Sewer System Management Plan Program Audit

City of Woodland FY 2021/2022 SSMP Internal Audit

The City of Woodland is currently in compliance with all of the SSMP requirements as described in subsection D.13 of the General Waste Discharge Requirements (GWDR) for Sanitary Sewer Systems as described herein.

7/31/2022

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City of Woodland

MEMORANDUM

Date: July 31st, 2022

To: Ken Hiatt, City Manager; Craig Lock, Director of Public Works

From: Tim Busch, Principal Utilities Civil Engineer

Subject: SSMP Program Audit Cover Letter

SSMP Performance Review of FY 21/22

Regulatory Compliance

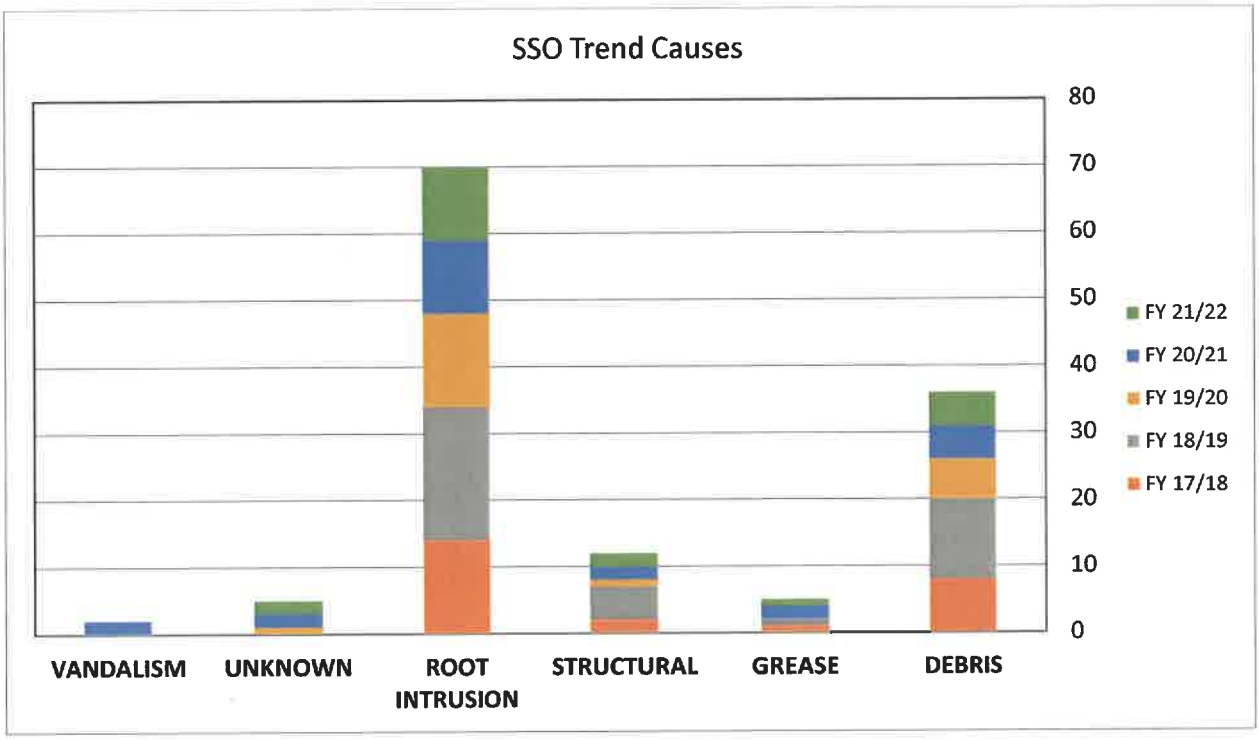
The City of Woodland is currently in compliance with all SSMP requirements as described in subsection D.13 of the General Waste Discharge Requirements (GWDR).

Objectives

This memorandum summarizes the performance of the City of Woodland's Sewer System Management Plan (SSMP) for Fiscal Year (FY) 21/22. The purpose of the SSMP is to provide a written framework for the management, operation, and maintenance programs executed by the city, with the goal of maintaining the level of service of the sewer collection system while minimizing sanitary sewer overflows (SSOs). This review is completed as part of the annual audit process described in Sections IX and X of the City's SSMP. This process helps the SSMP document to evolve over time to address identified deficiencies in the management, operation, and maintenance of the sewer collection system. This memorandum summarizes the following information:

1. SSO history, describing the number and nature of SSOs over the past nine years.
2. Summary of progress of further development of the SSMP elements which have a plan and schedule for full implementation.
3. Summary of how many SSMP elements were implemented over last year.

4. Effectiveness of the implemented SSMP elements.
5. What SSMP elements are planned to be implemented next year.
6. Description of additions and improvements to the collection system over the last year.
7. Description of the additions and improvements to the collection system planned for the upcoming year.
8. Review of performance indicators and overall summary of the past fiscal year with proposed modifications for implementation in fiscal year 22/23 in areas in need of improvement.



SSO History

FY 21/22

Lateral SSOs	Main SSOs	SSO volume lateral (gal)	SSO volume Main (gal)
23	0	460	0

FY 20/21

Lateral SSOs	Main SSOs	SSO volume lateral (gal)	SSO volume Main (gal)
22	1*	1256	430*

*SSO resulted from a diversion failure (bypass pumping) of a CIP project, not a failed sewer gravity main. The SSO was entirely contained.

FY 19/20

Lateral SSOs	Main SSOs	SSO volume lateral (gal)	SSO volume Main (gal)
19	0	929	0

FY 18/19

Lateral SSOs	Main SSOs	SSO volume lateral (gal)	SSO volume Main (gal)
27	1	582	58

FY 17/18

Lateral SSOs	Main SSOs	SSO volume lateral (gal)	SSO volume Main (gal)
21	0	444	0

The majority of SSOs are associated with lateral connections to the city system. Overall root intrusion and some debris are being addressed through the root treatment program and public outreach. Average SSO response is within 35 minutes of notification including after-hours emergencies. A CCTV inspection of the pipes in the area is typically done within 1 day of the reported SSO. Documentation of investigations is available to view with Cityworks work orders. For FY 21/22, the current root intrusion preventative maintenance program includes lining the laterals, a cost effective and efficient use of staff time in reduction of SSOs in the City.

Progress on development of SSMP elements

The SSMP was reviewed and updated in 2020 as part of the required 5-year revision requirement by the State Water Resources Control Board (SWRCB) and was sent to council in December 2020 for approval. Prior to the 2020 update, the last SSMP update was approved by council in 2015. Key elements such as SSO categories, reporting requirements, and public outreach have changed through the amendments of the statewide general waste discharge order for sanitary sewer systems since 2009 and have been incorporated in the revised SSMP.

The SSMP audit has identified some elements that need refinement in the frequency of data collection and type of data collected for both utility maintenance workers and management staff. In late 2020, the sewer asset prioritization module (CA&CIP) crashed and system prioritization data was lost. The city is developing an alternative rating system to replace the previous program. Some sewer system elements need only to be collected on an annual basis. Other elements may need more attention. More research must be conducted in order to determine a better scope and frequency of data collection in order to develop a more robust future program.

The SSMP audit includes a change log that is updated with the details of any changes/revisions to the SSMP's performance indicators based on the current Operations and Maintenance (O&M) practices, input from key personnel and any areas that need various methods of data collection.

How SSMP elements were implemented over the last Fiscal Year

The city is still in the process of replacing the failed CA&CIP (sewer asset prioritization) program for sewer asset repair/replacement prioritization. The sewer gravity mains that are categorized in the worst condition are prioritized and organized into CIP plans for repair, replacement, or lining; however, projects are staggered over time to repair/replace the sewer system as budget allows. A sewer rate study was completed in October 2021.

Several sewer mainline repair projects were conducted over the last fiscal year to fix problems identified through the CCTV program. The majority of SSOs are associated with lateral connections to the city system. The city was able to repair laterals and mains related to SSOs in addition to lateral and main repair for other reasons. Overall, the city rated Excellent for performance tracking related to SSO mitigation. SSOs were predominantly caused by root intrusions. The city began a root treatment program several years ago. This program includes sewer lateral lining which keeps roots out of the pipelines. Prioritizing sewer lateral lining projects prevents tree invasion and mitigates the need for SSO cleanouts where most of the SSOs occur. Over the past 3 years approximately 15,400 linear feet of sewer laterals have been lined.

Effectiveness of the implemented SSMP elements

The CCTV program continues to find problems in main lines before an SSO occurs. The Operations crew keeps the Engineering department informed of pipeline failures, causes and repairs. The Engineering department follows the City's purchasing policy to contract repair work that exceeds the operations crew's ability to perform. While the documentation and communication elements of the SSMP were not fully implemented due to inadequate staffing, the use of Cityworks and other software has helped in documenting the efforts of staff to meet the intent of the SSMP in reducing SSOs in the city. Engineering and Public Works staff are still working together with the Information Technology department on updating and refining the sewer asset prioritization process and associated tools.

City Standards were updated in March 2021, incorporating several requested updates from City staff members. Examples of sewer-related changes to the City Engineering Standards include updating the depth of flow to design flow ratio to 0.94 for all pipes, increasing the horizontal separation of water and sewer service lines to 36" and adding a minimum requirement of a 5-foot horizontal clearance from trees

and other utilities. A full list of changes from the 2016 Engineering Standards to the 2022 updated Standards can be found here:

https://www.cityofwoodland.org/DocumentCenter/View/1079/List-ofchanges-to-the-2016-Engineering-Standards-PDF

What SSMP elements are planned to be implemented next year

City staff intends to continue reviewing and updating standards to incorporate current materials and practices. Evaluation and assignment of necessary sewer repairs and replacement based on the CCTV inspection will be a priority in fiscal year (FY) 22/23. Public Works staff will continue prioritizing and executing repairs and maintenance to both sewer and lateral lines as budget allows. The City will also continue to collect and analyze the sewer flow data in the trunk sewers to calibrate the sewer model.

City staff from utilities engineering, public works, and information technology will continue working together to refine the sewer asset prioritization process. Since the formerly used CA&CIP asset management program crashed and the data was unrecoverable, it has been a multi-year process to recreate the process and refine it. Daniel Hewitt has taken the lead on integrating asset prioritization data into the existing GIS infrastructure for ease of identifying the gravity mains most in need of repair, coordinating CCTV scheduling for mains that most need new data, and utilities engineering staff will continue grouping those assets into bundles for capital improvement projects. The users of the new functions, mainly the utilities engineering team and sewer collections public works leaders, will continue providing feedback in FY 22/23 to refine the functionality and organization of the data.

Description of additions and improvements to the collection system over the last Fiscal Year

The major accomplishments in CIP implementation of the FY 21/22 included:

- **2022 Open Cut Sewer Repair Project (CIP #08-21):** Open cut streets and excavated to expose and repair multiple sanitary sewer gravity mains. The sewer gravity mains in question were within the range of 6" and 10" diameter.

- **2022 Water & Sewer Repair and Replacement Project – College & Pendegast (CIP #21-01):** The work included the repair and replacement of water mains and service laterals as well as sanitary sewer mainline and lateral replacement. 2,810 linear feet of new 8-inch PVC sewer main and 6,100 linear feet of new 8-inch diameter PVC water main was constructed in the area of College and Pendegast Streets. The project resulted in more reliable water pressure and supply for 111 parcels and improved sewer drainage for 44 parcels. Additionally, the project installed 8 new fire hydrants and 9 new sewer manholes.

In FY 21/22 crews cleaned 300,440 feet of sewer and CCTV'd 190,953.5 feet of the sewer system.

Description of the additions and improvements to the collection system planned for the upcoming year

Major collection system rehabilitation projects planned for FY 22/23 include:

- **Spring Lake Lift Station Pump Replacement Project (CIP# 23-04)**: Replacement of two existing 90-HP submersible pumps with two equivalent 90-HP pumps submersible pumps.

- **Fifth and Clover Sewer Rehabilitation Project (CIP #22-18):** The work generally includes the replacement of approximately 1,000 linear feet of sanitary sewer mainline and related appurtenances in the area of fifth and Clover Streets.

- **2022 Water and Sewer Repair and Replacement Project Pendegast and College (CIP #21-01):** Repairs and replaces water mains and service laterals as well as sanitary mainline and lateral replacement. Approximately 1,320 linear feet of new 18-inch PVC sewer main will be constructed along Gym Ave. From East Street through Fourth Street. Approximately 1,550 linear feet of new 12-inch PVC sewer main will be constructed on Marshall Ave. from Fourth Street to College Street. Additionally, project will install 46 new sewer laterals, more than 14 mew manholes with inverts five feet deeper than the existing system in order to provide adequate depth of service for residents upstream whose laterals are built with shallow slopes.

- **Miscellaneous Projects:** There will be a project updating the GIS system that will include all the data that was previously found from the CACIP database. Now we will be able to see the rankings of CCTV footage and needs for repairs directly on GIS and mapped out clearly for the benefit of future repairs project. Next is the 2023 Sewer Lateral Lining project which will be a yearly update to the Sewer lateral lining projects and continue to line laterals that were subject to rot intrusion.

Review of Performance

Attached to this memorandum are performance indicator assessment sheets, which summarize the collection of specific data, intended to provide a basis by which performance in various areas related to the management and operation of the sewer collection system are measured. A responsible person is assigned to each performance indicator assessment sheet. Each quarter, each responsible person collects the data related to their assigned performance indicator assessment sheet and provides an interim rating of the City's performance. At the end of the one-year auditing period, final assessments, and recommendations for performance improvement are made. This process is described in Section ix of the City's SSMP. Attached is a summary of the performance indicators tracked by the City and performance in each area with explanation of why goals were not met and actions taken or to be taken in the next FY for future performance improvements and modifications to the SSMP. Overall, the 64 performance indicators had 17 below goal PIs in FY 21/22, compared with last FY's 14 below goal performance indicators. The most common issues with not meeting performance indicator goals were generally due to technical problems within the CA&CIP module, missing key attributes in GIS, not enough footage of

laterals treated for root intrusion and a lack of staffing and training. These are all addressed in the summary spreadsheet and the FY 22/23 audit should see a decrease in below goal performance indicators.

Attachments:

Summary of Performance Indicator Spreadsheet FY 21/22
Performance Indicator Assessment Sheets (24 PI forms)

City of Woodland SSMP Performance Indicator Summary FY 21-22				
	Performance Indicator	**Ratings FY 21-22**	**Reason**	**Action taken**
Audits				
Audits	Bi-annual Council Presentation	Good	Will present FY 20-21 and FY 21-22 in 2022.	
Audits	Time since review of SSMP audits	Good	Last Review: July 2021.	
CCTV				
CCTV	Feet inspected with CCTV / year	Good	190,953.5 feet inspected	
CCTV	Pipe segments inspected / year	Excellent	2,125 pipe segments inspected	
CCTV	Footage inspected / 16 work hours	Below Goal	1,215 feet inspected / 16 work hours	
CCTV	% of CCTV surverys with a 4 or 5 structural grading	Good	406 out of 2245 surveys had a 4 or 5 grade	
CMMS&GIS				
CMMS&GIS	% population of key GIS attribute fields for gravity sewer mains	Below Goal	79%, Key attributes are missing from GIS	Set aside time to gather and enter information
CMMS&GIS	% population of key GIS attribute fields for sewer manholes	Below Goal	59%, Key attributes are missing from GIS	Set aside time to gather and enter information
CMMS&GIS	Year-to-date % of CityWorks work orders that have been closed-out	Acceptable	84% closed out by end of FY	
Codes & Ordinances				
Codes & Ordinances	Time since last meeting to discuss list of Ordinance/Code updates based on sewer-specific issues	Good	March 2021.	
Codes & Ordinances	Time since last actual update to Ordinances/Codes based on sewer-specific issues	Excellent	March 2021.	
Communication Program				
Communication Program	% of Updated Public Documentation	Good	Updated and Uploaded.	
Communication Program	# of Public Comment Email Responses	N/A	2 emails received.	
Communication Program	% Public Comment Emails Responded To	Excellent	100%	
Employee Recognition				
Employee Recognition	Time since last awards/letters distribution: Operation & Maintenance staff	Good	4 letters	
FOG Control				
FOG Control	Time since last coordination meeting with Environmental Compliance and O&M staff	Excellent	1 FOG-related SSOs this FY, 2 last. (-50%)	
FOG Control	% reduction of FOG-related SSOs compared to previous year	Excellent	100%	
FOG Control	Annual # of FOG control public education events	Acceptable	194 events	
FOG Control	% completed of PPP Permit inspections	Excellent	quarterly	
HVVC				
HVVC	Feet cleaned / year	Excellent	300,440 feet cleaned	
HVVC	Pipe segments cleaned / year	Good	940 segments cleaned.	
HVVC	Footage cleaned / work order	Good	2,486.24 feet cleaned per work order	
HVVC	% Pipe segments pre-cleaned prior to CCTV inspection	Excellent	98.5% pre-cleaned (575 out of 584).	
Mapping				
Mapping	% of sites GPS'd from CIP Sewer R&R in construction	Excellent	100%	
Mapping	% of new development sites GPS'd	Excellent	100%	
O&M Budget				
O&M Budget	Funding provided for O&M budget	Excellent	$67.18 / ft	
O&M Budget	O&M operation cost	Below Goal	191%	
PM Effectiveness				
PM Effectiveness	% of work orders that are emergencies	Excellent	7.90%	
PM Effectiveness	% of Labor and Material Costs that is Emergency	Excellent	6.60%	
PM Effectiveness	% of Labor and Material Costs that is Emergency Work on Private Laterals	Excellent	1.00%	
PM Frequencies				
PM Frequencies	% Completion of closed-out work orders vs. expected preventative maintenance work orders	Below Goal	72%	
PM Frequencies	Frequency of thorough lift station inspection / maintenance	Below Goal	Annually and as needed	
R&R Funds				
R&R Funds	Annual R/R funding provided as % of sewer system value	Excellent	26.36% using sewer system value from previous FY	
R&R Funds	Annual funding provided for R/R program vs. CA&CIP cost projections	N/A	N/A	Update Sewer Asset Managament Software
R&R Program				

R&R Program	% of assets with risk ratings of 4 or 5 that have CIP "actions" assigned or O&M repairs assigned	N/A	CA&CIP Crashed, all data was deleted and unrecoverable	Update Sewer Asset Managment Software
R&R Program	% of scheduled CIPs designed or in construction	N/A	N/A	Update Sewer Asset Managment Software
R&R Program	# of line failures per 100 miles of pipe	Excellent	.98 line failures per 100 miles	
Replacement Parts				
Replacement Parts	Frequency of Fleet equipment and replacement part inventory review	Excellent	Monitoring of vehicles occurs on a real time basis using FASTER Fleet.	
Replacement Parts	Frequency of pipeline / manhole equipment and replacement part inventory review	Good	Quarterly inventory of equipment & replacement parts.	
Replacement Parts	Frequency of lift station equipment and replacement part inventory review	Acceptable	Inventory conducted annually, parts ordered or repaired as needed.	
Root Treatment				
Root Treatment	Footage of laterals treated for root intrusion/year	Below Goal	< 6,000 feet	
Root Treatment	Average footage of laterals treated/quarter	Below Goal	< 1,500 feet	
Root Treatment	% reduction in of root related SSOs compared to previous year	Excellent	> 5% reduction	
SECAP				
SECAP	Ratio of peak WWF to peak DWF	Acceptable	1.71:1	
SECAP	Time since last hydraulic model update	Acceptable	Spring 2019	
Service Requests				
Service Requests	Response time for urgent calls	Good	4.6 hours	
Service Requests	Response time for routine calls	Excellent	6 hours	
Service Requests	Average # of service calls / 100 miles of pipe	Excellent	84	
SSO Mitigation				
SSO Mitigation	% captured of SSO (flat, 1-5%)	Excellent	100% captured.	
SSO Mitigation	Average time to investigate SSO with CCTV, when CCTV'd	Excellent	All public SSOs were TV'd within a day.	
SSO Mitigation	% of SSO events investigated with CCTV	Excellent	100% of SSO events were followed up with CCTV. 100% of public SSO events were followed up with CCTV.	
SSO Prevention				
SSO Prevention	# of SSOs / 100 miles / year	Excellent	12.5 SSOs / 100 miles / year	
SSO Prevention	% reduction of SSOs from previous year	Below Goal	-13.6% reduction (13.6% increase)	
SSO Prevention	# of repeat SSOs / 5 years	Below Goal	10 repeat SSO within 5 years is considered below goal. (16)	
SSO Prevention	% of repeat SSOs followed by mitigation	Excellent	100% are followed up with mitigation	
SSO Response				
SSO Response	SSO response time during normal hours	Below Goal	35 min average response time for FY.	
SSO Response	SSO response time after normal hours	Excellent	16 min FY average response time	
Staffing				
Staffing	% of vacant positions	Acceptable	19 out of 21 positions filled in sewer group	
Standards Update				
Standards Update	Time since last meeting to discuss list of design standard updates based on sewer-specific issues	Excellent	Last meeting APril 2022.	
Standards Update	Time since last actual update to design standards based on sewer-specific issues	Excellent	Last update May 2021.	
Training				
Training	Frequency of tabletop / tailgate training	Below Goal	< Biweekly. (FY total: 2)	
Training	Frequency of field / equipment training	Below Goal	Quarterly (FY total: 9)	
Training	Frequency of SSO response training	Below Goal	< Quarterly (FY total: 1)	

Goal:	SSMP Audits and Updates

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify efforts to present the findings of SSMP performance evaluations to City Council and other peer agencies, with the purpose of receiving valuable feedback on performance and possible improvements to existing procedures and programs.

PIs and Data Collection Methods:

1. *Was a bi-annual report prepared and presented to City Council based on the SSMP performance indicator review process?*
   Data Collection Method: Keep track manually.

2. *The frequency with which a review of the City SSMP, a SSMP Audit, or SSMP performance evaluation (i.e. annually summary of performance indicator tracking process) is completed.*
   Data Collection Method: Keep track manually. A file of all peer reviews should be kept.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Bi-annual Council presentation	No	-	Yes	-
2	Time since last review of SSMP, SSMP Audits, or SSMP Performance Evaluations	> 5 years	2-5 years	1-2 years	< 1 year

Periodic Performance Tracking

Date	Measured Value			Performance Assessment Comments
FY 21-22	Goal	1	2	
	Value	Yes	1-2 years	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Good** – City Staff presented a sewer management update to City Council (covering FY 20/21 and FY 21/22) on January 10th, 2023.

2. **Good** – SSMP Audit Review in July 2022 for FY 21/22. (every 1-2 years)

Recommendation #1: None.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	Date:
	2/7/2023

Goal: **Closed Circuit Television (CCTV) Inspections**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

CCTV inspections are conducted using a standardized protocol to supply sufficient data for use in capital improvement project planning. The PIs listed below quantify efforts to complete CCTV work according to system-wide inspection frequency goals, and to complete the work both efficiently and with high quality.

PIs and Data Collection Methods:

1. *The total footage of the collection system inspected per year with CCTV.*
   Data Collection Method: Determine fiscal year CCTV inspection footage production from the CCTV_Cityworks_SegmentsAndFootage crystal report and evaluate rating based on the performance indicator criteria.

2. *The total number of pipe segments inspected with CCTV per year.*
   Data Collection Method: Determine fiscal year CCTV inspection pipe production from the CCTV_Cityworks_SegmentsAndFootage crystal report and evaluate rating based on the performance indicator criteria.

3. *The average footage inspected per 16 hours of work (one full day for a crew of 2).*
   Data Collection Method: Determine the total CCTV footage for the fiscal year from the "CCTV__Cityworks__SegmentsAndFootage" crystal report and divide by the total number of hours expended collecting the videos to determine the average footage per hour of work. Multiply by 16 to evaluate average footage inspected per 16 hours of work.

4. *The percentage of CCTV surveys with a 4 or a 5 structural grading in CIP staff analysis and/or Cityworks.*
   Data Collection Method: Determine total number of CCTV inspections completed in FY and the number of CCTV videos with a 4 or 5 structural grading from Cityworks Reports & CIP Staff Analysis.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Feet inspected with CCTV / year	< 100,000	100,000-170,000	170,000-200,000	> 200,000
2	Pipe segments inspected / year	< 400	400-600	600-800	> 800
3	Footage inspected / 16 work hours	< 1500	1500-1600	1600-2000	> 2000
4	% CCTV Surveys with a 4 or a 5 structural grading	> 30%	20-30%	10-20%	< 10%

Periodic Performance Tracking						
Date	**Measured Value**					**Performance Assessment Comments**
FY 21-22	Goal	1	2	3	4	4. 406 surveys / 2245 total CCTV'd assets
	Value	190,953	2,125	1,215	18%	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Good** – 190,953.5 feet inspected

   (2021, Q3: 43,985 ft. 2021, Q4: 54,562 ft. 2022, Q1: 36,094.5 ft. 2022, Q2: 56,312 ft.)

2. **Excellent** – 2,125 pipe segments inspected

(2021, Q3: 353 segments; 2021, Q4: 507 segments; 2022, Q1: 524 segments; 2022, Q2: 741 segments)

3. **Below Goal** – 1,215 feet inspected / 16 work hours

   (2,490 work-hours total)

4. **Good** – 18% (406 structural gradings out of 2245 CCTV'd assets)

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: The City has been updating the GIS map during the CCTV process, which has increased the time to televise each sewer gravity mains, but has improved GIS documentation and coverage. Speed of CCTV is expected to improve in the future after all lateral taps have been identified.

Recommendation #4: None.

Signature of Responsible Person: (sign when complete)	**Date:**
	7-30-24

Goal:	Computerized Maintenance Management System (CMMS) & Graphical Information System (GIS)

Responsible Person (RP):
GIS Analyst

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts required to maintain a robust population of attribute data within the City GIS that can be used to supplement the City's CIP staff analysis and hydraulic modeling efforts. Additionally, the City's effort to consistently close-out work orders is quantified to ensure that scheduled work is completed in a timely manner.

PIs and Data Collection Methods:

1. *Percentage population of key attribute data for sewer collection system assets within GIS geodatabase for gravity sewer mains.*
   Data Collection Method: Determine the % of values for the following fields in the GIS geodatabase SGravityMain table from the central crystal report: InstallDate, Material, WidthTop, UpstreamInvert, DownstreamInvert, Slope, DesignFlow, Condition, ConditionDate

2. *Percentage population of key attribute data for sewer collection system assets within GIS geodatabase for manholes.*
   Data Collection Method: Determine the % of values for the following fields in the GIS geodatabase SManhole table from the central crystal report: InstallDate, Condition, ConditionDate, Elevation, BarrelDiameter, BarrelMaterial, Depth

3. *Percentage of year-to-date CityWorks work orders that are closed*
   Data Collection Method: Determine the % of year-to-date CityWorks work orders that have been closed out from the central crystal report.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% population of key GIS attribute fields for gravity sewer mains	< 80%	80-90%	90-95%	95-100%
2	% population of key GIS attribute fields for sewer manholes	< 80%	80-90%	90-95%	95-100%
3	Year-to-date % of CityWorks work orders that have been closed-out	< 80%	80-90%	90-95%	95-100%

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
1st Qtr	Goal	1	2	3	3. 270 of 284 closed/completed or 85%
	Value	72%	60%	95%	
2nd Qtr	Goal	1	2	3	3. 298 of 327 closed/completed or 91%
	Value	82%	59%	91%	
3rd Qtr	Goal	1	2	3	3. 298 of 327 closed/completed or 88%
	Value	82%	59%	88%	
4th Qtr	Goal	1	2	3	3. 147 of 311 closed/completed or 47%. End of the year closed/completed to date is 1,013 out of 1,229 or 84%
	Value	81%	59%	47%	

Annual Performance Assessment / Recommendations for Updates

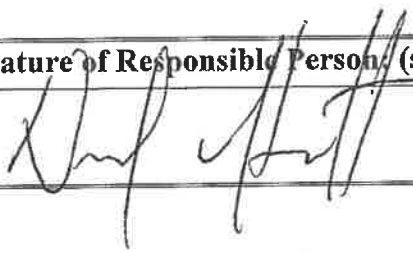
FY 21-22 Ratings:

1. **Acceptable** – 81% at the end of the fiscal year.
2. **Below Goal** – 59%
3. **Acceptable** – 1,013 out of 1,229 (84%) for FY 21-22.

Recommendation #1: Make sure that key fields are always populated on new assets when they are installed. Track down any historical documentation and update GIS if data exists.

Recommendation #2: Utilities Engineering is planning a manhole repair/replacement project for FY22-23, which will involve an initial survey of 30 existing sewer manholes in likely need of replacement. Data from the initial surveys and the repairs/replacements will provide a new opportunity to update GIS asset information for sewer manholes.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	**Date:**
	2-13-2023

Goal: **Maintaining Codes and Ordinances**

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to keep the City Codes and Ordinances current with known or upcoming changes in regulatory issues. This effort involves keeping a list of recommended updates to the codes and ordinances, which is reviewed by all parties with responsibility over the collection system and updated on a consistent basis.

PIs and Data Collection Methods:

1. *The frequency with which the list of required/requested updates to the City Code and Ordinances is maintained and discussed with O&M, Engineering, Environmental Compliance, and Management with regard to sewer-specific issues.*
   Data Collection Method: Keep track manually. Current list of updates, and meeting notes from past meetings should be available.

2. *The frequency with which the Municipal Code is revised to incorporate the list of required/requested sewer-specific updates.*
   Data Collection Method: Keep track manually. A file of completed updates and/or new ordinances specific to the sewer collection system should be kept.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Time since last meeting to discuss Ordinance/Code updates based on sewer-specific issues	> 5 Years	2-5 years	1-2 years	< 1 year
2	Time since last actual update to Ordinances/Codes based on sewer-specific issues	> 20 Years	10-20 years	5-10 years	< 5 years

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 21-22	Goal	1	2	1. Ordinances periodically reviewed to evaluate whether they still make sense or need to be edited.
	Value	1-2 years	< 5 years	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Good** – Last meeting occurred in FY20-21: March 2021.
2. **Excellent** – Last update occurred in FY20-21: March 2021.

Recommendation #1: Consider scheduling a meeting soon.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	**Date:**
[signature]	2/8/2023

Goal:	Communication Program

Responsible Person (RP):
Management Analyst

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to communicate with the public on a regular basis concerning the development and status of the City SSMP.

PIs and Data Collection Methods:

1. *The percentage of public documentation online links that are properly uploaded with their most current versions. Links are found on the Utility Infrastructure page of the City of Woodland website, under the Public Works Division. Complete public documentation includes the most recent copy of the SSMP and the most current internal audit documentation.*
   Data Collection Method: Review links quarterly.

2. *Total number of year-to-date public comment email responses.*
   Data Collection Method: The City's public comment email link should be set up to deliver emails directly to the RP. The RP should keep a separate folder specifically for filing SSMP public comment emails and responses. There is no goal set for this PI. The RP only needs to document the total number of responses.

3. *The percentage of public comment emails received that were responded to.*
   Data Collection Method: RP will use Microsoft Outlook to determine the number of year-to-date comment emails received, and determine the number of year-to-date responses and determine the response percentage.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of Updated Public Documentation	< 50%	50%	100%	N/A
2	# of Public Comment Email Responses	N/A	N/A	N/A	N/A
3	% Public Comment Emails Responded To	< 80%	80-90%	90-95%	95-100%

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY 21-22	Goal	1	2	3	2. Total of 2 sewer specific emails were received by pubworks@cityofwoodland.org 3. All 2 were responded to.
	Value	100%	N/A	100%	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Good** –SSMP (2020 Revision) and Audit files (FYs 18-19 & 19-20) online links working. FY 20-21 and FY 21-22 SSMP Audits will be live on website upon completion.
2. **N/A** – 2 emails received.
3. **Excellent** – 2 out of 2 emails were responded to in an appropriate amount of time.

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	Date:
Kayla Randazzo	1/26/2024

Goal: **Fats, Oils, and Grease (FOG) Control Program**

Responsible Person (RP):
Environmental Compliance Inspector

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to operate an effective and efficient FOG control program.

PIs and Data Collection Methods:

1. *The percent reduction in sanitary sewer overflows (SSOs) and blockages requiring flushing attributed to FOG blockages from the previous year.*
   Data Collection Method: For the first year of tracking, simply report number of SSOs and blockages caused by FOG from the central crystal report. Report SSOs and blockages from both sewer mains and sewer laterals. After data is available from the first year of tracking, determine the year-to-date FOG-related SSOs and blockages from the central crystal report, project the number of events out to the total year, and compare to the previous year's events to determine % reduction.

