Performance Measurement Report

Performance Measurements for the West Bay Sanitary District Using the "Effective Utility Management" Framework

Includes Data and Analysis for Calendar Year 2022

WEST BAY
SANITARY DISTRICT

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Introduction to the Report

This report is the eleventh of what is intended to be an annual report by the West Bay Sanitary District regarding the performance of the District. It includes performance measures that, when taken as a whole, should give the reader a sense of how well the utility is performing and being managed. This report is prepared by management for use by the District's Board of Directors and by the general public.

The District has chosen to use the Effective Utility Management (EUM) framework for presenting this information. This framework is specific to water and wastewater utilities and provides for the possibility of comparing the District to other wastewater utilities once more providers begin using EUM for measuring and reporting on performance.

About Effective Utility Management

Effective Utility Management (EUM) is a framework for evaluating water and wastewater utilities. In May 2007, six major water and wastewater associations and the United States Environmental Protection Agency (EPA) agreed to support EUM collectively and individually throughout the water sector. EUM is designed to help utility managers make practical, systematic challenges to achieve excellence in utility performance, and encapsulates the collective knowledge and experience of utilities leaders who are committed to helping improve water and wastewater management.

EUM has identified Ten Attributes of Effectively Managed Water Sector Utilities. This performance measurement report has been divided into Nine of those attributes. As they are intended to help utilities maintain a balanced focus on all important operational areas rather than quickly moving from one problem to the next.

More can be learned about Effective Utility Management by visiting the website www.waterEUM.org.

About Performance Measures

Performance measures are those things that are measured by an organization to evaluate the performance of that organization. There are several types of measures, including input, output, efficiency and effectiveness. Input and output measures tend only to capture the amount of work performed by departments or organizations. This report focuses on efficiency and effectiveness measures, measure that are meaningful to management of the District and which the District has some ability to influence.

Quick-Glance Ratings

This report includes an analysis of how the District is doing within the measured area. Additionally, next to each graph or qualitative measure is an icon to help the reader assess how the District is performing against that measure. Those icons are as follows:

"Satisfactory" (green star) – signifies that the District has met its goals, or that the trend is positive

"Goals met but Watch" (blue & white thumbs up) – signifies that the District has met its goals but needs to watch the trend further

"Watch" (orange diamond) – signifies that the District is in danger of not meeting its goals, that the trend is indeterminate, or that there is insufficient data to make an assessment

"Unsatisfactory" (red triangle) – signifies that the District has not met its goals or that the trend is negative

"No Measure" (blue circle with slash) – signifies that the District has not developed a measurement for this performance indicator

This Performance Measurement Report is produced by the West Bay Sanitary District. It is the District's intention to produce this report annually. The report is structured around Nine of the Ten Attributes of Effectively Managed Water Sector Utilities, as developed in Effective Utility Management.

This report will be used by management of the District to identify specific trends or issues regarding the nine attributes. The Report is also intended to provide a partial answer to the question asked by the Board of Directors and the ratepayers alike, "Is the West Bay Sanitary District a well-run utility?" This document may be used by the District's Board of Directors as a source of information for setting District goals and priorities.

The following is a summary of the 2022 Performance Measurement Report.

#1

Product Quality – The District continues to meet or exceed regulatory compliance requirements within the Collection System. Significant changes and additions, in 2010, 2011, 2014 and again in 2019, to the Preventative Maintenance program has produced excellent results. The establishment of productivity goals, root foaming, basin to basin cleaning, scheduling of High Frequency cleaning including placing all small pipes on a 12-15 month schedule as well as patching and repairing of pipe defects have resulted in a great reduction of Sanitary Sewer Overflows. The District had zero SSO's in 2020 and four in 2021, two of the SSO's were caused by outside influence and contractors. Both the number and volume of spills are significantly below the State and Regional average. The number of plugged main lines are down from 81 in 2011 to only 8 in 2022.

#2

Customer Service – 2022 data on response times to calls for service continues to improve. The Project Management staff continues to maintain its performance goal to plan review on-time, 95% of the time by achieving 100% for the third year in a row.

#3

Employee and Leadership Development – There was higher than usual turnover due to retirements in 2017, causing a spike in experience turnover. Employee survey responses indicate that there is no strong indication of unhappiness nor a desire to seek employment elsewhere. The measures on training indicate there is steady improvement in some training categories. In 2015 the District developed a Succession Plan for key positions, and will continue to work on a Succession Plan for other positions. Though not due to retirements, in 2016 the District experienced a turnover of 3 of the maintenance staff. Two were maintenance technicians and one was a field supervisor (lead worker). One individual left to become a union business representative, one left to "get out of California" and the last one left to further his education and start a new and different career path. In 2020 five employees were promoted including the District Manager and Operations Superintendent. In 2022, a maintenance worker was promoted to pump maintenance mechanic. In addition pump maintenance mechanic was promoted to Field Supervisor and a new Utility Worker position was created and filled.

#4

Resource Optimization – Staff is constantly looking for ways to increase its buying power, save the District money, and maximize its manpower. Staff implemented a rescheduling of sewer main cleaning cycles to minimize travel time and save man-hours; these man-hours were then used to clean other sewer lines elsewhere in the system. Staff developed ways to use chemicals for odor control at pump stations rather than installing expensive infrastructure. Additionally, staff implemented the practice of purchasing fleet vehicles on state bid lists, and using Co-Op purchasing agreements for purchasing equipment, saving the District tens of thousands of dollars each year.

#5

Financial Viability –The ratio of revenue to expenditures was flat between FY 2020-21 and FY 2021-22. The positive ratio indicates funds collected for capital. The ratio of capital expenditures and the debt service coverage ratio is sustainable. The District maintains appropriate policies and internal controls. Sewer service charges are evaluated regularly for the ability to cover life-cycle cost of service and capital funding options. The District's reserves are maintained to provide stable rates.

#6

Infrastructure Stability – The District has performed an inventory of critical assets as part of the Collection System Master Plan update in 2013. The District also performs condition assessments of the collection system via CCTV every 6 years. The District had been spending over $1M on renewal & replacement projects to meet minimum standards and targets, and increased its commitment to the infrastructure by increasing CIP spending to $6-7 M per year.

The District is performing well regarding collection system failure rates. Planned maintenance as a percentage of total maintenance is high in the collections system, and the District regularly scheduled restaurant inspections to help prevent fats, oils, and grease (FOG) problems in the collection system. This resulted in no SSO's due to commercial FOG issues.

Working with VW Housen and Associates, District staff has developed a Linear Asset Management Plan (LAMP) to assist the District to more scientifically prioritizing pipeline rehabilitation and replacement in order to manage risk. The LAMP consists of a numerical asset management prioritization tool using Microsoft Access. This tool refines project rehabilitation priorities by calculating Likelihood and Consequence of Failure, taking into account a wide range of criteria, for each asset (i.e. pipelines or manholes). These two components, when combined, determine the Risk of Failure for each asset. The tool assigns a Risk Score to every asset in the system, which is then reviewed in GIS to establish more rigorous and precise process for pipeline rehabilitation and replacement.

#7

Operational Resiliency – The District's total recordable accident rates have met or exceeded the industry standard for several years. The previous four years, the District had been lost time accident free until November 2011. Insurance claims have been declining over time, and have not been considerably expensive. The District's Experience Modification Rate (a measure of worker accidents) had gone down steadily. A serious accident of 2011 caused the Experience Modification Rate to increase above 1.0 in 2012. In 2022 the ex-mode rate was .91. The District maintains adequate Emergency Response Plans and trains on them regularly. The District is well prepared in its operational resiliency under emergency conditions.

#8

Community Sustainability – The District has invested in programs that encourage reduced potable water consumption, environmental protection and awareness, and has incorporated "green" practices into its capital planning. Our Water Quality Department works with commercial customers to explore ways to reduce water usage in their businesses and prevent unnecessary wastewater from entering the collection system and requiring treatment. Staff requires dischargers to adhere to a set of Best Management Practices appropriate for individual businesses that help reduce water used for landscape irrigation, Food Service Establishments (FSE), and encourages the use of low flow sprayers and equipment. Staff has also incorporated specifications for the use of "green" technologies for pipe rehabilitation and replacement within the Capital Improvement Program. Techniques such as "pipe bursting" and "horizontal directional drilling" replace pipe without needing to open trench the entire pipeline, requiring only a pit at the beginning and end of the pipeline. Techniques such as "Cured In-Place Pipe lining" (CIPP) allows the rehabilitation of pipes at a significant savings and is also considered "trenchless". These methods significantly reduce asphalting, landfill waste, the use of rock and cement etc.., and thus reduces fossil fuel emissions from associated equipment. CIPP has the side benefit of stretching the District's capital dollars to rehabilitate or replace more pipe and collection system infrastructure.

The District has sought opportunities to replace vehicles and equipment with higher fuel efficiency than in the past thus further reducing greenhouse gas (GHG). The District acquired its first fully electric vehicle (EV) and will move to EV's whenever possible. The use of field tablets and smart phones for data capturing and access of safety information has increased the community stability component, improved productivity, and reduced paper waste.

The District successfully began the Sharon Heights Recycled Water Treatment Plant which during just 2021, delivered the Sharon Heights Golf and Country Club with more than 54 million gallons of recycled water.

Stakeholder Understanding and Support – While the District has summoned out customer input and engagement through various news articles, the media coverage for the District has increased recently and is generally neutral or favorable regarding the District. The District has long sought out customer input and engaged through customer survey (post service delivery) and through annual newsletter articles in the Almanac. Before the pandemic the District had been increasing its outreach by sponsoring booths at the Chamber of Commerce Block Party, Movie Night, and Facebook picnics and game nights, and CWEA job fairs. In 2021, because of COVID-19 public events were cancelled, so the District focused more efforts on YouTube, Facebook, and Almanac online ads with positive results. In 2022 the Operations Supervisor received the CWEA Supervisor of the Year Award.

#9

Summary of Measures and Ratings

More information about the specific measures and the rationale for the ratings can be found on the page number provided.

⭐ Satisfactory

👍 Good but Watch

🔶 Watch

🔺 Unsatisfactory

🚫 No Measure

Satisfactory

Good but
Watch

Watch

Unsatisfactory

No Measure

Performance Measurement Report

For CY 2022

https://westbaysanitary.org/about-us/budget-and-finance-2/

Sanitary Sewer Overflows (SSOs): On September 9, 2013 The State Water Board revised the Monitoring and Reporting Program Guidelines for Sanitary Sewer Overflows by adding a third category Type 3 SSO and required written water quality monitoring program for spills greater than 50,000 gallons. There are now 3-Types of SSO categories; Category-1 is any volume reaching a surface water, drainage channel tributary to a surface water or Municipal Separate Storm Sewer System (MS4) not fully recovered, which requires the implementation of the "Water Quality Monitoring Program-Technical Report within 45 days of the overflow. Category Type-2 SSO's are discharges of 1,000 or greater fully recovered and Category-3 SSO's are discharges less than 1,000 gallons, fully recovered and returned to the collection system.

The District's goal is to maintain the sewer collection system so that there are no SSOs. Especially important is to prevent overflows that reach a creek, tributary-drainage channel or other body of water, all of which are considered "Category 1 SSOs." While the overall goal is to prevent all overflows, the interim goal of the District is to have fewer overflows within Region-2 of the San Francisco Bay Area.

(Example of overflowing manhole)

Sanitary Sewer Overflow (SSOs)
2018 to 2022
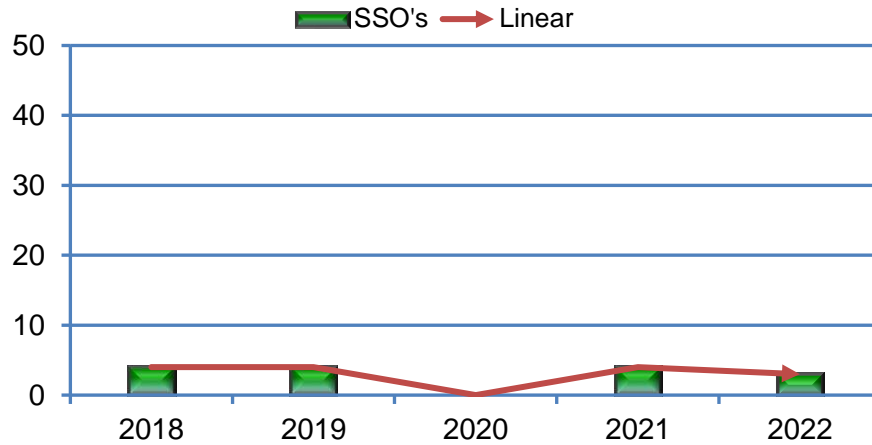
Analysis: Over the last twelve years the District has implemented a rigorous maintenance program to reduce and prevent future SSO's. The implementation of an aggressive cleaning coupled with the Root Foaming Program in 2010, has resulted in a reduction from 55-SSO's in 2008 to zero SSO's in 2020. There were three SSO's in 2022.This is the eighth consecutive year in the District's history to record single digit numbers. The 5-year average is 3 SSO's per year.

*Category 1 Sanitary Sewer Overflows (SSOs)
# of SSOs Per 100 miles Region 2 San Francisco Bay Area
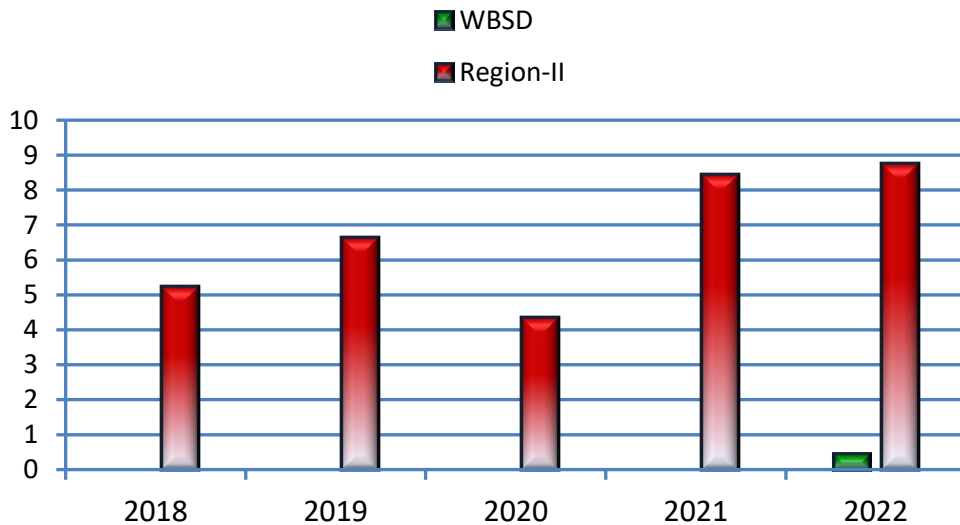
*Analysis: Region 2 had an average of 8.74, Category 1, SSO's per 100 miles of pipe in 2022.The District had 1 Category-1 SSO's in 2022, or 0.45 per 100 miles of pipe.

*Updated according to the data from the CIWQS website.

Category-2 SSO's: Are greater than 1,000 gallons, have been fully contained, recovered and returned to the sanitary sewer system. The chart below shows the number of Category 2 SSO's by the District compared to Region 2's sphere of influence.

