CAPITAL IMPROVEMENTS - PHASE ONE

2-MG TANK RELINING – DISTRIBUTION SYSTEM IMPROVEMENTS – RAW WATER MONITORING IMPROVEMENTS

PROJECT NEEDS ASSESSMENT

DRAFT RSI-W0333.23005.001

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NOVEMBER 2023

Project Number W0333.23005.001

CONTENTS

Attachments

Sections of this report are outlined or annotated to match the requirements of the Colorado Department of Health and Environment (CDPHE) requirements for the Project Needs Assessment (PNA) that is uploaded through the Colorado Environmental Online System (CEOS).

1. APPLICANT INFORMATION

Applicant
Town of Paonia
PO. Box 460
Paonia, CO 81428

Consulting Engineer
RESPEC Company, LLC
5540 Tech Center Drive, Ste 100
Colorado Springs, Colorado 80919

Project Name: 2-MG Tank Relining; Distribution System Improvements; Raw Water Monitoring Improvements

Self-Certification

- **Yes**: Distribution System Improvements and Raw Water Monitoring Improvements
- **No**: 2-MG Tank Relining

2. EXECUTIVE SUMMARY

The Town of Paonia (Town, Paonia) PWSID# CO0115601 is a community water system in Delta County south of Highway 133. This community not only serves potable water to customers within city limits, it also serves water to around twenty (20) consecutive systems that purchase water from the Town. The distribution system has been in operation since distribution pipes were first installed in 1905 to bring water from the Lamborn Mesa springs into the Town. Having reviewed reports written from 1995 – 2021, the Town has divided Capital Improvement Plan (CIP) projects into Phases. This Project Needs Analysis (PNA) addresses projects identified as Phase 1. The Town of Paonia desires to apply for State Revolving Funds to assist with the capital and engineering costs that will be associated with the proven alternative necessary to update, repair, and/or replace infrastructure in the potable water system. Three projects in this PNA that will be performed concurrently are:

- **2-MG Tank Relining:** Relining 2-MG finished water storage tank which will require first installing a temporary finished water tank to hold treated water while the 2-MG finished water tank is relined. Once the water can be sent to the temporary tank, relining will occur on the 2-MG tank. Engineering work will be led by SGM Engineering (SGM), with support by RESPEC.
- **Distribution System Improvements:** Replace 9,400 LF of 8" finished water steel pipe from the intersection of Lamborn Mesa Rd. and Steward Mesa Rd. to the northern end of Cresthaven Rd.

where the pipe will connect to PRV 9. Work may also include relocating existing pressure reducing valves (PRV) in the impacted pressure zones. Engineering work to be completed by RESPEC.

- **Raw Water Monitoring Improvements:** Rehabilitate springs structures to increase/improve raw water intake as well as install meters on four raw water discharge locations. Engineering work to be completed by RESPEC.

3. SYSTEM STRUCTURE AND OPERATION

3.1 Legal Ownership of System

Town of Paonia
P.O. Box 460
Town of Paonia, CO 81428

3.2 Organizational Chart – Included as **Attachment 2.**

3.3 Plans

- Monitoring Plan is **Attachment 3**
- Cross Connection Control Plan is **Attachment 4**
- A water conservation plan is not required due to the community size.

3.4 Current Operator in Responsible Charge

Benjamin R. Archuleta,
00095-0496 Class A Water Treatment Operator
00020-1184 Class 4 Water Distribution Operator

3.5 Operator Certification Impacts with Increased treatment – No operator certification changes will occur with source improvement, tank repair, or water line improvements.

3.6 Record Keeping – The Town is in compliance with records retention requirements as outlined in Section 11.36 of Regulation No. 11 – Colorado Primary Drinking Water Regulations. All records pertaining to the operation and water quality of the Town are located at 401 2nd Street, Paonia, Colorado, 81428 and are available to the public during normal working hours.

3.7 Annual Budget – The Town adheres to the following procedures in establishing the budgetary data reflected in the financial statements.

A. State law for all funds requires budgets. During October, the proposed budget is submitted to the Board of Directors by the budget officer for the fiscal year commencing the following January 1. The budget includes proposed expenditures and means of financing them.

B. Public hearings are conducted by the Board of Directors to obtain taxpayer comments.

C. Prior to December 31, the budget is adopted, and appropriations made by formal resolution.

D. Expenditures may not legally exceed appropriations at the fund level. Board approval is required for changes in the total budget of any fund, or changes in project or department budgets. Budget amounts included in the financial statements are based on the final, legally amended budget.

E. Budget appropriations lapse at the end of each year.

Accordingly, budget comparisons are of the legally adopted budget. The level of budget control is determined by the resolution appropriating sums of monies. Encumbrances are neither recorded on the books of the Town nor included in the budget. The Board of Directors has the authority to make budget amendments.

A copy of the budget is included in **Attachment 7.**

3.8 Financial Status - as of March 2023

- Net Income: $1,043,795
- Checking/Savings: $433,574

- Emergency Reserve: $458,955 (listed as water reserves in DOLA eval)
- Total Cash Available: $533,574
- Existing State Loan: $944,192

Rate Structure Water

- Base Fee: $40 per month In-Town Residential
  $50 per month In-Town Commercial
  $50 per month Out-of-Town Residential
  $65 per month Out-of-Town Commercial

- Usage Rate:

0-3000 gallons:	$2.50/1000 gallons
3001-10,000 gal:	$3.50/1000 gallons
10,001-25,000 gal:	$4.50/1000 gallons
25,001 -50,000 gal:	$7.50/1000 gallons
50,001 – 75,000 gal:	$15.50/1000 gallons
75,001 – 99,999,999 gal:	$20.50/1000 gallons

Rate Structure Wastewater

- Sewer Fee Residential: $55.00 per month in town limits
- Sewer Fee Residential: $60.00 per month outside town limits
- Sewer Fee Commercial: $60.00 per month in town limits
- Sewer Fee Commercial: $60.00 per month outside town limits
- Stand by Fee: $55.00 per month

Bond (Debt Service) requirements for Bond agreements are:

- Colorado Water Resources & Power Development Authority (WPA) Bond
- WPA requires water and sewer debt service to be budgeted at 110% of the annual payment.
- WPA requires between water and sewer a 110% debt ratio.
- WPA requires 25% between water and sewer expenditures in Available Working Capital (calculated during audit).

Estimated O&M costs, three-year financial plan and 20-year cash flow projection included in **Attachment 8.**

3.9 Audits – Included in **Attachment 9**

3.10 Insurance – Included in **Attachment 10**

4. PROJECT PURPOSE AND NEED

4.1 Health and Compliance – A sanitary survey was performed on Paonia's water system on April 20, 2023. From this survey, the Town had two significant deficiencies, four violations, and seven observations/recommendations.

The first deficiency is uncontrolled cross contamination at the Lamborn Mesa Upper water treatment plant. This situation could allow contamination to enter the treated drinking water, specifically chemicals from the clean-in-place system backflowing into the treated drinking water. This deficiency will be repaired with the existing operations and maintenance budget. The second deficiency is with the 2-MG treated water storage tank. A pipe flapper that is assumed to be to the overflow pipe for the tank does not seal. This deficiency will be corrected with the proposed 2-MG tank relining stated in this PNA.

Three of the four violations are tied to the Backflow Prevention on Cross Contamination requirements for drinking water systems. Those three violations will not be addressed with the work proposed in this PNA. The fourth violation regarded Total Coliform sites not being represented. This will also not be addressed in this PNA.

Of the seven observations listed in the sanitary survey summary letter, only one of these observations will be addressed as a project in this PNA. The 2-MG tank is noted to be in a condition that may allow potential contamination into the tank. With the relining and repairs of the 2-MG tank, this concern will be eliminated.

4.2 Existing Facility Limitations – Town of Paonia is currently under a tap moratorium. This self-imposed moratorium was implemented in response to a critical 2019 water supply issue. Language written into the tap moratorium requires confidence in the water system's ability to serve additional users. The Town's efforts since 2019 have yielded a phased capital improvement plan to ensure the water system, including raw water, treatment, storage, and distribution are sufficiently robust to confidently support growth. The following details existing water system facilities' limitations that necessitate the proposed projects.

- Raw Water Sources – Paonia currently collects water from spring systems flowing from Mt. Lamborn and Landsend Peak. This has been a consistent source of water for the Town since the establishment of the drinking water system. Problems that are seen in the spring system are many. Several of the springs do not have a successful containment of the spring and much of the water bypasses their respective collection boxes. Many of the pipes from the collection boxes do not have metering which prevents the Town from understanding the potential of source water available. Much of the piping form collections to the Upper Lamborn water treatment plant and the lower Clock water treatment plant was laid without a vision for the future of those lines. Those lines were constructed to carry water to treatment but not designed for long-term success.

  It is especially important to improve the collection of the spring water and piping to the water treatment plants to provide the Town as much spring water as possible in drought years. Missing the collection of any of the spring water available to the Town through their designated water rights during a drought puts the Town in a situation where they may not have ample water to serve the residents and the paying water companies.

- Treatment – Paonia's raw water sources are classified as surface water or groundwater under the direct influence of surface water (GWUDI). Because of the GWUDI classification, both the Upper Lamborn and Clock water treatment plants employ filtration membranes to remove particulates from the raw water before the water is disinfected and sent to distribution. The Upper Lambourn water treatment plant (WTP) is the only plant currently in operation. The Clock WTP has sat idle since 2014 except for the water emergency that occurred in February 2019. This plant remains idle due to the repairs that are needed for the 1-MG tank that receives Clock WTP treated water before distribution.

At the sanitary survey performed in April 2023, it was recommended that the Clock water treatment plant be fully inspected and operated to note any repairs required before putting into service for actual water treatment to be sent to distribution.

/ Finished Water Storage

- The Clock 1-MG finished water storage tank is not adequately sealed from outside animals and insects and is not in service.
- The Lamborn 2-MG finished water storage tank must be relined and repaired.
- Additional storage has been recommended in previous engineering reports.

/ Distribution:

- From the Lamborn 2-MG finished-water storage tank, water is distributed into town via two 8-inch pipelines. The routing of these pipelines is referred to as the east and west loops. Along the west loop, an 8-inch steel line section and is proposed to be replaced with a 12" pipe size in this PNA. This line is critical to the overall distribution system. However, sections of this pipe are not adequately buried and has been a consistent source of leaks.
- Other distribution pipelines in the system range from 0.75-12" with materials consisting of steel, cast iron, ductile iron, PVC, or HDPE. Many of the pipelines in the town are insufficiently sized, aging, and may not be buried at a sufficient depth to prevent freezing.

4.3 Operations and Maintenance (O&M) Issues – Several sections of older pipe are beginning to deteriorate. Leaks are being fixed as detected. Storage could be improved if the 1-MG Clock tank was repaired, and the lower Clock water treatment plant was operational. Excessive O&M issues related to aging infrastructure are a cost and labor burden and have been a hurdle to more proactive efforts to make system improvements.

5. EXISTING FACILITY ANALYSIS

5.1 Existing Source Water

5.1.1 Raw Water Supply: Raw source water is collected from a series of 32 springs located on the northern slope of Mt. Lamborn. The springs collection system is comprised of a conglomerate of infiltration galleries, springs collection boxes, PVC and steel gravity collection pipes, overflow boxes, and monitoring locations. All springs used by the Town of Paonia have been classified as Groundwater under the direct influence of surface water (GWUDI) and therefore require surface water type treatment to convert the raw water into potable water. Because of the existing topography on Mt. Lamborn, a portion of the springs can only be collected and treated at the Upper Lamborn water treatment plant, while another portion can only be collected and treated at the lower clock water treatment plant. A small portion of these springs can be collected and treated at both water treatment plants (see **Figure 1** below).

Of note, only a fraction of the raw water can currently be monitored reliably for volume using existing measuring flumes. As noted in later sections, four additional monitoring locations have been recommended by the Town, its engineer, and the Division 4, District 59 water commissioner. There is also concern about the vulnerability of the springs to surface contamination, drought conditions, and impacts on water quality due to wildfires. Raw water storage has been one improvement considered by the town to decrease drought impacts on the surface water springs, though these potential alternatives have not been explored in this PNA but are being evaluated in a subsequent hydrogeology study being commissioned by the Town and may be included in a later water system improvement phase.

These spring sites are owned and maintained by the Town of Paonia and provide raw source water which is treated and converted to potable water for domestic use by residential, commercial, and consecutive water systems (water companies) within the Town of Paonia. Surface water rights are also available to the Town at a

diversion on the North Fork of the Gunnison River but are not often used due to the higher levels of turbidity in the river water. In addition, commercial and residential properties also have access to raw water surface diversions carried throughout town in ditches which can provide irrigation water to customers. These surface water diversions are not part of the Town's raw source water portfolio but are part of another water and ditch company in town. These surface water diversions for irrigation purposes do help alleviate elevated water demands when the surface water is available.

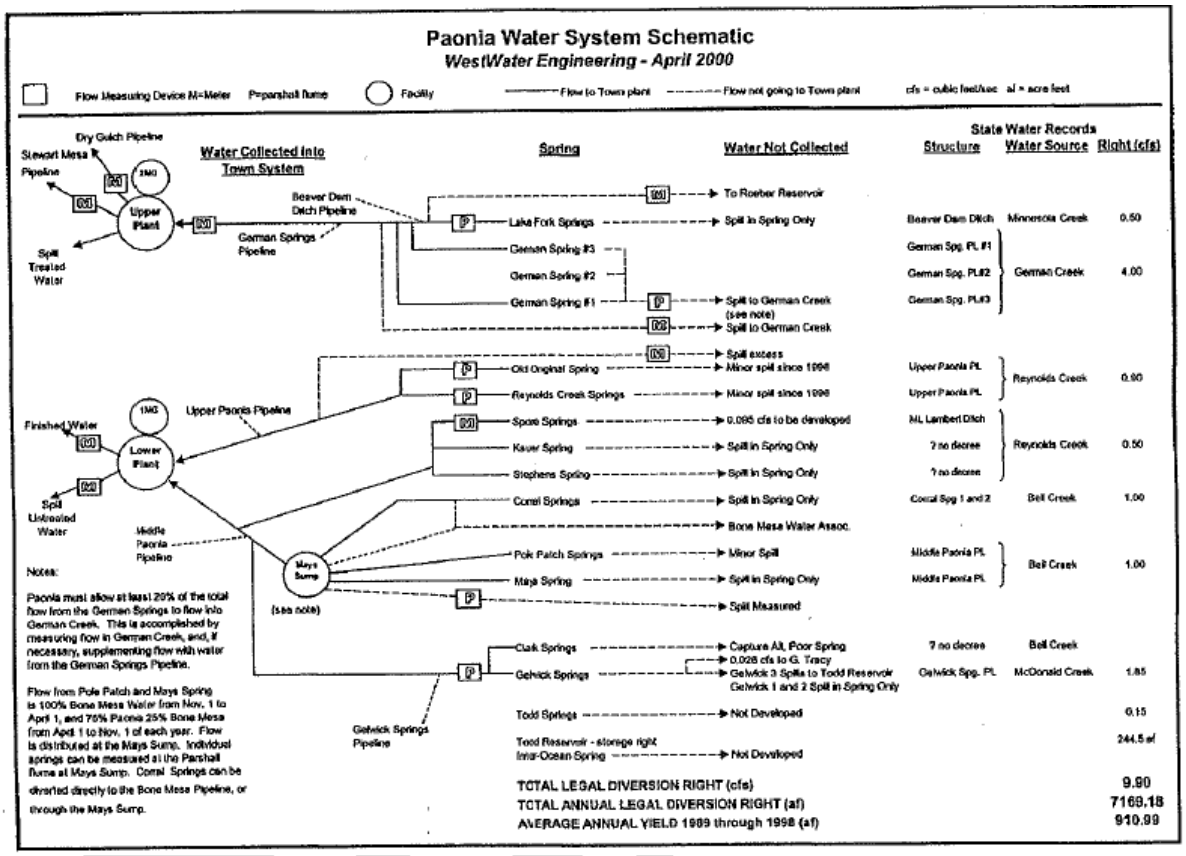


Figure 1. Paonia Water System Schematic

5.1.2 Water Rights –

The Town of Paonia is served by a conglomerate of water rights which has been assembled over the course of almost 140 years. The source of most water rights emanates from a complex network of springs or raw water pipelines at diversions located on Mt. Lamborn Mesa. Source water is collected at a variety of infiltration galleries as described in Section 5.1.1. above. The source of the water which comprises the majority of Paonia's water rights is generally believed to be derived from subsurface flows along the slide rock on Mt. Lamborn Mesa atop the Mancos shale. This source water generally results in a high quality, alluvial well type pre-filtered water that generally does not require much treatment. However, because of the exposure to surface contaminants the Colorado Department of Health and Environment has classified all spring sources as Groundwater Under the Direct Influence of Surface Water (GWUDI) which generally requires more advanced treatment prior to public consumption. Overall, the sources have been collected and serve an upper and lower collections and treatment system as described in Section 5.1.1. Prior to 2023 there have been many attempts to identify and quantify the water rights currently held by the Town. Previous attempts have been conducted by Minion Hydrologic in 1994, the Division 4, District 49 Water Commissioner, JDS-Hydro Consultants, WestWater

Engineering, and most recently, Sherry A Caloia P.C.. A water rights list was most recently compiled by Ms. Caloia in April of 2023 and is included in **Attachment 12**.

Overall, there are 20.82 cfs of described water rights associated with the Town of Paonia. Of these 20.82 cfs of water rights, 9.90 cfs can be confirmed as legal diversion rights to the Town of Paonia. This translates into 7,169.18 AF of total annual legal diversion rights on paper. Of the 9.90 cfs available to the Town, 4.50 cfs can be collected at the upper plant and serve the upper zone while 5.4 cfs can be collected at the lower plant and serve the lower zone. A description of the water rights available to each zone is described in Section 5.2.1.

5.2 Existing Treatment

5.2.1 Overall Treatment Description – The current treatment process consists of the manifolding the Roeber Reservoir, Lake Fork Springs, German Springs, Old Original, and Reynolds Creek Springs into the Lamborn water treatment plant. The springs manifolded into the Clock water treatment plant consist of Old Original, Reynolds Creek, Spore, Kauer, Stephens, Coral, Pole Patch, Mays, Clark, and Gelwick springs. Both plants utilize ultrafiltration membranes for the removal of particulates that impact turbidity and can be a cause of bacterial contamination. After filtration, the water is disinfected and sent to a finished water storage tank and/or pumped to distribution.

The Lamborn water treatment plant has the capacity to treat 600 gpm with filtration being the limiting operation. The Clock water treatment plant has not run consistently since 2014 and would need a thorough inspection of all equipment to determine if repairs are necessary before being placed into operation. No changes to treatment are proposed in this PNA. A discharge permit (COG641134) is in place for backwash discharge of the ultrafiltration membranes at Clock water treatment plant. At the sanitary survey in April 2023, it was noted that there was not a discharge permit on file for the Lamborn water treatment plant and that the Town should reach out to the Permits Division of the Water Quality Control Division with CDPHE to determine if a discharge permit is required for this discharge.

5.2.2 Existing Process Flow Diagram – Included in Attachment 3 Monitoring Plan

5.2.3 Current Compliance Status – The Town of Paonia is not currently on a compliance schedule for any portion of their water treatment system. However, the Town is under a tap moratorium until the system is deemed able to serve its existing customers sufficiently before adding additional strain to the system.

5.2.4 Appropriateness of Treatment Technologies – With the extensive studies and reports and previous alternatives analyses prepared for the Town of Paonia over the last ten years, the projects proposed in this CIP Phase 1 PNA for the 2-MG finished water storage tank relining, 8" steel finished water distribution line replacement, and repairs and metering of several of the springs serving the Town raw water have been deemed the most important and cost appropriate for the Town at this time.

5.2.5 Capacity of Treatment – Both water treatment plants have been upgraded to comply with CDPHE's Design Criteria for Potable Drinking Water Systems and can together treat enough water to supply the Town and consecutive system water companies.

5.2.6 Operational Controls – Existing treatment and distribution is monitored and controlled by SCADA. The specific setpoints, control narrative and upgradeability were not considered in depth for this draft report. Operational controls will likely not be changed, only upgraded, with this Phase 1.

5.2.7 Residuals Management – Per a sanitary survey, membrane backwash is discharged to a small pond and then private property for irrigation. Paonia is expected to contact CDPHE Water Quality and Control Division Permits section to determine if a discharge permit needs to be secured for the Lamborn plant. A discharge permit is already in place for the Clock plant. No other residuals are created that require disposal.

See **Attachment 14** for permit related to discharge from Clock WTP.

5.3 Distribution

5.3.1 Overall Distribution System Description – With almost 23 miles of gravity distribution piping within the system ranging from 0.75 inches to 12 inches of varying material from steel, cast iron, PVC, DIP, and HDPE, older pipes are in need of repair and/or replacement. Eight pressure reducing valves (PRV) incrementally divide approximately 930 feet of elevation difference within the distribution system into eight distinct pressure zones. An additional ninth PRV is included in the proposed CIP Phase I water distribution system improvements.

The distribution system is fed entirely by a 2-MG finished water storage tank. A 1-MG finished water storage tank located lower in the distribution system has been out of service since 2015. Repair and/or replacement of the 1-MG finished-water storage tank is being considered in future capital improvement phases. The only documented asbestos-cement pipe connects the 1-MG tank to the distribution system and is currently offline. Whether this pipe is reused or replaced is also under consideration in future capital improvement phases.

Previous engineering efforts have inventoried distribution system infrastructure, and the Town has invested in ArcGIS asset management software. A system-wide hydraulic model was developed to support capital improvement planning efforts.

Distribution system losses: Filtered water is metered prior to the 2-MG finished-water storage tank and compared to metered distribution system demand. Unaccounted water has ranged from 15%-30%. The Town has addressed water loss through leak detection and repair. Notable improvement has been made in recent years, which was made possible because of increased public works staffing. The Town continues to follow AWWA protocol for identifying and addressing water losses.

5.3.2 Pressure

The distribution system has been modeled and evaluated under all conditions of flow as required by CDPHE design Criteria from Potable Water Systems. While normal working pressures in the distribution system are above 60 psi and nowhere less than 35 psi, specific hydrants have been identified as providing less than 1000 gpm while maintaining a minimum pressure of 20 psi. **Attachment 15** illustrates distribution system pressures and modeled hydrant flow while maintaining a minimum working pressure of 20 psi.

5.3.3 Meters – Meters are employed for every customer within the distribution system. Finished water is metered prior to the 2-MG finished water storage tank. Some meters have been installed on the springs providing raw water but a more robust raw water metering system including additional meters on the discharge piping of several of the springs would provide Paonia a better understanding of spring production abilities in high run-off years as well as drought years.