2. *The percentage of Pollution Prevention Program (PPP) permit holder inspections completed annually.*
   Data Collection Method: Keep track manually using total number of PPP permit holders and number of inspection forms.
   [Note: when PPP program managed through CityWorks, a query can be set up to quantify inspections completed based on work-order records rather than counting inspection forms.]

3. *The number of public education outreach events conducted per year.*
   Data Collection Method: Keep track manually. The RP should keep documentation on all FOG Control public outreach events and activities in a file which can be reviewed to determine what activities have been conducted.

4. *Time since last joint Environmental Compliance and O&M meeting to review FOG-related issues in the collection system.*
   Data Collection Method: Keep track manually. RP should keep file of meeting notes and action items from meetings.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% reduction of FOG-related SSOs compared to previous year	< 0%	0-5%	5-10%	10-20%
2	% completed of PPP permits inspections	<75%	75-90%	90-100%	100%
3	Annual # of FOG control public education events	< 30	30-50	51-70	> 70
4	Time since last coordination meeting with Environmental Compliance and O&M staff	> 6 months	3-6 months	2-3 months	< 2 months

Periodic Performance Tracking						
Date	**Measured Value**					**Performance Assessment Comments**
1st Qtr	Goal	1				1. 0 incidents this quarter, 0 incidents Q1 FY20-21.
	Value	-				
2nd Qtr	Goal	1				1. 0 incidents this quarter, 1 incidents Q2 FY20-21.
	Value	100%				
3rd Qtr	Goal	1				1. 1 incidents this quarter, 1 incident Q3 FY20-21.
	Value	0%				
4th Qtr	Goal	1	2	3	4	1. 0 incidents this quarter, 0 incidents Q4 FY20-21. Values listed for #2 - #4 are summaries of the entire year
	Value	-	100%	37	6 months	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Excellent**– 1 incidents this year, 2 incidents last year. 50% reduction.
2. **Excellent** – 100% of all PPP permit holders inspected. There were 253 permitted businesses at the end of FY21-22 and approximately 350 total inspections (some businesses inspected multiple times per year).
3. **Acceptable** – 37 public outreach events conducted for FY21-22.
4. **Acceptable** – the meetings are scheduled for quarterly but only two meetings actually occurred in this fiscal year timeframe.

Recommendation #1: Adjust rating system to account for meaningful parameters and behavior of long-term reduction.

Recommendation #2: None.

Recommendation #3: None.

Recommendation #4: None

Signature of Responsible Person: (sign after annual review)	**Date:**
	2/27/23

Goal: **High Velocity Vacuum Cleaning (HVVC)**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the effort to periodically clean hot spot pipes and support CCTV inspection by pre-cleaning pipes.

PIs and Data Collection Methods:

1. *The total footage of the collection system cleaned per year with HVVC.*
   Data Collection Method: Determine year-to-date HVVC footage production from central crystal report, and project to year-end production.

2. *The total number of pipe segments cleaned with HVVC per year.*
   Data Collection Method: Determine year-to-date HVVC pipe cleaning production from central crystal report, and project to year-end production.

3. *The average footage cleaned per work order.*
   Data Collection Method: Determine year-to-date HVVC footage cleaned per work order from the HVVC Segments and Footage crystal report to evaluate average daily crew production.

4. *The percentage of CCTV inspections that were conducted where pre-cleaning was completed.*
   Data Collection Method: Determine the number of year-to-date CCTV inspections that have been pre-cleaned from the central crystal report, and compare to the total number of year-to-date CCTV inspections completed (also from central crystal report).

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Feet cleaned / year	< 210,000	210,000-240,000	240,000-300,000	> 300,000
2	Pipe segments cleaned / year	< 700	700-900	900-1000	> 1000
3	Footage cleaned / work order	<1800	1800-2300	2300-2500	> 2500
4	% Pipe segments pre-cleaned prior to CCTV inspection	< 70%	70-80%	80-90%	> 90%

Periodic Performance Tracking						
Date	**Measured Value**					**Performance Assessment Comments**
FY21-22	Goal	1	2	3	4	
	Value	300,440	2,486.24	8,440.39	98.5%	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Excellent**– 300,440 ft cleaned per year with HVVC.
2. **Good** – 940 segments cleaned with HVVC per year.
3. **Good** – 2,486.24 feet cleaned per work order.
4. **Excellent** – 98.5% (575 out of 584 segments) of sewer main segments are pre-cleaned prior to CCTV (379 were heavy cleaning, 196 were light cleaning).

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Recommendation #4: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Nelson	7-30-24

Goal:	System Mapping

Responsible Person (RP):
GIS Analyst

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to provide up-to-date maps of assets in the collection systems and other applicable facilities (i.e., stormwater facilities, waterways, etc.). This effort involves completing map change requests in a timely fashion. Map change requests come from three sources; namely, 1) variations observed in the field (PI removed in FY21-22 Change Log because sewer crews now have GPS units that allow them to make edits in the field rather than submit redlines to the GIS Analyst), 2) changes from rehabilitation or replacement, and 3) additional assets from new development.

PIs and Data Collection Methods:

1. *The % of CIP Sewer R&R in construction that are being GPS'd to update GIS maps*
   Data Collection Method: Use crystal reports to determine the number of rehabilitation and/or replacement projects in construction. Determine the number of GPS sites visited that were/are currently in construction.

2. *The % of new development sites that have been GPS'd*
   Data Collection Method: Track new developments under current construction, manually. Check these areas of new developments for availability of sewer data in GIS and determine the percentage of subdivision sites that have been GPS'd.
   [note: spreadsheet of new developments maintained by Senior Construction Project Manager]

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of sites GPS'd from CIP Sewer R&R in construction	< 25%	25-70%	70-100%	100%
2	% of new development sites GPS'd	< 50 %	50-85%	85-100%	100%

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
1st Qtr	Goal	1	2	
	Value	100%	100%	
2nd Qtr	Goal	1	2	
	Value	100%	100%	
3rd Qtr	Goal	1	2	
	Value	100%	100%	
4th Qtr	Goal	1	2	
	Value	100%	100%	

Annual Performance Assessment / Recommendations for Updates

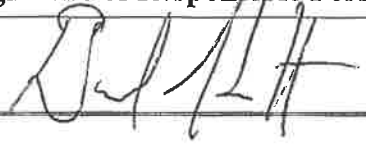
FY 21-22 Ratings:

1. **Excellent** – 100% of R&R sites listed as CIP Projects have GIS data on sewer infrastructure. The relevant projects were CIP 20-14 (2021 Sewer & Water Repair & Replacement Project) and CIP 21-01 (2022 Water & Sewer Repair & Replacement Project).

2. **Excellent** – 100% of new development sites have GIS data on sewer infrastructure.

Recommendation #1: Consider updating to make more consistent with GIS-field practices.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	**Date:**
	2.27.23

Goal: **Operation and Maintenance Budgeting**

Responsible Person (RP):
Finance Officer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to sufficiently provide and utilize funds to effectively operate and maintain the collection system.

PIs and Data Collection Methods:

1. *The amount of funding provided for operating and maintaining the collection system per foot of main line pipe.*
   Data Collection Method: Determine annual funds allocated for operation and maintenance of the sewage collection system, and divide by the total gravity main and pressure main pipe footage from the central crystal report. [Note: This PI only needs to be tracked on an annual basis, not a quarterly basis.]

2. *The percentage of the cost to operate and maintain the collection system with respect to the projected costs.*
   Data Collection Method: Determine actual year-to-date sewer system O&M costs from financial accounting system, and compare the value to the amount of projected funding to find the relative percentage of the budget.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Funding provided for O&M budget	< $1/ft/year	$1-$2/ft/year	$2-$3/ft/year	> $3/ft/year
2	O&M operation cost	> 100% budget	95-100% of budget	<95% of budget	N/A

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 21-22	Goal	1	2	1. $2,541,713 / 1,078,888.9 ft of sewer pipe = $2.36/ft 2. $2,068,486 / $2,541,713 = 81.4% of budget
	Value	$2.36/ft	81.4%	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Good** – $2.36/ft.

2. **Good** – 81.4% of total O&M budget actually spent. However, O&M had access to less than 95% of the projected amount because the actual year-to-date expenditures for depreciation exceeded the appropriated amount by $217,119.18.

Recommendation #1: Consider revising ratings to adjust for inflation.

Recommendation #2: Make the best use of O&M budget. There was unspent budget that could have been used to line sewer laterals and prevent tree root intrusion.

Signature of Responsible Person: (sign when complete)	**Date:**
Kimberly McKinney	

Goal:	Preventative Maintenance Effectiveness

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the effectiveness of the preventative maintenance program in limiting time and expenses required to respond to emergency calls and failures of the sanitary sewer system.

PIs and Data Collection Methods:

1. *The percentage of work orders that are emergency.*
   Data Collection Method: Determine from central crystal report. Emergency work orders include the following CityWorks priority categories: "priority 1" (emergency), "priority 2" (urgent), and "priority 9" (on-call).

2. *The percentage of accountable labor and material costs that are attributed to emergency work versus regular preventative maintenance work.*
   Data Collection Method: Determine from central crystal report. Emergency work orders include the following CityWorks priority categories: "priority 1" (emergency), "priority 2" (urgent), and "priority 9" (on-call).

3. *The percentage of accountable labor and material costs that are attributed to emergency work on private laterals.*
   Data Collection Method: Determine the total year-to-date work order costs (labor and materials) for all "priority 1" (emergency), "priority 2" (urgent), and "priority 9" (on-call) work orders associated with sewer laterals from the central crystal report. Determine the percentage of the total year-to-date work order costs (also from central crystal report) associated with the sewer collection system these "lateral emergency" work orders represent.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of work orders that are emergencies	> 40%	30-40%	20-30%	< 20%
2	% of Labor and Material Costs that is Emergency Work	> 30%	20-30%	10-20%	0-10%
3	% of Labor and Material Costs that is Emergency Work on Private Laterals	> 20%	10-20%	5-10%	0-5%

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY 21-22	Goal	1	2	3	1. 97 out of 1,229 WOs (7.9%) 2. $40,202.11 out of $692,832.82 (5.8%) 3. $5,350.45 out of $692,832.82 (<1%)
	Value	7.9%	6.6%	1%	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Excellent** – 7.9%
2. **Excellent** – $40,202.11 out of $692,832.82 (5.8%)
3. **Excellent** – <1%

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	Date:
Eric Nelson	4/28/2023

Goal: **Frequency of Preventative Maintenance (PM) Activities**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the effort to ensure that work orders are being created to accurately document preventative maintenance activities, and that preventative maintenance activities are being completed as planned by management.

PIs and Data Collection Methods:

1. *Compare the number of cleanings/flushings/inspections in the CMMS to the number of flushing and inspection work orders that should have been generated if all of the pipes on the weekly and quarterly cleaning routes were completed and determine the completion %.*
   Data Collection Method: Determine the total number of year-to-date closed-out preventative maintenance CCTV inspection and hydroflushing events from the "PMFrequency_CityWorks_ClosedWOs" Cityworks report. Compare the number of cleanings/flushings/inspections to the number of work orders that were expected based on the number of assets on the weekly and quarterly inspection and cleaning routes (excel files).

2. *Frequency of thorough electrical and mechanical inspections of lift stations.*
   Data Collection Method: Keep track manually. Determine the number of thorough electrical/mechanical inspections conducted over the previous 2-year period for each lift station to determine the inspection frequency. Report the average inspection frequency for all lift stations. [Note: when lift station work orders are being managed through CityWorks, a query can be set up to determine the number of work orders completed over the last 2-year period and calculate the average inspection frequency.]

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% Completion of closed-out work orders vs. expected preventative maintenance work orders	< 75%	75-85%	85-95%	95-100%
2	Frequency of thorough lift station inspection / maintenance	Less frequent than Biannually	Every 4-6 months	Every 3-4 months	More frequent than Quarterly

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 21-22	Goal	1	2	
	Value	72%	Annual/As needed	1. 81 closed PM WOs vs. 112 expected closed WOs 2. Electrical and mechanical inspection is conducted annually or more often if a problem is identified in daily routine checks of the station.

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Below goal** – 81 closed out work orders vs. 112 expected PM work orders. (72%)

2. **Below goal** – Electrical and mechanical inspection is conducted annually or more often if a problem is identified in daily routine checks of the station.

Recommendation #1: Determine the eventual use of preventative maintenance CityWorks work orders, or else continue working to distinguish WOs separately from other unscheduled preventative maintenance as routine flushing, routine inspection, or quarterly cleaning for more consistent sorting.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Fehn	7-30-24

Goal:	**Rehabilitation and Replacement (R/R) Funding**

Responsible Person (RP):
Finance Officer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to provide sufficient funds for the R/R program to maintain or improve the condition of the collection system over time.

PIs and Data Collection Methods:

1. *The percentage of the total system value as defined by the City's Finance Officer budgeted for the year for R/R projects.*
   Data Collection Method: Manually compare total R/R funding provided to the value of the sewer collection system as determined by the City's Finance Officer.
   [Note: this PI may be tracked on an annual basis, and does not need to be tracked quarterly.]

2. *The annual funding budgeted for R/R projects compared to the estimated funding required according to estimates produced by the CIP Staff Analysis.*
   Data Collection Method: Manually sum the total annual R/R funding provided vs. the funding required for the current year according to Utilities Engineering Staff using the CIP Staff Analysis.
   [Note: this PI may be tracked on an annual basis, and does not need to be tracked quarterly.]

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	Annual R/R funding provided as % of sewer system value	<1%	1.0%-1.5%	1.5%-2.0%	>2.0%
2	Annual funding provided for R/R program vs. CIP Staff Analysis projections	> needs from CA&CIP analysis	N/A	Consistent with needs from CA&CIP analysis	N/A

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 21-22	Goal	1	2	
	Value	4.4%	N/A	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Excellent** – Uses FY 21/22 CIP R/R Funding vs. FY 20/21 Asset Value for Fund ($3,206,499.79 vs. $72,482,845.69), 4.4%
2. **N/A** – ($3,206,499.79 vs. Undetermined)

Recommendation #1: None.

Recommendation #2: Complete CIP staff analysis for estimating the funding required for CIP bundles.

Signature of Responsible Person: (sign when complete)	**Date:**
Kimberly McKinney	

Goal: **Rehabilitation and Replacement (R/R) Program**

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to develop and implement an R/R program. This involves developing a module for continually prioritizing line segments to be identified for rehabilitation or replacement. Once prioritized line segments are identified and bundled into Capital Improvement Projects (CIPs), appropriate rehabilitation or replacement methods will be analyzed, designed, and constructed.

PIs and Data Collection Methods:

1. *The percentage of assets that have defect grades from 4-5 and have been CCTV inspected that have also been assigned to a future project/O&M activity.*
   Data Collection Method: Determine the percentage of CCTV inspected assets with a defect grading of 4 or 5 that have been assigned to a future project/O&M activity.

2. *The percentage of bundled CIP assets assigned to the previous year that are in design or construction.*
   Data Collection Method: Manually determine the % based on determination of which bundled CIP assets assigned to the previous year in the CIP Staff Analysis are actually in design or construction.

3. *The number of annual main line structural pipe failures or breaks per 100 miles of pipe.*
   Data Collection Method: Determine the number of SSOs caused by structural failures in gravity mains, force mains, and manholes and document the number of repairs or replacements of gravity mains, force mains, and manholes due to emergency structural problems from the R&R Program CMMS Repair & Replace crystal report. Finally, determine the ratio of structural failures attributable to SSOs per 100 miles of pipe using the total length of sewer system gravity and pressure main piping (found in the City's Sewer/Storm GIS Dashboard).

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of assets with defect grades of 4 or 5 that have CIP "actions" assigned or O&M repairs assigned	< 75%	75-85%	85-95%	95-100%
2	% of scheduled CIPs designed or in construction	< 50%	50-60%	60-70%	> 70%
3	# of line failures per 100 miles of pipe	> 4	3-4	2-3	< 2

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY 21-22	Goal	1	2	3	Two SSOs related to structural failure over 203.1 total miles of sewer mains, but one of the two was a private cleanout and therefore not counted in the evaluation.
	Value	N/A	N/A	0.5	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **N/A** – The City's former asset management program (CA&CIP) crashed and all the data was deleted and unrecoverable. Since then, the City has been working to create a new process for evaluating and documenting the condition of sewer assets. The 2022 Open Cut Sewer Repair Project addressed repairs of ten of the worst sewer point defects in the entire sewer system, however the City has not been tracking the percentage of assets assigned to future projects. The 2021 Water & Sewer R&R Project on Gum Ave and Marshall Ave (CIP# 20-14) and the 2022 Water & Sewer R&R Project on College St and Pendegast St (CIP#21-01) were prioritized for a couple main reasons: poor sewer main structural ratings and lack of slope in flat sewer mains, the combination of which had caused multiple SSOs.

2. **N/A** – No project bundles to reference

3. **Excellent** – .49 failures per 100 miles of sewer pipe – There were 1 public-side SSO attributed to structural failures in FY 21-22. From the "R&R Program CMMS Repair & Replace" crystal report, there was a total of 1 Sewer Gravity Main Repair/Replace that was urgent/emergency, there was a total of 1 Sewer Lateral Line Repair/Replace that was urgent/emergency, and there was a total of 1 Sewer Manhole Repair/Replace that was urgent/emergency.

Recommendation #1: Continue updating sewer asset management analysis and bundle sewer gravity mains into urgent, semi-urgent, non-urgent bundles for future CIP projects and document assets that have a routine O&M tasks assigned to them.

Recommendation #2: Update sewer asset staff analysis to document assets that have already been addressed though construction R&R.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	**Date:**
	7/30/2024

Goal:	Replacement Parts

Responsible Person (RP):
Equipment Services Clerk /
Chief Collections Systems Operator/
WPCF Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to ensure that adequate reserves of replacement parts are available to respond to foreseeable emergency situations that may arise within the collection system.

PIs and Data Collection Methods:

1. *Frequency with which the inventory of necessary equipment and replacement parts for fleet vehicles is reviewed and updated, and new parts ordered if needed.*
   Data Collection Method: Report generated through Fleet Software System semi-annually.

2. *Frequency with which the inventory of necessary equipment and replacement parts for pipeline and manhole repairs is reviewed and updated, and new parts ordered if needed.*
   Data Collection Method: Keep track manually.

3. *Frequency with which the inventory of necessary equipment and replacement parts for lift stations is reviewed and updated, and new parts ordered if needed.*
   Data Collection Method: Keep track manually.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Frequency of Fleet equipment and replacement part inventory review	Less frequent than Annually	Annually - Biannually	Biannually - Quarterly	More frequent than Quarterly
2	Frequency of pipeline / manhole equipment and replacement part inventory review	Less frequent than Annually	Annually - Biannually	Biannually - Quarterly	More frequent than Quarterly
3	Frequency of lift station equipment and replacement part inventory review	Less frequent than Annually	Annually - Biannually	Biannually - Quarterly	More frequent than Quarterly

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
1st Qtr	Goal	1	2	3	
	Value	Continuously	Quarterly	Annually	
2nd Qtr	Goal	1	2	3	
	Value	Continuously	Quarterly	Annually	
3rd Qtr	Goal	1	2	3	
	Value	Continuously	Quarterly	Annually	
4th Qtr	Goal	1	2	3	
	Value	Continuously	Quarterly	Annually	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Excellent** – Monitoring occurs on a real-time basis using FASTER Fleet.
2. **Good** – Quarterly inventory of equipment & replacement parts.
3. **Acceptable** – Inventory conducted annually, with parts ordered as soon as repair or replacement is completed.

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person - Fleet: (sign when complete)	**Date:**
Phillip Lovejoy	**07/29/2024**

Signature of Responsible Person – O&M: (sign when complete)	**Date:**
Eric Parker	7-30-24

Signature of Responsible Person – WPCF: (sign when complete)	**Date:**
[signature]	7-29-24

Goal:	**Root Treatment Program (RTP)**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to mitigate reoccurring sewer lateral blockages due to root intrusion and to operate an effective Root Treatment Program.

PIs and Data Collection Methods:

1. *The total footage of sewer laterals treated for root intrusion over one year*
   Data Collection Method: Determine the fiscal year footage of treated sewer laterals from the Root Treatment Cityworks Footage crystal report and add total linear footage of sewer lateral lining projects.

2. *The percent reduction in Sanitary Sewer Overflows (SSOs) and blockages requiring flushing attributed to root intrusion from previous year.*
   Data Collection Method: For the first year of tracking, simply report the number of SSO's and blockages caused by root intrusion from the central crystal report. After data is available from the first year of tracking, determine the year-to-date number of SSOs and blockages attributed to root intrusion, project the number of events out to the total year, and then compare the previous year's events to determine the percent reduction.

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	Total footage of laterals treated for root intrusion over one year	< 6,000	6,000 – 10,000	10,000-20,000	> 20,000
2	% reduction in SSOs attributed to root intrusion from the previous year	< 0	0 – 2.5%	2.5-5%	> 5%

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
1st Qtr	Goal	1	2	2. 100% reduction. 0 SSOs this FY-Q1. 3 SSOs last FY-Q1
	Value	258	100%	
2nd Qtr	Goal	1	2	2. 0% reduction. 5 SSOs this FY-Q2. 5 SSOs last FY-Q2
	Value	556	0%	
3rd Qtr	Goal	1	2	2. 0% reduction. 3 SSO this FY-Q3. 3 SSOs last FY-Q3
	Value	335	0%	
4th Qtr	Goal	1	2	2. 0% reduction. 2 SSO this FY-Q4. 0 SSOs last FY-Q4
	Value	194	0%	

Annual Performance Assessment / Recommendations for Updates
FY 21-22 Ratings: 1. **Below Goal** – the quarterly values listed in the "Measured Value" section of "Periodic Performance Tracking" represent the O&M component of root treatment only. 1,343 ft were treated in FY21-22 through O&M. There was not an additional sewer lateral lining project in FY21-22. 2. **Excellent** – 9% yearly reduction: 10 SSOs attributed to root intrusion this FY. 11 last FY. Recommendation #1: Increase footage treated per quarter to remain consistent. Improve real time coordination between project managers and SSMP documenters for lateral lining projects. Recommendation #2: None.

Signature of Responsible Person: (sign after annual review)	Date:
Eric Nelson	5/5/2023

Goal:	System Evaluation and Capacity Assurance Program (SECAP)

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to conduct an evaluation of the system and ensure sufficient capacity to convey expected wastewater flows.

PIs and Data Collection Methods:

1. *Ratio of peak wet weather flow to average dry weather flow as monitored at the WWTP*
   Data Collection Method: Collect daily flow data for the largest wet weather event at the WWTP headworks year-to-date and compare to the average dry weather (summer) flows as reported by WWTP operators to determine the ratio.
2. *Frequency of hydraulic model updates*
   Data Collection Method: Keep track manually. Hydraulic model updates include adjustments to parcel use information, system geometry (i.e., pipe sizes, inverts, locations), updates to I/I rates, etc. RP should keep a log of hydraulic model update activities.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Ratio of peak WWF to average DWF	> 2.0 : 1	1.7:1 – 2.0:1	1.5:1 – 1.7:1	1.3:1 – 1.5:1
2	Time since last hydraulic model update	> 4 years	3 – 4 years	2 – 3 years	< 2 years

Periodic Performance Tracking

Date	Measured Value			Performance Assessment Comments
FY 21-22	Goal	1	2	1. PWWF: 6.041 MGD, ADWF from July 2021- June 2022: 3.542 MGD 2. Model run update was completed in Spring 2019. City has six smart covers for flow depth as well.
	Value	1.71:1	Spring 2019	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Acceptable** – 1.71:1
2. **Acceptable** – Updated in spring 2019. No significant issues were identified in the model and City is implementing recommendations from the modeling. RWQCB requires model update every three years.

Recommendation #1: None.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	Date:
	7/17/2024

Goal:	**Response to Service Requests**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts taken to effectively respond to customer service calls.

PIs and Data Collection Methods:

1. *The average response time for an urgent call.*
   Data Collection Method: Determine the average response time for "priority 1" (emergency), "priority 2" (urgent), and "priority 9" (on-call) service calls from Cityworks.

2. *The average response time for a routine call.*
   Data Collection Method: Determine the average response time for "priority 3" (routine) service calls from Cityworks.

3. *Average number of service calls per 100 miles of pipe per year.*
   Data Collection Method: Determine the total number of year-to-date service calls from Cityworks, project to year-end totals, and determine number of calls per 100 miles of main line gravity and pressure pipe.

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	Response time for urgent calls	> 1 day	1 day	8 hours	1 hour
2	Response time for routine calls	> 1 week	1 week	3 days	1 day
3	Average # of service calls / 100 miles of pipe	> 200	150-200	100-150	< 100

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY 21-22	Goal	1	2	3	1 & 2. Front desk must establish live contact with the Supervisor (or designate). No voice mail or e-mail will be accepted. 3. There were 172 service requests
	Value	4.6 hours	6 hours	84 calls / 100 miles	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Good** – Average response time for an urgent call is 4.6 hours.
2. **Excellent** – Average response time for a routine service call is 6 hours.
3. **Excellent** – 84 is the average # of service calls/100 mi pipe.

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	Date:
Eric Rohn	7-30-24

Goal: **Mitigation of Sanitary Sewer Overflows (SSOs)**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts taken to mitigate any SSOs that occur.

PIs and Data Collection Methods:

1. *The percent of SSO volume capture in flat areas (i.e. slopes of 1-5%).*
   Data Collection Method: Calculate manually from either the completed City of Woodland SSO report forms or from information entered into the CIWQS database. Calculate % captured volume for all categories of SSOs (including from private laterals) for which the "description of terrain surrounding the point of blockage or spill cause" is described as flat. For each SSO event, determine the "% captured" as the volume of sewage recovered and returned to the sewer system divided by the total spill volume. Then, average the % captured for all spills in the year-to-date period.
   [Note: The City of Woodland has no areas with slopes greater than 5%.]

2. *Average time from an SSO event to when the line is inspected with CCTV to investigate the cause.*
   Data Collection Method: Review the "SSOMitigation_CityWorks_Volume Captured" crystal report. Manually compare this list to SSO report forms to determine if a corresponding follow-up CCTV inspection was completed. Manually calculate the time between when each SSO is reported to the date a follow-up CCTV inspection was calculated. If there are SSOs for which a CCTV inspection has not been conducted, exclude from calculation. Average the CCTV inspection response time for all year-to-date SSOs.

3. *The percentage of SSO Events that were followed by an inspection of the line with CCTV to investigate the cause.*
   Data Collection Method: Review the "SSOMitigation_CityWorks_Volume Captured" crystal report which lists all SSOs and count the number of SSOs without a CCTV inspection completed. Calculate the percentage of SSO Events that were followed up with a CCTV inspection.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% captured of SSO (flat, 1-5%)	<70%	70%-80%	80-90%	90-100%
2	Average time to investigate SSO with CCTV	>1 week	5-7 days	3-5 days	< 3 days
3	% of SSO Events investigated with CCTV	< 75%	75-90%	90-95%	95-100%

	Periodic Performance Tracking				
Date		**Measured Value**			**Performance Assessment Comments**
FY 21-22	Goal	1	2	3	2. 19 CCTV'd SSOs were CCTV'd in 1 day. 4 SSOs were not shown to have CCTV done (those 4 were SSOs from private laterals). 3. The City performed SSO follow-up CCTV inspections on 100% of SSO events from City-owned facilities.
	Value	100%	1 day	100%	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Excellent** – 100% of SSO volume captured in flat areas. There were 23 SSOs in FY 21-22 (including 8 of the 23 SSOs that came from private laterals).
2. **Excellent** – Within 1 day
3. **Excellent** – 100% of the 15 City SSOs were followed up with a CCTV inspection.

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Nelson	4/28/2023

Goal: **Prevention of Sanitary Sewer Overflows (SSOs)**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts taken to prevent the occurrence of SSOs.

PIs and Data Collection Methods:

1. *The number of SSOs per 100 miles of gravity sewer mains per year.*
   Data Collection Method: Determine the number of SSO events that occurred year-to-date that are attached to gravity mains, force mains, manholes, and lift stations from the central crystal report. Project the number of SSOs to year-end totals. Divide this number by the total footage of gravity mains and force mains in the City (also available on the central crystal report).

2. *The percent reduction in SSOs from the previous year.*
   Data Collection Method: Determine the number of SSO events in the Fiscal Year that are attached to gravity mains, force mains, manholes, and lift stations. Compare the number of SSOs (from gravity mains, force mains, manholes, and lift stations) to the number of SSOs that occurred last year (gravity mains, force mains, manholes, and lift stations) to determine the % reduction. If 0 SSO's occurred from gravity mains, force mains, manholes and lift stations in the SSMP Audit of evaluation, an Excellent rating shall be applied.

3. *The number of repeat SSOs in a five year period.*
   Data Collection Method: Review all SSOs by asset type over the last five year period, sorted by address. Manually determine the number of repeat SSOs.
   [Note: SSO spreadsheet lists locations of all previous SSOs and determines any repeat addresses.]

4. *The percentage of repeat SSOs followed by mitigation, such as root treatment or repair work.*
   Data Collection Method: Keep track manually of repeat SSO locations. Search for work orders on the lateral line, sewer clean out, and sewer pipe IDs.
   [Note: SSO spreadsheet lists locations of all previous SSOs and determines any repeat addresses.]

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	# of SSOs / 100 miles / year	>5	3.5-5	2.3-3.4	<2.3
2	% reduction of SSOs from previous year	< 0%	0-5%	5-10%	> 10%
3	# of repeat SSOs / 5 years	> 0	-	-	0
4	% of repeat SSOs followed by mitigation	< 70%	70-80%	80-100%	100%

Periodic Performance Tracking						
Date	**Measured Value**					**Performance Assessment Comments**
FY 21-22	Goal	1	2	3	4	3. of the repeat SSOs, 7 of them originated in the City-owned collections system.
	Value	0	0	7	100%	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Excellent** – There were 23 total SSOs in FY21-22 but none of them were from gravity mains, force mains, manholes or lift stations. They all occurred at clean outs (15 from City clean outs, 8 from private clean outs). Excellent score because there were 0 SSOs from sewer gravity mains, force mains, manholes, or lift stations.

2. **Excellent** – 23 SSO occurrences this FY vs. 24 SSO occurrences last FY. 4.2% decrease. However, this PI does not address SSOs from clean outs, from which nearly all Woodland SSOs occur. There were 0 SSOs from gravity or force mains, manholes or lift stations in FY21-22 whereas there was 1 SSO from a manholes in FY 20-21.

3. **Below Goal** – There have been 9 SSOs since July 1, 2017 that occurred at an address that also had an SSO since July 1, 2017. Only 2 of those repeat SSOs occurred in FY21-22, whereas the other 7 repeat SSOs occurred at other timeframes in the past 5 years. Two of the nine repeat SSOs are associated with a private clean out.

4. **Excellent** – 100% of repeat SSOs were followed by mitigation.

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: Consider adjusting rating system.

Recommendation #4: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Nelson	4/28/2023

Goal: **Response to Sanitary Sewer Overflows (SSOs)**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts taken to effectively respond to SSOs. *Response time* is defined as the time of first notification or discovery of a SSO to the arrival onsite by City staff.

Data Collection Methods

1. *The average response time during normal business hours (M-F 7am-4pm).*
   Data Collection Method: Determine manually from year-to-date City SSO records or using the CIWQS database. Determine response time for each event by comparing "Date and time sanitary sewer system agency was notified of or discovered spill" to "Estimated Operator arrival date/time" and calculate Response Time. SSOs that occur during normal business hours are those that are initially reported between 7am and 4 pm Monday through Friday. Determine the average response time for year-to-date incidents.

2. *The average response time after hours (M-F 4pm-7am, weekends, holidays).*
   Data Collection Method: Determine manually from year-to-date City SSO records or using the CIWQS database. Determine response time for each event by comparing "Date and time sanitary sewer system agency was notified of or discovered spill" to "Estimated Operator arrival date/time" and calculate Response Time. SSOs that occur during normal business hours are those that are initially reported between 4pm and 7am, or on weekends or holidays. Determine the average response time for year-to-date incidents.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	SSO response time during normal hours	>45 min	≤ 45 min	≤ 30 min	≤15 min
2	SSO response time after normal hours	>1 hr	≤ 1 hr	≤ 45 min	≤30 min

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 21-22	Goal	1	2	1 & 2 reported in minutes.
	Value	20 min	36 min	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Good** – Average response time was 20 minutes for City SSOs during normal business hours.
2. **Good** – Average response time was 36 minutes for SSOs originating in the City-owned portion of the sewer collections system after normal business hours.