*Category 2 Sanitary Sewer Overflows (SSOs) Per 100 Miles of pipe

■ WBSD
■ Region-II
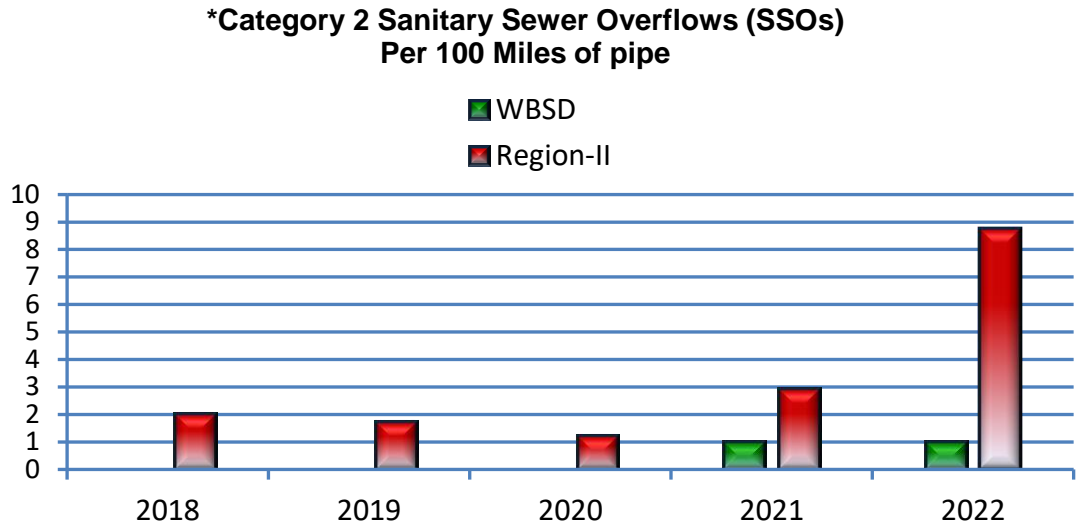
*Analysis: The District had zero. Category type 2 SSO's in 2022. Region 2 had an average of 2.39 Category 2 SSO's per 100 miles of pipe.

13

*Updated according to the data from the CIWQS website.

Category-3 SSO's: Are spills less than 1,000 gallons that have been fully contained, recovered and returned to the sanitary sewer system.

***Category 3 Sanitary Sewer Overflows (SSOs)
100 Miles Per pipe**
■WBSD
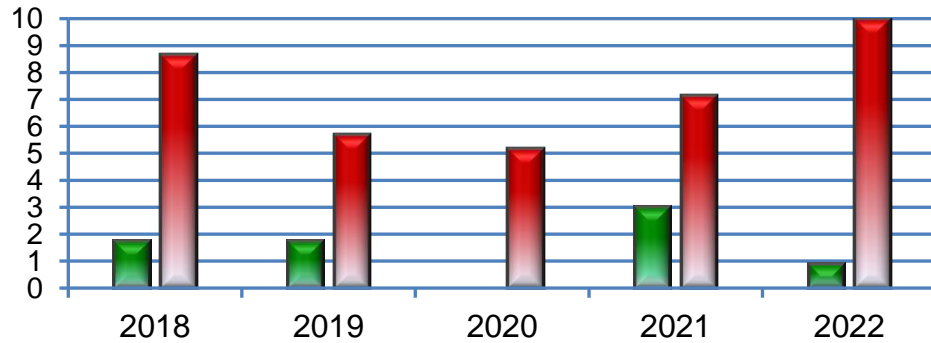
*Analysis: In 2022, the District reported 2 Category 3, or 0.87 per 100 miles of pipe. Region II had 9.99 Category 3 SSO's per 100 miles of Pipe. This success is due to the Root Foaming Program and increased maintenance by placing all 4, 6, 8 and 10- inch pipes (considered small) on a 12- month cleaning cycle, as well as using hydraulic root cutter with flexible finishing blades and using proofing skids on water jet nozzles to ensure a thorough cleaning of each line segment.

*Updated according to the data from the CIWQS website.

Volume of Sewage Overflows:

It is the District's goal to prevent Sanitary Sewer Overflows. However, when an SSO occurs, the District strives to respond quickly to prevent as much spillage as possible. This measure is the volume of sewage spilled gallons/1000 capita/yr

Net Volume of Sewage Overflow
Category 1 -Gallons per 1000 per capita
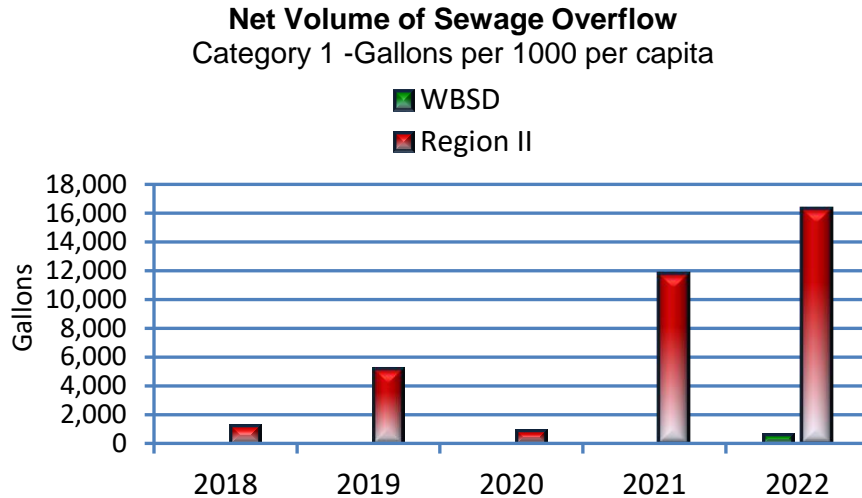
■ WBSD
■ Region II

Analysis: The District continue to perform well below the regional average for all Category 1, 2, and 3 SSO classifications. In 2022 the WBSD net volume for Category 2 was zero, and Region 2 was 181.11. The net volume for WBSD for Category 3 was 0.4, and Region 2 was 32.28.

The charts below reflect the average volume per SSO and the cost to mitigate each SSO. The District's SSO volumes have been low in volume due to our customers calling in when an SSO is found and our employees' rapid response to minimize the impact SSO's could have on creeks, streams, and public health.

It is interesting to note as we have fewer and fewer SSO's the average volume per spill may increase slightly.

WBSD Average Spill Volume in Gallons
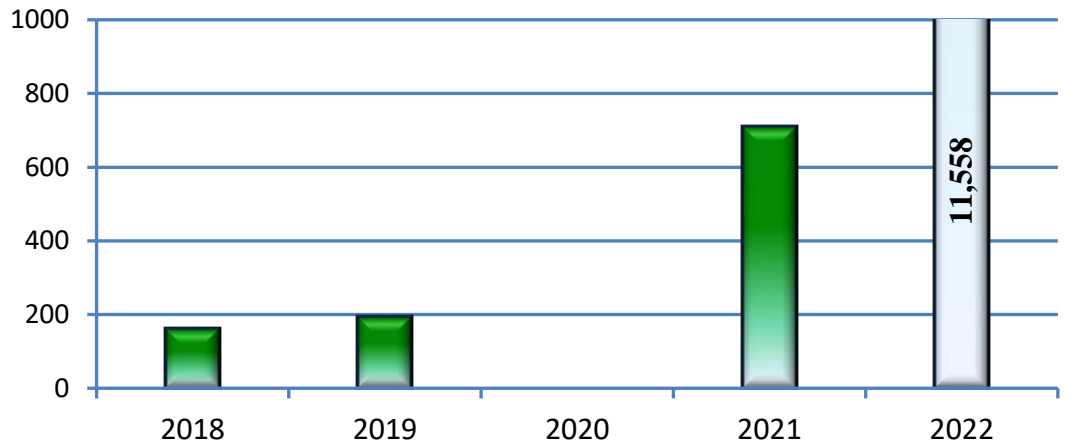
The average spill volume for 2022 was 11,558 gallons per SSO. Note: One spill in 2022 was caused by a pumping issue at the Menlo Park Pump Station during a large storm event which spiked the average spill volume.

WBSD Cost of Responding to SSO's Yearly
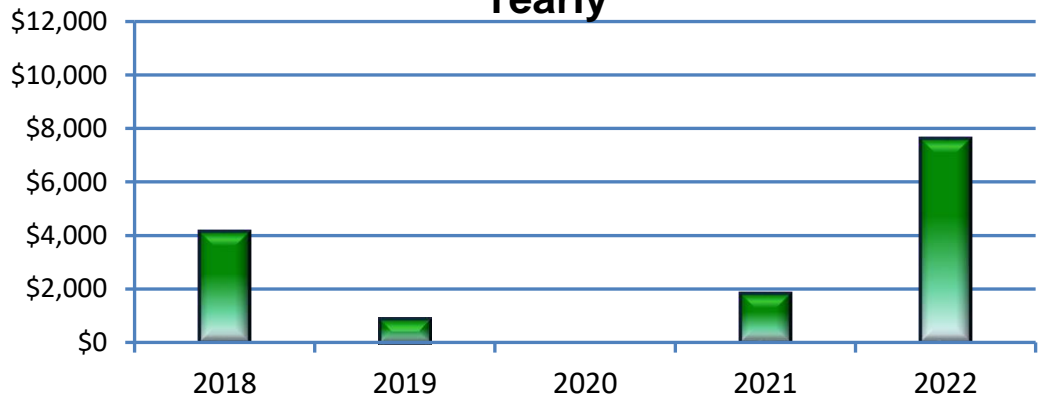
2. Product Quality Service Delivery
Product Quality Service Delivery assesses quality service based on District-established objectives and service level targets. It focuses on non-regulatory performance targets.

- **Plugged Main Lines:** This is the number of sewer mains that were plugged and needed immediate attention, but did not result in a Sanitary Sewer Overflow (SSO).

Plugged Main Lines
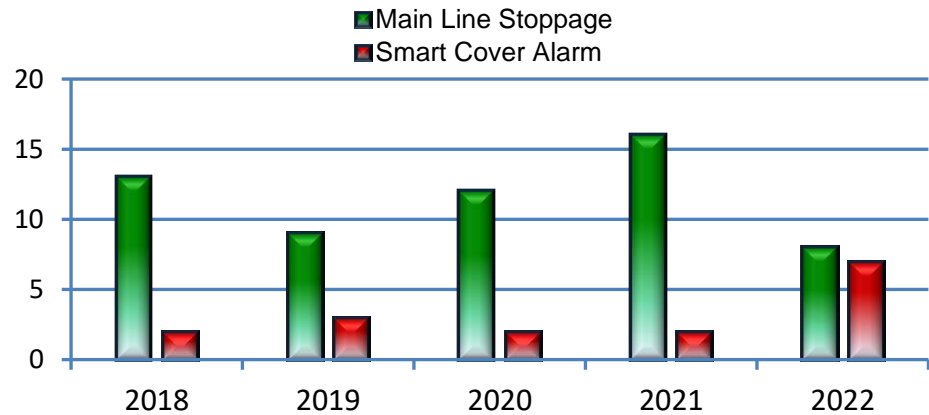
Analysis: The District has made significant improvements in this area and stoppages have dramatically been reduced. A downward trend is indicative of a well-focused maintenance program.

In 2022, the District found 8 plugged mainlines during routine maintenance, and received 7 Smart Cover Alarms. The Smart Cover alarms not only have prevented an SSO from occurring but have also provided an upward "Level Trend" report allowing staff to respond to potential blockages before they occur.

Smart covers have an electronic package attached to the underside of a manhole cover. When sewage levels rise beyond normal levels or if the manhole cover is opened, alarms are generated and sent to District personnel cell phones (typically within 30 seconds). In all instances our alarms employees are able to respond quickly and avert potential SSO's.

3. Mainline Cleaning Quality Control Monthly Assessments:
CCTV inspections for cleaning assessments were performed on a monthly basis, lines cleaned during Regular PM, and High Frequency PM cleaning cycles. Lines not meeting the standard receive additional cleaning and/or the cleaning methods are adjusted to ensure more efficient cleaning.

Mainline Cleaning Quality Control Monthly Assessments
% of lines cleaned thoroughly
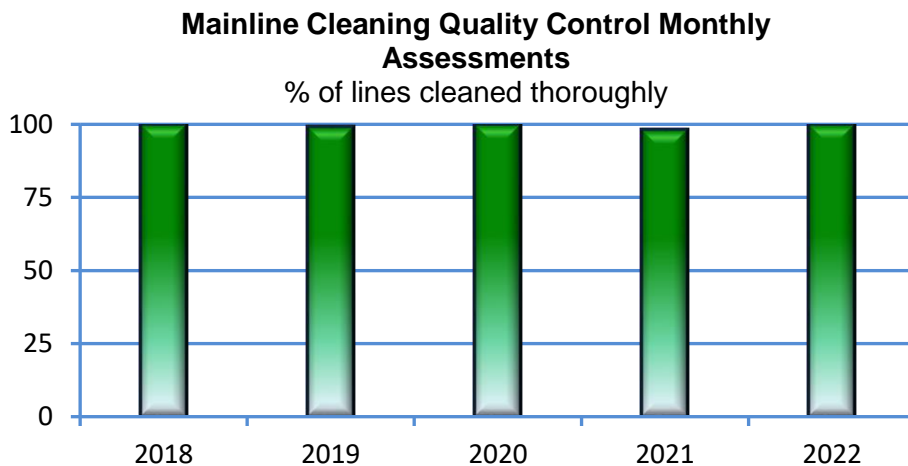
Analysis: In 2011 mainline cleaning quality control and monthly assessments were implemented. In 2014 we surveyed a total of 60 line segments, and the percentage cleaned thoroughly was 83%. In 2015 we increased the amount of line segments surveyed for quality control from 5 to 6 per month. We also introduced the use of "proofing skids" on all hydro flush cleaners. Proofing skids are placed between the end of the cleaning hose and the cleaning nozzle to ensure that the roots or grease in the pipe is cleaned, at a minimum, to the diameter of the proofing skid. In 2020 the District had 100% quality control. Proofing skids and hydraulic root saw have been the best contributor to these results, coupled with proper maintenance worker training. In 2021, 98% of the lines passed the quality control assessments. In 2022 100% of the lines passed quality control assessment.

1. Customer Service

Customer Service assesses the service rates experience by the District. Currently, the District responds to Customer Service that are received through customer surveys, in-person or via telephone or email.

- **District Service Calls for Laterals:** The District uses the number of service calls for laterals as a proxy for determining customer service, as these problems lead to backups. The goal is to see a downward trend in this number.

Service Calls to District for Laterals
# of service calls

Legend:
- Day Time
- After Hours
- Weekends

Year	Day Time	After Hours	Weekends
2018	~700	~155	~255
2019	~610	~175	~205
2020	~655	~145	~180
2021	~590	~135	~185
2022	~470	~125	~160
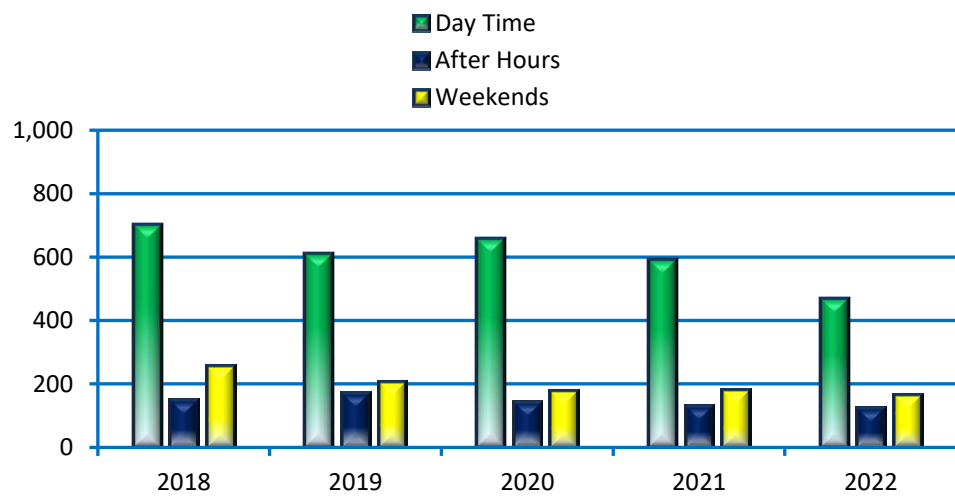
Analysis: Over the past several years, the District has focused on preventative maintenance, partially in an effort to reduce these types of call outs. In 2018 weekend service calls were up slightly in part due to increased awareness by customers to "Call Us First." Although, the District does not own the laterals, an effort was made in 2019 to reduce the number of lateral service calls due to stoppages, by reassessing the way the District crews clean the private laterals. In 2022, daytime and after hours service calls are trending lower.

2. Customer Service Delivery
This is a measure of the District's own service level targets as they relate to customer service.