6. FACILITY PLANNING ANALYSIS

6.1 Planning Area Description

6.1.1 Project Area Map – A map is included in **Attachment 16**

6.1.2 Urban Growth Boundary – The Town has the ability to annex new customers once the tap moratorium is lifted.

6.1.3 Local and Regional Issues – Paonia sits in the southwest corner of Colorado where the towns and municipalities are separated by miles and often difficult terrain. There is no ability for Paonia to enter into an intergovernmental agreement with any other community due to these difficulties. In fact, Paonia serves water to 24 to 27 other Water Companies are outside the boundaries of the Town which purchase treated water from the Town of Paonia through individual contracts. The communities of Hotchkiss and Crawford are the nearest communities to Paonia which could participate in resource sharing or consolidation. However, both towns are more than 9 miles from Paonia across extreme topographical areas, making connection to each of these communities difficult. In addition, both communities are smaller than the Town of Paonia and would

probably require resource support from the Town of Paonia rather than vice versa. For instance, the Town of Crawford only has one water source, the Wiley Spring, which provides raw water to its constituents. This consolidation of raw water or treatment sources with either of these nearby communities would probably not benefit, nor would be economically feasible, for the town of Paonia.

The Town of Paonia is drafting a master plan to provide a 20-year planning document to assist in its regional planning efforts. The Town is in a position of projected growth, as described in Section 6.2 below. However, there have been significant deficiencies in the Town's potable water system which keeps the town from supporting additional growth in the future. In fact, the Town currently has a tap moratorium in place until many of these identified deficiencies are addressed. In 2019, the Town experienced a water leak which put the town out of potable water temporarily. Subsequently, the Town has identified a series of improvements which need to be made to its water system to help address these deficiencies and support the existing regional planning efforts. This Capital Improvements Plan (CIP) has been split into phases to help the Town address these deficiencies in the most cost-efficient way possible. The projects included in this Phase 1 represent the highest priority improvements in the CIP as the town looks to incrementally lift its tap moratorium.

As mentioned above, the Town of Paonia has prepared a CIP that it needs to implement to rectify existing deficiencies to the Town's water system. One of these projects includes the repair and relining of the existing Upper Lamborn 2 MG water storage tank, which if left unattended will significantly impact finished water quality at the Town's only functioning water treatment plant. Without the repair to this tank, the Town will not be able to guarantee long term potable water to any of its constituents, making the project the highest priority to its distribution system improvements. In addition, should the Upper Lamborn 2 MG tank go out of service, existing water quantity issues would be exacerbated as the Town would be without its largest equalizing storage tank. Water quantity has been an issue in the past as highlighted by the distribution system water leak in 2019 which temporarily put the town out of water. However, that issue was not so much a product of overall water quantity as the Town has plenty of water rights existing in its existing water rights portfolio as described in Section 5.1.2. above. Repairing the lower clock tank and plant and bringing that facility back into service will help alleviate some of the water quantity delivery issues as it will bring back 5.4 cfs of water rights back into the system once. Work on the lower clock tank is slated for the Phase 2 water improvements. Equalizing storage has been considered for storing un-captured spring spills on Mt. Lamborn for some time, but the costs of building a raw water storage reservoir or tank versus how much water these reservoirs could store makes building a reservoir on the side of Mt. Lamborn cost prohibitive. So, the proposed projects contained in Phase 1 adequately address immediate water quality and quantity issues for the Town of Paonia.

6.2 Population and Water Demand Projections –

The areas around the Town of Paonia have been growing at approximately 1 – 2% per year. If that growth rate were consistent within the Town's jurisdiction, the existing facilities (after upgrades have been completed) would still be with in capacity to treat and distribute drinking water to all customers. In the future the Town of Paonia has plans to bring Clock Tower treatment facility and storage tank back online. With both the Lamborn and Clock facilities operational the Town would ensure redundancy in their treatment system to provide drinking water if either of the plants were to undergo an emergency shutdown. The Town currently provides water to 1512 total services.

Using census and regional data, each service is estimated as a single-family equivalent (SFE) representing 2.5 persons. Detailed projections of population and water demand are provided in Attachment 17.

6.3 Source Water Planning

6.3.1 Overall Water Resource Management Description – The Town of Paonia continues to value its water resources as well as provide education to its customers as to the value of the water supply. Resolution 2020-17 was adopted to impose water restrictions throughout the water system whenever needed. In addition, the

Town has also introduced a self-imposed tap moratorium until identified deficiencies in its potable water distribution system are addressed as a means of managing its water resources.

6.3.2 Water Rights – Existing water rights are likely sufficient to serve a growing community for the next 20 years. As described above in Section 5.1.2. the Town has 4.5 cfs dedicated to the Upper Lamborn Water Treatment Plant, which is available to the Town right now. This capacity alone is sufficient to meet the Town's current water demands. The Town has another 5.4 cfs available at the Lower Clock Tank and Plant once this facility is brought back online. And overall, the Town has secured 20.82 cfs in overall water rights, which is more than enough to meet future Town demands to meet planned growth. However, as suggested by the Town's water attorney, it is always recommended that the Town investigate additional water rights to ensure the future stability of its water rights portfolio.

6.3.3 Source Water Supply Capacity - Source water infrastructure must be improved for the Town to utilize all the source water available to serve its customers. These improvements allude to repairs to the Lower Clock Tank and Water Treatment Plant, repairs to the Town's existing collection system, and improving the Town's ability to measure all identified water rights. Phase 1 and the associated PNA has identified four areas where additional spring monitoring will assist in the understanding of the Town's water rights. In addition, this phase also includes repairs to the most immediate needs of the water collections system. Subsequent alternatives for raw water storage have been evaluated as well as improving the capture of spring water. This PNA will address the latter through improvements of one of spring collection boxes as well as additional metering to determine raw water available to the Town. The Town has also commissioned a hydrogeology study separate from this PNA to help the Town better understand the dynamics of spring performance on Mt. Lamborn. Ultimate outcomes of this separate study are hoped to identify additional projects which could improve the existing water supply capacity of the springs, including raw water storage, spring capture performance, and additional monitoring locations.

7. ASSESSMENT OF ALTERNATIVES

7.1 Alternatives

Alternative 1: Do Nothing

Description:

Because the Town of Paonia is not in a current Enforcement Order or in Violation, the Town has the option of operating status quo and only fixing emergency repairs. In 2022 the Water Fund budget projected $227,750 in repairs and maintenance. Actual costs were $270,483.9. The 2023 Water Fund budget allocates 241,752.79 for repairs and maintenance. Larger capital projects would be paid out of the water reserve as they arose.

Total project cost: $500,000 – 750,000 for increased continued maintenance.

Capital and Operation and Maintenance Costs:

Capital, Operation and Maintenance Costs: There would only be planned repair costs in this alternative which are already budgeted.

Advantages and Disadvantages: The advantage of this alternative is the reduction in near-term capital expenditures. The disadvantage of this alternative is that the Town would be on its heels waiting for lines to break, tank failures, and possible diminishing flowrates from existing springs systems. It is a reactive approach to infrastructure management that increases vulnerability to service interruption. In addition, the Town would be in a position of potentially losing its only functional equalizing potable water storage tank and water plant should the existing 2-MG water tank fail due to neglect. And lastly, this alternative does not address the pending tap moratorium and would not allow the Town to address potential growth

limitations. This is not a satisfactory alternative given the responsibility to consumers relying on the Town to keep the water system operational.

Alternative 2: Perform each of the proposed projects one at a time - Apply for grants and/or loans on an individual project basis.

Description:

Paonia has invested significant time and money having several water system evaluations written by professional engineering consultants. Alternative capital improvements have been evaluated in many reports. From an evaluation of all the reports and work with engineering consultants, the Town has been able to prioritize projects needed to draft a Capital Improvement Plan. Phase I projects described herein could be further ordered by priority.

Total project cost: $6,500,000 - $8,500,000 (with high potential to increase more with inflation).

Capital and Operation and Maintenance Costs:

Capital Costs would likely be higher compared to Alternative 3 as only attacking one project at a time moves other projects into the future where history has shown costs typically increase with inflation. This has been especially true over the past few years (2021-2023).

Other capital-related costs would increase over Alternative 3 including securing funding one project at a time. Combining all Phase I projects into one Project Needs Assessment (PNA) reduces fees for the Town in that much of the information required in a PNA is similar between the projects. Submitting a PNA for each project individually would be a duplication of effort. The cost for general administration, project management and design for executing projects individually would likely be higher as well. Finally, the risk of needing to replace the 2-MG tank increases each year necessary maintenance is delayed. The same is likely true for other capital assets for which full replacement is not proposed in this Phase I Capital Improvement Plan.

Operation and maintenance cost will decrease for Alternative 2 as compared to Alternative 1. Relining the 2-MG tank will ensure system reliability and may also provide more consistent water quality. Replacing the 8" steel finished water pipeline with a new, more robust material will return less leaks and less maintenance. Rebuilding spring collection boxes will reduce future maintenance. In this alternative, The Town's existing 2023 water system repair and maintenance budget of **$241,742.78** may prove sufficient and will be used for comparison of the three alternatives considered.

Advantages and Disadvantages: The advantage to Alternative 2 as compared to Alternative 1 is that operating the water system becomes safer and more reliable. Alternative 2 is less advantageous than Alternative 3 in that it would cost more to do each project separately than all together and each project is still a much-needed project for Paonia. Performing proposed projects individually also risks a longer schedule, which may further delay lifting of the tap moratorium and delaying allowable growth.

Alternative 3: Complete Phase I Capital Improvement Projects concurrently.

Description:

Recent capital improvement planning efforts identified three major capital projects that should be performed as soon as possible. These projects are identified as CIP Phase I. In Alternative 3, the Town of Paonia would secure funding and proceed with permitting, design and construction of Phase I projects simultaneously. With recent improvements in staffing numbers, The Town of Paonia has the capability and resources to support Alternative 3. Ultimately, the goal would be to design, submit, bid, and construct all three projects outlined in this PNA within 2 years of securing a loan. It is a time and financial savings to package Phase I projects into one State Revolving Fund application. The proposed budget to complete three projects within this package is approximately **$8,350,000.**

Capital and Operation and Maintenance Costs:

Capital Costs will increase in the near term compared to Alternative 1 but will be slightly less expensive than Alternative 2. The projects that need to be completed in Alternative 3 are the same as the projects that need to be completed in Alternative 2. However, the capital costs should be less than Alternative 2 since all projects will be budgeted for the same fiscal year and would be less impacted by inflation. Alternative 2 is subject to inflation and increase in price for both materials and labor. By combining all three projects into one PNA, the Town of Paonia will only have to apply for funding once for Phase I capital improvements. Alternative 3 saves on costs to apply for additional funding and additional permitting, design, project management and general administration related expenses.

Operation and maintenance costs will decrease for Alternative 3 as compared to Alternative 1 but are estimated roughly equal to Alternative 2. Replacing the 8" steel finished water pipeline with a newer, more robust material will return less leaks and less maintenance. Rebuilding a spring collection box will reduce future maintenance attempting to capture all the spring flow. However, there remains significant infrastructure in need of improvement beyond Phase I efforts. Future phases seek to address additional capital improvement needs; proposed capital improvements have been given priority based on evaluation of significance to maintaining overall system resiliency.

Advantages and Disadvantages: The advantage to Alternative 3 as compared to Alternative 1 is that operating the water system becomes consistent and more reliable. The advantage to Alternative 3 compared to Alternative 2 is that the overall funding and capital cost will be less expensive over an extended period. Alternative 3 allows the Town to apply for all funding through a single PNA as well as begin construction on all three projects when construction costs are equal for all three projects. Another advantage to starting these three improvement projects with the same PNA is engineering continuity. The Town has hired RESPEC to oversee all design work which will establish engineering continuity. This will improve design efficiency as well as reduce design costs. Disadvantages to Alternative 3 would be limited to the capabilities of the Town, engineers, and contractors to manage three improvement projects at the same time. With proper planning and management this disadvantage can be avoided.

8. SELECTED ALTERNATIVE

Tackling the many capital improvements projects identified in the multitude of water system evaluation reports all at once would be financially impossible. However, implementing no improvements would leave the Town of Paonia in a precarious position waiting for the next failure to serve water to its customers. The chosen Alternative is completing Phase 1 projects concurrently – relining the 2 MG finished water storage tank, replacing the 8-inch steel line along the west loop into Town from silo corner to Omega Road, and, on the raw water side, installing four spring meters and repairing one spring collection box.

8.1 Justification of Selected Alternative – In communication with the Town of Paonia and evaluating all possible alternatives RESPEC and the Town have decided to proceed with Alternative 3. Due to the deterioration of the system, it would be irresponsible to update the system as issues arose. There are already several issues in the distribution line, the Upper Lamborn tank needs to be relined as soon as possible, and raw water metering is critical to long-term planning efforts. By consolidating Phase I projects into a single PNA, the Town is attempting to obtain enough funding to complete the proposed projects concurrently, thereby reducing total project costs and accelerating the Town's overall capital improvement planning efforts.

8.2 Technical Description and Design Parameters

- ***2-MG finished water tank relining***– The entirety of the Town's drinking water is currently supported by a 2-MG welded steel water tank at the top of Roeber Rd, named the Lamborn Tank. This tank is due for interior relining as over time the interior of the tank has been subjected to corrosion due to normal wear and tear. The project will consist of redirecting flow from the Lamborn Water Treatment plant to a temporary finished-water storage tank in the vicinity of the Lamborn water treatment facility. Design and specifications will be provided by SGM engineers with project management provided by the Town of Paonia and RESPEC. Relining the 2-MG tank is relatively straightforward - several companies in the area have the capability to efficiently complete this project. Most of the design work will be in creating a section of land next to the existing tank that can support a temporary tank. Subsequent engineering work will ensure that project specifications facilitate completion of the work and endorse a final product that lasts at least the projected minimum lifespan of the relining product(s).
- ***8" Steel Distribution Line Replacement –*** Design and project management for the 8" steel replacement line will be completed by RESPEC. The design will consist of a survey and Subsurface Underground Engineering (SUE) report to be completed by a consulting company chosen by both the Town and RESPEC jointly. The line replacement project will be completed using a design-bid-build format. RESPEC will draft pipe alignment and pipe installation drawing sets to be submitted to the Town at 70% completion before construction begins. The distribution line replacement will occur between the corner of Lamborn Mesa Road and Stewart Mesa Rd. (known by Town administration as Silo corner) and the north end of Cresthaven Rd. The new alignment is anticipated to either follow the existing waterline alignment or to follow along Lamborn Mesa Rd. The proposed water main will extend from PRV 7 to PRV 9.
- ***Raw Water Monitoring Improvements*** – RESPEC, in conjunction with Mountain Peaks Controls (Town of Paonia's integrator), will install 4 new monitoring devices at four of the current collection sites. The four monitoring locations to be installed are German Springs/Lake Fork, Old Original, Spor, and Mays/Gillwick. For three out of the four collection sites (German Springs/Lake Fork, Old Original, Spor) a simple monitoring device will be added to the spring or collection line. The fourth monitoring site, Mays/Gillwick collection box, will need to be completely rebuilt. The status of the collection box is that the concrete structure is crumbling and quickly deteriorating. The Mays/Gillwick collection box will be replaced with a concrete collection box similar to the new collection box at Spor. The

Town of Paonia will have to determine how to transport the new collection box up the mountain. Most likely they will perform this operation similar to the Spor collection site.

8.3 Proposed Process Flow Diagram – N/A

8.4 Appropriateness of Treatment Technologies – There will be no improvements made to the treatment facilities as the current facilities meet Regulation 11 maximum contaminant levels for all drinking water contaminants.

8.5 Environmental Impacts

Environmental efforts for each of the proposed capital projects are anticipated as follows:

- *2-MG finished water tank relining* – This will likely be a Categorical Exclusion as this site is already disturbed. Temporary Tank Facilities may require an Environmental Assessment.
- *8" Steel Distribution Line Replacement* – an Environmental Assessment will be required.
- *Raw Water Monitoring Improvements* it is likely that an Environmental Assessment will be required.

8.6 Land Requirements

- *2-MG finished water tank repair* – This project will be performed on a parcel of land where the tank already exists and is owned by the Town. No additional land will be needed to perform the tank relining.
- *8" Steel Distribution Line Replacement* – Easements may be required for the replacement of the 8" steel finished water distribution line. The new pipe alignment will likely follow Lamborn Mesa Rd. and stay within the utility easements for the Town of Paonia. There is a possibility that service easements may be required when attaching private service lines to the main pipeline, but the majority of the water line will stay with the Town's utility easements.
- *Raw Water Monitoring Improvements* – The addition of meters to the existing piping will not require any additional land. The repairs of the spring collection boxes will occur on property already owned by the Town and will not require any additional land purchase. However, the provision of a gravity meter near the junction of Old Original and the Reynolds Spring collection line may require acquisition of a small plot of land in the form of an easement.

8.7 Construction Requirements

- *2-MG finished water tank relining* – The majority of the construction requirements will be directed towards the 1 MG temporary tank that will be installed to the north of Lamborn Tank. There will need to be some excavation equipment on site to cut into the hill to create a small level landing to place the 1-MG tank unless an alternative location proves viable. Other construction requirements will need to be directed towards the installation of the temporary tank. If the Town can clear a space around the current facilities, then SGM engineers and the chosen contractors will be able to install the temporary tank.
- *8" Steel Distribution Line Replacement* – The entire 8" steel distribution pipe from Silo corner to the top of Cresthaven Rd. will be abandoned. The new line will need to be trenched from Silo Corner, along Lamborn Mesa Rd., to the top of Cresthaven Rd. Construction requirements will consist of large delivery trucks to haul all pipe and pipe materials to the town, heavy excavation equipment, and potential road closures when the excavation sites encroach on the roadways. Effort will be made to maintain at least one direction of traffic at all times.
- *Raw Water Monitoring Improvements* – Minimal construction requirements will be needed for the source water improvements. For three out of the four listed monitoring locations the only construction to happen will be the attachment of a small monitoring device and some

telecommunication devices provided and installed by Mountain Peaks Controls. The fourth collection site will require a high activity of construction. The requirements will consist of delivering a prefabricated/precast collection box to the collection site. At the collection site, contractors will have to make any repairs to the collection pipe and install the monitoring device before permanently installing the new fabricated/cast box around the collection pipe. Construction of the new spring box will require the temporary shutdown of springs to the Mays -Gillwick junction box. However, because this junction box serves water to the Lower Clock Tank and Plant site, which is currently out of service, there will be no disruption of service to the Town of Paonia.

8.8 Operational Aspects

- *2-MG finished water tank relining* – No additional operational aspects needed for the tank repair.
- *8" Steel Distribution Line Replacement* – The only potential operational addition with this project will be if an additional PRV is installed. The Town already has certified employees to operate on a PRV so it will just need to be added to the Town's operations agenda. Similar maintenance already exists within the Town's distribution so no additional operator training or certification is needed.
- *Raw Water Monitoring Improvements* – Operational personnel will not change with the addition of the monitoring devices. The goal for the monitoring devices is to connect the data loggers at the monitoring sites to the current SCADA system that exists at the Upper Lamborn Treatment Facility. The Town will have to add the monitoring data collected at the monitoring sites to the current monitoring tasks and update their data logger system.

8.9 Costs - The total estimated cost for Phase 1 capital improvement projects is $8,350,000. Breakdowns of estimated costs for each project element are provided in the following tables.

Table 1. Estimated Capital Cost: 2-MG Tank Relining

Engineer's Preliminary Opinion of Cost				Date	9/1/2023
Paonia Phase I Water System Improvements - Tank Relining					
W0333.22001.07					
Note: Engineer's Opinion of Probably Construction Cost for 2-MG Tank Relining provided by SGM and qualified as AACE Class 4					
Item #	Item Desciption	Quantity	Unit	Unit Cost	Amount
Lakefork / German Creek / Beaver Dam Ditch Mag Meters - 2 Total					
1	Mobilization	5%	%	$81,000	$81,000
2	Dry Ice Blasting of Wax Lining	1	LS	$400,000	$400,000
3	Lead Pretreatment	2	LS	$34,000	$68,000
4	Lead Abatement	1	LS	$325,000	$325,000
5	Interior Coating	1	LS	$485,000	$485,000
6	Exterior Coating	1	LS	$250,000	$250,000
7	Misc Metals Repairs	1	LS	$31,000	$31,000
8	Vent and Overflow Piping	1	LS	$43,000	$43,000
9	Temporary Tank	1	LS	$300,000	$300,000
10	Unused				
				Construction Sub Total	$1,983,000
				10% Contingency	$198,300.0
				Construction Total	**$2,181,300**
				Design Engineering and Permitting - Tank Relining	$60,000
				Construction Engineering	$40,000
				Construction Inspections	$20,000
				Total Project Cost	**$2,301,300**
				AACE Class 4 Construction Cost Ranges	**$1,956,105**
					$2,991,690.0

Since the Engineer has no control over the cost of labor, materials or equipment, or over the Contractor's method of determining prices, or over competitive bidding or market conditions, their opinions of probable construction cost provided for herein are made on the basis of their experience and qualifications. These opinions represent their best judgement as a design professional familiar with the construction industry. However, the Engineer cannot and does not guarantee that proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

Table 2. Estimated Capital Cost: 8-Inch Steel Distribution Line Replacement

Engineer's Preliminary Opinion of Cost				Date	9/1/2023
Paonia Phase I Water System Improvements - Raw Water System Improvements					
W0333.22001.07					
Item #	**Item Desciption**	**Quantity**	**Unit**	**Unit Cost**	**Amount**
General					
1	General Requirements	1	LS	5%	$180,721
2	Permitting	1	EA	$15,000	$15,000
3	Mobilization	1	LS	3%	$104,838
4	Traffic Control	90	day	$2,000	$180,000
5	Clear & Grub Field	2.75	AC	$5,000	$13,774
6	Remove Asphalt Planing 2"	16750	SF	$8	$134,000
7	Remove Asphalt Full Depth Milling	17000	SF	$10	$170,000
8	Dirt Road	6250	SF	$10	$62,500
10	Silt Fence	10000	LF	$3	$30,000
11	Vehicle Tracking Pad	3	EA	$5,000	$15,000
12	Remove, Stockpile and Replace Topsoil	1	LS	$30,000	$30,000
13	12-inch Waterline	9398.4	LF	$75	$704,880
14	12-inch Mechanical Joint BFV and Valve Box	27	EA	$4,500	$121,500
15	12-inch Mechanical Joint Bend w/ Thrust Block	48	EA	$2,750	$132,000
16	Air Vacs	4	EA	$10,000	$40,000
17	Fire Hydrants	8	EA	$9,500	$76,000
19	PRV 8 Replacement	1	LS	$250,000	$250,000
20	PRV 9 Improvemets (Bypass)	1	LS	$25,000	$25,000
22	Testing/Disinfection	5	EA	$3,000	$15,000
24	Aggregate Base Cource (Class 6)	510	TN	$500	$255,000
26	Hot Mix Asphalt Pavement 2"	297.5	TN	$1,000	$297,500
27	Hot Mix Asphalt Pavement Variable Depth	637.5	TN	$1,000	$637,500
29	Pavement Marking	1	LS	$25,000	$25,000
30	Survey	1	LS	$25,000	$25,000
31	Seeding	1	LS	$15,000	$15,000
32	Easement Negotiations	119968	SF	$2	$239,936
				Construction Sub Total	$3,795,149
				20% Contingency	$759,030
				Construction Total	**$4,554,179**
				Engineering, Permitting, Bidding	$455,418
				Bidding, CA/CM	$227,709
				Total Project Cost	**$5,237,306**

