



**TOWN OF PAONIA**  
**MONDAY, FEBRUARY 28, 2022**  
**WORK SESSION FOLLOWED BY SPECIAL TOWN BOARD MEETING AGENDA**  
**5:30 PM**

**BE ADVISED:**  
***MASKS REQUIRED FOR IN-PERSON ATTENDEES.***

***INFORMATION FOR VIRTUAL MEETING ATTENDANCE IS PROVIDED BELOW. THERE WILL BE NO LIVESTREAM AVAILABLE BUT THE MEETING WILL BE UPLOADED TO YOUTUBE FOLLOWING THE MEETING. CORINNE FERGUSON IS INVITING YOU TO A SCHEDULED ZOOM MEETING.***

**TOPIC: BOARD OF TRUSTEES SPECIAL MEETING - PROPOSED ORDINANCE**  
**TIME: FEB 28, 2022 05:30 PM MOUNTAIN TIME (US AND CANADA)**

**JOIN MEETING**  
<https://us02web.zoom.us/j/83768542825>

**MEETING ID: 837 6854 2825**  
**ONE TAP MOBILE**  
**+13462487799,,87552676322#**  
**DIAL BY YOUR LOCATION**  
**+1 346 248 7799 US**  
**MEETING ID: 837 6854 2825**

**Work Session Followed by Special Meeting**

**Roll Call**

1. Roll Call

**Work Session Presentation**

2. WORK SESSION: SGM - Capital Improvement Plan/Asset Inventory & System Mapping Presentation

**Adjournment & Short Recess**

**Roll Call**

3. Roll Call

**Approval of Agenda**

4. Agenda Approval

**Announcements**

5. Announcements

**New Business**

6. Special Meeting: SGM - Capital Improvement Plan/Asset Inventory & System Mapping Presentation follow-up discussion and possible action regarding planning for the water system

**Adjournment**

7. Adjournment

TOWN OF PAONIA, COLORADO  
RESOLUTION NO. 2017-10 – Amended May 22, 2018

I. RULES OF PROCEDURE

**Section 1. Schedule of Meetings.** Regular Board of Trustees meetings shall be held on the second and fourth Tuesdays of each month, except on legal holidays, or as re-scheduled or amended and posted on the agenda prior to the scheduled meeting.

**Section 2. Officiating Officer.** The meetings of the Board of Trustees shall be conducted by the Mayor or, in the Mayor's absence, the Mayor Pro-Tem. The Town Clerk or a designee of the Board shall record the minutes of the meetings.

**Section 3. Time of Meetings.** Regular meetings of the Board of Trustees shall begin at 6:30 p.m. or as scheduled and posted on the agenda. Board Members shall be called to order by the Mayor. The meetings shall open with the presiding officer leading the Board in the Pledge of Allegiance. The Town Clerk shall then proceed to call the roll, note the absences and announce whether a quorum is present. Regular Meetings are scheduled for three hours, and shall be adjourned at 9:30 p.m., unless a majority of the Board votes in the affirmative to extend the meeting, by a specific amount of time.

**Section 4. Schedule of Business.** If a quorum is present, the Board of Trustees shall proceed with the business before it, which shall be conducted in the following manner. Note that all provided times are estimated:

- (a) Roll Call - (5 minutes)
- (b) Approval of Agenda - (5 minutes)
- (c) Announcements (5 minutes)
- (d) Recognition of Visitors and Guests (10 minutes)
- (e) Consent Agenda including Approval of Prior Meeting Minutes (10 minutes)
- (f) Mayor's Report (10 minutes)
- (g) Staff Reports: (15 minutes)
  - (1) Town Administrator's Report
  - (2) Public Works Reports
  - (3) Police Report
  - (4) Treasurer Report
- (h) Unfinished Business (45 minutes)
- (i) New Business (45 minutes)
- (j) Disbursements (15 minutes)
- (k) Committee Reports (15 minutes)
- (l) Adjournment

\* This schedule of business is subject to change and amendment.

**Section 5. Priority and Order of Business.** Questions relative to the priority of business and order shall be decided by the Mayor without debate, subject in all cases to an appeal to the Board of Trustees.

**Section 6. Conduct of Board Members.** Town Board Members shall treat other Board Members and the public in a civil and polite manner and shall comply with the Standards of Conduct for Elected Officials of the Town. Board Members shall address Town Staff and the Mayor by his/her title, other Board Members by the title of Trustee or the appropriate honorific (i.e.: Mr., Mrs. or Ms.), and members of the public by the appropriate honorific. Subject to the Mayor's discretion, Board Members shall be limited to speaking two times when debating an item on the agenda. Making a motion, asking a question or making a suggestion are not counted as speaking in a debate.

**Section 7. Presentations to the Board.** Items on the agenda presented by individuals, businesses or other organizations shall be given up to 5 minutes to make a presentation. On certain issues, presenters may be given more time, as determined by the Mayor and Town Staff. After the presentation, Trustees shall be given the opportunity to ask questions.

**Section 8. Public Comment.** After discussion of an agenda item by the Board of Trustees has concluded, the Mayor shall open the floor for comment from members of the public, who shall be allowed the opportunity to comment or ask questions on the agenda item. Each member of the public wishing to address the Town Board shall be recognized by the presiding officer before speaking. Members of the public shall speak from the podium, stating their name, the address of their residence and any group they are representing prior to making comment or asking a question. Comments shall be directed to the Mayor or presiding

officer, not to an individual Trustee or Town employee. Comments or questions should be confined to the agenda item or issue(s) under discussion. The speaker should offer factual information and refrain from obscene language and personal attacks.

**Section 9. Unacceptable Behavior.** Disruptive behavior shall result in expulsion from the meeting.

**Section 10. Posting of Rules of Procedure for Paonia Board of Trustees Meetings.** These rules of procedure shall be provided in the Town Hall meeting room for each Board of Trustees meeting so that all attendees know how the meeting will be conducted.

## **II. CONSENT AGENDA**

**Section 1. Use of Consent Agenda.** The Mayor, working with Town Staff, shall place items on the Consent Agenda. By using a Consent Agenda, the Board has consented to the consideration of certain items as a group under one motion. Should a Consent Agenda be used at a meeting, an appropriate amount of discussion time will be allowed to review any item upon request.

**Section 2. General Guidelines.** Items for consent are those which usually do not require discussion or explanation prior to action by the Board, are non-controversial and/or similar in content, or are those items which have already been discussed or explained and do not require further discussion or explanation. Such agenda items may include ministerial tasks such as, but not limited to, approval of previous meeting minutes, approval of staff reports, addressing routine correspondence, approval of liquor licenses renewals and approval or extension of other Town licenses. Minor changes in the minutes such as non-material Scribner errors may be made without removing the minutes from the Consent Agenda. Should any Trustee feel there is a material error in the minutes, they should request the minutes be removed from the Consent Agenda for Board discussion.

**Section 3. Removal of Item from Consent Agenda.** One or more items may be removed from the Consent Agenda by a timely request of any Trustee. A request is timely if made prior to the vote on the Consent Agenda. The request does not require a second or a vote by the Board. An item removed from the Consent Agenda will then be discussed and acted on separately either immediately following the consideration of the Consent Agenda or placed later on the agenda, at the discretion of the Board.

## **III. EXECUTIVE SESSION**

**Section 1.** An executive session may only be called at a regular or special Board meeting where official action may be taken by the Board, not at a work session of the Board. To convene an executive session, the Board shall announce to the public in the open meeting the topic to be discussed in the executive session, including specific citation to the statute authorizing the Board to meet in an executive session and identifying the particular matter to be discussed "in as much detail as possible without compromising the purpose for which the executive session is authorized." In the event the Board plans to discuss more than one of the authorized topics in the executive session, each should be announced, cited and described. Following the announcement of the intent to convene an executive session, a motion must then be made and seconded. In order to go into executive session, there must be the affirmative vote of two thirds (2/3) of Members of the Board.

**Section 2.** During executive session, minutes or notes of the deliberations should not be taken. Since meeting minutes are subject to inspection under the Colorado Open Records Act, the keeping of minutes would defeat the private nature of executive session. In addition, the deliberations carried out during executive session should not be discussed outside of that session or with individuals not participating in the session. The contents of an executive session are to remain confidential unless a majority of the Trustees vote to disclose the contents of the executive session.

**Section 3.** Once the deliberations have taken place in executive session, the Board should reconvene in regular session to take any formal action decided upon during the executive session. If you have questions regarding the wording of the motion or whether any other information should be disclosed on the record, it is essential for you to consult with the Town Attorney on these matters.

## **IV. SUBJECT TO AMENDMENT**

**Section 1. Deviations.** The Board may deviate from the procedures set forth in this Resolution, if, in its sole discretion, such deviation is necessary under the circumstances.

**Section 2. Amendment.** The Board may amend these Rules of Procedures Policy from time to time.

AGENDA SUMMARY FORM

	Roll Call
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Summary:

Notes:

Possible Motions:  
  
Motion by: \_\_\_\_\_ 2<sup>nd</sup>: \_\_\_\_\_ vote: \_\_\_\_\_

Vote:	Mayor Bachran	Trustee Budinger	Trustee Johnson
Trustee Knutson	Vacant	Trustee Smith	Trustee Thompson

AGENDA SUMMARY FORM

	<b>WORK SESSION: SGM - Capital Improvement Plan/Asset Inventory &amp; System Mapping Presentation</b>
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**Summary:**  
 Brandyn Bair, Primary Town engineer with SGM engineering to present mapping and inventory. Final draft document attached.

**Notes:**

**Possible Motions:**

Motion by: \_\_\_\_\_ 2<sup>nd</sup>: \_\_\_\_\_ vote: \_\_\_\_\_

Vote:	Mayor Bachran	Trustee Budinger	Trustee Johnson
Trustee Knutson	Vacant	Trustee Smith	Trustee Thompson

# ASSET INVENTORY/CAPITAL IMPROVEMENT PLAN

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TOWN OF PAONIA



September 2021

Prepared by



118 West Sixth Street, Suite 200  
Glenwood Springs, CO 81601  
970.945.1004  
970.945.5948 fax

# Asset Inventory and Capital Improvement Plan

## TOWN OF PAONIA

PREPARED BY  
BRANDYN BAIR, PE – CIVIL ENGINEER

SGM Project # 2013-471.008

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## 1.0 Executive Summary

### 1.1 Project Overview

SGM was selected by the Town of Paonia (Town) through a competitive RFP process to complete an Asset Inventory/Capital Improvement Plan. This Asset Inventory/Capital Improvement Plan was funded in part through a Department of Local Affairs (DOLA) Grant to complete a comprehensive assessment of all the Town’s assets. This project includes documenting current conditions and assessing buildings, infrastructure, open spaces, and park facilities in order to document informed deficiencies, recommendations, and corresponding cost estimates for proposed capital projects. This Assessment is planned to be used by the Town of Paonia for planning and budgeting and is also part of a larger succession planning effort for Town Hall; creating a roadmap for current and future needs.

The assessment includes the following components:

1. This report which provides narrative descriptions of buildings, parks, streets, water, wastewater, etc., recommendations, and a summary of the corresponding cost estimates.

### 1.2 Document Scope and Purpose

SGM completed multiple site visits during 2020 to begin the Asset Inventory/Capital Improvement Plan. SGM then developed this report to summarize the existing condition of Town assets and proposed capital improvements and their associated costs.

### 1.3 Capital Assessment Format

Each asset category has its own section including a general description, a summary of condition assessment, recommended improvements, and estimated costs

## 2.0 Street System

### 2.1 Streets

The Town’s street and road system consists of mainly asphalt roadways with some gravel roads which are largely alleyways or short dead end branches. The Town maintains roads within its boundaries which are:

- Intersection of 4<sup>th</sup> and Grand to the north.
- Intersection of Samuel Wade and Highway 133 to the west. Note: side streets between Highway 133 and the North Fork of the Gunnison River are the responsibilities of the County.
- Intersection of Mathews Lane and Niagara Ave, intersection of 1<sup>st</sup> St and Lamborn Mesa Rd, and the intersection of Colorado Ave and Meadowbrook Blvd to the South
- Intersection of 7<sup>th</sup> St and Black Bridge Rd to the east

The total street and road system consists of approximately 2.35 miles of asphalt roadways and 0.24 miles (1,275 feet) of concrete paved roadways.

#### 2.1.1 Streets Condition Assessment

SGM conducted an assessment of the Town’s roads using the Pavement Surface Evaluation and Rating (PASER) method. The PASER method considers surface defects, cracking and surface deformations in determining the rating. A copy of PASER manual is provided in the appendices.

SGM walked all of the streets in Town and rated each section which was defined as the segment of roadway between streets. The PASER system provides a range of ratings, from a 10 for to a newly constructed road to a 1 for roads that have completely failed. Table 2-1 summarizes the condition of the Town’s roads; a map of the streets and their ratings is attached in Appendix A.

**Table 2-1 PASER Ratings**

PASER Rating	Number of sections
1 (Failed)	3
2 (Very Poor)	8
3 (Poor)	21
4 (Fair)	23
5 (Fair)	24
6 (Good)	13
7 (Good)	4
8 (Very Good)	0
9 (Excellent)	4
10 (Excellent)	0

Except for the newly repaved sections, most sections of the roads exhibit moderate to severe surface wear and defects referred to as raveling and polishing.

- Raveling is the progressive loss of asphalt material and the loss of the bond between aggregate and the binder which results in the deterioration of the road surface. Exposure to UV light and regular vehicle traffic can also contribute to raveling.
- Polishing is the smoothing of the exposed aggregate caused by vehicle and traffic loading.

Virtually all sections of the roads exhibit some type of surface cracking. Surface cracking is generally caused by fatigue from traffic, inadequate or deteriorating subgrade support, temperature changes and hardening over time. Surface cracks tend to fall within the following categories:

- Longitudinal cracks run in the direction of traffic. Moisture can seep beneath the road and cause the subgrade to weaken which can contribute to the cracks expanding if the cracks are not sealed or maintained.
- Transverse cracks run perpendicular to traffic. If not addressed, transverse cracks will develop parallel cracks which will allow additional moisture to penetrate the road and weaken the subgrade.
- Block/Alligator cracks are interconnected forming blocks. Large blocks (larger than ~1ft) are categorized as block cracking and smaller blocks (less than ~1ft) are alligator cracking. If not addressed, chunks of asphalt can separate from the road and create potholes.

### 2.1.2 Street Monitoring Requirements

The Town should perform an inspection of all the roads at a minimum of every 3 years. The Town should use either the PASER method or another rating/evaluation method – the key component of these inspections is to be consistent with the method of evaluation over time.

- Long Term Pavement Plan  
Any road from the recent PASER evaluation with a rating of 5 or less should be slated for repaving. A per-year budget for paving operations should be established in conjunction with the Delta County paving plans.
- Routine Maintenance, Gravel Roads  
Gravel/dirt roads should be regraded in the late spring each year to mitigate potholing and washboarding that forms over the previous year.
- Routine Maintenance, Asphalt Roads  
Once a road is repaved, chip and seal (chip seal) is recommended to provide a wearing course and significantly lengthen the lifespan of the asphalt. Chip sealing is generally recommended for lower-traffic roads but may be applicable for all of the Town’s roads. In addition, crack sealing should be performed each year on asphalt roads to prevent water infiltration and potholing.

### 2.1.3 Street Improvement Recommendations

The Town should consider repairing critical streets, particularly those with the worst PASER ratings. Sections of roads that have a PASER rating of 6 or greater are good candidates for chip seal application. Using chip seal of these sections would serve to extend the life of these sections by adding a protective layer to the roadway surface.

Chip sealing is not recommended for roads with a PASER rating of 5 or less; any temporary benefits provided by the chip sealing would quickly degrade due to the poor condition of the underlying roads.

Estimated 2020 costs for road rehabilitation options are shown in Table 2-2. Costs are estimated based on bid tabulations from nearby communities for 2020 projects.

**Table 2-2 Estimated 2020 Paving Costs**

Operation	Cost per SF
Full Road Rebuild	\$10.55 <sup>1</sup>
Pavement Milling	\$0.25 <sup>2</sup>
Asphalt Overlay	\$1.75 <sup>2</sup>
3/8" Chip Seal	\$0.35
Fog Seal	\$0.05

Notes: 1. Assume 18" pit run with 6" Class 6 base and 4" Asphalt  
2 - Cost reflects 2" depth

The Town should consider setting aside an amount annually to fund street and road resurfacing and repairs. Included in this reserve are the repairs of curb and gutter and sidewalks. The Town needs to plan for upgrading and installing ADA compliant ramps at intersections and pedestrian safety improvements where applicable. It is recommended that the Town strive to reserve \$100,000 - 150,000 per year for improvements.

**2.1.4 Curb/Gutter/Sidewalks**

SGM assessed the curb/gutter and sidewalks throughout Town. Each side of the block was assessed and tabulated. The assessment is provided in Appendix A. The assessment was done visually with the following rating system:

- Very Good – Few or no cracking, little to no surface wear; no tree impacts
- Good – Low cracking; minor surface wear; low tree impacts
- Moderate – Modest cracking; some surface wear; some tree impacts
- Poor – Substantial cracking; high surface wear; high tree impacts

The intent of the rating is to provide the Town a general sense of the condition of the curb/gutter/sidewalk in a given block. Additional follow-up is necessary to determine the exact extents of potential replacement of the curb/gutter and sidewalks in a given block.

**Table 2-3 Estimated 2020 Concrete Costs**

Operation	Cost
Sidewalk	\$56/SY
Curb and Gutter	\$40/LF

### 3.0 Water System

The existing water system (Colorado Public Water System ID NO. CO0115601) is composed of multiple spring sources and associated raw water infrastructure, two water treatment plants, two finished water storage tanks, and multiple miles of distribution piping.

#### 3.1 Distribution System

The Town’s treated water distribution system consists of approximately 22.7 miles of piping, all fed by gravity from the WTP. The table below provides a summary of the system’s piping.