- **Service Call Response Time:** The District maintains a goal of responding to service calls for sewer backups within 45 minutes of the call. This measure shows the average response time within 45 minutes.

Service Call Response Time
in minutes

- Work Hours (WH)
- After Hours (Weekday)
- After Hours (Weekend)
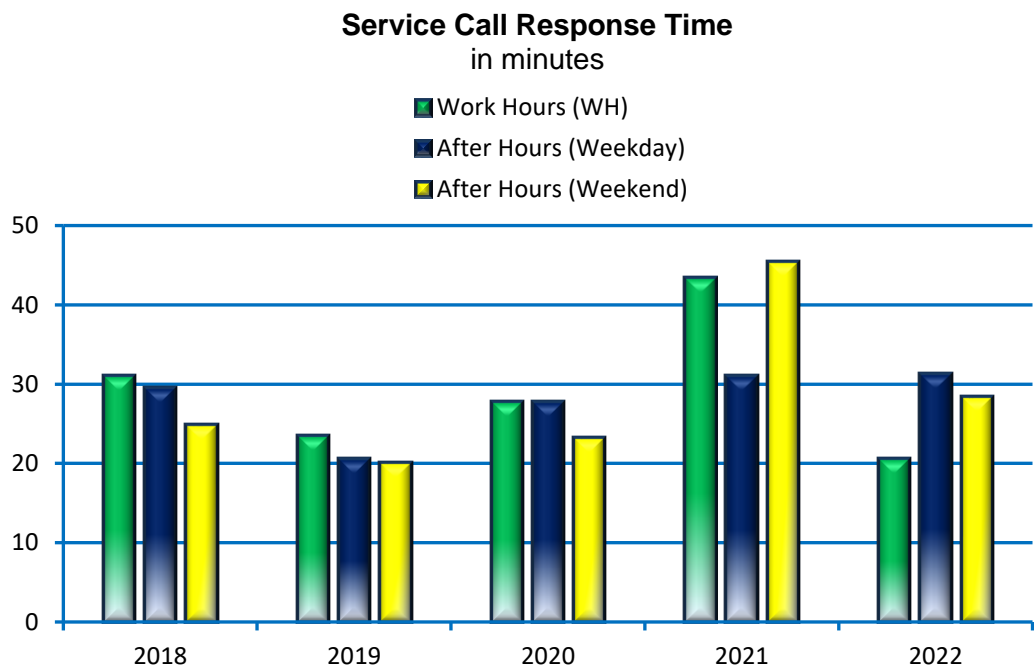
Analysis: The District began tracking the response time requirement, in 2012. The service call response time is facing an ever-increasing challenge due to increased traffic in the area since Facebook has begun expanding their employee base as well as other business in the District.   Response time was down in 2016 due to the fewer service calls and new on-call employees living closer to the District. In 2019 response time was reduced again, this time to the lowest response time on record. In 2021 the District continued to use the Vallombrosa Center in Menlo Park for some of its on call personnel which assisted in keeping the response time low. In 2021 the response time increased slightly because of the newer, less experienced staff. The response time decreased in 2022, due to the continued use of Vallombrosa Center and the a more experienced staff.

- **SSO Response Time:** In 2008 the State Water Board amended the WDR by requiring a "2-Hour Reporting time frame" on SSO's impacting a water body. To ensure the District met this requirement, staff members living within a 35 mile radius from the District were allowed to take the District "Response" vehicle home, allowing them to be on sire within 45 minutes, mitigate the SSO, call in addition resources if needed and complete the operation within the 2 hours reporting requirement of the WDR.

Average Reponse Time to Mitigate SSOs
(After hours - Minutes)

■ Arrival Time
■ Line Cleared
■ Completed
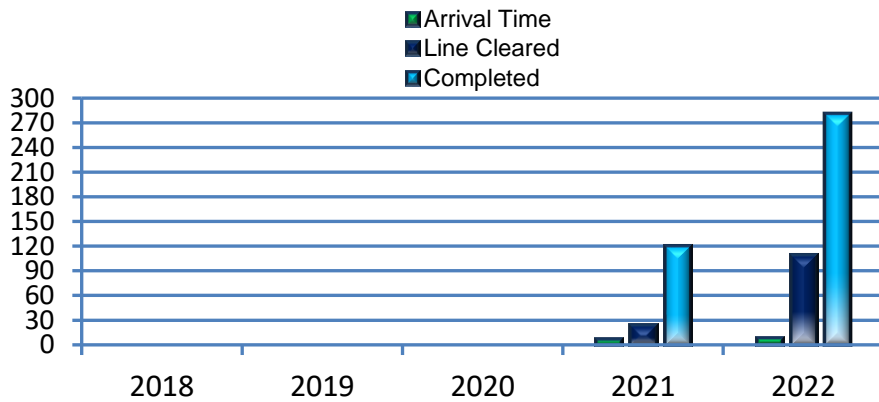
Average Response Time to Mitigate SSOs
(Regular Hours - Minutes)

■ Arrival Time
■ Line Cleared
■ Completed
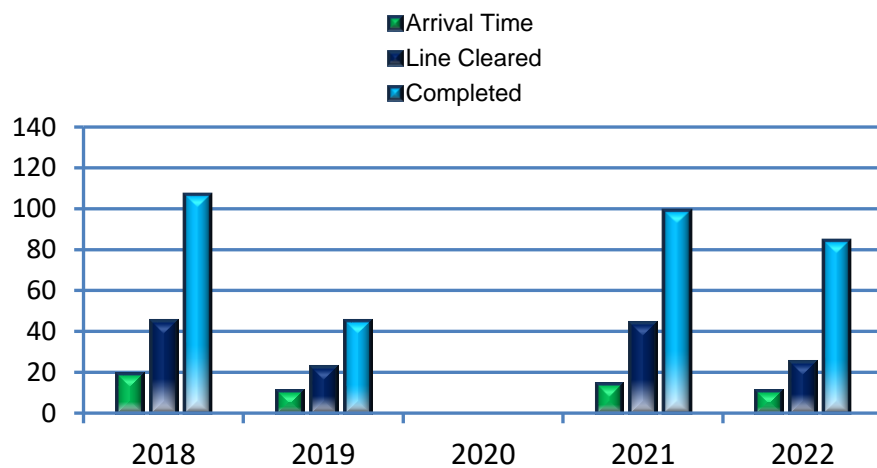
Analysis: Staff has been able to arrive on site well within the District's standard 45 minute window. Average arrival time during regular hours in 2022 for after-hours was 9 min, and 11 min. for regular working hours.

3. Development Review Response Time: The District maintains a goal of completing review of development within 30 days for receipt of the plans. This chart shows the percentage of plans that were reviewed and returned within that goal.

Development Review Response Time
% of plans reviewed within 30 days
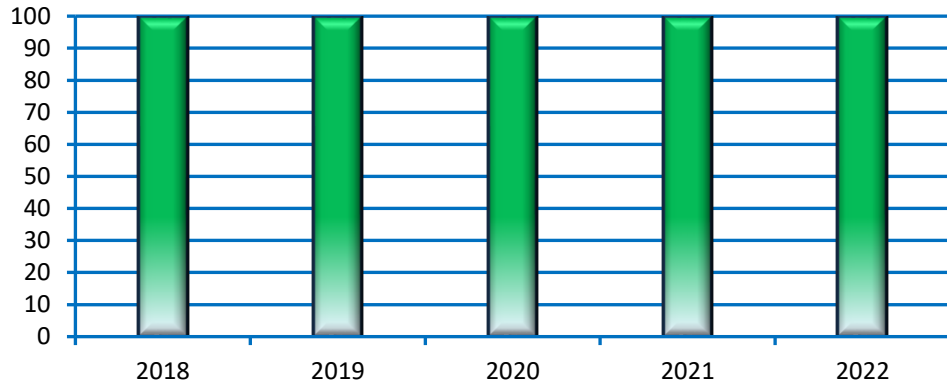
Analysis: Over the past five years that this data was captured, the percentage of plans reviewed within the goal of 30 calendar days had a decrease due to the increase of development in the area. The Department has also established and strengthened expectations among staff regarding the 30-day goal.   In 2015 there was a slight decline in the percentage of plans reviewed in 30 days due to the increased number of plans submitted and the increased duties of the Projects Manager. From 2019 to 2022 the percent was up to 100% due to the assistance from the Engineering Consulta

3. Customer Satisfaction

This is an overarching customer satisfaction measure based on requested customer feedback (surveys), not calls received or internal customer satisfaction service level commitments.

- **Customer Satisfaction**: This is the measure of how well District staff performed according to the customer who was directly impacted by that work.

Customer Survey Results
% of surveys rated "Excellent" or "Above Average"
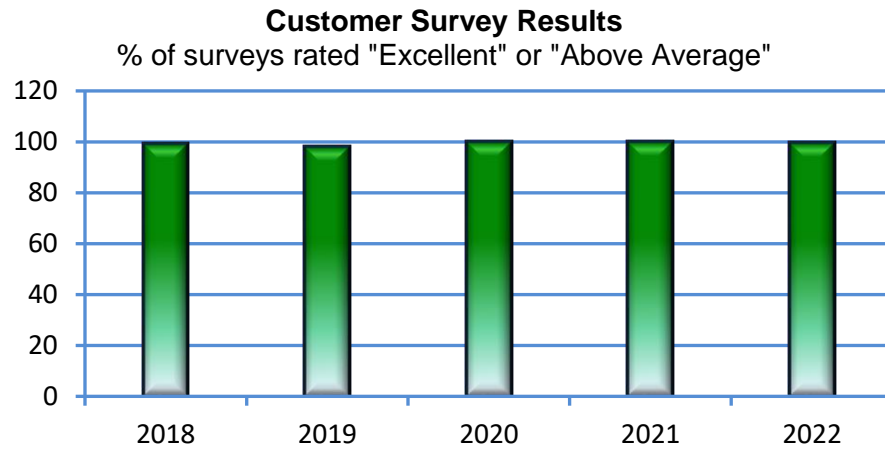
Analysis: Customer satisfaction is a measurement of customer survey results on an annual basis over the past 5 years. The goal is to achieve greater than 90% of the surveys received rating the District Excellent or Above Average. The goal was achieved for all the previous 5 years. In 2010 we began counting calls that we responded to where the home was on the Main Line Only Service List (MLO). This resulted in lower overall scores in recent years but is a more honest reflection of customer satisfaction. 2014 results are higher than previous years coming in at 97.64%. In 2015 the District rated at 98.29% up slightly from 2014. In 2018 customer survey results measured 99% Excellent or Above Average. In 2022 99.7% measured Excellent or Above Average.

1. Employee Retention and Satisfaction
*This measure gauges the District's progress toward developing and
maintaining a competent and stable workforce.*

- **Experience Turnover Rate**: This is the percentage of years that retiring
  employees worked at the District compared to the total number of years of
  experience for all employees. It measures the amount of experience lost in
  any given year due to retirements at the District.

Experience Turnover Rate
% of experience lost each year
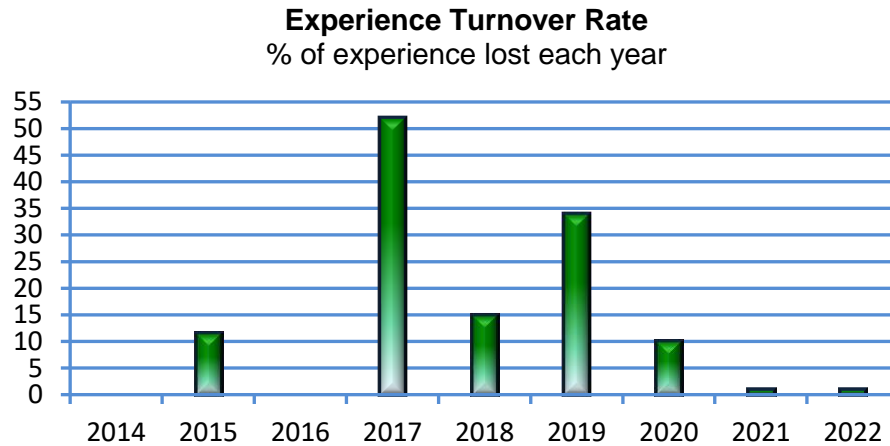
Analysis: Most employees who left employment from the District would do
so through retirement. In 2008, there were three retirements of long-term
employees, two of which were known and planned for, and one unplanned
retirement that contributed to a 28% loss in District experience. In 2011, the
two retirements were planned for and known. In 2012-2014 there were no
retirements.   In 2015 one employee retired. In 2016 there were no
retirements. Anticipated retirements; have been addressed through the
succession plan implemented in 2015.   For 2016 the District began to include
turnover other than retirements also. In 2017 two District employees retired
with 52 years of experience. In 2018 one District employee retired with 28
years of service. In 2019 two employees retired with 34 years of experience
and in 2020 the District Manager retired with 10 years of West Bay
experience. In 2021 the District saw one retirement in the Maintenance
Department. In 2022 there was 1 additional retirement.

The experience turnover rate from retirements at the District is not a controllable measure, and as such this is not a performance measure as much as it's a data set that helps to inform whether there are trends in the workforce to which management needs to respond. Eligible and anticipated retirements for the next 5 years are as follows:

Eligible and Anticipated Retirements
# of employees

■ Eligible
■ Anticipated
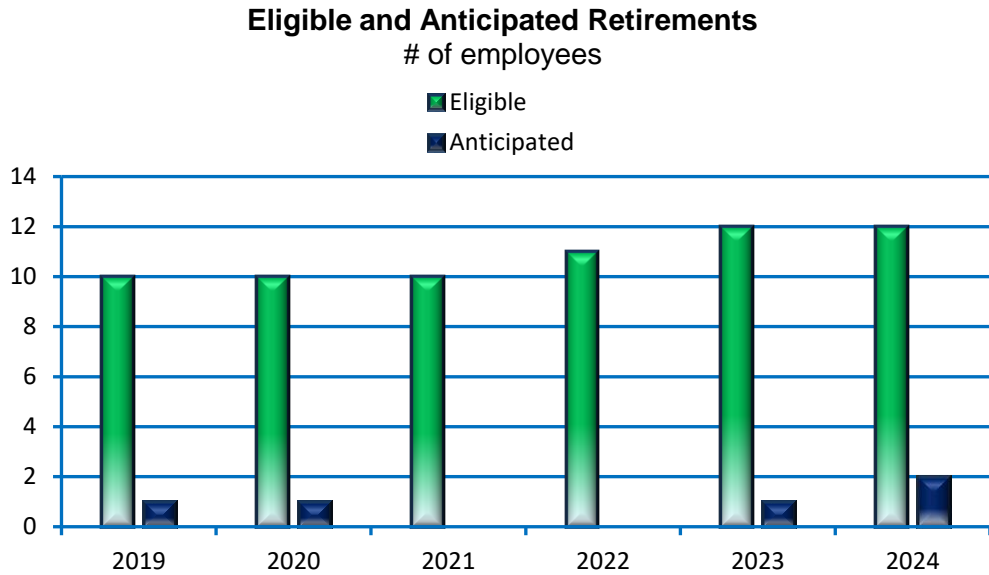
Analysis: There is nothing in the data to suggest that employees are retiring faster than would normally be expected.

- **Employee Survey Response**: The following charts show the response to three questions asked during an annual employee survey. These questions are designed to gauge employee satisfaction. The first survey was conducted in 2011.