Recommendation #1: None.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Nielsen	4/28/2023

Goal:	**Staffing**

Responsible Person (RP):
Management Analyst

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to fill all funded positions within the Utility Maintenance, Environmental Operations, and Utilities Engineering Divisions of the City of Woodland to meet the necessary effort required to implement the City SSMP.

PIs and Data Collection Methods:

1. *The percentage of vacant staff positions in the divisions listed above.*
   Data Collection Method: Keep track manually.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of vacant positions	> 10%	10%	5%	All filled

Periodic Performance Tracking

Date	Measured Value		Performance Assessment Comments
FY 21-22	Goal	1	11 out of 16 positions filled in Utility Maintenance, 2 out of 2 positions filled in Environmental Operations and 5 out of 5 positions filled in Utility Engineering.
	Value	22%	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Rating:

1. **Below Goal** – 18 out of 23 positions were filled in the sewer group. 22% vacant staff.

The positions in Utility Maintenance include: 1 Chief Collections Systems Operator, 1 Sr. Utilities Maintenance Worker, 3 Utilities Maintenance Workers III/IV, and 11 Utilities Maintenance Workers I/II (total of 16).

The positions in Environmental Compliance include 1 Environmental Compliance Specialist and 1 Environmental Compliance Inspector II (total of 2).

The positions in Utilities Engineering include 1 Principal Utilities Civil Engineer, 1 Senior Associate Civil Engineer, 2 Associate Engineers, and 1 Utilities Engineering Intern (5 total).

Recommendation #1: Fill open positions.

Signature of Responsible Person: (sign when complete)	**Date:**
Kayla Rodriguez	1/26/2024

Goal:	**Maintain Up-to-date Standards**

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to keep the City Standards current with regards to design and construction of the collection system. This effort involves keeping a list of recommended updates to the standards, which is reviewed by all parties with responsibility over the sewer collection system and updated on a consistent basis.

PIs and Data Collection Methods:

1. *The frequency with which the list of required/requested updates to the standards is maintained and discussed with O&M, Engineering, Environmental Compliance and Management.*
   Data Collection Method: Keep track manually. Current list of updates, and meeting notes from past meetings should be available.

2. *The frequency with which the standards are revised to incorporate the list of required/requested updates.*
   Data Collection Method: Keep track manually. A file of completed updates and/or new design standards specific to the sewer collection system should be kept.

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	Time since last meeting to discuss list of design standard updates based on sewer-specific issues	> 2 years	1-2 years	0.5-1 year	< 6 months
2	Time since last actual update to design standards based on sewer-specific issues	> 10 years	4-10 years	2-4 years	< 2 year

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 21-22	Goal	1	2	1. Last discussion – April 2022 2. Last update – May 2021
	Value	< 6 months	< 2 years	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

1. **Excellent** – Last meeting occurred in FY21-22: April 2022.
2. **Excellent** – Last update occurred in FY20-21: May 2021.

Recommendation #1: None.

Recommendation #2: Evaluate changing the ratings because updating the standards biannually is not practical.

Signature of Responsible Person: (sign when complete)	Date:
	7/18/2024

Goal:	Staff Training

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the effort required to ensure that regular training takes place.

PIs and Data Collection Methods:

1. *The frequency with which tabletop / tailgate training meetings are conducted by the O&M staff.*
   Data Collection Method: Keep track manually of tabletop / tailgate meetings completed year-to-date, and calculate the average frequency of the trainings during that same time period.

2. *The frequency with which field / equipment training exercises are conducted by the O&M staff.*
   Data Collection Method: Keep track manually of field / equipment training exercise training completed year-to-date, and calculate the average frequency of the trainings during that same time period.

3. *The frequency with which field, equipment or tabletop / tailgate training is conducted that includes training on SSO response procedures outlined in the OERP.*
   Data Collection Method: Keep track manually of all tabletop, tailgate, field, or equipment trainings that involve SSO response that have been completed year-to-date, and calculate the average frequency of trainings during that same time period.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Frequency of tabletop / tailgate training	<Monthly	Monthly	Biweekly	Weekly
2	Frequency of field / equipment training	<Quarterly	Quarterly	Bimonthly	Monthly
3	Frequency of SSO response training	<Quarterly	Quarterly	Bimonthly	Monthly

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
1st Qtr	Goal	1	2	3	Units are number of meetings/trainings.
	Value	1	0	0	
2nd Qtr	Goal	1	2	3	Units are number of meetings/trainings.
	Value	1	1	0	
3rd Qtr	Goal	1	2	3	Units are number of meetings/trainings.
	Value	5	0	0	
4th Qtr	Goal	1	2	3	Units are number of meetings/trainings.
	Value	2	0	1	

Annual Performance Assessment / Recommendations for Updates

FY 21-22 Ratings:

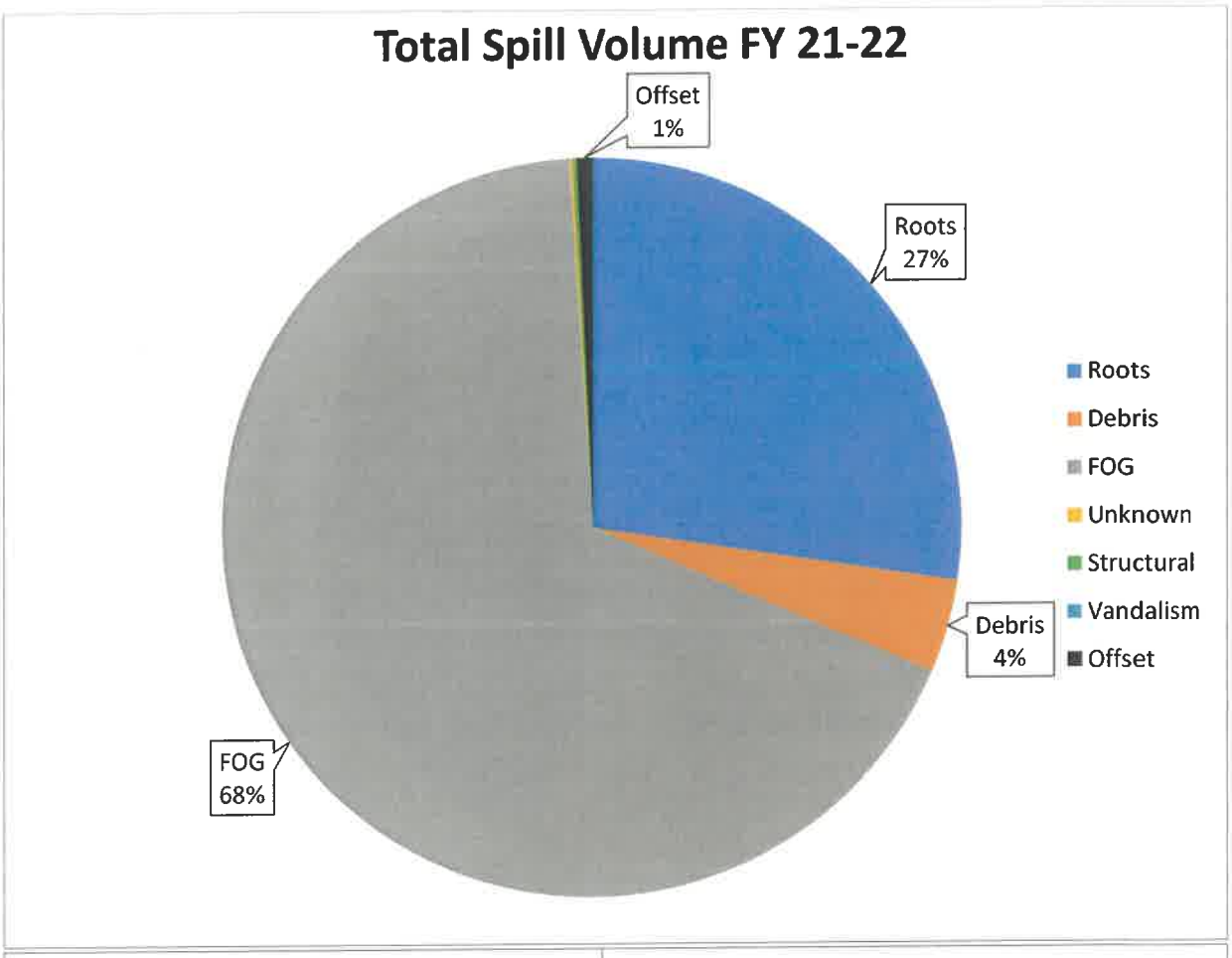
1. **Below Goal** – Less frequent than monthly tailgate meetings: 9 total in fiscal year.
2. **Below Goal** – Less frequent than quarterly. 1 total in fiscal year.
3. **Below Goal** – Less frequent than quarterly. 1 total in fiscal year.

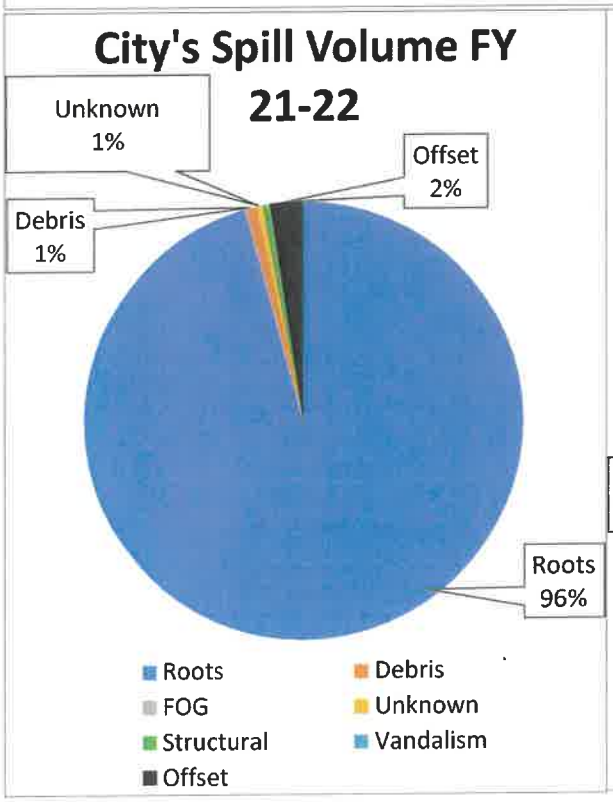
Recommendation #1: Meetings were still down due to Pandemic-related restrictions. Frequency of meeting will need to increase.

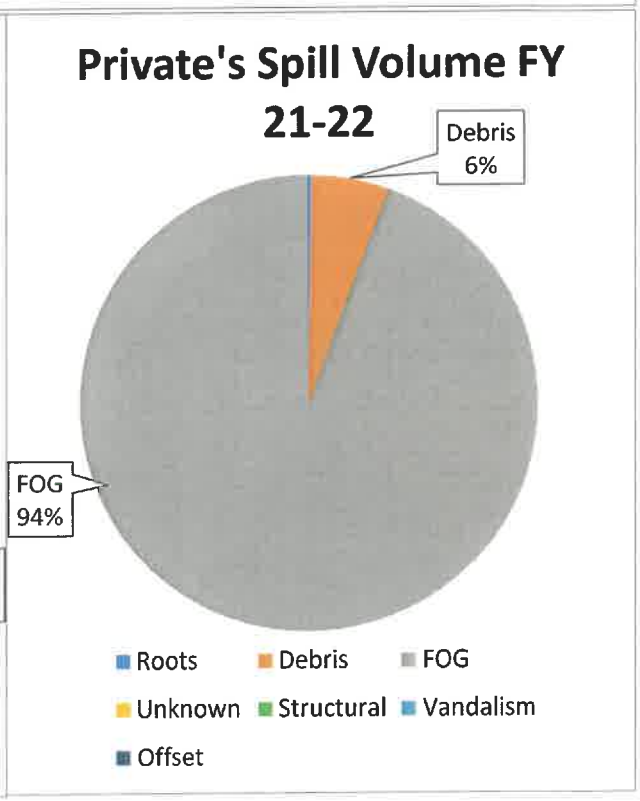
Recommendation #2: Meetings were still down due to Pandemic-related restrictions. Frequency of meeting will need to increase.

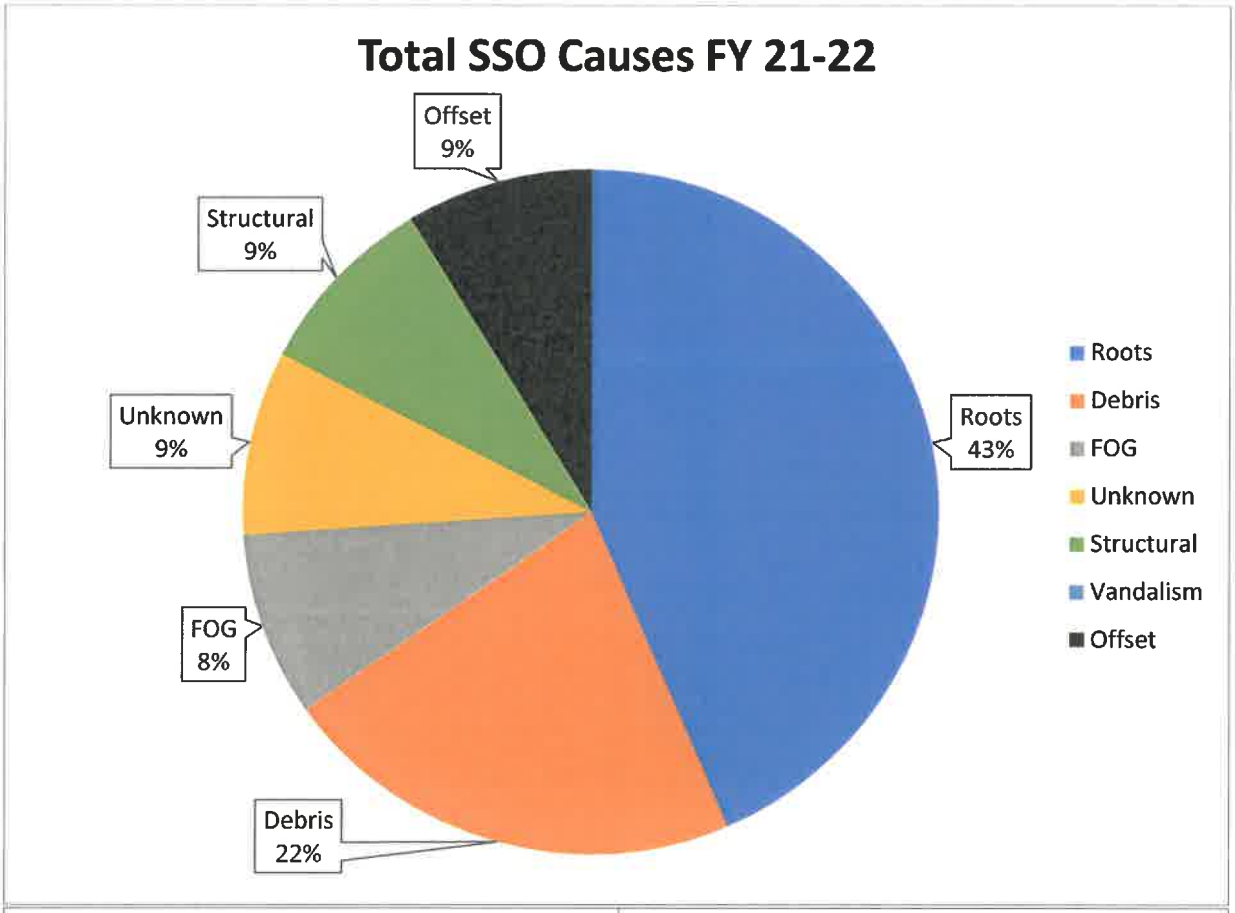
Recommendation #3: Meetings were still down due to Pandemic-related restrictions. Frequency of meeting will need to increase.

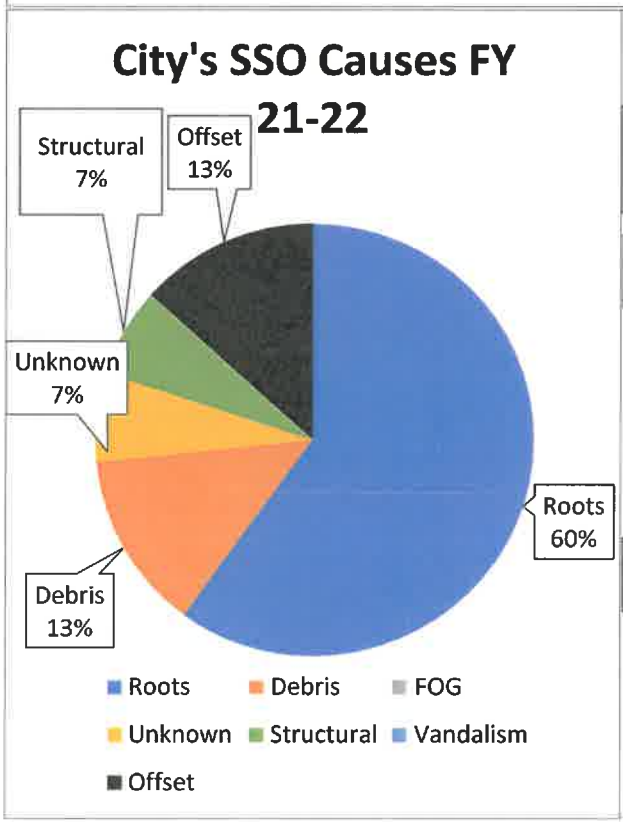
Signature of Responsible Person: (sign when complete)	**Date:**
Eric Nelson	5/5/2023

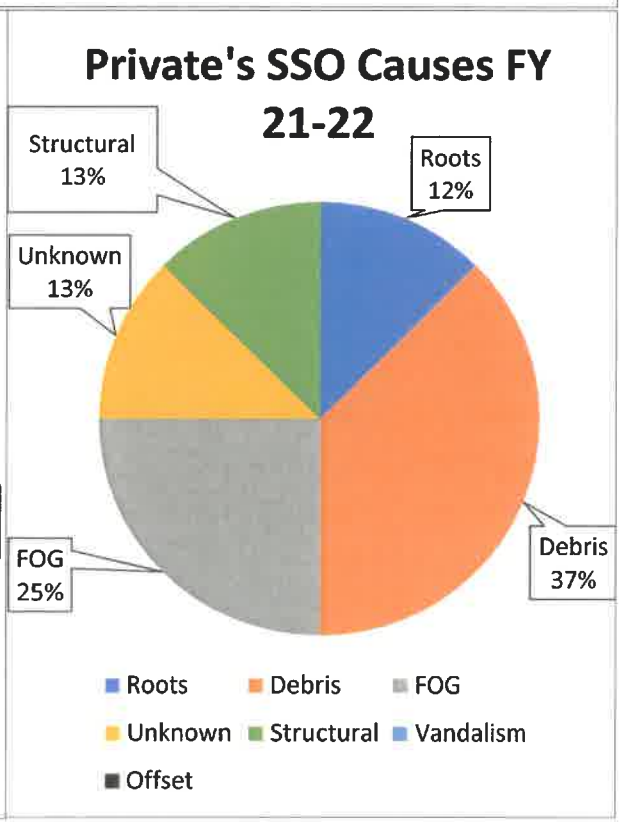

Total Spill Volume FY 21-22
Offset 1%
Roots 27%
Debris 4%
FOG 68%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


City's Spill Volume FY 21-22
Unknown 1%
Offset 2%
Debris 1%
Roots 96%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


Private's Spill Volume FY 21-22
Debris 6%
FOG 94%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


Total SSO Causes FY 21-22
Offset 9%
Structural 9%
Unknown 9%
FOG 8%
Debris 22%
Roots 43%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


City's SSO Causes FY 21-22
Structural 7%
Offset 13%
Unknown 7%
Debris 13%
Roots 60%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


Private's SSO Causes FY 21-22
Structural 13%
Roots 12%
Unknown 13%
FOG 25%
Debris 37%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset

City of Woodland
Sewer System Management Plan
Change Log

Date	SSMP Element/Section	Description of Change/Revision Made	Change Authorized By
02/07/2023	CCTV Inspections	Changed "central crystal report" to "CCTV_Cityworks_SegmentsAndFootage crystal report" to indicate the specific crystal report the data is actually coming from for both PI#1 and PI#2 and reworded the data collection methods to better reflect the calculations and evaluation criteria.	Matt Cohen
02/07/2023	CMMS & GIS	Changed "CA&CIP Module" to "CIP staff analysis" to reflect current practices and procedures.	Matt Cohen
04/10/2023	Communication Program	Changed Responsible Person (RP) title from Administrative Clerk to Management Analyst to reflect current job titles.	Matt Cohen
02/08/2023	FOG Control Program	Deleted the language "Project the year-to-date activity number out to the total year" from PI#3 since the City's current practice is to evaluate the actual number of public education outreach events at the end of the fiscal year.	Matt Cohen
02/14/2023	FOG Control Program	Revised the Rating Scale for PI#3. Upon discussion with the environmental compliance division, the previous rating scale was unrealistic and meeting the excellent criteria would be a misuse of staff time. The new rating scale is much more appropriate.	Matt Cohen
02/24/2023	System Mapping	Edited the description of the PIs and the data collection methods to reflect current practices and provide better instructions of where to access the data.	Matt Cohen
	PM Frequencies	Revised the data collection methods to describe the process more specifically. Whereas previous version of the PM Frequencies PI referenced a "central crystal report", the updated version now reflects specific report used to generate the data. The Rating scale was clarified with "less frequent than" or "more frequent than" rather than using < or > signs, which are potentially confusing for describing frequency of events.	Matt Cohen
02/28/2023	Rehabilitation and Replacement (R/R) Program	Revised the data collection method for PI#1 to specifically account for the number of assets with a structural defect grading 4 or 5. Also revised the data collection method for PI#3 to clarify ambiguity with respect to the updated sources of data. "R&R Program CMMS Repair & Replace" report is more specific than the outdated "central crystal report" reference. The total miles of sewer gravity mains are found in the City's newly created Sewer/Storm GIS dashboard, so that reference has been updated as well. "Project the total number of year-to-date structural issues to year-end totals" has been removed from the data collection method. The PI is analyzed at the end of the fiscal year to prevent extrapolation in data collection methods.	Matt Cohen
02/28/2023	Replacement Parts	Edited the Rating criteria to reduce ambiguity. Previously "Below Goal" was listed as ">Annually" which seemed to indicate "more frequently than annually" when really "Below Goal" was supposed to mean "less frequently than annually." Criteria for "Acceptable" and "Good" ratings were edited to reflect that frequency occurs within the range of time, whereas it formerly couldn't distinguish "Acceptable" from "Good" based on the previous criteria.	Matt Cohen
03/01/2023	Root Treatment Program (RTP)	Edited the Data Collection Method for PI#1 to eliminate extrapolation to the end of the year (since the PI is analyzed at the end of the FY for the actual numbers) and to include sewer lateral lining as	Matt Cohen

		a root treatment method. Deleted PI#2 because it was fully redundant with PI#1. Renumbered PI#3 to PI#2.	
03/01/2023	Mitigation of Sanitary Sewer Overflows (SSOs)	Revised the PI and Data Collection Methods to name the specific crystal report from which the data is collected (SSOMitigation_Cityworks_VolumeCaptured) rather than the previously existing more generic phrasing of "central crystal report." Revised PI#3 data collection method to calculate the percentage rather than "compare the total numbers."	Matt Cohen
03/07/2023	Prevention of Sanitary Sewer Overflows (SSOs)	Edited the Data Collection Method of PI#2 to account for the possibility of 0 SSOs from gravity mains, force mains, manholes, and lift stations. Edited all the PIs to reduce vague language and replace with more precise information on how to conduct the data collection and rating.	Matt Cohen
04/28/2023	Response to Sanitary Sewer Overflows (SSOs)	Revised the Rating Scale for PI#1 and 2, using ≤ (less than or equal to) signs to resolve ambiguity. Also revised the criteria in PI#1 to reflect "below goal" when SSO response time during normal business hours is greater than 45 minutes, "acceptable" within 45 minutes, "good" within 30 minutes, and "excellent" within 15 minutes.	Eric Medrano
04/28/2023	Response to Service Requests	Changed the responsible person from Administrative Clerk, which is not a filled position at the City, to Chief Collections Systems Operator.	Eric Medrano
04/10/2023	Staffing	Changed Responsible Person (RP) title from Administrative Clerk to Management Analyst to reflect current job titles.	Matt Cohen
05/05/2023	Training	Fixed an error in the ratings criteria for PI#1. The rating scale for tabletop/tailgate trainings is now weekly for an excellent score, biweekly for good score, monthly for an acceptable score, and less frequently than monthly for a score of below goal.	Matt Cohen

Sewer System Management Plan Program Audit

City of Woodland FY 2022/2023 SSMP Internal Audit

The City of Woodland is currently in compliance with all of the SSMP requirements as described in subsection D.13 of the General Waste Discharge Requirements (GWDR) for Sanitary Sewer Systems as described herein.

7/31/2022

Table of Contents

CITY OF WOODLAND
UTILITY ENGINEERING

MEMORANDUM

Date: July 31st, 2023

To: Ken Hiatt, City Manager; Craig Locke, Director of Public Works

From: Tim Busch, Principal Utilities Civil Engineer

Subject: SSMP Program Audit Cover Letter

SSMP Performance Review of FY 22/23

Regulatory Compliance

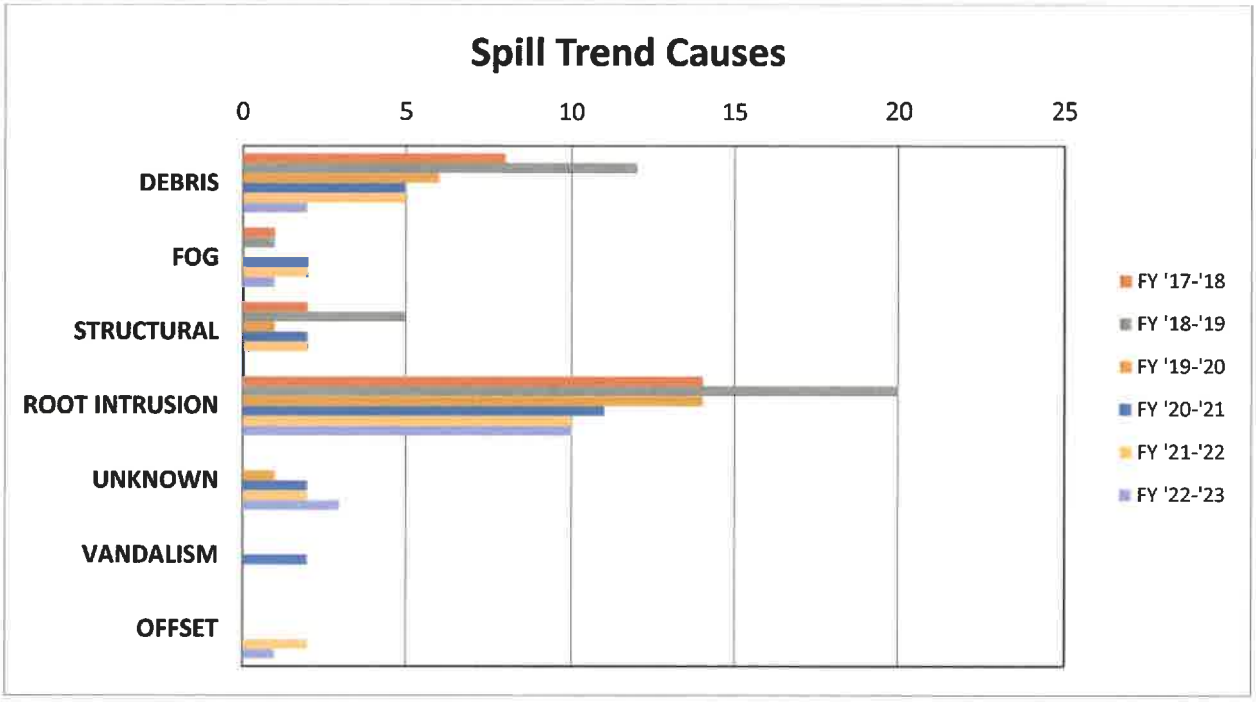
The City of Woodland is currently in compliance with all SSMP requirements as described in subsection D.13 of the General Waste Discharge Requirements (GWDR).

Objectives

This memorandum summarizes the performance of the City of Woodland's Sewer System Management Plan (SSMP) for Fiscal Year (FY) 22/23. The purpose of the SSMP is to provide a written framework for the management, operation, and maintenance programs executed by the city, with the goal of maintaining the level of service of the sewer collection system while minimizing spills. This review is completed as part of the annual audit process described in Sections IX and X of the City's SSMP. This process helps the SSMP document to evolve over time to address identified deficiencies in the management, operation, and maintenance of the sewer collection system. This memorandum summarizes the following information:

1. Spill history, describing the number and nature of spills over the past six years.
2. Summary of progress of further development of the SSMP elements which have a plan and schedule for full implementation.
3. Summary of how many SSMP elements were implemented over last year.

4. Effectiveness of the implemented SSMP elements.
5. What SSMP elements are planned to be implemented next year.
6. Description of additions and improvements to the collection system over the last year.
7. Description of the additions and improvements to the collection system planned for the upcoming year.
8. Review of performance indicators and overall summary of the past fiscal year with proposed modifications for implementation in fiscal year 22/23 in areas in need of improvement.



spill History

FY 22/23

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
10	0	186	0

FY 21/22

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
23	0	460	0

FY 20/21

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
22	1*	1256	430*

*spill resulted from a diversion failure (bypass pumping) of a CIP project, not a failed sewer gravity main. The spill was entirely contained.

FY 19/20

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
19	0	929	0

FY 18/19

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
27	1	582	58

FY 17/18

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
21	0	444	0

The majority of spills are associated with lateral connections to the city system. Overall root intrusion and some debris are being addressed through the root treatment program and public outreach. Average spill response is within 20 to 40 minutes of notification including after-hours emergencies. A CCTV inspection of the pipes in the area is typically done within 1 day of the reported spill. Documentation of investigations is available to view with Cityworks work orders. For FY 22/23, the current root intrusion preventative maintenance program includes lining the laterals, a cost effective and efficient use of staff time in reduction of spills in the City.

Progress on development of SSMP elements

The most recent major SSMP update was in 2020 as part of the required 5-year revision requirement by the State Water Resources Control Board (SWRCB) and was sent to council in December 2020 for approval. Key elements such as spill categories, reporting requirements, and public outreach have changed through the amendments of the statewide general waste discharge order for sanitary sewer systems since 2009 and have been incorporated in the revised SSMP. The Emergency Response Plan was revised in 2023 along with additional minor edits to other sections, coinciding with General Order 2022-0103-DWQ. The next required sewer system management plan update is August 2, 2025.

The SSMP audit has identified some elements that need refinement in the frequency of data collection and type of data collected for both utility maintenance workers and management staff. In late 2020, the sewer asset prioritization module (CA&CIP) crashed and system prioritization data was lost. The City developed an alternative rating system process to replace the previous program and has created a new GIS layer to display sewer asset structural ratings. Ongoing review is conducted routinely in order to determine a better scope and frequency of data collection in order to develop a more robust program.

The SSMP audit includes a change log that is updated with the details of any changes/revisions to the SSMP's performance indicators based on the current Operations and Maintenance (O&M) and Utilities

Engineering practices, input from key personnel and any areas that need various methods of data collection. City staff presented a sewer system management plan update to City Council in January 2023.

How SSMP elements were implemented over the last Fiscal Year

The city developed a process for replacing the failed CA&CIP (sewer asset prioritization) program for sewer asset repair/replacement prioritization. The sewer gravity mains that are categorized in the worst condition (based on CCTV inspections) are prioritized and organized into CIP plans for repair, replacement, or lining; however, projects are staggered over time to repair/replace the sewer system as budget allows. Utilities Engineering staff worked with IT and Sewer Collections departments to develop a GIS layer that displays quick structural ratings for sewer assets to assist with R&R planning.

Several sewer mainline repair projects were conducted over the last fiscal year to fix problems identified through the CCTV program and lift station inspections. The projects fixed issues with lack of slope in certain sewer lines and repaired sewer gravity mains containing grade 4 and 5 defects (the worst score for a defect is 5, representing a broken pipe). The sewer collections department held more staff training events in FY 22/23 and improved it's score from the previous fiscal year.