**Table 3-1 Distribution System Piping Summary**

Pipe Diameter (in)	Pipe Material	Length (ft)
0.75	HDPE	590
2	HDPE	294
2	PVC	4,618
4	DIP	3,719
4	PVC	16,618
5	Cast Iron	3,787
6	Cast Iron	1,057
6	DIP	10,150
6	PVC	23,650
8	DIP	6,184
8	PVC	36,398
8	Steel	8,197
10	DIP	2,835
12	HDPE	652
12	PVC	995
<b>Total</b>		<b>119,744</b>

##### 3.1.1 Hydraulic Model

A hydraulic model was not included in our scope, but is currently being developed by another consultant. Distribution condition assessment should be reevaluated at the completion of hydraulic model project to determine if lines need to be upgraded due to pressure or fire flow concerns.

##### 3.1.2 Distribution System Condition Assessment

SGM used the GIS map for this assessment. Mapping included water mains, service connections/meter pits, valves, fire hydrants, pressure reducing valve vaults, water storage tanks, and water treatment plants. In addition to the length of water main indicated above, we recorded 90 fire hydrants (and valves) and 156 water system valves.

The Town noted the several sections of the distribution piping where there are significant problems. These are highlighted in red within the spreadsheet. These areas include Lee’s Trailer Park where the existing water mains are run underneath the trailers, thin wall PVC (not C900) between the air and vacuum valve to Minnesota Creek Road, and multiple locations of the 5 and 6-inch cast iron pipes that are corroding, causing significant emergency waterline repairs on a yearly basis.

The spreadsheet (assessment) is provided in Appendix B. This spreadsheet, in conjunction with the GIS map provides the Town with a road map to methodically replace aging infrastructure. As detailed in the spreadsheet, SGM evaluated every section of distribution line within the system, attached a install date, estimated an original cost, and established a useful life based on industry standards. From this information, we estimated remaining useful life and future repairs and replacement costs.

**3.1.3 Distribution System Capital Improvement Recommendations**

As shown on the spreadsheet there is an estimated future replacement cost of **\$112,890,303**, not including water system valves and fire hydrants. Understand this number represents every line in the system and many of these lines still have multiple years remaining of estimated useful life. SGM has highlighted the sections (red) that should be the Town’s highest priority for replacement, with a total replacement cost of **\$3,204,277**.

The second priority (highlighted yellow) list should be replacing the 8-inch steel pipe that is approaching its useful life. This has a total replacement cost of **\$2,480,537**.

**3.2 Water Treatment Plant (WTP)**

The Lamborn Mesa WTP was commissioned in 1983 and upgraded in 2015. The system includes the following: raw water supply from multiple springs sources, raw water pumps, three membrane filter skids (two production (600 gpm), one recycle (48 gpm)), backwash systems, chlorine injection, clearwell, and finish water pumps to pump water to Lamborn Mesa storage tank.

The Clock WTP was upgraded in 2010. The system includes the following: raw water supply from multiple springs sources, prefiltration through bag filters, two membrane skids, backwash systems, chlorine injection, and gravity flow to Clock storage tank.

**3.2.1 WTP Process Assessment**

Most of the WTP’s process equipment at both plants appears to be in working condition and has been reasonably maintained. The piping, instrumentation, and chlorine disinfection equipment appear to be all functioning.

**3.2.2 WTP Capital Improvement Projects**

Given that both WTP’s have been upgraded within the last 10 years to comply with CDPHE regulations SGM isn’t recommending any capital projects associated with the WTP’s. We have included replacement cost on the asset spreadsheet, but those should be used more as planning numbers if new water treatment plants are needed.

**3.3 Water Storage Tanks**

The Town has two finished water storage tanks, Lamborn Mesa Tank and the Clock Tank.

**3.3.1 Lamborn Mesa Tank**

The Lamborn Mesa Tank was built in 1983 and is located above the Lamborn Mesa WTP. It has a capacity of 2,000,000 gallons. The Lamborn Mesa Tank is a welded steel tank that is

approximately 32 feet tall and has a 152-foot diameter. The water tank has the appropriate overflow, drain line, manway access, and tank vent. Access to the roof is by a locked caged ladder. The tank site has security fencing and a locked gate at the access road

- Lamborn Mesa Tank had the interior and exterior coating replaced in 2005. Spreadsheet estimates future rehab/replacement.

### **3.3.2 Clock Tank**

The Clock Tank was built in the 1960's and is located at the Clock WTP. It has a capacity of 1,000,000 gallons. The Clock Tank is a below grade concrete tank with metal roof that is approximately 130 feet x 105 feet x 10 tall. The tank has the appropriate overflow and drain lines, and venting. Access to tank is gained through locked door as part of roof structure. The tank site has security fencing and a locked gate.

- Clock Tank was rehabbed in 2015 and recoated in 2018. Spreadsheet estimates future rehab/replacement.

## **3.4 Water System Funding Opportunities**

- USDA Rural Development
- CO-Water Pollution Revolving Fund Program
- CO-DOLA Energy and Mineral Impact Assistance Fund (EIAF)
- CO-CDPHE Water Quality Improvement Fund
- EPA-Federal Resources for Sustainable Rural Communities

## 4.0 Wastewater System

The existing wastewater collection system receives wastewater from residential and commercial customers and conveys it to the Wastewater Treatment Plant (WWTP, Colorado Discharge Permit System Number CO0047431). The collection system is entirely a gravity system, consisting of service laterals, manholes, and gravity sewer mains.

### 4.1 Collection System

As shown in the table, there is approximately 10.5 miles of pipe in the Town’s collection system. The collection system is composed of approximately 63% PVC piping and 37% vitrified clay piping (VCP).

**Table 4-1 Wastewater Collection System Summary**

Pipe Diameter (in)	Pipe Material	Length (ft)
8	PVC, SDR 35	18,176
8	VCP	16,556
10	PVC, SDR 35	6,348
15	PVC, SDR 35	10,599
15	VCP	3,996
<b>Total</b>		<b>55,675</b>

#### 4.1.1 Condition System Condition Assessment

SGM inspected all of the manholes within the Town’s wastewater collection system except for a few that were either buried or not accessible. The manholes were all found to be in good condition. Manholes were constructed of concrete and are 4-feet in diameter with 24-inch diameter access covers with lids. In total, rim elevations, condition assessments, and photographs were recorded at 168 manholes as part of this assessment.

The Town noted the section of sewer piping within the 100 block of Dorris Avenue that is seeing significant problems. This also happens to be one of the many sections within Town constructed VCP.

The spreadsheet (assessment) is provided in Appendix C. This spreadsheet, in conjunction with the GIS map provides the Town with a road map to methodically replace aging infrastructure. As detailed in the spreadsheet, SGM evaluated every section of sewer line within the system, attached a install date, estimated an original cost, and established a useful life based on industry standards. From this information, we estimated remaining useful life and future repairs and replacement costs.

#### 4.1.2 Collection System Capital Improvement Recommendations

As shown on the spreadsheet there is an estimated future replacement cost of **\$45,338,563**, not including manholes. Understand this number represents every line in the system and many of these lines still have multiple years remaining of estimated useful life. SGM has highlighted the sections that should be the Town’s highest priority for replacement, which happen to be all the VCP lines. The total replacement cost for these lines is **\$3,199,132**.

### 4.2 Wastewater Treatment Facility (WWTF)

The WWTF was constructed in 2005. The WWTP consists of a manual bar screen, two aerated lagoons, a settling/polishing pond, a serpentine chlorine contact chamber and a dichlorination features. Treated wastewater is discharged to the North Fork of the Gunnison River. The WWTF has a permitted rated capacity of 0.495 MGD and typically treats 0.15 MGD.

**4.2.1 WWTF Process Assessment**

Generally, the WWTF is in good shape. All the onsite buildings are in excellent shape. The only issue the Town will face are the pending nutrient limitations.

The Colorado Department of Public Health and Environment (CDPHE) has publicly stated that in-stream limits for total nitrogen (TN) and phosphorus will be implemented by 2027. The draft criteria and limits are not anticipated until 2026, but it is expected that the limits will be at least as stringent as the current limits for new domestic wastewater treatment plants in the current Regulation 85. These limits are an annual median of 7 mg/L total inorganic nitrogen (TIN) and 0.7 mg/L phosphorous.

Currently, the WWTF only has a nutrient discharge limit for ammonia. The WWTF has struggled to meet the ammonia limit during colder periods when the biological activity within the lagoons is reduced.

Additional kinetic modeling will be necessary, but our experience suggests that the current lagoons have the capacity to effectively remove biological oxygen demand (BOD), total suspended solids (TSS), and to treat ammonia to the current limits depending on the reaction rate coefficient. The lagoons, however, are not suitable for additional nutrient removal. To effectively reduce the TN, the plant must nitrify the remaining ammonia in an aerobic environment and then denitrify the nitrite and nitrate to nitrogen gas in an anoxic environment. For phosphorous removal enhanced biological processes are necessary; these are not possible in a lagoon system. As legislation progresses Paonia will likely need to abandon the existing lagoons and replace the system with a mechanical plant that is capable of nutrient removal.

**4.2.2 WWTF Capital Improvements Projects**

Planning for the possibility of needing a new mechanical plant that can achieve nutrient removal is critical. Additionally, if more reliable ammonia removal is desired with the existing lagoons, sludge removal is recommended.

- Mechanical WWTF: **\$13,891,933**

**4.3 Wastewater System Funding Opportunities**

- USDA Rural Development
- CO-Water Pollution Revolving Fund Program
- CO-DOLA Energy and Mineral Impact Assistance Fund (EIAF)
- CO-CDPHE Water Quality Improvement Fund
- EPA-Federal Resources for Sustainable Rural Communities

## 5.0 Buildings

### 5.1 Town Hall

Town Hall was constructed in 1983. It is ~6,200 square feet in size and houses most municipal departments, the Public Works, Town Manager, the Town Clerk, the Town Council Chambers and the Police Department.



The purpose of this section is not to represent all recommended projects, but rather to highlight which projects are recommended for higher priorities. Most recommended projects involve improving asset durability to minimize maintenance or repairing deteriorated assets that require immediate attention. The Town has indicated that they are planning for future expansions of Town Hall, the Police office, and the Police storage yard/impound lot. Costs for these expansions are not included in this study.

#### 5.1.1 Town Hall Summary of Findings

##### Structural Integrity

- a. Description: The building structure of Town Hall appears to consist of a wood frame roof, masonry and wood frame walls. The floors are a mix of slab-on-grade and engineered floor joists over a crawl space with concrete stem wall and footing foundation. The floors joists showed signs of being inadequately sized. Interior finishes consist primarily of acoustical ceiling tiles, drywall, and carpet and tile floors. A CMU and stucco/EIFS addition was added to the west (back) of building. Overall condition is Fair.
- b. Discussion:
  - i. The TPO roof membrane that was observed appeared to be in good condition, access issues limited the amount of roof to be observed. The age of roof should be compared to standard useful life of similar product and assessed accordingly.
  - ii. Retrofit windows on the second floor are not of similar material and color as the original windows. There are exposed fasteners and damaged frames from installation.
  - iii. Exterior finishes are damaged in several locations, specifically broken brick veneer at entry pier and several cracks and holes in the EIFS. It is recommended the EIFS be repaired and the stucco patched.
  - iv. The floor joists appear to be undersized in several locations. Deflection is evident when walking in meeting room, and signs of similar deflection can be seen in the Public Works area where the floor tiles and grout are cracked and broken. It is recommended that the floors be assessed and repaired to meet minimal deflection criteria.

##### Architectural Conditions

- a. The interior and exterior finishes of the Town Hall consist primarily of acoustical ceiling tiles, drywall, and carpet and tile floors. As previously mentioned, the tile floors in the Public Works area show damage from insufficient underlayment rigidity. The kitchen, which it is assumed is used during public meetings, shows signs of

damage and deterioration. The entry vestibule has a damaged store-front window. Several vinyl tiles in the Mechanical Room are loose and damaged.

- b. Discussion:
  - i. Most finishes can be repaired and/or replaced as needed, however some issues may need to be addressed for public health and safety concerns.
  - ii. The damaged flooring may indicate a substantially undersized floor joist system and should be assessed.
  - iii. The kitchen cabinets and counter tops show areas of delamination which can trap food and be a source of food-borne illnesses. This represents a public health issue in the form of a health safety concern. It is recommended that the damaged areas be repaired or replaced.
  - iv. There are burn marks on the countertop which may indicate a malfunctioning appliance. This represents a fire safety concern. It is recommended that the range be repaired or replaced.

Durability / Maintenance

- a. The majority of the Town Hall building consists of brick and concrete masonry unit walls that are very durable with regular attention to painting or coating. Roofing should be assessed as noted previously. The doors in the entry vestibule should be fitted with kick-plates to protect them from water damage caused by routine cleaning of the floor.

**5.1.2 Town Hall - Summary of Recommendations**

- 1. Repair inadequate floor joists and replace finishes:
  - Joist repair \$25,000
  - Finished flooring removal & replacement \$10,000
  - Cost estimate: \$35,000**
- 2. EIFS Repair
  - Patch and new finish coat \$12,500
  - Cost estimate: \$12,500**
- 3. Kitchen Replacement
  - Cabinet replacement \$11,500
  - Appliance replacement \$2,500
  - Cost estimate: \$14,000**
- 4. Perform appropriate maintenance to maximize remaining useful life:  
 It is recommended that this facility have an annual maintenance budget, separate from repair and replacement projects, equal to or above the following dollar figure, which includes estimates for basic labor and basic materials.  
*Maintenance examples* – door and hardware repairs/parts, seasonal annual boiler system tune-up. Touch up painting, etc. (budgeted in replacement budget).  
**Cost estimate: \$1,500**

**5.2 Town Shop**

There are three main buildings on the Town Shop lot that are used by the town – a 4000 square foot metal building, a 2000 square foot CMU building and a 4500 square foot pole barn vehicle and sand storage area.

**5.2.1 Town Shop - Metal Building - Summary of Findings**

Structural Integrity

- a. Description: The Town Shop building is a pre-engineered metal building with an interior mezzanine above a CMU office/storage area. The building is also a potable water distribution center. Several metal panels and trim pieces are dented and torn. With the exception of an abandoned water supply penetration, the interior insulation panels are mostly intact, with a few tears. The interior painted plywood walls are in good condition, and the slab shows only minor cracking. The overall building is in fair shape.
- b. Discussion:
  - i. The metal siding and trim are damaged in several areas. Most damage doesn't affect the integrity of the shell, however, there are some tears and abandoned penetrations that are not sealed against water intrusion. The worst of these is the abandoned water supply penetration, located below the current potable water supply line. Due to the amount of damage to the entire exterior of the building, it is recommended that the siding be replaced.

Architectural Conditions

- a. Description: The abandoned water supply penetration is unsealed and has rags hanging out of it. This condition could represent a health safety concern as it is located directly under the current potable water supply line. The windows of the shop building are single paned, putty glazed aluminum, with deteriorating interior plywood trim. The guardrail for the mezzanine represents a life safety concern as it is too low and poorly built to provide required fall protection.
- b. Discussion:
  - i. Minimally, the penetrations for both the current and the abandoned water supply should be properly patched and insulated.
  - ii. The mezzanine guardrail should be replaced with one that meets or exceeds current OSHA and/or IBC code requirements.
  - iii. The existing windows provide the minimal possible protection and R-value for the interior of the shop building. It is recommended that the windows be replaced and that the sills and jambs be refinished.
  - iv. The doors are in fair condition but it is recommended that they be replaced at the same time as the siding.

**5.2.2 Town Shop - Auxiliary Buildings - Summary of Findings**

Structural Integrity

- a. Description: The Town Shop also has two auxiliary buildings, a CMU storage building, and a pole barn/sand storage area. The CMU building is shared with another owner but is in remarkably good shape for its age. The pole barn framing is in good condition but there is some rust damage to purlins. The roof is metal on plywood sheathing and wood rafters. It is partially sided by corrugated metal. The sand storage area is predominantly wood framed and plywood sided.

- b. Discussion:
  - i. The CMU building has some minor insulation and drywall damage, and a wood framed street facing door that needs to be repainted to preserve the wood.
  - ii. The pole barn frame is in good shape, but the siding is damaged in several places. The damage doesn't affect the function of the building as a storage barn.
  - iii. The sand storage area is showing significant weathering of the plywood siding and should be repaired to maintain the function of the building.

Architectural Conditions

- a. Description: The abandoned water supply penetration is unsealed and has rags hanging out of it and could represent a health safety concern as it is located directly under the current potable water supply line. The windows of the shop building are single paned, putty glazed aluminum, with deteriorating interior plywood trim. The guardrail for the mezzanine is represents a health safety concern as it is too low and poorly built to provide required fall protection.
- b. Discussion:
  - i. Minimally, the penetrations for both the current and the abandoned water supply should be properly patched and insulated.
  - ii. The mezzanine guardrail should be replaced with one that meets or exceeds current OSHA and/or IBC code requirements.
  - iii. The existing windows provide the minimal possible protection and R-value for the interior of the shop building. It is recommended that the windows be replaced and that the sills and jambs be refinished.

**5.2.3 Town Shop - Summary of Recommendations**

- 1. Replace and repair siding, windows, and doors:

-Siding removal & replacement	\$28,500
-Window and door replacement	\$7,500
<b>Cost estimate:</b>	<b>\$36,000</b>
  
- 2. Perform appropriate maintenance to maximize remaining useful life:  
 If the structure is to be retained, it is recommended that this facility have an annual maintenance budget, separate from repair and replacement projects, equal to or above the following dollar figure.  
*Maintenance examples* – painting, siding and window repair, etc. (budgeted in replacement budget).  

<b>Cost estimate:</b>	<b>\$1,000</b>
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**5.3 Apple Valley Park Buildings**

Apple Valley Park has three/four buildings on the site – a 500 square foot freestanding picnic shelter, a 350 square foot restroom building, a small pumphouse, and a structure that may not belong to the town, referred to here as the storage building.