"I feel that I am valued by my work unit."
% of employees responding "Agree" or "Strongly Agree"
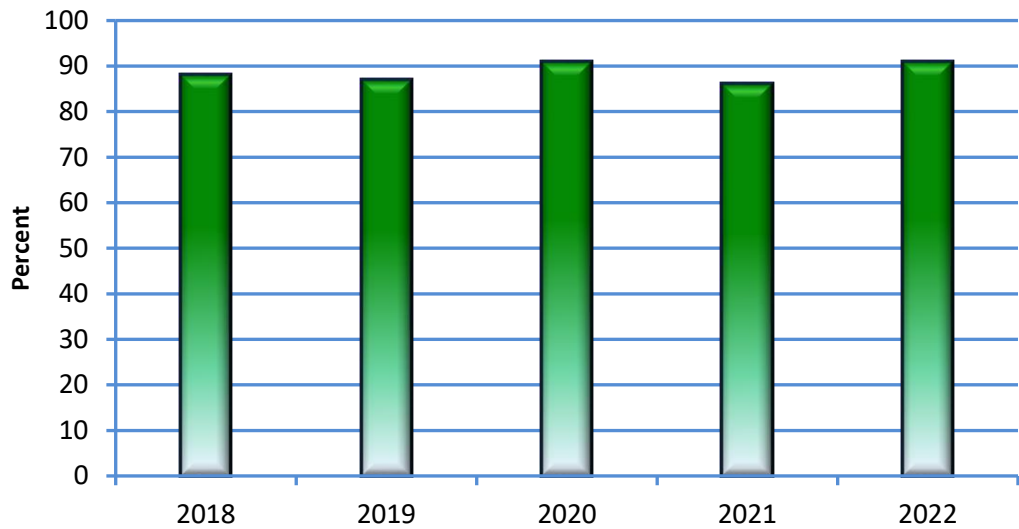
"I tell others that WBSD is a great place in which to work."
% of employees responding "Agree" or "Strongly Agree"
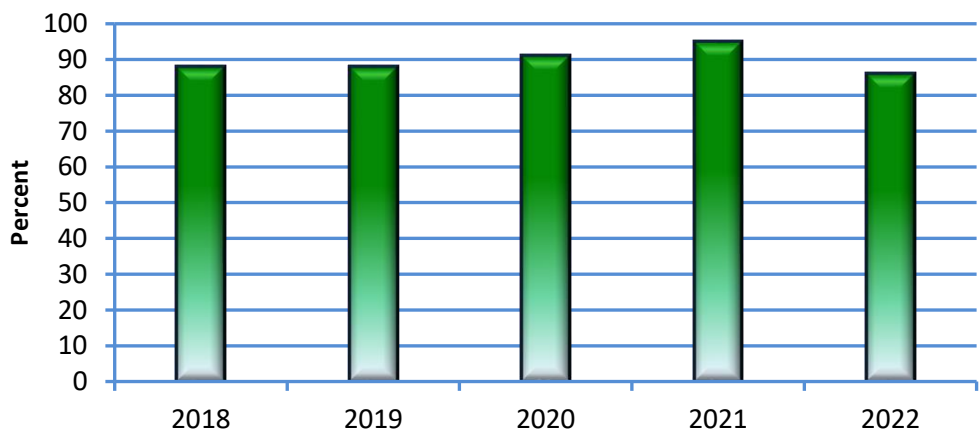
"I will not look for work outside the District within the next year."
% of employees responding "Agree" or "Strongly Agree"
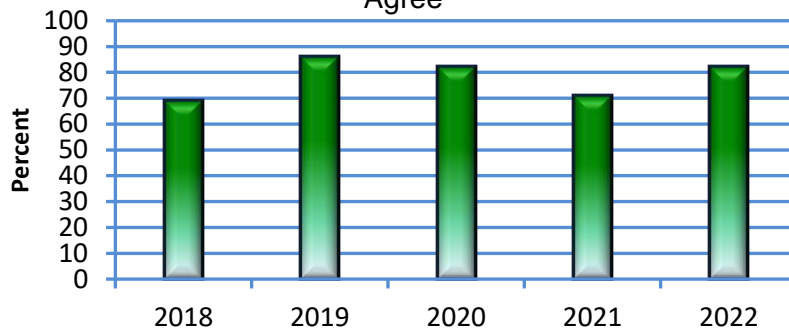
Analysis: 2011 was the first time the District surveyed its employees on these three attributes. They were graded "watch" (orange diamond) only because of the lack of data to determine whether there is an upward downward or stable trend at the District in the area of employee retention and satisfaction. In 2014 responses increased positively "telling others WBSD is a great place to work" and "I will not look for work outside the District within the next year." In 2015 we saw an over 10% decrease in this survey possibly due to the on-going union negotiations and longer travel times to the District. The 2016 results indicate employee satisfaction with a positive increase of 10% compared to the previous year. In 2022 82% of staff responded, "I will not look for work outside the District within the next year".

2. Management of Core Competencies

This measure assesses the District's investment in and progress toward strengthening and maintaining employee core competencies.

- **Vocational Training**: The District has focused intently on providing vocational training and certification that would provide recognition of levels of competence of certificate holders. The training program has resulted in approximately a 60% increase in certificate holders and many of the certificate holders have progressed in the grade level of the certificates (i.e. from Grade I to Grade II and so on) thus increasing their vocational proficiency. Additionally, staff has assisted the Menlo Park Fire District in trench rescue training (a 24 hour long certified course in 2012 and 2015), and provides training to members of their Local Section and the CWEA on a regular basis. The District has 96% or 22 of 23 Field/Maintenance/Water Quality employees certified in CWEA that are significantly involved with system operations.

- **Management Training**: Management receives increased training on policies, regulations, and Coaching and Mentoring techniques. New and revised policies are developed collaboratively with management staff and affected staff trained on the changes. Regulation updates are regularly presented and discussed in monthly management meetings and any required changes in procedures are planned for by management staff and implemented within the work teams. The District Manager has an ongoing program to work with the management team to incorporate Coaching and Mentoring techniques in their management style. Techniques such as employing SMART Goals, providing substantial Performance Reviews, Constructive Feedback, Tutoring with Questions, Performance Improvement Plans, and more are taught and implemented. The District sent 2 employees to first line supervisor training management topics such as evaluations, discipline, harassment, etc. for 3 days, 1 day per month.

The District implemented a succession plan in 2015, and revised in 2018, that requires each manager to work on training subordinates to perform duties that would prepare them for promotional opportunities. This is one component of the succession plan that will help the District in making smooth transitions when senior employees retire without loss of institutional knowledge while enhancing employee retention.

The District also works to enhance employee's computer skills to help stay abreast of software and technology changes. This gives the District a business advantage in manipulating, acquiring, storing and interpreting data, as well as video information and GIS mapping. The total training hours graph includes time in formal computer training sessions and CWEA.

- **Total Training Hours**: This is the total training hours provided in-house and participating off-site at CWEA Vocational Training programs to employees of the District.

Safety Training Class Hours
% of hours per employee per year

■ In House Hours
■ Offsite Hours
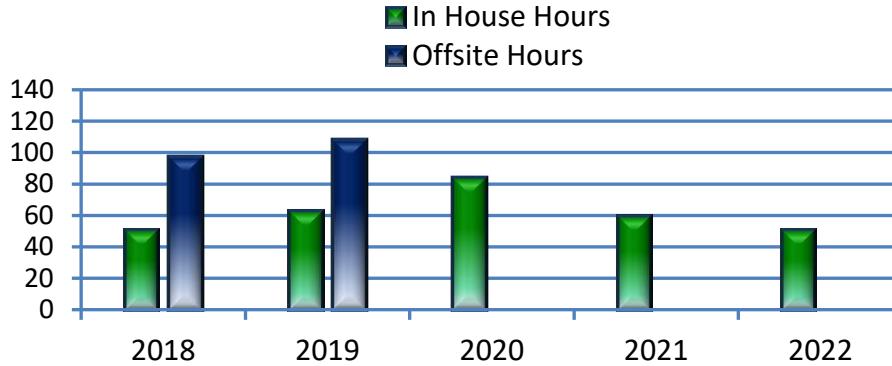
Analysis: Training hours now include hours of training performed or made available through outside associations such as California Water Environment Association. The total number of training hours will also increase in years with first year employees and then decrease slightly as they become more proficient. Field crews were sent to approximately 51 hours of safety training in, however, All were on-site, via zoom due to the COVID-19 Pandemic.

3. Workforce Succession Preparedness

This measure assesses the District's long-term workforce succession planning efforts to ensure critical skills and knowledge are retained and enhanced over time, particularly in light of anticipated retirement in future years. Focus is on preparing for workforce succession, including continued training and leadership development.

- **Succession Planning**: Percentage of key positions covered by long-term workforce succession planning.

Succession planning includes many facets, typical indicators to watch for are employee(s) (EE's) years of experience with the District, vocational certificates, college education levels, EE's with career development goals, and EE's feeling of readiness for advancement.

Succession Planning
% of EE with plan
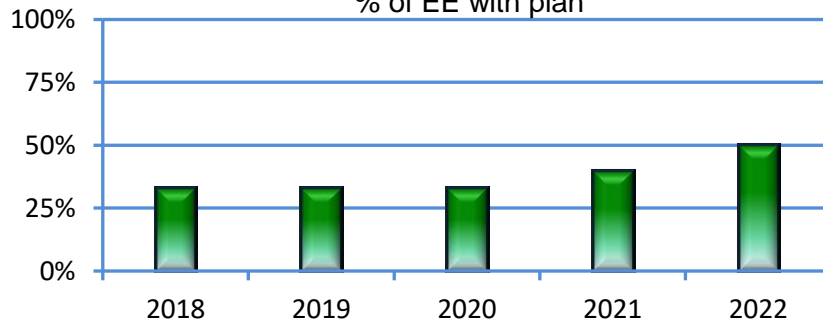
While assessing the succession plan will be somewhat subjective, overall the succession plan contained several positive components. One component of the succession plan was to recruit and hire replacement staff for key positions such as the Operations Superintendent and Pump Facility and Field Supervisor before the incumbents retired so as not to lose institutional knowledge. In 2020 the Water Quality Manager and the Operation Superintendent participated in succession planning.

Cross training 2 maintenance workers to perform Construction Inspector duties, FOG inspections and having 1 other employee trained and certified as Safety Specialists in 2012, has significantly enhanced our succession planning goal. This cross training led to recruitment of an in-house employee as the new Construction Inspector. In 2016 a maintenance worker was cross trained in pump station maintenance. The worker was selected based on his interest, aptitude, and his proximity to the District. Seven CWEA certificates were achieved in 2014. In 2016, four CWEA Certificates were achieved. In 2016 the District created a new chart listing CWEA certificates earned by grades. In 2017 17 staff out of 28 hold certificates. In 2017 we lost two grade 3 to other employers. We lost two experienced grade 1 and 2's due to retirements, but we had several new employees obtain a grade 1 certificates. In 2018 we lost one grade 2 to an outside agency; 3 employees require CWEA certification out of 21 field and maintenance staff. As of December 2022, 22 of the 23 employees who are required to be certified hold at least a Grade 1.

CWEA Certificates
% of employees with certificates

Year	%
2018	~82
2019	~90
2020	~92
2021	~100
2022	~97
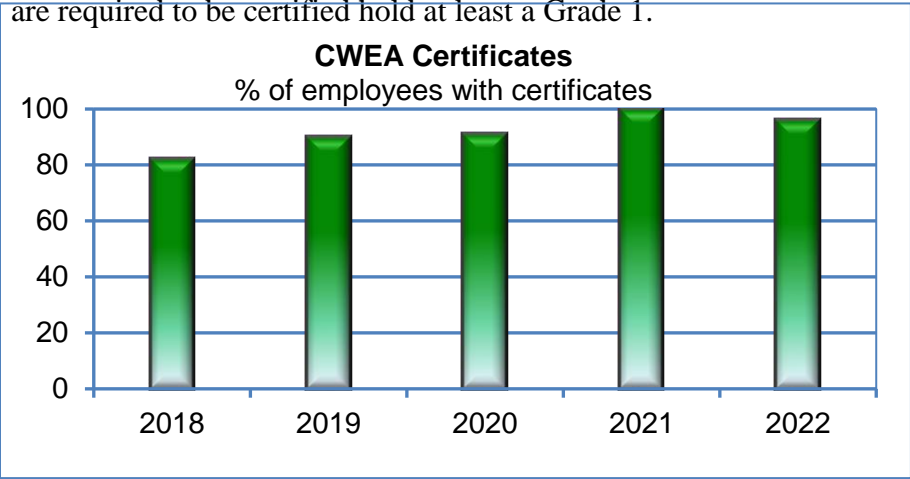
Employee and Leadership Development

CWEA Grades
of CWEA Grades held by employees
Grade 1 ■ Grade 2 ■ Grade 3 ■ Grade 4
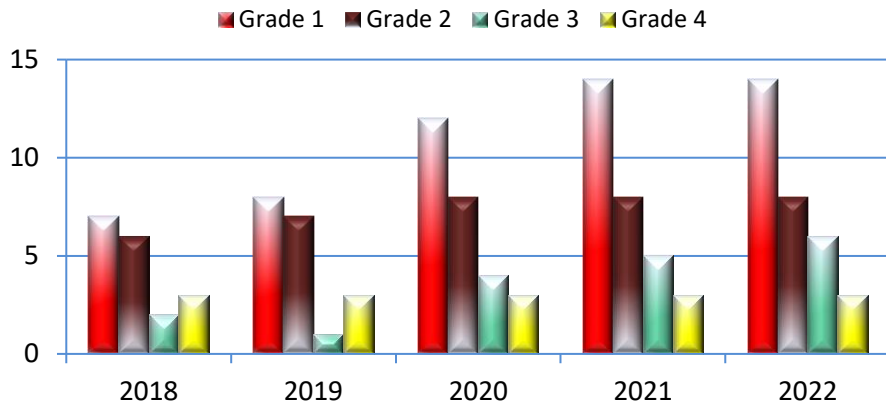
Employee and Leadership Development

5 or More Years of Service
of employees with five years of service with WBSD
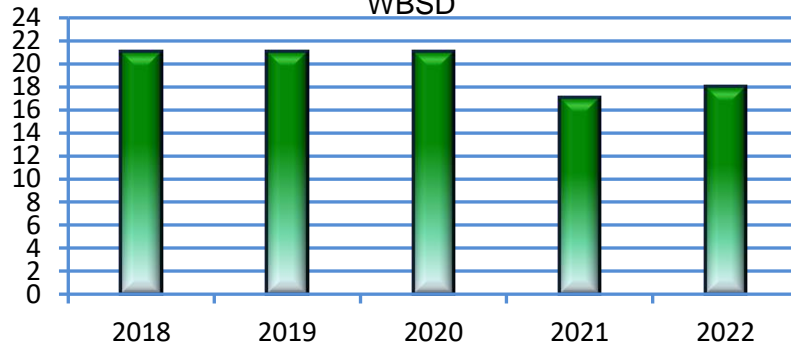
College Education
of employees with two and four year degrees

■ 2 Year

■ 4 Year

Career Development Goals
% of employees with career/professional development goals