Since the Engineer has no control over the cost of labor, materials or equipment, or over the Contractor's method of determining prices, or over competitive bidding or market conditions, their opinions of probable construction cost provided for herein are made on the basis of their experience and qualifications. These opinions represent their best judgement as a design professional familiar with the construction industry. However, the Engineer cannot and does not guarantee that proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

RESPEC

Table 3. Estimated Capital Cost: Raw Water Metering Improvements

Engineer's Preliminary Opinion of Cost				Date	9/1/2023
Paonia Phase I Water System Improvements - Raw Water System Improvements					
W0333.22001.07					
Item #	**Item Desciption**	**Quantity**	**Unit**	**Unit Cost**	**Amount**
Lakefork / German Creek / Beaver Dam Ditch Mag Meters - 2 Total					
1	Telemetry with Mountain Peaks / SCADA Programming	1	LS	$10,000	$10,000
2	Mag Meters - Installed	2	EA	$10,000	$20,000
3	RTU / Panel / Stanchion / Solar	1	LS	$25,000	$25,000
4	Mobilize Equipment to Site	1	LS	$15,000	$15,000
	German Creek Meter Site				**$70,000**
Spor Spring Meter Site / Flume Site					
5	Telemetry with Mountain Peaks / SCADA Programming	1	LS	$10,000	$10,000
6	Mag Meter in Spor Springs Box - Installed	1	EA	$10,000	$10,000
7	RTU / Panel / Stanchion / Solar @ Spor Springs Box	1	LS	$25,000	$25,000
8	Flume Improvements	1	LS	$50,000	$50,000
9	RTU / Panel / Stanchion / Solar @ Flume	1	LS	$25,000	$25,000
10	Mobilize Equipment to Site	1	LS	$30,000	$30,000
	Spor Springs Box / Flume Site				**$150,000**
Old Original / Reynolds Spring Junction Meter					
11	Telemetry with Mountain Peaks	1	LS	$10,000	$10,000
12	6" x 12" Plastic Fernco Coupling (Installed)	2	EA	$1,500	$3,000
13	Cut existing steel 12" pipe	2	EA	$1,500	$3,000
14	6'-0" Section of PVC pipe (Installed)	6	LF	$500	$3,000
15	Hach FL902 Data Logger (Installed)	1	LS	$20,000	$20,000
16	6V Lantern Battery	4	EA	$50	$200
17	Hach Flo Tote 3 Submmerged Depth/Velocity Sensor	1	EA	$5,000	$5,000
18	Hach Communication Cable	1	EA	$500	$500
19	1" Electrical Conduit	50	LF	$20	$1,000
20	12" Mounting Band	1	EA	$1,000	$1,000
21	Solar Panel / Charge Regulator / Battery	1	LS	$7,500	$7,500
22	Mobilize Equipment to Site	1	LS	$10,000	$10,000
23	Land / Easements	1	LS	$50,000	$50,000
	Old Original / Reynolds Spring Junction Site				**$114,200**
Mays / Gillwick					
24	Telemetry with Mountain Peaks	1	LS	$10,000	$10,000
25	Clear and Grub Site	1	LS	$5,000	$5,000
26	RTU / Panel / Stanchion / Solar @ Mays-Gillwick Box	1	LS	$25,000	$25,000
27	Demo Old Box	1	LS	$15,000	$15,000
28	Precast Box	1	LS	$50,000	$50,000
29	Set Box / Provide Pentrations	1	LS	$50,000	$50,000
30	Provide Weir	1	LS	$10,000	$10,000
31	Provide and Install Endpoint Device	1	LS	$12,500	$12,500
32	Wire Endpoint to Panel	1	LS	$5,000	$5,000
33	Site Piping	1	LS	$17,500	$17,500
34	Mobilize Equipmen / Materials to Site	1	LS	$50,000	$50,000
	Mays / Gillwick Box and Measurement Device				**$250,000**
				Construction Sub Total	$584,200
				20% Contingency	$116,840
				Construction Total	**$701,040**
				Engineering, Permitting, Bidding, CA/CM	$70,104
				Environmental	$10,000
				Bidding, CA/CM	$70,104
				Total Project Cost	**$851,248**

Since the Engineer has no control over the cost of labor, materials or equipment, or over the Contractor's method of determining prices, or over competitive bidding or market conditions, their opinions of probable construction cost provided for herein are made on the basis of their experience and qualifications. These opinions represent their best judgement as a design professional familiar with the construction industry. However, the Engineer cannot and does not guarantee that proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

8.10 Environmental Checklist- *Attachment 22*

8.11 Project Implementation

Table 4. Town of Paonia Phase 1 Capital Improvements Draft Schedule

TASK	COMPLETION DATE
CDPHE PROJECT NEEDS ASSESSMENT	NOVEMBER 15, 2023
PUBLIC MEETING	JANUARY 15, 2024
60% DRAWINGS AND SPECIFICATIONS	APRIL 5, 2024
CDPHE BASIS OF DESIGN REPORT	APRIL 5, 2024
SRF LOAN APPLICATION	APRIL 5, 2024
FINAL PLANS AND SPECIFICATIONS	OCTOBER 5, 2024
ADVERTISEMENT	OCTOBER 5, 2024
BIDDING	NOVEMBER 2024
CONSTRUCTION START	JANUARY 2024
PROJECT COMPLETE	DECEMBER 2025

8.11.2 - Public Meeting Information to be added after meeting occurs in JANUARY 2024. Public Meeting documents can be found in **Attachment 22.**

9. PROJECTING WATER FLOWS – NOT USED

ATTACHMENT 1

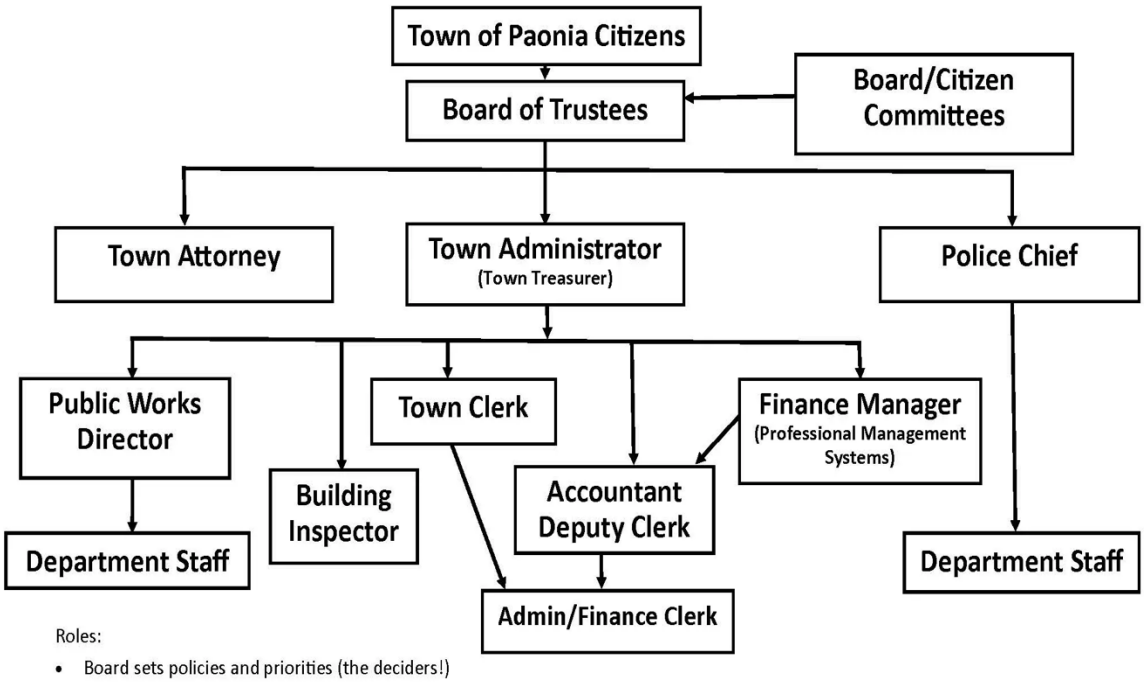
ENGINEER'S SEAL

ATTACHMENT 2

ORGANIZATIONAL CHART

Town of Paonia Organization Chart

Approved by the TOP Board of Trustees 5-23-2023



Roles:

- Board sets policies and priorities (the deciders!)
- Committees advise board about policies and priorities—they have no decision making or staff direction authority
- Town Administrator carries out Board direction and supervises Department Heads, except Police Chief
- Department Heads carry out Board policies and priorities at the direction of the Town Administrator and supervise their own staff.
- The Police Chief is a direct report to the Town Board and submits to the Town Administrator in matters pertaining to budget implementation authority.

ATTACHMENT 3

MONITORING PLAN

Public Water System Monitoring Plan

System Name	Town of Paonia
PWSID (Assigned by Department)	CO0115601
County	Delta
School or Daycare	
Describe Changes	Update Administrative Contact

Submittal to the Department

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

Revisions

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

Monitoring Schedules

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

Immediately call **303-692-3308** (or **1-877-518-5608** if after-hours) for:

1. Positive coliform or Positive *E. coli*.
2. Nitrate greater than or equal to 10.0 mg/L.
3. Nitrite greater than or equal to 1.0 mg/L.
4. Surface water high turbidity or inadequate disinfection.
5. Chlorine dioxide greater than or equal to 0.8 mg/L.
6. Chlorite greater than or equal to 1.0 mg/L.

Completed by: Signature: _____
Jeremiah Garcia

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

System Physical Address (Not Mailing) Address: 214 Grand Ave.
City: Paonia **State:** CO **Zip:**81428
System Phone:970-527-4101**System Email:**Jeremiah_ppw@townofpaonia.com

Administrative Contact (AC) Name: Jeremiah Garcia
(The primary contact person for all Department mail or other communications regarding drinking water compliance)
Mailing Address: PO 460
City: Paonia **State:** CO **Zip:** 81428
Phone (970)822-3083 **E-mail:** Jeremiah_ppw@townofpaonia.com

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

Responsible Water System Owner Name Town of Paonia
(An LLC, corporation, association, municipality, organization, individual, or other legal entity)
Has ownership changed parties through sale, decree, or other legal means? Yes/No
Mailing Address: PO Box 460
City: Paonia **State:** CO **Zip:**81428
Phone: 970-527-4101 **E-mail:** Paonia@townofpaonia.com

Emergency Contact Name: Cory Heiniger
(Someone the Department can contact in an emergency if the administrative contact is unavailable)
Phone: 970-417-6820 **E-mail:** Coryheiniger_pw@townofpaonia.com

Distribution System (DS) Operator Name: Benny Archuleta
(A certified operator designated by the owner to have ultimate responsibility for decisions regarding operational activities)
Operator ID#:232 **(not the certificate number)**
Phone:970-209-8570 **E-mail:**AimeArchuleta@outlook.com
DS Operator Signature: _____

Treatment Operator Name: Benny Archuleta. **Same as DS?**
(A certified operator designated by the owner to have ultimate responsibility for decisions regarding operational activities)

Operator ID#:232 **(not the certificate number)**
Phone: 970-209-8570 **E-mail:** AimeArchuleta@outlook.com
Treatment Operator Signature: _____

Population Types and Seasons

Completed by: **Jeremiah Garcia** Signature: _____

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

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

Total Number of Service Connections (Residential and Commercial): 1183

Resident Population is the number of people who live there.

Resident Population: 2499

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

Non-Transient Population: 0

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

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

Average Transients per day in the busiest month is **0**

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

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

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

Water Sources Definitions

Water Types

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

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

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

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

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

Availability

Permanent (P) – A primary water facility.

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

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

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

Water Source Details

Completed by: **Jeremiah Garcia** Signature: _____

Ground Water Under the Direct Influence of Surface Water Sources (GWUDI)					
Facility ID (Assigned by Dept)	Name	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in operation	DNR Permit # - Aquifer Name	Well Depth at Completion
003	GERMAN CREEK NO 3	P		-	
004	SPRING NO 4 OLD ORIG	P		-	
005	SPRING NO 5 OLD ORIG	P		-	
006	SPRING NO 6 OLD ORIG	P		-	
007	SPRING NO 7 OLD ORIG	P		-	
008	SPRING NO 8 OLD ORIG	P		-	
009	SPRING NO 9 OLD ORIG	P		-	
010	SPRING NO 10 OLD ORIG	P		-	
011	SPRING NO 11 OLD ORIG	P		-	
012	SPRING NO 12 OLD ORIG	P		-	
013	SPRING NO 13 REYNOLDS	P		-	
014	SPRING NO 14 REYNOLDS	P		-	
015	SPRING NO 15 REYNOLDS	P		-	
016	SPRING NO 16 MERRT METER	P		-	
017	SPRING NO 17 MERRT METER	P		-	
018	SPRING NO 18 MERRT METER	P		-	
019	SPRING NO 19 MERRT METER	P		-	
020	SPRING NO 20 MERRT METER	P		-	
021	SPRING NO 21 MERRT METER	P		-	
022	SPRING NO 22 MERRT METER	P		-	

023	SPRING NO 23 KAUER	P		-	
024	SPRING NO 24 CORRAL 1	P		-	
025	SPRING NO 25 CORRAL 2	P		-	
026	SPRING NO 26 CLARK 1	P		-	
027	SPRING NO 27 CLARK 2	P		-	
028	SPRING NO 28 MAYS	P		-	
029	SPRING NO 29 MAYS	P		-	
030	SPRING NO 30 TODD	P		-	
031	SPRING NO 31 TODD	P		-	
032	SPRING NO 32 TODD	P		-	
033	SPRING NO 33 GILWICK 1	P		-	
034	SPRING NO 34 GILWICK 2	P		-	
035	SPRING NO 35 TODD RES	P		-	
036	SPRING NO 36 POLE PATCH	P		-	
037	SPRING NO 37	P		-	
038	SPRING NO 38	P		-	
039	SPRING NO 39	P		-	
040	LAKE FORK SPRING	P		-	
041	GERMAN CREEK NO 1 LOW	P		-	
042	GERMAN CREEK NO 3 UP	P		-	

Combined Raw Source Sampling Locations

Used when raw sources blend and there is a sample tap that represents multiple blended sources

Facility ID (Assigned by Dept)	Name	Availability (P, E, I, or S)	If seasonal, include months anticipated to be in use	Combining Sources Facility IDs and Names	Treatment Plant it Flows to
SS001	COMBINED RAW SOURCE 001	P			
SS002	COMBINED RAW SOURCE 002	P			

Water Treatment Codes

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

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

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

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

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

Water Treatment Plant Details

Completed by: **Jeremiah Garcia** Signature: _____

Treatment Plants				
Facility ID (Assigned by Department)	**Plant Name**	**Availability** (P, E, I, or S)	**If seasonal, include months anticipated to be in operation**	**Contributing Sources** Facility IDs and Names
001	**LAMBORN MESA UPPER WTP**	**P**		**GERMAN CREEK NO 1 LOW (041); GERMAN CREEK NO 3 (003); GERMAN CREEK NO 3 UP (042); LAKE FORK SPRING (040); Reynolds (Old Original)(004-012); Reynolds Creek(013-015)**
Treatment Codes (see previous page for codes)				
FILTRATION, CARTRIDGE (341); FILTRATION, ULTRAFILTRATION (347); HYPOCHLORINATION (421); HYPOCHLORINATION, PRE (423); CONTACT TIME PROVIDED (825);				
Provide a Detailed Description of the Water Treatment System (including descriptions of tanks used for disinfection contact time)				
Facility ID (Assigned by Department)	**Plant Name**	**Availability** (P, E, I, or S)	**If seasonal, include months anticipated to be in operation**	**Contributing Sources** Facility IDs and Names
002	**CLOCK YWTP01**	**P**		**SPRING NO 10 OLD ORIG (010); SPRING NO 11 OLD ORIG (011); SPRING NO 12 OLD ORIG (012); SPRING NO 13 REYNOLDS (013); SPRING NO 14 REYNOLDS (014); SPRING NO 15 REYNOLDS (015); SPRING NO 16 MERRT METER (016); SPRING NO 17 MERRT METER (017); SPRING NO 18 MERRT METER (018); SPRING NO 19 MERRT METER (019); SPRING NO 20 MERRT METER (020); SPRING NO 21**

				MERRT METER (021); SPRING NO 22 MERRT METER (022); SPRING NO 23 KAUER (023); SPRING NO 24 CORRAL 1 (024); SPRING NO 25 CORRAL 2 (025); SPRING NO 26 CLARK 1 (026); SPRING NO 27 CLARK 2 (027); SPRING NO 28 MAYS (028); SPRING NO 29 MAYS (029); SPRING NO 30 TODD (030); SPRING NO 31 TODD (031); SPRING NO 32 TODD (032); SPRING NO 33 GILWICK 1 (033); SPRING NO 34 GILWICK 2 (034); SPRING NO 35 TODD RES (035); SPRING NO 36 POLE PATCH (036); SPRING NO 37 (037); SPRING NO 38 (038); SPRING NO 39 (039); SPRING NO 4 OLD ORIG (004); SPRING NO 5 OLD ORIG (005); SPRING NO 6 OLD ORIG (006); SPRING NO 7 OLD ORIG (007); SPRING NO 8 OLD ORIG (008); SPRING NO 9 OLD ORIG (009);
Treatment Codes (see previous page for codes)				
FILTRATION, CARTRIDGE (341); HYPOCHLORINATION (421); CONTACT TIME PROVIDED (825); FILTRATION, MEMBRANE (MICRO) (895);				
Provide a Detailed Description of the Water Treatment System (including descriptions of tanks used for disinfection contact time)				
Facility ID (Assigned by Department)	**Plant Name**	**Availability** (P, E, I, or S)	**If seasonal, include months anticipated to be in operation**	**Contributing Sources** Facility IDs and Names
Treatment Codes (see previous page for codes)				

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

Distribution System Definitions

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

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

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

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

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

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

Distribution System Details

Completed by: **Jeremiah Garcia** Signature: _____

Number of Distribution Systems

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

Entry Points to Distribution System *Residual Disinfectant, Nitrate, Nitrite, Inorganics, Volatile Organics, Synthetic Organics, Radionuclides, Chlorite, Chlorine Dioxide, and Bromate Must be Collected at All Entry Points*	
Facility ID (Assigned by Department)	**Facility Name**
001	LAMBORN MESA UPPER WTP
002	CLOCK YWTP01

Storage & Other Facilities				
Facility ID (assigned by Department)	**Facility Name**	**After Entry Point (In Distribution)**	**Contributing Treatment Plants (or Sources)**	**Tank Volume** (gallons)
045	2 MG TANK	No		2 MGL

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

Consecutive Connections Serving Another Water System			
Receiving System PWS ID and Name	**Availability** (P, E, I, or S)	**Do you supply treated or raw water?**	**Integrated Agreement? Yes / No**
CO0115162 BURGESS WATER COMPANY	P	TREATED	
CO0115286 FOOTHILLS #2 WATER COMPANY	P	TREATED	
CO0115305 GERMAN CREEK WEST WATER ASSOCIATION	P	TREATED	
CO0115340 HAMMOND PIPELINE	P	TREATED	

CO0115342 HIDDEN VALLEY HOA WATER COMPANY	P	TREATED	
CO0115513 MINNESOTA PIPELINE	P	TREATED	
CO0115552 NORTH FORK TRAILER PARK	P	TREATED	
CO0115716 SOUTH LAMBORN MESA WATER COMPANY	P	TREATED	
CO0115724 STEWART MESA WC	P	TREATED	
CO0115838 WEST PAONIA DOMESTIC WATER COMPANY	P	TREATED	
CO0115841 WESTERN EXTENSION DOMESTIC WATER COMPANY	P	TREATED	
CO0215552 NORTH FORK WATER SERVICE	P	TREATED	