Effectiveness of the implemented SSMP elements

The CCTV program continues to find problems in main lines before a spill occurs. The Operations crew keeps the Engineering department informed of pipeline failures, causes and repairs. The Engineering department follows the City's purchasing policy to contract repair work that exceeds the operations crew's ability to perform. While the documentation and communication elements of the SSMP were not fully implemented due to inadequate staffing, the use of Cityworks and other software has helped in documenting the efforts of staff to meet the intent of the SSMP in reducing spills in the city. The new GIS layer displaying quick structural ratings of televised sewer gravity mains was extremely useful for identifying sewer gravity mains and producing the scope for sewer CIP projects.

City Standards were updated in March 2021, incorporating several requested updates from City staff members. Examples of sewer-related changes to the City Engineering Standards include updating the depth of flow to design flow ratio to 0.94 for all pipes, increasing the horizontal separation of water and sewer service lines to 36" and adding a minimum requirement of a 5-foot horizontal clearance from trees and other utilities. A full list of changes from the 2016 Engineering Standards to the 2022 updated Standards can be found here:

https://www.cityofwoodland.org/DocumentCenter/View/1079/List-ofchanges-to-the-2016-Engineering-Standards-PDF

The updated Engineering Standards can be found here:
https://www.cityofwoodland.gov/DocumentCenter/View/1082/2021-Engineering-Standards-PDF

What SSMP elements are planned to be implemented next year

City staff intends to continue reviewing and updating standards to incorporate current materials and practices. Evaluation and assignment of necessary sewer repairs and replacement based on the CCTV

inspection will be a priority in fiscal year (FY) 23/24. Public Works staff will continue prioritizing and executing repairs and maintenance to both sewer and lateral lines as budget allows.

City staff from utilities engineering, public works, and information technology will continue working together to refine the sewer asset prioritization process. Since the formerly used CA&CIP asset management program crashed and the data was unrecoverable, it has been a multi-year process to recreate the process and refine it. The newly created GIS layer is helpful for prioritizing sewer asset replacement and determining scope for sewer R&R projects, but the process should be refined in FY23/24 based on lessons learned and shortcomings of the new process.

The City will try to improve upon coordination between sewer collections staff and environmental compliance staff by scheduling and holding more regular meetings to improve upon FOG control. Though staffing issues have been a consistent problem for Woodland with respect to sewer system management planning, the City also intends to improve upon staff training by holding more meetings and keeping sewer maintenance workers up to date on procedures and spill response effectiveness, especially new hires.

Description of additions and improvements to the collection system over the last Fiscal Year

The major accomplishments in CIP implementation of the FY 22/23 included:

- **Spring Lake Lift Station Pump Replacement Project (CIP# 23-04)**: This Project replaced two existing 90-HP submersible pumps with two equivalent 90-HP pumps submersible pumps in the sewer lift station that serves the lowest point in the City's gravity sewer collection system.
- **2022 Water & Sewer Repair and Replacement Project – College & Pendegast (CIP #21-01):** The work included the repair and replacement of water mains and service laterals as well as sanitary sewer mainline and lateral replacement. 2,810 linear feet of new 8-inch PVC sewer main and 6,100 linear feet of new 8-inch diameter PVC water main was constructed in the area of College and Pendegast Streets. The project resulted in more reliable water pressure and supply for 111 parcels and improved sewer drainage for 44 parcels. Additionally, the project installed 8 new fire hydrants and 9 new sewer manholes.
- **2022 Open Cut Sewer Project –** The project replaced 10 fractures or offsets in the sewer system that cause a hindrance for maintenance and operation of the Collection system. These repairs were on 6", 8", 10" and 12" diameter mains.
- **Fifth and Clover Sewer Rehabilitation Project (CIP #22-18):** The work included the replacement of approximately 977 linear feet of sanitary sewer mainline, connection to 3 existing manholes, construction of 1 new manhole, reinstatement of 13 sewer laterals, and installation of 5 new services in the area of fifth and Clover Streets. The Project also included 10 feet of sewer spot repairs and second new manhole via change order. The mains were 6-inch diameter.
- **2023 Water Main Replacement Project (CIP #22-04):** We commenced work on the annual water & sewer repair project. This project mostly involves water system improvements but also includes 2 deep spot repairs where laterals are connected via "break-in" to the top of the

vitrified clay mains. The mains are defective and fractured at these tap locations. Thirteen feet deep open cut excavations are planned in the street to expose and repair two locations of the sanitary sewer gravity main. The sewer gravity mains in question are 8" diameter.

In FY 22/23 crews cleaned 291,184 feet of sewer and CCTV'd 213,876 feet of the sewer system.

Description of the additions and improvements to the collection system planned for the upcoming year

Major collection system rehabilitation projects planned for FY 23/24 include:

- **2024 Water & Sewer Repair & Replacement Project (CIP #23-02):** The City intends to complete design and bid the Project for construction starting in early 2024. The most critical sewer collection system defects, including 5 deteriorated manholes and 37 deficient service laterals, will be replaced via open-cut excavation, or otherwise restored during the Project. We will also eliminate about 1,000 feet of 6" sewer that exists in parallel with another sewer main on Fourth Street, thereby halving the required maintenance.

- **2023 Sewer Lateral Lining Project:** This will be the next lateral lining project and will address around 40 laterals that are subject to root intrusion or are otherwise defective but do not require excavation.

Review of Performance

Attached to this memorandum are performance indicator assessment sheets, which summarize the collection of specific data, intended to provide a basis by which performance in various areas related to the management and operation of the sewer collection system are measured. A responsible person is assigned to each performance indicator assessment sheet. Each year, the responsible persons collect the data related to their assigned performance indicator assessment sheet and provides an interim rating of the City's performance. At the end of the one-year auditing period, final assessments, and recommendations for performance improvement are made. This process is described in Section ix of the City's SSMP. Attached is a summary of the performance indicators tracked by the City and performance in each area with explanation of why goals were not met and actions taken or to be taken in the next FY for future performance improvements and modifications to the SSMP. Overall, the 62 performance indicators had 12 below goal PIs in FY 22/23 and 6 N/A scores. The most common issues with not meeting performance indicator goals or not being able to evaluate them were generally due to technical problems within the sewer asset prioritization process, missing key attributes in GIS, not enough footage of laterals treated for root intrusion and a lack of staffing and training, and data tracking. These are all addressed in the summary spreadsheet and the FY 22/23 audit should see a decrease in below goal performance indicators as these areas get addressed.

Attachments:

Summary of Performance Indicator Spreadsheet FY 22/23
Performance Indicator Assessment Sheets (24 PI forms)

City of Woodland SSMP Performance Indicator Summary FY 22-23				
	Performance Indicator	**Ratings FY 22-23**	**Reason**	**Action taken**
Audits				
Audits	Bi-annual Council Presentation	Good	Update presented January 10th, 2023	
Audits	Time since review of SSMP audits	Excellent	Last SSMP revision/review was in 2023	
CCTV				
CCTV	Feet inspected with CCTV / year	Excellent	213,876 feet inspected	
CCTV	Pipe segments inspected / year	Excellent	3,648 pipe segments inspected	
CCTV	Footage inspected / 16 work hours	Below Goal	1,349 feet inspected / 16 work hours	
CCTV	% of CCTV surverys with a 4 or 5 structural grading	Excellent	4%	
CMMS&GIS				
CMMS&GIS	% population of key GIS attribute fields for gravity sewer mains	Acceptable	81%	Run reports on 7/1 for accurate data
CMMS&GIS	% population of key GIS attribute fields for sewer manholes	Below Goal	59%	Run reports on 7/1 for accurate data
CMMS&GIS	Year-to-date % of CityWorks work orders that have been closed-out	Excellent	1197 Closed WOs out of 1197 total WOs (100%)	
Codes & Ordinances				
Codes & Ordinances	Time since last meeting to discuss list of Ordinance/Code updates based on sewer-specific issues	Good	Last meeting occurred in FY21	
Codes & Ordinances	Time since last actual update to Ordinances/Codes based on sewer-specific issues	Excellent	Last update occurred in FY21	
Communication Program				
Communication Program	% of Updated Public Documentation	Below Goal	SSMP Posted, FY20/21, FY21/22 not uploaded	Upload the completed audits to city website
Communication Program	# of Public Comment Email Responses	N/A	No Public comment emails sent to PW	
Communication Program	% Public Comment Emails Responded To	N/A	No opportunities to respond	
Employee Recognition				
Employee Recognition	Time since last awards/letters distribution: Operation & Maintenance staff	Acceptable	3 rewards in september, averages out of 1 award every 4 months	
FOG Control				
FOG Control	% reduction of FOG-related SSOs compared to previous year	Excellent	Q1 & Q2 0%, Q3 100%, Q4 0%	
FOG Control	% completed of PPP Permit inspections	Excellent	100% of PPP permit holders inspections completed annually	
FOG Control	Annual # of FOG control public education events	Excellent	161 Public Outreach events	
FOG Control	Time since last coordination meeting with Environmental Compliance and O&M staff	Below Goal	One meeting occurred in November 2022	
HVVC				
HVVC	Feet cleaned / year	Good	291,184 ft cleaned per year with HVVC	
HVVC	Pipe segments cleaned / year	Excellent	1,031 segments cleaned with HVVC	
HVVC	Footage cleaned / work order	Excellent	3,551.02 feet cleaned pet work order	
HVVC	% Pipe segments pre-cleaned prior to CCTV inspection	Excellent	97% (535 out of 551 segments) pre-cleaned prior to CCTV	
Mapping				
Mapping	% of sites GPS'd from CIP Sewer R&R in construction	Excellent	100% of R&R sites listed as CIP projects thave GIS data on sewer infrastructure	
Mapping	% of new development sites GPS'd	Excellent	100% of new development sites have GIS data on sewer infrastructure	
O&M Budget				
O&M Budget	Funding provided for O&M budget	Good	2.36 / ft	
O&M Budget	O&M operation cost	Good	Within budget: 89% of total O&M budget	
PM Effectiveness				
PM Effectiveness	% of work orders that are emergencies	Excellent	84 out of 1,196 WOs (7%)	
PM Effectiveness	% of Labor and Material Costs that is Emergency	Excellent	$46,397.86 out of $772,931.58 (6%)	
PM Effectiveness	% of Labor and Material Costs that is Emergency Work on Private Laterals	Excellent	$5,311.43 out of $772,931.58 (0.68%)	
PM Frequencies				
PM Frequencies	% Completion of closed-out work orders vs. expected preventative maintenance work orders	N/A	Cityworks/Crystal reports are incorrectly tracking as preventative maintenance options are selected even when not part of routine inspection/flushings/cleanings	

PM Frequencies	Frequency of thorough lift station inspection / maintenance	Below Goal	Electrical and mechanical inspected conducted annually	
R&R Funds				
R&R Funds	Annual R/R funding provided as % of sewer system value	Excellent	$4,087,000 vs 72,299,202.83	
R&R Funds	Annual funding provided for R/R program vs. CA&CIP cost projections	N/A	$1,592,034.85 vs Undetermined	Complete CIP staff analysis for estimating the funds required for CIP bundles
R&R Program				
R&R Program	% of assets with risk ratings of 4 or 5 that have CIP “actions” assigned or O&M repairs assigned	N/A	CA&CIP Crashed, all data was deleted and unrecoverable	Update Sewer Asset Managment Software
R&R Program	% of scheduled CIPs designed or in construction	N/A	N/A	Update Sewer Asset Managment Software
R&R Program	# of line failures per 100 miles of pipe	Excellent	0 failures per 100 miles of pipe	
Replacement Parts				
Replacement Parts	Frequency of Fleet equipment and replacement part inventory review	Excellent	Monitoring occurs on a real-time basis using FASTER fleet	
Replacement Parts	Frequency of pipeline / manhole equipment and replacement part inventory review	Excellent	Quarterly inventory of equipment & replacement parts.	
Replacement Parts	Frequency of lift station equipment and replacement part inventory review	Acceptable	Inventory conducted annually	
Root Treatment				
Root Treatment	Footage of laterals treated for root intrusion/year	Below Goal	1,067 ft of sewer laterals treated for root invasion	
Root Treatment	% reduction in of root related SSOs compared to previous year	Acceptable	0% reduction in SSOs attributed to root intrusion from last fiscal year.	
SECAP				
SECAP	Ratio of peak WWF to peak DWF	Excellent	1.45:1	
SECAP	Time since last hydraulic model update	Below Goal	Updated in spring 2019	
Service Requests				
Service Requests	Response time for urgent calls	Excellent	Average response time for urgent call is 0.19 hours	
Service Requests	Response time for routine calls	Excellent	Average response time for urgent call is 0.58 hours	
Service Requests	Average # of service calls / 100 miles of pipe	Excellent	77 service calls/100 miles of pipe	
SSO Mitigation				
SSO Mitigation	% captured of SSO (flat, 1-5%)	Good	88% of all SSOs captured	
SSO Mitigation	Average time to investigate SSO with CCTV, when CCTV'd	Excellent	All SSOs which were investigated via CCTV were done within a day.	
SSO Mitigation	% of SSO events investigated with CCTV	Good	16 of 17 SSOs were inspected via CCTV	
SSO Prevention				
SSO Prevention	# of SSOs / 100 miles / year	Excellent	0.5 SSOs per 100mi of sewer pipe	
SSO Prevention	% reduction of SSOs from previous year	Excellent	17 SSO occurrences this FY vs 23 occurrences last FY	
SSO Prevention	# of repeat SSOs / 5 years	Below Goal	10 repeat SSOs within last 5 years	
SSO Prevention	% of repeat SSOs followed by mitigation	Excellent	100% of repeat SSOs were followed by mitigration	
SSO Response				
SSO Response	SSO response time during normal hours	Good	Average response time is 21 minutes for during normal hours for SSOs	
SSO Response	SSO response time after normal hours	Good	Average response time is 39 minutes for post normal hours for SSOs	
Staffing				
Staffing	% of vacant positions	Below goal	16 out of 22 positions were filled	
Standards Update				
Standards Update	Time since last meeting to discuss list of design standard updates based on sewer-specific issues	Below Goal	Last discussion of standards March 1, 2021	
Standards Update	Time since last actual update to design standards based on sewer-specific issues	Good	Last update March 1, 2021	
Training				
Training	Frequency of tabletop / tailgate training	Below Goal	Longer than monthly tailgate meetings, 8 total in fiscal year.	

Training	Frequency of field / equipment training	Acceptable	Longer than bimonthly field/equipment trainings, 5 total in fiscal year.	
Training	Frequency of SSO response training	Below Goal	Longer than quarterly SSO meetings, 2 total in fiscal year.	

Goal:	SSMP Audits and Updates

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify efforts to present the findings of SSMP performance evaluations to City Council and other peer agencies, with the purpose of receiving valuable feedback on performance and possible improvements to existing procedures and programs.

PIs and Data Collection Methods:

1. *Was a bi-annual report prepared and presented to City Council based on the SSMP performance indicator review process?*
   Data Collection Method: Keep track manually.

2. *The frequency with which a review of the City SSMP, a SSMP Audit, or SSMP performance evaluation (i.e. annually summary of performance indicator tracking process) is completed.*
   Data Collection Method: Keep track manually. A file of all peer reviews should be kept.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Bi-annual Council presentation	No	-	Yes	-
2	Time since last review of SSMP, SSMP Audits, or SSMP Performance Evaluations	> 5 years	2-5 years	1-2 years	< 1 year

Periodic Performance Tracking

Date	Measured Value			Performance Assessment Comments
FY 23-24	Goal	1	2	
	Value	Yes	<1 Year	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Good** – City Staff presented a sewer management update to City Council in January 2023.
2. **Excellent** – SSMP audits reviewed by Utilities Engineering and Sewer Collections Departments annually.

Recommendation #1: City Staff should present SSMP update to Council by January 2025.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	Date:
	7/17/2024

Goal: **Closed Circuit Television (CCTV) Inspections**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

CCTV inspections are conducted using a standardized protocol to supply sufficient data for use in capital improvement project planning. The PIs listed below quantify efforts to complete CCTV work according to system-wide inspection frequency goals, and to complete the work both efficiently and with high quality.

PIs and Data Collection Methods:

1. *The total footage of the collection system inspected per year with CCTV.*
   Data Collection Method: Determine fiscal year CCTV inspection footage production from the CCTV_Cityworks_SegmentsAndFootage crystal report and evaluate rating based on the performance indicator criteria.

2. *The total number of pipe segments inspected with CCTV per year.*
   Data Collection Method: Determine fiscal year CCTV inspection pipe production from the CCTV_Cityworks_SegmentsAndFootage crystal report and evaluate rating based on the performance indicator criteria.

3. *The average footage inspected per 16 hours of work (one full day for a crew of 2).*
   Data Collection Method: Determine the total CCTV footage for the fiscal year from the "CCTV__Cityworks__SegmentsAndFootage" crystal report and divide by the total number of hours expended collecting the videos to determine the average footage per hour of work. Multiply by 16 to evaluate average footage inspected per 16 hours of work.

4. *The percentage of CCTV surveys with a 4 or a 5 structural grading in CIP staff analysis and/or Cityworks.*
   Data Collection Method: Determine total number of CCTV inspections completed in FY and the number of CCTV videos with a 4 or 5 structural grading from Cityworks Reports & CIP Staff Analysis.

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	Feet inspected with CCTV / year	< 100,000	100,000-170,000	170,000-200,000	> 200,000
2	Pipe segments inspected / year	< 400	400-600	600-800	> 800
3	Footage inspected / 16 work hours	< 1500	1500-1600	1600-2000	> 2000
4	% CCTV Surveys with a 4 or a 5 structural grading	> 30%	20-30%	10-20%	< 10%

Periodic Performance Tracking						
Date	**Measured Value**					**Performance Assessment Comments**
FY 22-23	Goal	1	2	3	4	
	Value	213,876	3,648	1,349	4%	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

- **Excellent** – 213,876 feet inspected
- **Excellent** – 3,648 pipe segments inspected
- **Below Goal** – 1,349 feet inspected / 16 work hours
- **Excellent** – 15 SGMs have a QSR rating beginning with 5; 14 SGMs have a QSR rating beginning with 4. Woodland's GIS program documents 771 SGMs televised before July 1, 2023. There are 29 SGMs with a structural grade of 4 or 5 out of 771 televised SGM assets (4%)

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Recommendation #4: None.

Signature of Responsible Person: (sign when complete)	Date:
Eric Nelson	7-30-24

Goal:	Computerized Maintenance Management System (CMMS) & Graphical Information System (GIS)

Responsible Person (RP):
GIS Analyst

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts required to maintain a robust population of attribute data within the City GIS that can be used to supplement the City's CIP staff analysis and hydraulic modeling efforts. Additionally, the City's effort to consistently close-out work orders is quantified to ensure that scheduled work is completed in a timely manner.

PIs and Data Collection Methods:

1. *Percentage population of key attribute data for sewer collection system assets within GIS geodatabase for gravity sewer mains.*
   Data Collection Method: Determine the % of values for the following fields in the GIS geodatabase SGravityMain table from the central crystal report: InstallDate, Material, WidthTop, UpstreamInvert, DownstreamInvert, Slope, DesignFlow, Condition, ConditionDate

2. *Percentage population of key attribute data for sewer collection system assets within GIS geodatabase for manholes.*
   Data Collection Method: Determine the % of values for the following fields in the GIS geodatabase SManhole table from the central crystal report: InstallDate, Condition, ConditionDate, Elevation, BarrelDiameter, BarrelMaterial, Depth

3. *Percentage of year-to-date CityWorks work orders that are closed*
   Data Collection Method: Determine the % of year-to-date CityWorks work orders that have been closed out from the central crystal report.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% population of key GIS attribute fields for gravity sewer mains	< 80%	80-90%	90-95%	95-100%
2	% population of key GIS attribute fields for sewer manholes	< 80%	80-90%	90-95%	95-100%
3	Year-to-date % of CityWorks work orders that have been closed-out	< 80%	80-90%	90-95%	95-100%

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
1st Qtr	Goal				
	Value				
2nd Qtr	Goal				
	Value				
3rd Qtr	Goal				
	Value				
4th Qtr	Goal	1	2	3	Values listed for #1-#3 are summaries of the entire year.
	Value	81%	58%	99%	

Annual Performance Assessment / Recommendations for Updates

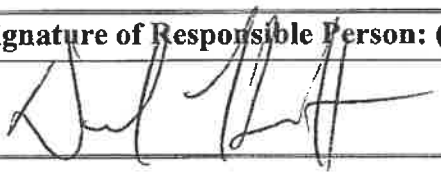
FY 23-24 Ratings:

1. **Acceptable** – 81%
2. **Below Goal** – 58%
3. **Excellent** – 1,462 out of 1,475 (99%) of workorders closed

Recommendation #1: Run CMMS&GIS_GIS_GravityMains Report on 7/1 in cityworks for every year to get accurate data.

Recommendation #2: Run CMMS&GIS_GIS_Manholes Report on 7/1 in cityworks for every year to get accurate data.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	Date:
	7-29-24

Goal: **Maintaining Codes and Ordinances**

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to keep the City Codes and Ordinances current with known or upcoming changes in regulatory issues. This effort involves keeping a list of recommended updates to the codes and ordinances, which is reviewed by all parties with responsibility over the collection system and updated on a consistent basis.

PIs and Data Collection Methods:

1. *The frequency with which the list of required/requested updates to the City Code and Ordinances is maintained and discussed with O&M, Engineering, Environmental Compliance, and Management with regard to sewer-specific issues.*
   Data Collection Method: Keep track manually. Current list of updates, and meeting notes from past meetings should be available.

2. *The frequency with which the Municipal Code is revised to incorporate the list of required/requested sewer-specific updates.*
   Data Collection Method: Keep track manually. A file of completed updates and/or new ordinances specific to the sewer collection system should be kept.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Time since last meeting to discuss Ordinance/Code updates based on sewer-specific issues	> 5 Years	2-5 years	1-2 years	< 1 year
2	Time since last actual update to Ordinances/Codes based on sewer-specific issues	> 20 Years	10-20 years	5-10 years	< 5 years

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 23-24	Goal	1	2	
	Value	<2	<2	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Good** – Last meeting occurred in FY23, November 2023
2. **Excellent** – Last update occurred in FY23, November 2023

Recommendation #1: None

Recommendation #2: None

Signature of Responsible Person: (sign when complete)	Date:
	7/17/2024

Goal: **Communication Program**

Responsible Person (RP):
Management Analyst

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to communicate with the public on a regular basis concerning the development and status of the City SSMP.

PIs and Data Collection Methods:

1. *The percentage of public documentation online links that are properly uploaded with their most current versions. Links are found on the Utility Infrastructure page of the City of Woodland website, under the Public Works Division. Complete public documentation includes the most recent copy of the SSMP and the most current internal audit documentation.*
   Data Collection Method: Review links quarterly.

2. *Total number of year-to-date public comment email responses.*
   Data Collection Method: The City's public comment email link should be set up to deliver emails directly to the RP. The RP should keep a separate folder specifically for filing SSMP public comment emails and responses. There is no goal set for this PI. The RP only needs to document the total number of responses.

3. *The percentage of public comment emails received that were responded to.*
   Data Collection Method: RP will use Microsoft Outlook to determine the number of year-to-date comment emails received, and determine the number of year-to-date responses and determine the response percentage.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of Updated Public Documentation	< 50%	50%	100%	N/A
2	# of Public Comment Email Responses	N/A	N/A	N/A	N/A
3	% Public Comment Emails Responded To	< 80%	80-90%	90-95%	95-100%

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY 22-23	Goal	1	2	3	
	Value	33%	N/A	N/A	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Below Goal** – The updated SSMP is posted on the city websites, but the FY 20/21, FY 21/22 have not been uploaded. The most recent versions on the website are FY 18/19 and FY 19/20.

2. **N/A** – There were no public comment emails sent to the Public Works email regarding sewer related comments in Fiscal Year 22/23.

3. **N/A** – Since there were no public comment emails in FY 22/23, there were no opportunities to respond.

Recommendation #1: Upload the completed audits to the city website.

Recommendation #2: The City developed a new process for documenting sewer related comments from the public in FY22/23 by establishing a CityWorks Work Order for tracking this information. City staff recommends continuing this process and testing its effectiveness in FY 23/24.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Kayan Rodriguez	1/26/2024

Goal:	Employee Recognition

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to publicly recognize employees for exceptional work and provide a rewards system (gift certificates, cash, etc.) as part of the program.

PIs and Data Collection Methods:

1. *The frequency with which awards are distributed to O&M staff*
   Data Collection Method: Keep Track Manually. Count letters distributed as found in the Q drive and determine frequency in a year.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Frequency of award distribution: Operation & Maintenance staff	> 6 months	≤ 6 months	1 Quarter	1 month

Periodic Performance Tracking

Date	Measured Value		Performance Assessment Comments
1st Qtr	Goal	1	
	Value	3	
2nd Qtr	Goal	1	
	Value	0	
3rd Qtr	Goal	1	
	Value	0	
4th Qtr	Goal	1	
	Value	0	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Acceptable** – 3 awards distributed in month of September 2022. Averages out to 1 award every 4 months. (Based on what was found in congratulatory letters)

Recommendation #1: The Pub Works Management Analyst used to be responsible for drafting congratulatory letters but there has been recent staff turnover in the Management Analyst position. Make sure the new Management Analyst knows it their responsibility.

Signature of Responsible Person: (sign when complete)	Date:
Eric Nelson	7-30-24

Goal: **Fats, Oils, and Grease (FOG) Control Program**

Responsible Person (RP):
Environmental Compliance Inspector

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to operate an effective and efficient FOG control program.

PIs and Data Collection Methods:

1. *The percent reduction in sanitary sewer overflows (SSOs) and blockages requiring flushing attributed to FOG blockages from the previous year.*
   Data Collection Method: For the first year of tracking, simply report number of SSOs and blockages caused by FOG from the central crystal report. Report SSOs and blockages from both sewer mains and sewer laterals. After data is available from the first year of tracking, determine the year-to-date FOG-related SSOs and blockages from the central crystal report, project the number of events out to the total year, and compare to the previous year's events to determine % reduction.

2. *The percentage of Pollution Prevention Program (PPP) permit holder inspections completed annually.*
   Data Collection Method: Keep track manually using total number of PPP permit holders and number of inspection forms.
   [Note: when PPP program managed through CityWorks, a query can be set up to quantify inspections completed based on work-order records rather than counting inspection forms.]

3. *The number of public education outreach events conducted per year.*
   Data Collection Method: Keep track manually. The RP should keep documentation on all FOG Control public outreach events and activities in a file which can be reviewed to determine what activities have been conducted.

4. *Time since last joint Environmental Compliance and O&M meeting to review FOG-related issues in the collection system.*
   Data Collection Method: Keep track manually. RP should keep file of meeting notes and action items from meetings.

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	% reduction of FOG-related SSOs compared to previous year	< 0%	0-5%	5-10%	10-20%
2	% completed of PPP permits inspections	<75%	75-90%	90-100%	100%
3	Annual # of FOG control public education events	< 30	30-50	51-70	> 70
4	Time since last coordination meeting with Environmental Compliance and O&M staff	> 6 months	3-6 months	2-3 months	< 2 months

Periodic Performance Tracking						
Date	**Measured Value**					**Performance Assessment Comments**
1st Qtr	Goal	1				
	Value	-100%				
2nd Qtr	Goal	1				
	Value	0%				
3rd Qtr	Goal	1				
	Value	0%				
4th Qtr	Goal	1	2	3	4	Values listed for #2 - #4 are summaries of the entire year
	Value	100%	100%	153	2-3 Months	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

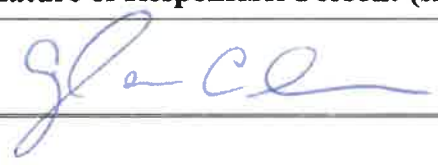
1. **Acceptable** – 1 incident this year, 1 incident last year. Same amount in SSOs compared to previous year.
2. **Excellent** – 100% of all PPP permit holders inspected annually.
3. **Excellent** – 153 public outreach events conducted for FY23-24.
4. **Good** – 3 months (Conducted Quarterly)

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Recommendation #4: None.

Signature of Responsible Person: (sign after annual review)	**Date:**
	7/25/24

Goal: **High Velocity Vacuum Cleaning (HVVC)**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the effort to periodically clean hot spot pipes and support CCTV inspection by pre-cleaning pipes.

PIs and Data Collection Methods:

1. *The total footage of the collection system cleaned per year with HVVC.*
   Data Collection Method: Determine year-to-date HVVC footage production from central crystal report, and project to year-end production.

2. *The total number of pipe segments cleaned with HVVC per year.*
   Data Collection Method: Determine year-to-date HVVC pipe cleaning production from central crystal report, and project to year-end production.

3. *The average footage cleaned per work order.*
   Data Collection Method: Determine year-to-date HVVC footage cleaned per work order from the HVVC Segments and Footage crystal report to evaluate average daily crew production.

4. *The percentage of CCTV inspections that were conducted where pre-cleaning was completed.*
   Data Collection Method: Determine the number of year-to-date CCTV inspections that have been pre-cleaned from the central crystal report, and compare to the total number of year-to-date CCTV inspections completed (also from central crystal report).

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Feet cleaned / year	< 210,000	210,000-240,000	240,000-300,000	> 300,000
2	Pipe segments cleaned / year	< 700	700-900	900-1000	> 1000
3	Footage cleaned / work order	<1800	1800-2300	2300-2500	> 2500
4	% Pipe segments pre-cleaned prior to CCTV inspection	< 70%	70-80%	80-90%	> 90%

Periodic Performance Tracking						
Date	**Measured Value**					**Performance Assessment Comments**
FY22-23	Goal	1	2	3	4	
	Value	291,184	1,031	3,551.02	97%	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Good** – 291,184 ft cleaned per year with HVVC
2. **Excellent** – 1,031 segments cleaned with HVVC per year
3. **Excellent** – 3,551.02 feet cleaned per work order
4. **Excellent** – 97% (535 out of 551 segments) of sewer main segments are pre-cleaned prior to CCTV

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Recommendation #4: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Mahnken	7-31-24

Goal: **System Mapping**

Responsible Person (RP):
GIS Analyst

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to provide up-to-date maps of assets in the collection systems and other applicable facilities (i.e., stormwater facilities, waterways, etc.). This effort involves completing map change requests in a timely fashion. Map change requests come from two sources; namely, 1) changes from rehabilitation or replacement, and 2) additional assets from new development.

PIs and Data Collection Methods:

1. *The % of CIP Sewer R&R in construction that are being GPS'd to update GIS maps*
   Data Collection Method: Use sewer asset replacement plan to determine the number of rehabilitation and/or replacement projects in construction. Determine the number of GPS sites visited that were/are currently in construction.

2. *The % of new development sites that have been GPS'd*
   Data Collection Method: Track new developments under current construction, manually. Check these areas of new developments for availability of sewer data in GIS and determine the percentage of subdivision sites that have been GPS'd.
   [note: spreadsheet of new developments maintained by Senior Construction Project Manager]

	Performance Indicators	Rating			
		Below Goal	[illegible]	Good	Excellent
1	% of sites GPS'd from CIP Sewer R&R in construction	< 25%	25-70%	70-100%	100%
2	% of new development sites GPS'd	< 50 %	50-85%	85-100%	100%

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
1st Qtr	Goal	1	2	
	Value	100%	100%	
2nd Qtr	Goal	1	2	
	Value	100%	100%	
3rd Qtr	Goal	1	2	
	Value	100%	100%	
4th Qtr	Goal	1	2	
	Value	100%	100%	

Annual Performance Assessment / Recommendations for Updates

FY23-24 Ratings:

1. **Excellent** – 100% of R&R sites listed as CIP Projects have GIS data on sewer infrastructure
2. **Excellent** – 100% of new development sites have GIS data on sewer infrastructure.

Recommendation #1: Update sewer asset replacement plan.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	**Date:**
	7.29.24

Goal:	**Operation and Maintenance Budgeting**

Responsible Person (RP):
Finance Officer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to sufficiently provide and utilize funds to effectively operate and maintain the collection system.

PIs and Data Collection Methods:

1. *The amount of funding provided for operating and maintaining the collection system per foot of main line pipe.*
   Data Collection Method: Determine annual funds allocated for operation and maintenance of the sewage collection system, and divide by the total gravity main and pressure main pipe footage from the central crystal report. [Note: This PI only needs to be tracked on an annual basis, not a quarterly basis.]