**5.3.1 Apple Valley Park - Summary of Findings**

Structural Integrity

a. Description:

- i. The picnic shelter is a wood structure on a slab on grade. The posts of the shelter are glue laminated timbers and rest directly on concrete. The structure had been painted initially but much of the finish has been weathered away. The shelter is in poor condition
- ii. The restroom is a CMU building with a gabled wood rafter roof, sided with plywood and covered with metal panels. The restroom is closely surrounded by trees that have grown since the restroom was built. The exterior finishes are weather worn. The restroom is in fair condition.
- iii. The pumphouse is a wood structure with metal siding and roof. The pumphouse is in fair-poor condition.
- iv. The storage building is a CMU structure with a CMU retaining wall located just to the north of the parking lot. The building and retaining wall are in dangerously poor condition.

b. Discussion:

- i. The picnic shelter is showing signs water damage in several locations and is in poor condition. The posts that are in contact with the concrete are beginning to deteriorate at the steel connections. The roof sheathing is significantly decayed. It is recommended that the sheathing be replaced and that the columns be repaired or replaced with pressure treated wood and connected to the slab with a post based separate the post for the slab by no less than 2 inches.
- ii. The exterior wood of the restroom is showing signs of deterioration and the building, as a whole, is in fair condition. The metal roof is damaged in places and is in poor condition. Several trees have grown up and around the restroom. The close proximity of the trees may cause damage to the foundation. It is recommended that the closest trees be removed and that the wood siding and fascia be repaired and protected from further weathering. It is also recommended that the metal roofing be replaced with proper fascia protection.
- iii. The pumphouse is in fair-poor condition. The metal roofing and siding is dented in several locations, and the ends of the roof rafters are showing minor signs of decay. The damage doesn't affect the function of the building.
- iv. The storage building is in very poor condition. It has been built into a hill with insufficient structure to retain the movement of the hill. The building and retaining wall are severely slanted by the movement of the hill, and, due to the proximity to a public park, represents a strong life safety risk to the public.

Durability / Maintenance

- a. The CMU walls and metal doors of the restroom are very durable with regular attention to painting or coating. The wood elements of the shelter and the restroom need regular repainting to protect and preserve them. Wood protected from the

elements is expected to have a life span of 50 to 100 years. Repainting every 5 years is typically recommended.

**5.3.2 Apple Valley - Summary of Recommendations**

- 1. Repair and replacement for Restroom and Shelter elements
  - Restroom roof removal & replacement \$5,000
  - Shelter roof removal & replacement \$4,500
  - Shelter column repair \$4,500

**Cost estimate: \$14,000**

- 2. Perform appropriate maintenance to maximize remaining useful life:  
It is recommended that this facility have an annual maintenance budget, separate from repair and replacement projects, equal to or above the following dollar figure.  
*Maintenance examples* –door and hardware repairs/parts, repair garage doors when needed, gates, fencing, etc. (budgeted in replacement budget).

**Cost estimate: \$1,000**

**5.4 Town Park - Teen Center and Auxiliary Buildings**

Town Park has five buildings on the site – the Teen Center, a 5000 square foot metal building, a 1000 square foot CMU and wood roof restroom building, a 2000 square foot picnic shelter (shelter #1), a 500 square foot picnic shelter (shelter #2), and a 600 square foot storage building.

**5.4.1 Town Park - Summary of Findings**

Structural Integrity

- a. Description:
  - i. The Teen Center is a prefabricated metal building on a slab on grade. The ceiling is finished with OSB sheathing, so it is assumed that the roof structure is wood trusses. The exterior was recently re-sided and is in good condition. The interior is in poor condition, with visible signs of water damage in several locations.
  - ii. The restroom is a CMU building with a gabled wood rafter roof, sided with plywood and covered with metal panels. The split faced CMU walls are in good condition and the exterior wood finishes are in fair condition.
  - iii. Shelter #1 is CMU and concrete columns on a slab on grade. The roof is wood framed with metal roofing panels. The shelter is in fair condition.
  - iv. Shelter #2 is steel pipe columns on a slab on grade. The roof is wood framed with metal roofing panels. The shelter is in fair condition.
  - v. The storage building is a prefabricated metal building, in fair-poor condition.
- b. Discussion:
  - i. The Teen Center appears to be in good condition structurally.
  - ii. The restroom building is in good-fair condition, but the metal roof panels, and the exterior wood finishes need some repairs and maintenance to prolong their useful life spans.

- iii. Shelter #1 is in fair condition. The wood roof framing appears to be protected, but the roof panels appear damaged and should be repaired and/or replaced. The slab on grade has several cracks that should be sealed to prevent additional damage from water penetration and the freeze-thaw cycle.
- iv. Shelter #2 is in fair condition. The roof appears to have been replaced recently and is in good condition. The trusses and steel framing are showing some minor water damage; however, the newer roof should mitigate further damage.
- v. The storage building's metal panels are dented and rusted in several locations. The type of damage won't affect the function of the building as a storage area but does indicate the building is reaching the end of its useful life.

Architectural Conditions

- a. The interior finishes of the Teen Center consist primarily of OSB ceiling, drywall, and concrete and tile floors. The condition of the interior, as a whole, is poor. Many damaged floor tiles, unfinished bathroom chases, cracked and unfinished drywall, and loose and moldy OSB ceiling panels all need to be replaced.
- b. Discussion:
  - i. Loose and damaged OSB ceiling panels should be repaired or replaced.
  - ii. It is recommended that the kitchen flooring be replaced.
  - iii. The unfinished and delaminated kitchen countertops represent a health safety concern in a public facility.

Durability / Maintenance

- a. The CMU walls and metal doors of the restroom are very durable with regular attention to painting or coating. The wood elements of the shelter and the restroom need regular repainting to protect and preserve them. Wood protected from the elements is expected to have a life span of 50 to 100 years. Repainting every 5 years is typically recommended.

**5.4.2 Town Park - Summary of Recommendations**

- 1. Teen Center interior finishes

-Restroom repairs	\$2,000
-Vinyl flooring removal & replacement	\$12,000
-Kitchen replacement	\$50,000
<b>Cost estimate:</b>	<b>\$64,000</b>
  
- 2. Auxiliary building repairs

-Restroom roof removal & replacement	\$6,000
-Shelter roof removal & replacement	\$8,500
<b>Cost estimate:</b>	<b>\$14,500</b>
  
- 3. Perform appropriate maintenance to maximize remaining useful life:  
 It is recommended that this facility have an annual maintenance budget, separate from repair and replacement projects, equal to or above the following dollar figure. *Maintenance examples* –door and hardware repairs/parts, repair garage doors when needed, gates, fencing, etc. (budgeted in replacement budget).  

<b>Cost estimate:</b>	<b>\$2500</b>
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### 5.5 Clock Water Treatment Plant (WTP)

The WTP consists of three buildings. The pump building is a 2,500 square foot prefabricated metal building that was upgraded in 2010. The second is a 13,800 square foot concrete tank with steel framed roof structure that was added in with metal roof and wall panels. The third is a dilapidated pole barn structure.

#### 5.5.1 Clock Water Treatment Plant (WTP) - Summary of Findings

##### Structural Integrity

- a. Description: The newer pump building is a relatively new premanufactured metal building and is in good condition with the exception of minor overhead door damage. The original tank is board formed concrete and has had thrust blocks added when the tank was renovated. The tank is covered with a steel frame building with metal roofing and siding panels. The overall condition is good. The pole barn is a wood structure in dangerously poor condition.
- b. Discussion:
  - i. The overhead door has a damaged track and weather stripping and should be repaired.
  - ii. The downspouts on the east side of tank building have been removed and it's recommended that they be replaced.
  - iii. The pole barn structure represents a threat to life safety. It is beyond repair and should be removed.

##### Durability / Maintenance

- a. Metal panel roofing and siding is typically considered to have a life expectancy of 40 to 70 years. Wood windows, doors, and trim need regular repainting to protect and preserve them. Wood protected from the elements is expected to have a life span of 50 to 100 years. Repainting every 5 years is typically recommended. As noted previously, repainting of the pump house building is recommended at this time.

##### Mechanical Integrity

- a. Description: Building is heated by gas fired unit heaters. The ventilation is via side wall exhaust fans and door louvers.

##### Other

- a. What was visible of the electrical system appeared to be in working order and in good condition.

#### 5.5.2 Clock Water Treatment Plant (WTP) - Summary of Recommendations

1. Repairs to overhead door and downspouts:  
**Cost estimate: \$1,000**
2. Perform appropriate maintenance to maximize remaining useful life:  
It is recommended that this facility have an annual maintenance budget, separate from repair and replacement projects, equal to or above the following dollar figure.  
*Maintenance examples* – door and hardware repairs/parts, touch up painting, etc. (budgeted in replacement budget).  
**Cost estimate: \$1,000**

**5.6 Lamborn Mesa Water Treatment Plant (WTP)**

The original 1,000 square foot WTP was constructed in 1983 and the new 2,700 square foot addition was built in 2015.

**5.6.1 Lamborn Mesa Treatment Plant (WTP) - Summary of Findings**

Structural Integrity

- a. Description: Both the original WTP and new addition to the WTP are premanufactured buildings on a concrete foundation with a slab on grade floor. The condition of the original WTP building is fair and the new WTP building is good.
- b. Discussion:
  - i. The siding of the original building is showing signs of age, however, any damage or wear doesn't affect the function of the building.

Durability / Maintenance

- a. Metal panel roofing and siding are typically considered to have a life expectancy of 40 to 70 years. Any damage should be taken care of regularly. No other maintenance is typically needed.

Mechanical Integrity

- a. Description: The building is heated via two (2) gas fired unit heaters. Several roof exhaust fans are incorporated with side wall louvers for humidity control. One (1) small exhaust fan and a space heater are used in the chlorine room. A small tank style electric water heater (6 gallon & 1500W) serves sink area.

**5.6.2 Lamborn Mesa Treatment Plant (WTP) - Summary of Recommendations**

- 1. Perform appropriate maintenance to maximize remaining useful life:  
It is recommended that this facility have an annual maintenance budget, separate from repair and replacement projects, equal to or above the following dollar figure.  
*Maintenance examples* – door and hardware repairs/parts, touch up painting, etc. (budgeted in replacement budget).  
**Cost estimate: \$1,000**

**5.7 Wastewater Treatment Facility (WWTF)**

The WWTF consists of two buildings. The office/control building is 110 square feet and the chemical building is 675 square feet. Both are wood framed buildings with aluminum siding and asphalt shingle roofing constructed in 2005.

**5.7.1 Wastewater Treatment Facility (WWTF) - Summary of Findings**

Structural Integrity

- a. Description: Overall condition of the buildings is good. The Chemical Building has minor damage to the exterior door and to the siding near the dumpster.

Durability / Maintenance

- a. Aluminum panel siding is typically considered to have a lifespan of 20 to 40 years. An asphalt shingle roof is typically considered to have a lifespan of 20 to 40 years, as

well. Annual inspections, repair, and routine maintenance will help extend the usable lifespan of the material.

Other

- a. What was visible of the electrical system appeared to be in working order and in good condition.

**5.7.2 Wastewater Treatment Facility (WWTF) - Summary of Recommendations**

- 1. Repair damage to door and siding:  
**Cost estimate: \$1,000**
  
- 2. Perform appropriate maintenance to maximize remaining useful life:  
It is recommended that this facility have an annual maintenance budget, separate from repair and replacement projects, equal to or above the following dollar figure.  
*Maintenance examples* – door and hardware repairs/parts, touch up painting, etc. (budgeted in replacement budget).  
**Cost estimate: \$1,000**

**5.8 Building Funding Opportunities**

Possible funding opportunities can include:

- State and Federal grants for aging Municipal Bldgs (EFFICIENTGOV)
- USDA Rural Development
- National Association of Counties
- Community Development Block Grant (CDBG)
  - Colorado Municipal League (CML)

# Appendix A

## Street Information

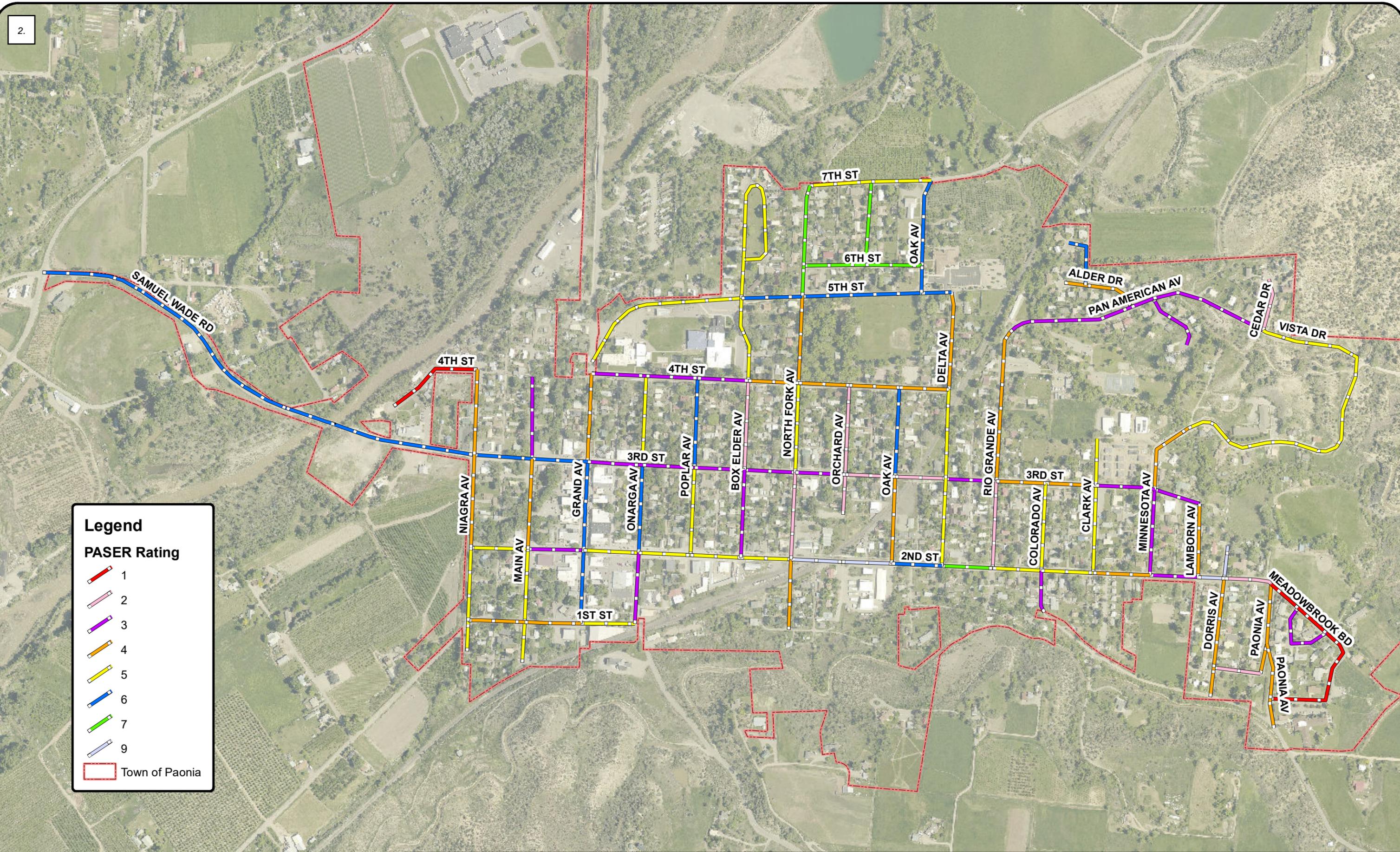
PASER Rating Map  
Curb/Gutter/Sidewalk Assessment

**Legend**

**PASER Rating**

-  1
-  2
-  3
-  4
-  5
-  6
-  7
-  9

 Town of Paonia



A- Sidewalk attached to curb/gutter V- Vertical curb face  
 D- Sidewalk detached to curb/gutte R- Rollover curb face