Schematics and Maps

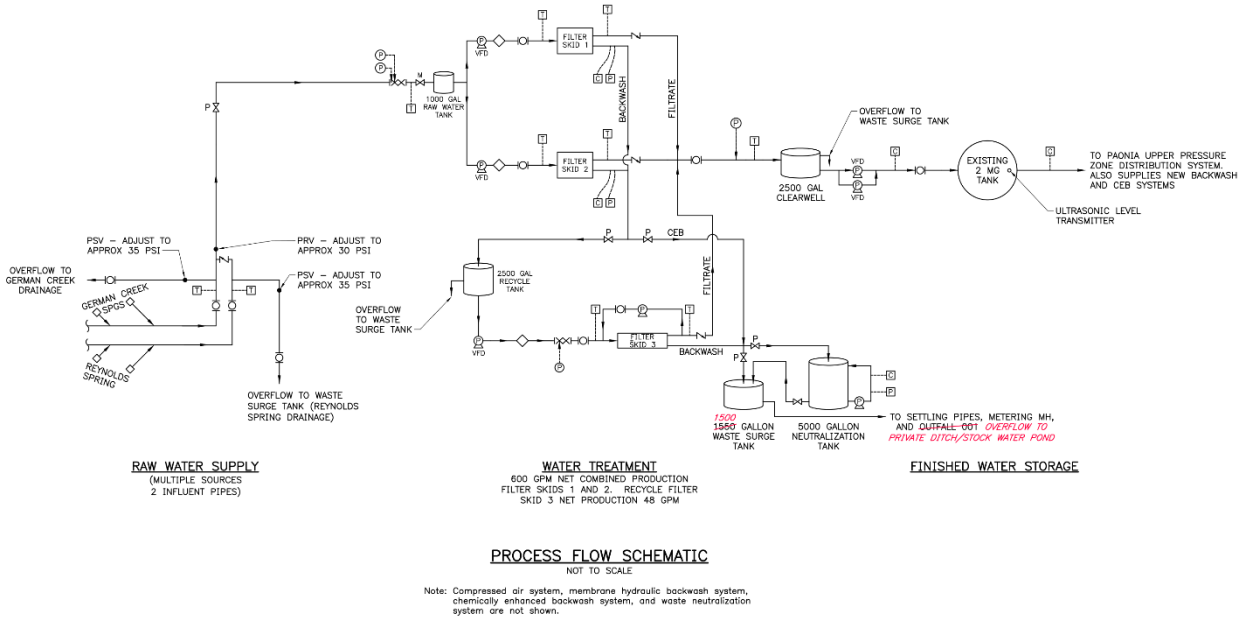
Sketch of Facility Flows

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

Process Schematic of Water Treatment Plants

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

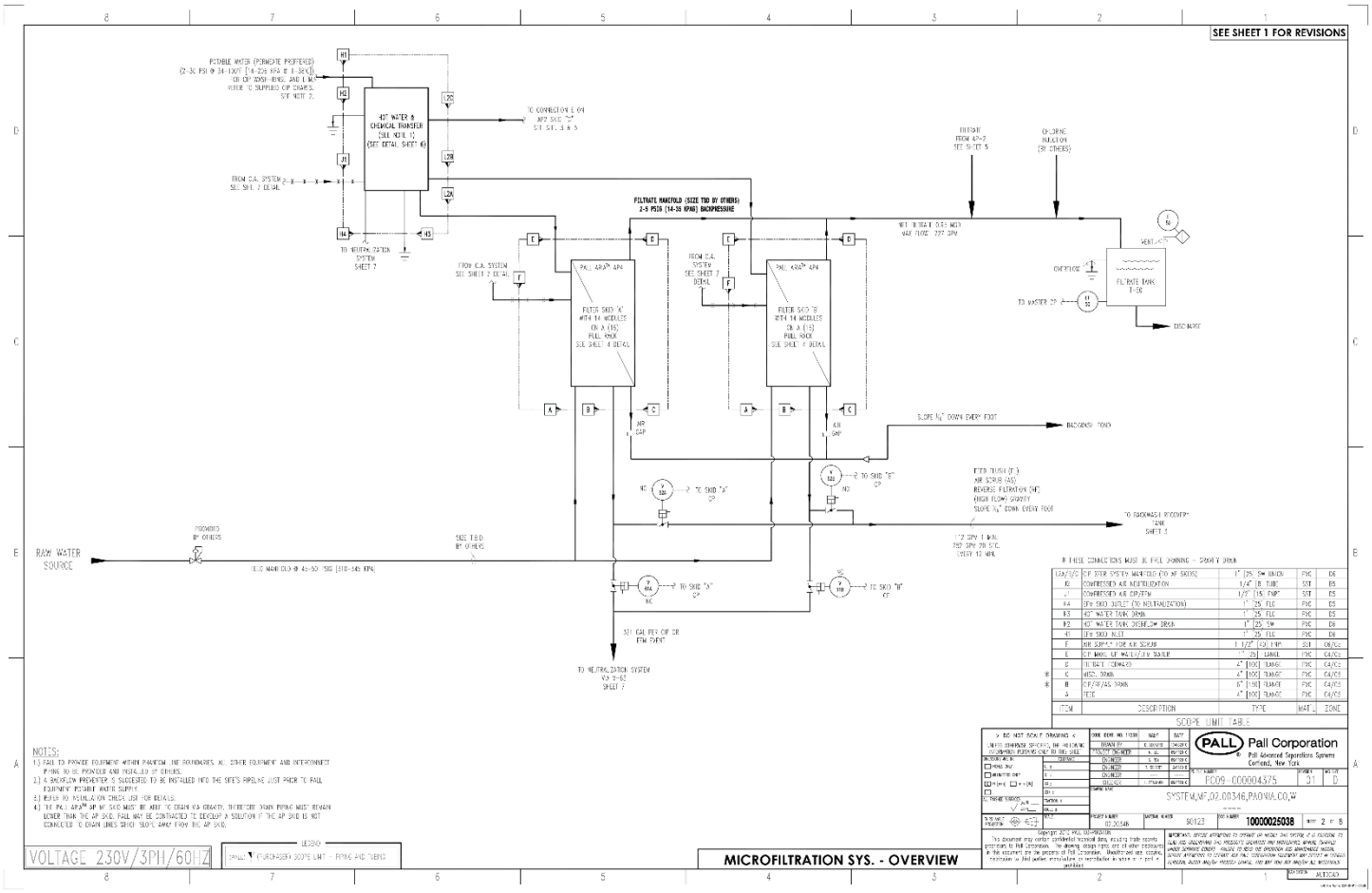
Lamborn Water Treatment Plant:



PROCESS FLOW SCHEMATIC
NOT TO SCALE

Note: Compressed air system, membrane hydraulic backwash system, chemically enhanced backwash system, and waste neutralization system are not shown.

CLOCK Water Treatment Plant:



Map of Distribution System

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

Total Coliform Sample Sites

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

Lead and Copper Sample Sites

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

Disinfection Byproducts (TTHM/HAA5 and Chlorite) Sample Sites

Attach a map of the distribution system showing locations of all disinfection byproduct sample

sites as well as treatment plants and distribution storage tanks. Hand drawn schematics or aerial maps (Google Maps) are acceptable.

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

Records Locations

Completed by: **Jeremiah Garcia** Signature: _____

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

Type of Record	Location Address	Retain no less than…
Total Coliform (TCR) and Fecal Coliform/*E. coli* results AND distribution system residual disinfection monitoring results	214 Grand Ave Paonia, CO 81428	5 years
Revised TCR (RTCR) assessment forms or corrective actions as a result on an assessment, or other available summary documentation of the sanitary defects and corrective actions	214 Grand Ave Paonia, CO 81428	5 years after completion of the assessment or corrective action
Chemical analyses results	214 Grand Ave Paonia, CO 81428	10 years
All lead and copper rule documents and results	214 Grand Ave Paonia, CO 81428	12 years
Violations of Regulation 11, including corrective action	214 Grand Ave Paonia, CO 81428	3 years after corrective action is completed
Sanitary surveys, including any written reports, summaries or correspondences	214 Grand Ave Paonia, CO 81428	10 years
Variances or exemptions granted by the Department	214 Grand Ave Paonia, CO 81428	5 years after expiration
Public notices and consumer confidence reports, including certification	214 Grand Ave Paonia, CO 81428	3 years
Individual rule sampling plans	214 Grand Ave Paonia, CO 81428	10 years
Turbidity monitoring results	214 Grand Ave Paonia, CO 81428	5 years
Recycle flows information • Copy of original recycle notification and information submitted to Department • List of all recycle flows and frequency with which they are returned • Average and maximum backwash flow rate • Average and maximum backwash duration • Typical filter run length and how it is determined • Treatment provided for the recycle flow (including chemicals and doses) • Physical dimensions of the equalization/treatment units • Typical and maximum hydraulic loading rates • Frequency of solids removal	214 Grand Ave Paonia, CO 81428	Indefinitely
Individual filter turbidity monitoring results AND entry point residual	214 Grand Ave Paonia, CO 81428	3 years

disinfection monitoring results		
Disinfection profiling results, including raw data and analysis	214 Grand Ave Paonia, CO 81428	Indefinitely
Disinfection benchmark, including raw data and analysis	214 Grand Ave Paonia, CO 81428	Indefinitely
Source water monitoring for Long Term 2 Surface Water Treatment Rule	214 Grand Ave Paonia, CO 81428	3 years after bin classification
Notification to the Department that system meets criteria to avoid source water monitoring for Long Term 2 Surface Water Treatment Rule	214 Grand Ave Paonia, CO 81428	3 years
Treatment monitoring associated with microbial toolbox options for Long Term 2 Surface Water Treatment Rule	214 Grand Ave Paonia, CO 81428	3 years
Initial distribution system evaluation (IDSE) report submitted for the Stage 2 Disinfectants and Disinfection Byproducts Rule	214 Grand Ave Paonia, CO 81428	10 years after report submitted
Corrective actions taken for the Groundwater Rule	214 Grand Ave Paonia, CO 81428	10 years
Invalidation of fecal indicator-positive groundwater source samples for the Groundwater Rule	214 Grand Ave Paonia, CO 81428	5 years
For consecutive systems, documentation of notification to the wholesale system(s) of total coliform-positive samples	214 Grand Ave Paonia, CO 81428	5 years
For systems conducting compliance monitoring for the Groundwater Rule ● Department-specified minimum disinfectant residual	214 Grand Ave Paonia, CO 81428	10 years
For systems conducting compliance monitoring for the Groundwater Rule ● Lowest daily disinfectant residual, date and any failure to maintain the Department-specified minimum disinfectant residual for a period of more than 4 hours ● Department-specified compliance requirements for membrane filtration, date and duration of any failure to meet those requirements for more than 4 hours	214 Grand Ave Paonia, CO 81428	5 years
Storage Tank Rule – for each completed tank inspection, the inspection summary	214 Grand Ave Paonia, CO 81428	10 years
Backflow Prevention and Cross-Connection Control Rule – for Community Water Systems ● Testing, inspection and maintenance records for backflow prevention assemblies and methods.	214 Grand Ave Paonia, CO 81428	3 years

● Each annual BPCCC program report		
Backflow Prevention and Cross-Connection Control Rule – for Non-Community Water Systems ● Testing, inspection and maintenance records for backflow prevention assemblies and methods. ● Each annual BPCCC program report	214 Grand Ave Paonia, CO 81428	5 years
Water Hauler Rule ● Water Hauler Operational Guide and associated required records	214 Grand Ave Paonia, CO 81428	Indefinitely

Revised Total Coliform and Groundwater Rule - Portal

Completed by: **Jeremiah Garcia** Signature: _____

Total Coliform Rule

Frequency of sampling:

Our public water system is required to take two total coliform samples per month and an accompanying chlorine residual sample for each total coliform grab. We will grab total coliform and free chlorine residual samples during the first or second week of the month.

Sample Locations:

Our public water system is a residential, commercial, and light industrial community. There are 5 pressure zones in the system and at least 1 regular sampling site per zone. Determining sampling site locations adheres to a regular schedule that ensures all pressure zones are tested at least twice per year.

Sampling locations:

See TCR_Sampling_Schedule_JPG2023

SDWIS Sample Point ID	Address	TCR Type	Zone	Test month
TCR007	214 Grand Ave	Routine	1	January, July
TCR008	212 Grand Ave	Repeat	1	
TCR009	218 Grand Ave	Repeat	1	
TCR010	401 2nd Street	Routine	1	Feburary, August
TCR011	317 2nd Street	Repeat	1	
TCR012	415 2nd Street	Repeat	1	
TCR016	233 Niagra Ave	Routine	1	March, September
TCR017	9 3rd Street	Repeat	1	
TCR018	231 Niagra Ave	Repeat	1	
TCR019	846 Grand Ave	Routine	1	April, October
TCR020	700 Shady Ln	Repeat	1	
TCR021	640 Grand Ave	Repeat	1	
TCR025	600 Oak Ave	Routine	1	May, November
TCR026	611 Oak Ave	Repeat	1	
TCR027	507 Oak Ave	Repeat	1	
TCR028	394 5th Street	Routine	1	
TCR029	410 5th Street	Repeat	1	
TCR030	376 5th Street	Repeat	1	
TCR034	413 Delta Ave	Routine	1	June, December
TCR013	129 Colorado Ave	Routine	2	
TCR014	1101 2nd Street	Repeat	2	
TCR015	130 Colorado Ave	Repeat	2	
TCR022	224 Dorris Ave	Routine	2	
TCR023	223 Dorris Ave	Repeat	2	
TCR024	202 Dorris Ave	Repeat	2	
TCR031	1221 2nd street	Both Routine and Repeat	2	
TCR032	1221 2nd st	Routine	2	May, November
TCR033	103 Dorris	Both Routine and Repeat	2	March, September
TCR035	1219 2nd St.	Repeat	2	
TCR036	121 Dorris	Repeat	2	
TCRO40	403 Vista Drive	Routine	2	Jan, July
TCR001	42244 Foothills Rd	Routine	3	
TCR002	42252 Foothills Rd	Repeat	3	
TCR037	13418 Dry Gulch Rd	Routine	3	Feburary, August
TCR039	42288 Lamborn Mesa Rd.	Routine	4	April, October
TCR004	40526 Stewart Mesa Rd	Routine	5	
TCR005	40600 Stewart Mesa Rd	Repeat	5	
TCR006	40435 Stewart Mesa Rd	Repeat	5	
TCR038	41110 O road	Routine	5	June, December

Repeat Samples:

Our system will collect a minimum of three repeat samples for each total coliform-positive sample found within 24 hours of being notified of the positive result. We will collect at least one repeat sample from the sampling tap where the original total coliform-positive sample was taken, and at least one repeat sample at a tap within five service connections upstream and at least one repeat sample at a tap within five service connections downstream of the original sampling site. An additional (fourth) sample will be collected up or down stream within the five-service connection distance of the original sample point, if required by CDPHE. If access to a sampling location is not possible due to access, if a positive sample is at the end of the distribution system or one tap away from the end of the distribution system, our operator will contact the Colorado Department of Public Health and Environment (CDPHE) for assistance.

If one or more repeat samples in the repeat set is total coliform-positive, our water system will collect repeat samples as outlined in Article 5.1.2.e in the Colorado Department of Public Health and Environment Drinking Water Regulations.

In the event of a total coliform-positive sample, our water system will collect five additional routine samples during the next month the system provides water to the public. These samples may be waived by the CDPHE if a site visit or determination and correction of the problem has been performed and approved in writing by the CDPHE.

Sample Testing:

We use Colorado Department of Public Health Laboratory in Grand Junction, Colorado for our microbiological analysis. After removing any aerators or other attachments, flushing the water line, measuring the chlorine residual, and then washing our hands, we collect our bacteriological sample being careful not to overfill or contaminate the bottle. The sample is immediately mailed to the laboratory for testing. The sample must be delivered to the laboratory within 24 hours. Our sample is usually collected in the first week of the month but never Thursday through Saturday to allow the laboratory time for analysis.

Records Retention:

After reviewing the results of our sampling, we record the information on a sampling form and keep the laboratory slips for a minimum of five years (5) years.

Additional Information:

In the event of a total coliform-positive sample refer to
5 CCR 1003-1,
Colorado Primary Drinking Water Regulations,
Article 5 Microbiological Contaminants

Distribution System Residual Disinfectant Monitoring	
The residual disinfectant must be measured at the same time and the same location as each total coliform bacteria sample. Measurements must be conducted in the field by a certified operator or under the direction of the certified operator and must be written on each total coliform chain of custody when it is submitted to the laboratory.	
Disinfectant used in the distribution system:	**Chlorine Measured as Free Chlorine**
Residual disinfectant quality assurance/quality control (QA/QC) – explain the exact procedures to be followed to ensure that the field test measurement will be accurate. This may be found in the manufacturer's literature: **The supplier will use a handheld pocket colorimeter and follow manufacturers standard operating procedure. Sample site will be disinfected prior to drawing sample. Water will run for 5-15minutes to make sure that a representative sample is gathered from the water main.**	

TTHM/HAA5 Stage 2 Disinfection Byproduct Sample Sites - Portal

Completed by: **Jeremiah Garcia** Signature: _____

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

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

Surface Water Treatment Rule

Completed by: **Jeremiah Garcia** Signature: _____

Turbidity Monitoring

Describe how and where the supplier will sample turbidity

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

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

Treatment Plant Facility ID (Assigned by Department)	Treatment Plant Facility Name	Filter Type	Grab or Continuous Sampling	Describe Location for Combined Filter Effluent (CFE) Monitoring	Describe Location for Individual Filter Effluent (IFE) Monitoring
001	LAMBORN MESA UPPER WTP	MB			
002	CLOCK YWTP01	MB			

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

Describe how and where the supplier will sample residual disinfectant

Residual disinfectant quality assurance/quality control (QA/QC) – explain the exact procedures to be followed to ensure that the field test measurement will be accurate. This may be found in the manufacturer's literature: **The supplier will use a hand held pocket colorimeter and following manufacturers standard operating procedure. Sample site will be disinfected prior to drawing sample. Water will run for 5-15minutres to make sure that a representative sample is gathered**

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

Facility ID (Assigned by Department)	Facility Name	Grab or Continuous Sampling	Describe Location for Microbial Inactivation Monitoring
001	LAMBORN MESA UPPER WTP		
002	CLOCK YWTP01		

Long Term 2 (LT2) Raw Water Source Monitoring

Must conduct two separate rounds of sampling at each source

Identify where the raw water sample(s) will be collected	Does the raw water sampling site(s) represent more than one source? If so, describe the raw sources that combine
GERMAN CREEK NO 3 (003); SPRING NO 4 OLD ORIG (004); SPRING NO 5 OLD ORIG (005); SPRING NO 6 OLD ORIG (006); SPRING NO 7 OLD ORIG (007); SPRING NO 8 OLD ORIG (008); SPRING NO 9 OLD ORIG (009); SPRING NO 10 OLD ORIG (010); SPRING NO 11 OLD ORIG (011); SPRING NO 12 OLD ORIG (012); SPRING NO 13 REYNOLDS (013); SPRING NO 14 REYNOLDS (014); SPRING NO 15 REYNOLDS (015); SPRING NO 16 MERRT METER (016); SPRING NO 17 MERRT METER (017); SPRING NO 18 MERRT METER (018); SPRING NO 19 MERRT METER (019); SPRING NO 20 MERRT METER (020); SPRING NO 21 MERRT METER (021); SPRING NO 22 MERRT METER (022); SPRING NO 23 KAUER (023); SPRING NO 24 CORRAL 1 (024); SPRING NO 25 CORRAL 2 (025); SPRING NO 26 CLARK 1 (026); SPRING NO 27 CLARK 2 (027); SPRING NO 28 MAYS (028); SPRING NO 29 MAYS (029); SPRING NO 30 TODD (030); SPRING NO 31 TODD (031); SPRING NO 32 TODD (032); SPRING NO 33 GILWICK 1 (033); SPRING NO 34 GILWICK 2 (034); SPRING NO 35 TODD RES (035); SPRING NO 36 POLE PATCH (036); SPRING NO 37 (037); SPRING NO 38 (038); SPRING NO 39 (039); LAKE FORK SPRING	SS001: [] SS002: []

(040); GERMAN CREEK NO 1 LOW (041); GERMAN CREEK NO 3 UP (042); COMBINED RAW SOURCE 001 (SS001); COMBINED RAW SOURCE 002 (SS002);		
Treatment Plant Facility ID (Assigned by Department)	**Treatment Plant Facility Name**	**LT2 Bin Classification**
001	LAMBORN MESA UPPER WTP	1
002	CLOCK YWTP01	1

Disinfection Byproduct Precursors (Total Organic Carbon (TOC) and Alkalinity)

Only required for suppliers using conventional filtration

Identify where the raw water TOC and alkalinity sample(s) will be collected	**Does the raw water sampling site(s) represent more than one source? If so, describe the raw sources that combine**

Treatment Plant Facility ID (Assigned by Department)	**Treatment Plant Facility Name**	**Describe Location for Treated Water TOC Monitoring**

Community Lead and Copper Materials Evaluation Summary

Completed by: **Jeremiah Garcia** Signature: _____

Materials Evaluation Summary by Tier Level **Note:** This is **not** a summary of the lead and copper sample pool. This is a summary of **all sites in the distribution system** that the supplier believes meets each of the criteria below.	
Tier 1 Sites - Single family structures, currently being used as either a residence or place of business	**Number of Site Locations**
Containing copper pipe with lead solder installed after 1982 and before 1988	59
Are served by a lead service line (no year restriction)	139
Containing lead pipes, goosenecks, or pigtails (no year restriction)	0
Tier 2 Sites - Multiple-family residences and buildings	**Number of Site Locations**
Containing copper pipe with lead solder installed after 1982 and before 1988	28
Are served by a lead service line (no year restriction)	0
Containing lead pipes, goosenecks, or pigtails (no year restriction)	0
Tier 3 Sites - Single-family structures	**Number of Site Locations**
Containing copper pipes with lead solder installed before 1983	432
Representative Sample Sites – Structures	**Number of Site Locations**
With plumbing material typically found throughout the distribution system	272
Describe the representative plumbing material: **PEX and PVC**	
Additional Information	

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

Lead and Copper Sample Sites - Portal

Completed by: **Jeremiah Garcia** Signature: _____

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

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

ATTACHMENT 4

CROSS CONNECTION CONTROL PLAN

COLORADO
Department of Public Health & Environment

APPENDIX A: Backflow Prevention and Cross-connection Control

Town of Paonia 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 Paonia & Co0115601
Public Water System Owner:	Town of Paonia
BPCCC Administrative Contact:	Jeremiah Garcia
Address:	214 Grand Ave Paonia, CO 81428
Email:	Jeremiah_ppw@townofpaonia.com
Phone:	9708223083

Signatures of Owner or Administrative Contact:

Effective Date	Name	Signature
Initiated 5.1.2017 Updated 4.1.2023	Initiated: Travis Loberg Updated: Jeremiah Garcia	

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.

Backflow Prevention and Cross-connection Control Program

(i) Process for conducting surveys.

Mail surveys and visual inspection by Public Works Water staff. Any commercial property that is new construction, has been remodeled, sale has occurred, or a new customer has been established will be inspected by Public Works staff. Annually, Public Works will generate a report through its water billing system for all commercial accounts' addresses with their facility contacts, and "new meter" connection dates. TOP Billing department will make Public Works aware of any Commercial construction permits, as well as any "New Connections" (user change) of Commercial accounts.

(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

See Appendix B – ARTICLE_7. CROSS_CONNECTION_CONTROL, also found in the Town of Paonia's Municipal Code

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

If a Backflow prevention assembly is needed; Consult with certified cross connection control technician and follow the guidance document titled "WQ-DW-Policy-DW007-Backflow Prevention and Cross Connection Control". Certified CCC technicians will recommend an appropriate backflow prevention assembly to Public Works who will approve the assembly. If Backflow prevention method is required, Public works will educate customer of the risks associated with backflow and how to maintain an adequate method.

(iv) Legal authorities 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

See Appendix B – ARTICLE_7. CROSS_CONNECTION_CONTROL, also found in the Town of Paonia's Municipal Code

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

When uncontrolled cross connections are identified customers will be notified that they must install an appropriate backflow device within 90 days or face service shut-off. Customers must submit evidence that backflow prevention device has been installed, and pass a visual inspection conducted by Public works. Town of Paonia will track the installation and completion of annual inspections in the CDPHE annual tracking sheet, and keep digital copies provided by the certified inspectors. TOP will maintain a redundant system through its Cassell Water tracking and billing software.

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

. Customers must submit their annual backflow prevention inspection report, conducted by a certified inspector, by June of each calendar year. Otherwise, the Town of Paonia will coordinate with a certified backflow inspector to conduct the inspections on behalf of the customers. The customer is responsible for the cost of inspection and will see that expense reflected in their monthly water bill.

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 event;
- Location of event;
- Type of threat or event;
- 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 the Drinking Water Portal sent to the attention of the backflow prevention and cross-connection control specialist. The Drinking Water Porta can be found online at: https://wqcdcompliance.com/login

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 public notice.

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 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 results of the survey.