"I feel ready for my next promotional level or position."
% of employees responding "agree" or "strongly agree"
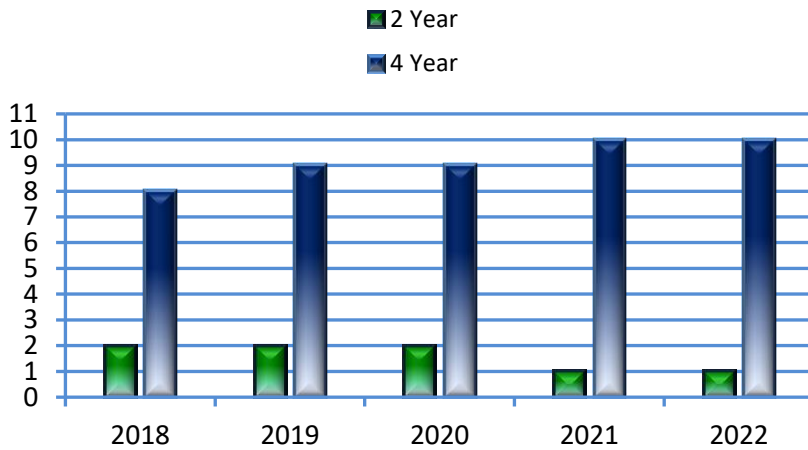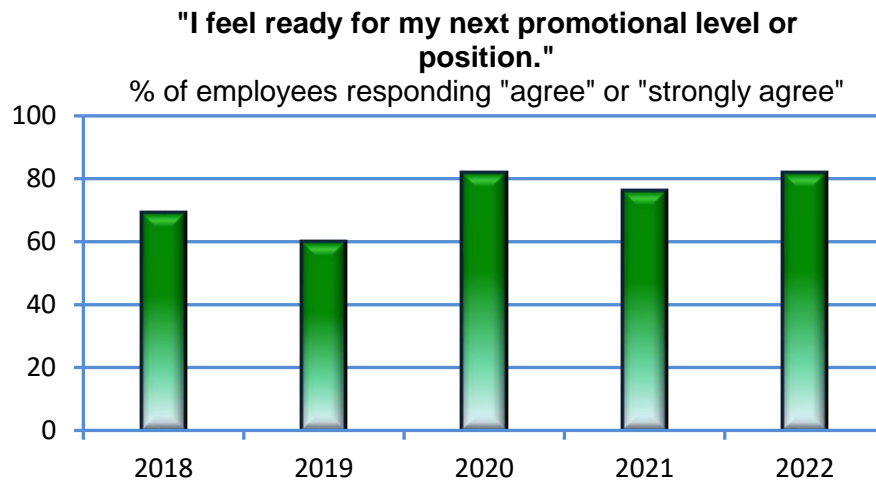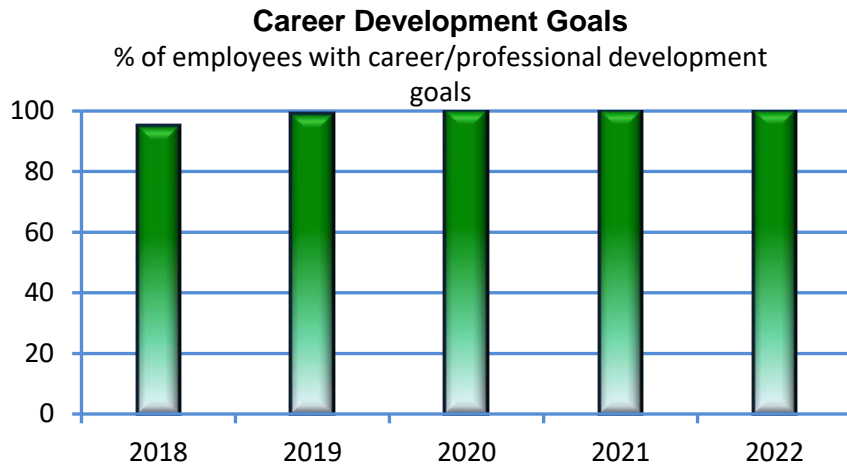
Analysis: In 2010, management implemented a new performance evaluation form to include written goals and objectives written collaboratively by the employee and their supervisors to set short term and long term goals. Responses for 2012 were provided by employees in the employee survey and offered options to disagree. 2013 and 2014 data has held steady with 2012 data. In 2015 there was an increase in the area possibly due to the increased opportunities for employees to cross-train in other job categories. In 2016 and 2017 maintenance department employees were also cross-trained in CCTV and construction inspection. In 2018 staff were trained in the source control and construction and rehabilitation departments. In 2020 two new employees were trained in pump maintenance. One employee was promoted to Pump Facility Supervisor and another was promoted to Pump Station Mechanic. In 2022, a maintenance worker was promoted to pump maintenance mechanic. In addition, the pump maintenance mechanic was promoted Field Supervisor. Also in 2022 a new, Utility Worker position was created and filled.

Resource Optimization: This measurement examines resources used efficiently, including labor, supplies & service. The District tracks such items as:

- Cost of Cleaning Sewer Mains Per Foot: The District's burdened rate is approximately $0.49 per foot compared to a contracted rate of $0.88 per foot.
- Labor Savings Ideas Put In Use: The District has realized savings from changing cleaning routes; by focusing on area cleaning (or basin by basin cleaning) on a 3 year schedule and localizing "High Frequency Cleaning" to areas to minimize mobilization and travel time.
- Fuel Savings: In 2015 fuel usage decreased to a 5-year low to 12,612 gallons due to rescheduled our small diameter pipe cleaning, so the crew is driving even less than they were before with our new more aggressive schedule. In 2016 fuel usage increased to 15,627 gallons due to more aggressive cleaning schedules and the Los Altos Hills and the Town of Woodside contracts. In 2017 fuel usage was 17,098 gallons. The increase may be due to more cleaning and T.V. efforts in Los Altos Hills and an increase in USA calls for markings. In 2018 fuel usage was 17,427. Fuel usage in 2019 was 18, 201 gallons. From 2020 to 2022 fuel use was up due to commuter benefit program which had 9 vehicles on the road. The increase was due to participant of the commute program commuting via district vehicles because the train schedule was limited during the COVID-19 pandemic. The commuter program is now back to normal and the District should realize a decrease in fuel usage in the coming year.

Total Fuel Used
(Used in Gallons)
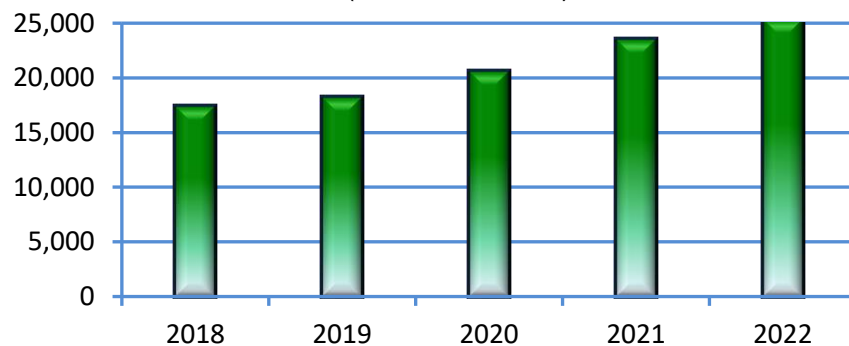
- <u>Savings in Purchases:</u> Co-operative purchases have resulted in significant savings, including:

Vehicle Unit No.	*M.S.R.P. (Price Inc. Tax & Delivery)	Actual State or HGAC Cost	Savings
Unit 207 – Proj. Mgr.	$40,270	$36,589	$3,681
Unit 202 – Asst. Supt. F250	$45,158	$32,226	$12,932
Unit 213 Transit	$26,761	$24,953	$1,826
Backhoe	$126,843	$121,691	$5,152
Unit 208 Service Truck	$63,800	$53,00	$7,500
Unit 216 CCTV	$350,000	$265,8000	$84,200
Unit 205 Aquatec	$369,000	$334,768	$34,232
Unit 214- Source Control	$44,000	$29,000	$15,000
Unit 217- 3Ton Pump Truck	$41,000	$31,000	$10,000
Unit 210 -5Ton Pump Truck	$48,000	$47,000	$1,000
Unit 206 Superintendent	$45,000	$30,000	$15,000
Unit 220- F550 Flatbed	$59,000	$54,000	$5,000
Unit 220 – Jetter only	$53,500	$45,000	$8,500
K2 Easement Camera	$90,500	$60,000	$30,500
Unit 211 – Inspector Truck	$36,850	$31,721	$5,129
Unit 221 – Pipehunter	$263,943	$242,352	$21,591
Unit 224 – F250 Pickup	$42,270	$34,801	$7,496
Unit 206 – Supt. Pick Up	$50,636	$46,794	$3,961
Unit 208 – Service Truck	$51,353	$42,801	$8,552
Unit 221 – ½ Jetter Unit	$260,854	$213,410	$47,444
Unit 228 – ½ F550 US Jetter	$171,460.92	$131,500.22	$39,960.70

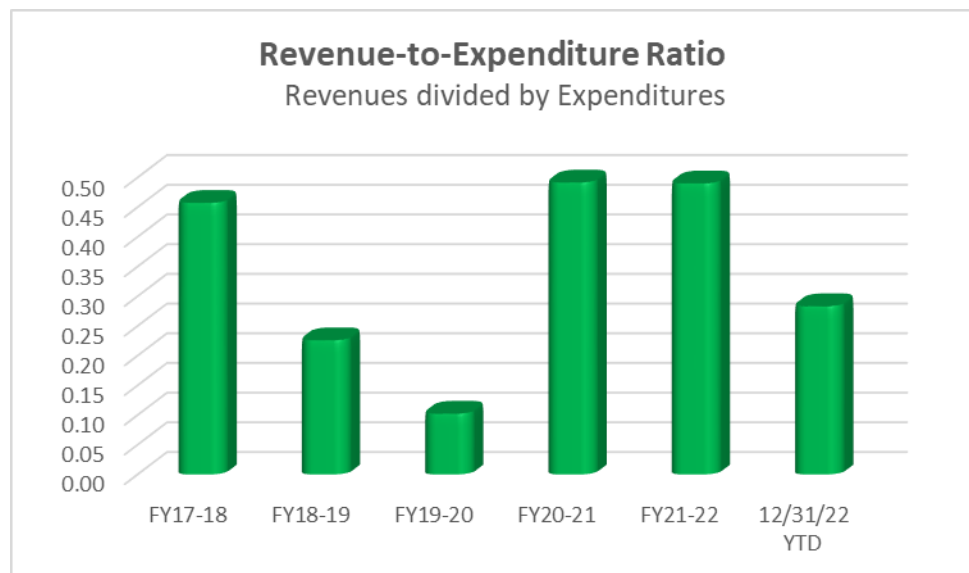MSRP was taken from the Ford website and vendor's retail prices.

Analysis: The District makes a considerable effort to make large purchases through the Bid Process or by using co-operatives to make sure the District obtains the best price for its necessary products and equipment. In 2019 Units 206, 208 and 221were replaced. A total of $59,957 was saved by using the STATE bid cooperative. In 2021, $39,960 was saved.

1. Budget Management Effectiveness
This measure includes commonly used financial performance indicators to show the short term health and long term financial trends of the District.

- **Revenue-to-Expenditure Ratio**: This ratio is total revenue from all sources divided by total expenditures, including debt service, but excluding depreciation, minus 1. This ratio shows the annual impact to the District's Net Position. A ratio below 0 means that there were more expenses than revenues in that year, while a number above 0 means there was more revenue than expenditures. The ratio can fluctuate above and below 0, depending on the financial plan for the year, but a long-term trend of expenditures greater than revenues (a ratio of less than 0) is problematic and indicative that reserves are being used to finance the ongoing expenses of the District and that a course correction is likely.

Revenue-to-Expenditure Ratio
Revenues divided by Expenditures

	FY17-18	FY18-19	FY19-20	FY20-21	FY21-22	12/31/22 YTD
Ratio	0.48	0.24	0.11	0.50	0.50	0.30

Analysis: Steady increases in sewer service fees over the past 5 years have offset increases in operating expenses. The Revenue to Expenditure Ratios were stable through 2017-18, decreasing by half in 2018-19 and again in 2019-20, due to cash paid in lieu of increasing debt for the 2018 Bond with Silicon Valley Clean Water (SVCW). The District paid an additional $6.6 million in 2018-19 and $6.416 in 2019-20, reducing the Revenue to Expenditure Ratio to 0.23 and 0.13, respectively in these two years. In 2020-21 and 2021-22, the ratio increased to 0.49, slightly higher than the payout years. Through 12/31/22, the ratio is 0.28.

- **Capital Expenses Compared to Operating Expenses**: Capital expenses as a percentage of operating expenses (less depreciation) is a measure that has meaning only when compared against itself over time, or compared to other similar agencies. An upward trend is indicative of an expansion period or a period focused on renewal and replacement of capital assets, while a downward trend is indicative of decreased growth or less investment in system renewal and replacement.

Capital Expenses as a Percentage of Operating Expenses
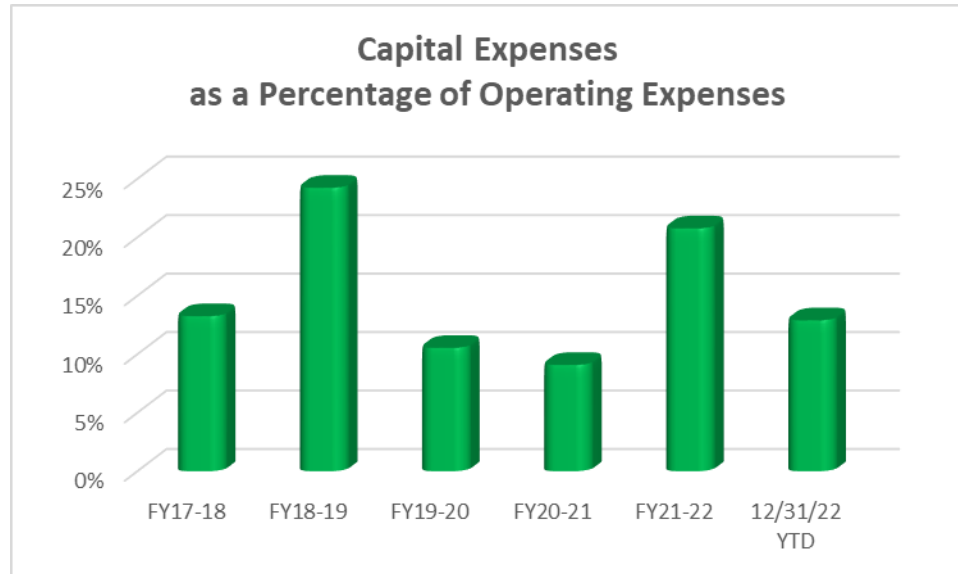
Analysis: More study is necessary to determine what an appropriate "baseline" or "target" number should be, although the District currently maintains a Capital Improvement Plan that shows $80 million over 10 years for pipeline replacement and rehabilitation alone. Annual capital expenditures have been low, due to pandemic shutdowns since 2020. The District plans on increasing capital expenditures in the next few years to complete projects carried over during this slowdown. A total of $36.7 million has been spent during the past 5 years on capital equipment and projects.

Note: Capital expenditures exclude the $22.6 million that the District has spent on the recycled water treatment plant for Sharon Heights Golf & Country Club. SHGCC will be responsible for the debt service payments on the SRF loan that was acquired to fund the project through an agreement with the District.

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• **Debt Service Coverage Ratio**: The ratio is a measure of all revenue sources minus all operating expenses (excluding depreciation and debt service) divided by total debt service.

Debt Service Coverage Ratio
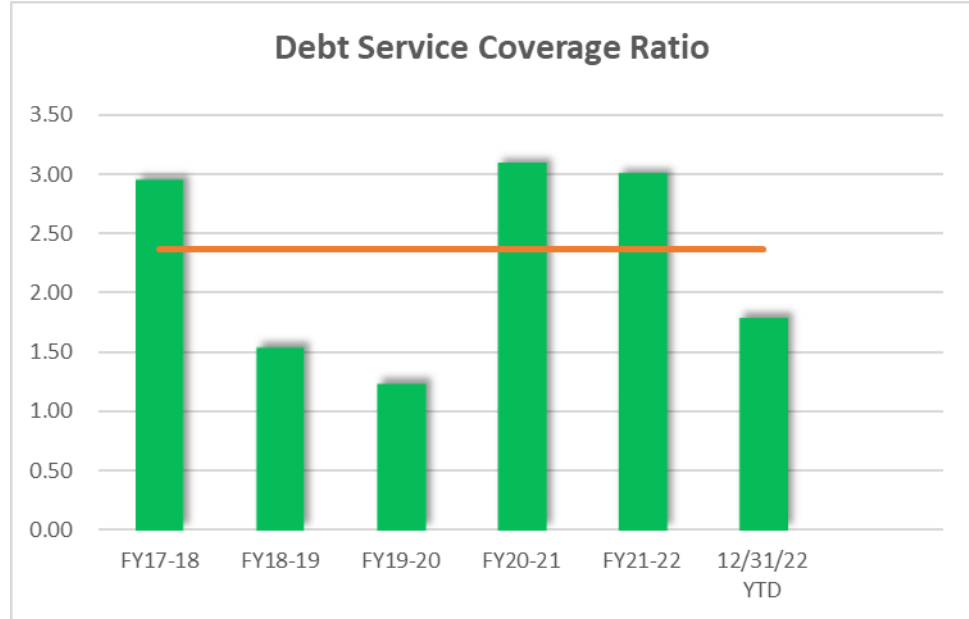
Analysis: The District carries no debt for General Operations. the District has a Recycle Water Facility SRF loan, which is paid through a long-term agreement with Sharon Heights Golf & Country Club (SHGCC). As a member of Silicon Valley Clean Water (SVCW), a JPA for wastewater treatment, the District is obligated to pay its share of debt for bonds and SRF loans secured by SVCW. Using the District's share of SVCW debt service, the District has a 184% average ratio over the prior five years.