Street	Block	Sidewalk	Curb and Gutter	Trees	Condition	Comments	Comments
N Fork	5th to 7th	North - None South - None	North - None South - None				
N Fork	4th to 5th	East - None West - None	East - None West - None		N/A N/A		
N Fork	3rd to 4th	East - Detached West - Detached	East - Vertical West - Vertical	East - Yes West - Yes	Moderate Poor	tree damage to sidewalks	
N Fork	2nd to 3rd	East - Detached West - Detached	East - Vertical West - Vertical	East - None West - Yes	Moderate Moderate	tree damage to sidewalks	
Box Elder	4th to 5th	East - Detached West - Attached	East - Vertical West - Vertical	East - Yes West - None	Good Very Good		
Box Elder	3rd to 4th	East - Detached West - Detached	East - Vertical West - Vertical	East - Yes West - Yes	Moderate Moderate	road under construction	
Box Elder	2nd to 3rd	East - Detached West - Detached	East - Vertical West - Vertical	East - Yes West - Yes	Moderate Moderate	tree damage to sidewalks	
Box Elder	2nd to Box Elder Dr	East - None West - None	East - None West - None				
Box Elder	Box Elder Ave	East - None West - None	East - None West - None				
Grand	3rd to 4th	North - Detached South - Detached	North - Vertical South - Vertical	North - Yes South - Yes	Poor Moderate	tree damage to sidewalks tree damage to sidewalks	
Grand	2nd to 3rd	East - Attached West - Attached	East - Vertical West - Vertical		Good Good		
Grand	1st to 2nd	East - Attached West - Attached	East - Vertical West - Vertical		Good Good		
Delta	4th to 5th	East - Detached West - None	East - Vertical West - None	East - Yes	Moderate		
Delta	3rd to 4th	East - None West - Detached	East - Vertical West - None			CG not present from RR to 4th SW not present from 3rd to RR	
Delta	2nd to 3rd	East - Detached West - Detached	East - Vertical West - Vertical	East - Yes West - Yes	Good Good		
Delta	End to 2nd	East - None West - None	East - Vertical West - Vertical		Good Good		
Oak	6th to 7th	North - None South - None	North - None South - None				
Oak	3rd to 4th	East - None West - Attached	East - Vertical West - Vertical		Good Good		
Oak	2nd to 3rd	East - None West - Attached	East - Vertical West - Vertical			CG only from 2nd to RR SW only from RR to 3rd; CG only from 2nd to RR	
1st	Niagara to Main	North - Detached South - None	North - None South - None	North - Yes			
1st	Main to Grand	North - None South - Detached	North - None South - None	North - None South - None	Good	SW only from Main to alley	
1st	Grand to Onarga	North - Attached South - None	North - Vertical South - None	South - None	Moderate	SW from alley to Onarga is detached	
1st	Dorris to Paonia	North - None South - None	North - None South - None				
2nd	Niagara to Main	East - None West - None	East - None West - None	East - None West - None	N/A N/A		
2nd	Main to Grand	North - Attached South - Attached	North - Vertical South - Vertical		Good Good		
2nd	Grand to Onarga	North - Attached South - Attached	North - Vertical South - Vertical		Good Good		
2nd	Onarga to Poplar	North - Attached South - Attached	North - Vertical South - Vertical		Good Good		
2nd	Poplar to Box Elder	North - Attached South - Attached	North - Vertical South - Vertical		Good Good		
2nd	Box Elder to N Fork	North - Detached South - None	North - Vertical South - None	North - None	Good		
2nd	N Fork to Orchard	North - Detached South - None	North - None South - None	North - None	Good		
2nd	Orchard to Oak	North - Detached South - None	North - None South - None	North - None	Good		
2nd	Oak to Delta	North - Detached South - None	North - None South - Vertical	North - None	Good		
2nd	Delta to Rio Grande	North - Detached South - None	North - Vertical South - Vertical	North - None	Good		
2nd	Rio Grande to Colorado	North - Detached South - None	North - Vertical South - Vertical	North - Yes	Moderate	Moderate	
2nd	Colorado to Clark	North - Attached South - None	North - Vertical South - Vertical		Moderate	Moderate	
2nd	Clark to Minnesota	North - None South - None	North - None South - None				
2nd	Minnesota to Lamborn	North - None South - None	North - None South - None				
2nd	Lamborn to Dorris	North - None South - None	North - Vertical South - None		Moderate		
2nd	Dorris to Paonia	North - None South - None	North - None South - None				
Orchard	6th to 7th	North - None South - None	North - None South - None				
Orchard	3rd to 4th	East - Detached West - Detached	East - Vertical West - Vertical	East - Yes West - Yes	Poor Moderate	tree damage to sidewalks	
Orchard	2nd to N Fork	East - None West - None	East - None West - None				
Rio Grande	2nd to End	East - None West - None	East - Vertical West - Vertical		Good Good		
Rio Grande	2nd to 3rd	East - None West - Detached	East - Vertical West - Vertical	West - Yes	Good		
Rio Grande	3rd to 4th	East - None West - None	East - None West - None	East - None West - None	N/A N/A		
Rio Grande	4th to Creek	East - None West - None	East - None West - None	East - None West - None	N/A N/A		
Rio Grande	Creek to End/Gate	East - None West - None	East - None West - None	East - None West - None	N/A N/A		
	Cedar Dr	East - None West - None	East - None West - None	East - None West - None	N/A N/A		
	Box Elder Dr	East - None West - None	East - None West - None	East - None West - None	N/A N/A		
	Alder Ct	North - None South - None	North - None South - None				
5th	Delta to Oak	North - None South - None	North - Vertical South - None		Very Good		
5th	Oak to N Fork	North - None South - None	North - None South - None			concrete drainage channel	
5th	N Fork to Box Elder	North - None South - Detached	North - None South - None	South - No	Very Good		

5th	Box Elder to Grand	North - None South - None	North - None South - None			
6th	N Fork to Orchard	North - None South - None	North - None South - None			
6th	Orchard to Oak	North - None South - None	North - None South - None			
	Box Elder Loop	North - None South - None	North - None South - None			
7th	N Fork to Orchard	North - None South - None	North - None South - None			
7th	Orchard to Oak	North - None South - None	North - None South - None			
Main	1st to 2nd	East - Detached West - Detached	East - Vertical West - Vertical	East - Yes West - Yes	Poor	tree damage to sidewalks tree damage to sidewalks
Main	2nd to 3rd	North - None South - None	North - None South - None			
Main	3rd to End	North - None South - None	North - None South - None			
4th	Niagara to End	North - Attached South - Attached	North - Vertical South - Vertical	North - None South - None	Poor	tree damage to sidewalks
4th	Grand to Onarga	North - Attached South - Detached	North - Vertical South - Vertical	North - None South - None	Moderate	
4th	Onarga to Poplar	North - Attached South - Detached	North - Vertical South - Vertical	North - Yes South - None	Moderate	
4th	Poplar to Box Elder	North - Attached South - Detached	North - Vertical South - Vertical	North - None South - None	Good	
4th	Box Elder to N Fork	North - Attached South - Detached	North - Vertical South - Vertical	North - None South - Yes	Moderate	concrete drainage channel
4th	N Fork to Orchard	North - None South - Attached	North - Vertical South - Vertical	North - None South - None	Moderate	concrete drainage channel
4th	Orchard to Oak	North - None South - Attached	North - Vertical South - Vertical	North - None South - None	Moderate	concrete drainage channel
4th	Oak to Delta	North - None South - Attached	North - Vertical South - Vertical	North - None South - None	Poor	
Onarga	3rd to 4th	East - Detached West - Detached	East - Vertical West - Vertical	East - Yes West - Yes	Poor	tree damage to sidewalks tree damage to sidewalks
Onarga	2nd to 3rd	East - Detached West - Detached	East - Vertical West - Vertical	East - Yes West - Yes	Moderate	
Onarga	1st to 2nd	East - None West - Detached	East - Vertical West - Vertical	West - Yes	Good	
Poplar	3rd to 4th	East - Detached West - Detached	East - Vertical West - Vertical	East - Yes West - Yes	Moderate	
Poplar	2nd to 3rd	East - Detached West - Detached	East - Vertical West - Vertical	East - Yes West - Yes	Poor	tree damage to sidewalks
Poplar	2nd to End	East - None West - None	East - None West - None			
3rd/Samuel Wade		North - Attached South - None	North - Vertical South - None	South - None	Good	
3rd	Niagara to Main	North - Detached South - None	North - Vertical South - None	North - Yes	Good	Niagara to alley SW attached
3rd	Main to Grand	North - Attached South - Attached	North - Vertical South - Vertical		Moderate	SW detached alley to Grand
3rd	Grand to Onarga	North - Attached South - Attached	North - Vertical South - Vertical	North - None South - None	Good	
3rd	Onarga to Poplar	North - Detached South - Detached	North - Vertical South - Vertical	North - Yes South - None	Poor	
3rd	Poplar to Box Elder	North - Detached South - Detached	North - Vertical South - Vertical	North - Yes South - Yes	Good	
3rd	Box Elder to N Fork	North - Detached South - Detached	North - Vertical South - Vertical	North - Yes South - None	Moderate	
3rd	N Fork to Orchard	North - Detached South - Detached	North - Vertical South - Vertical	North - None South - None	Good	
3rd	Orchard to Oak	North - Detached South - Detached	North - Vertical South - Vertical	North - Yes South - Yes	Moderate	
3rd	Oak to Delta	North - None South - Detached	North - Vertical South - Vertical	North - None South - None	Moderate	CG from RR to Delta only CG from RR to Delta only
3rd	Delta to Rio Grande	North - Detached South - Detached	North - Vertical South - Vertical	North - Yes South - Yes	Moderate	
3rd	Rio Grande to Colorado	North - None South - Detached	North - None South - Vertical	North - None South - Yes	Moderate	
3rd	Colorado to Clark	North - None South - Detached	North - None South - None	South - None	Good	
3rd	Clark to Minnesota	North - None South - Detached	North - None South - None	South - None	Moderate	
3rd	Minnesota to Lamborn	North - None South - None	North - None South - None			
Clark	3rd to End	North - None South - None	East - None West - None			
Clark	2nd to 3rd	North - None South - None	East - Rollover West - Rollover		Good	
Clark	2nd to End	North - None South - None	East - None West - None			
Colorado	2nd to 3rd	East - None West - Detached	East - Vertical West - Vertical	East - None West - Yes	Moderate	
Colorado	2nd to End	East - None West - None	East - None West - None			
Niagara	3rd to 4th	East - None West - None	East - None West - None			
Niagara	2nd to 3rd	East - None West - None	East - None West - None			
Niagara	1st to 2nd	East - None West - None	East - Vertical West - None			
Minnesota	2nd to 3rd	East - None West - None	East - None West - None			
Lamborn	2nd to 3rd	East - None West - None	East - None West - None			
Dorris	2nd to Colorado	East - None West - None	East - None West - None			
Vista	3rd to End	North - Attached South - Attached	North - Rollover South - Rollover		Very Good	
Paonia	1st to 2nd	East - None West - None	East - None West - Rollover			CG is a valleypan
Meadowbrook Ct		East - None West - None	East - Vertical West - Vertical		Good	
Meadowbrook Dr	Paonia to Meadowbrook Ct	East - None West - None	East - Vertical West - Vertical		Good	island has CG island has CG
Meadowbrook Dr	Meadowbrook Ct to Paonia	East - None West - None	East - Vertical West - Vertical		Good	

no CG from alley to Main

# Appendix B

## Water System Spreadsheet (Assessment)

Water System		General										Replacement							Repair		Maintenance & Repair Notes		
Current Year		2021																					
GIS Object ID	Asset	Location/Notes	Unit	Diameter/Size	Material	Quantity Act or Est	Original Unit Cost Estimated	Original Total Cost Calculated	Installed Date Act or Est	Expected Useful Life Tab A	Remaining Useful Life Calculated	% of life remaining Calculated	Replacement Unit Cost Tab C	Replacement Total Cost Tab C	Inflation Estimated	Remaining Useful Life Committed Calculated	Future Value Factor Calculated	Future Cost of Replacement Estimated	Annual Future Value Factor Calculated	Annual Payment Future Value Calculated	Minor Repair Cost Tab C	Major Repair Cost Tab C	Maintenance & Repair Notes
<b>Water Distribution</b>																							
237	Water main	Box Elder/5th (West)	LF	0.75	HDPE	590	\$100	\$59,014	2020	100	99	99.00%	\$100	\$59,014	2.50%	99	11.526	\$680,171.92	0.0024	\$1,615.52	\$88,521.20	\$177,042.40	
190	Water main	Main Ave (100 Block)	LF	2	HDPE	110	\$75	\$8,247	2000	100	79	79.00%	\$150	\$16,495	2.50%	79	7.034	\$116,019.15	0.0041	\$480.71	\$12,371.02	\$24,742.04	
192	Water main	Main Ave (100 Block)	LF	2	HDPE	103	\$75	\$7,714	2000	100	79	79.00%	\$150	\$15,429	2.50%	79	7.034	\$108,522.27	0.0041	\$449.65	\$11,571.64	\$23,143.27	
195	Water main	Main Ave (100 Block)	LF	2	HDPE	81	\$75	\$6,065	2000	100	79	79.00%	\$150	\$12,130	2.50%	79	7.034	\$85,315.78	0.0041	\$353.50	\$9,097.15	\$18,194.30	
78	Water main	Alder Drive	LF	2	PVC	562	\$50	\$28,100	1980	100	59	59.00%	\$150	\$84,299	2.50%	59	4.292	\$361,851.81	0.0076	\$2,747.56	\$42,149.53	\$84,299.05	
135	Water main	Alder Drive	LF	2	PVC	13	\$50	\$633	1980	100	59	59.00%	\$150	\$1,899	2.50%	59	4.292	\$8,149.37	0.0076	\$61.88	\$949.26	\$1,898.52	
137	Water main	Alder Drive	LF	2	PVC	53	\$50	\$2,639	1980	100	59	59.00%	\$150	\$7,918	2.50%	59	4.292	\$33,986.06	0.0076	\$258.06	\$3,958.79	\$7,917.58	
222	Water main	Alder Court Cul-de-Sac	LF	2	PVC	329	\$50	\$16,434	1980	100	59	59.00%	\$150	\$49,302	2.50%	59	4.292	\$211,628.55	0.0076	\$1,606.91	\$24,651.09	\$49,302.19	
223	Water main	Alder Drive Cul-de-Sac	LF	2	PVC	331	\$50	\$16,532	1980	100	59	59.00%	\$150	\$49,596	2.50%	59	4.292	\$212,890.54	0.0076	\$1,616.49	\$24,798.09	\$49,596.19	
225	Water main	Stub from Minnesota Ave to Park	LF	2	PVC	810	\$50	\$40,502	1980	100	59	59.00%	\$150	\$121,506	2.50%	59	4.292	\$521,563.29	0.0076	\$3,960.26	\$60,753.17	\$121,506.35	
234	Water main	Lee's Trailer Park (Parallel 2" lines)	LF	2	PVC	1751	\$50	\$87,528	1980	100	59	59.00%	\$150	\$262,583	2.50%	59	4.292	\$1,127,130.37	0.0076	\$8,558.37	\$131,291.34	\$262,582.69	Town Priority (lines run underneath trailers)
241	Water main	Niagara Ave (North) of 4th	LF	2	PVC	370	\$50	\$18,487	1980	100	59	59.00%	\$150	\$55,461	2.50%	59	4.292	\$238,063.56	0.0076	\$1,807.63	\$27,730.32	\$55,460.64	
191	Water main	Main Ave (100 Block)	LF	2	PVC	117	\$75	\$8,743	1985	100	64	64.00%	\$150	\$26,230	2.50%	64	4.857	\$127,388.49	0.0065	\$825.79	\$13,115.14	\$26,230.27	
186	Water main	Niagara Ave (100 Block)	LF	2	PVC	284	\$75	\$21,293	1996	100	75	75.00%	\$150	\$42,585	2.50%	75	6.372	\$271,363.43	0.0047	\$1,262.81	\$31,939.10	\$63,878.20	
55	Water main	North Fork Ave 6th to 7th	LF	4	DIP	954	\$50	\$47,692	1970	100	49	49.00%	\$150	\$143,075	2.50%	49	3.353	\$479,770.40	0.0106	\$5,096.83	\$71,537.55	\$143,075.10	
56	Water main	Oak Ave 5th to 7th	LF	4	DIP	20	\$50	\$981	1970	100	49	49.00%	\$150	\$2,943	2.50%	49	3.353	\$9,869.45	0.0106	\$104.85	\$1,471.61	\$2,943.23	
57	Water main	6th/North Fork Ave to Orchard Ave to 7th	LF	4	DIP	934	\$50	\$46,682	1970	100	49	49.00%	\$150	\$140,045	2.50%	49	3.353	\$469,609.41	0.0106	\$4,988.89	\$70,022.46	\$140,044.93	
143	Water main	6th/North Fork Ave to Orchard Ave to 7th	LF	4	DIP	26	\$50	\$1,292	1970	100	49	49.00%	\$150	\$3,875	2.50%	49	3.353	\$12,993.43	0.0106	\$138.04	\$1,937.42	\$3,874.84	
232	Water main	Oak Ave 5th to 7th	LF	4	DIP	987	\$50	\$49,366	1970	100	49	49.00%	\$150	\$148,097	2.50%	49	3.353	\$496,610.21	0.0106	\$5,275.73	\$74,048.50	\$148,096.99	
250	Water main	Delta Ave RR Tracks to 5th	LF	4	DIP	799	\$50	\$39,948	1970	100	49	49.00%	\$150	\$119,845	2.50%	49	3.353	\$401,872.48	0.0106	\$4,269.29	\$59,922.35	\$119,844.71	
14	Water main	Oak Ave 2nd to 3rd	LF	4	PVC	545	\$50	\$27,262	1980	100	59	59.00%	\$150	\$81,787	2.50%	59	4.292	\$351,067.75	0.0076	\$2,665.68	\$40,893.37	\$81,786.74	
148	Water main	Air Vac to Minnesota Creek Road	LF	4	PVC	1738	\$50	\$86,907	1980	50	9	18.00%	\$150	\$260,721	2.50%	9	1.249	\$325,604.95	0.1005	\$32,709.26	\$130,360.56	\$260,721.12	Town Priority
149	Water main	Air Vac to Minnesota Creek Road	LF	4	PVC	5374	\$50	\$268,689	1980	50	9	18.00%	\$150	\$806,068	2.50%	9	1.249	\$1,006,668.54	0.1005	\$101,126.79	\$403,034.02	\$806,068.05	Town Priority
236	Water main	Box Elder/5th to Entrance of Lee's Trailer Park	LF	4	PVC	232	\$50	\$11,604	1980	100	59	59.00%	\$150	\$34,811	2.50%	59	4.292	\$149,426.54	0.0076	\$1,134.61	\$17,405.63	\$34,811.26	
166	Water main	O Rd (East) to Thompson	LF	4	PVC	3442	\$75	\$258,132	1990	100	69	69.00%	\$150	\$774,395	2.50%	69	5.495	\$4,255,092.92	0.0056	\$23,667.10	\$387,197.32	\$774,394.64	
167	Water main	O Rd (West) to German Creek	LF	4	PVC	1791	\$75	\$134,296	1990	100	69	69.00%	\$150	\$402,887	2.50%	69	5.495	\$2,213,755.16	0.0056	\$12,313.05	\$201,443.32	\$402,886.65	
172	Water main	O Rd (West) to German Creek	LF	4	PVC	363	\$75	\$27,251	1990	100	69	69.00%	\$150	\$81,753	2.50%	69	5.495	\$449,210.29	0.0056	\$2,498.54	\$40,876.43	\$81,752.87	
173	Water main	O Rd (West) to German Creek	LF	4	PVC	1217	\$75	\$91,250	1990	100	69	69.00%	\$150	\$273,749	2.50%	69	5.495	\$1,504,176.16	0.0056	\$8,366.32	\$136,874.33	\$273,748.65	
175	Water main	O Rd Crossing to O Rd/40 Lane	LF	4	PVC	1564	\$75	\$117,267	1995	100	74	74.00%	\$150	\$351,802	2.50%	74	6.217	\$2,187,078.88	0.0048	\$10,480.97	\$175,901.04	\$351,802.08	
227	Water main	Silver Leaf Subdivision	LF	4	PVC	353	\$100	\$35,272	2018	100	97	97.00%	\$100	\$35,272	2.50%	97	10.970	\$386,942.03	0.0025	\$970.25	\$52,908.11	\$105,816.21	
23	Water main	Orchard Ave 3rd to 4th	LF	5	CAS	40	\$50	\$2,002	1960	50	-11	-22.00%	\$150	\$6,005	2.50%	1	1.025	\$6,154.88	1.0000	\$6,154.88	\$3,002.38	\$6,004.76	Town Priority
24	Water main	Orchard Ave 3rd to 4th	LF	5	CAS	555	\$50	\$27,743	1960	50	-11	-22.00%	\$150	\$83,228	2.50%	1	1.025	\$85,308.56	1.0000	\$85,308.56	\$41,613.93	\$83,227.87	Town Priority
59	Water main	Box Elder 4th to 5th	LF	5	CAS	597	\$50	\$29,832	1960	50	-11	-22.00%	\$150	\$89,497	2.50%	1	1.025	\$91,734.90	1.0000	\$91,734.90	\$44,748.73	\$89,497.47	Town Priority
76	Water main	Dorris Ave (200 Block)	LF	5	CAS	217	\$50	\$10,833	1960	50	-11	-22.00%	\$150	\$32,499	2.50%	1	1.025	\$33,311.23	1.0000	\$33,311.23	\$16,249.38	\$32,498.76	Town Priority
205	Water main	2nd Street, Minnesota Ave to Dorris Ave	LF	5	CAS	780	\$50	\$39,015	1960	50	-11	-22.00%	\$150	\$117,045	2.50%	1	1.025	\$119,971.23	1.0000	\$119,971.23	\$58,522.55	\$117,045.11	Town Priority
230	Water main	Orchard Ave 4th to 5th	LF	5	CAS	611	\$50	\$30,534	1960	50	-11	-22.00%	\$150	\$91,603	2.50%	1	1.025	\$93,892.74	1.0000	\$93,892.74	\$45,801.33	\$91,602.67	Town Priority
58	Water main	5th/North Fork Ave to Delta Ave	LF	5	CAS	422	\$50	\$21,112	1960	50	-11	-22.00%	\$150	\$63,337	2.50%	1	1.025	\$64,920.58	1.0000	\$64,920.58	\$31,668.57	\$63,337.15	Town Priority
144	Water main	5th/North Fork Ave to Delta Ave	LF	5	CAS	228	\$50	\$11,407	1960	50	-11	-22.00%	\$150	\$34,221	2.50%	1	1.025	\$35,076.07	1.0000	\$35,076.07	\$17,110.28	\$34,220.55	Town Priority
231	Water main	5th/North Fork Ave to Delta Ave	LF	5	CAS	332	\$50	\$16,594	1960	50	-11	-22.00%	\$150	\$49,782	2.50%	1	1.025	\$51,026.26	1.0000	\$51,026.26	\$24,890.86	\$49,781.71	Town Priority
233	Water main	5th/North Fork Ave to Delta Ave	LF	5	CAS	6	\$50	\$291	1960	50	-11	-22.00%	\$150	\$874	2.50%	1	1.025	\$895.90	1.0000	\$895.90	\$437.02	\$874.05	Town Priority
1	Water main	Main Ave 1st to 2nd	LF	6	CAS	233	\$50	\$11,628	1960	50	-11	-22.00%	\$150	\$34,885	2.50%	1	1.025	\$35,757.01	1.0000	\$35,757.01	\$17,442.45	\$34,884.89	Town Priority
2	Water main	Main Ave 1st to 2nd	LF	6	CAS	239	\$50	\$11,947	1960	50	-11	-22.00%	\$150	\$35,840	2.50%	1	1.025	\$36,736.51	1.0000	\$36,736.51	\$17,920.25	\$35,840.50	Town Priority
3	Water main	Main Ave 2nd to 3rd	LF	6	CAS	3	\$50	\$128	1960	50	-11	-22.00%	\$150	\$385	2.50%	1	1.025	\$394.22	1.0000	\$394.22	\$192.30	\$384.61	Town Priority
4	Water main	Main Ave 2nd to 3rd	LF	6	CAS	529	\$50	\$26,449	1960	50	-11	-22.00%	\$150	\$79,348	2.50%	1	1.025	\$81,331.83	1.0000	\$81,331.83	\$39,674.06	\$79,348.13	Town Priority
95	Water main	Main Ave 1st to 2nd	LF	6	CAS	39	\$50	\$1,971	1960	50	-11	-22.00%	\$150	\$5,914	2.50%	1	1.025	\$6,061.37	1.0000	\$6,061.37	\$2,956.77	\$5,913.53	Town Priority
97	Water main	Main Ave 2nd to 3rd	LF	6	CAS	15	\$50	\$748	1960	50	-11	-22.00%	\$150	\$2,244	2.50%	1	1.025	\$2,299.94	1.0000	\$2,299.94	\$1,121.92	\$2,243.84	Town Priority
69	Water main	Minnesota Ave 2nd to 3rd	LF	6	DIP	543	\$50	\$27,166	1970	100	49	49.00%	\$150	\$81,497	2.50%	49	3.353	\$273,282.61	0.0106	\$2,903.21	\$40,748.59	\$81,497.18	
251	Water main	Delta Ave 3rd to																					