It is important that newly constructed and renovated buildings are constructed in accordance with the local plumbing code. The code is intended to protect the internal potable water system and its occupants from contamination that can be introduced via restrooms, kitchens, boilers, irrigation, HVAC systems, etc. It is equally important that the water supplier protect their distribution system from contamination that can be introduced via car washes, auxiliary water sources, fire suppression systems, irrigation and many other sources. Water suppliers need to perform cross connection identification surveys to identify potential cross connections within their distribution system.

***Note to supplier. Describe in this section how the supplier 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 the 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.

(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 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 an identified cross connection. Guidelines and criteria should address examples of cross connections throughout the water systems distribution system along with the corresponding appropriate backflow prevention assembly and or backflow prevention method used to control the identified cross connection. Part 4.3 of SDWP Policy 7 provides various examples of backflow prevention assemblies and methods and when the use of such assemblies and methods may be appropriate.

(v & vi) Tracking & Certified Tester Verification

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

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

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

Assembly or method information:

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

Certified Cross-Connection Control Technician information:

a. Certified Cross-Connection Control Technician certification agency;
b. Certification number;
c. Certification expiration date or statement that certification is current;
d. As an alternative to a-c, suppliers may provide documentation of an alternative validation process such as electronic login to reporting software where only current, certified cross-connection control technicians (or their companies) are given a login.

ATTACHMENT 5

WATER CONSERVATION PLAN (N/A)

ATTACHMENT 6

WRITTEN DELEGATION OF OPERATOR DUTIES (PROVIDED BY TOWN)

Delegation Plan for Multiple Tasks and Activities

Items marked with an asterisk (*) are required by Regulation 100.

***Name of Facility**	Lamborn / Town of Paonia	***PWSID #, Permit # or Permit Certification #**		CO0115601	
***Operator in Responsible Charge**	Benny Archuleta BA	***Effective date (from)**	3/22/23	***Termination or renewal date (to) -** must be within 12 months of effective date	3/21/24

*Task or activity description	*Delegation to [Authorized person(s) or position(s)]	*Operational limits and response (required if not included in written SOP)	Date of training provided by ORC to authorized individual(s)	Authorized person's signature indicating acceptance of task or activity (required if not included in written job description)	Date of acceptance of delegated tasks or activities
Daily Plant Numbers	Jeremiah Garcia Jordan Redden Derek Heiniger	Adjust operating flow of skid 1 & 2 pumps to meet spring feed flow	3/24/2023- Confirmation of daily operation procedure specific to DPN	Benny Archuleta BA	3/24/2023
Chlorine Dosing	Jeremiah Garcia Jordan Redden Derek Heiniger	Refill chlorine dosing tank. Adjust peristaltic pump flow rate.	3/24/2023 Confirmation of daily operation procedure specific to chlorine dosing	Benny Archuleta BA	3/24/2023
Weekly Integrity test	Jeremiah Garcia Jordan Redden Derek Heiniger	Conduct Skid Filter Membrane Integrity test and record TMP and Resistance	3/24/2023 Confirmation of weekly operation procedure specific to IT	Benny Archuleta BA	3/24/2023
Weekly Chlorine Comparison	Jeremiah Garcia Jordan Redden Derek Heiniger	Visually inspect and note chlorine levels. Make adjustments to dosing	3/24/2023 Confirmation of weekly operation	Benny Archuleta BA	3/24/2023

			procedure specific to Chlorine Comparison		
Entry Point Sampling	Jeremiah Garcia Jordan Redden Derek Heiniger	Chlorine Residual is constantly being monitored by a CL17 analyzer. We do a daily grab sample to verify the accuracy of the analyzer.	3/24/2023 Confirmation of daily operation procedure specific to entry point sampling	Benny Archuleta	3/24/2023
Monthly Operational Reporting	Jeremiah Garcia Jordan Redden Derek Heiniger	Log onto Drinking Water Portal. Download MORs from Fulcrum. Upload data to CDPHE spreadsheet. Upload spreadsheet. Sign and submit to state.	3/24/2023 Confirmation of monthly operation procedure specific to MORs	Benny Archuleta	3/24/2023
Backwash set point	Jeremiah Garcia Jordan Redden Derek Heiniger	If Raw water NTU is below 1, Backwash set point 120minutes. Maintain TMP below 1.5PSI. If NTU is above 1 and below 2, set point can be 60-80minutes. If NTU above 3, backwash set point needs to be 60 or below.	3/24/2023 Confirmation of daily operation procedure specific to backwash set point	Benny Archuleta	3/24/2023
Raw Water TDS (Quarterly) compliance test	Jeremiah Garcia Jordan Redden Derek Heiniger	Pull Sample from Raw Water port. Follow lab instructions for submittal and testing.	3/24/2023 Confirmation of quarterly operation procedure specific to Raw water TDS testing	Benny Archuleta	3/24/2023
Ensure Plant redundancies	Jeremiah Garcia Jordan Redden Derek Heiniger	Verify all pumps are in working order, and back up pumps (including	3/24/2023 Confirmation of operation	Benny Archuleta	3/24/2023

		peristaltic pumps). Replace pumps as needed. Do scheduled maintenance.	procedure specific to ensuring redundancies		
Respond to alarms	Jeremiah Garcia Jordan Redden Derek Heiniger	Establish who is on-call during "off hours". Respond to calls, use Splashtop to remotely view SCADA to verify problem. Respond to problem.	3/24/2023 Confirmation of operation procedure specific to responding to alarms	Benny Archuleta BA	3/24/2023

Benny Archuleta

ATTACHMENT 7

ANNUAL BUDGET

ATTACHMENT 10

DOCUMENTATION OF GENERAL LIABILITY INSURANCE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 10/26/2023

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

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

PRODUCER LIC #N/A 1-303-757-5475 CIRSA 3665 Cherry Creek North Drive Denver, CO 80209	CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS: INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : CIRSA INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :
INSURED Town of Paonia P.O. Box 460 Paonia, CO 81428	

COVERAGES **CERTIFICATE NUMBER: 69935288** **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			LIAB 01-2023	01/01/23	01/01/24	EACH OCCURRENCE	$ 10,000,000
	X CLAIMS-MADE ☐ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 10,000,000
	X $10m POL E&O Aggregate						MED EXP (Any one person)	$ 0
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	$ 10,000,000
	☐ POLICY ☐ PRO-JECT ☐ LOC						GENERAL AGGREGATE	$
	OTHER:						PRODUCTS - COMP/OP AGG	$ 10,000,000
								$
A	AUTOMOBILE LIABILITY			LIAB 01-2023	01/01/23	01/01/24	COMBINED SINGLE LIMIT (Ea accident)	$ 5,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						☐ PER STATUTE ☐ OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

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

As respects for State Revolving Fund Loan Application.

CERTIFICATE HOLDER

Colorado Department Public Health and Environment

State Revolving Fund
4300 Cherry Creek Drive South

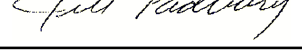
Denver, CO 80246

USA

CANCELLATION

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

AUTHORIZED REPRESENTATIVE



ATTACHMENT 11

ADDITIONAL WATER SOURCE DESC. (N/A)

ATTACHMENT 12

EXISTING WATER RIGHTS

Town of Paonia Water Rights Table 2023

Name	Decree	Priority	Amt in c.f.s.	Use	Dates	Notes
Beaver Dam Ditch or Lake Fork Springs	567 (W3216) See14CW3004 14CW3004	1 (TF C&W) .50	.50 .50	I M	Irrigation season only Nov 1 - March 31	12.5% of first 4 cfs decreed to C & W ditch *1
Bell Creek Pipeline (Decreed Name)	W-3279 + 80CW81 3503	1 J-197	1.0 (1st) .75	M M	1883/1889 1930/1936	a/k/a Quackenbush (.5 Mays Sp and .5 Pole)
Paonia Pipeline (Decreed Name)	2574 80CW81		1.0 c.f.s (.50 Mays .50 Pole)	M	1883/1889	Change from N Orchard
Clark Springs						No Decree found or records
Corral Sp 1	4808 + W-3279	K-84	.50	M		
Corral Sp 2	4808 + W-3279	K-85	.50	M		
Gelwicks Sp Pipeline	5625	1 B-1	.5740 1.25	M	1885/1889 1885/1920	TT Paonia Pipeline (Bone Mesa has .0260)
German Creek Sp Collection	 423 3503 W-3188 (80CW100) W-3188	1 9 J-2 	1.70 2.3 (-.05) .50 4.0	M M M	1883/1889 1883/1889 1882/1954 1974/1977	TF M & O (can divert up to 80% of these three rights or total of 3.16 Pri 1+9 and .40 prior J-2) *2
Kauer Springs	3964 + 5		.25	M		.25 (1st) from the Mt Lambert decree *3
Lambs Gulch Spring	3694 and 5					Mentioned for excess of .75 cfs *4
Lucas Ditch	CA0038 + CA00475	1	.90 c.f.s. 3.1 cfs	M	1884/ 1889 1905	Transferred to Town's intake on Angevine (Lucas) creek
Mays Sp						See Bell Creek Pipeline
Meyer & Orth	38 CA0423 3503	1 9 J-2	1.7 Abs 2.25 .50	M M M	1882/1889	

Legend for Table of Water Rights Town of Paonia

*1- Beaver Dam Ditch The Clark and Wade ditch right (C&W) was transferred to this ditch. Decree states that the Town owns 12.5% or .50 cfs. This is the first priority. This amount is decreed for irrigation use only so it is limited to the irrigation season. The Town adjudicated an additional .5 cfs in 2014 which is limited by decree to the non-irrigation season November 1 to March 31.

*2 - German Creek Springs Collection. These springs were originally adjudicated for 4.0 c.f.s. by the Town in 1977 for municipal uses. In 1980 the Town moved the Meyer and Orth Ditch rights it acquired from Mott and all other owners in a change/augmentation plan. The maximum diversions under these senior priorities of the M & O is 80% of the amount of the decrees (#1+9 3.16 and #J-2 .40 cfs) The Town could also divert its own 4 cfs but this right is probably never in priority when needed.

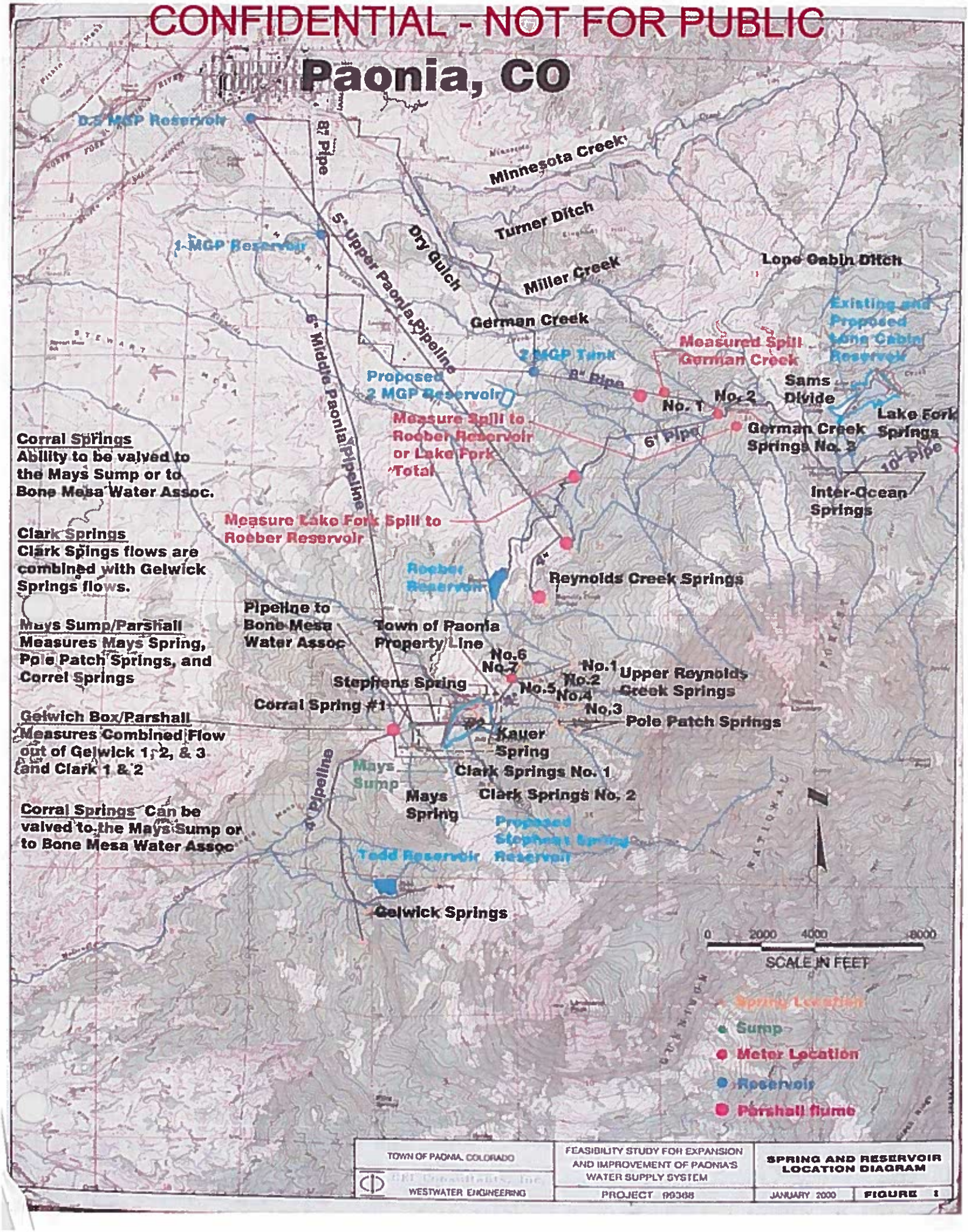
*3 - Kauer Spring. The Kauer Spring is only adjudicated as a part of the Mount Lambert Ditch decree along with the Spore Spring and the Upper Reynolds. The Upper Reynolds has its own decree in addition to Mt Lambert Ditch. Spore and Kauer springs have no separate decree. The Town has .25 cfs of the Mount Lambert and the balance of the Mt. Lambert (.50) is abandoned.

*4 - Lamb's Gulch Spring is mentioned in testimony of 84CW288 and presumably is part of the springs mentioned in Case No. 3695 as connected to the Spore, Kauer, Upper Reynolds collection of springs. There is no separate decree.

*5 - Mt Lambert Ditch There was an agreement with the Simeo's referenced in Case No 3279 that the Town owned the first .25 cfs and that the Simeo's owns the balance or .50 c.f.s. Thus the flow of Spore Springs, Lamb Gulch, Upper Reynolds and Kauer were all included in this .25 cfs. (The town could not call out the Spore Spring as against Simeo.) However in 01CW282 the State abandoned .50 cfs of Mt Lambert saying that this amount was not used. Since the Town diverted the flow I believe that this was the Simeo's .50 cfs and not the Town's.

*6 - Spore Spring. This spring has not been adjudicated under the name Spore Spring. However, it is included as a source for Mt. Lambert Ditch. The State Engineer has separately measured and recorded the diversions from the Spore saying that it was not decreed. The Division engineer has not altered its position and is recording the Spore spring as Mt Lambert. But the Kauer and Upper Reynolds and Lamb Gulch are also to be included in the diversion amount.

*7 - T + M Springs The T+M springs do not appear to be adjudicated under this name. In 3279 the Applicant moved the AA Smith Ditch down to the T & M springs 1-3. Spring #4 was found to be a source for the Town's Mays Spring. However, a few years later Sunrise Ranch went to Court and undid that change moving the AA Smith back to its original location. T + M Springs appear to be unadjudicated otherwise.



TOWN OF PAONIA, COLORADO	FEASIBILITY STUDY FOR EXPANSION AND IMPROVEMENT OF PAONIA'S WATER SUPPLY SYSTEM	SPRING AND RESERVOIR LOCATION DIAGRAM	
WESTWATER ENGINEERING	PROJECT 99368	JANUARY 2000	FIGURE 1

ATTACHMENT 13

EXISTING PROCESS FLOW DIAGRAM (N/A)

ATTACHMENT 14

COPIES OF DISCHARGE PERMITS (RESIDUALS)

CDPS GENERAL PERMIT

FOR WATER TREATMENT PLANTS

NOT DISCHARGING TO WATERS DESIGNATED

HABITAT FOR THREATENED AND ENDANGERED SPECIES

AUTHORIZATION TO DISCHARGE UNDER THE

COLORADO DISCHARGE PERMIT SYSTEM

In compliance with the provisions of the Colorado Water Quality Control Act (25-8-101 et. seq. CRS, l973 as amended), and the Clean Water Act (33 U.S.C. 1251 et. seq. as amended; the "Act"), entities engaged in production and/or treatment of potable water, are authorized to discharge from approved locations throughout the State of Colorado to waters of the State. Such discharges shall be in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof.

This permit specifically authorizes the entity identified in the certification on page one of this permit to discharge from their wastewater treatment facilities, at the location described on page one of this permit, to waters of the state as identified on page one of this permit.

The authorization to discharge under this permit is in effect from the date of certification identified on page one of this permit until the expiration date identified below.

This permit becomes effective on November 30, 2005 **,** and shall expire at midnight October 31, 2010

Signed this 30th day of September, 2005.

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Steven H. Gunderson, Director
WATER QUALITY CONTROL DIVISION

DATE SIGNED: SEPTEMBER 30, 2005

EFFECTIVE DATE OF PERMIT: NOVEMBER 1, 2005

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PART I

1. Eligibility

In order to be eligible for authorization to discharge under the terms and conditions of this permit, the owner of any water treatment facility that can meet the conditions identified at Part I.A.3., below, must submit a complete permit application form obtained from the Water Quality Control Division ("Division"). Such application shall be submitted at least thirty (30) days prior to the anticipated date of first discharge to:

Colorado Department of Public Health and Environment
Water Quality Control Division, WQCD-P-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530
Attention: Permits Unit

The application form can be obtained from the Division from our website or by calling 303-692-3599. An overview of the information required in the application is provided below in Part I.A.2.

The Division shall have up to thirty (30) days after receipt of the application to request additional data and/or deny the authorization for any particular discharge. Upon receipt of additional information the Division shall have an additional 30 days to issue or deny authorization for any particular discharge.

If the person proposing the discharge does not receive a request for additional information or a notification of denial from the Division within the specified time frame, authorization to discharge in accordance with the conditions of the permit shall be deemed granted. Authorization to discharge shall be site specific and not transferable to alternative locations.

If the Division determines that the operation does not fall under the authority of the general permit, then the information received will be treated as an individual permit application.

Authorization to discharge under this general permit shall commence immediately and shall expire on October 31, 2010. The Division must evaluate this general permit once every five (5) years and must also recertify the applicant's authority to discharge under the general permit at such time. Therefore, a permittee desiring continued coverage under this general permit must re-apply by April 30, 2010. The Division will determine if the applicant is eligible to continue to operate under the terms of the general permit. An application for an individual permit will be required for any facility not reauthorized to discharge under the reissued general permit.

2. Application Requirements

The application referenced in Part I.A.1., above, will require the following information:

a. The name, address, and descriptive location of the facility along with an accompanying USGS map, or a map of similar quality, which shows the location of all unit processes;

b. The name, address, and phone number of the owner and of the certified operator in responsible charge;

c. The name of water(s) receiving the discharge(s) and a listing of any downstream waters into which the receiving stream flows within five miles of the point of discharge;

d. A USGS map, or a map of similar quality, which shows the service area for the facility;

e. A description of the method(s) used for treatment and/or disposal of sludge;

f. A summary of recent flow and effluent quality data along with a description of the operation and management procedures to be used at the treatment facility; and,

g. A description of the methods and equipment to be used to measure flows and to analyze for pollutants of concern in the discharge.

3. Certification Requirements

The applicant must certify that the following conditions exist at the facility or the facility will not be allowed to discharge under the authority of the general permit:

a. Entities engaged in production, treatment, storage and/or distribution of potable water may be granted authorization to discharge process generated wastewaters into waters of the State of Colorado from the following production-related sources:

   i Treated pre-sedimentation underflow,

   ii. Treated underflow from coagulation/settling process using aluminum compounds, polymers, or other compounds used as coagulants,

   iii. Treated filter backwash water from filters, and

   iv. Other process-related discharges that contain the pollutants regulated under Part I.B.1 and are deemed appropriate by the Division for coverage under this permit.

   v. Reject water from Reverse Osmosis facility is excluded from coverage under this general permit.

b. The facility does not accept for treatment and discharge, by truck, rail, or dedicated pipeline, any hazardous waste as defined at Part 261, 6 CCR 1007-3, under the Hazardous Waste Commission Regulations;

3. Certification Requirements (continued)

c. Discharge cannot be shown to be capable of causing new or increased loadings of parameters cited as effluent limits under this general for any downstream state waters which on Colorado's 303(d) list for impairment based on the parameter listed as an effluent limit.

d. Threatened and Endangered Species

The discharge does not go directly to a stream (including an area within the associated 100-year flood plain) that is designated as threatened or endangered habitat for fish by the U.S. Fish and Wildlife Service. Information on those designated waters is available on the Division's website;

e. Mixing Zone

Discharge is precluded from analysis under Colorado Mixing Zone Implementation Guidance on the presumption that the discharge is minor and there is no reason to expect the discharge might raise special issues of environmental concern. The Division reserves the right to make this determination, and may request further information from the permittee to be considered for this exclusion.

B. TERMS AND CONDITIONS

1. Effluent Parameters

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 62.4, and the Colorado Discharge Permit System Regulations, Section 61.8(2), the permitted discharge shall not contain effluent parameter concentrations, which exceed the following limitations:

Parameter	Discharge Limitations Maximum Concentrations		
	30-Day Avg	7-Day Average	Daily Max.
Flow, MGD	Report/Limit	NA	Report
Total Suspended Solids, mg/l	30	45	NA
Oil and Grease, mg/l	NA	NA	10*
pH, s.u. (Minimum-Maximum)	NA	NA	6.5-9.0
Total Residual Chlorine, mg/l	0.011	NA	0.019
Total Dissolved Solids, mg/l**	NA	NA	Report
Total Phosphorus, mg/l, as P***	NA	NA	Report

*There shall be no visible sheen. **Applicable only to waters of the Colorado River Basin. *** Applicable only to waters with a control regulation for P.

2. Compliance Schedules

As part of this permit renewal, the certification may contain conditions addressed in a compliance schedule, which provides for a period of time, not to exceed two years, to enable the permittee to conduct activities, which comply with the requirements of the general permit.

3. Site-specific limitations

Site-specific limitations for a parameter may be added on a case-by-case basis that are equivalent to the Basic Standards and Methodologies for Surface Water, or Regulation for Effluent Limitations, or any other applicable regulation, and would be specified in the certification along with the appropriate monitoring frequencies.

4. Other Site-specific Permit Conditions

Specific permit conditions may be applied for compliance with any Division compliance order on consent, cease and desist order, or an EPA administrative order, or similar decree promulgated by the Division, EPA or any other public entity.