The District's $17 million SRF loan for Sharon Heights Recycled Water Treatment Plant, is pre-funded each year by SHGCC, which also pay the operation and maintenance costs in exchange for recycled water for irrigating the golf course.

2. Financial Procedure Integrity
These are questions that gauge the presence of "best practices" and internal processes to ensure a high level of financial management integrity.

- **Does the District have financial accounting policies and procedures? (Y/N)**

Yes. The District reviews and revises policies, as necessary. The District updates accounting procedures, as they change to improve efficiencies.

- **Are the financial results and internal controls of the District audited annually? (Y/N)**

Yes. The District is required to conduct an annual external financial audit, which is reviewed and approved each year, including internal controls.

- **Have the number of control deficiencies and material weaknesses been reduced from previous audits? (Y/N)**

The management letters in the audit reports have stated that no control deficiencies or material weaknesses were found in any of the years contained in this report (FY 2017-18 through FY 2021-22).

- **Has the District established rates that fully consider the life-cycle cost of service and capital funding options? (Y/N)**

Yes. Rates are set based on capital improvement needs and SVCW operational and capital needs. Rate studies do consider operational and life cycle capital costs.

- **Does the District maintain a rate stabilization reserve to sustain operations in addition to operating reserves? (Y/N)**

Yes. In addition to maintaining Operating Reserves equal to months operating budget, an Emergency Capital Reserve, and a Capital Project Reserve, the District added a Rate Stabilization Reserve in October 2015 and a Recycled Water Cash Flow Reserve in December 2016. The District added a Treatment Plant Reserve in August 2021, to build reserves for additional capital requirements of the treatment plant and avoid additional debt. The District has total reserve targets of $54 million, as of December 31, 2022, with $81 million in funds.

Analysis: Sewer Service Charges (SSC's) constitute 96% of District revenues over the last five years, with approximately 82% of that revenue from residential customers. Most SSC's are collected as an assessment on the property tax statements. This factor helps to provide adequate revenue stability for the District. The establishment of the reserves, help to provide financial stability.

3. Rate Adequacy

These measures help the District consider its sewer service rates relative to factors such as external economic trends, short-term financial management, and long-term financial health.

- **Sewer Service Charges Compared to Inflation**: The annual increase in sewer service charges (SSC) compared with the Consumer Price Index for all Urban Consumers (CPI-U) in the San Francisco/Oakland/San Jose area.

Sewer Service Charge Compared to Inflaction
% of change from prior year
■ Sewer Service Rate Increase
■ Inflation, CPI-U - Regional
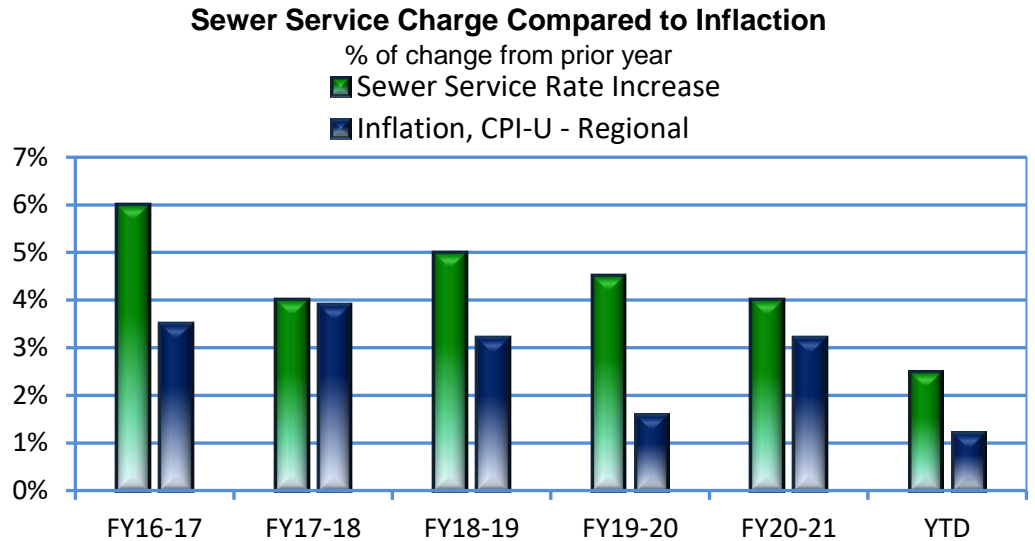
Analysis: There were SSC increases from FY 2015-16 through FY 2020-21, of 9%, 6%, 4%, 5%, 4.5% and 4% respectively. These rate increases were intended to bring the rate up to meet operational demands within the collection system and at the treatment plant and to fund capital improvements. Although inflation in 2022 is expected to reach new highs, the District will not be required to raise rates at those levels, instead a modest 2% increase is expected.

1. Asset Inventory and Condition Assessment
These measure gauges the District's efforts to assess assets and asset conditions, as a first step toward building a comprehensive asset management program.

- **Asset Inventory**: This is the percent of the District's critical assets that have been inventoried within the past 5-10 years.

Asset Inventory
% of critical assets inventoried
Goal = 20%
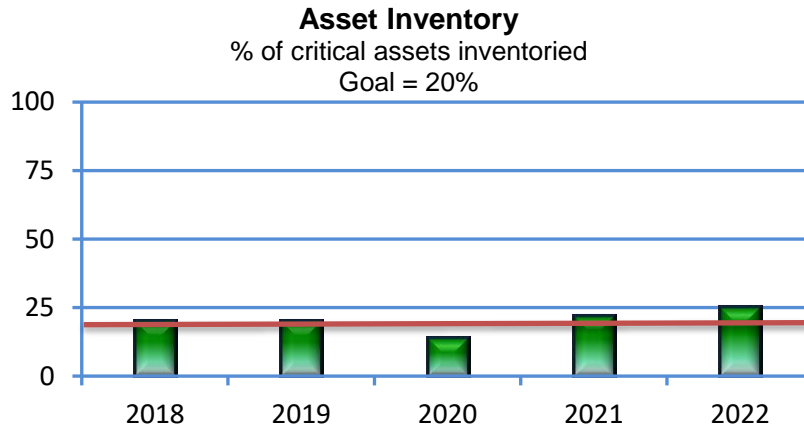
Analysis: The District inventoried all assets in 2010 in preparation for the 2011 Collection System Master Plan. In 2011 we re-assessed by visually inspecting approximately 25% of our assets by CCTV in miles of pipes and manholes. 14 miles were done by an outside contractor in 2011 approximately 23% of our assets were re-assessed. The remainder of the re-assessments were all performed in-house. The annual goal is 16% per year. In 2022 District crews re-assessed 25% of the system.

Infrastructure Stability

- **Sewer Main Condition Assessment**: This graph shows the percent of sewer main lines that are video inspected each year and assessed for condition and maintenance problems.

Mainline Sewer CCTV
of miles CCTV
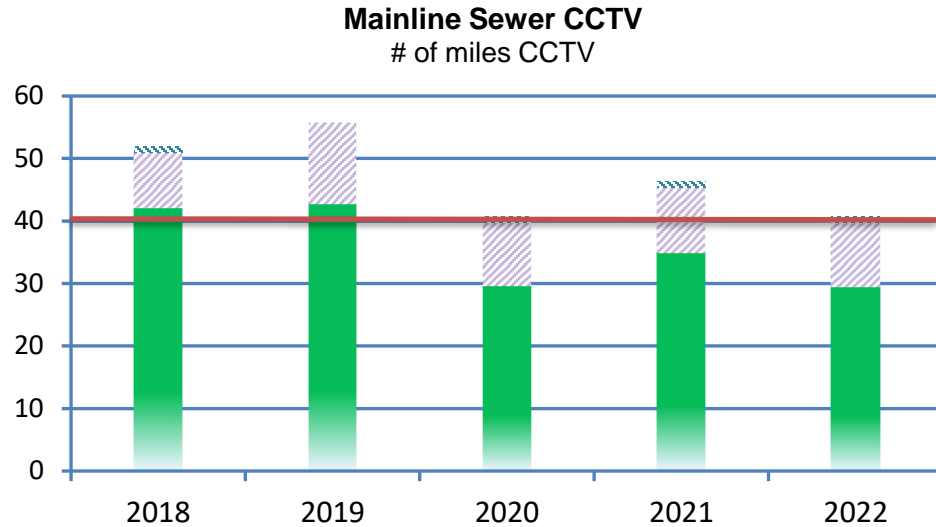
Analysis: The District has renewed its focus on CCTV and invested in maintaining proper inventory, spare CCTV cameras and setting SMART goals for productivity. As a result, CCTV inspection performance has dramatically improved and productivity increased over the last 9 years. In 2020 the District's CCTV crew inspected 29.6 miles of pipe in the District as well as 11.2 miles in Los Altos Hills (LAH) and the Town of Woodside (TOW). The total miles of CCTV is lower in 2020 because this operation was shut down for 2 ½ months and the crew focused on cleaning because of the unknown effects of the COVID-19 Pandemic. In 2022 the Districts CCTV crew inspected 29.4 miles of pipe in the District as well as 10.4 miles in LAH and 1 mile in Woodside.

(The shaded areas on the bar graph represent the CCTV footage for LAH and TOW).

2. Asset Renewal/Replacement
This measure assesses asset renewal/replacement rates over time. The measure should include targets, based on the District's determination of acceptable risk for different asset classes.

- **Renewal & Replacement of Pipeline**: This graph shows the amount of pipeline actually renewed or replaced as a percentage of the total pipeline infrastructure in the District.

Renewal & Replacement of Assets
% of pipline system replaced
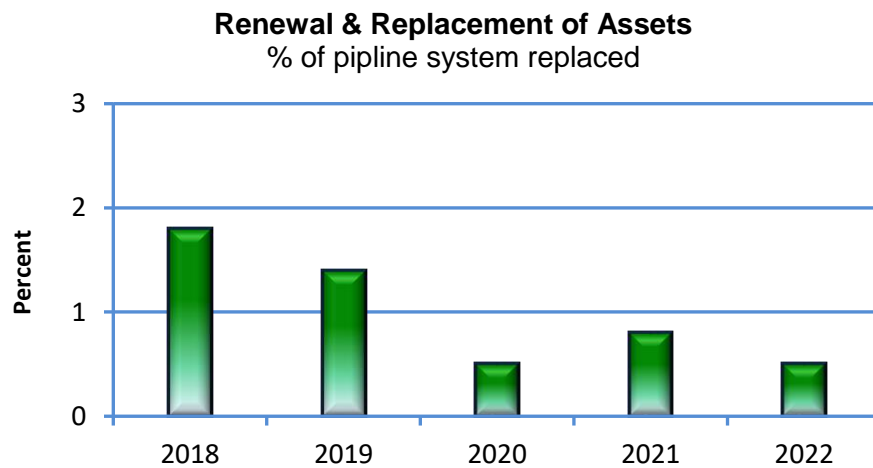
Analysis: The District should be replacing between 1% to 2% of its pipeline assets, on average, through renewal and replacement of those assets. The District has done well in recent years. The planned Capital Improvement program was increased in 2010 and is scheduled to continue over the next 10 years. By maintaining appropriate funding for CIPs and maximizing dollars by rehabilitating pipe via cured in place pipe when possible the District can make progress on the back log of pipeline repairs with the ultimate goal of replacing pipelines before exceeding their useful life. In 2020 0.5% of the District's system was replaced and rehabilitated due to delays in permitting and capital outlays to the treatment plant. In 2022 .5% of the system was replaced.

- **Manhole Rehabilitation/Replacement**: This graph shows the amount of manholes rehabilitated or replaced as a percentage of the total manholes within the collection system (5,000 manholes).

Manhole Rehabilitation Replacement
% of total manholes
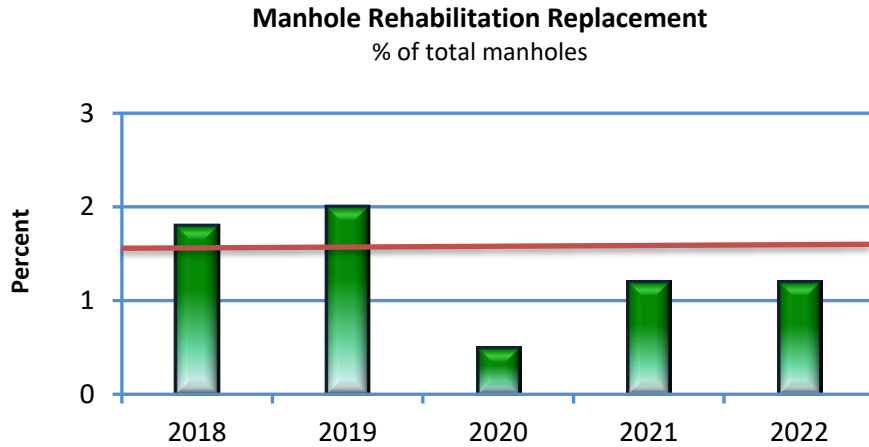
Analysis: The District should be replacing/rehabilitating 1.5% to 2% (75-100 manholes) of its manholes through the CIP program, and has been achieving this goal the last several years. In 2020 the District replaced and rehabilitated 25 manholes or 0.5% and 58 manholes or 1.1% in 2022.

3. Collection System Integrity

This measure examines the frequency of collection system failures. When tracked over time, the District can evaluate whether the rate is increasing, stable or decreasing.

- **Collection System Failure Rate**: A collection system failure is when a portion of sewer pipe collapses and flows become obstructed or uncontained from that collapse, rather than being caused by sediment, grease, roots or some other foreign object.

  - 2019 6" VCP Oakley Ave and Alameda De Las Pulgas Pipeline Failure.

  - 2017 Alameda & Campo Bello Pipelines Failure
  - 2016 none

  - 2010 –24" CMP on Haven after contractor had struck pipe, years ago.
  - 2009 – Cotton Avenue Pipeline failure in 2009.

Analysis: There are so few of these types of failures that a graph would not be meaningful. The District's record of failure rates is outstanding with zero in 2020, 2021, and 2022.
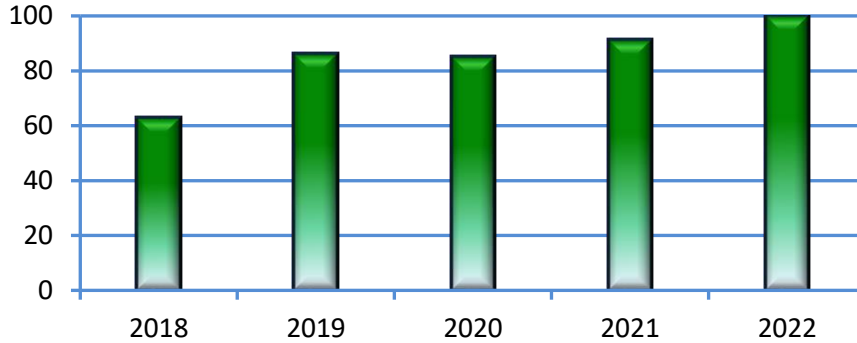
- **Collections System Repairs**: This is the total number of open-trench repairs made to the collection system by staff.

Collection System Repairs
# of open-trench repairs

Analysis: With an improved CCTV inspection program, management has renewed its focus on repairing sewer lines in-house and dedicates three full-time staff to perform open-trench repairs safely and efficiently. In 2015 District crews performed 90 open-trench repairs with a contract value of $720,000 based on $8,000 per repair. In 2017 District crews performed 97 open-trench repairs with a contract value of $776,000. The Districts costs were approximately $625,000, including paving. Each in house repair costs $6,443, on average. 2018 and 2019 were the lowest number of repairs than in past years in large part due to staff turnover in the construction team and the Coyote Hill retain wall easement project. In 2021 District crews performed 85 open trench repairs. In 2022 the crews performed 100 open trench repairs.