51	Water main	Colorado Ave 2nd to 3rd	LF	6	DIP	547	\$75	\$41,028	1998	100	77	77.00%	\$150	\$82,056	2.50%	77	6.695	\$549,350.43	0.0044	\$2,411.63	\$61,542.21	\$123,084.42
39	Water main	3rd/Main (North)	LF	6	DIP	486	\$75	\$36,473	2000	100	79	79.00%	\$150	\$72,945	2.50%	79	7.034	\$513,077.39	0.0041	\$2,125.87	\$54,709.00	\$109,418.00
127	Water main	3rd/Main (North)	LF	6	DIP	3	\$75	\$235	2000	100	79	79.00%	\$150	\$470	2.50%	79	7.034	\$3,303.73	0.0041	\$13.69	\$352.27	\$704.55
65	Water main	Clark Ave 2nd to 3rd	LF	6	DIP	525	\$100	\$52,488	2002	100	81	81.00%	\$100	\$104,976	2.50%	81	7.390	\$775,749.38	0.0039	\$3,035.10	\$78,731.70	\$157,463.39
109	Water main	Clark Ave 2nd to 3rd	LF	6	DIP	21	\$100	\$2,083	2002	100	81	81.00%	\$100	\$4,166	2.50%	81	7.390	\$30,784.10	0.0039	\$120.44	\$3,124.31	\$6,248.63
81	Water main	Box Elder Cul-de-Sac	LF	6	PVC	286	\$50	\$14,305	1980	100	59	59.00%	\$150	\$42,915	2.50%	59	4.292	\$184,209.61	0.0076	\$1,398.72	\$21,457.26	\$42,914.52
132	Water main	Box Elder Cul-de-Sac	LF	6	PVC	651	\$50	\$32,561	1980	100	59	59.00%	\$150	\$97,683	2.50%	59	4.292	\$419,300.43	0.0076	\$3,183.78	\$48,841.30	\$97,682.61
226	Water main	Box Elder Cul-de-Sac	LF	6	PVC	142	\$50	\$7,076	1980	100	59	59.00%	\$150	\$21,229	2.50%	59	4.292	\$91,125.75	0.0076	\$691.92	\$10,614.59	\$21,229.17
181	Water main	Mathews Lane (Niagara Ave to O Road)	LF	6	PVC	1020	\$75	\$76,471	1985	100	64	64.00%	\$150	\$229,413	2.50%	64	4.857	\$1,114,156.18	0.0065	\$7,222.50	\$114,706.68	\$229,413.35
182	Water main	Mathews Lane (Niagara Ave to O Road)	LF	6	PVC	1383	\$75	\$103,731	1985	100	64	64.00%	\$150	\$311,193	2.50%	64	4.857	\$1,511,324.71	0.0065	\$9,797.14	\$155,596.71	\$311,193.41
183	Water main	Mathews Lane (Niagara Ave to O Road)	LF	6	PVC	1700	\$75	\$127,500	1985	100	64	64.00%	\$150	\$382,499	2.50%	64	4.857	\$1,857,622.13	0.0065	\$12,042.01	\$191,249.36	\$382,498.72
184	Water main	Mathews Lane (Niagara Ave to O Road)	LF	6	PVC	909	\$75	\$68,210	1985	100	64	64.00%	\$150	\$204,629	2.50%	64	4.857	\$993,791.13	0.0065	\$6,442.24	\$102,314.63	\$204,629.26
6	Water main	Niagara Ave between 3rd/4th	LF	6	PVC	558	\$75	\$41,823	1990	100	69	69.00%	\$150	\$125,469	2.50%	69	5.495	\$689,417.57	0.0056	\$3,834.58	\$62,734.38	\$125,468.77
40	Water main	Samuel Wade to 4th/Niagara Ave	LF	6	PVC	357	\$75	\$26,791	1990	100	69	69.00%	\$150	\$80,374	2.50%	69	5.495	\$441,635.99	0.0056	\$2,456.41	\$40,187.20	\$80,374.40
129	Water main	Samuel Wade to 4th/Niagara Ave	LF	6	PVC	40	\$75	\$3,029	1990	100	69	69.00%	\$150	\$9,086	2.50%	69	5.495	\$49,923.49	0.0056	\$277.68	\$4,542.85	\$9,085.70
147	Water main	Samuel Wade to 4th/Niagara Ave	LF	6	PVC	681	\$75	\$51,106	1990	100	69	69.00%	\$150	\$153,317	2.50%	69	5.495	\$842,433.94	0.0056	\$4,685.67	\$76,658.29	\$153,316.59
174	Water main	German Creek (West) to O Rd Crossing	LF	6	PVC	1527	\$75	\$114,516	1990	100	69	69.00%	\$150	\$343,549	2.50%	69	5.495	\$1,887,711.61	0.0056	\$10,499.57	\$171,774.60	\$343,549.19
242	Water main	Samuel Wade to 4th/Niagara Ave	LF	6	PVC	701	\$75	\$52,578	1990	100	69	69.00%	\$150	\$157,734	2.50%	69	5.495	\$866,707.48	0.0056	\$4,820.68	\$78,867.09	\$157,734.19
110	Water main	2nd Street	LF	6	PVC	28	\$75	\$2,081	1995	100	74	74.00%	\$150	\$6,242	2.50%	74	6.217	\$38,808.12	0.0048	\$185.98	\$3,121.24	\$6,242.47
7	Water main	Niagara Ave 2nd to 3rd	LF	6	PVC	593	\$75	\$44,505	1996	100	75	75.00%	\$150	\$89,010	2.50%	75	6.372	\$567,192.71	0.0047	\$2,639.48	\$66,757.80	\$133,515.59
82	Water main	Niagara Ave 2nd to 3rd	LF	6	PVC	7	\$75	\$507	1996	100	75	75.00%	\$150	\$1,014	2.50%	75	6.372	\$6,458.61	0.0047	\$30.06	\$760.17	\$1,520.34
94	Water main	Niagara Ave 1st to 2nd	LF	6	PVC	45	\$75	\$3,408	1996	100	75	75.00%	\$150	\$6,816	2.50%	75	6.372	\$43,434.80	0.0047	\$202.13	\$5,112.22	\$10,224.43
96	Water main	Niagara Ave 1st to 2nd	LF	6	PVC	401	\$75	\$30,089	1996	100	75	75.00%	\$150	\$60,178	2.50%	75	6.372	\$383,468.89	0.0047	\$1,784.50	\$45,133.76	\$90,267.52
114	Water main	Meadowbrook Subdivision (Meadowbrook/Paonia Ave)	LF	6	PVC	105	\$75	\$7,895	1998	100	77	77.00%	\$150	\$15,791	2.50%	77	6.695	\$105,716.79	0.0044	\$464.09	\$11,843.16	\$23,686.32
115	Water main	Meadowbrook Subdivision (Meadowbrook/Paonia Ave)	LF	6	PVC	260	\$75	\$19,497	1998	100	77	77.00%	\$150	\$38,993	2.50%	77	6.695	\$261,051.87	0.0044	\$1,146.01	\$29,244.92	\$58,489.84
207	Water main	Meadowbrook Subdivision (Meadowbrook/Paonia Ave)	LF	6	PVC	248	\$75	\$18,596	1998	100	77	77.00%	\$150	\$37,191	2.50%	77	6.695	\$248,988.27	0.0044	\$1,093.05	\$27,893.47	\$55,786.94
210	Water main	Meadowbrook Subdivision (Meadowbrook/Paonia Ave)	LF	6	PVC	507	\$75	\$38,054	1998	100	77	77.00%	\$150	\$76,108	2.50%	77	6.695	\$509,524.78	0.0044	\$2,236.80	\$57,080.65	\$114,161.31
211	Water main	Meadowbrook Subdivision (Meadowbrook/Paonia Ave)	LF	6	PVC	4	\$75	\$278	1998	100	77	77.00%	\$150	\$555	2.50%	77	6.695	\$3,717.33	0.0044	\$16.32	\$416.44	\$832.88
212	Water main	Meadowbrook Subdivision (Meadowbrook/Paonia Ave)	LF	6	PVC	15	\$75	\$1,126	1998	100	77	77.00%	\$150	\$2,252	2.50%	77	6.695	\$15,078.12	0.0044	\$66.19	\$1,689.16	\$3,378.32
213	Water main	Meadowbrook Subdivision (Meadowbrook/Paonia Ave)	LF	6	PVC	351	\$75	\$26,305	1998	100	77	77.00%	\$150	\$52,611	2.50%	77	6.695	\$352,219.34	0.0044	\$1,546.23	\$39,458.16	\$78,916.32
214	Water main	Meadowbrook Subdivision (Meadowbrook/Paonia Ave)	LF	6	PVC	2	\$75	\$179	1998	100	77	77.00%	\$150	\$357	2.50%	77	6.695	\$2,391.61	0.0044	\$10.50	\$267.93	\$535.85
215	Water main	Meadowbrook Subdivision (Meadowbrook/Paonia Ave)	LF	6	PVC	61	\$75	\$4,539	1998	100	77	77.00%	\$150	\$9,077	2.50%	77	6.695	\$60,770.96	0.0044	\$266.78	\$6,808.00	\$13,616.01
257	Water main	Meadowbrook Subdivision (Meadowbrook/Paonia Ave)	LF	6	PVC	344	\$75	\$25,836	1998	100	77	77.00%	\$150	\$51,671	2.50%	77	6.695	\$345,927.34	0.0044	\$1,518.61	\$38,753.28	\$77,506.57
53	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	499	\$100	\$49,865	2005	100	84	84.00%	\$100	\$99,730	2.50%	84	7.958	\$793,652.92	0.0036	\$2,851.58	\$74,797.52	\$149,595.04
74	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	81	\$100	\$8,115	2005	100	84	84.00%	\$100	\$16,230	2.50%	84	7.958	\$129,155.02	0.0036	\$464.05	\$12,172.17	\$24,344.33
79	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	521	\$100	\$52,091	2005	100	84	84.00%	\$100	\$104,182	2.50%	84	7.958	\$829,079.98	0.0036	\$2,978.87	\$78,136.33	\$156,272.66
80	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	572	\$100	\$57,215	2005	100	84	84.00%	\$100	\$114,430	2.50%	84	7.958	\$910,635.46	0.0036	\$3,271.89	\$85,822.49	\$171,644.99
133	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	542	\$100	\$54,222	2005	100	84	84.00%	\$100	\$108,445	2.50%	84	7.958	\$863,003.58	0.0036	\$3,100.75	\$81,333.44	\$162,666.89
134	Water main	Cedar Drive to Vista Drive	LF	6	PVC	49	\$100	\$4,906	2005	100	84	84.00%	\$100	\$9,812	2.50%	84	7.958	\$78,082.30	0.0036	\$280.55	\$7,358.84	\$14,717.67
136	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	487	\$100	\$48,665	2005	100	84	84.00%	\$100	\$97,329	2.50%	84	7.958	\$774,547.05	0.0036	\$2,782.93	\$72,996.89	\$145,993.79
138	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	264	\$100	\$26,383	2005	100	84	84.00%	\$100	\$52,766	2.50%	84	7.958	\$419,911.00	0.0036	\$1,508.73	\$39,574.35	\$79,148.71
216	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	1008	\$100	\$100,795	2005	100	84	84.00%	\$100	\$201,589	2.50%	84	7.958	\$1,604,248.39	0.0036	\$5,764.03	\$151,191.78	\$302,383.56
217	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	73	\$100	\$7,254	2005	100	84	84.00%	\$100	\$14,508	2.50%	84	7.958	\$115,455.55	0.0036	\$444.83	\$10,881.06	\$21,762.13
218	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	335	\$100	\$33,470	2005	100	84	84.00%	\$100	\$66,941	2.50%	84	7.958	\$532,716.98	0.0036	\$1,914.04	\$50,205.71	\$100,411.42
219	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	302	\$100	\$30,207	2005	100	84	84.00%	\$100	\$60,415	2.50%	84	7.958	\$480,781.82	0.0036	\$1,727.44	\$45,311.10	\$90,622.20
220	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	698	\$100	\$69,833	2005	100	84	84.00%	\$100	\$139,667	2.50%	84	7.958	\$1,111,471.80	0.0036	\$3,993.50	\$104,750.24	\$209,500.48
221	Water main	Cedar Drive Cul-de-Sac	LF	6	PVC	273	\$100	\$27,258	2005	100	84	84.00%	\$100	\$54,517	2.50%	84	7.958	\$433,843.90	0.0036	\$1,558.79	\$40,887.45	\$81,774.91
249	Water main	3rd/Rio Grande looped through Vista/Minnesota back to 3rd	LF	6	PVC	74	\$100	\$7,350	2005	100	84	84.00%	\$100	\$14,701	2.50%	84	7.958	\$116,989.44	0.0036	\$420.34	\$11,025.63	\$22,051.25
84	Water main	Stahl Rd to Samuel Wade	LF	6	PVC	750	\$100	\$74,971	2010	100	89	89.00%	\$100	\$149,941	2.50%	89	9.004	\$1,350,037.44	0.0031	\$4,216.88	\$112,456.11	\$224,912.22
85	Water main	Stahl Rd/Samuel Wade (North)	LF	6	PVC	214	\$100	\$21,352	2010	100	89	89.00%	\$100	\$42,704	2.50%	89	9.004	\$384,500.90	0.0031	\$1,201.00	\$32,028.35	\$64,056.71
145	Water main	Stahl Rd to Samuel Wade	LF	6	PVC	10	\$100	\$1,049	2010	100	89	89.00%	\$100	\$2,097	2.50%	89	9.004	\$18,881.94	0.0031	\$58.98	\$1,572.84	\$3,145.67
146	Water main	Stahl Rd/Samuel Wade (North)	LF	6	PVC	6	\$100	\$635	2010	100	89	89.00%	\$100	\$1,269	2.50%	89	9.004	\$11,429.55	0.0031	\$35.70	\$952.06	\$1,904.13
243	Water main	Samuel Wade to 4th/Niagara Ave	LF	6	PVC	156	\$100	\$15,561	2010	100	89	89.00%	\$100	\$31,122	2.50%	89	9.004	\$280,211.99	0.0031	\$875.25	\$23,341.24	\$46,682.48
245	Water main	Samuel Wade to 4th/Niagara Ave	LF	6	PVC	90	\$100	\$9,024	2010	100	89	89.00%	\$100	\$18,047	2.50%	89	9.004	\$162,492.85	0.0031	\$507.55	\$13,535.41	\$27,070.83
244	Water main	Price Rd	LF	6	PVC	275	\$100	\$27,529	2012	100	91	91.00%	\$100	\$55,059	2.50%	91	9.460	\$520,833.45	0.0030	\$1,539.18	\$41,29	