C. MONITORING REQUIREMENTS

1. Effluent Parameters

In order to obtain an indication of the probable compliance or non-compliance with the effluent limitations specified in Part I, Section B.1, the permittee shall monitor effluent parameters at the following required frequencies, as identified in the certification on page one of this permit, the results to be reported on the Discharge Monitoring Report (See Part I, Section F.2.):

Effluent Parameter	Measurement Frequency	Sample Type
Flow, MGD	Weekly	Instantaneous or Continuous
Total Suspended Solids, mg/l	Monthly	Grab
Oil and Grease, mg/l	Weekly	Visual
pH, s.u. (Minimum-Maximum)	Weekly	In-situ
Total Residual Chlorine, mg/l	Weekly	Grab
Total Dissolved Solids, mg/l	Quarterly	Grab
Total Phosphorus, mg/l, as P	Monthly	Grab

D. DEFINITIONS OF TERMS

1. "Composite" sample is a minimum of four (4) grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow.

2. "Continuous" measurement, is a measurement obtained from an automatic recording device which continually provides measurements.

3. "Daily Maximum limitation" means the limitation for this parameter shall be applied as an instantaneous maximum (or, for pH or DO, instantaneous minimum) value. The instantaneous value is defined as the analytical result of any individual sample. DMRs shall include the maximum (and/or minimum) of all instantaneous values within the calendar month. Any instantaneous value beyond the noted daily maximum limitation for the indicated parameter shall be considered a violation of this permit.

4. For fecal coliform bacteria concentrations, the thirty (30) day and seven (7) day averages shall be determined as explained in definitions 12. and 9. below, respectively, except that the geometric mean shall be used instead of the arithmetic mean. The geometric mean may be calculated using two different methods. For the methods shown, a, b, c, d, etc. are individual sample results, and n is the total number of samples.

   Method 1:

   Geometric Mean = $(a*b*c*d*...)^{(1/n)}$ "*" - means multiply

   Method 2:

   Geometric Mean = antilog ([log (a)+log (b)+log(c)+log (d)+...]/n)

   Graphical methods, even though they may also employ the use of logarithms, may introduce significant error and may not be used.

   In calculating the geometric mean, for those individual sample results that are reported by the analytical laboratory to be "less than" a numeric value, the numeric value shall be used in the calculations unless the result is "less than 2.2". If the result is "less than 2.2", use a value of 1 in the calculations.

   If all individual analytical results for the month are reported to be less than numeric values, then report "less than" the largest of those numeric values on the monthly DMR. Otherwise, report the calculated value.

   If the individual analytical result is "too numerous to count" (TNTC), then this analysis shall be considered invalid and another sample shall be promptly collected for analysis. If another sample cannot be collected within the same sampling period for which the invalid sample was collected (during the same month if monthly sampling is required, during the same week if weekly sampling is required, etc.), then the following procedures apply:

   i) A minimum of two samples shall be collected for coliform analysis within the next sampling period.

   ii) If the sampling frequency is monthly or less frequent: For the period with the invalid sample results, leave the spaces on the corresponding DMR for reporting coliform results empty and attach to the DMR a letter noting that a result of TNTC was obtained for that period, and explain why another sample for that period had not been collected.

   If the sampling frequency is more frequent than monthly: Eliminate the result of TNTC from any further calculations, and use all the other results obtained within that month for reporting purposes. Attach a letter noting that a result of TNTC was obtained, and list all individual analytical results and corresponding sampling dates for that month.

5. "Grab" sample, is a single "dip and take" sample so as to be representative of the parameter being monitored.

6. "In-situ" measurement is defined as a single reading, observation or measurement taken in the field at the point of discharge.

7. "Instantaneous" measurement is a single reading, observation, or measurement performed on site using existing monitoring facilities.

8. "Material handling activities" include: storage, loading and unloading of any raw material, intermediate product, finished product, by-product, or waste product where such products could come in contact with precipitation.

9. "Seven (7) day average" means the arithmetic mean of all samples collected in a seven (7) consecutive day period. Such seven (7) day averages shall be calculated for all calendar weeks, which are defined as beginning on Sunday and ending on Saturday. If the calendar week overlaps two months (i.e. the Sunday is in one month and the Saturday in the following month), the seven (7) day average calculated for that calendar week shall be associated with the month that contains the Saturday. Samples may not be used for more than one (1) reporting period.

10. "Significant materials" include but are not limited to: raw materials; fuels; materials such as metallic products; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to section 313 of SARA III; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharge.

11. "Stormwater discharge associated with industrial activity" means any point source which is used for collecting and conveying stormwater, and which is located at an industrial site or directly related to manufacturing, processing or raw materials storage areas at an industrial site. The term includes, but is not limited to, stormwater discharges from drainage areas in which are located: industrial site yards; immediate access roads and rail lines; drainage ponds; material handling sites; refuse sites; sites used for the application or disposal of process waters; sites used for storage and maintenance of material handling equipment; sites that are or have been used for residual treatment, storage or disposal; dust or particulate generating processes; shipping and receiving areas; manufacturing buildings; and storage areas (including tank farms) for raw materials, and intermediate and finished products.

12. "Thirty (30) day average" means the arithmetic mean of all samples collected during a thirty (30) consecutive-day period. The permittee shall report the appropriate mean of all self-monitoring sample data collected during the calendar month on the Discharge Monitoring Reports. Samples shall not be used for more than one (1) reporting period.

D. DEFINITIONS OF TERMS (continued)

13. "Visual" observation is observing the discharge to check for the presence of a visible sheen or floating oil.

14. "Water Quality Control Division" or "Division" means the state Water Quality Control Division as established in 25-8-101 et al.)

Additional relevant definitions are found in the Colorado Water Quality Control Act, CRS §§ 25-8-101 et seq.., the Regulations for the State Discharge Permit System, 5 CCR 1002-2, § 6.1.0 et seq and other applicable regulations.

E. ADDITIONAL MONITORING REQUIREMENTS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and approval by the Division.

2. Discharge Sampling Point

Discharge points shall be so designed or modified so that a sample of the effluent can be obtained at a point after the final treatment process and prior to discharge to state waters. The permittee shall provide access to the Division to sample the discharge at these points.

3. Analytical and Sampling Methods for Monitoring

The permittee shall install, calibrate, use and maintain monitoring methods and equipment, including biological and indicated pollutant-monitoring methods. Analytical and sampling methods utilized by the discharger shall be approved methods as defined by Colorado Regulations for Effluent Limitations (5 CCR 1002-3, 62.5), Federal regulations (40 CFR 136) and any other applicable State or Federal regulations.

When requested in writing, the Water Quality Control Division may approve an alternative analytical procedure or any significant modification to an approved procedure.

4. Records

a) The permittee shall establish and maintain records. Those records shall include, but not be limited to, the following:

(i) The date, type, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) the analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

b) The permittee shall retain for a minimum of three (3) years records of all monitoring information, including all original strip chart recordings for continuous monitoring instrumentation, all calibration and maintenance records, copies of all reports required by this permit and records of all data used to complete the application for this permit. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the Division.

5. Additional Monitoring by Permittee

If the permittee, using the approved analytical methods, monitors any parameter more frequently than required by this permit, then the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form or other forms as required by the Division. Such increased frequency shall also be indicated.

6. Flow Measuring Devices

Flow measuring and metering shall be provided to give representative values of throughput and treatment of the wastewater system. Unless specifically waived in the certification, the metering device shall be equipped with a local flow indication instrument and a flow indication-recording-totalization device suitable for providing permanent flow records, which should be in the plant control building.

At the request of the Director of the State Water Quality Control Division, the permittee must be able to show proof of the accuracy of any flow-measuring device used in obtaining data submitted in the monitoring report. The flow-measuring device must indicate values within ten (10) percent of the actual flow entering the facility.

F. REPORTING

1. Signatory Requirements

All reports, applications, or information required for submittal shall be signed and certified for accuracy by the permittee in accord with the following criteria:

a) In the case of corporations, by a principal executive officer of at least the level of vice-president or his or her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the form originates;

1. Signatory Requirements (continued)

b) In the case of a partnership, by a general partner;

c) In the case of a sole proprietorship, by the proprietor;

d) In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

2. Quarterly Reports

Monitoring results shall be summarized for each calendar quarter and reported on the DMR forms (EPA forms 3320-1). The forms shall be mailed to the agencies listed below so that they are received by the agencies no later than the 28th day of the following month. If no discharge occurs during the reporting period, "No Discharge" shall be reported.

he DMR forms shall be filled out accurately and completely in accordance with the requirements of this permit and the instructions on the forms, and shall be signed by an authorized person as identified in the preceding section, Part I.F.1.

The DMR forms consist of four pages - the top "original" copy, and three attached no-carbon-required copies. After the DMR form has been filled out and signed, the four copies must be separated and distributed as follows.

The top, original copy of each form shall be submitted to the following address:

Colorado Department Of Public Health And Environment
Water Quality Control Division, WQCD-P-B2
4300 Cherry Creek Drive South
Denver, CO 80246-1530

The additional copies are for the permittee's records.

3. Special Notifications

a) Definitions

(i) Bypass: The intentional diversion of waste streams from any portion of a domestic wastewater treatment works.

(ii) Severe Property Damage: 1) Substantial physical damage to property at the treatment facilities to cause them to become inoperable, or 2) substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

(iii) Spill: An incident in which flows or solid materials are accidentally or unintentionally allowed to flow or escape so as to be lost from the domestic wastewater treatment works as defined in the Colorado Water Quality Control Act, which may cause pollution of state waters.

(iv) Upset: An exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b) Noncompliance Notification

(i) If, for any reason, the permittee does not comply with or will be unable to comply with any maximum discharge limitations, standards or conditions specified in this permit, the permittee shall, at a minimum, provide the Division and EPA with the following information:

(1) A description of the discharge and cause of non- compliance.

(2) The period of noncompliance, including exact dates and times and/or the anticipated time when the discharge will return to compliance; and

(3) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

(ii) The following instances of noncompliance shall be reported orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and a written report mailed within five (5) days of the time the permittee becomes aware of the circumstances.

(1) Any instance of noncompliance, which may endanger human health or the environment, regardless of the cause for the incident.

(2) Any unanticipated bypass, or any upset or spill, which causes any permit limitation to be violated.

(3) Any suspected significant discharges of toxic pollutants or hazardous substances, which are listed in Part III. of this permit, regardless of the cause for the incident.

(iii) The permittee shall report all other instances of noncompliance, which are not required to be reported within twenty-four (24) hours, at the time DMRs are submitted, except as required in (iv) below. The reports shall contain the information listed in "Noncompliance Notification" (paragraph (i) above).

3. Special Notifications (continued)

(iv) If the permittee knows in advance of the need for a bypass, it shall submit written notification to the Division of the need for such bypass at least ten days before the date of the contemplated bypass.

c) Submission of Incorrect or Incomplete Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or report to the Division, it shall promptly submit such facts or information.

d) Compliance Schedule Notification

No later than fourteen (14) calendar days following a date identified in the compliance schedules in the certification, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

e) Change in Discharge or Wastewater Treatment Facility

The permittee shall inform the Division (Technical Services Unit) in writing of any intent to construct, install, or alter any process, facility, or activity that is likely to result in a new or altered discharge either in terms of location or effluent quality prior to the occurrence of the new or altered discharge, and shall furnish the Division such plans and specifications which the Division deems reasonably necessary to evaluate the effect on the discharge and receiving stream.

If the Division finds that such new or altered discharge might be inconsistent with the conditions of the permit, the Division shall require a new or revised permit application and shall follow the procedures specified in Colorado State Discharge Permit System Regulations, 5CCR 1002.2, Sections 61.5 through 61.9(2), and 61.15 prior to the effective date of the new or altered discharge.

f) Deactivation

The permittee shall notify the Division (Permits Unit) within thirty (30) days before deactivation of the permitted facility. Deactivation includes ceasing operation of the facility, ceasing all discharges to State Waters for the remaining term of the existing permit and/or the connection to another wastewater treatment facility.

PART II

A. MANAGEMENT REQUIREMENTS AND RESPONSIBILITIES

1. Bypass

a) The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. Division notification is not required.

b) A bypass, which causes effluent limitations to be exceeded, is prohibited, and the Division may take enforcement action against a permittee for such a bypass, unless:

(i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

(iii) The permittee submitted notices as required in "Non-Compliance Notification," Part I.F. 4(b).

2. Upsets

a) Effect of an Upset

An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based (process-related) permit effluent limitations if the requirements of paragraph (b) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

b) Conditions Necessary for a Demonstration of Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed contemporaneous operating logs, or other relevant evidence that:

(i) An upset occurred and that the permittee can identify the specific cause(s) of the upset;

(ii) The permitted facility was at the time being properly operated; and

(iii) The permittee submitted notice of the upset as required in Part I, Section C of this permit (24-hour notice).

(iv) The permittee complied with any remedial measures required under 40 CFR 122.7(d).

c) Burden of proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

3. Reduction, Loss, or Failure of Treatment Facility

The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the effluent limitations of the permit. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with this permit, control sources of wastewater, or all discharges, or both until the facility is restored or an alternative method of treatment is provided. This provision also applies to power failures, unless an alternative power source sufficient to operate the wastewater control

facilities is provided.

In an enforcement action a permittee shall not use a defense that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State.

For all domestic wastewater treatment works, the permittee shall dispose of sludge in accordance with State (Regulation No. 64) and Federal (Section 405(d) of the Act) regulations.

5. Minimization of Adverse Impacts

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the State resulting from noncompliance with any effluent limitations specified in this permit. As necessary, accelerated or additional monitoring of the influent or effluent will be required to determine the nature and impact of noncompliance.

6. Discharge Point

Any discharge to the waters of the State from a point source other than specifically authorized herein is prohibited.

7. Inspections and Right to Entry

The permittee shall allow the Division‘s Director, the EPA Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:

a) To enter upon the permittee's premises where a regulated facility or activity is located or in which any records are required to be kept under the terms and conditions of this permit;

b) At reasonable times to have access to inspect and copy any records required to be kept under the terms and conditions of this permit and to inspect any monitoring equipment or monitoring method required in the permit; and

c) To enter upon the permittee's premises in a reasonable manner and at a reasonable time to inspect and/or investigate any actual, suspected, or potential source of water pollution, or to ascertain compliance or noncompliance with any applicable state or federal statute or regulation or any order promulgated by the Division. The investigation may include, but is not limited to the following: sampling of any discharge and/or process waters, the taking of photographs, interviewing of any persons having any knowledge related to the discharge permit or alleged violation, access to any and all facilities or areas within the permittee's premises that may have any affect on the discharge, permit, or alleged violation.

d) The Division shall split samples taken by the Division during any investigation with the permittee if requested to do so by the permittee.

8. Duty to Provide Information

The permittee shall furnish to the Division, within a reasonable time, any information which the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

9. Availability of Reports

Except for data determined to be confidential under Section 308 of the Act and the Colorado Discharge Permit System Regulations 5 CCR 1002-2, Section 61.5(4), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division and the EPA’s Regional Administrator.

As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act, and Section 25-8-610 C.R.S.

10. Transfer of Ownership or Control

A permit may be transferred to a new permittee only upon the completion of the following:

a) The current permittee notifies the Division in writing 30 days in advance of the proposed transfer date;

b) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; and

c) Fee requirements of the Colorado Discharge Permit System Regulations (Section 61.15) have been met.

11. Contract Requirements

The permittee shall include pertinent terms and conditions of this permit in all contracts for receipt by the permittee of any effluent not required to be received by the permittee.

B. ADDITIONAL CONDITIONS

1. Permit Violations

Failure to comply with any terms and/or conditions of this permit shall be a violation of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

2. Civil and Criminal Liability

Except as provided in Part I, Section C and Part II, Section A, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance (See 40 CFR 122.60)

3. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibility, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

4. Division Emergency Power

Nothing in this permit shall be construed to prevent or limit application of any emergency power of the Division.

5. Severability

The provisions of this permit are severable. If any provisions of this permit, or the application of any provision of this permit in any circumstance, are held invalid, the application of such provision to other circumstances and the application of the remainder of this permit shall not be affected.

6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 (Oil and Hazardous Substance Liability) of the Act, except as recognized by federal law.

7. Property Rights

The issuance of this permit does not convey any property or water rights in either real or personal property or stream flow or any exclusive privileges, nor does it authorize any injury to private property, any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

8. Modification, Suspension, or Revocation of Permit

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

All permit modification, termination or revocation and reissuance actions shall be subject to the requirements of the Colorado Discharge Permit System Regulations, Sections 61.5(2), 61.5(3), 61.8, and 61.15 except for minor modifications.

Minor modifications may only correct typographical errors, require a change in the frequency of monitoring or reporting by the permittee, change an interim date in a schedule of compliance or allow for a change in ownership or operational control of a facility including addition, deactivation or relocation of discharge points where the Division determines that no other change in the permit is necessary.

a) This permit may be modified, suspended, or revoked in whole or in part during its term for reasons determined by the Division including, but not limited to, the following:

   (i) Violation of any terms or conditions of the permit;

   (ii) Obtaining a permit by misrepresentation or failing to disclose any fact which is material to the granting or denial of a permit or to the establishment of terms or conditions of the permit; or

   (iii) Materially false or inaccurate statements or information in the permit application of the permit; or

   (iv) Toxic effluent standards or prohibitions (including any schedule of compliance specified in such effluent standard or prohibition) which are established under Section 307(a) of the Federal Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.

b) This permit may be modified in whole or in part due to a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge, such as:

   (i) The water quality standards applicable to such waters; or

   (ii) Effluent limitations or other applicable requirements pursuant to the state act or federal requirements; or

c) This permit may be modified in whole or in part to include any condition set forth in the approval of the site location for the facility per Regulations for the Site Application Process, 5 CCR 1002-22, Sections 22.1 through 22.14.

8. Modification, Suspension, or Revocation of Permit (continued)

d) At the request of a permittee, the Division may modify or terminate this permit and issue a new permit if the following conditions are met:

   (i) EPA's Regional Administrator has been notified of the proposed modification of termination and does not object in writing within thirty (30) days of receipt of notification;

   (ii) The Division finds that the permittee has shown reasonable grounds consistent with the Federal and State statutes and regulations for such modifications or termination;

(iii) Fee requirements of Section 61.15 of Colorado Discharge Permit System Regulations have been met; and

(iv) Requirements of public notice have been met.

e) This permit may be modified to reflect any new requirements for handling and disposal of biosolids as required by State or Federal regulations.

f) This permit shall be modified or alternatively, revoked and reissued, to incorporate an approved Domestic Wastewater Treatment Works Pretreatment Program into the terms and conditions of this permit.

g) If, during the term of this permit, industrial contributions to the DWTW are interfering, inhibiting or incompatible with the operation of the treatment works, then the permit may be modified to require the permittee to specify, by ordinance, contract, or other enforce- able means, the type of pollutant(s) and the maximum amount which may be discharged to the permittee's facility for treatment.

9. Permit Renewal Application

If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least one hundred eighty (180) days before this permit expires. If the permittee anticipates there will be no discharge after the expiration date of this permit, the Division must be promptly notified so that it can terminate the permit in accordance with Part II Section B.8.

10. Confidentiality

Any information relating to any secret process, method of manufacture or production, or sales or marketing data, which may be acquired, ascertained, or discovered, whether in any sampling investigation, emergency investigation, or otherwise, shall not be publicly disclosed by any member, officer, or employee of the commission or the Division, but shall be kept confidential. Any person seeking to invoke the protection of this Subsection (10) shall bear the burden of proving its applicability. This section shall never be interpreted as preventing full disclosure of effluent data.

11. Fees

The permittee is required to submit an annual fee as set forth in the l983 amendments to the Water Quality Control Act, Section 25-8-502 (l) (b), and Colorado Discharge Permit System Regulations 5CCR l002-2, Section 6l.15 as amended. Failure to submit the required fee when due and payable is a violation of the permit and will result in enforcement action pursuant to Section 25-8-601 et. seq., C.R.S. l973 as amended.

PART III

PRIORITY POLLUTANTS AND HAZARDOUS SUBSTANCES
ORGANIC TOXIC POLLUTANTS IN EACH OF FOUR FRACTIONS
IN ANALYSIS BY GAS CHROMATOGRAPHY/MASS SPECTROSCOPY (GC/MS)
(SEE TABLE II, OF 40 CFR 122 APPENDIX D)

Volatiles	Base/Neutral	Acid Compounds	Pesticides
acrolein	acenaphthene	2-chlorophenol	aldrin
acrylonitrile	acenaphthylene	2,4-dichlorophenol	alpha-BHC
benzene	anthracene	2,4,-dimethylphenol	beta-BHC
bromoform	benzidine	4,6-dinitro-o-cresol	gamma-BHC
carbon tetrachloride	benzo(a)anthracene	2,4-dinitrophenol	delta-BHC
chlorobenzene	benzo(a)pyrene	2-nitrophenol	chlordane
chlorodibromomethane	3,4-benzofluoranthene	4-nitrophenol	4,4'-DDT
chloroethane	benzo(ghi)perylene	p-chloro-m-cresol	4,4'-DDE
2-chloroethylvinyl ether	benzo(k)fluoranthene	pentachlorophenol	4,4'-DDD
chloroform	bis(2-chloroethoxy)methane	phenol	dieldrin
dichlorobromomethane	bis(2-chloroethyl)ether	2,4,6-trichlorophenol	alpha-endosulfan
1,1-dichlorethane	bis(2-chloroisopropyl)ether		beta-endosulfan
1,2-dichlorethane	bis(2-ethylhexyl)phthalate		endosulfan sulfate
1,1-dichlorethylene	4-bromophenyl phenyl ether		endrin
1,2-dichlorpropane	butylbenzyl phthalate		endrin aldehyde
1,3-dichlorpropylene	2-chloronaphthalene		heptachlor
ethylbenzene	4-chlorophenyl phenyl ether		heptachlor epoxide
methyl bromide	chrysene		PCB-1242
methyl chloride	dibenzo(a,h)anthracene		PCB-1254
methylene chloride	1,2-dichlorobenzene		PCB-1221
1,1,2,2-tetrachloroethane	1,3-dichlorobenzene		PCB-1232
tetrachloroethylene	1,4-dichlorobenzene		PCB-1248
toluene	3,3-dichlorobenzidine		PCB-1260
1,2-trans-dichloroethylene	diethyl phthalate		PCB-1016
1,1,1-trichloroethane	dimethyl phthalate		toxaphene
1,1,2-trichloroethane	di-n-butyl phthalate		
trichloroethylene	2,4-dinitrotoluene		
vinyl chloride	2,6-dinitrotoluene		
	di-n-octyl phthalate		
	1,2-diphenylhydrazine (as azobenzene)		
	fluorene		
	fluoranthene		
	hexachlorobenzene		
	hexachlorobutadiene		
	hexachlorcyclopentadiene		
	hexachloroethane		
	indeno(1,2,3-cd)pyrene		
	isophorone		
	naphthalene		
	nitrobenzene		
	N-nitrosodimethylamine		
	N-nitrosodi-n-propylamine		
	N-nitrosodiphenylamine		
	phenanthrene		
	pyrene		
	1,2,4-trichlorobenzene		

OTHER TOXIC POLLUTANTS
(METALS AND CYANIDE) AND TOTAL PHENOLS
(SEE TABLE III, OF 40 CFR 122 APPENDIX D)

Antimony, Total
Arsenic, Total
Beryllium, Total
Cadmium, Total
Chromium, Total
Copper, Total
Lead, Total
Mercury, Total
Nickel, Total
Selenium, Total
Total Recoverable Thallium, mg/l
Silver, Total
Thallium, Total
Zinc, Total
Cyanide, Total
Phenols, Total

TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES
REQUIRED TO BE IDENTIFIED BY EXISTING DISCHARGERS
IF EXPECTED TO BE PRESENT
(SEE TABLE II, OF 40 CFR 122 APPENDIX D)

Toxic Pollutants
Asbestos

Hazardous Substances

Acetaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Captan
Carbaryl
Carbofuran
Carbon disulfide
Chlorpyrifos
Coumaphos
Cresol
Crotonaldehyde
Cyclohexane
2,4-D(2,4-Dichlorophenoxy acetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone
2,2-Dichloropropionic acid
Dichlorvos
Diethyl amine
Dimethyl amine
Dinitrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethanolamine
Ethion
Ethylene diamine
Ethylene dibromide
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine
Keithane
Kepone
Malathion
Mercaptodimethur
Methoxychlor
Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mexacarbate
Monoethyl amine
Monomethyl amine
Naled
Napthenic acid
Nitrotoluene
Parathion
Phenolsulfanate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
Styrene
TDE (Tetrachlorodiphenylethane)
2,4,5-T (2,4,5-Trichlorophenoxy acetic acid)
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]
Trichlorofan
Triethylamine
Trimethylamine
Uranium
Vandium
Vinyl Acetate
Xylene
Xylenol
Zirconium

COLORADO DISCHARGE PERMIT SYSTEM (CDPS)
RATIONALE
CDPS GENERAL PERMIT FOR WATER TREATMENT PLANTS
NOT DISCHARGING TO WATERS THAT ARE DESIGNATED
AS THREATENED AND ENDANGERED HABITAT
CDPS NO. COG-641000, STATEWIDE COVERAGE

Update (August, 2005)

This is the fifth renewal of the general permit for water treatment plants.