- **Collections System Pipe Patching:** This is the total number of Cured In-Place Pipe liner type repairs made to the collection system by the staff without cutting the street. This method saves asphalt, permit and labor costs.

Collection System Repairs
# of pipe patching repairs
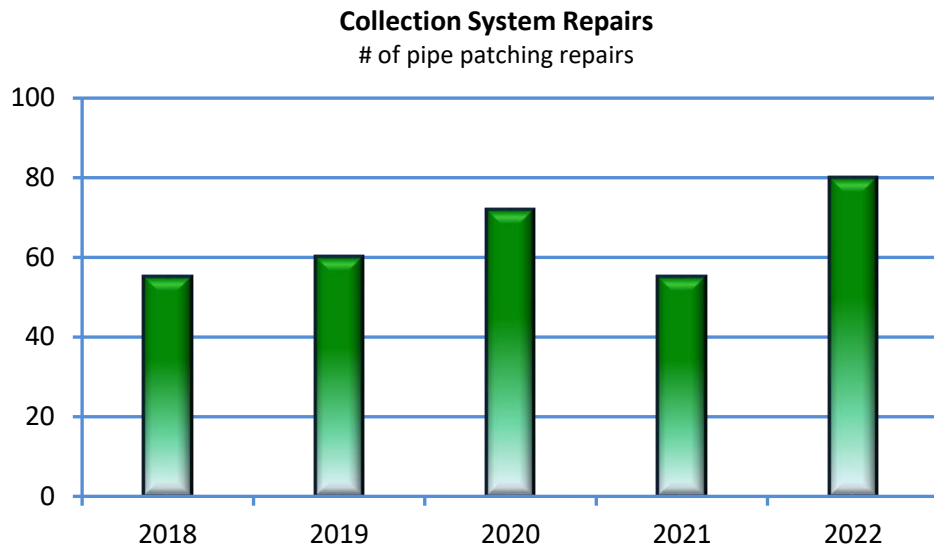
Analysis: The pipe patch program was implemented in 2010 and staff has been successful repairing sewer lines without open-cut trenching when possible. This method not only saves costs but reduces risk to the workers. The pipe patching method is allowing the District to maintain and improve its collection system's integrity. In 2017 District crews performed 59 pipe patch repairs with a contract value of $129,000.00 or $2,200.00 per patch. The District's in-house costs are $1,128 per patch on average. In 2018 District crews' pipe patched 55 spot repairs, saving over $70,000 conservatively. In 2020 District crews pipe patched 72 spot repairs. In 2021 the crews pipe patched 43 spot repairs as well as 12 spot repairs in LAH. The reduction of pipe patched can be attributed to a drop in the workforce due to the COVID-19. In 2022 the crews patched 80 spot repairs in the District as well as 12 spot repairs in LAH.

4. Planned Maintenance

Planned maintenance includes both predictive and preventative maintenance, and is performed according to a predetermined schedule and goals rather than in response to failure. Predictive maintenance is initiated when signals indicate that maintenance is due, specifically for Pump Stations. All other maintenance is categorized as preventative, specifically for maintenance performed to the Collection System.

- **Lift Station Planned Maintenance Ratio:** The chart below indicates Preventative Maintenance Repairs (PM) and Unscheduled Repairs performed throughout the year. There is a direct correlation between the number of Preventative Maintenance Repairs and low number of Unscheduled Repairs. As the crew performs more PM Repairs, less Unscheduled Repair need to be performed in an emergency situation thus improving the planned maintenance ratio. Since West Bay adopted a "predictive maintenance strategy" more repairs are being performed before components fail.

Lift Station Planned Maintenance
# of preventative maintenance (PMs) and Unscheduled Repairs
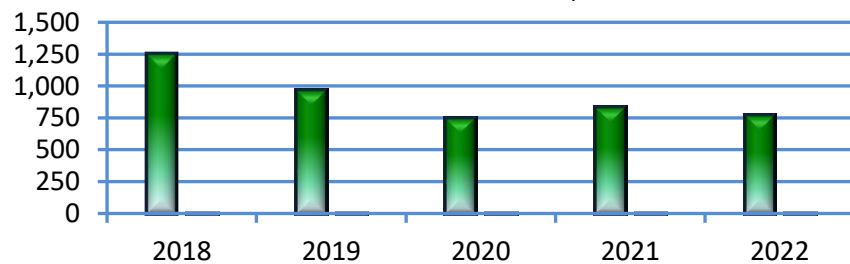

Analysis: Reliable data for this measure starts in 2011. Prior to 2011 such PMs or repairs were not being tracked in this manner. In 2017 crews performed 1265 PMs and only 8 unscheduled repairs. As more and more pumps and valves are replaced there, and replaced according to schedule, less "unscheduled" repairs to be made. In 2018 crews performed 1256 PMs and only 6 unscheduled repairs. In 2019 crews performed 967 PMs and 6 unscheduled repairs. The drop in PMs is partly attributed to the elimination of the Corte Madera Pump Station. In 2020 the crew performed 754 PMs and 5 unscheduled repairs. The high turnover of the Pump Crew personnel in 2020 is an attribute to the lower amount of PMs because of high amount of training which occurred during the PM work performed. In 2022 the crews performed 774 PM and only 1 unscheduled repairs as well as 152 PMs under contract with the TOW and LAH.

- **Sewer Main Line Cleaning:** The following two charts show the total number of miles of pipe cleaned and the percentage of sewer main lines cleaned during the year, compared to the District's goals and previous 5 years.

Sewer Main Line Cleaning
# of miles of pipe cleaned in total
District Goal :
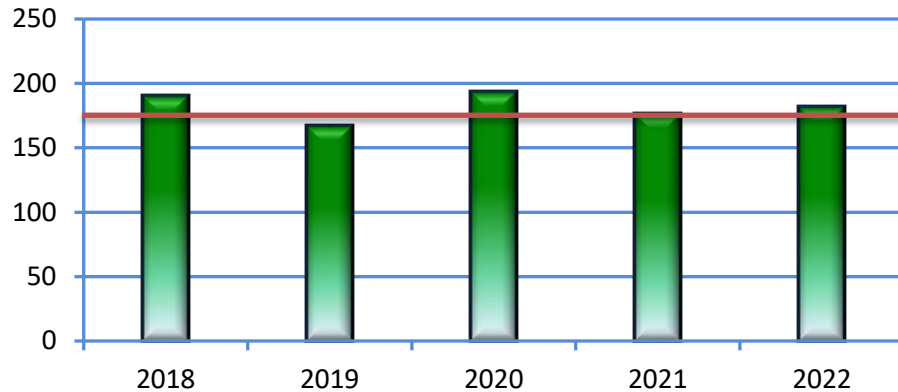
Analysis: In 2012 we re-assessed many of our high frequency lines and pushed their frequency back. We also removed some lines from our high frequency due to a successful pipe line replacement program. In 2014 we began to clean 4", 6" 8" and 10" pipes on an annual basis, based on the fact that our SSOs were from smaller diameter pipe and a more aggressive root growth during the recent drought. In 2018 crews cleaned 190 miles of pipe. In 2019 crews cleaned 167 miles of pipe. In 2020 the crews cleaned 193.6 miles of pipe. In 2021 crews cleaned 176.3 miles of District pipe as well as 28.8 miles under contract with TOW and LAH. In 2022 the crews cleaned 182 miles of pipe and 29.4 miles under contract with TOW and LAH.

Routine Basis Cleaning
% of system cleaned on "routine" basis
District goal: ―――
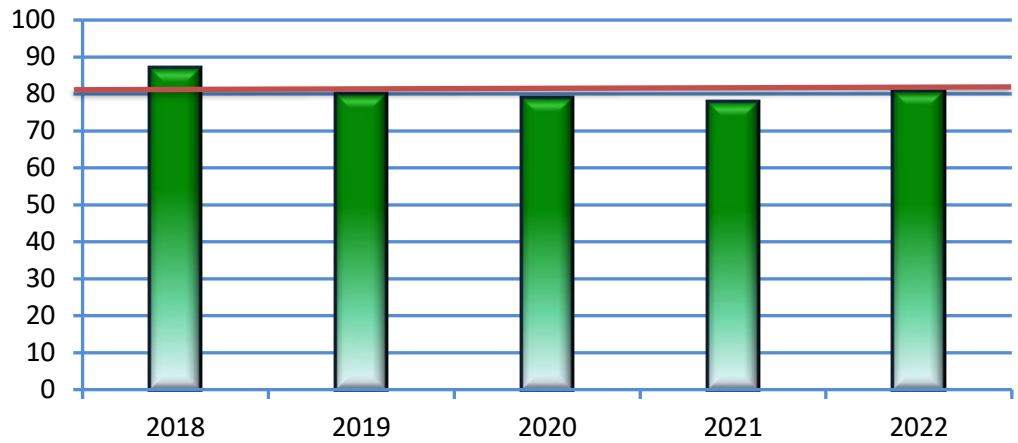
Analysis: Over the past 7 years, the District has increased its efforts in preventative maintenance and cleaning of sewer mains. In September 2013 crews finished cleaning the entire system for the first time. In May of 2014 crews began to clean all small pipes (4-10 inch size) every 12-15 months in order to reduce SSO's even further. In 2019 crews cleaned an equivalent of 80% of the system, resulting in only 4 SSO's. 2 SSO's were caused by contractor error and vandalism. In 2021 the crews cleaned 78% of the entire system. In 2022 the crews cleaned 80.8% of the entire system.

- **Collections Planned Maintenance Ratio by Hours:** This is the total number of staff hours spent on planned maintenance in the collection system divided by the total number of hours spent doing any maintenance activity (planned and corrective).

Collection System Maintenance including CCTV

Miles PLanned Maintenance for the following 3 Categories of work

■ PM (Basin to Basin)
■ High Freq. Cleaning
■ CCTV
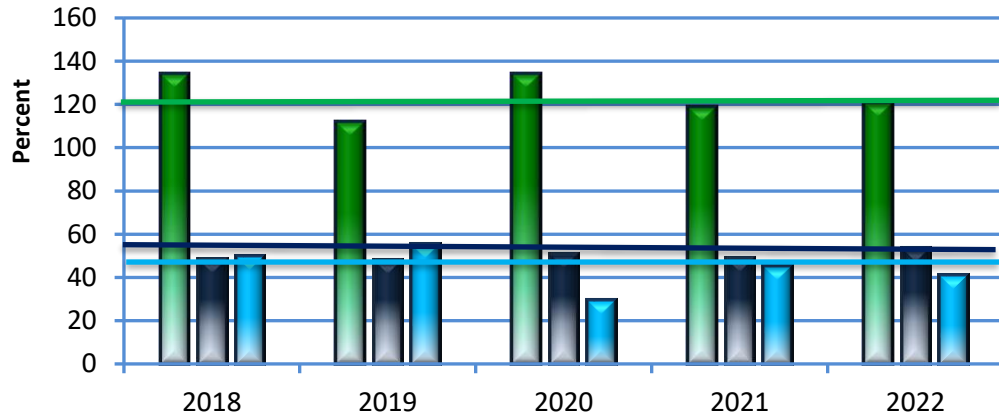
Analysis: This data represents 3 collection system categories. PM (basin to basin) cleaning, high frequency cleaning and CCTV operations. In 2017 the target goals were 120 miles of basin cleaning, 51 miles of high frequency cleaning and 45 miles of CCTV pipe inspection. Crews cleaned 126.4 miles of pipe, 51.5 miles of High Frequency cleaning and 24.8 miles of CCTV (in addition to 18.4 miles for Town of Los Altos Hills and Town of Woodside), for a total of 43.2 miles. In 2019 crews cleaned 112 miles of pipe, 48.2 miles of High Frequency Cleaning and 55.2 miles of CCTV. In 2021crews clean 118.7 miles of pipe, 49 miles of high frequency, and 34.9 miles of CCTV (in addition to 28.8 miles cleaned and 11.4 miles CCTVed for TOW and LAH under contract). In 2022 the crews cleaned 120.9 miles of pipe, 53.6 miles of high frequency and 29.5 miles of CCTV (in addition to 29.4 miles cleaned and 11.4 miles CCTVed for TOW and LAH).

5. FOG Program:

The fats, oils and grease (FOG) program includes food establishments and other businesses to reduce FOG in the collection system.

- **Pollution Prevention Inspections:** Pollution prevention inspections ensure that restaurants and other businesses are properly maintaining their grease traps/interceptors and oil water separators while following Best Management Practices. Properly maintaining this equipment results in fewer corrective maintenance problems in the collection system related to Fats, Oil and Grease (FOG). The number of inspections per each bar is inclusive of FOG inspections only and does not include commercial or industrial inspections.

Number of Pollution Prevention Inspections
**# Of FOG Inspections Per Calendar Yr**
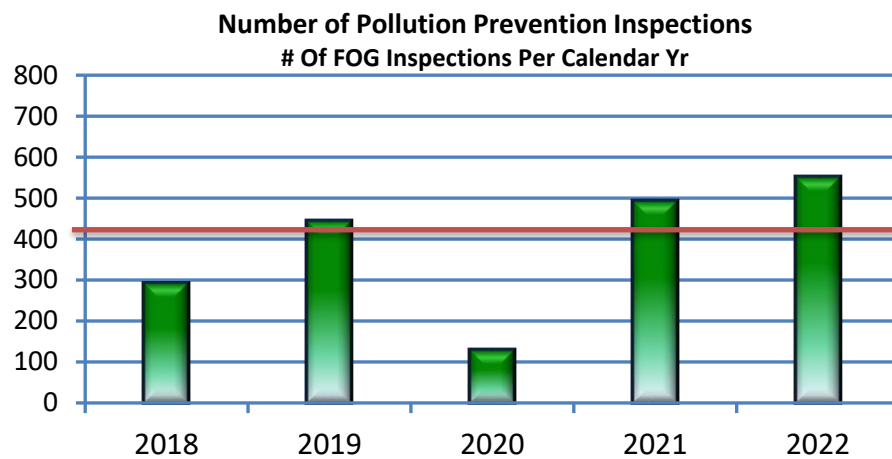
Analysis: This program began in 1992. A concerted effort was implemented in October 2011 to increase the number of inspections and re-inspections of restaurants and facilities, to encourage the proper maintenance of devices and other Best Management Practices. 551 inspections were performed in 2022 with a 98.4% compliance rate.

1. Total Recordable Incident Rate:

This is the number of work-related injuries and illnesses times 20,000 divided by the number of employee hours worked. This is the standard formula used by OSHA to normalize data. The 200,000 represents 100 employees working 40 hours per week, 50 weeks per year, and provides for the compatibility of incidence rates.

Reccordable Incidents
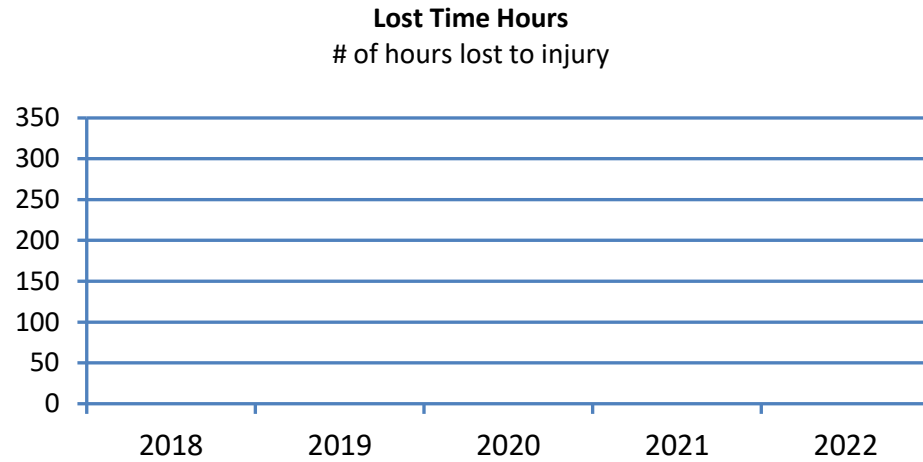# of work-related injuries
State Avg.
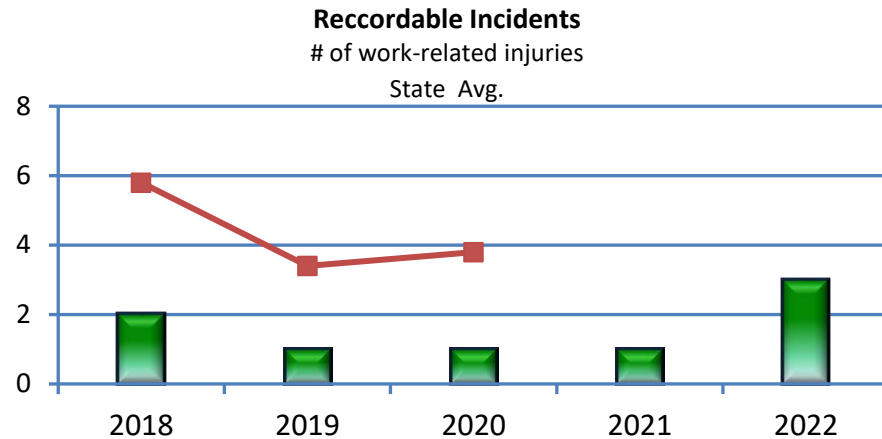
Analysis: The District is compared here to the "Utility: Sewage Treatment Facility" industry category as reported by the U.S. Bureau of Labor Statistics. The District's incident rate is slightly below the state average in California for our industry. In 2022 there were 3 reportable injuries.