140	Water main	North Fork Ave 4th to 6th	LF	8	DIP	7	\$75	\$548	1997	100	76	76.00%	\$150	\$1,095	2.50%	76	6.532	\$7,152.77	0.0045	\$32.33	\$821.34	\$1,642.68
235	Water main	North Fork Ave 4th to 6th	LF	8	DIP	778	\$75	\$58,340	1997	100	76	76.00%	\$150	\$116,680	2.50%	76	6.532	\$762,097.09	0.0045	\$3,444.34	\$87,510.02	\$175,020.05
252	Water main	Paonia Ave/Colorado Ave up Harding Rd to PRV	LF	8	PVC	2048	\$50	\$102,414	1980	100	59	59.00%	\$150	\$307,243	2.50%	59	4.292	\$1,318,834.00	0.0076	\$10,013.99	\$153,621.53	\$307,243.06
253	Water main	PRV to PRV (Dry Gulch Rd)	LF	8	PVC	27	\$50	\$1,337	1980	100	59	59.00%	\$150	\$4,012	2.50%	59	4.292	\$17,223.22	0.0076	\$130.78	\$2,006.21	\$4,012.42
255	Water main	PRV at Dry Gulch Rd to Air Vac	LF	8	PVC	2097	\$50	\$104,840	1980	100	59	59.00%	\$150	\$314,519	2.50%	59	4.292	\$1,350,067.32	0.0076	\$10,251.15	\$157,259.67	\$314,519.35
256	Water main	PRV at Dry Gulch Rd to Air Vac	LF	8	PVC	3099	\$50	\$154,975	1980	100	59	59.00%	\$150	\$464,924	2.50%	59	4.292	\$1,995,675.40	0.0076	\$15,153.29	\$232,461.94	\$464,923.87
150	Water main	Air Vac on Dry Gulch Rd to 2MG Tank	LF	8	PVC	1153	\$75	\$86,500	1985	100	64	64.00%	\$150	\$259,499	2.50%	64	4.857	\$1,260,267.12	0.0065	\$8,169.67	\$129,749.36	\$259,498.72
152	Water main	Air Vac on Dry Gulch Rd to 2MG Tank	LF	8	PVC	3374	\$75	\$253,063	1985	100	64	64.00%	\$150	\$759,189	2.50%	64	4.857	\$3,687,036.30	0.0065	\$23,901.16	\$379,594.61	\$759,189.21
11	Water main	Grand Ave 2nd to 3rd	LF	8	PVC	525	\$75	\$39,356	1990	100	69	69.00%	\$150	\$118,067	2.50%	69	5.495	\$648,744.96	0.0056	\$3,608.36	\$59,033.33	\$118,066.66
12	Water main	Grand Ave 1st to 2nd	LF	8	PVC	435	\$75	\$32,627	1990	100	69	69.00%	\$150	\$97,882	2.50%	69	5.495	\$537,835.61	0.0056	\$2,991.48	\$48,941.00	\$97,882.00
13	Water main	Grand Ave 3rd to 5th	LF	8	PVC	524	\$75	\$39,305	1990	100	69	69.00%	\$150	\$117,915	2.50%	69	5.495	\$647,913.89	0.0056	\$3,603.74	\$58,957.71	\$117,915.41
37	Water main	Grand Ave 3rd to 5th	LF	8	PVC	16	\$75	\$1,210	1990	100	69	69.00%	\$150	\$3,631	2.50%	69	5.495	\$19,950.34	0.0056	\$110.97	\$1,815.41	\$3,630.81
98	Water main	Grand Ave 2nd to 3rd	LF	8	PVC	32	\$75	\$2,371	1990	100	69	69.00%	\$150	\$7,114	2.50%	69	5.495	\$39,091.30	0.0056	\$217.43	\$3,557.16	\$7,114.32
126	Water main	Grand Ave 3rd to 5th	LF	8	PVC	36	\$75	\$2,731	1990	100	69	69.00%	\$150	\$8,192	2.50%	69	5.495	\$45,012.77	0.0056	\$250.36	\$4,095.99	\$8,191.98
238	Water main	High School to Main/4th	LF	8	PVC	2213	\$75	\$165,975	1990	100	69	69.00%	\$150	\$497,924	2.50%	69	5.495	\$2,735,958.50	0.0056	\$15,217.58	\$248,961.85	\$497,923.69
239	Water main	High School to Main/4th	LF	8	PVC	840	\$75	\$62,967	1990	100	69	69.00%	\$150	\$188,901	2.50%	69	5.495	\$1,037,958.68	0.0056	\$5,773.19	\$94,450.30	\$188,900.61
240	Water main	High School to Main/4th	LF	8	PVC	551	\$75	\$41,289	1990	100	69	69.00%	\$150	\$123,867	2.50%	69	5.495	\$680,619.01	0.0056	\$3,785.65	\$61,933.75	\$123,867.50
77	Water main	2nd Street, Lamborn Ave to Paonia Ave	LF	8	PVC	303	\$75	\$22,736	1995	100	74	74.00%	\$150	\$68,207	2.50%	74	6.217	\$424,026.13	0.0048	\$2,032.03	\$34,103.31	\$68,206.63
111	Water main	2nd Street, Lamborn Ave to Paonia Ave	LF	8	PVC	225	\$75	\$16,848	1995	100	74	74.00%	\$150	\$50,543	2.50%	74	6.217	\$314,212.15	0.0048	\$1,505.77	\$25,271.26	\$50,542.52
87	Water main	Tank (2MG) West to Air Vac	LF	8	PVC	26	\$100	\$2,615	2017	100	96	96.00%	\$100	\$2,615	2.50%	96	10.703	\$27,989.35	0.0026	\$72.12	\$3,922.77	\$7,845.54
88	Water main	Tank (2MG) West to Air Vac	LF	8	PVC	2639	\$100	\$263,915	2017	100	96	96.00%	\$100	\$263,915	2.50%	96	10.703	\$2,824,591.12	0.0026	\$7,277.89	\$395,872.90	\$791,745.80
90	Water main	PRV to Omega Rd to Tie In	LF	8	PVC	607	\$100	\$60,747	2017	100	96	96.00%	\$100	\$60,747	2.50%	96	10.703	\$650,151.24	0.0026	\$1,675.19	\$91,120.18	\$182,240.36
130	Water main	PRV to Omega Rd to Tie In	LF	8	PVC	33	\$100	\$3,335	2017	100	96	96.00%	\$100	\$3,335	2.50%	96	10.703	\$35,692.03	0.0026	\$91.96	\$5,002.32	\$10,004.64
159	Water main	Air Vac following Lucas Creek to PRV (Lamborn/Stewart)	LF	8	PVC	4496	\$100	\$449,592	2017	100	96	96.00%	\$100	\$449,592	2.50%	96	10.703	\$4,811,822.32	0.0026	\$12,398.22	\$674,387.89	\$1,348,775.78
161	Water main	Air Vac following Lucas Creek to PRV (Lamborn/Stewart)	LF	8	PVC	2736	\$100	\$273,634	2017	100	96	96.00%	\$100	\$273,634	2.50%	96	10.703	\$2,928,611.40	0.0026	\$7,545.91	\$410,451.58	\$820,903.16
163	Water main	Air Vac following Lucas Creek to PRV (Lamborn/Stewart)	LF	8	PVC	39	\$100	\$3,893	2017	100	96	96.00%	\$100	\$3,893	2.50%	96	10.703	\$41,664.50	0.0026	\$107.35	\$5,839.37	\$11,678.75
164	Water main	Air Vac following Lucas Creek to PRV (Lamborn/Stewart)	LF	8	PVC	120	\$100	\$11,951	2017	100	96	96.00%	\$100	\$11,951	2.50%	96	10.703	\$127,910.69	0.0026	\$329.58	\$17,926.98	\$35,853.95
177	Water main	PRV to Omega Rd to Tie In	LF	8	PVC	659	\$100	\$65,869	2017	100	96	96.00%	\$100	\$65,869	2.50%	96	10.703	\$704,973.95	0.0026	\$1,816.45	\$98,803.71	\$197,607.42
178	Water main	PRV to Omega Rd to Tie In	LF	8	PVC	128	\$100	\$12,786	2017	100	96	96.00%	\$100	\$12,786	2.50%	96	10.703	\$136,844.73	0.0026	\$352.60	\$19,179.10	\$38,358.20
179	Water main	PRV to Omega Rd to Tie In	LF	8	PVC	471	\$100	\$47,051	2017	100	96	96.00%	\$100	\$47,051	2.50%	96	10.703	\$503,566.43	0.0026	\$1,297.50	\$70,575.99	\$141,151.97
180	Water main	PRV to Omega Rd to Tie In	LF	8	PVC	595	\$100	\$59,489	2017	100	96	96.00%	\$100	\$59,489	2.50%	96	10.703	\$636,688.29	0.0026	\$1,640.50	\$89,233.32	\$178,466.64
196	Water main	PRV to Omega Rd to Tie In	LF	8	PVC	263	\$100	\$26,311	2017	100	96	96.00%	\$100	\$26,311	2.50%	96	10.703	\$281,597.17	0.0026	\$725.57	\$39,466.49	\$78,932.97
197	Water main	PRV to Omega Rd to Tie In	LF	8	PVC	57	\$100	\$5,659	2017	100	96	96.00%	\$100	\$5,659	2.50%	96	10.703	\$60,561.38	0.0026	\$156.04	\$8,487.82	\$16,975.63
198	Water main	PRV to Omega Rd to Tie In	LF	8	PVC	44	\$100	\$4,433	2017	100	96	96.00%	\$100	\$4,433	2.50%	96	10.703	\$47,444.61	0.0026	\$122.25	\$6,649.47	\$13,298.94
5	Water main	3rd Street	LF	8	PVC	342	\$100	\$34,240	2018	100	97	97.00%	\$100	\$34,240	2.50%	97	10.970	\$375,619.56	0.0025	\$941.85	\$51,359.94	\$102,719.88
15	Water main	3rd Street	LF	8	PVC	300	\$100	\$29,955	2018	100	97	97.00%	\$100	\$29,955	2.50%	97	10.970	\$328,608.40	0.0025	\$823.98	\$44,931.92	\$89,863.84
22	Water main	3rd Street	LF	8	PVC	311	\$100	\$31,118	2018	100	97	97.00%	\$100	\$31,118	2.50%	97	10.970	\$341,370.65	0.0025	\$855.98	\$46,676.95	\$93,353.91
29	Water main	3rd Street	LF	8	PVC	293	\$100	\$29,259	2018	100	97	97.00%	\$100	\$29,259	2.50%	97	10.970	\$320,982.46	0.0025	\$804.85	\$43,889.19	\$87,778.39
31	Water main	3rd Street	LF	8	PVC	335	\$100	\$33,502	2018	100	97	97.00%	\$100	\$33,502	2.50%	97	10.970	\$367,521.79	0.0025	\$921.55	\$50,252.70	\$100,505.40
36	Water main	3rd Street	LF	8	PVC	325	\$100	\$32,535	2018	100	97	97.00%	\$100	\$32,535	2.50%	97	10.970	\$356,919.30	0.0025	\$894.96	\$48,802.98	\$97,605.96
38	Water main	3rd Street	LF	8	PVC	346	\$100	\$34,646	2018	100	97	97.00%	\$100	\$34,646	2.50%	97	10.970	\$380,076.40	0.0025	\$953.03	\$51,969.34	\$103,938.68
41	Water main	3rd Street	LF	8	PVC	331	\$100	\$33,138	2018	100	97	97.00%	\$100	\$33,138	2.50%	97	10.970	\$363,527.13	0.0025	\$911.53	\$49,706.49	\$99,412.99
49	Water main	3rd Street	LF	8	PVC	297	\$100	\$29,718	2018	100	97	97.00%	\$100	\$29,718	2.50%	97	10.970	\$326,014.07	0.0025	\$817.47	\$44,577.19	\$89,154.37
50	Water main	3rd Street	LF	8	PVC	295	\$100	\$29,498	2018	100	97	97.00%	\$100	\$29,498	2.50%	97	10.970	\$323,600.20	0.0025	\$811.42	\$44,247.13	\$88,494.26
64	Water main	3rd Street	LF	8	PVC	297	\$100	\$29,716	2018	100	97	97.00%	\$100	\$29,716	2.50%	97	10.970	\$325,996.08	0.0025	\$817.43	\$44,574.73	\$89,149.45
68	Water main	3rd Street	LF	8	PVC	189	\$100	\$18,940	2018	100	97	97.00%	\$100	\$18,940	2.50%	97	10.970	\$207,772.00	0.0025	\$520.98	\$28,409.48	\$56,818.97
72	Water main	3rd Street	LF	8	PVC	736	\$100	\$73,574	2018	100	97	97.00%	\$100	\$73,574	2.50%	97	10.970	\$807,124.69	0.0025	\$2,023.84	\$110,361.34	\$220,722.67
73	Water main	3rd/Minnesota to Vista/Minnesota	LF	8	PVC	565	\$100	\$56,471	2018	100	97	97.00%	\$100	\$56,471	2.50%	97	10.970	\$619,502.33	0.0025	\$1,553.38	\$84,706.99	\$169,413.98
83	Water main	3rd Street	LF	8	PVC	587	\$100	\$58,694	2018	100	97	97.00%	\$100	\$58,694	2.50%	97	10.970	\$643,880.93	0.0025	\$1,614.51	\$88,040.37	\$176,080.75
92	Water main	3rd Street	LF	8	PVC	24	\$100	\$2,407	2018	100	97	97.00%	\$100	\$2,407	2.50%	97	10.970	\$26,401.09	0.0025	\$66.20	\$3,609.92	\$7,219.85
116	Water main	3rd Street	LF	8	PVC	21	\$100	\$2,055	2018	100	97	97.00%	\$100	\$2,055	2.50%	97	10.970	\$22,539.80	0.0025	\$56.52	\$3,081.96	\$6,163.91
117	Water main	3rd Street	LF	8	PVC	27	\$100	\$2,733	2018	100	97	97.00%	\$100	\$2,733	2.50%	97	10.970	\$29,976.35	0.0025	\$75.16	\$4,098.78	\$8,197.57
118	Water main	3rd Street	LF	8	PVC	43	\$100	\$4,338	2018	100	97	97.00%	\$100	\$4,338	2.50%	97	10.970	\$47,583.64	0.0025	\$119.31	\$6,506.30	\$13,012.60
119	Water main	3rd Street	LF	8	PVC	24	\$100	\$2,425	2018	100	97	97.00%	\$100	\$2,425	2.50%	97	10.970	\$26,608.20	0.0025	\$66.72	\$3,638.24	\$7,276.49
120	Water main	3rd Street	LF	8	PVC	27	\$100	\$2,730	2018	100	97	97.00%	\$100	\$2,730	2.50%	97	10.970	\$29,949.60	0.0025	\$75.10	\$4,095.13	\$8,190.25
121	Water main	3rd Street	LF	8	PVC	14	\$100	\$1,402	2018	100	97	97.00%	\$100	\$1,40								