The most significant changes in this renewal are as follows:

A. Discharges that go directly to a stream (including other waters within the 100-year flood plain) that is designated for federally listed threatened or endangered fish by the U.S. Fish and Wildlife Services are excluded from this permit.

A separate general permit specific to water treatment plant discharges to these waters was created for this purpose (CDPS General Permit for Water Treatment Plants Discharging to Waters Designated as Habitat for Threatened and Endangered Species, COG-640000).

B. Reverse Osmosis Reject Water (Concentrate) was excluded from coverage under this general permit because of the nature of concentrated pollutants being in the discharge. It does not contain similar pollutants, as do traditional water treatment plants.

Future Considerations:

A. In September 2004, the EPA announced plans to develop Effluent Limitation Guidelines (ELGs) for drinking water plants within the next three years. Such ELGs will likely affect any water treatment plant that makes direct discharges from filter backwash operations or from sedimentation basins into a river or stream. Thus, the Division anticipates that with the next re-issuance of this general permit, the effluent limitations will be adjusted to incorporate these expected new federal ELGs.

B. Given the number of applications received by facilities that were planning on utilizing reverse osmosis ("RO"), it is being considered to have a general permit addressing these facilities specifically. The nature of the source water quality and the concentration of the brine generated, are the primary factors to consider when meeting the narrative and numeric water quality standards. So, the defined parameters would have to be protective, and easily transferable from one certification to another, and could only be used in areas where the stream designation is "Use Protected."

Christopher L. Gates
August 2, 2005

COMMENTS RECEIVED DURING PUBLIC NOTICE

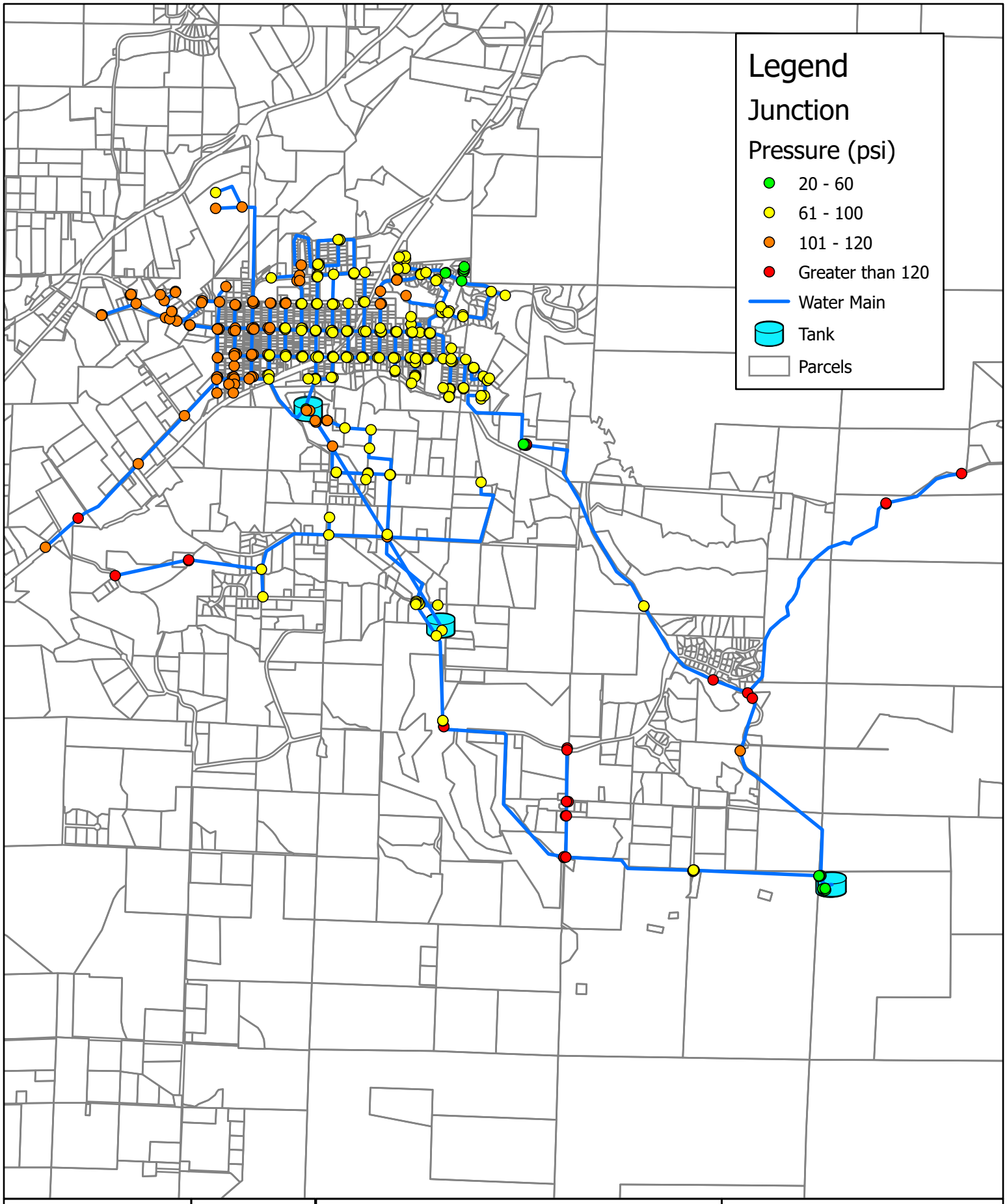
No comments were received during public notice.

Christopher L. Gates
September 26, 2005

ISSUED: SEPTEMBER 30, 2005 EFFECTIVE: NOVEMBER 1, 2005 EXPIRATION: OCTOBER 31, 2010

ATTACHMENT 15

PRESSURE MAP (N/A)



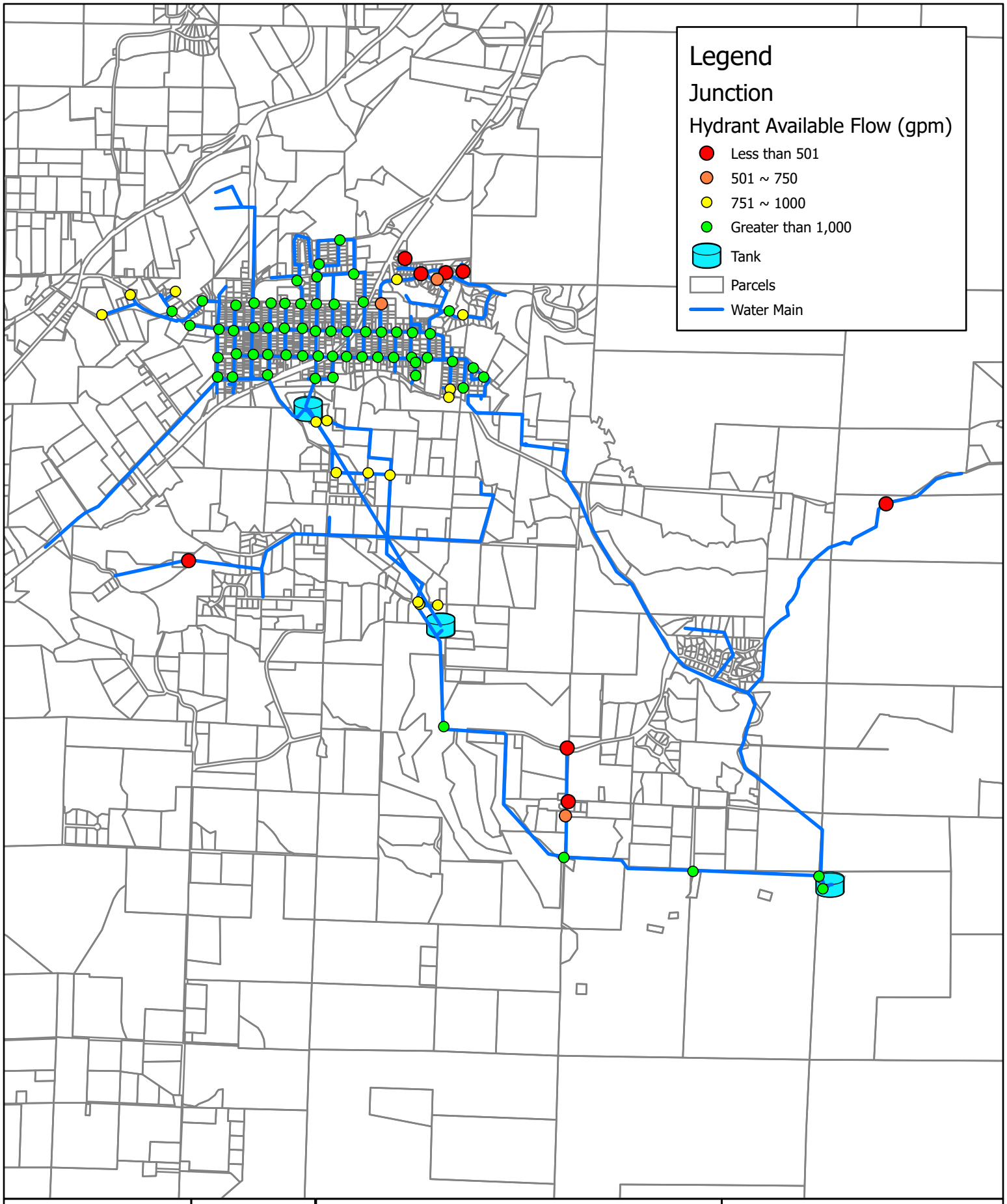
0 1,500 3,000
FEET

N
W E
S

TOWN OF PAONIA

WATER MODEL SYSTEM PRESSURES
MAX DAY DEMAND

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, CO 80919
(719) 227-0072



0 1,500 3,000

FEET

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W E

S

TOWN OF PAONIA

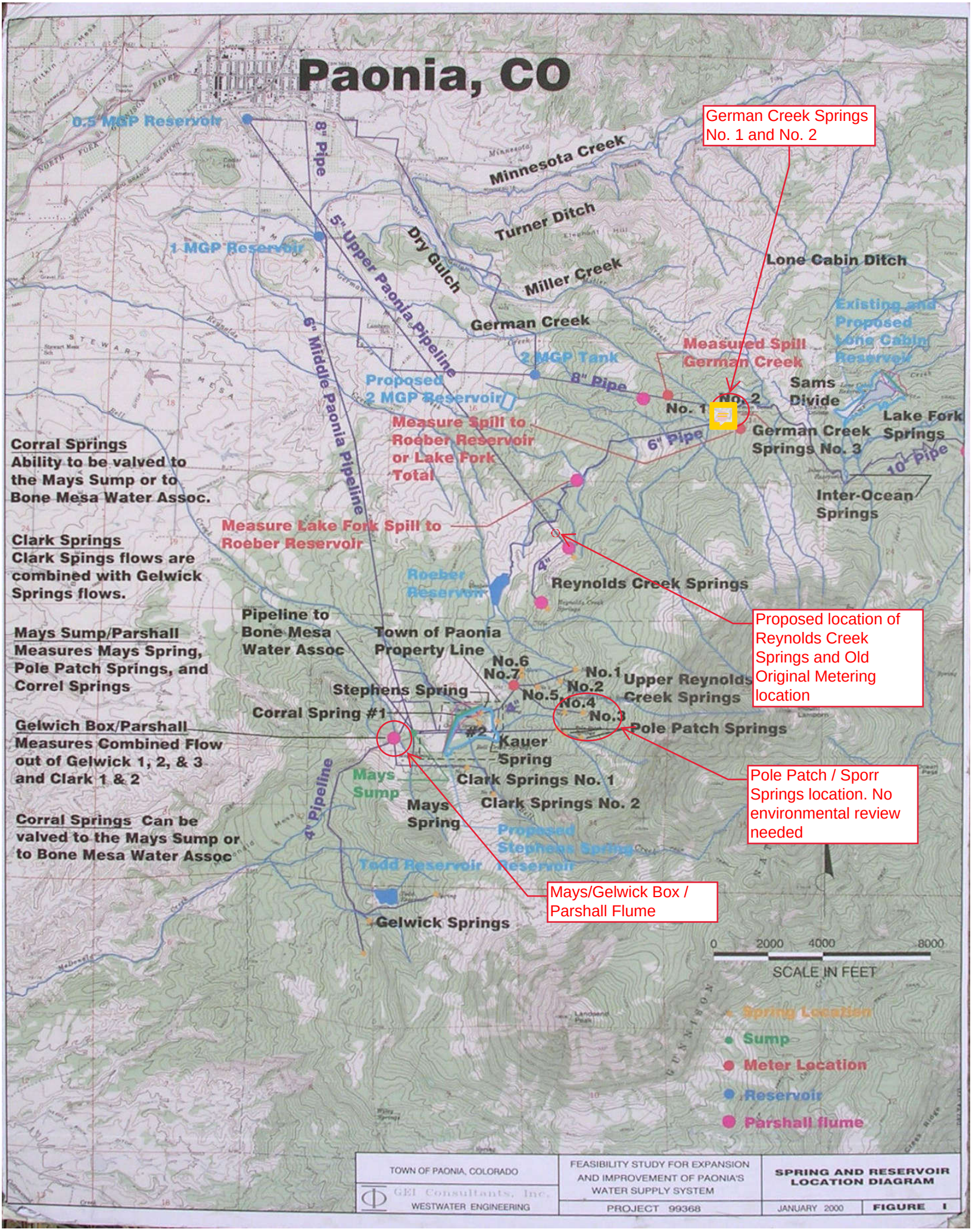
MDD FIRE FLOW

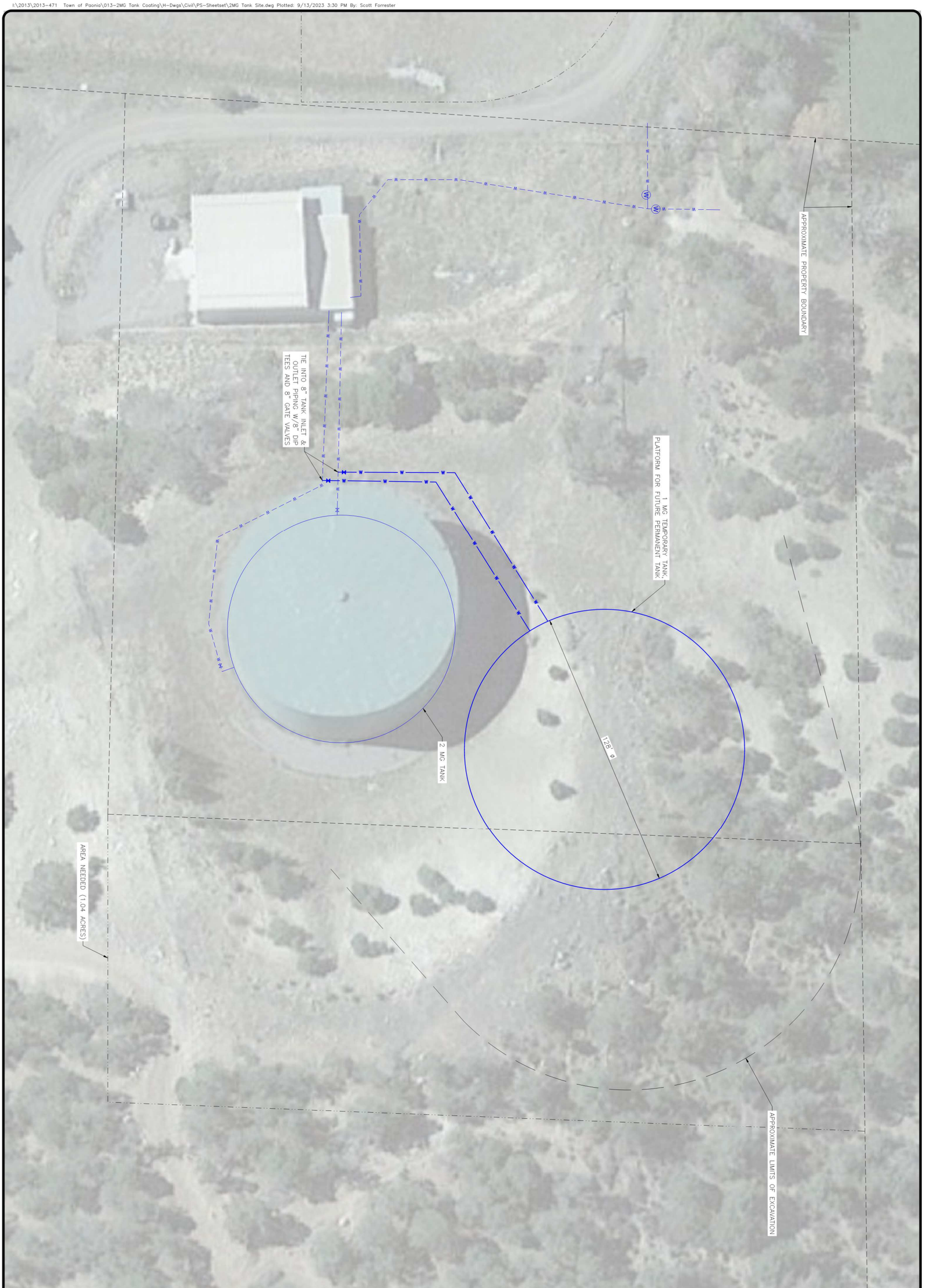
AVAILABLE HYDRANT FLOW

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, CO 80919
(719) 227-0072

ATTACHMENT 16

PROJECT AREA MAP


Paonia, CO
0.5 MGP Reservoir
8" Pipe
1 MGP Reservoir
5" Upper Paonia Pipeline
6" Middle Paonia Pipeline
Minnesota Creek
Dry Gulch
Turner Ditch
Miller Creek
German Creek
2 MGP Tank
8" Pipe
Proposed 2 MGP Reservoir
Measure Spill to Roeber Reservoir or Lake Fork Total
Measure Lake Fork Spill to Roeber Reservoir
German Creek Springs No. 1 and No. 2
Lone Cabin Ditch
Existing and Proposed Lone Cabin Reservoir
Measured Spill German Creek
Sams Divide
No. 1
No. 2
6" Pipe
German Creek Springs No. 3
Lake Fork Springs
10" Pipe
Inter-Ocean Springs
Corral Springs
Ability to be valved to the Mays Sump or to Bone Mesa Water Assoc.
Clark Springs
Clark Spings flows are combined with Gelwick Springs flows.
Mays Sump/Parshall
Measures Mays Spring, Pole Patch Springs, and Correl Springs
Gelwich Box/Parshall
Measures Combined Flow out of Gelwick 1, 2, & 3 and Clark 1 & 2
Corral Springs Can be valved to the Mays Sump or to Bone Mesa Water Assoc
Roeber Reservoir
4"
Reynolds Creek Springs
Proposed location of Reynolds Creek Springs and Old Original Metering location
Pipeline to Bone Mesa Water Assoc
Town of Paonia Property Line
No.6
No.7
No.1
No.2
No.4
No.3
No.5
Upper Reynolds Creek Springs
Stephens Spring
Corral Spring #1
#2
Kauer Spring
Pole Patch Springs
Pole Patch / Sporr Springs location. No environmental review needed
Mays Sump
Clark Springs No. 1
Clark Springs No. 2
Mays Spring
4" Pipeline
Proposed Stephens Spring Reservoir
Todd Reservoir
Mays/Gelwick Box / Parshall Flume
Gelwick Springs
0
2000
4000
8000
SCALE IN FEET
Spring Location
Sump
Meter Location
Reservoir
Parshall flume
TOWN OF PAONIA, COLORADO
GEI Consultants, Inc.
WESTWATER ENGINEERING
FEASIBILITY STUDY FOR EXPANSION AND IMPROVEMENT OF PAONIA'S WATER SUPPLY SYSTEM
PROJECT 99368
SPRING AND RESERVOIR LOCATION DIAGRAM
JANUARY 2000
FIGURE 1



Dwg No.
C2

Civil Site Plan
Option 2

Title:

Job No. 2013-471.013
Drawn by: SF
Date: 08.18.2023
QC: XX PE: XX
File: 2MG Tank Site