2. *The percentage of the cost to operate and maintain the collection system with respect to the projected costs.*
   Data Collection Method: Determine actual year-to-date sewer system O&M costs from financial accounting system, and compare the value to the amount of projected funding to find the relative percentage of the budget.

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	Funding provided for O&M budget	< $1/ft/year	$1-$2/ft/year	$2-$3/ft/year	> $3/ft/year
2	O&M operation cost	> 100% budget	95-100% of budget	<95% of budget	N/A

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 22-23	Goal	1	2	1. $2,593,008 / 1,091,463.7 ft of sewer pipe = $2.36 / ft 2. $2,312,218.77 / $2,593,008 = 89% of budget
	Value	$2.36 / ft	89%	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Good** –$2.36 / ft
2. **Good** – Within budget: 89% of total O&M budget.

Recommendation #1: None.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Kimberly McKinney	

Goal: **Preventative Maintenance Effectiveness**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the effectiveness of the preventative maintenance program in limiting time and expenses required to respond to emergency calls and failures of the sanitary sewer system.

PIs and Data Collection Methods:

1. *The percentage of work orders that are emergency.*
   Data Collection Method: Determine from central crystal report. Emergency work orders include the following CityWorks priority categories: "priority 1" (emergency), "priority 2" (urgent), and "priority 9" (on-call).

2. *The percentage of accountable labor and material costs that are attributed to emergency work versus regular preventative maintenance work.*
   Data Collection Method: Determine from central crystal report. Emergency work orders include the following CityWorks priority categories: "priority 1" (emergency), "priority 2" (urgent), and "priority 9" (on-call).

3. *The percentage of accountable labor and material costs that are attributed to emergency work on private laterals.*
   Data Collection Method: Determine the total year-to-date work order costs (labor and materials) for all "priority 1" (emergency), "priority 2" (urgent), and "priority 9" (on-call) work orders associated with sewer laterals from the central crystal report. Determine the percentage of the total year-to-date work order costs (also from central crystal report) associated with the sewer collection system these "lateral emergency" work orders represent.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of work orders that are emergencies	> 40%	30-40%	20-30%	< 20%
2	% of Labor and Material Costs that is Emergency Work	> 30%	20-30%	10-20%	0-10%
3	% of Labor and Material Costs that is Emergency Work on Private Laterals	> 20%	10-20%	5-10%	0-5%

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY 22-23	Goal	1	2	3	1. 84 out of 1,196 WOs 2. $46,397.86 out of $772,931.58 (6%) 3. $5,311.43 out of $772,931.58 (0.68%)
	Value	7%	6%	0.68%	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Excellent** – 7%
2. **Excellent** – 6%
3. **Excellent** – 0.68% of total WO cost can be attributed to Private SSO Events

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	Date:
Eric Nelson	7-31-24

Goal: **Frequency of Preventative Maintenance (PM) Activities**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the effort to ensure that work orders are being created to accurately document preventative maintenance activities, and that preventative maintenance activities are being completed as planned by management.

PIs and Data Collection Methods:

1. *Compare the number of cleanings/flushings/inspections in the CMMS to the number of flushing and inspection work orders that should have been generated if all of the pipes on the weekly and quarterly cleaning routes were completed and determine the completion %.*
   Data Collection Method: Determine the total number of year-to-date closed-out preventative maintenance CCTV inspection and hydroflushing events from the "PMFrequency_CityWorks_ClosedWOs" Cityworks report. Compare the number of cleanings/flushings/inspections to the number of work orders that were expected based on the number of assets on the weekly and quarterly inspection and cleaning routes (excel files).

2. *Frequency of thorough electrical and mechanical inspections of lift stations.*
   Data Collection Method: Keep track manually. Determine the number of thorough electrical/mechanical inspections conducted over the previous 2-year period for each lift station to determine the inspection frequency. Report the average inspection frequency for all lift stations. [Note: when lift station work orders are being managed through CityWorks, a query can be set up to determine the number of work orders completed over the last 2-year period and calculate the average inspection frequency.]

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% Completion of closed-out work orders vs. expected preventative maintenance work orders	< 75%	75-85%	85-95%	95-100%
2	Frequency of thorough lift station inspection / maintenance	Less frequent than Biannually	Every 4-6 months	Every 3-4 months	More frequent than Quarterly

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 22-23	Goal	1	2	
	Value	N/A	Annual/As needed	Electrical and mechanical inspection is conducted annually or more often if a problem is identified in daily routine checks of the station.

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **N/A** – Cityworks/Crystal reports are incorrectly tracking as preventative maintenance options are selected even when not part of routine inspection/flushings/cleanings.

2. **Below goal** – Electrical and mechanical inspection is conducted annually or more often if a problem is identified in daily routine checks of the station.

Recommendation #1: There are 52 weekly flushings, 52 weekly inspections and 4 quarterly cleanings. The Cityworks report for this PI has been generating incorrectly. Update Cityworks drop-down options to include "weekly flushings", "weekly inspections", "quarterly cleanings" for improved tracking of routine inspection and maintenance.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Madsen	7-31-24

Goal: **Rehabilitation and Replacement (R/R) Funding**

Responsible Person (RP):
Finance Officer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to provide sufficient funds for the R/R program to maintain or improve the condition of the collection system over time.

PIs and Data Collection Methods:

1. *The percentage of the total system value as defined by the City's Finance Officer budgeted for the year for R/R projects.*
   Data Collection Method: Manually compare total R/R funding provided to the value of the sewer collection system as determined by the City's Finance Officer.
   [Note: this PI may be tracked on an annual basis, and does not need to be tracked quarterly.]

2. *The annual funding budgeted for R/R projects compared to the estimated funding required according to estimates produced by the CIP Staff Analysis.*
   Data Collection Method: Manually sum the total annual R/R funding provided vs. the funding required for the current year according to Utilities Engineering Staff using the CIP Staff Analysis.
   [Note: this PI may be tracked on an annual basis, and does not need to be tracked quarterly.]

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Annual R/R funding provided as % of sewer system value	<1%	1.0%-1.5%	1.5%-2.0%	>2.0%
2	Annual funding provided for R/R program vs. CIP Staff Analysis projections	> needs from CA&CIP analysis	N/A	Consistent with needs from CA&CIP analysis	N/A

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 22-23	Goal	1	2	
	Value	5.6%	N/A	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Excellent** – Uses FY 22/23 CIP R/R Funding vs. FY 22/23 Asset Value for Fund ($4,087,000 vs. $72,299,202.83), 5.6%

2. **N/A** – ($1,592,034.85 vs Undetermined)

Recommendation #1: None.

Recommendation #2: Complete CIP staff analysis for estimating the funding required for CIP bundles.

Signature of Responsible Person: (sign when complete)	Date:
Kimberly McKay	

Goal: **Rehabilitation and Replacement (R/R) Program**

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to develop and implement an R/R program. This involves developing a module for continually prioritizing line segments to be identified for rehabilitation or replacement. Once prioritized line segments are identified and bundled into Capital Improvement Projects (CIPs), appropriate rehabilitation or replacement methods will be analyzed, designed, and constructed.

PIs and Data Collection Methods:

1. *The percentage of assets that have defect grades from 4-5 and have been CCTV inspected that have also been assigned to a future project/O&M activity.*
   Data Collection Method: Determine the percentage of CCTV inspected assets with a defect grading of 4 or 5 that have been assigned to a future project/O&M activity.

2. *The percentage of bundled CIP assets assigned to the previous year that are in design or construction.*
   Data Collection Method: Manually determine the % based on determination of which bundled CIP assets assigned to the previous year in the CIP Staff Analysis are actually in design or construction.

3. *The number of annual main line structural pipe failures or breaks per 100 miles of pipe.*
   Data Collection Method: Determine the number of SSOs caused by structural failures in gravity mains, force mains, and manholes and document the number of repairs or replacements of gravity mains, force mains, and manholes due to emergency structural problems from the R&R Program CMMS Repair & Replace crystal report. Finally, determine the ratio of structural failures attributable to SSOs per 100 miles of pipe using the total length of sewer system gravity and pressure main piping (found in the City's Sewer/Storm GIS Dashboard).

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of assets with defect grades of 4 or 5 that have CIP "actions" assigned or O&M repairs assigned	< 75%	75-85%	85-95%	95-100%
2	% of scheduled CIPs designed or in construction	< 50%	50-60%	60-70%	> 70%
3	# of line failures per 100 miles of pipe	> 4	3-4	2-3	< 2

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY 22-23	Goal	1	2	3	
	Value	N/A	N/A	0	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **N/A** – Since the City's former sewer asset management program (CA&CIP) crashed, the City created a new GIS layer to display QSR (quick structural review) scores for inspected sewer gravity mains (SGMs). The GIS layer is evaluated for CIP scope to ensure projects are addressing SGMs containing defect grades of 4s and 5s. However, the City has not been tracking the percentage of assets assigned a future project. The FY 22-23 sewer R&R CIP projects, including the 2022 Water & Sewer R&R Project (CIP# 21-01) and the Fifth and Clover Streets Sewer Rehabilitation Project (CIP# 22-18) were selected based on review of sewer CCTV footage and analysis, as well as SSO history.

2. **N/A** – No project bundles to reference

3. **Excellent** – 0 failures per 100 miles of sewer pipe – From the "R&R Program CMMS Repair & Replace" crystal report, there was a total of 0 Sewer Gravity Main Repair/Replace that was urgent/emergency, there was a total of 3 Sewer Lateral Line Repair/Replace that was urgent/emergency, and there was a total of 0 Sewer Manhole Repair/Replace that was urgent/emergency.

Recommendation #1: Consider revising the R&R Program PI and Data Collection Methods to reflect current practices.

Recommendation #2: Consider revising the SSMP to reflect current practices or work to update existing process.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	Date:
	7/30/2024

Goal: **Replacement Parts**

Responsible Person (RP):
Equipment Services Clerk /
Chief Collections Systems Operator/
WPCF Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to ensure that adequate reserves of replacement parts are available to respond to foreseeable emergency situations that may arise within the collection system.

PIs and Data Collection Methods:

1. *Frequency with which the inventory of necessary equipment and replacement parts for fleet vehicles is reviewed and updated, and new parts ordered if needed.*
   Data Collection Method: Report generated through Fleet Software System semi-annually.

2. *Frequency with which the inventory of necessary equipment and replacement parts for pipeline and manhole repairs is reviewed and updated, and new parts ordered if needed.*
   Data Collection Method: Keep track manually.

3. *Frequency with which the inventory of necessary equipment and replacement parts for lift stations is reviewed and updated, and new parts ordered if needed.*
   Data Collection Method: Keep track manually.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Frequency of Fleet equipment and replacement part inventory review	Less frequent than Annually	Annually - Biannually	Biannually - Quarterly	More frequent than Quarterly
2	Frequency of pipeline / manhole equipment and replacement part inventory review	Less frequent than Annually	Annually - Biannually	Biannually - Quarterly	More frequent than Quarterly
3	Frequency of lift station equipment and replacement part inventory review	Less frequent than Annually	Annually - Biannually	Biannually - Quarterly	More frequent than Quarterly

Periodic Performance Tracking					
Date	Measured Value				Performance Assessment Comments
1st Qtr	Goal	1	2	3	
	Value	Continuously	Quarterly	Annually	
2nd Qtr	Goal	1	2	3	
	Value	Continuously	Quarterly	Annually	
3rd Qtr	Goal	1	2	3	
	Value	Continuously	Quarterly	Annually	
4th Qtr	Goal	1	2	3	
	Value	Continuously	Quarterly	Annually	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Excellent** – Monitoring occurs on a real-time basis using FASTER Fleet.
2. **Excellent** – Quarterly inventory of equipment & replacement parts.
3. **Acceptable** – Inventory conducted annually, with parts ordered as soon as possible for repairs or replacements.

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person - Fleet: (sign when complete)	Date:
Phillip Lovejoy	07/29/2024

Signature of Responsible Person – O&M: (sign when complete)	Date:
Eric Nelson	7-30-24

Signature of Responsible Person – WPCF: (sign when complete)	Date:
Marc Lee	7-29-24

Goal:	**Root Treatment Program (RTP)**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to mitigate reoccurring sewer lateral blockages due to root intrusion and to operate an effective Root Treatment Program.

PIs and Data Collection Methods:

1. *The total footage of sewer laterals treated for root intrusion over one year*
   Data Collection Method: Determine the fiscal year footage of treated sewer laterals from the Root Treatment Cityworks Footage crystal report and add total linear footage of sewer lateral lining projects.

2. *The percent reduction in Sanitary Sewer Overflows (SSOs) and blockages requiring flushing attributed to root intrusion from previous year.*
   Data Collection Method: For the first year of tracking, simply report the number of SSO's and blockages caused by root intrusion from the central crystal report. After data is available from the first year of tracking, determine the year-to-date number of SSOs and blockages attributed to root intrusion, project the number of events out to the total year, and then compare the previous year's events to determine the percent reduction.

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	Total footage of laterals treated for root intrusion over one year	< 6,000	6,000 – 10,000	10,000-20,000	> 20,000
2	% reduction in SSOs attributed to root intrusion from the previous year	< 0	0 – 2.5%	2.5-5%	> 5%

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
1st Qtr	Goal	1	2	FY22-23 had 3 SSOs attributed to root intrusions; FY21-22 had 0 SSOs attributed to root intrusions in Q1 of the FY.
	Value	231	-300%	
2nd Qtr	Goal	1	2	FY22-23 had 4 SSOs attributed to root intrusions; FY21-22 had 5 SSOs attributed to root intrusions in Q2 of the FY.
	Value	281	20%	
3rd Qtr	Goal	1	2	FY22-23 had 3 SSOs attributed to root intrusions; FY21-22 had 3 SSOs attributed to root intrusions in Q3 of the FY.
	Value	443	0%	
4th Qtr	Goal	1	2	FY22-23 had 0 SSOs attributed to root intrusions; FY21-22 had 2 SSOs attributed to root intrusions in Q4 of the FY.
	Value	112	200%	

Annual Performance Assessment / Recommendations for Updates
FY 22-23 Ratings: 1. **Below Goal** – 1,067 ft of sewer laterals treated for root intrusion. The City did not do a sewer lateral lining project this year. 2. **Acceptable** – 0% reduction in SSOs attributed to root intrusion from last fiscal year. There were 10 SSOs attributed to root intrusion in FY21-22 compared to 10 SSOs attributed to root intrusion in FY22-23. Recommendation #1: The City should put a sewer lateral lining project out to bid in FY23-24 to address root intrusion in some of the most susceptible locations. Recommendation #2: Address high risk areas for root intrusion of laterals in the 2023 Sewer Lateral Lining project.

Signature of Responsible Person: (sign after annual review)	Date:
	7-30-24

Goal:	**System Evaluation and Capacity Assurance Program (SECAP)**

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to conduct an evaluation of the system and ensure sufficient capacity to convey expected wastewater flows.

PIs and Data Collection Methods:

1. *Ratio of peak wet weather flow to average dry weather flow as monitored at the WWTP*
   Data Collection Method: Collect daily flow data for the largest wet weather event at the WWTP headworks year-to-date and compare to the average dry weather (summer) flows as reported by WWTP operators to determine the ratio.
2. *Frequency of hydraulic model updates*
   Data Collection Method: Keep track manually. Hydraulic model updates include adjustments to parcel use information, system geometry (i.e. pipe sizes, inverts, locations), updates to I/I rates, etc. RP should keep a log of hydraulic model update activities.

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	Ratio of peak WWF to average DWF	> 2.0 : 1	1.7:1 – 2.0:1	1.5:1 – 1.7:1	1.3:1 – 1.5:1
2	Time since last hydraulic model update	> 4 years	3 – 4 years	2 – 3 years	< 2 year

Periodic Performance Tracking

Date	**Measured Value**			**Performance Assessment Comments**
FY 23-24	Goal	1	2	
	Value	1.57:1	2019	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Good** – 1.57:1
2. **Below Goal** – Updated in Spring 2019. Flows to WPCF have been declining overall since 2019. Recommendations from previous model have been implemented, including sewer repairs and 2 additional rain gauges.

Recommendation #1: None

Recommendation #2: Reduce hydraulic frequency, update when sewer flows increase.

Signature of Responsible Person: (sign when complete)	**Date:**
	7/17/2024

Goal: **Response to Service Requests**

Responsible Person (RP):
Chief Staff Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts taken to effectively respond to customer service calls.

PIs and Data Collection Methods:

1. *The average response time for an urgent call.*
   Data Collection Method: Determine the average response time for "priority 1" (emergency), "priority 2" (urgent), and "priority 9" (on-call) service calls from Cityworks.

2. *The average response time for a routine call.*
   Data Collection Method: Determine the average response time for "priority 3" (routine) service calls from Cityworks.

3. *Average number of service calls per 100 miles of pipe per year.*
   Data Collection Method: Determine the total number of year-to-date service calls from Cityworks, project to year-end totals, and determine number of calls per 100 miles of main line gravity and pressure pipe.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Response time for urgent calls	> 1 day	1 day	8 hours	1 hour
2	Response time for routine calls	> 1 week	1 week	3 days	1 day
3	Average # of service calls / 100 miles of pipe	> 200	150-200	100-150	< 100

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY 22-23	Goal	1	2	3	
	Value	0.19 hours	0.58 hours	77 calls / 100 miles	3. There were 154 service calls

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Excellent** – Average response time for an urgent call is 0.19 hours.
2. **Excellent** – Average response time for a routine service call is 0.58 hours
3. **Excellent** – 77 service calls/100 miles of pipe.

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Nelson	7-31-24

Goal: **Mitigation of Sanitary Sewer Overflows (SSOs)**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts taken to mitigate any SSOs that occur.

PIs and Data Collection Methods:

1. *The percent of SSO volume capture in flat areas (i.e. slopes of 1-5%).*
   Data Collection Method: Calculate manually from either the completed City of Woodland SSO report forms or from information entered into the CIWQS database. Calculate % captured volume for all categories of SSOs (including from private laterals) for which the "description of terrain surrounding the point of blockage or spill cause" is described as flat. For each SSO event, determine the "% captured" as the volume of sewage recovered and returned to the sewer system divided by the total spill volume. Then, average the % captured for all spills in the year-to-date period.
   [Note: The City of Woodland has no areas with slopes greater than 5%.]

2. *Average time from an SSO event to when the line is inspected with CCTV to investigate the cause.*
   Data Collection Method: Review the "SSOMitigation_CityWorks_Volume Captured" crystal report. Manually compare this list to SSO report forms to determine if a corresponding follow-up CCTV inspection was completed. Manually calculate the time between when each SSO is reported to the date a follow-up CCTV inspection was calculated. If there are SSOs for which a CCTV inspection has not been conducted, exclude from calculation. Average the CCTV inspection response time for all year-to-date SSOs.

3. *The percentage of SSO Events that were followed by an inspection of the line with CCTV to investigate the cause.*
   Data Collection Method: Review the "SSOMitigation_CityWorks_Volume Captured" crystal report which lists all SSOs and count the number of SSOs without a CCTV inspection completed. Calculate the percentage of SSO Events that were followed up with a CCTV inspection.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% captured of SSO (flat, 1-5%)	<70%	70%-80%	80-90%	90-100%
2	Average time to investigate SSO with CCTV	>1 week	5-7 days	3-5 days	< 3 days
3	% of SSO Events investigated with CCTV	< 75%	75-90%	90-95%	95-100%

	Periodic Performance Tracking				
Date		**Measured Value**			**Performance Assessment Comments**
FY 22-23	Goal	1	2	3	
	Value	88%	<1 Day	94%	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Good** – Determined from SSO spreadsheet
2. **Excellent** – All SSOs which were investigated via CCTV were done within a day.
3. **Good** – 16 of 17 SSOs were inspected via CCTV.

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Nielsen	7-31-24

Goal: **Prevention of Sanitary Sewer Overflows (SSOs)**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts taken to prevent the occurrence of SSOs.

PIs and Data Collection Methods:

1. *The number of SSOs per 100 miles of gravity sewer mains per year.*
   Data Collection Method: Determine the number of SSO events that occurred year-to-date that are attached to gravity mains, force mains, manholes, and lift stations from the central crystal report. Project the number of SSOs to year-end totals. Divide this number by the total footage of gravity mains and force mains in the City (also available on the central crystal report).

2. *The percent reduction in SSOs from the previous year.*
   Data Collection Method: Determine the number of SSO events in the Fiscal Year that are attached to gravity mains, force mains, manholes, and lift stations. Compare the number of SSOs (from gravity mains, force mains, manholes, and lift stations) to the number of SSOs that occurred last year (gravity mains, force mains, manholes, and lift stations) to determine the % reduction. If 0 SSO's occurred from gravity mains, force mains, manholes and lift stations in the SSMP Audit of evaluation, an Excellent rating shall be applied.

3. *The number of repeat SSOs in a five year period.*
   Data Collection Method: Review all SSOs by asset type over the last five year period, sorted by address. Manually determine the number of repeat SSOs.
   [Note: SSO spreadsheet lists locations of all previous SSOs and determines any repeat addresses.]

4. *The percentage of repeat SSOs followed by mitigation, such as root treatment or repair work.*
   Data Collection Method: Keep track manually of repeat SSO locations. Search for work orders on the lateral line, sewer clean out, and sewer pipe IDs.
   [Note: SSO spreadsheet lists locations of all previous SSOs and determines any repeat addresses.]

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	# of SSOs / 100 miles / year	>5	3.5-5	2.3-3.4	<2.3
2	% reduction of SSOs from previous year	< 0%	0-5%	5-10%	> 10%
3	# of repeat SSOs / 5 years	> 0	-	-	0
4	% of repeat SSOs followed by mitigation	< 70%	70-80%	80-100%	100%

Periodic Performance Tracking						
Date	**Measured Value**					**Performance Assessment Comments**
FY 22-23	Goal	1	2	3	4	
	Value	0.5	35%	10	100%	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Excellent** – 0.5 SSOs per 100 mi of sewer pipe from gravity mains, force mains, manholes and lift stations
2. **Excellent** – 17 SSO occurrences this FY vs 23 occurrences last FY. 35% decrease.
3. **Below Goal** – 10 repeat SSOs within last 5 years. 4 of the repeat SSOs occurred in FY22-23
4. **Excellent** – 100% of repeat SSOs were followed by mitigation.

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: Line 908 Oak Ave. Root intrusion.

Recommendation #4: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Nelson	7-31-24

Goal: **Response to Sanitary Sewer Overflows (SSOs)**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts taken to effectively respond to SSOs. *Response time* is defined as the time of first notification or discovery of a SSO to the arrival onsite by City staff.

Data Collection Methods

1. *The average response time during normal business hours (M-F 7am-4pm).*
   Data Collection Method: Determine manually from year-to-date City SSO records or using the CIWQS database. Determine response time for each event by comparing "Date and time sanitary sewer system agency was notified of or discovered spill" to "Estimated Operator arrival date/time" and calculate Response Time. SSOs that occur during normal business hours are those that are initially reported between 7am and 4 pm Monday through Friday. Determine the average response time for year-to-date incidents.

2. *The average response time after hours (M-F 4pm-7am, weekends, holidays).*
   Data Collection Method: Determine manually from year-to-date City SSO records or using the CIWQS database. Determine response time for each event by comparing "Date and time sanitary sewer system agency was notified of or discovered spill" to "Estimated Operator arrival date/time" and calculate Response Time. SSOs that occur during normal business hours are those that are initially reported between 4pm and 7am, or on weekends or holidays. Determine the average response time for year-to-date incidents.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	SSO response time during normal hours	>45 min	≤ 45 min	≤ 30 min	≤15 min
2	SSO response time after normal hours	>1 hr	≤ 1 hr	≤ 45 min	≤30 min

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 22-23	Goal	1	2	
	Value	21 minutes	39 minutes	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Good** – Average response time is 21 minutes for city-related SSOs.
2. **Good** – Average response time is 39 minutes for city-related SSOs.

Recommendation #1: None.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	Date:
Eric Fisher	7-31-24

Goal: **Staff Training**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the effort required to ensure that regular training takes place.

PIs and Data Collection Methods:

1. *The frequency with which tabletop / tailgate training meetings are conducted by the O&M staff.*
   Data Collection Method: Keep track manually of tabletop / tailgate meetings completed year-to-date, and calculate the average frequency of the trainings during that same time period.

2. *The frequency with which field / equipment training exercises are conducted by the O&M staff.*
   Data Collection Method: Keep track manually of field / equipment training exercise training completed year-to-date, and calculate the average frequency of the trainings during that same time period.

3. *The frequency with which field, equipment or tabletop / tailgate training is conducted that includes training on spill response procedures outlined in the ERP.*
   Data Collection Method: Keep track manually of all tabletop, tailgate, field, or equipment trainings that involve spill response that have been completed year-to-date, and calculate the average frequency of trainings during that same time period.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Frequency of tabletop / tailgate training	<Monthly	Monthly	Biweekly	Weekly
2	Frequency of field / equipment training	<Quarterly	Quarterly	Bimonthly	Monthly
3	Frequency of SSO response training	<Quarterly	Quarterly	Bimonthly	Monthly

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY22-23	Goal	Tabletop / Tailgate	Field / Equipment	Spills	Units are number of meetings/trainings.
	Value	8	5	2	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Below Goal** – Less frequent than monthly tailgate meetings, 8 total in fiscal year.
2. **Acceptable** – Less frequent than bimonthly field/equipment trainings, 5 total in fiscal year.
3. **Below Goal** – Less frequent than quarterly spill trainings, 2 total in fiscal year.

Recommendation #1: Hold tailgate trainings more often.

Recommendation #2: None.

Recommendation #3: Increase the number of spill response trainings in FY23-24.

Signature of Responsible Person: (sign when complete)	Date:
Eric Nielsen	7-30-24

Goal: Staffing

Responsible Person (RP):
Management Analyst

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to fill all funded positions within the Utility Maintenance, Environmental Operations, and Utilities Engineering Divisions of the City of Woodland to meet the necessary effort required to implement the City SSMP.

PIs and Data Collection Methods:

1. *The percentage of vacant staff positions in the divisions listed above.*
   Data Collection Method: Keep track manually.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of vacant positions	> 10%	10%	5%	All filled

Periodic Performance Tracking

Date	Measured Value		Performance Assessment Comments
FY 22-23	Goal	1	9 out of 15 positions filled in Utility Maintenance, 2 out of 2 positions filled in Environmental Operations and 5 out of 5 positions filled in Utility Engineering.
	Value	27%	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Rating:

1. **Below Goal** – 16 out of 22 positions were filled in the sewer group as of June 30th, 2023. 27% vacant staff.

The positions in Utility Maintenance include: 1 Chief Collections Systems Operator, 1 Sr. Utilities Maintenance Worker, 2 Utilities Maintenance Workers III/IV, and 11 Utilities Maintenance Workers I/II (total of 15).

The positions in Environmental Compliance include 1 Environmental Compliance Specialist and 1 Environmental Compliance Inspector II (total of 2).

The positions in Utilities Engineering include 1 Principal Utilities Civil Engineer, 1 Senior Associate Civil Engineer, 2 Associate Engineers, and 1 Utilities Engineering Intern (5 total).

Recommendation #1: Conditional job offers have been made to fill the 5 currently vacant Utility Maintenance Worker I/II positions. Fill the positions.

Signature of Responsible Person: (sign when complete)	Date:
Kayla Rodriguez	1/26/2024

Goal: **Maintain Up-to-date Standards**

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to keep the City Standards current with regards to design and construction of the collection system. This effort involves keeping a list of recommended updates to the standards, which is reviewed by all parties with responsibility over the sewer collection system and updated on a consistent basis.

PIs and Data Collection Methods:

1. *The frequency with which the list of required/requested updates to the standards is maintained and discussed with O&M, Engineering, Environmental Compliance and Management.*
   Data Collection Method: Keep track manually. Current list of updates, and meeting notes from past meetings should be available.

2. *The frequency with which the standards are revised to incorporate the list of required/requested updates.*
   Data Collection Method: Keep track manually. A file of completed updates and/or new design standards specific to the sewer collection system should be kept.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Time since last meeting to discuss list of design standard updates based on sewer-specific issues	> 2 years	1-2 years	0.5-1 year	< 6 months
2	Time since last actual update to design standards based on sewer-specific issues	> 10 years	4-10 years	2-4 years	< 2 year

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 23-24	Goal	1	2	1. Last discussion on February 21, 2024. 2. Last standards update March 1, 2021
	Value	4.5 months	3.4 years	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

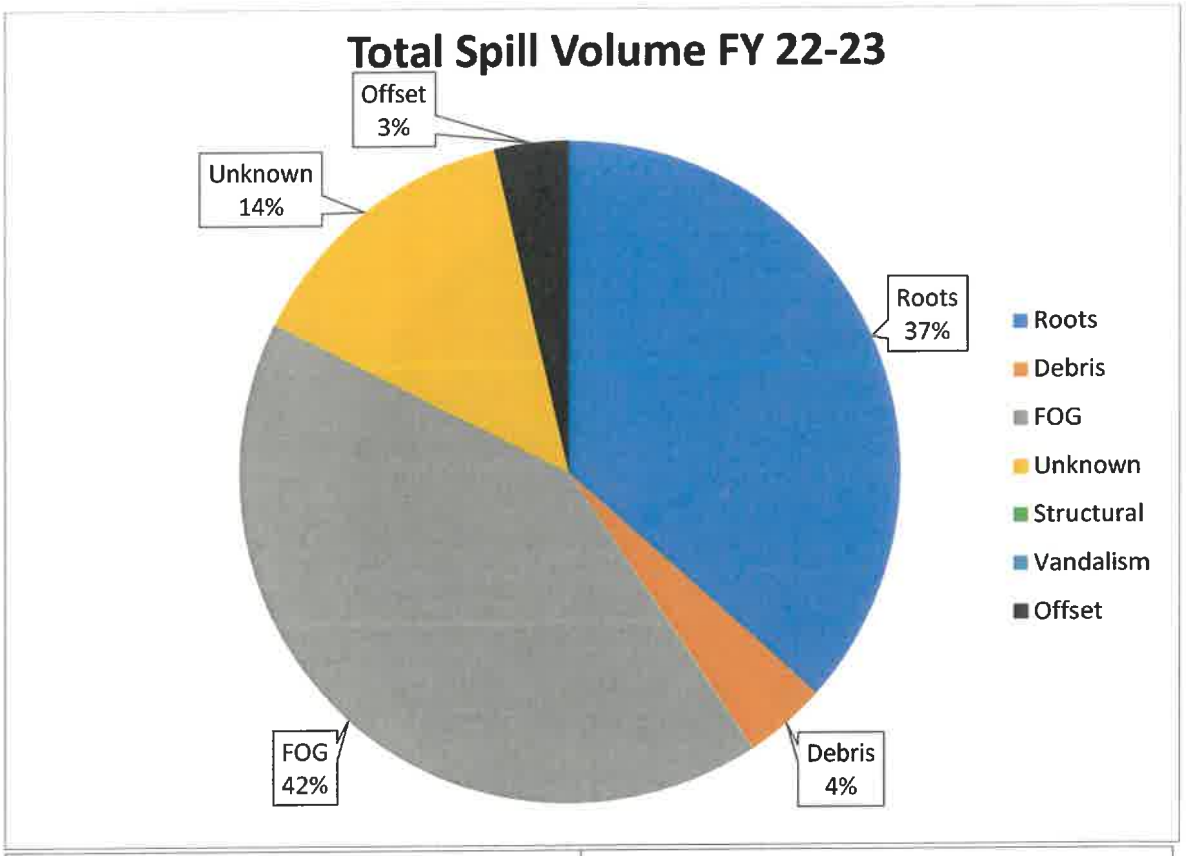
1. **Excellent (< 6 months)** – Last discussion at our weekly coordination meeting on February 21, 2024.