# Appendix C

## Wastewater System Spreadsheet (Assessment)

Wastewater System		General											Replacement							Repair			
Current Year		2021																					
GIS Object ID	Asset	Location/Notes	Unit	Diameter	Material	Quantity	Original Unit Cost	Original Total Cost	Installed Date	Expected Useful Life	Remaining Useful Life	% of life remaining	Replacement Unit Cost	Replacement Total Cost	Inflation	Remaining Useful Life Corrected	Future Value Factor	Future Replacement Cost	Annual Future Value Factor	Annual Payment Future Value	Minor Repair Cost	Major Repair Cost	Maintenance & Repair Notes
							Act or Est	Act or Est	Act or Est	Tab A	Calculated	Act or Est	Tab C	Tab C	Estimated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	
<b>Wastewater Collection</b>																							
63	Gravity sewer main	Box Elder Trailer Park (Blue Zoning) to Grand Ave	LF	8	PVC	446	\$50	\$22,300	1980	100	59	59.00%	\$150	\$66,901	2.50%	59	4.292	\$287,171	0.0076	\$2,180.51	\$33,451	\$66,901	
111	Gravity sewer main	Box Elder Trailer Park (Blue Zoning) to Grand Ave	LF	8	PVC	302	\$50	\$15,082	1980	100	59	59.00%	\$150	\$45,245	2.50%	59	4.292	\$194,211	0.0076	\$1,474.66	\$22,622	\$45,245	
112	Gravity sewer main	Box Elder Trailer Park (Blue Zoning) to Grand Ave	LF	8	PVC	746	\$50	\$37,282	1980	100	59	59.00%	\$150	\$111,846	2.50%	59	4.292	\$480,095	0.0076	\$3,645.39	\$55,923	\$111,846	
142	Gravity sewer main	Rio Grande between 3rd/4th	LF	8	PVC	248	\$50	\$12,382	1980	100	59	59.00%	\$150	\$37,145	2.50%	59	4.292	\$159,444	0.0076	\$1,210.67	\$18,572	\$37,145	
143	Gravity sewer main	Rio Grande between 3rd/4th	LF	8	PVC	348	\$50	\$17,377	1980	100	59	59.00%	\$150	\$52,132	2.50%	59	4.292	\$223,777	0.0076	\$1,699.16	\$26,066	\$52,132	
148	Gravity sewer main	Apple Valley Subdivision	LF	8	PVC	242	\$50	\$12,083	1980	100	59	59.00%	\$150	\$36,250	2.50%	59	4.292	\$155,601	0.0076	\$1,181.49	\$18,125	\$36,250	
149	Gravity sewer main	Apple Valley Subdivision	LF	8	PVC	249	\$50	\$12,427	1980	100	59	59.00%	\$150	\$37,282	2.50%	59	4.292	\$160,032	0.0076	\$1,215.13	\$18,641	\$37,282	
150	Gravity sewer main	Apple Valley Subdivision	LF	8	PVC	404	\$50	\$20,213	1980	100	59	59.00%	\$150	\$60,640	2.50%	59	4.292	\$260,294	0.0076	\$1,976.43	\$30,320	\$60,640	
151	Gravity sewer main	Apple Valley Subdivision	LF	8	PVC	696	\$50	\$34,803	1980	100	59	59.00%	\$150	\$104,409	2.50%	59	4.292	\$448,175	0.0076	\$3,403.02	\$52,205	\$104,409	
152	Gravity sewer main	Apple Valley Subdivision	LF	8	PVC	324	\$50	\$16,215	1980	100	59	59.00%	\$150	\$48,645	2.50%	59	4.292	\$208,807	0.0076	\$1,585.48	\$24,322	\$48,645	
158	Gravity sewer main	Apple Valley Subdivision	LF	8	PVC	431	\$50	\$21,571	1980	100	59	59.00%	\$150	\$64,713	2.50%	59	4.292	\$277,778	0.0076	\$2,109.18	\$32,356	\$64,713	
51	Gravity sewer main	2nd Street East and West of Poplar	LF	8	PVC	104	\$75	\$7,773	1985	100	64	64.00%	\$150	\$23,318	2.50%	64	4.857	\$113,243	0.0065	\$734.09	\$11,659	\$23,318	
80	Gravity sewer main	2nd Street East and West of Poplar	LF	8	PVC	90	\$75	\$6,751	1985	100	64	64.00%	\$150	\$20,252	2.50%	64	4.857	\$98,353	0.0065	\$637.57	\$10,126	\$20,252	
144	Gravity sewer main	2nd Street East and West of Poplar	LF	8	PVC	18	\$75	\$1,316	1985	100	64	64.00%	\$150	\$3,949	2.50%	64	4.857	\$19,176	0.0065	\$124.31	\$1,974	\$3,949	
145	Gravity sewer main	2nd Street East and West of Poplar	LF	8	PVC	332	\$75	\$24,929	1985	100	64	64.00%	\$150	\$74,787	2.50%	64	4.857	\$363,206	0.0065	\$2,354.48	\$37,393	\$74,787	
1	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	397	\$75	\$29,779	1990	100	69	69.00%	\$150	\$89,338	2.50%	69	5.495	\$490,889	0.0056	\$2,730.36	\$44,669	\$89,338	
2	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	254	\$75	\$19,030	1990	100	69	69.00%	\$150	\$57,090	2.50%	69	5.495	\$313,696	0.0056	\$1,744.80	\$28,545	\$57,090	
3	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	928	\$75	\$69,582	1990	100	69	69.00%	\$150	\$208,745	2.50%	69	5.495	\$1,147,001	0.0056	\$6,379.69	\$104,373	\$208,745	
4	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	398	\$75	\$29,864	1990	100	69	69.00%	\$150	\$89,593	2.50%	69	5.495	\$492,288	0.0056	\$2,738.14	\$44,796	\$89,593	
5	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	694	\$75	\$52,050	1990	100	69	69.00%	\$150	\$156,150	2.50%	69	5.495	\$858,003	0.0056	\$4,772.27	\$78,075	\$156,150	
6	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	478	\$75	\$35,855	1990	100	69	69.00%	\$150	\$107,565	2.50%	69	5.495	\$591,043	0.0056	\$3,287.42	\$53,783	\$107,565	
7	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	64	\$75	\$4,769	1990	100	69	69.00%	\$150	\$14,308	2.50%	69	5.495	\$78,620	0.0056	\$437.29	\$7,154	\$14,308	
8	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	808	\$75	\$60,582	1990	100	69	69.00%	\$150	\$181,746	2.50%	69	5.495	\$998,645	0.0056	\$5,554.53	\$90,873	\$181,746	
9	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	449	\$75	\$33,696	1990	100	69	69.00%	\$150	\$101,089	2.50%	69	5.495	\$555,459	0.0056	\$3,089.50	\$50,545	\$101,089	
10	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	797	\$75	\$59,807	1990	100	69	69.00%	\$150	\$179,422	2.50%	69	5.495	\$985,878	0.0056	\$5,483.52	\$89,711	\$179,422	
11	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	750	\$75	\$56,223	1990	100	69	69.00%	\$150	\$168,669	2.50%	69	5.495	\$926,793	0.0056	\$5,154.88	\$84,335	\$168,669	
12	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	163	\$75	\$12,214	1990	100	69	69.00%	\$150	\$36,642	2.50%	69	5.495	\$201,337	0.0056	\$1,119.85	\$18,321	\$36,642	
13	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	779	\$75	\$58,392	1990	100	69	69.00%	\$150	\$175,175	2.50%	69	5.495	\$962,538	0.0056	\$5,353.70	\$87,587	\$175,175	
14	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	186	\$75	\$13,981	1990	100	69	69.00%	\$150	\$41,944	2.50%	69	5.495	\$230,473	0.0056	\$1,281.90	\$20,972	\$41,944	
15	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	102	\$75	\$7,672	1990	100	69	69.00%	\$150	\$23,017	2.50%	69	5.495	\$126,474	0.0056	\$703.46	\$11,509	\$23,017	
16	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	125	\$75	\$9,384	1990	100	69	69.00%	\$150	\$28,151	2.50%	69	5.495	\$154,680	0.0056	\$860.34	\$14,075	\$28,151	
64	Gravity sewer main	High School to CDOT	LF	8	PVC	567	\$75	\$42,553	1990	100	69	69.00%	\$150	\$127,659	2.50%	69	5.495	\$701,450	0.0056	\$3,901.51	\$63,829	\$127,659	
115	Gravity sewer main	Hidden Valley to Pink Zoning Parcel	LF	8	PVC	817	\$75	\$61,256	1990	100	69	69.00%	\$150	\$183,768	2.50%	69	5.495	\$1,009,754	0.0056	\$5,616.32	\$91,884	\$183,768	
154	Gravity sewer main	High School to CDOT	LF	8	PVC	384	\$75	\$28,778	1990	100	69	69.00%	\$150	\$86,335	2.50%	69	5.495	\$474,390	0.0056	\$2,638.59	\$43,168	\$86,335	
155	Gravity sewer main	High School to CDOT	LF	8	PVC	448	\$75	\$33,623	1990	100	69	69.00%	\$150	\$100,869	2.50%	69	5.495	\$554,247	0.0056	\$3,082.76	\$50,434	\$100,869	
156	Gravity sewer main	High School to CDOT	LF	8	PVC	341	\$75	\$25,584	1990	100	69	69.00%	\$150	\$76,753	2.50%	69	5.495	\$421,735	0.0056	\$2,345.72	\$38,376	\$76,753	
157	Gravity sewer main	High School to CDOT	LF	8	PVC	684	\$75	\$51,287	1990	100	69	69.00%	\$150	\$153,862	2.50%	69	5.495	\$845,431	0.0056	\$4,702.34	\$76,931	\$153,862	
17	Gravity sewer main	Meadowbrook Subdivision	LF	8	PVC	87	\$75	\$6,496	1998	100	77	77.00%	\$150	\$12,992	2.50%	77	6.695	\$86,980	0.0044	\$381.84	\$9,744	\$19,488	
18	Gravity sewer main	Meadowbrook Subdivision	LF	8	PVC	225	\$75	\$16,879	1998	100	77	77.00%	\$150	\$33,759	2.50%	77	6.695	\$226,008	0.0044	\$992.17	\$25,319	\$50,638	
19	Gravity sewer main	Meadowbrook Subdivision	LF	8	PVC	20	\$75	\$1,534	1998	100	77	77.00%	\$150	\$3,068	2.50%	77	6.695	\$20,539	0.0044	\$90.16	\$2,301	\$4,602	
113	Gravity sewer main	Meadowbrook Subdivision	LF	8	PVC	98	\$75	\$7,335	1998	100	77	77.00%	\$150	\$14,670	2.50%	77	6.695	\$98,215	0.0044	\$431.16	\$11,003	\$22,005	
114	Gravity sewer main	Meadowbrook Subdivision	LF	8	PVC	310	\$75	\$23,232	1998	100	77	77.00%	\$150	\$46,463	2.50%	77	6.695	\$311,062	0.0044	\$1,365.55	\$34,847	\$69,695	
120	Gravity sewer main	Meadowbrook Subdivision	LF	8	PVC	179	\$75	\$13,430	1998	100	77	77.00%	\$150	\$26,861	2.50%	77	6.695	\$179,826	0.0044	\$789.43	\$20,145	\$40,291	
121	Gravity sewer main	Meadowbrook Subdivision	LF	8	PVC	73	\$75	\$5,494	1998	100	77	77.00%	\$150	\$10,988	2.50%	77	6.695	\$73,564	0.0044	\$322.94	\$8,241	\$16,482	
122	Gravity sewer main	Meadowbrook Subdivision	LF	8	PVC	312	\$75	\$23,398	1998	100	77	77.00%	\$150	\$46,795	2.50%	77	6.695	\$313,283	0.0044	\$1,375.30	\$35,096	\$70,193	
138	Gravity sewer main	Box Elder/North Fork/School Area	LF	8	PVC	225	\$75	\$16,874	1998	100	77	77.00%	\$150	\$33,747	2.50%	77	6.695	\$225,931	0.0044	\$991.83	\$25,310	\$50,621	
139	Gravity sewer main	Box Elder/North Fork/School Area	LF	8	PVC	158	\$75	\$11,867	1998	100	77	77.00%	\$150	\$23,733	2.50%	77	6.695	\$158,889	0.0044	\$697.52	\$17,800	\$35,600	
140	Gravity sewer main	Box Elder/North Fork/School Area	LF	8	PVC	274	\$75	\$20,554	1998	100	77	77.00%	\$150	\$41,108	2.50%	77	6.695	\$275,209	0.0044	\$1,208.16	\$30,831	\$61,662	
87	Gravity sewer main	Clark Ave between 2nd/3rd	LF	8	PVC	103	\$100	\$10,261	2020	100	99	99.00%	\$100	\$10,									