#	Revision	Date	By:
1			
2			
3			

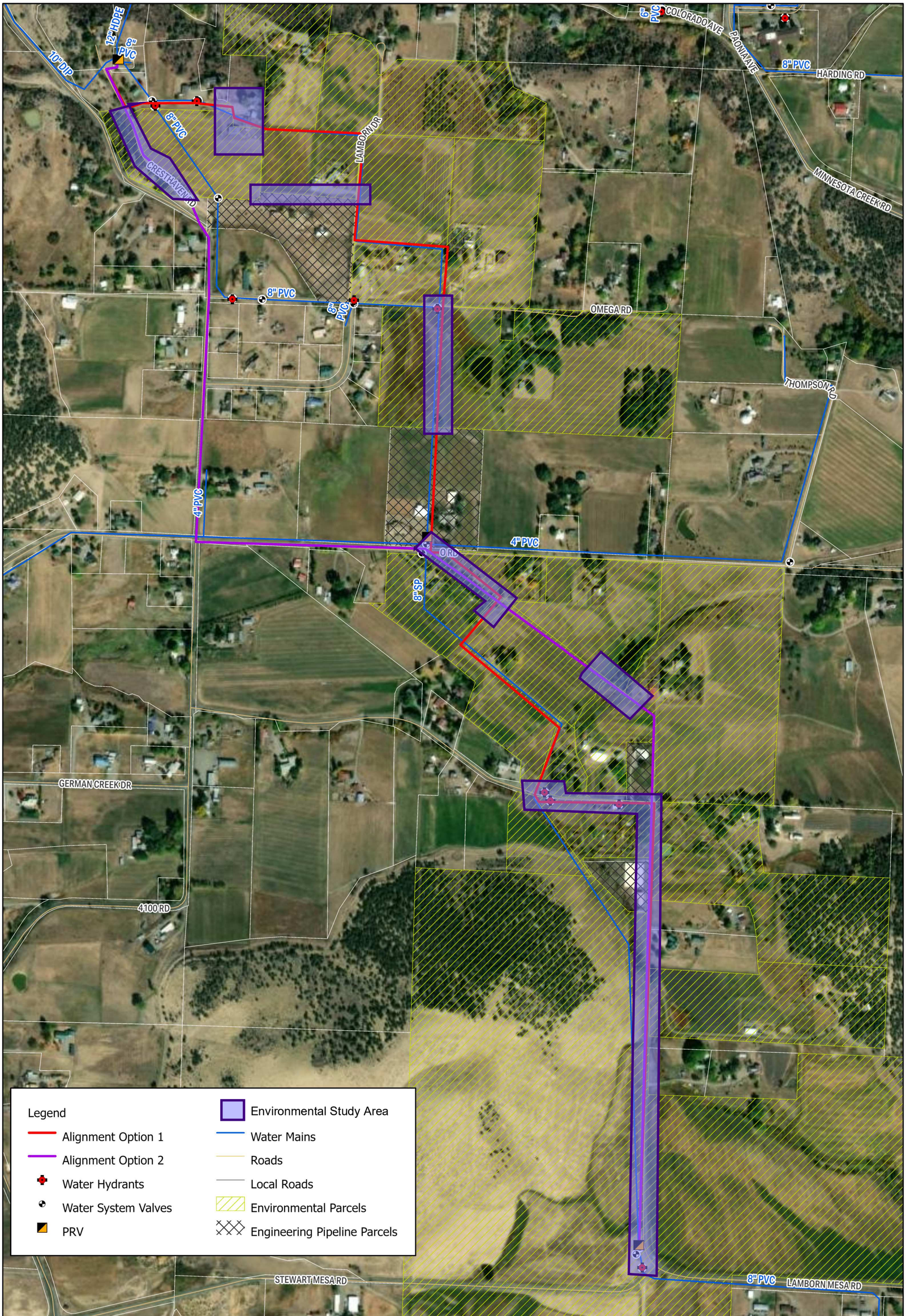
Project Milestone: PRELIMINARY NOT FOR CONSTRUCTION

Town of Paonia

2MG Tank Rehabilitation

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

Graphic Scale
In Feet: 1" = 20'
0 10 20 40



0 350 700

FEET

Scale: 1" = 600'

N

W E

S

TOWN OF PAONIA

8-INCH WATER MAIN REPLACEMENT

ENVIRONMENTAL FIELD VISIT

RESPEC

Colorado Springs, CO
5540 Tech Center Dr., Suite 100
Colorado Springs, CO 80919
Phone: 719.227.0072
www.respec.com

ATTACHMENT 17

POPULATION AND WATER DEMAND PROJECTIONS

Client: **Town of Paonia**
Project: **Water System - Capital Improvements - Phase I**

1512	Active Services
1%	growth rate
2.5	People/SFE
75	gpcpd, ADF
128	gpcpd, MMADF
187.5	gallons/day/sfe, ADF
318.75	gallons/day/sfe, MMADF

Year	SFE	Population	Est. ADF, gpd	Est. MMADF
2022	1512	3780	283,500	481,950
2023	1512	3780	283,500	481,950
2024	1512	3780	283,500	481,950
2025	1527	3818	286,335	486,770
2026	1542	3856	289,198	491,637
2027	1558	3895	292,090	496,554
2028	1573	3933	295,011	501,519
2029	1589	3973	297,961	506,534
2030	1605	4013	300,941	511,600
2031	1621	4053	303,950	516,716
2032	1637	4093	306,990	521,883
2033	1654	4134	310,060	527,102
2034	1670	4175	313,160	532,373
2035	1687	4217	316,292	537,696
2036	1704	4259	319,455	543,073
2037	1721	4302	322,649	548,504
2038	1738	4345	325,876	553,989
2039	1755	4388	329,135	559,529
2040	1773	4432	332,426	565,124
2041	1791	4477	335,750	570,776
2042	1809	4521	339,108	576,483
2043	1827	4567	342,499	582,248
2044	1845	4612	345,924	588,071
2045	1863	4658	349,383	593,951
2046	1882	4705	352,877	599,891
2047	1901	4752	356,406	605,890

Client: **Town of Paonia**
Project: **Water System - Capital Improvements - Phase I**

1512	Active Services
2%	growth rate
2.5	People/SFE
75	gpcpd, ADF
128	gpcpd, MMADF
187.5	gallons/day/sfe, ADF
318.75	gallons/day/sfe, MMADF

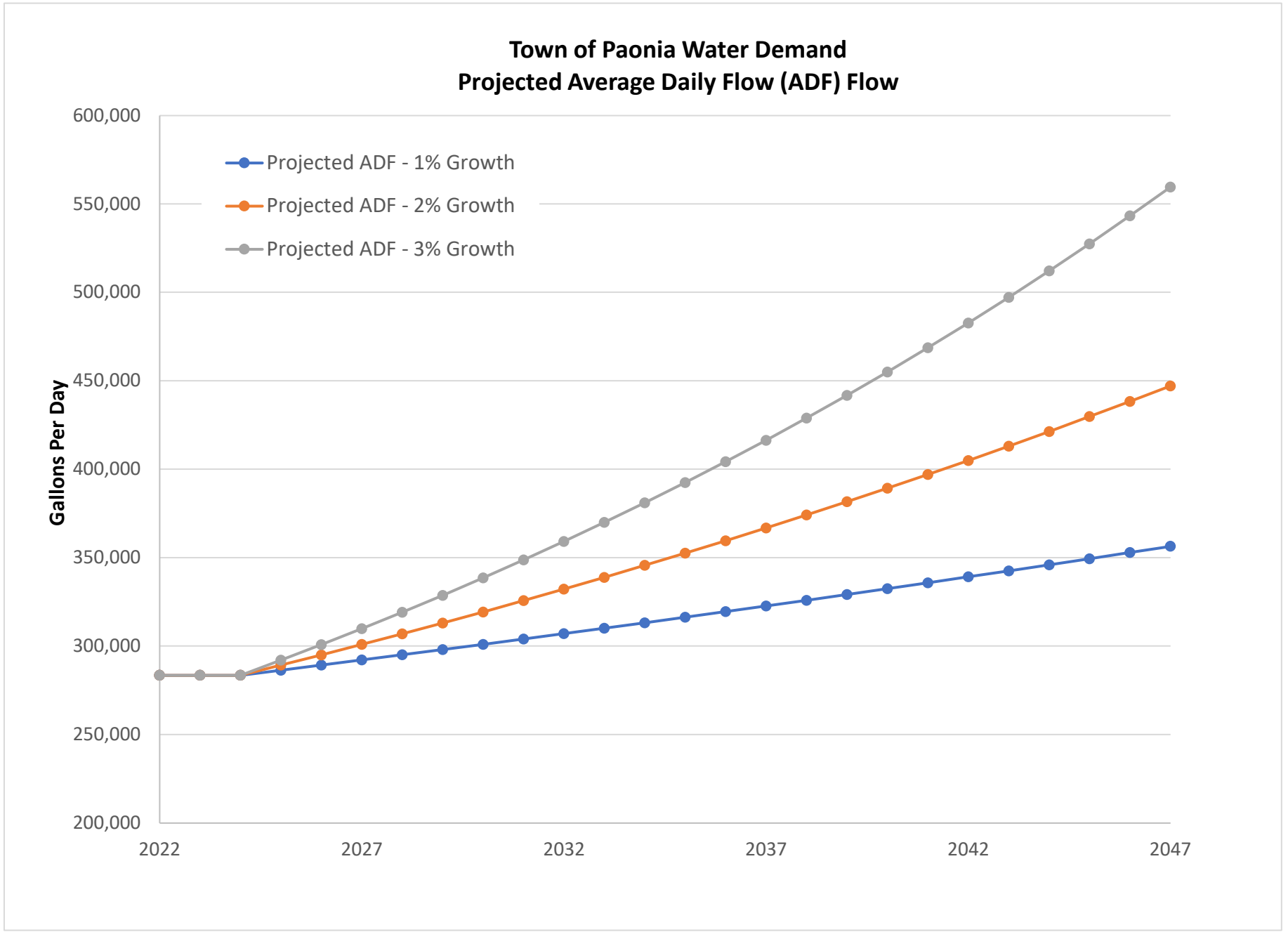
Year	SFE	Population	Est. ADF, gpd	Est. MMADF
2022	1512	3780	283,500	481,950
2023	1512	3780	283,500	481,950
2024	1512	3780	283,500	481,950
2025	1542	3856	289,170	491,589
2026	1573	3933	294,953	501,421
2027	1605	4011	300,852	511,449
2028	1637	4092	306,870	521,678
2029	1669	4173	313,007	532,112
2030	1703	4257	319,267	542,754
2031	1737	4342	325,652	553,609
2032	1772	4429	332,165	564,681
2033	1807	4517	338,809	575,975
2034	1843	4608	345,585	587,494
2035	1880	4700	352,497	599,244
2036	1918	4794	359,547	611,229
2037	1956	4890	366,737	623,454
2038	1995	4988	374,072	635,923
2039	2035	5087	381,554	648,641
2040	2076	5189	389,185	661,614
2041	2117	5293	396,968	674,846
2042	2160	5399	404,908	688,343
2043	2203	5507	413,006	702,110
2044	2247	5617	421,266	716,152
2045	2292	5729	429,691	730,475
2046	2338	5844	438,285	745,085
2047	2384	5961	447,051	759,987

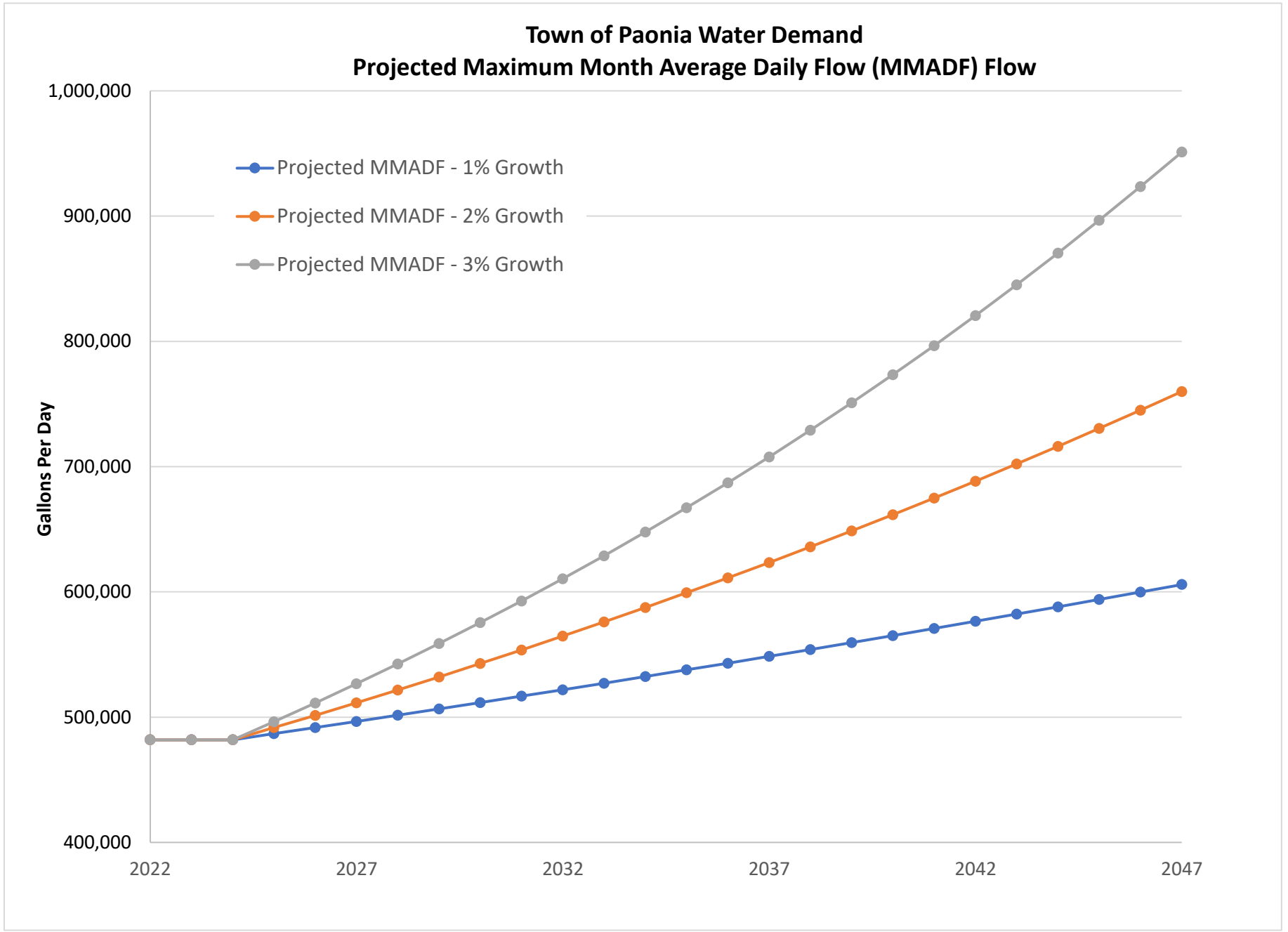
Client: **Town of Paonia**
Project: **Water System - Capital Improvements - Phase I**

1512	Active Services
3%	growth rate
2.5	People/SFE
75	gpcpd, ADF
128	gpcpd, MMADF
187.5	gallons/day/sfe, ADF
318.75	gallons/day/sfe, MMADF

Year	SFE	Population	Est. ADF, gpd	Est. MMADF
2022	1512	3780	283,500	481,950
2023	1512	3780	283,500	481,950
2024	1512	3780	283,500	481,950
2025	1557	3893	292,005	496,409
2026	1604	4010	300,765	511,301
2027	1652	4131	309,788	526,640
2028	1702	4254	319,082	542,439
2029	1753	4382	328,654	558,712
2030	1805	4514	338,514	575,474
2031	1860	4649	348,669	592,738
2032	1915	4788	359,129	610,520
2033	1973	4932	369,903	628,835
2034	2032	5080	381,000	647,700
2035	2093	5232	392,430	667,132
2036	2156	5389	404,203	687,145
2037	2220	5551	416,329	707,760
2038	2287	5718	428,819	728,993
2039	2356	5889	441,684	750,862
2040	2426	6066	454,934	773,388
2041	2499	6248	468,582	796,590
2042	2574	6435	482,640	820,488
2043	2651	6628	497,119	845,102
2044	2731	6827	512,033	870,455
2045	2813	7032	527,394	896,569
2046	2897	7243	543,215	923,466
2047	2984	7460	559,512	951,170

P


Town of Paonia Water Demand
Projected Average Daily Flow (ADF) Flow
Gallons Per Day
600,000
550,000
500,000
450,000
400,000
350,000
300,000
250,000
200,000
2022
2027
2032
2037
2042
2047
Projected ADF - 1% Growth
Projected ADF - 2% Growth
Projected ADF - 3% Growth


Town of Paonia Water Demand
Projected Maximum Month Average Daily Flow (MMADF) Flow
Gallons Per Day
1,000,000
900,000
800,000
700,000
600,000
500,000
400,000
2022
2027
2032
2037
2042
2047
Projected MMADF - 1% Growth
Projected MMADF - 2% Growth
Projected MMADF - 3% Growth

ATTACHMENT 18

DOCUMENTATION OF WATER RIGHTS (SEE ATTACH 12)

ATTACHMENT 19

ADDITIONAL ALTERNATIVES DESC. (N/A)

ATTACHMENT 20

PROPOSED PROCESS FLOW DIAGRAM (N/A)

ATTACHMENT 21

GREEN PROJECT BUSINESS CASE (N/A)

ATTACHMENT 22

ENVIRONMENTAL CHECKLIST

COLORADO
Department of Public Health & Environment

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:

   The project includes improvements and repairs to four (4) flow monitoring stations within the raw water collections system. These four locations, which are all generally located on the slope of Mt. Lamborn, include the following:
   - German Creek
   - Reynolds Springs/Old Original confluence
   - Spor Springs

2. Describe if the project will improve or maintain water quality, and if the project addresses a TMDL, and/or Watershed Management Plan.

   The proposed project will assist with the quantification of raw water collected in the above mentioned springs, which will help the Town long term with Watershed Projection of its source water located on Mt. Lamborn.

3. Provide latitude and longitude of the proposed project (if a transmission / distribution / collection line identify the center point not the whole line):

   German Creek: 38.833348, -107.531498
   Reynolds Springs/Old Original confluence: 38.817707, -107.556863
   Spor Springs: 38.802699, -107.553876

4. Provide discharge (WW) or source (DW) information: N/A □

   N/A

5. Provide NPDES/PWSID number:

   N/A

6. Provide primary waterbody name and waterbody ID, secondary name (if available), and State designated surface water use:

   None of the four monitoring sites are located within a waterbody. The German Creek monitoring site is near German Creek but does not extend into it and no impacts to the creek would occur.

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

This particular scope will help the Town measure actual raw source water collection, will will assist with the long term water availability master planning for community development

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:

The monitoring sites are against Mount Lambert and the surrounding area is steeply sloped

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:

None of the four monitoring sites lie within the 100-year floodplain.

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:

No monitoring sites are located within NWI wetlands. However, the German Creek site is within a riverine area (R5UBFx).

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:

There may be listed species' habitat in the vicinity of the monitoring sites; however, due the scope of improvements to the sites, no effects to the listed species or their habitats

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:

None of the monitoring sites lies over prime farmland soils or soils of statewide/unique significance.

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 Sate 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:

A public meeting will be held to present the project to the public.

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: Sarah Itz, Environmental Specialist, RESPEC
Name, Title, and Affiliation

Date: 10-03-2023

COLORADO
Department of Public Health & Environment

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:

   The project includes improvements and repairs to four (4) flow monitoring stations within the raw water collections system. These four locations, which are all generally located on the slope of Mt. Lamborn, include the following:
   - German Creek
   - Reynolds Springs/Old Original confluence
   - Spor Springs

2. Describe if the project will improve or maintain water quality, and if the project addresses a TMDL, and/or Watershed Management Plan.

   The proposed project will assist with the quantification of raw water collected in the above mentioned springs, which will help the Town long term with Watershed Projection of its source water located on Mt. Lamborn.

3. Provide latitude and longitude of the proposed project (if a transmission / distribution / collection line identify the center point not the whole line):

   German Creek: 38.833348, -107.531498
   Reynolds Springs/Old Original confluence: 38.817707, -107.556863
   Spor Springs: 38.802699, -107.553876

4. Provide discharge (WW) or source (DW) information: N/A □

   N/A

5. Provide NPDES/PWSID number:

   N/A

6. Provide primary waterbody name and waterbody ID, secondary name (if available), and State designated surface water use:

   None of the four monitoring sites are located within a waterbody. The German Creek monitoring site is near German Creek but does not extend into it and no impacts to the creek would occur.

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

This particular scope will help the Town measure actual raw source water collection, will will assist with the long term water availability master planning for community development

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:

The monitoring sites are against Mount Lambert and the surrounding area is steeply sloped

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?
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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?
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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:

None of the four monitoring sites lie within the 100-year floodplain.

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:

No monitoring sites are located within NWI wetlands. However, the German Creek site is within a riverine area (R5UBFx).

9. Wild and Scenic Rivers

Y ☐ N ☑ PA ☐ a. Does the planning area contain a designated or proposed wild and scenic river?
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Discussion and References:

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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?

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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:

There may be listed species' habitat in the vicinity of the monitoring sites; however, due the scope of improvements to the sites, no effects to the listed species or their habitats

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:

None of the monitoring sites lies over prime farmland soils or soils of statewide/unique significance.

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)?
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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?
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A public meeting will be held to present the project to the public.

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: Sarah Itz, Environmental Specialist, RESPEC
Name, Title, and Affiliation

Date: 10-03-2023

COLORADO
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ENVIRONMENTAL CHECKLIST

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   Spor Springs: 38.802699, -107.553876

4. Provide discharge (WW) or source (DW) information: N/A □

   N/A

5. Provide NPDES/PWSID number:

   N/A

6. Provide primary waterbody name and waterbody ID, secondary name (if available), and State designated surface water use:

   None of the four monitoring sites are located within a waterbody. The German Creek monitoring site is near German Creek but does not extend into it and no impacts to the creek would occur.

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

This particular scope will help the Town measure actual raw source water collection, will will assist with the long term water availability master planning for community development

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?
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Discussion and References:

The monitoring sites are against Mount Lambert and the surrounding area is steeply sloped

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?
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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?
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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?
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Discussion and References:

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

None of the four monitoring sites lie within the 100-year floodplain.

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:

No monitoring sites are located within NWI wetlands. However, the German Creek site is within a riverine area (R5UBFx).

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:

There may be listed species' habitat in the vicinity of the monitoring sites; however, due the scope of improvements to the sites, no effects to the listed species or their habitats

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:

None of the monitoring sites lies over prime farmland soils or soils of statewide/unique significance.

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 Sate 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:

A public meeting will be held to present the project to the public.

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: Sarah Itz, Environmental Specialist, RESPEC
Name, Title, and Affiliation

Date: 10-03-2023

ATTACHMENT 23

DOCUMENTATION OF PUBLIC MEETING (PENDING)