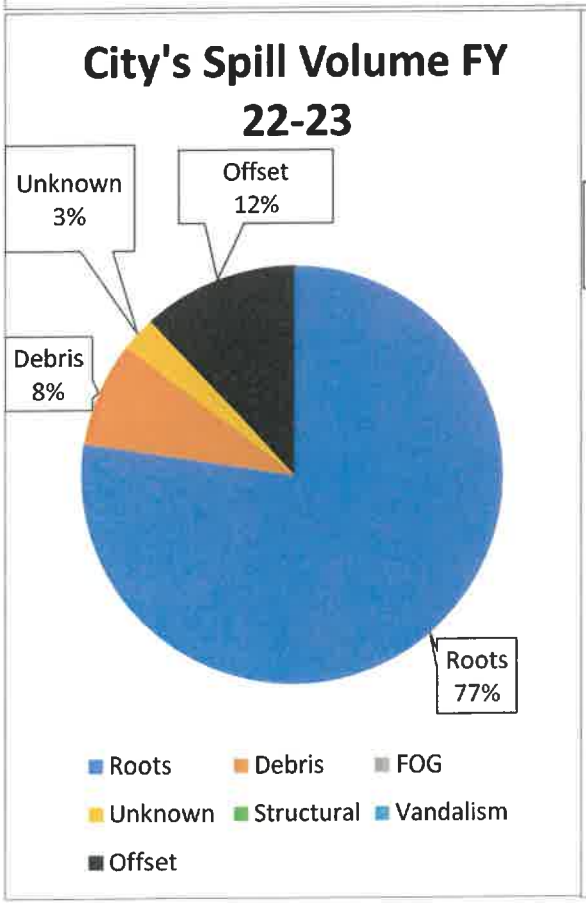
2. **Good (within 2 - 4 Years)** – Latest update in March 1, 2021. However, we did update our technical specification for this work for the City's construction contract.

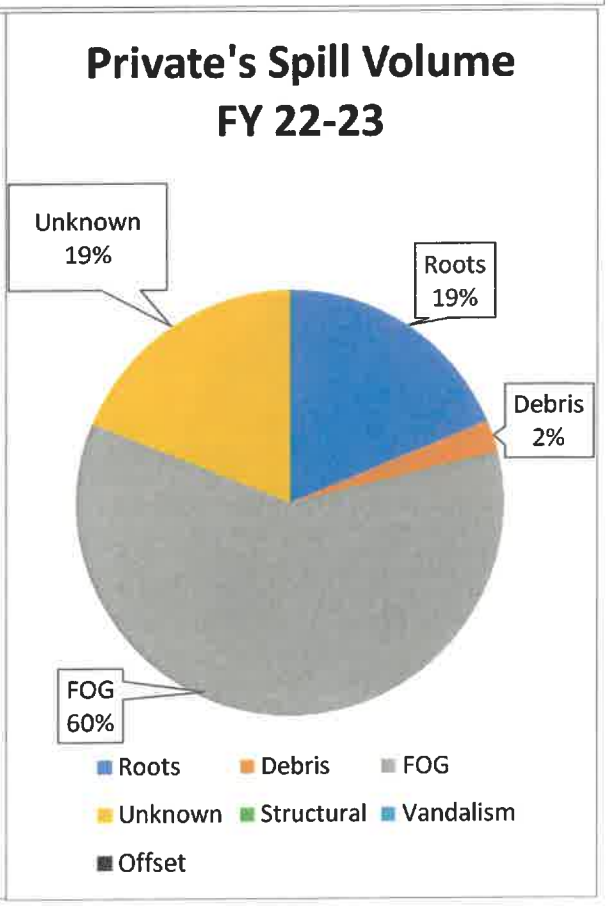
Recommendation #1: *Recommend changing the language of this PI from "design standards" to "design standards /construction specifications". We could schedule an annual standards-focused coordination meeting.*

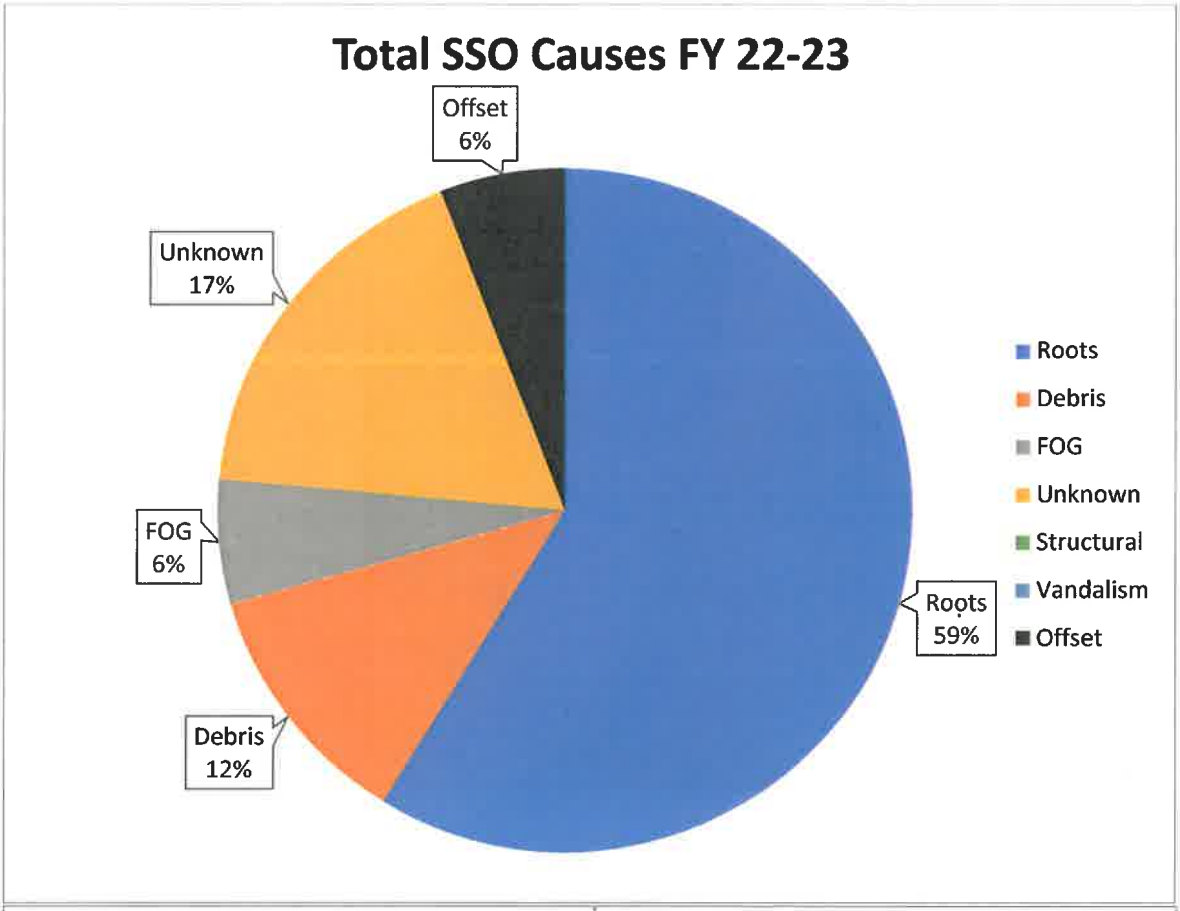
Recommendation #2: *Evaluate changing the ratings because a biannual standards update does not seem practical.*

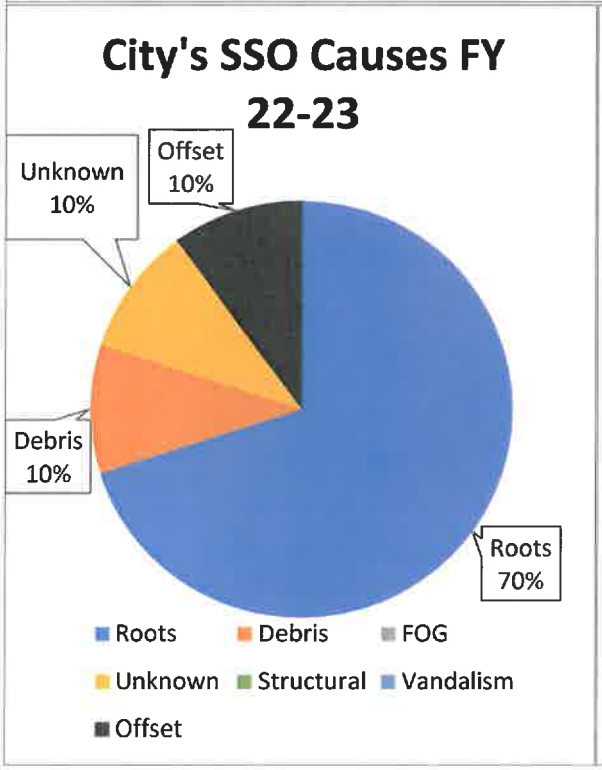
Signature of Responsible Person: (sign when complete)	Date:
	7/12/2024

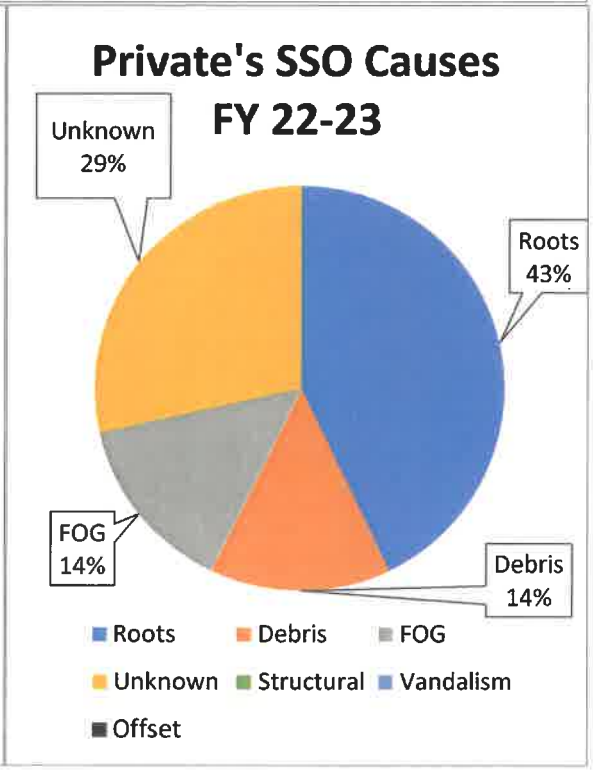

Total Spill Volume FY 22-23
Offset 3%
Unknown 14%
Roots 37%
FOG 42%
Debris 4%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


City's Spill Volume FY 22-23
Unknown 3%
Offset 12%
Debris 8%
Roots 77%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


Private's Spill Volume FY 22-23
Unknown 19%
Roots 19%
Debris 2%
FOG 60%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


Total SSO Causes FY 22-23
Offset 6%
Unknown 17%
FOG 6%
Debris 12%
Roots 59%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


City's SSO Causes FY 22-23
Unknown 10%
Offset 10%
Debris 10%
Roots 70%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


Private's SSO Causes FY 22-23
Unknown 29%
Roots 43%
FOG 14%
Debris 14%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset

City of Woodland
Sewer System Management Plan
Change Log

Date	SSMP Element/Section	Description of Change/Revision Made	Change Authorized By
7/31/2023	Employee Recognition	Changed "below goal" rating from "6 months" to ">6 months". Also changed "acceptable" rating from "6 months" to "≤6 months". (GDLT made this change)	Matt Cohen
7/25/2024	Mapping	Reduced the amount of change request sources from three to two. Removed "Variations observed in the field". And replaced "Crystal reports" to "Sewer asset replacement plan"	Matt Cohen
07/05/2023	Staffing	Updated the total number of positions budgeted for Collections positions. There are 15 positions now, down from 16 positions. Utilities Administrator is no longer a budgeted position.	Eric Medrano
07/05/2023	Staff Training	Revised the PI and data collection methods to reflect trainings related to spills, a more broad category than SSOs, and ERP instead of OERP, thus reflecting the 2023 updates to the SSMP and emergency response planning.	Eric Medrano

Sewer System Management Plan Program Audit

City of Woodland FY 2023/2024 SSMP Internal Audit

The City of Woodland is currently in compliance with all of the SSMP requirements as described in subsection D.13 of the General Waste Discharge Requirements (GWDR) for Sanitary Sewer Systems as described herein.

7/31/2024

Table of Contents

CITY OF WOODLAND
UTILITY ENGINEERING

MEMORANDUM

Date: July 31st, 2024

To: Ken Hiatt, City Manager; Craig Locke, Director of Public Works

From: Tim Busch, Principal Utilities Civil Engineer

Subject: SSMP Program Audit Cover Letter

SSMP Performance Review of FY 23/24

Regulatory Compliance

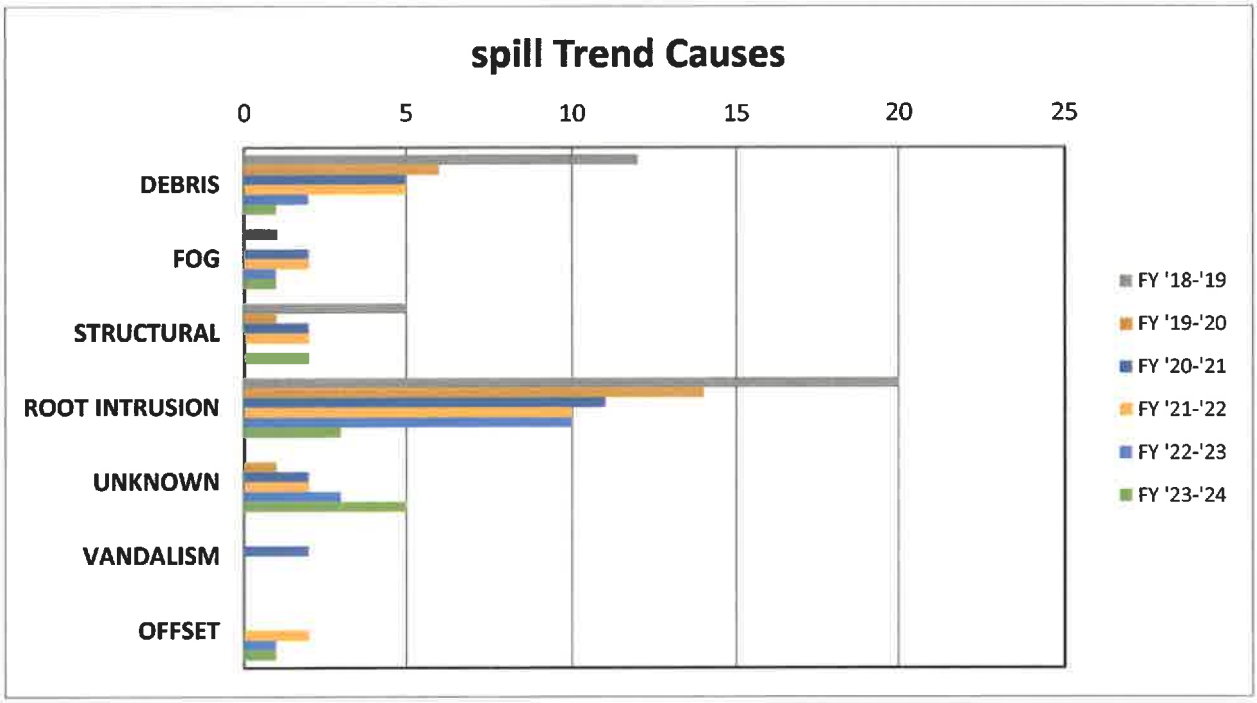
The City of Woodland is currently in compliance with all SSMP requirements as described in subsection D.13 of the General Waste Discharge Requirements (GWDR).

Objectives

This memorandum summarizes the performance of the City of Woodland's Sewer System Management Plan (SSMP) for Fiscal Year (FY) 23/24. The purpose of the SSMP is to provide a written framework for the management, operation, and maintenance programs executed by the city, with the goal of maintaining the level of service of the sewer collection system while minimizing sanitary sewer overflows (spills). This review is completed as part of the annual audit process described in Sections IX and X of the City's SSMP. This process helps the SSMP document to evolve over time to address identified deficiencies in the management, operation, and maintenance of the sewer collection system. This memorandum summarizes the following information:

1. Spill history, describing the number and nature of spills over the past six years.
2. Summary of progress of further development of the SSMP elements which have a plan and schedule for full implementation.
3. Summary of how many SSMP elements were implemented over last year.

4. Effectiveness of the implemented SSMP elements.
5. What SSMP elements are planned to be implemented next year.
6. Description of additions and improvements to the collection system over the last year.
7. Description of the additions and improvements to the collection system planned for the upcoming year.
8. Review of performance indicators and overall summary of the past fiscal year with proposed modifications for implementation in fiscal year 23/24 in areas in need of improvement.



Spill History

FY 23/24

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
8	0	84	0

FY 22/23

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
10	0	186	0

FY 21/22

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
23	0	460	0

FY 20/21

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
22	1*	1256	430*

*spill resulted from a diversion failure (bypass pumping) of a CIP project, not a failed sewer gravity main. The spill was entirely contained.

FY 19/20

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
19	0	929	0

FY 18/19

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
27	1	582	58

FY 17/18

Lateral spills	Main spills	spill volume lateral (gal)	spill volume Main (gal)
21	0	444	0

The majority of spills are associated with lateral connections to the city system. Overall root intrusion and some debris are being addressed through the root treatment program and public outreach. Average spill response is within 25-35 minutes of notification including after-hours emergencies. A CCTV inspection of the pipes in the area is typically done within 1 day of the reported spill. Documentation of investigations is available to view with Cityworks work orders. For FY 23/24, the current root intrusion preventative maintenance program includes lining the laterals, a cost effective and efficient use of staff time in reduction of spills in the City.

Progress on development of SSMP elements

The most recent major SSMP update was in 2020 as part of the required 5-year revision requirement by the State Water Resources Control Board (SWRCB) and was sent to council in December 2020 for approval. Key elements such as spill categories, reporting requirements, and public outreach have changed through the amendments of the statewide general waste discharge order for sanitary sewer systems since 2009 and have been incorporated in the revised SSMP. The Emergency Response Plan was revised in 2023 along with additional minor edits to other sections, coinciding with General Order 2022-0103-DWQ. The next required sewer system management plan update is August 2, 2025.

The SSMP audit has identified some elements that need refinement in the frequency of data collection and type of data collected for both utility maintenance workers and management staff. In late 2020, the sewer asset prioritization module (CA&CIP) crashed and system prioritization data was lost. The City developed an alternative rating system process to replace the previous program and has created a new GIS layer to display sewer asset structural ratings. Ongoing review is conducted routinely in order to determine a better scope and frequency of data collection in order to improve upon the program.

The SSMP audit includes a change log that is updated with the details of any changes/revisions to the SSMP's performance indicators based on the current Operations and Maintenance (O&M) and Utilities Engineering practices, input from key personnel and any areas that need various methods of data collection. City staff presented a sewer system management plan update to City Council in January 2023.

How SSMP elements were implemented over the last Fiscal Year

The city developed a process for replacing the failed CA&CIP (sewer asset prioritization) program for sewer asset repair/replacement prioritization. The sewer gravity mains that are categorized in the worst condition (based on CCTV inspections) are prioritized and organized into CIP plans for repair, replacement, or lining; however, projects are staggered over time to repair/replace the sewer system as budget allows. Utilities Engineering staff worked with IT and Sewer Collections departments to develop a GIS layer that displays quick structural ratings for sewer assets to assist with R&R planning.

The 2024 Water & Sewer R&R Project (CIP# 23-02) was the predominant R&R project for FY23/24. The 2023 Sewer Lateral Lining project also went out to bid to address issues with root intrusion in locations where CCTV inspections revealed root intrusion issues. The Sewer Collections department held more routine meetings with Environmental Compliance Department to improve upon FOG control. These actions likely contributed to decreased spills from root treatment and reflected in an improved score on the Root Treatment PI.

Effectiveness of the implemented SSMP elements

The CCTV program continues to find problems in main lines before a spill occurs. The Operations crew keeps the Engineering department informed of pipeline failures, causes and repairs. The Engineering department follows the City's purchasing policy to contract repair work that exceeds the operations crew's ability to perform. While the documentation and communication elements of the SSMP were not fully implemented due to inadequate staffing, the use of Cityworks and other software has helped in documenting the efforts of staff to meet the intent of the SSMP in reducing spills in the city. The new GIS layer displaying quick structural ratings of televised sewer gravity mains was extremely useful for identifying sewer gravity mains and producing the scope for sewer CIP projects.

City Standards were updated in March 2021, incorporating several requested updates from City staff members. Examples of sewer-related changes to the City Engineering Standards include updating the depth of flow to design flow ratio to 0.94 for all pipes, increasing the horizontal separation of water and sewer service lines to 36" and adding a minimum requirement of a 5-foot horizontal clearance from trees

and other utilities. A full list of changes from the 2016 Engineering Standards to the 2022 updated Standards can be found here:

https://www.cityofwoodland.org/DocumentCenter/View/1079/List-ofchanges-to-the-2016-Engineering-Standards-PDF

The updated Engineering Standards can be found here:
https://www.cityofwoodland.gov/DocumentCenter/View/1082/2021-Engineering-Standards-PDF

What SSMP elements are planned to be implemented next year

City staff intends to continue reviewing and updating standards to incorporate current materials and practices. Evaluation and assignment of necessary sewer repairs and replacement based on the CCTV inspection will be a priority in fiscal year (FY) 24/25. Public Works staff will continue prioritizing and executing repairs and maintenance to both sewer and lateral lines as budget allows. A Senior Associate Engineer, who was project manager for many of the City's previous sewer R&R projects, left the City in FY 23/24. Hiring a new Associate Engineer and training the new hire will be a priority for FY24/25.

City staff from utilities engineering, public works, and information technology will continue working together to refine the sewer asset prioritization process. Since the formerly used CA&CIP asset management program crashed and the data was unrecoverable, it has been a multi-year process to recreate the process and refine it. The newly created GIS layer is helpful for prioritizing sewer asset replacement and determining scope for sewer R&R projects, but the process should be refined in FY23/24 based on lessons learned and shortcomings of the new process.

Several SSMP PI processes have aged out of relevance in recent years. Some reports that used to be relied upon are no longer functioning, resulting in too many N/A scores. SSMP related staff members will work to improve upon the data collection methods to ensure they continue to accurately reflect SSMP performance in the future.

Description of additions and improvements to the collection system over the last Fiscal Year

The major accomplishments in CIP implementation of the FY 23/24 included:

- **2023 Water Main Replacement Project (CIP #22-04):** We completed work on this utility repair project which replaced two defective service taps on a 13-foot-deep 8" diameter sewer on Sixth Street.

- **2024 Water & Sewer Repair & Replacement Project (CIP #23-02):** We started construction of this Project which will repair the most critical sewer collection system defects in the Third St. & Homewood Dr. vicinity including open-cut replacement of 1 sanitary sewer manhole, 12 feet of 8" diameter sewer main, 13 feet of 6" diameter sewer main and 37 deficient 4" diameter service laterals. This Project will also install 7 new sewer lateral access cleanouts, rehabilitate 4 deteriorated manholes, and eliminate 1,000 feet of 6" sewer by relocating any active taps to a parallel 8" sewer that serves Fourth Street.

- **2023 Sewer Lateral Lining Project:** We completed this lateral lining project that rehabilitated 42 laterals typically subject to root intrusion or are otherwise defective but did not require excavation.

In FY 23/24 crews cleaned 299,995 feet of sewer and CCTV'd 250,211 feet of the sewer system.

Description of the additions and improvements to the collection system planned for the upcoming year

Major collection system rehabilitation projects planned for FY 24/25 include:

- **2024 Water & Sewer Repair & Replacement Project (CIP #23-02):** We intend to complete construction of this Project which will repair the most critical sewer collection system defects in the Third St. & Homewood Dr. vicinity including open-cut replacement of 1 sanitary sewer manhole, 12 feet of 8" diameter sewer main, 13 feet of 6" diameter sewer main and 37 deficient 4" diameter service laterals. This Project will also install 7 new sewer lateral access cleanouts, rehabilitate 4 deteriorated manholes, and eliminate 1,000 feet of 6" sewer by relocating any active taps to a parallel 8" sewer that serves Fourth Street.

- **2024 Lateral Lining Project:** This will be the next yearly lateral lining project that addresses approximately 40 laterals that typically are subject to root intrusion or are otherwise defective but do not require excavation.

- **2024 Manhole Collar Replacement:** This will be a smaller project that replaces defective concrete collars and iron frames and lids for approximately 10 sewer manholes around the City.

- **Trunk Manhole Lining Project:** This Project will rehabilitate failing grade rings, chimneys, cones barrels and benches that have showed signs of moderate deterioration in the sewer trunk system as a result of hydrogen sulfide gas corrosion. Rehabilitation will include abrasive blasting of the interior manhole surface, repair and resurfacing of the manhole, possibly some replacement of structural steel reinforcement, application of a primer coat, and then lining the interior surface substrate with spray applied 100% solids epoxy coating.

Review of Performance

Attached to this memorandum are performance indicator assessment sheets, which summarize the collection of specific data, intended to provide a basis by which performance in various areas related to the management and operation of the sewer collection system are measured. A responsible person is assigned to each performance indicator assessment sheet. Each year, the responsible persons collect the data related to their assigned performance indicator assessment sheet and provide an interim rating of the City's performance. At the end of the one-year auditing period, final assessments, and recommendations for performance improvement are made. This process is described in Section ix of the City's SSMP. Attached is a summary of the performance indicators tracked by the City and performance

in each area with explanation of why goals were not met and actions taken or to be taken in the next FY for future performance improvements and modifications to the SSMP. Overall, the 62 performance indicators had 10 below goal PIs in FY 23/24 and 6 N/A scores. The most common issues with not meeting performance indicator goals or not being able to evaluate them were generally due to technical problems within the sewer asset prioritization process, missing key attributes in GIS, not enough footage of laterals treated for root intrusion and a lack of staffing and training, and data tracking. These are all addressed in the summary spreadsheet and the FY 23/24 audit should see a decrease in below goal performance indicators as these areas get addressed.

Overall, the number of spills per year and the volume of spills per year has gone down significantly compared to the previous decade, reflecting the improved management of the sewer system in general over time.

Attachments:

Summary of Performance Indicator Spreadsheet FY 23/24
Performance Indicator Assessment Sheets (24 PI forms)

City of Woodland SSMP Performance Indicator Summary FY 23-24				
	Performance Indicator	**Ratings FY 23-24**	**Reason**	**Action taken**
Audits				
Audits	Bi-annual Council Presentation	Good	Update presented January 10th, 2023	
Audits	Time since review of SSMP audits	Excellent	Last SSMP revision/review was in 2023	
CCTV				
CCTV	Feet inspected with CCTV / year	Excellent	250,211 feet inspected	
CCTV	Pipe segments inspected / year	Excellent	2,567 pipe segments inspected	
CCTV	Footage inspected / 16 work hours	Below Goal	1,374 feet inspected / 16 work hours	
CCTV	% of CCTV surverys with a 4 or 5 structural grading	Excellent	6%	
CMMS&GIS				
CMMS&GIS	% population of key GIS attribute fields for gravity sewer mains	Acceptable	81%	
CMMS&GIS	% population of key GIS attribute fields for sewer manholes	Below Goal	58%	
CMMS&GIS	Year-to-date % of CityWorks work orders that have been closed-out	Excellent	1,462 out of 1,475 WOs closed	
Codes & Ordinances				
Codes & Ordinances	Time since last meeting to discuss list of Ordinance/Code updates based on sewer-specific issues	Good	Last meeting occurred in FY23	
Codes & Ordinances	Time since last actual update to Ordinances/Codes based on sewer-specific issues	Excellent	Last update occurred in FY23	
Communication Program				
Communication Program	% of Updated Public Documentation	Acceptable	2023 revised SSMP is uploaded to the City's website, Most recent SSMP Audits on the website are FY18-19 and FY19-20	Upload the most recent SSMP audits to the City's website upon completion.
Communication Program	# of Public Comment Email Responses	N/A	See recommendation section	
Communication Program	% Public Comment Emails Responded To	N/A	See recommendation section	There has been substantial staff turnover in the Management Analyst position within recent years.
Employee Recognition				
Employee Recognition	Time since last awards/letters distribution: Operation & Maintenance staff	Below Goal	0 awards distributed throughout year due to insufficent amount of staff.	
FOG Control				
FOG Control	% reduction of FOG-related SSOs compared to previous year	Acceptable	1 incident this year, 1 incident last year	
FOG Control	% completed of PPP Permit inspections	Excellent	100% of PPP permit holders inspections completed annually	
FOG Control	Annual # of FOG control public education events	Excellent	161 Public Outreach events	
FOG Control	Time since last coordination meeting with Environmental Compliance and O&M staff	Good	3 months (Conducted Quarterly)	
HVVC				
HVVC	Feet cleaned / year	Good	299,995 ft cleaned per year with HVVC	
HVVC	Pipe segments cleaned / year	Excellent	1,113 segments cleaned with HVVC	
HVVC	Footage cleaned / work order	Excellent	3,092.73 feet cleaned pet work order	
HVVC	% Pipe segments pre-cleaned prior to CCTV inspection	Excellent	97% (754 out of 777 segments) pre-cleaned prior to CCTV	
Mapping				
Mapping	% of sites GPS'd from CIP Sewer R&R in construction	Excellent	100% of R&R sites listed as CIP Projects have GIS data on sewer infrastructure.	
Mapping	% of new development sites GPS'd	Excellent	100% of new development sites have GIS data on sewer infrastructure	
O&M Budget				
O&M Budget	Funding provided for O&M budget	Good	$2.74 / ft	
O&M Budget	O&M operation cost	Good	Within budget: 80% of total O&M budget	
PM Effectiveness				
PM Effectiveness	% of work orders that are emergencies	Excellent	109 out of 1,475 WOs	
PM Effectiveness	% of Labor and Material Costs that is Emergency	Excellent	$82,945.7 out of $868,924.97 (9.5%)	
PM Effectiveness	% of Labor and Material Costs that is Emergency Work on Private Laterals	Excellent	$5,439.78 out of $868,924.97	
PM Frequencies				

PM Frequencies	% Completion of closed-out work orders vs. expected preventative maintenance work orders	N/A	Cityworks/Crystal reports are incorrectly tracking as preventative maintenance options are selected even when not part of routine inspection/flushings/cleanings	
PM Frequencies	Frequency of thorough lift station inspection / maintenance	Below Goal	Electrical and mechanical inspected conducted annually	
R&R Funds				
R&R Funds	Annual R/R funding provided as % of sewer system value	Excellent	$1,940,000 vs $72,299,202.83	
R&R Funds	Annual funding provided for R/R program vs. CA&CIP cost projections	N/A	$1,940,000 vs Undetermined	
R&R Program				
R&R Program	% of assets with risk ratings of 4 or 5 that have CIP “actions” assigned or O&M repairs assigned	N/A	CA&CIP Crashed, all data was deleted and unrecoverable	Update Sewer Asset Managment Software
R&R Program	% of scheduled CIPs designed or in construction	N/A	N/A	Update Sewer Asset Managment Software
R&R Program	# of line failures per 100 miles of pipe	Excellent	1 failure per 100 miles of pipe	
Replacement Parts				
Replacement Parts	Frequency of Fleet equipment and replacement part inventory review	Excellent	Monitoring occurs on a real-time basis using FASTER fleet	
Replacement Parts	Frequency of pipeline / manhole equipment and replacement part inventory review	Excellent	Quarterly inventory of equipment & replacement parts.	
Replacement Parts	Frequency of lift station equipment and replacement part inventory review	Acceptable	Inventory conducted annually	
Root Treatment				
Root Treatment	Footage of laterals treated for root intrusion/year	Below Goal	4,408 ft of sewer laterals treated for root intrusion. Includes later lining	
Root Treatment	% reduction in of root related SSOs compared to previous year	Excellent	70% yearly reduction	
SECAP				
SECAP	Ratio of peak WWF to peak DWF	Good	1.57:1	
SECAP	Time since last hydraulic model update	Below Goal	Updated in spring 2019	
Service Requests				
Service Requests	Response time for urgent calls	Excellent	Average response time for urgent call is 0.24 hours	
Service Requests	Response time for routine calls	Excellent	Average response time for urgent call is 0.37 hours	
Service Requests	Average # of service calls / 100 miles of pipe	Excellent	68.5 service calls/100 miles of pipe	
SSO Mitigation				
SSO Mitigation	% captured of SSO (flat, 1-5%)	Excellent	100% of all SSOs captured	
SSO Mitigation	Average time to investigate SSO with CCTV, when CCTV'd	Excellent	All SSOs which were investigated via CCTV were done within a day.	
SSO Mitigation	% of SSO events investigated with CCTV	Good	12 of 13 SSOs were inspected via CCTV	
SSO Prevention				
SSO Prevention	# of SSOs / 100 miles / year	Excellent	0 SSOs per 100mi of sewer pipe	
SSO Prevention	% reduction of SSOs from previous year	Excellent	13 SSO occurrences this FY vs 17 occurrences last FY	
SSO Prevention	# of repeat SSOs / 5 years	Below Goal	7 repeat SSOs within last 5 years	
SSO Prevention	% of repeat SSOs followed by mitigation	Excellent	100% of repeat SSOs were followed by mitigration	
SSO Response				
SSO Response	SSO response time during normal hours	Acceptable	Average response time is 32 minutes for during normal hours for SSOs	
SSO Response	SSO response time after normal hours	Good	Average response time is 35 minutes for post normal hours for SSOs	
Staffing				
Employee Recognition	% of vacant positions	Below Goal	16 out of 22 positions filled as of June 30th, 2024	Conditional job offers have been made to fill the 5 currently vacant Utility Maintenance Worker I/II positions.
Standards Update				
Standards Update	Time since last meeting to discuss list of design standard updates based on sewer-specific issues	Excellent	Last discussion on Febryary 21, 2024	

Standards Update	Time since last actual update to design standards based on sewer-specific issues	Good	Last update March 1, 2021	
Training				
Training	Frequency of tabletop / tailgate training	Below Goal	Longer than monthly tailgate meetings, 8 total in fiscal year.	
Training	Frequency of field / equipment training	Good	Longer than monthly field/equipment trainings, 9 total in fiscal year.	
Training	Frequency of SSO response training	Below Goal	Longer than quarterly SSO meetings, 3 total in fiscal year.	