81	Gravity sewer main	Alley between Delta/Rio Grande between 1st/3rd	LF	8	VCP	71	\$50	\$3,544	1970	50	-1	-2.00%	\$150	\$10,631	2.50%	1	1.025	\$10,896	1.0000	\$10,896.49	\$5,315	\$10,631
82	Gravity sewer main	Alley between Rio Grande/Colorado between 1st/3rd	LF	8	VCP	303	\$50	\$15,146	1970	50	-1	-2.00%	\$150	\$45,437	2.50%	1	1.025	\$46,573	1.0000	\$46,573.43	\$22,719	\$45,437
83	Gravity sewer main	Alley between Rio Grande/Colorado between 1st/3rd	LF	8	VCP	303	\$50	\$15,147	1970	50	-1	-2.00%	\$150	\$45,441	2.50%	1	1.025	\$46,577	1.0000	\$46,576.55	\$22,720	\$45,441
84	Gravity sewer main	Alley between Colorado/Clark between 1st/3rd	LF	8	VCP	298	\$50	\$14,913	1970	50	-1	-2.00%	\$150	\$44,740	2.50%	1	1.025	\$45,859	1.0000	\$45,858.90	\$22,370	\$44,740
85	Gravity sewer main	Alley between Colorado/Clark between 1st/3rd	LF	8	VCP	407	\$50	\$20,360	1970	50	-1	-2.00%	\$150	\$61,080	2.50%	1	1.025	\$62,607	1.0000	\$62,606.82	\$30,540	\$61,080
86	Gravity sewer main	Clark Ave (100 Block)	LF	8	VCP	246	\$50	\$12,321	1970	50	-1	-2.00%	\$150	\$36,962	2.50%	1	1.025	\$37,886	1.0000	\$37,886.41	\$18,481	\$36,962
96	Gravity sewer main	Alley between Poplar/Box Elder between 3rd/4th	LF	8	VCP	262	\$50	\$13,083	1970	50	-1	-2.00%	\$150	\$39,250	2.50%	1	1.025	\$40,231	1.0000	\$40,231.06	\$19,625	\$39,250
97	Gravity sewer main	Alley between Poplar/Box Elder between 3rd/4th	LF	8	VCP	265	\$50	\$13,271	1970	50	-1	-2.00%	\$150	\$39,814	2.50%	1	1.025	\$40,810	1.0000	\$40,809.75	\$19,907	\$39,814
98	Gravity sewer main	Alley between North Fork/Orchard between 3rd/4th	LF	8	VCP	492	\$50	\$24,576	1970	50	-1	-2.00%	\$150	\$73,728	2.50%	1	1.025	\$75,571	1.0000	\$75,570.72	\$36,864	\$73,728
99	Gravity sewer main	Alley between Orchard/Oak between 3rd/4th	LF	8	VCP	519	\$50	\$25,936	1970	50	-1	-2.00%	\$150	\$77,809	2.50%	1	1.025	\$79,755	1.0000	\$79,754.61	\$38,905	\$77,809
100	Gravity sewer main	Alley between Oak/Delta between 3rd/4th	LF	8	VCP	250	\$50	\$12,496	1970	50	-1	-2.00%	\$150	\$37,489	2.50%	1	1.025	\$38,426	1.0000	\$38,425.94	\$18,744	\$37,489
101	Gravity sewer main	Alley between Oak/Delta between 3rd/4th	LF	8	VCP	242	\$50	\$12,124	1970	50	-1	-2.00%	\$150	\$36,373	2.50%	1	1.025	\$37,283	1.0000	\$37,282.75	\$18,187	\$36,373
116	Gravity sewer main	Dorris Ave (100 Block)	LF	8	VCP	584	\$50	\$29,185	1970	50	-1	-2.00%	\$150	\$87,554	2.50%	1	1.025	\$89,743	1.0000	\$89,742.87	\$43,777	\$87,554
117	Gravity sewer main	Alley between Minnesota/Lamborn between 2nd/3rd	LF	8	VCP	455	\$50	\$22,757	1970	50	-1	-2.00%	\$150	\$68,270	2.50%	1	1.025	\$69,977	1.0000	\$69,977.20	\$34,135	\$68,270
118	Gravity sewer main	Lamborn Ave between 2nd/3rd	LF	8	VCP	484	\$50	\$24,225	1970	50	-1	-2.00%	\$150	\$72,674	2.50%	1	1.025	\$74,491	1.0000	\$74,491.27	\$36,337	\$72,674
124	Gravity sewer main	Alley between Grand/Onarga between 3rd/4th	LF	8	VCP	525	\$50	\$26,227	1970	50	-1	-2.00%	\$150	\$78,680	2.50%	1	1.025	\$80,647	1.0000	\$80,646.94	\$39,340	\$78,680
125	Gravity sewer main	Alley between Main/Grand between 3rd/4th	LF	8	VCP	503	\$50	\$25,157	1970	50	-1	-2.00%	\$150	\$75,471	2.50%	1	1.025	\$77,358	1.0000	\$77,357.93	\$37,736	\$75,471
126	Gravity sewer main	Alley between Main/Grand between 3rd/4th	LF	8	VCP	16	\$50	\$823	1970	50	-1	-2.00%	\$150	\$2,470	2.50%	1	1.025	\$2,532	1.0000	\$2,532.09	\$1,235	\$2,470
127	Gravity sewer main	Alley between Grand/Onarga between 3rd/4th	LF	8	VCP	13	\$50	\$674	1970	50	-1	-2.00%	\$150	\$2,022	2.50%	1	1.025	\$2,072	1.0000	\$2,072.39	\$1,011	\$2,022
128	Gravity sewer main	Alley between Onarga/Poplar between 3rd/4th	LF	8	VCP	223	\$50	\$11,161	1970	50	-1	-2.00%	\$150	\$33,483	2.50%	1	1.025	\$34,320	1.0000	\$34,320.13	\$16,742	\$33,483
129	Gravity sewer main	Alley between Onarga/Poplar between 3rd/4th	LF	8	VCP	296	\$50	\$14,811	1970	50	-1	-2.00%	\$150	\$44,433	2.50%	1	1.025	\$45,544	1.0000	\$45,543.60	\$22,216	\$44,433
130	Gravity sewer main	Alley between Onarga/Poplar between 3rd/4th	LF	8	VCP	17	\$50	\$860	1970	50	-1	-2.00%	\$150	\$2,580	2.50%	1	1.025	\$2,645	1.0000	\$2,644.64	\$1,290	\$2,580
131	Gravity sewer main	6th/7th/Delta/Oak/Orchard	LF	8	VCP	323	\$50	\$16,174	1975	50	4	8.00%	\$150	\$48,522	2.50%	4	1.104	\$53,559	0.2408	\$12,898.00	\$24,261	\$48,522
132	Gravity sewer main	6th/7th/Delta/Oak/Orchard	LF	8	VCP	313	\$50	\$15,635	1975	50	4	8.00%	\$150	\$46,905	2.50%	4	1.104	\$51,775	0.2408	\$12,468.29	\$23,453	\$46,905
133	Gravity sewer main	6th/7th/Delta/Oak/Orchard	LF	8	VCP	222	\$50	\$11,118	1975	50	4	8.00%	\$150	\$33,355	2.50%	4	1.104	\$36,818	0.2408	\$8,866.33	\$16,677	\$33,355
134	Gravity sewer main	6th/7th/Delta/Oak/Orchard	LF	8	VCP	152	\$50	\$7,601	1975	50	4	8.00%	\$150	\$22,802	2.50%	4	1.104	\$25,170	0.2408	\$6,061.29	\$11,401	\$22,802
135	Gravity sewer main	6th/7th/Delta/Oak/Orchard	LF	8	VCP	392	\$50	\$19,620	1975	50	4	8.00%	\$150	\$58,860	2.50%	4	1.104	\$64,971	0.2408	\$15,646.09	\$29,430	\$58,860
136	Gravity sewer main	6th/7th/Delta/Oak/Orchard	LF	8	VCP	214	\$50	\$10,676	1975	50	4	8.00%	\$150	\$32,028	2.50%	4	1.104	\$35,353	0.2408	\$8,513.55	\$16,014	\$32,028
137	Gravity sewer main	6th/7th/Delta/Oak/Orchard	LF	8	VCP	390	\$50	\$19,523	1975	50	4	8.00%	\$150	\$58,569	2.50%	4	1.104	\$64,649	0.2408	\$15,568.58	\$29,284	\$58,569
141	Gravity sewer main	6th/7th/Delta/Oak/Orchard	LF	8	VCP	766	\$50	\$38,281	1975	50	4	8.00%	\$150	\$114,844	2.50%	4	1.104	\$126,766	0.2408	\$30,527.47	\$57,422	\$114,844
159	Gravity sewer main	6th/7th/Delta/Oak/Orchard	LF	8	VCP	546	\$50	\$27,297	1975	50	4	8.00%	\$150	\$81,890	2.50%	4	1.104	\$90,392	0.2408	\$21,767.94	\$40,945	\$81,890
30	Gravity sewer main	Minnesota Ave thru Park	LF	10	PVC	270	\$50	\$13,476	1980	100	59	59.00%	\$150	\$40,428	2.50%	59	4.292	\$173,535	0.0076	\$1,317.66	\$20,214	\$40,428
31	Gravity sewer main	Minnesota Ave thru Park	LF	10	PVC	384	\$50	\$19,208	1980	100	59	59.00%	\$150	\$57,625	2.50%	59	4.292	\$247,355	0.0076	\$1,878.18	\$28,813	\$57,625
32	Gravity sewer main	Minnesota Ave thru Park	LF	10	PVC	221	\$50	\$11,045	1980	100	59	59.00%	\$150	\$33,135	2.50%	59	4.292	\$142,230	0.0076	\$1,079.96	\$16,567	\$33,135
33	Gravity sewer main	Minnesota Ave thru Park	LF	10	PVC	176	\$50	\$8,797	1980	100	59	59.00%	\$150	\$26,391	2.50%	59	4.292	\$113,284	0.0076	\$860.17	\$13,196	\$26,391
34	Gravity sewer main	Minnesota Ave thru Park	LF	10	PVC	46	\$50	\$2,283	1980	100	59	59.00%	\$150	\$6,848	2.50%	59	4.292	\$29,397	0.0076	\$223.21	\$3,424	\$6,848
35	Gravity sewer main	Minnesota Ave thru Park	LF	10	PVC	216	\$50	\$10,805	1980	100	59	59.00%	\$150	\$32,415	2.50%	59	4.292	\$139,141	0.0076	\$1,056.51	\$16,208	\$32,415
36	Gravity sewer main	Minnesota Ave thru Park	LF	10	PVC	312	\$50	\$15,621	1980	100	59	59.00%	\$150	\$46,862	2.50%	59	4.292	\$201,154	0.0076	\$1,527.37	\$23,431	\$46,862
123	Gravity sewer main	Minnesota Ave thru Park	LF	10	PVC	157	\$50	\$7,869	1980	100	59	59.00%	\$150	\$23,608	2.50%	59	4.292	\$101,335	0.0076	\$769.44	\$11,804	\$23,608
146	Gravity sewer main	Minnesota Ave thru Park	LF	10	PVC	225	\$50	\$11,266	1980	100	59	59.00%	\$150	\$33,797	2.50%	59	4.292	\$145,074	0.0076	\$1,101.56	\$16,899	\$33,797
147	Gravity sewer main	Minnesota Ave thru Park	LF	10	PVC	299	\$50	\$14,936	1980	100	59	59.00%	\$150	\$44,809	2.50%	59	4.292	\$192,341	0.0076	\$1,460.46	\$22,404	\$44,809
153	Gravity sewer main	Box Elder Dr to Park	LF	10	PVC	399	\$50	\$19,971	1980	100	59	59.00%	\$150	\$59,912	2.50%	59	4.292	\$257,171	0.0076	\$1,952.72	\$29,956	\$59,912
20	Gravity sewer main	Meadowbrook Subdivision to Vista Drive	LF	10	PVC	187	\$75	\$14,043	1990	100	69	69.00%	\$150	\$42,129	2.50%	69	5.495	\$231,489	0.0056	\$1,287.56	\$21,065	\$42,129
21	Gravity sewer main	Meadowbrook Subdivision to Vista Drive	LF	10	PVC	341	\$75	\$25,543	1990	100	69	69.00%	\$150	\$76,630	2.50%	69	5.495	\$421,062	0.0056	\$2,341.97	\$38,315	\$76,630
22	Gravity sewer main	Meadowbrook Subdivision to Vista Drive	LF	10	PVC	152	\$75	\$11,407	1990	100	69	69.00%	\$150	\$34,221	2.50%	69	5.495	\$188,038	0.0056	\$1,045.88	\$17,111	\$34,221
23	Gravity sewer main	Meadowbrook Subdivision to Vista Drive	LF	10	PVC	21	\$75	\$1,592	1990	100	69	69.00%	\$150	\$4,776	2.50%	69	5.495	\$26,241	0.0056	\$145.95	\$2,388	\$4,776
24	Gravity sewer main	Meadowbrook Subdivision to Vista Drive	LF	10	PVC	145	\$75	\$10,874	1990	100	69	69.00%	\$150	\$32,623	2.50%	69	5.495	\$179,255	0.0056	\$997.03	\$16,312	\$32,623
25	Gravity sewer main	Vista Drive to Minnesota Ave	LF	10	PVC	96	\$75	\$7,230	1990	100	69	69.00%	\$150	\$21,690	2.50%	69	5.495	\$119,181	0.0056	\$662.89	\$10,845	\$21,690
26	Gravity sewer main	Vista Drive to Minnesota Ave	LF	10	PVC	482	\$75	\$36,131	1990	100	69	69.00%	\$150	\$108,392	2.50%	69	5.495	\$595,587	0.0056	\$3,312.69	\$54,196	\$108,392
27	Gravity sewer main	Vista Drive to Minnesota Ave	LF	10	PVC	72	\$75	\$5,382	1990	100	69	69.00%	\$150	\$16,146	2.50%	69	5.495	\$88,719	0.0056	\$493.46	\$8,073	\$16,146
28	Gravity sewer main	Vista Drive to Minnesota Ave	LF	10	PVC	303	\$75	\$22,691	1990	100	69	69.00%	\$150	\$68,074	2.50%	69	5.495	\$374,049	0.0056	\$2,080.48	\$34,037	\$68,074
29	Gravity sewer main	Vista Drive to Minnesota Ave	LF	10	PVC	11	\$75	\$858	1990	100	69	69.00%	\$150	\$2,574	2.50%	69	5.495	\$14,146	0.0056	\$78.68	\$1,287	\$2,574
91	Gravity sewer main	3rd/Delta (East) to 3rd/Lamborn Ave	LF	10	PVC	378	\$75	\$28,325	1994	100	73	73.00%	\$150	\$84,974	2.50%	73	6.065	\$515,381	0.0049	\$2,543.76	\$42,487	\$84,974
92	Gravity sewer main	3rd/Delta (East) to 3rd/Lamborn Ave	LF	10	PVC	315	\$75	\$23,605	1994	100	73	73.00%	\$150	\$70,815	2.50%	73	6.065	\$429,506	0.0049	\$2,119.91	\$35,408	\$70,815
93	Gravity sewer main	3rd/Delta (East) to 3rd/Lamborn Ave	LF	10	PVC	327	\$75	\$24,514	1994	100	73	73.00%	\$150	\$73,542	2.50%	73	6.065	\$446,045	0.0049	\$2,201.53	\$36,771	\$73,542
94	Gravity sewer main	3rd/Delta (East) to 3rd/Lamborn Ave	LF	10	PVC	156	\$75	\$11,731	1994	100	73	73.00%	\$150	\$35,193	2.50%	73	6.065	\$213,449	0.0049	\$1,053.52	\$17,596	\$35,193
95	Gravity sewer main	3rd/Delta (East) to 3rd/Lamborn Ave	LF	10	PVC	499	\$75	\$37,398	1994	100	73	73.00%	\$150	\$112,193	2.50%	73	6.065	\$680,470	0.0049	\$3,358.58	\$56,097	\$112,193
119	Gravity sewer main	3rd/Delta (East) to 3rd/Lamborn Ave	LF	10	PVC	158	\$75	\$11,839	1994	100	73	73.00%	\$150	\$3								

71	Gravity sewer main	CDOT to Niagara Ave to Samuel Wade	LF	15	VCP	660	\$50	\$32,996	1970	50	-1	-2.00%	\$150	\$98,988	2.50%	1	1.025	\$101,462	1.0000	\$101,462.37	\$49,494	\$98,988	
72	Gravity sewer main	CDOT to Niagara Ave to Samuel Wade	LF	15	VCP	73	\$50	\$3,654	1970	50	-1	-2.00%	\$150	\$10,961	2.50%	1	1.025	\$11,235	1.0000	\$11,235.14	\$5,481	\$10,961	
73	Gravity sewer main	CDOT to Niagara Ave to Samuel Wade	LF	15	VCP	61	\$50	\$3,038	1970	50	-1	-2.00%	\$150	\$9,114	2.50%	1	1.025	\$9,342	1.0000	\$9,342.04	\$4,557	\$9,114	
74	Gravity sewer main	CDOT to Niagara Ave to Samuel Wade	LF	15	VCP	272	\$50	\$13,623	1970	50	-1	-2.00%	\$150	\$40,869	2.50%	1	1.025	\$41,890	1.0000	\$41,890.27	\$20,434	\$40,869	
102	Gravity sewer main	CDOT to Niagara Ave to Samuel Wade	LF	15	VCP	983	\$50	\$49,134	1970	50	-1	-2.00%	\$150	\$147,402	2.50%	1	1.025	\$151,088	1.0000	\$151,087.53	\$73,701	\$147,402	
110	Gravity sewer main	CDOT to Niagara Ave to Samuel Wade	LF	15	VCP	240	\$50	\$11,980	1970	50	-1	-2.00%	\$150	\$35,939	2.50%	1	1.025	\$36,838	1.0000	\$36,837.68	\$17,970	\$35,939	
	Manholes		EA			168	\$2,500	\$420,000	1983	75	37	49.98%	\$7,500	\$1,260,000	2.50%	37	2.524	\$3,179,653	0.0164	\$52,175.61	\$630,000	\$1,260,000	
	<b>Subtotal</b>							<b>\$4,134,213</b>												<b>\$48,518,216</b>	<b>\$3,043,689</b>	<b>\$6,201,320</b>	<b>\$12,402,640</b>
<b>Wastewater Treatment</b>																							
	WWTF		LS			1	\$3,000,000	\$3,000,000	2005	50	34	68.00%	\$6,000,000	\$6,000,000	2.50%	34	2.315	\$13,891,933	0.0190	\$264,040.50			
	<b>Subtotal</b>							<b>\$3,000,000</b>												<b>\$13,891,933</b>	<b>\$264,041</b>	<b>\$0</b>	<b>\$0</b>
	<b>Total</b>							<b>\$7,134,213</b>												<b>\$62,410,149</b>	<b>\$3,307,730</b>	<b>\$6,201,320</b>	<b>\$12,402,640</b>

# Appendix D

## Reference Documents

Useful Life  
Renewal Strategies

The following information was adapted from 'Fundamentals of Asset Management' training workshop produced by the U.S. Environmental Protection Agency in 2006. <https://www.epa.gov/sustainable-water-infrastructure/asset-management-water-and-wastewater-utilities#workshops>

***Expected Useful Lives (Years)***

<b>Asset Type</b>	<b>Exp Life</b>
Civil Structures	75
PVC Pressure Pipes	100
DIP Pressure Pipes	100
Cast Iron Pressure Pipes	50
Steel Pressure Pipes	50
PVC Sewers	100
VCP Sewers	50
Pumps	30
Submersible Pumps	15
Valves	30
Motors	30
Electrical	45
Controls	25
Building Assets	60
Asphalt Pavement	50

Original costs to build (or acquire) assets were estimated to calculate the current Value of Infrastructure owned and maintained by the entity. Replacement Costs were calculated based on the date of installation and an average inflation rate of 2.50%. Minor and Major Repair Costs were estimated using the calculated Replacement Cost and a general price index based on the age of the asset. Price indexes used in this Repair and Replacement Cost Estimate are below.

For example, we estimated that sewer manholes were installed in 1983 for \$2,500 each. We calculated estimated the cost to rehabilitate a manhole today (in 2021) would be the original cost multiplied by 2.00, or \$5,000 each. We estimated the cost to replace a manhole in 2021 would be the original cost multiplied by 3.00, or \$7,500 each.

In publicly-owned civil infrastructure systems, where rehabilitation and maintenance work is done by competitive bids, replacement cost is based upon current market forces. Please note that Future replacement cost predictions may be subject to too much variation to be reliable.

Please note that the condition and performance of assets were not evaluated by SGM, which greatly affect the life expectancy and costs of repair or replacement. Some assets are in better or worse condition at the time of replacement and therefore not all replacement costs will be the same on a per unit basis.

Wastewater Collection Pipe, Manhole		
Description	Price Index	
Minor Repair/Maintenance	1.50	
Major Repair (InSitu Lining)	3.00	

Wastewater Treatment Facilities, Equipment		
Description	Price Index	
Minor Repair/Maintenance	0.10	
Major Repair	0.50	

Tanks		
Description	Price Index	
Installed Date < 1996		
Minor Rehab	0.50	
Major Rehab	1.00	
Replace	1.50	
1996 < Installed Date < 2016		
Minor Rehab	0.30	
Major Rehab	0.70	
Replace	1.20	

Water Mains		
Description	Price Index	
Rehabilitate (InSitu Lining)	1.50	
Replace (Open Cut Trench)	3.00	

Pumps, Motors, Valves, Hydrants, Wells, Electric, Control System		
Description	Price Index	
Installed Date < 1996		
Minor Rehab	1.00	
Major Rehab	2.00	
Replace	3.00	
1996 < Installed Date < 2016		
Minor Rehab	0.70	
Major Rehab	1.50	
Replace	2.00	
Installed Date > 2016		
Minor Rehab	0.50	
Major Rehab	0.70	
Replace	1.10	

Buildings		
Description	Price Index	
Minor Rehab	0.50	
Major Rehab	1.00	
Replace	1.50	

3-inch \$	800.00
4-inch \$	1,200.00
6-inch \$	1,600.00
8-inch \$	2,500.00
10-inch \$	4,300.00
12-inch \$	5,700.00
14-inch \$	12,200.00
15-inch \$	17,000.00
16-inch \$	17,000.00
18-inch \$	22,000.00
20-inch \$	28,600.00
21-inch \$	33,000.00
24-inch \$	42,600.00
27-inch \$	54,000.00
30-inch \$	65,400.00
36-inch \$	95,000.00

Tap Dataset

meter_size_cost		
Description	Domain	Value
5/8-inch meter \$		80.00
3/4-inch meter \$		130.00
1-inch meter \$		190.00
1.5-inch meter \$		430.00
2-inch meter \$		590.00
3-inch meter \$		3,020.00
4-inch meter \$		4,910.00
6-inch meter \$		7,900.00

PumpStations Dataset

ps_size_cost		
Description	Domain	Value
Pump Station GPM <= 500 \$	/gpm	250.00
Pump Station 500 < GPM <= 1000 \$	/gpm	300.00
Pump Station 1000 < GPM \$	/gpm	500.00

type_cip_project		
Description	Domain	Value
Minor Rehabilitate		0.1
Major Rehabilitate		0.50
Replace		1.00

AGENDA SUMMARY FORM

	Roll Call
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Summary:

Notes:

Possible Motions:  
  
Motion by: \_\_\_\_\_ 2<sup>nd</sup>: \_\_\_\_\_ vote: \_\_\_\_\_

Vote:	Mayor Bachran	Trustee Budinger	Trustee Johnson
Trustee Knutson	Vacant	Trustee Smith	Trustee Thompson

AGENDA SUMMARY FORM

	<p>Agenda Approval</p>
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Summary:

Notes:

Possible Motions:

Motion by: \_\_\_\_\_ 2<sup>nd</sup>: \_\_\_\_\_ vote: \_\_\_\_\_

Vote:	Mayor Bachran	Trustee Budinger	Trustee Johnson
Trustee Knutson	Vacant	Trustee Smith	Trustee Thompson

AGENDA SUMMARY FORM

	Announcements
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Summary:

Notes:

Possible Motions:

Motion by: \_\_\_\_\_ 2<sup>nd</sup>: \_\_\_\_\_ vote: \_\_\_\_\_

Vote:	Mayor Bachran	Trustee Budinger	Trustee Johnson
Trustee Knutson	Vacant	Trustee Smith	Trustee Thompson

AGENDA SUMMARY FORM

	<p>Special Meeting: SGM - Capital Improvement Plan/Asset Inventory &amp; System Mapping Presentation follow-up discussion and possible action regarding planning for the water system</p>
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Summary:

Notes:

LINK TO Town Website Mapping Page:

<https://townofpaonia.colorado.gov/departments/public-works>

Possible Motions:

Motion by: \_\_\_\_\_ 2<sup>nd</sup>: \_\_\_\_\_ vote: \_\_\_\_\_

Vote:	Mayor Bachran	Trustee Budinger	Trustee Johnson
Trustee Knutson	Vacant	Trustee Smith	Trustee Thompson

AGENDA SUMMARY FORM

	Adjournment
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Summary:

Notes:

Possible Motions:  
  
Motion by: \_\_\_\_\_ 2<sup>nd</sup>: \_\_\_\_\_ vote: \_\_\_\_\_

Vote:	Mayor Bachran	Trustee Budinger	Trustee Johnson
Trustee Knutson	Vacant	Trustee Smith	Trustee Thompson