star with community pile burn as necessary.

Town of Minturn

- Assist town with maintenance and defensible space improvements around gun range.

Town of Eagle

- Fuel reduction for open space that backs up to The Bluffs.
- Eagle Ranch fuel-break construction and maintenance.
- Town of Eagle prescribed fire project (Brush Creek).
- Town of Eagle forest thinning and fuel reduction (multiple locations).

Eby Creek Mesa

- Fuel reduction on HOA open space (10 acres).
- Slash pile burning (100+ piles).
- Assist with on-going community chipping program.
- Complete updated risk assessment for community FireWise recognition.

Town of Red Cliff

- Hazardous tree mitigation and clean-up in the Greenwood Cemetery.

Ute Forest

- Assist HOA with on-going fuel reduction work along primary access to community.

Town of Gypsum

- Determine feasibility of implementing prescribed fire and slash-pile removal near Dry Lake MX Park.
- Assist town with wildfire mitigation actions outlined in Gypsum Creek Source Water Protection Plan.

Appendix B: 2022 Program Budget

Joint Wildland Funding (ERFPD, GEFPD, GFDP): \$578,000
 Current Unfunded: \$322,222
 Total 2022 Proposed EV Wildand Funding: \$900,222

Unfunded detail:

2022 Equipment (Non-Capital) Supplies and Maintenance

Item	Unit Cost	Number of Units	Line Item Total
Personal Protective Equipment	\$ 1,200	8	\$ 9,600
Uniforms	\$ 250	6	\$ 1,500
Chainsaws w/Accessories	\$ 1,700	4	\$ 6,800
Chainsaw R&M	N/A	N/A	\$ 2,400
800 MHz Handheld Radios	\$ 3,000	6	\$ 18,000
BK Radio	\$ 1,500	6	\$ 9,000
Cell Phones	\$ 800	4	\$ 3,200
iPad with Accessories	\$ 600	2	\$ 1,200
Laptop Computers with Accessories	\$ 2,500	2	\$ 5,000
Software	N/A	N/A	\$ 1,200
Miscellaneous Related to Hiring	N/A	N/A	\$ 1,500
Total 2022 Equipment, Supplies and Maintenance			\$ 59,400

2022 Recurring Costs

Item	Estimated Cost Per Month	Number of Items	Total Cost per Year
Data Plans	\$ 50	8	\$ 4,800
Apparatus Repair/Maintenance	N/A	N/A	\$ 7,000
Fuel	N/A	N/A	\$ 7,200
800 MHz User Fees	N/A	N/A	\$ 6,000
Total 2022 Recurring Costs			\$ 25,000

Position or Item	Number of Positions	Hourly Wage	Hourly Benefits per Position	Cost Per Hour per Position	Total Hiring Cost	Line Item Total
Crew Boss	2	\$ 25.00	\$ 10.25	\$ 35.25	N/A	\$ 146,640
Senior FF (Six Months)	2	\$ 21.00	\$ 1.95	\$ 22.95	\$ 1,200	\$ 50,136
FF (Six Months)	2	\$ 17.00	\$ 1.58	\$ 18.58	\$ 1,200	\$ 41,046
Professional Development	6	N/A	N/A	N/A	N/A	\$ 3,000
Incident Overtime						\$ 15,000
Total 2022 Personnel						\$ 237,822

Proposed EVWF Contributions - 2022

Estimated Funding Needed: \$ 157,622

Calculation of contribution from each municipality based upon 2020 revenue from governmental activities

Municipality	2020		Remaining Unfunded	2022 Estimated
	Governmental Activities Only	% of Total		Budget Contribution
Red Cliff	\$ 401,023	0.8%	\$157,622	\$1,215.14
Minturn	\$ 2,551,000	4.9%	\$157,622	\$7,729.79
Avon	\$ 28,091,704	54.0%	\$157,622	\$85,120.70
Eagle (estimate)	\$ 9,360,000	18.0%	\$157,622	\$28,361.75
Gypsum	\$ 11,615,000	22.3%	\$157,622	\$35,194.62
Total	\$ 52,018,727	100.0%		\$157,622.00

Jay Brunvand
 Clerk/Treasurer
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Town Council
 Mayor – John Widerman
 Mayor Pro Tem – Earle Bidez
 Council Members:
 Terry Armistead
 George Brodin
 Eric Gotthelf
 Gusty Kanakis
 Tom Sullivan

Below reflects proposed topics to be scheduled at future Town Council meetings and is informational only. Dates and topics are subject to change.

REGULAR TOWN COUNCIL MEETINGS
September 15, 2021
Town Manager Review – Widerman
2022 Budget – Discussion/Direction
Water CIP – Pre-Construction Water Tank(s) Discussion (State Revolving Fund Requirement)
Water Capital Improvement Plan Review
2022 Water Rates Review
October 6, 2021
Discussion regarding the preservation of Historical Buildings in Minturn
Union Pacific Conditional Use Permit renewals
Acceptance of the 2022 Budget
Rezoning of 504 Eagle River Street and 502 Main Street Ordinance
Bunkhouse Variance Resolution
261 Main Street Variance Resolution
Action Item: Acceptance of the 2022 Fiscal Budget (Draft)
October 20, 2021
2018 Building Code Adoption Ordinance
November 3, 2021
FY 2022 Budget – Public Hearing
DATE TO BE DETERMINED
An Ordinance adopting Specified Sustainability Building Codes