Goal:	SSMP Audits and Updates

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify efforts to present the findings of SSMP performance evaluations to City Council and other peer agencies, with the purpose of receiving valuable feedback on performance and possible improvements to existing procedures and programs.

PIs and Data Collection Methods:

1. *Was a bi-annual report prepared and presented to City Council based on the SSMP performance indicator review process?*
   Data Collection Method: Keep track manually.

2. *The frequency with which a review of the City SSMP, a SSMP Audit, or SSMP performance evaluation (i.e. annually summary of performance indicator tracking process) is completed.*
   Data Collection Method: Keep track manually. A file of all peer reviews should be kept.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Bi-annual Council presentation	No	-	Yes	-
2	Time since last review of SSMP, SSMP Audits, or SSMP Performance Evaluations	> 5 years	2-5 years	1-2 years	< 1 year

Periodic Performance Tracking

Date	Measured Value			Performance Assessment Comments
FY 22-23	Goal	1	2	
	Value	Yes	<1 Year	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Good** – City Staff presented a sewer management update to City Council (covering FY 20/21 and FY 21/22) on January 10th, 2023.

2. **Excellent** – the last SSMP revision/review was in 2023 (updated SERP and minor revisions).

Recommendation #1: None.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	Date:
	7/17/2024

Goal: **Closed Circuit Television (CCTV) Inspections**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

CCTV inspections are conducted using a standardized protocol to supply sufficient data for use in capital improvement project planning. The PIs listed below quantify efforts to complete CCTV work according to system-wide inspection frequency goals, and to complete the work both efficiently and with high quality.

PIs and Data Collection Methods:

1. *The total footage of the collection system inspected per year with CCTV.*
   Data Collection Method: Determine fiscal year CCTV inspection footage production from the CCTV_Cityworks_SegmentsAndFootage crystal report and evaluate rating based on the performance indicator criteria.

2. *The total number of pipe segments inspected with CCTV per year.*
   Data Collection Method: Determine fiscal year CCTV inspection pipe production from the CCTV_Cityworks_SegmentsAndFootage crystal report and evaluate rating based on the performance indicator criteria.

3. *The average footage inspected per 16 hours of work (one full day for a crew of 2).*
   Data Collection Method: Determine the total CCTV footage for the fiscal year from the "CCTV__Cityworks__SegmentsAndFootage" crystal report and divide by the total number of hours expended collecting the videos to determine the average footage per hour of work. Multiply by 16 to evaluate average footage inspected per 16 hours of work.

4. *The percentage of CCTV surveys with a 4 or a 5 structural grading in CIP staff analysis and/or Cityworks.*
   Data Collection Method: Determine total number of CCTV inspections completed in FY and the number of CCTV videos with a 4 or 5 structural grading from Cityworks Reports & CIP Staff Analysis.

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	Feet inspected with CCTV / year	< 100,000	100,000-170,000	170,000-200,000	> 200,000
2	Pipe segments inspected / year	< 400	400-600	600-800	> 800
3	Footage inspected / 16 work hours	< 1500	1500-1600	1600-2000	> 2000
4	% CCTV Surveys with a 4 or a 5 structural grading	> 30%	20-30%	10-20%	< 10%

Periodic Performance Tracking						
Date	**Measured Value**					**Performance Assessment Comments**
FY 23-24	Goal	1	2	3	4	
	Value	250,211	3,567	1,374	6%	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

- **Excellent** – 250,211 feet inspected
- **Excellent** – 2,567 pipe segments inspected
- **Below Goal** – 1,374 feet inspected / 16 work hours
- **Excellent** – 16 SGMs have a QSR rating beginning with 5; 32 SGMs have a QSR rating beginning with 4. Woodland's GIS program documents 771 SGMs televised before July 1, 2024. There are 48 SGMs with a structural grade of 4 or 5 out of 842 televised SGM assets (6%)

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Recommendation #4: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Parker	7-30-24

Goal: **Computerized Maintenance Management System (CMMS) & Graphical Information System (GIS)**

Responsible Person (RP):
GIS Analyst

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts required to maintain a robust population of attribute data within the City GIS that can be used to supplement the City's CIP staff analysis and hydraulic modeling efforts. Additionally, the City's effort to consistently close-out work orders is quantified to ensure that scheduled work is completed in a timely manner.

PIs and Data Collection Methods:

1. *Percentage population of key attribute data for sewer collection system assets within GIS geodatabase for gravity sewer mains.*
   Data Collection Method: Determine the % of values for the following fields in the GIS geodatabase SGravityMain table from the central crystal report: InstallDate, Material, WidthTop, UpstreamInvert, DownstreamInvert, Slope, DesignFlow, Condition, ConditionDate

2. *Percentage population of key attribute data for sewer collection system assets within GIS geodatabase for manholes.*
   Data Collection Method: Determine the % of values for the following fields in the GIS geodatabase SManhole table from the central crystal report: InstallDate, Condition, ConditionDate, Elevation, BarrelDiameter, BarrelMaterial, Depth

3. *Percentage of year-to-date CityWorks work orders that are closed*
   Data Collection Method: Determine the % of year-to-date CityWorks work orders that have been closed out from the central crystal report.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% population of key GIS attribute fields for gravity sewer mains	< 80%	80-90%	90-95%	95-100%
2	% population of key GIS attribute fields for sewer manholes	< 80%	80-90%	90-95%	95-100%
3	Year-to-date % of CityWorks work orders that have been closed-out	< 80%	80-90%	90-95%	95-100%

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
1st Qtr	Goal	1	2		
	Value	81%	59%		
2nd Qtr	Goal	1	2		
	Value	81%	59%		
3rd Qtr	Goal	1	2		
	Value	81%	59%		
4th Qtr	Goal	1	2	3	Values listed for #3 are summaries of the entire year.
	Value	81%	59%		

Annual Performance Assessment / Recommendations for Updates

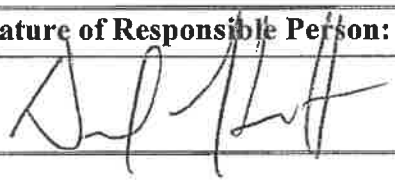
FY 22-23 Ratings:

1. **Acceptable** – 81%
2. **Below Goal** – 59%
3. **Excellent** – 1197 closed WOs out of 1197 total work orders (100%)

Recommendation #1: Run CMMS&GIS_GIS_GravityMains Report on 7/1 in cityworks for every year to get accurate data.

Recommendation #2: Run CMMS&GIS_GIS_Manholes Report on 7/1 in cityworks for every year to get accurate data.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	**Date:**
	7·29·24

Goal: **Maintaining Codes and Ordinances**

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to keep the City Codes and Ordinances current with known or upcoming changes in regulatory issues. This effort involves keeping a list of recommended updates to the codes and ordinances, which is reviewed by all parties with responsibility over the collection system and updated on a consistent basis.

PIs and Data Collection Methods:

1. *The frequency with which the list of required/requested updates to the City Code and Ordinances is maintained and discussed with O&M, Engineering, Environmental Compliance, and Management with regard to sewer-specific issues.*
   Data Collection Method: Keep track manually. Current list of updates, and meeting notes from past meetings should be available.

2. *The frequency with which the Municipal Code is revised to incorporate the list of required/requested sewer-specific updates.*
   Data Collection Method: Keep track manually. A file of completed updates and/or new ordinances specific to the sewer collection system should be kept.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Time since last meeting to discuss Ordinance/Code updates based on sewer-specific issues	> 5 Years	2-5 years	1-2 years	< 1 year
2	Time since last actual update to Ordinances/Codes based on sewer-specific issues	> 20 Years	10-20 years	5-10 years	< 5 years

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 22-23	Goal	1	2	
	Value	2	2	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Good**– Last meeting occurred in FY21, March 2021
2. **Excellent** – Last update occurred in FY21, March 2021

Recommendation #1: None

Recommendation #2: None

Signature of Responsible Person: (sign when complete)	**Date:**
	7/17/2024

Goal: **Communication Program**

Responsible Person (RP):
Management Analyst

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to communicate with the public on a regular basis concerning the development and status of the City SSMP.

PIs and Data Collection Methods:

1. *The percentage of public documentation online links that are properly uploaded with their most current versions. Links are found on the Utility Infrastructure page of the City of Woodland website, under the Public Works Division. Complete public documentation includes the most recent copy of the SSMP and the most current internal audit documentation.*
   Data Collection Method: Review links quarterly.

2. *Total number of year-to-date public comment email responses.*
   Data Collection Method: The City's public comment email link should be set up to deliver emails directly to the RP. The RP should keep a separate folder specifically for filing SSMP public comment emails and responses. There is no goal set for this PI. The RP only needs to document the total number of responses.

3. *The percentage of public comment emails received that were responded to.*
   Data Collection Method: RP will use Microsoft Outlook to determine the number of year-to-date comment emails received, and determine the number of year-to-date responses and determine the response percentage.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of Updated Public Documentation	< 50%	50%	100%	N/A
2	# of Public Comment Email Responses	N/A	N/A	N/A	N/A
3	% Public Comment Emails Responded To	< 80%	80-90%	90-95%	95-100%

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY 23-24	Goal	1	2	3	
	Value	50%	N/A	N/A	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Acceptable** – The 2023-revised SSMP is uploaded to the City's website. The most recent SSMP Audits on the website are FY18-19 and FY19-20; those are not the most up to date versions. Therefore, one of the two links are up to date.

2. **N/A** – see recommendation section.

3. **N/A** – see recommendation section.

Recommendation #1: upload the most recent SSMP audits to the City's website upon completion.

Recommendation #2: see Recommendation #3.

Recommendation #3: There has been substantial staff turnover in the Management Analyst position within recent years. The Management Analyst from the previous fiscal year was trained to track this SSMP PI, but did not teach the new Management Analyst before her employment with the City ended. The new Management Analyst was unaware of this responsibility but will be trained for future tracking.

Signature of Responsible Person: (sign when complete)	**Date:**
Courtney Morgan	7-31-24

Goal:	Employee Recognition

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to publicly recognize employees for exceptional work and provide a rewards system (gift certificates, cash, etc.) as part of the program.

PIs and Data Collection Methods:

1. *The frequency with which awards are distributed to O&M staff*
   Data Collection Method: Keep Track Manually. Count letters distributed as found in the Q drive and determine frequency in a year.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Frequency of award distribution: Operation & Maintenance staff	> 6 months	≤ 6 months	1 Quarter	1 month

Periodic Performance Tracking

Date	Measured Value		Performance Assessment Comments
1st Qtr	Goal	1	
	Value	0	
2nd Qtr	Goal	1	
	Value	0	
3rd Qtr	Goal	1	
	Value	0	
4th Qtr	Goal	1	
	Value	0	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Below Goal** – 0 awards distributed throughout the year due to insufficient amount of staff.

Recommendation #1: Staff turnover has resulted in 4 people serving in the Management Analyst position since 2022. This congratulatory letter task seems to have gotten lost in the shuffle. Staff directed the Public Works Director to assign this to the appropriate staff member and insure congratulatory letters are given out to appropriate staff members.

Signature of Responsible Person: (sign when complete)	Date:
[signature]	7-30-24

Goal: **Fats, Oils, and Grease (FOG) Control Program**

Responsible Person (RP):
Environmental Compliance Inspector

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to operate an effective and efficient FOG control program.

PIs and Data Collection Methods:

1. *The percent reduction in sanitary sewer overflows (SSOs) and blockages requiring flushing attributed to FOG blockages from the previous year.*
   Data Collection Method: For the first year of tracking, simply report number of SSOs and blockages caused by FOG from the central crystal report. Report SSOs and blockages from both sewer mains and sewer laterals. After data is available from the first year of tracking, determine the year-to-date FOG-related SSOs and blockages from the central crystal report, project the number of events out to the total year, and compare to the previous year's events to determine % reduction.

2. *The percentage of Pollution Prevention Program (PPP) permit holder inspections completed annually.*
   Data Collection Method: Keep track manually using total number of PPP permit holders and number of inspection forms.
   [Note: when PPP program managed through CityWorks, a query can be set up to quantify inspections completed based on work-order records rather than counting inspection forms.]

3. *The number of public education outreach events conducted per year.*
   Data Collection Method: Keep track manually. The RP should keep documentation on all FOG Control public outreach events and activities in a file which can be reviewed to determine what activities have been conducted.

4. *Time since last joint Environmental Compliance and O&M meeting to review FOG-related issues in the collection system.*
   Data Collection Method: Keep track manually. RP should keep file of meeting notes and action items from meetings.

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	% reduction of FOG-related SSOs compared to previous year	< 0%	0-5%	5-10%	10-20%
2	% completed of PPP permits inspections	<75%	75-90%	90-100%	100%
3	Annual # of FOG control public education events	< 30	30-50	51-70	> 70
4	Time since last coordination meeting with Environmental Compliance and O&M staff	> 6 months	3-6 months	2-3 months	< 2 months

Periodic Performance Tracking						
Date	**Measured Value**					**Performance Assessment Comments**
1st Qtr	Goal	1				
	Value	0%				
2nd Qtr	Goal	1				
	Value	0%				
3rd Qtr	Goal	1				
	Value	100%				
4th Qtr	Goal	1	2	3	4	Values listed for #2 - #4 are summaries of the entire year
	Value	0%	100%	161	7 months	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

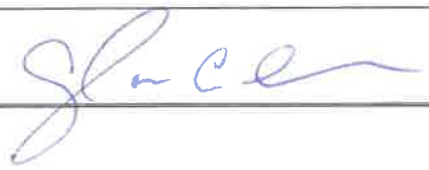
1. **Excellent** – Q1 & Q2 are 0% due to FY21-22 & FY22-23 having 0 FOG SSOs. Q3 had a 100% reduction with FY22-23 having 0 FOG SSOs & FY21-22 having 1 FOG SSO. Q4 had a 0% reduction with both FY22-23 & FY21-22 having 1 FOG SSO. A 50% reduction for the fiscal year.
2. **Excellent** – 100% of PPP permit holders inspections completed annually.
3. **Excellent** – 161 Public Outreach events, including social media posts, delivery of educational material to established businesses, Waterwater Discharge Permit applications, and distribution of "Grease Traps" to multiple apartment complexes and mobile home parks within the City.
4. **Below Goal** – one meeting occurred in November 2022. That's below the acceptable range for Environmental Compliance and O&M Staff meeting frequency.

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Recommendation #4: Schedule meetings for Environmental Compliance and O&M staff at least on a biannual basis.

Signature of Responsible Person: (sign after annual review)	**Date:**
	7/25/24

Goal: **High Velocity Vacuum Cleaning (HVVC)**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the effort to periodically clean hot spot pipes and support CCTV inspection by pre-cleaning pipes.

PIs and Data Collection Methods:

1. *The total footage of the collection system cleaned per year with HVVC.*
   Data Collection Method: Determine year-to-date HVVC footage production from central crystal report, and project to year-end production.

2. *The total number of pipe segments cleaned with HVVC per year.*
   Data Collection Method: Determine year-to-date HVVC pipe cleaning production from central crystal report, and project to year-end production.

3. *The average footage cleaned per work order.*
   Data Collection Method: Determine year-to-date HVVC footage cleaned per work order from the HVVC Segments and Footage crystal report to evaluate average daily crew production.

4. *The percentage of CCTV inspections that were conducted where pre-cleaning was completed.*
   Data Collection Method: Determine the number of year-to-date CCTV inspections that have been pre-cleaned from the central crystal report, and compare to the total number of year-to-date CCTV inspections completed (also from central crystal report).

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Feet cleaned / year	< 210,000	210,000-240,000	240,000-300,000	> 300,000
2	Pipe segments cleaned / year	< 700	700-900	900-1000	> 1000
3	Footage cleaned / work order	<1800	1800-2300	2300-2500	> 2500
4	% Pipe segments pre-cleaned prior to CCTV inspection	< 70%	70-80%	80-90%	> 90%

Periodic Performance Tracking						
Date	**Measured Value**					**Performance Assessment Comments**
FY23-24	Goal	1	2	3	4	
	Value	299,995	1,113	3,092.73	97%	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Good** – 299,995 ft cleaned per year with HVVC
2. **Excellent** – 1,113 segments cleaned with HVVC per year
3. **Excellent** – 3,092.73 feet cleaned per work order
4. **Excellent** – 97% (754 out of 777 segments) of sewer main segments are pre-cleaned prior to CCTV

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Recommendation #4: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Nelson	7-31-24

Goal: System Mapping

Responsible Person (RP):
GIS Analyst

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to provide up-to-date maps of assets in the collection systems and other applicable facilities (i.e., stormwater facilities, waterways, etc.). This effort involves completing map change requests in a timely fashion. Map change requests come from two sources; namely, 1) changes from rehabilitation or replacement, and 2) additional assets from new development.

PIs and Data Collection Methods:

1. *The % of CIP Sewer R&R in construction that are being GPS'd to update GIS maps*
   Data Collection Method: Use sewer asset replacement plan to determine the number of rehabilitation and/or replacement projects in construction. Determine the number of GPS sites visited that were/are currently in construction.

2. *The % of new development sites that have been GPS'd*
   Data Collection Method: Track new developments under current construction, manually. Check these areas of new developments for availability of sewer data in GIS and determine the percentage of subdivision sites that have been GPS'd.
   [note: spreadsheet of new developments maintained by Senior Construction Project Manager]

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of sites GPS'd from CIP Sewer R&R in construction	< 25%	25-70%	70-100%	100%
2	% of new development sites GPS'd	< 50 %	50-85%	85-100%	100%

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
1st Qtr	Goal	1	2	
	Value	100%	100%	
2nd Qtr	Goal	1	2	
	Value	100%	100%	
3rd Qtr	Goal	1	2	
	Value	100%	100%	
4th Qtr	Goal	1	2	
	Value	100%	100%	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Excellent** – 100% of R&R sites listed as CIP Projects have GIS data on sewer infrastructure
2. **Excellent** – 100% of new development sites have GIS data on sewer infrastructure.

Recommendation #1: Update sewer asset replacement plan.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	**Date:**
[signature]	7.29.24

Goal:	**Operation and Maintenance Budgeting**

Responsible Person (RP):
Finance Officer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to sufficiently provide and utilize funds to effectively operate and maintain the collection system.

PIs and Data Collection Methods:

1. *The amount of funding provided for operating and maintaining the collection system per foot of main line pipe.*
   Data Collection Method: Determine annual funds allocated for operation and maintenance of the sewage collection system, and divide by the total gravity main and pressure main pipe footage from the central crystal report. [Note: This PI only needs to be tracked on an annual basis, not a quarterly basis.]

2. *The percentage of the cost to operate and maintain the collection system with respect to the projected costs.*
   Data Collection Method: Determine actual year-to-date sewer system O&M costs from financial accounting system, and compare the value to the amount of projected funding to find the relative percentage of the budget.

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	Funding provided for O&M budget	< $1/ft/year	$1-$2/ft/year	$2-$3/ft/year	> $3/ft/year
2	O&M operation cost	> 100% budget	95-100% of budget	<95% of budget	N/A

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 23-24	Goal	1	2	1. $2,990,885 / 1,091,463.7 ft of sewer pipe = $2.74 / ft 2. $2,415,852.44 / $2,990,885 = 80% of budget
	Value	$2.74 / ft	80%	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Good** – $2.74 / ft
2. **Good** – Within budget: 80% of total O&M budget.

Recommendation #1: None.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	Date:
Kimberly McKinney	

Goal: **Preventative Maintenance Effectiveness**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the effectiveness of the preventative maintenance program in limiting time and expenses required to respond to emergency calls and failures of the sanitary sewer system.

PIs and Data Collection Methods:

1. *The percentage of work orders that are emergency.*
   Data Collection Method: Determine from central crystal report. Emergency work orders include the following CityWorks priority categories: "priority 1" (emergency), "priority 2" (urgent), and "priority 9" (on-call).

2. *The percentage of accountable labor and material costs that are attributed to emergency work versus regular preventative maintenance work.*
   Data Collection Method: Determine from central crystal report. Emergency work orders include the following CityWorks priority categories: "priority 1" (emergency), "priority 2" (urgent), and "priority 9" (on-call).

3. *The percentage of accountable labor and material costs that are attributed to emergency work on private laterals.*
   Data Collection Method: Determine the total year-to-date work order costs (labor and materials) for all "priority 1" (emergency), "priority 2" (urgent), and "priority 9" (on-call) work orders associated with sewer laterals from the central crystal report. Determine the percentage of the total year-to-date work order costs (also from central crystal report) associated with the sewer collection system these "lateral emergency" work orders represent.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of work orders that are emergencies	> 40%	30-40%	20-30%	< 20%
2	% of Labor and Material Costs that is Emergency Work	> 30%	20-30%	10-20%	0-10%
3	% of Labor and Material Costs that is Emergency Work on Private Laterals	> 20%	10-20%	5-10%	0-5%

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY 23-24	Goal	1	2	3	1. 109 out of 1,475 WOs 2. $82,945.7 out of $868,924.97 (9.5%) 3. $5,439.78 out of $868,924.97
	Value	7.3%	9.5%	0.6%	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Excellent** – 7.3%
2. **Excellent** – 9.5%
3. **Excellent** – 0.6% of total WO cost can be attributed to Private Spill Events.

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Medrano	7-31-24

Goal: **Frequency of Preventative Maintenance (PM) Activities**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the effort to ensure that work orders are being created to accurately document preventative maintenance activities, and that preventative maintenance activities are being completed as planned by management.

PIs and Data Collection Methods:

1. *Compare the number of cleanings/flushings/inspections in the CMMS to the number of flushing and inspection work orders that should have been generated if all of the pipes on the weekly and quarterly cleaning routes were completed and determine the completion %.*
   Data Collection Method: Determine the total number of year-to-date closed-out preventative maintenance CCTV inspection and hydroflushing events from the "PMFrequency_CityWorks_ClosedWOs" Cityworks report. Compare the number of cleanings/flushings/inspections to the number of work orders that were expected based on the number of assets on the weekly and quarterly inspection and cleaning routes (excel files).

2. *Frequency of thorough electrical and mechanical inspections of lift stations.*
   Data Collection Method: Keep track manually. Determine the number of thorough electrical/mechanical inspections conducted over the previous 2-year period for each lift station to determine the inspection frequency. Report the average inspection frequency for all lift stations. [Note: when lift station work orders are being managed through CityWorks, a query can be set up to determine the number of work orders completed over the last 2-year period and calculate the average inspection frequency.]

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% Completion of closed-out work orders vs. expected preventative maintenance work orders	< 75%	75-85%	85-95%	95-100%
2	Frequency of thorough lift station inspection / maintenance	Less frequent than Biannually	Every 4-6 months	Every 3-4 months	More frequent than Quarterly

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 23-24	Goal	1	2	
	Value	N/A	Annually/ As needed	Electrical and mechanical inspection is conducted annually or more often if a problem is identified in daily routine checks of the station.

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **N/A** – Cityworks/Crystal reports are incorrectly tracking as preventative maintenance options are selected even when not part of routine inspection/flushings/cleanings.

2. **Below goal** – Electrical and mechanical inspected is conducted annually or more often if a problem is identified in daily routine checks of the station.

Recommendation #1: There are 52 weekly flushings, 52 weekly inspections and 4 quarterly cleanings. The Cityworks report for this PI has been generating incorrectly. Update Cityworks drop-down options to include "weekly flushings", "weekly inspections", "quarterly cleanings" for improved tracking of routine inspection and maintenance.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Nelson	7-31-24

Goal: **Rehabilitation and Replacement (R/R) Funding**

Responsible Person (RP):
Finance Officer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to provide sufficient funds for the R/R program to maintain or improve the condition of the collection system over time.

PIs and Data Collection Methods:

1. *The percentage of the total system value as defined by the City's Finance Officer budgeted for the year for R/R projects.*
   Data Collection Method: Manually compare total R/R funding provided to the value of the sewer collection system as determined by the City's Finance Officer.
   [Note: this PI may be tracked on an annual basis, and does not need to be tracked quarterly.]

2. *The annual funding budgeted for R/R projects compared to the estimated funding required according to estimates produced by the CIP Staff Analysis.*
   Data Collection Method: Manually sum the total annual R/R funding provided vs. the funding required for the current year according to Utilities Engineering Staff using the CIP Staff Analysis.
   [Note: this PI may be tracked on an annual basis, and does not need to be tracked quarterly.]

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Annual R/R funding provided as % of sewer system value	<1%	1.0%-1.5%	1.5%-2.0%	>2.0%
2	Annual funding provided for R/R program vs. CIP Staff Analysis projections	> needs from CA&CIP analysis	N/A	Consistent with needs from CA&CIP analysis	N/A

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 23-24	Goal	1	2	
	Value	2.6%	N/A	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Excellent** – Uses FY 23/24 CIP R/R Funding vs. FY 23/24 Asset Value for Fund ($1,940,000 vs. $72,299,202.83), 2.6%
2. **N/A** – ($1,940,000 vs Undetermined)

Recommendation #1: None.

Recommendation #2: Complete CIP staff analysis for estimating the funding required for CIP bundles.

Signature of Responsible Person: (sign when complete)	Date:
Kimberly McKinney	

Goal: **Rehabilitation and Replacement (R/R) Program**

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to develop and implement an R/R program. This involves developing a module for continually prioritizing line segments to be identified for rehabilitation or replacement. Once prioritized line segments are identified and bundled into Capital Improvement Projects (CIPs), appropriate rehabilitation or replacement methods will be analyzed, designed, and constructed.

PIs and Data Collection Methods:

1. *The percentage of assets that have defect grades from 4-5 and have been CCTV inspected that have also been assigned to a future project/O&M activity.*
   Data Collection Method: Determine the percentage of CCTV inspected assets with a defect grading of 4 or 5 that have been assigned to a future project/O&M activity.

2. *The percentage of bundled CIP assets assigned to the previous year that are in design or construction.*
   Data Collection Method: Manually determine the % based on determination of which bundled CIP assets assigned to the previous year in the CIP Staff Analysis are actually in design or construction.

3. *The number of annual main line structural pipe failures or breaks per 100 miles of pipe.*
   Data Collection Method: Determine the number of SSOs caused by structural failures in gravity mains, force mains, and manholes and document the number of repairs or replacements of gravity mains, force mains, and manholes due to emergency structural problems from the R&R Program CMMS Repair & Replace crystal report. Finally, determine the ratio of structural failures attributable to SSOs per 100 miles of pipe using the total length of sewer system gravity and pressure main piping (found in the City's Sewer/Storm GIS Dashboard).

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of assets with defect grades of 4 or 5 that have CIP "actions" assigned or O&M repairs assigned	< 75%	75-85%	85-95%	95-100%
2	% of scheduled CIPs designed or in construction	< 50%	50-60%	60-70%	> 70%
3	# of line failures per 100 miles of pipe	> 4	3-4	2-3	< 2

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY 23-24	Goal	1	2	3	
	Value	N/A	N/A	1	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **N/A** – Since the City's former sewer asset management program (CA&CIP) crashed, the City created a new GIS layer to display QSR (quick structural review) scores for inspected sewer gravity mains (SGMs). The GIS layer is evaluated for CIP scope to ensure projects are addressing SGMs containing defect grades of 4s and 5s. However, the City has not been tracking the percentage of assets assigned a future project. The FY 23-24 sewer R&R project, including the 2023 Water Main Replacement Project (CIP# 22-04) and the 2024 Water & Sewer R&R Project (CIP# 23-02) were selected based on proximity to water projects and sewer repairs within the project boundaries were identified based on severity of defects in the sewer system, informed by CCTV and the GIS QSR ratings layer.

2. **N/A** – No project bundles to reference

3. **Excellent** – 1 failure per 100 miles of sewer pipe – From the "R&R Program CMMS Repair & Replace" crystal report, there was a total of 0 Sewer Gravity Main Repair/Replace that was urgent/emergency, there was a total of 3 Sewer Lateral Line Repair/Replace that was urgent/emergency, and there was a total of 0 Sewer Manhole Repair/Replace that was urgent/emergency.

Recommendation #1: Revise the SSMP and Audit R&R Program PI and Data Collection Methods to reflect current practices.

Recommendation #2: Bring the sewer asset prioritization process up to date by bundling sewer assets into a 5-year CIP plan for sewer R&R.

Recommendation #3: Review past R&R Program PIs for consistency. Consider including the R&R Program CMMS Repair & Replace Cityworks report data in the rating system.

Signature of Responsible Person: (sign when complete)	**Date:**
	7/30/2024

Goal: **Replacement Parts**

Responsible Person (RP):
Equipment Services Clerk /
Chief Collections Systems Operator/
WPCF Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to ensure that adequate reserves of replacement parts are available to respond to foreseeable emergency situations that may arise within the collection system.

PIs and Data Collection Methods:

1. *Frequency with which the inventory of necessary equipment and replacement parts for fleet vehicles is reviewed and updated, and new parts ordered if needed.*
   Data Collection Method: Report generated through Fleet Software System semi-annually.

2. *Frequency with which the inventory of necessary equipment and replacement parts for pipeline and manhole repairs is reviewed and updated, and new parts ordered if needed.*
   Data Collection Method: Keep track manually.

3. *Frequency with which the inventory of necessary equipment and replacement parts for lift stations is reviewed and updated, and new parts ordered if needed.*
   Data Collection Method: Keep track manually.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Frequency of Fleet equipment and replacement part inventory review	Less frequent than Annually	Annually - Biannually	Biannually - Quarterly	More frequent than Quarterly
2	Frequency of pipeline / manhole equipment and replacement part inventory review	Less frequent than Annually	Annually - Biannually	Biannually - Quarterly	More frequent than Quarterly
3	Frequency of lift station equipment and replacement part inventory review	Less frequent than Annually	Annually - Biannually	Biannually - Quarterly	More frequent than Quarterly

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
1st Qtr	Goal	1	2	3	
	Value	Continuously	Quarterly	Annually	
2nd Qtr	Goal	1	2	3	
	Value	Continuously	Quarterly	Annually	
3rd Qtr	Goal	1	2	3	
	Value	Continuously	Quarterly	Annually	
4th Qtr	Goal	1	2	3	
	Value	Continuously	Quarterly	Annually	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Excellent** – Monitoring occurs on a real-time basis using FASTER Fleet.
2. **Excellent** – Quarterly inventory of equipment & replacement parts.
3. **Acceptable** – Inventory conducted annually, with parts ordered as soon as possible for repairs or replacements.

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person - Fleet: (sign when complete)	**Date:**
Phillip Lovejoy	**07/29/2024**

Signature of Responsible Person -O&M: (sign when complete)	**Date:**
Eric Nelson	7-30-2024

Signature of Responsible Person – WPCF: (sign when complete)	**Date:**
	7-29-24

Goal:	Root Treatment Program (RTP)

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to mitigate reoccurring sewer lateral blockages due to root intrusion and to operate an effective Root Treatment Program.

PIs and Data Collection Methods:

1. *The total footage of sewer laterals treated for root intrusion over one year*
   Data Collection Method: Determine the fiscal year footage of treated sewer laterals from the Root Treatment Cityworks Footage crystal report and add total linear footage of sewer lateral lining projects.

2. *The percent reduction in spills and blockages requiring flushing attributed to root intrusion from previous year.*
   Data Collection Method: For the first year of tracking, simply report the number of spill's and blockages caused by root intrusion from the central crystal report. After data is available from the first year of tracking, determine the year-to-date number of spills and blockages attributed to root intrusion, project the number of events out to the total year, and then compare the previous year's events to determine the percent reduction.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Total footage of laterals treated for root intrusion over one year	< 6,000	6,000 - 10,000	10,000-20,000	> 20,000
2	% reduction in spills attributed to root intrusion from the previous year	< 0	0 - 2.5%	2.5-5%	> 5%

Periodic Performance Tracking				
Date	Measured Value			Performance Assessment Comments
1st Qtr	Goal	1	2	FY23-24 had 2 spills attributed to root intrusions; FY22-23 had 3 spills attributed to root intrusions in Q1 of the FY.
	Value	1,027	33.3%	
2nd Qtr	Goal	1	2	FY23-24 had 0 spills attributed to root intrusions; FY22-23 had 4 spills attributed to root intrusions in Q2 of the FY.
	Value	527	400%	
3rd Qtr	Goal	1	2	FY23-24 had 1 spills attributed to root intrusions; FY22-23 had 3 spills attributed to root intrusions in Q3 of the FY.
	Value	460	66.6%	
4th Qtr	Goal	1	2	FY23-24 had 0 spills attributed to root intrusions; FY22-23 had 0 spills attributed to root intrusions in Q4 of the FY.
	Value	1,240	0%	

Annual Performance Assessment / Recommendations for Updates
FY 23-24 Ratings: 1. **Below Goal** – 4,508 ft of sewer laterals treated for root intrusion. Includes 3,218 ft from O&M treatment and 1,290 ft of sewer lateral lining from 2023 Sewer Lateral Lining project. 2. **Excellent** – 70% reduction in spills attributed to root intrusion from last fiscal year. There were 10 spills attributed to root intrusion in FY 22-23 compared to 3 spills attributed to root intrusion in FY 23-24. Recommendation #1: The City should put a sewer lateral lining project out to bid in FY 24-25 to address root intrusion in some of the most susceptible locations. Recommendation #2: Address high risk areas for root intrusion of laterals in the 2024 Sewer Lateral Lining project.

Signature of Responsible Person: (sign after annual review)	Date:
Eric Nelson	7-31-24

Goal:	System Evaluation and Capacity Assurance Program (SECAP)

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to conduct an evaluation of the system and ensure sufficient capacity to convey expected wastewater flows.

PIs and Data Collection Methods:

1. *Ratio of peak wet weather flow to average dry weather flow as monitored at the WWTP*
   Data Collection Method: Collect daily flow data for the largest wet weather event at the WWTP headworks year-to-date and compare to the average dry weather (summer) flows as reported by WWTP operators to determine the ratio.
2. *Frequency of hydraulic model updates*
   Data Collection Method: Keep track manually. Hydraulic model updates include adjustments to parcel use information, system geometry (i.e. pipe sizes, inverts, locations), updates to I/I rates, etc. RP should keep a log of hydraulic model update activities.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Ratio of peak WWF to average DWF	> 2.0 : 1	1.7:1 – 2.0:1	1.5:1 – 1.7:1	1.3:1 – 1.5:1
2	Time since last hydraulic model update	> 4 years	3 – 4 years	2 – 3 years	< 2 year

Periodic Performance Tracking

Date	Measured Value			Performance Assessment Comments
FY 22-23	Goal	1	2	
	Value	1.45:1	2019	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

1. **Excellent** – 1.45:1
2. **Below Goal** – Updated in Spring 2019. Flows to WPCF have been declining overall since 2019. Recommendations from previous model have been implemented, including sewer repairs and 2 additional rain gauges

Recommendation #1: None

Recommendation #2: Reduce frequency of hydraulic model update

Signature of Responsible Person: (sign when complete)	Date:
	7/17/2024

Goal: **Response to Service Requests**

Responsible Person (RP):
Chief Staff Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts taken to effectively respond to customer service calls.

PIs and Data Collection Methods:

1. *The average response time for an urgent call.*
   Data Collection Method: Determine the average response time for "priority 1" (emergency), "priority 2" (urgent), and "priority 9" (on-call) service calls from Cityworks.

2. *The average response time for a routine call.*
   Data Collection Method: Determine the average response time for "priority 3" (routine) service calls from Cityworks.

3. *Average number of service calls per 100 miles of pipe per year.*
   Data Collection Method: Determine the total number of year-to-date service calls from Cityworks, project to year-end totals, and determine number of calls per 100 miles of main line gravity and pressure pipe.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Response time for urgent calls	> 1 day	1 day	8 hours	1 hour
2	Response time for routine calls	> 1 week	1 week	3 days	1 day
3	Average # of service calls / 100 miles of pipe	> 200	150-200	100-150	< 100

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY 23-24	Goal	1	2	3	
	Value	0.24 hours	0.37 hours	68.5 calls / 100 miles	3. There were 137 service requests

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Excellent** – Average response time for an urgent call is 0.24 hours.
2. **Excellent** – Average response time for an routine service call is 0.37 hours.
3. **Excellent** – 68.5 service calls per 100 miles of pipe

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	Date:
Eric Mobrman	7-31-24

Goal:	**Mitigation of Spills**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts taken to mitigate any spills that occur.

PIs and Data Collection Methods:

1. *The percent of spill volume capture in flat areas (i.e. slopes of 1-5%).*
   Data Collection Method: Calculate manually from either the completed City of Woodland spill report forms or from information entered into the CIWQS database. Calculate % captured volume for all categories of spills (including from private laterals) for which the "description of terrain surrounding the point of blockage or spill cause" is described as flat. For each spill event, determine the "% captured" as the volume of sewage recovered and returned to the sewer system divided by the total spill volume. Then, average the % captured for all spills in the year-to-date period. [Note: The City of Woodland has no areas with slopes greater than 5%.]

2. *Average time from an spill event to when the line is inspected with CCTV to investigate the cause.*
   Data Collection Method: Review the "SSOMitigation_CityWorks_Volume Captured" crystal report. Manually compare this list to spill report forms to determine if a corresponding follow-up CCTV inspection was completed. Manually calculate the time between when each spill is reported to the date a follow-up CCTV inspection was calculated. If there are spills for which a CCTV inspection has not been conducted, exclude from calculation. Average the CCTV inspection response time for all year-to-date spills.

3. *The percentage of spill Events that were followed by an inspection of the line with CCTV to investigate the cause.*
   Data Collection Method: Review the "SSOMitigation_CityWorks_Volume Captured" crystal report which lists all spills and count the number of spills without a CCTV inspection completed. Calculate the percentage of spill Events that were followed up with a CCTV inspection.

	Performance Indicators	**Rating**			
		Below Goal	**Acceptable**	**Good**	**Excellent**
1	% captured of spill (flat, 1-5%)	<70%	70%-80%	80-90%	90-100%
2	Average time to investigate spill with CCTV	>1 week	5-7 days	3-5 days	< 3 days
3	% of spill Events investigated with CCTV	< 75%	75-90%	90-95%	95-100%

	Periodic Performance Tracking				
Date		**Measured Value**			**Performance Assessment Comments**
FY 23-24	Goal	1	2	3	12 CCTV'd spills were CCTV'd in 1 day. 1 spill was not shown to have CCTV done.
	Value	100%	1 day	92%	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Excellent** – 100% of spill volume captured in flat areas
2. **Excellent** – Within 1 day
3. **Good** – 92% of spills were followed up with a CCTV inspection

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Nelson	7-31-24

Goal: **Prevention of Spills**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts taken to prevent the occurrence of spills.

PIs and Data Collection Methods:

1. *The number of spills per 100 miles of gravity sewer mains per year.*
   Data Collection Method: Determine the number of spill events that occurred year-to-date that are attached to gravity mains, force mains, manholes, and lift stations from the central crystal report. Project the number of spills to year-end totals. Divide this number by the total footage of gravity mains and force mains in the City (also available on the central crystal report).

2. *The percent reduction in spills from the previous year.*
   Data Collection Method: Determine the number of spill events in the Fiscal Year that are attached to gravity mains, force mains, manholes, and lift stations. Compare the number of spills (from gravity mains, force mains, manholes, and lift stations) to the number of spills that occurred last year (gravity mains, force mains, manholes, and lift stations) to determine the % reduction. If 0 spill's occurred from gravity mains, force mains, manholes and lift stations in the SSMP Audit of evaluation, an Excellent rating shall be applied.

3. *The number of repeat spills in a five year period.*
   Data Collection Method: Review all spills by asset type over the last five year period, sorted by address. Manually determine the number of repeat spills.
   [Note: spill spreadsheet lists locations of all previous spills and determines any repeat addresses.]

4. *The percentage of repeat spills followed by mitigation, such as root treatment or repair work.*
   Data Collection Method: Keep track manually of repeat spill locations. Search for work orders on the lateral line, sewer clean out, and sewer pipe IDs.
   [Note: spill spreadsheet lists locations of all previous spills and determines any repeat addresses.]

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	# of spills / 100 miles / year	>5	3.5-5	2.3-3.4	<2.3
2	% reduction of spills from previous year	< 0%	0-5%	5-10%	> 10%
3	# of repeat spills / 5 years	> 0	-	-	0
4	% of repeat spills followed by mitigation	< 70%	70-80%	80-100%	100%

Periodic Performance Tracking						
Date	**Measured Value**					**Performance Assessment Comments**
FY 23-24	Goal	1	2	3	4	
	Value	0	30%	7	100%	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Excellent** – 0 spills per 100 mi of sewer pipe from gravity mains, force mains, manholes and lift stations.
2. **Excellent** – 13 spill occurrences this FY vs 17 spill occurrences last FY. 30% decrease.
3. **Below Goal** – 7 repeat spills in last 5 fiscal years.
4. **Excellent** – 100%

Recommendation #1: None.

Recommendation #2: None.

Recommendation #3: Line 224 Freeman ST, 1109 Pendegast ST, 428 Abbey Pl. These were all repeat due to roots.

Recommendation #4: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Nelson	7-31-24

Goal: **Response to Spills**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts taken to effectively respond to spills. *Response time* is defined as the time of first notification or discovery of a spill to the arrival onsite by City staff.

Data Collection Methods

1. *The average response time during normal business hours (M-F 7am-4pm).*
   Data Collection Method: Determine manually from year-to-date City spill records or using the CIWQS database. Determine response time for each event by comparing "Date and time sanitary sewer system agency was notified of or discovered spill" to "Estimated Operator arrival date/time" and calculate Response Time. spills that occur during normal business hours are those that are initially reported between 7am and 4 pm Monday through Friday. Determine the average response time for year-to-date incidents.

2. *The average response time after hours (M-F 4pm-7am, weekends, holidays).*
   Data Collection Method: Determine manually from year-to-date City spill records or using the CIWQS database. Determine response time for each event by comparing "Date and time sanitary sewer system agency was notified of or discovered spill" to "Estimated Operator arrival date/time" and calculate Response Time. spills that occur during normal business hours are those that are initially reported between 4pm and 7am, or on weekends or holidays. Determine the average response time for year-to-date incidents.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Spill response time during normal hours	>45 min	≤ 45 min	≤ 30 min	≤15 min
2	Spill response time after normal hours	>1 hr	≤ 1 hr	≤ 45 min	≤30 min

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 23-24	Goal	1	2	
	Value	32 Minutes	35 Minutes	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Acceptable** – Average response time is 32 minutes.
2. **Good** – Average response time is 35 minutes.

Recommendation #1: None.

Recommendation #2: None.

Signature of Responsible Person: (sign when complete)	**Date:**
Eric Redman	7-31-24

Goal: **Staff Training**

Responsible Person (RP):
Chief Collections Systems Operator

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the effort required to ensure that regular training takes place.

PIs and Data Collection Methods:

1. *The frequency with which tabletop / tailgate training meetings are conducted by the O&M staff.*
   Data Collection Method: Keep track manually of tabletop / tailgate meetings completed year-to-date, and calculate the average frequency of the trainings during that same time period.

2. *The frequency with which field / equipment training exercises are conducted by the O&M staff.*
   Data Collection Method: Keep track manually of field / equipment training exercise training completed year-to-date, and calculate the average frequency of the trainings during that same time period.

3. *The frequency with which field, equipment or tabletop / tailgate training is conducted that includes training on spill response procedures outlined in the ERP.*
   Data Collection Method: Keep track manually of all tabletop, tailgate, field, or equipment trainings that involve spill response that have been completed year-to-date, and calculate the average frequency of trainings during that same time period.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Frequency of tabletop / tailgate training	<Monthly	Monthly	Biweekly	Weekly
2	Frequency of field / equipment training	<Quarterly	Quarterly	Bimonthly	Monthly
3	Frequency of SSO response training	<Quarterly	Quarterly	Bimonthly	Monthly

Periodic Performance Tracking					
Date	**Measured Value**				**Performance Assessment Comments**
FY23-24	Goal	Tabletop / Tailgate	Field / Equipment	Spills	
	Value	8	9	3	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Ratings:

1. **Below Goal** – Less frequent than monthly tailgate meetings, 8 total in fiscal year.
2. **Good** – Less frequent than monthly field/equipment trainings, 9 total in fiscal year.
3. **Below Goal** – Less frequent than quarterly spill trainings, 3 total in fiscal year.

Recommendation #1: Schedule one tabletop or tailgate meeting each month for FY24-25.

Recommendation #2: None.

Recommendation #3: Schedule one spill response procedure training each quarter for FY24-25. Make sure staff is familiar with the new emergency response plan.

Signature of Responsible Person: (sign when complete)	Date:
Eric Ehn	7-30-2024

Goal:	**Staffing**

Responsible Person (RP):
Management Analyst

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to fill all funded positions within the Utility Maintenance, Environmental Operations, and Utilities Engineering Divisions of the City of Woodland to meet the necessary effort required to implement the City SSMP.

PIs and Data Collection Methods:

1. *The percentage of vacant staff positions in the divisions listed above.*
   Data Collection Method: Keep track manually.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	% of vacant positions	> 10%	10%	5%	All filled

Periodic Performance Tracking			
Date	**Measured Value**		**Performance Assessment Comments**
FY 23-24	Goal	1	11 out of 15 positions filled in Utility Maintenance, 1 out of 2 positions filled in Environmental Operations and 4 out of 5 positions filled in Utility Engineering.
	Value	27%	

Annual Performance Assessment / Recommendations for Updates

FY 23-24 Rating:

1. **Below Goal** – 16 out of 22 positions were filled in the sewer group as of June 30th, 2024. 27% vacant staff.

The positions in Utility Maintenance include: 1 Chief Collections Systems Operator, 1 Sr. Utilities Maintenance Worker, 2 Utilities Maintenance Workers III/IV, and 11 Utilities Maintenance Workers I/II (total of 15). 4 Utility Maintenance I positions were vacant in FY 23/24.

The positions in Environmental Compliance include 1 Environmental Compliance Specialist and 1 Environmental Compliance Inspector II (total of 2). The Compliance Inspector II was vacant in FY 23/24.

The positions in Utilities Engineering include 1 Principal Utilities Civil Engineer, 1 Senior Associate Civil Engineer, 2 Associate Engineers, and 1 Utilities Engineering Intern (5 total). The Senior Associate Civil Engineer left the City in FY23/24. The position was backfilled by an Associate Engineer in early FY 24/25.

Recommendation #1: Conditional job offers have been made to fill the 5 currently vacant Utility Maintenance Worker I/II positions. Fill the positions.

Signature of Responsible Person: (sign when complete)	**Date:**
Courtney Morgan	7/31/24

Goal: **Maintain Up-to-date Standards**

Responsible Person (RP):
Principal Utilities Civil Engineer

Description of Performance Indicator(s) (PIs):

The PIs listed below quantify the efforts to keep the City Standards current with regards to design and construction of the collection system. This effort involves keeping a list of recommended updates to the standards, which is reviewed by all parties with responsibility over the sewer collection system and updated on a consistent basis.

PIs and Data Collection Methods:

1. *The frequency with which the list of required/requested updates to the standards is maintained and discussed with O&M, Engineering, Environmental Compliance and Management.*
   Data Collection Method: Keep track manually. Current list of updates, and meeting notes from past meetings should be available.

2. *The frequency with which the standards are revised to incorporate the list of required/requested updates.*
   Data Collection Method: Keep track manually. A file of completed updates and/or new design standards specific to the sewer collection system should be kept.

	Performance Indicators	Rating			
		Below Goal	Acceptable	Good	Excellent
1	Time since last meeting to discuss list of design standard updates based on sewer-specific issues	> 2 years	1-2 years	0.5-1 year	< 6 months
2	Time since last actual update to design standards based on sewer-specific issues	> 10 years	4-10 years	2-4 years	< 2 year

Periodic Performance Tracking				
Date	**Measured Value**			**Performance Assessment Comments**
FY 22-23	Goal	1	2	1. Last discussion on March 1, 2021. 2. Last standards update March 1, 2021.
	Value	2.4 Years	2.4 Years	

Annual Performance Assessment / Recommendations for Updates

FY 22-23 Ratings:

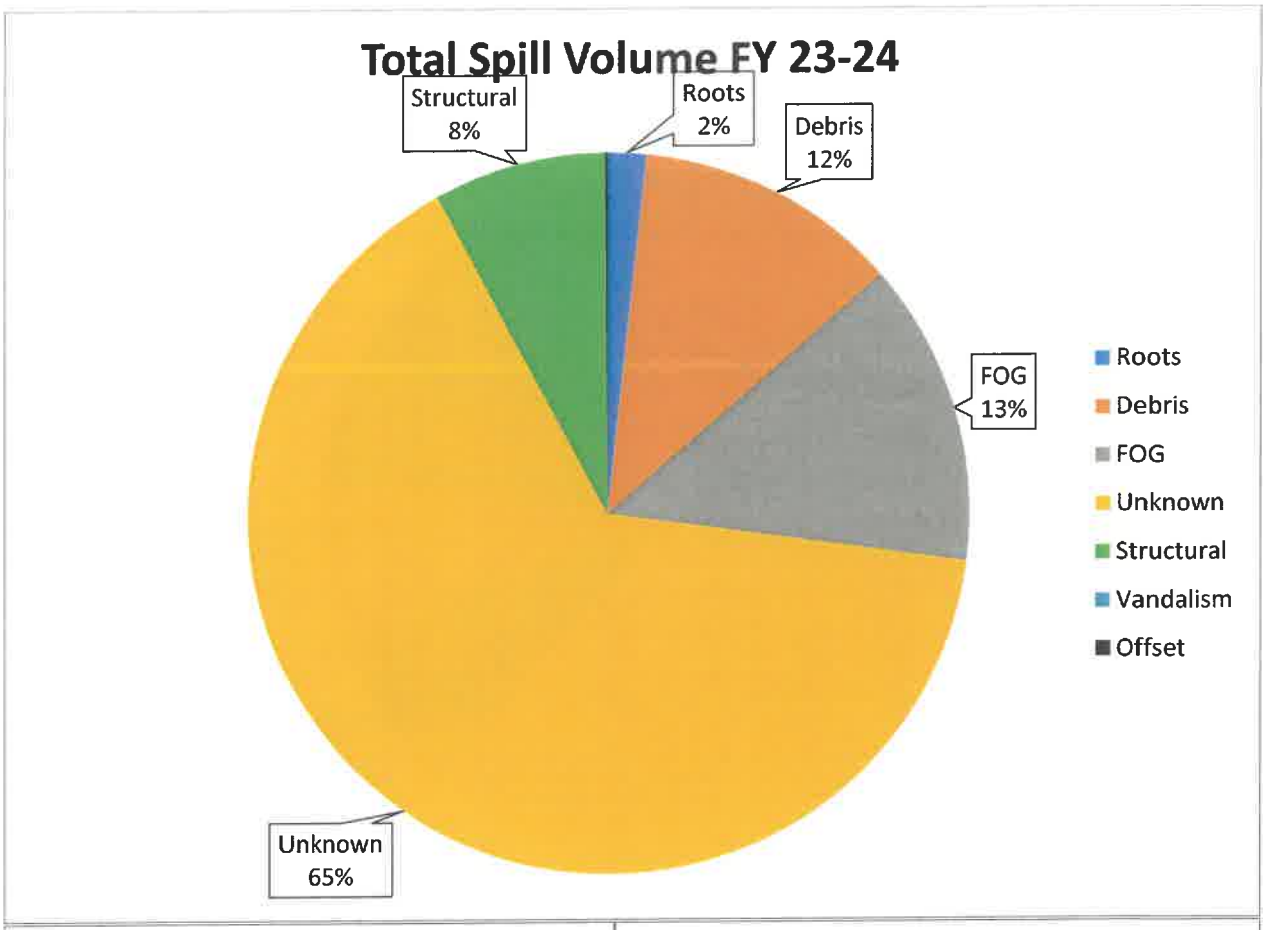
1. **Below Goal (> 2 Years)** – Latest discussion of standards March 1, 2021. This is actually quite recent in terms of discussing standards updates.

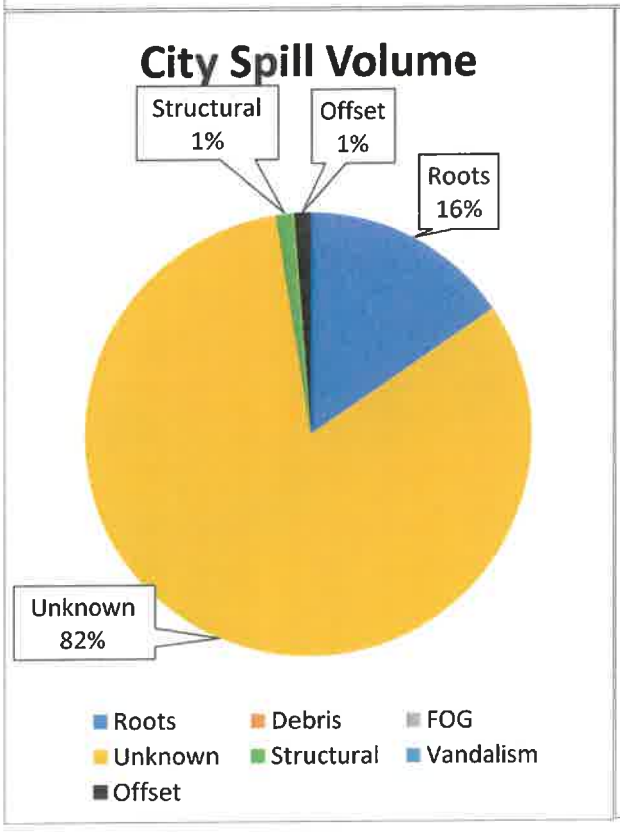
2. **Good (within 2 - 4 Years)** – Latest update in March 1, 2021. However, we did update our technical specification for sewer system work in the City's construction contract.

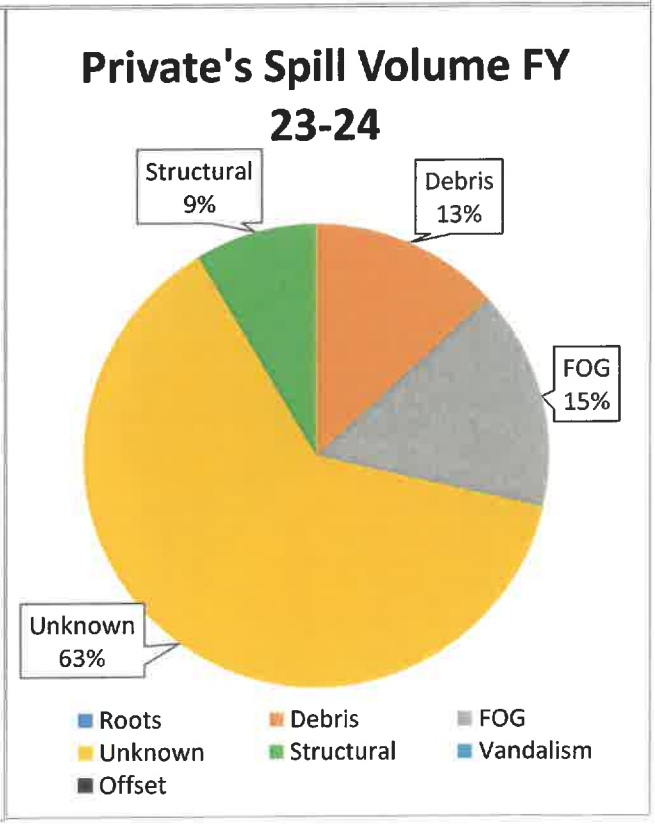
Recommendation #1: *Recommend changing the language of this PI from "design standards" to "design standards /construction specifications". We could schedule an annual standards-focused coordination meeting.*

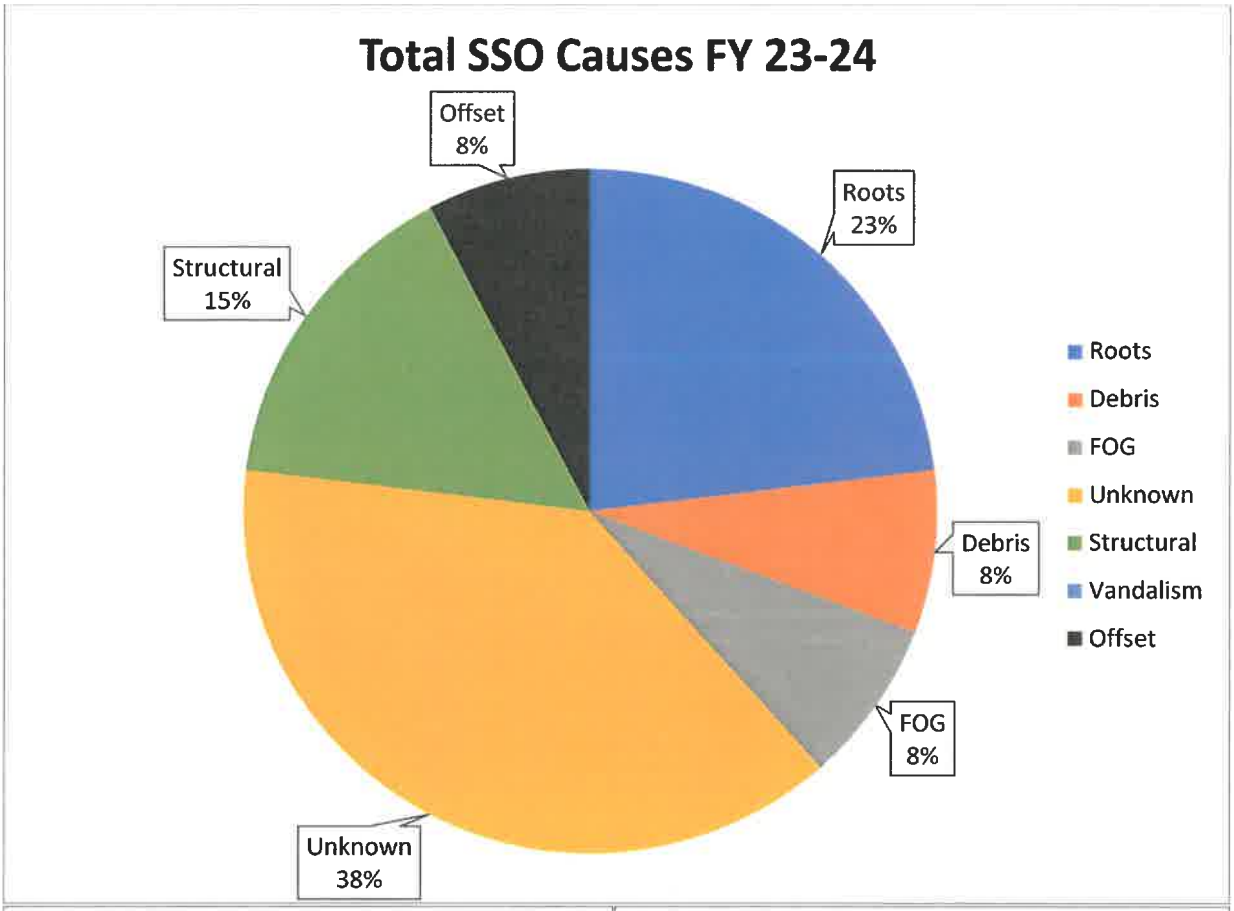
Recommendation #2: *We could schedule a standards-focused coordination meeting*

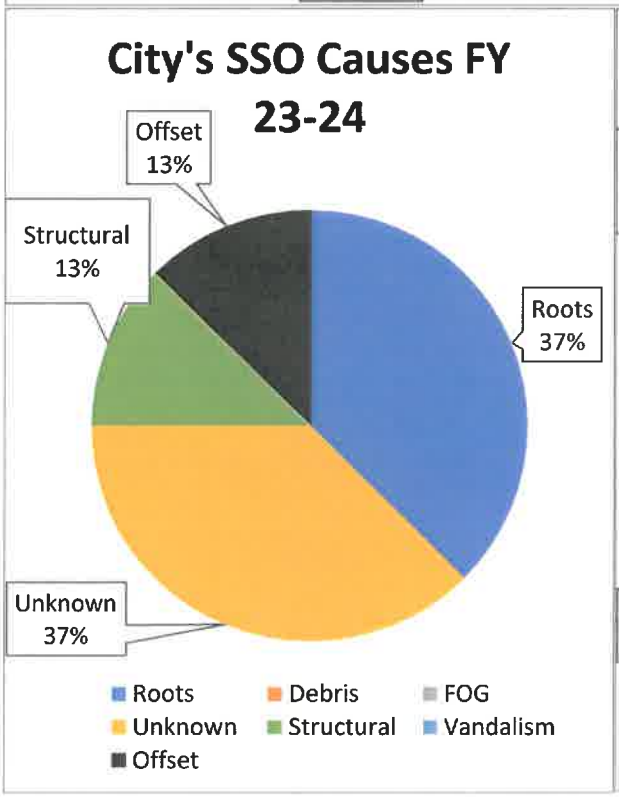
Signature of Responsible Person: (sign when complete)	Date:
	7/17/2024

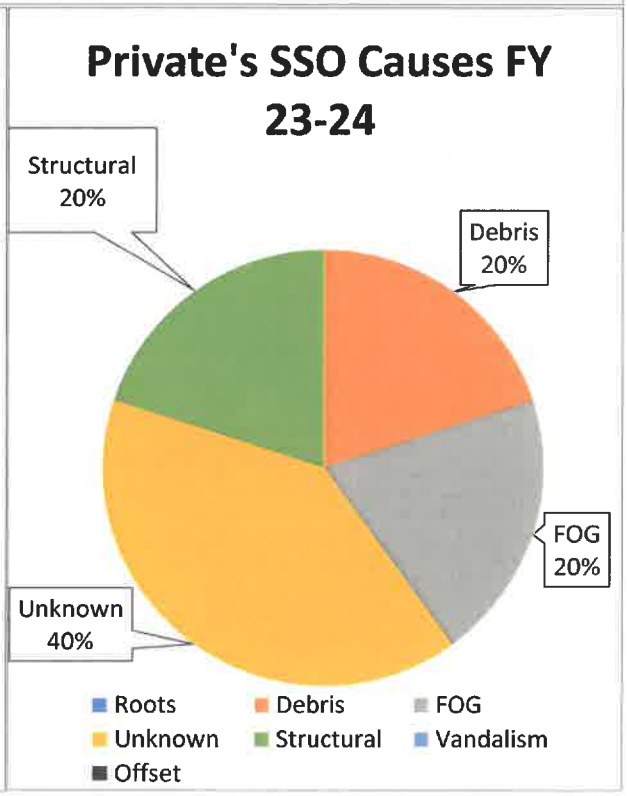

Total Spill Volume FY 23-24
Structural 8%
Roots 2%
Debris 12%
FOG 13%
Unknown 65%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


City Spill Volume
Structural 1%
Offset 1%
Roots 16%
Unknown 82%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


Private's Spill Volume FY 23-24
Structural 9%
Debris 13%
FOG 15%
Unknown 63%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


Total SSO Causes FY 23-24
Offset 8%
Roots 23%
Structural 15%
Debris 8%
FOG 8%
Unknown 38%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


City's SSO Causes FY 23-24
Offset 13%
Structural 13%
Roots 37%
Unknown 37%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset


Private's SSO Causes FY 23-24
Structural 20%
Debris 20%
FOG 20%
Unknown 40%
Roots
Debris
FOG
Unknown
Structural
Vandalism
Offset

City of Woodland
Sewer System Management Plan
Change Log

Date	SSMP Element/Section	Description of Change/Revision Made	Change Authorized By
7/30/2024	ALL SSMPS	Replaced "SSO" throughout the entire SSMP with "spill	Matt Cohen