Lost Time Hours: This is the number of hours that a worker could not work due to a work-related injury or illness. Lost time begins to accrue once an employee misses one full day of work.

Lost Time Hours
# of hours lost to injury

	2018	2019	2020	2021	2022

(Chart y-axis: 0, 50, 100, 150, 200, 250, 300, 350)

Analysis: In 2022 the District had zero Lost Time incidents. As of December 31, 2022 the District has gone 2001 days without a Lost Time Accident. The previous record for days without Loss Time is 1447 or 3.96 years.

THIS DEPARTMENT HAS WORKED 2001 DAYS WITHOUT A LOST TIME ACCIDENT THE BEST PREVIOUS RECORD WAS 1447 DAYS DO YOUR PART HELP MAKE A NEW RECORD
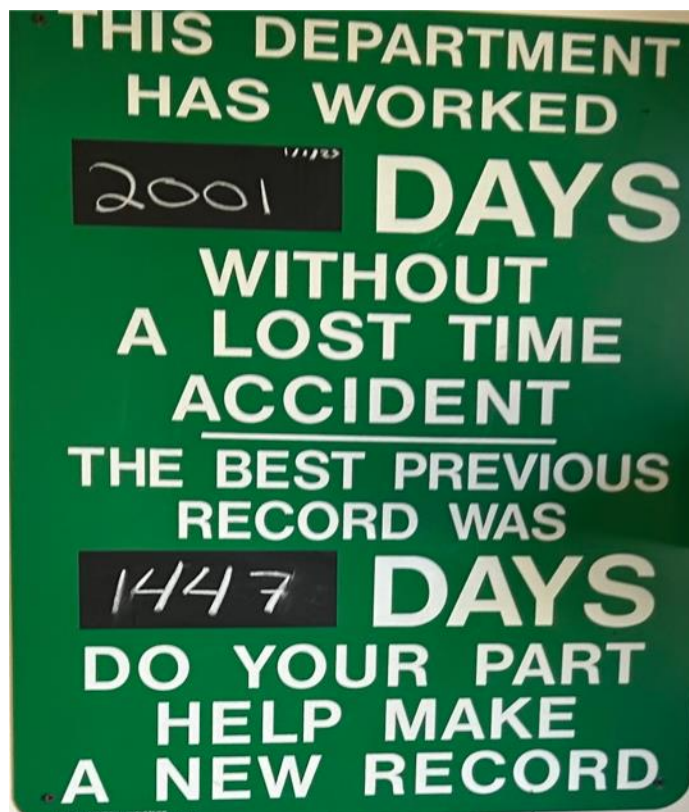
2. Insurance Claims

These measures examine the number, type and severity of insurance claims to understand insurance coverage strength or vulnerability.

- **Number of Insurance Claims:** This is the number of general liability and automobile liability claims per year.

Insurance Claims
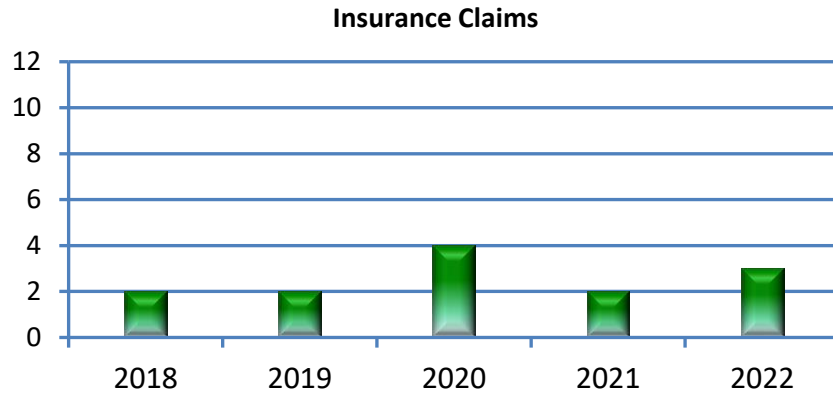
Analysis: In 2016 we had 8-claims; 6 Residential backups, 1 Air Issue (caused by CIPP on Marsh Road) and 1-Auto incident, three claims have been settled, 5 are pending. In 2017 we had 7 claims. In 2018 and 2019 the District had two claims (one auto, one sewer backup) and in 2020 it had 4 claims. In 2022 the District had three claims.

**Operational
Resiliency**

- **Severity of Insurance Claims:** This is the total amount paid out for general liability and automobile liability claims per year.
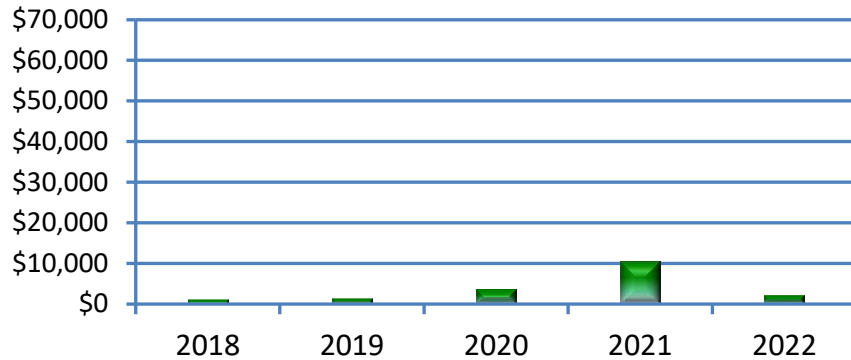
Severity of Insurance Claims

Analysis: The District continues to maintain a lower rate of insurance claims over the past several years. In 2016, we had 8 claims; all have been closed, with a current liability of $13,581.35. In 2017 we had 8 claims, several are still open cases with potential liability of $59,583.00. In 2018 the District had two claims for a total cost of $1069.60. In 2019 the District had claims totaling $342 and in 2020 the District had claims totaling $4,754. In 2022 the District had three claims with costs totaling the District $2,100.00.

Experience Modification (XMOD) Rate: This is the rate used by the Worker's Compensation Insurance Company to determine the Districts workers compensation experience. One hundred is considered the industry average, while numbers below 100 are better than the average.

Experience Modification (XMOD) Rate
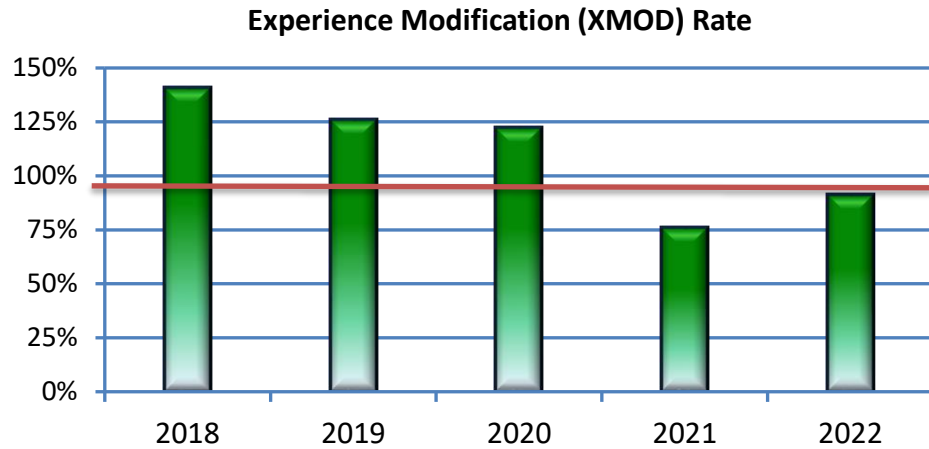
Analysis: The 2018 XMOD factor was 1.41. In 2019 XMOD factor was 1.26. In 2020, West Bay Sanitary District's Ex-Mod was 1.22. In 2021, the ex-mod is 0.76; which is a decrease of 0.46, well below the industry standard. In 2022 .91, 0.08 below 100%

3. Risk Assessment and Response Preparedness
This measure asks whether the District has assessed its all-hazards (natural and human-caused) vulnerabilities and risks and made corresponding plans for critical needs.

Are Emergency Response Plans in place for the following? (Y/N)

Lift Stations: Yes

Collection System: Yes

Administration & Maintenance Buildings: Yes
(E.A.P. Written, Training performed annually)

Analysis: Emergency Response Plans for the lift stations and collection system are in place, and are trained and practiced regularly. The Collection System staff has plans and equipment for system bypasses. Additionally, the District had performed a "Safety Compliance Assessment" in August of 2011 which identified areas within the Safety Program requiring updates, which were completed in 2012. An Emergency Action Plan was written in 2012 to include both the Administration and Maintenance buildings. In 2012 after updating our safety program we were recognized by CSRMA and received the Gold level SHELL Award for safety, health, environment, losses and liabilities. In 2013, training was completed in October and the District participated in the California Shake Out Earthquake and Evacuation Drill at 10:17am on October 17th. Staff reviews the GAP annually and will practice evacuation every other year.

Frequency of Emergency Response Plan (ERP) Trainings: The maintenance crew performs Emergency Response Training annually.

Analysis: Maintenance Personnel trains on and practices its Emergency Response Plan training once per year. In 2014, staff reviewed EAP and agreed we should implement additional Disaster Response Training and incorporate training with the local E.O.C. in 2015. Program review was performed in 2019, and continues every other year, next in 2023.
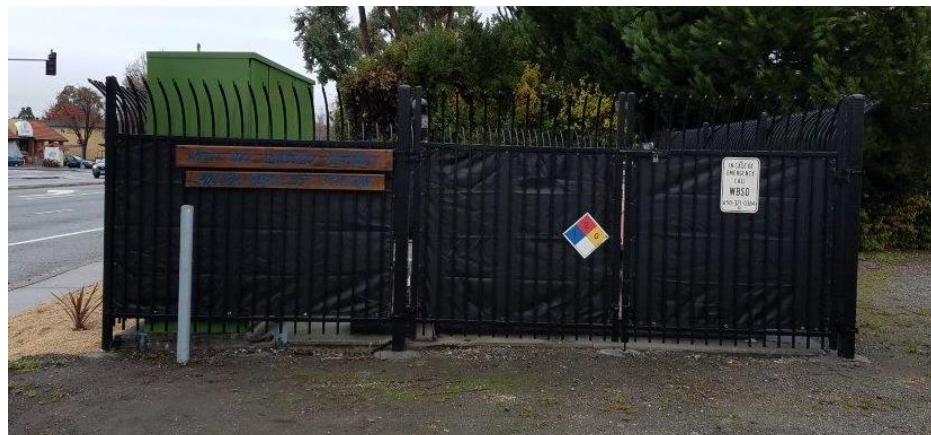
4. Ongoing Operational Resiliency
This measure assessed the District's operational reliability during ongoing or routine operations.

- **Uptime for Pumps at Pump Station:** There are two pumps at all of the Pump Stations (However, University Pump Station is a Tri-Plex Station), the pump stations lift the sewage up from the collection system throughout the District and into a higher point in the system. Uptime is defined as the percentage of days that all pumps are operational and in service.

Pump Station Pumps - Uptime
% of time pumps are available (exludes planned maintenance)
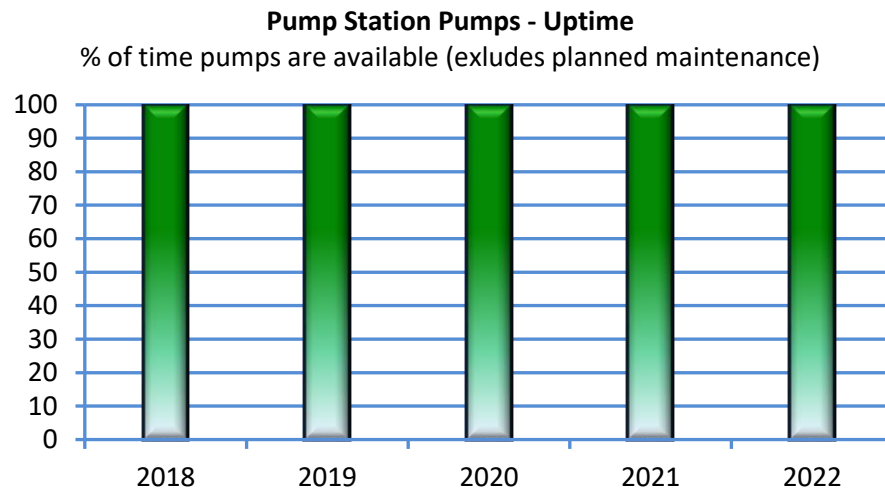
Analysis: Staff has in stock some of the more difficult parts to acquire in order to avoid long term breakdowns. In 2012 the Board approved a budget that included capital funds for planned rehab and replacement of lift station pumps and valves. From 2014 through 2022 the District experienced no major down time where both pumps at a station were down simultaneously.

5. Operational Resiliency Under Emergency Conditions
*This measure assesses the operational preparedness and expected
responsiveness in critical areas under emergency conditions.*

- **Power Resiliency:** This is the number of hours that backup power is available
  at the pump stations and the "Time to Overflow" if all things failed. Note:
  Excluding the FERRF, every pump station in the collection system has a
  backup standby generator and pump bypass capability.

Hamilton Henderson	42 hours of Power /24 minutes to Overflow
Willow	60 hours of Power/22 minutes to Overflow
Menlo Industrial	104 hours of Power/38 minutes to Overflow
University	104 hours of Power/58 minutes to Overflow
Illinois	70 hours of Power/68 minutes to Overflow
Vintage Oaks 1	151 hours of Power/61 minutes to Overflow
Vintage Oaks 2	151 hours of Power/61 minutes to Overflow
Stowe Lane	70 hours of Power/43 minutes to Overflow
Los Trancos	20 hours of Power/53 minutes to Overflow
Sausal Vista	36 hours of Power/6 hours to Overflow
Village Square	20 hours of Power/180 minutes to Overflow

Analysis: These times indicate how long the facilities could operate during peak
pumping without electricity from the grid and without additional deliveries of
diesel fuel for the generators. During power outages longer than 20 hours, staff is
required to refuel any given generator. Many agencies in the area have less than
12 hours backup power, some have no backup to many of their pump stations.

In late 2019, PG&E conducted their "Public Safety Power Outage" which affected three
District pump stations. All three had generator back up power and worked well. Total
generator run time was approximately 10 hours. The Sausal Vista Generator failed. It
took approximately two hours to have another generator installed. The District did not
experience spills as a result. In 2020 the District purchased a portable generator to serve
as back up to the stationary generators.

- **Critical Parts and Equipment Resiliency:** This is a measure or evaluation of lead times for the repair or replacement of operationally critical parts or equipment.

- **Pump Stations:** The pumps and controllers at the pump stations can be the most critical equipment. Other components of the process could be down and it would be less critical. During most cases, one pump is needed to manage the influent.
To mitigate problems should a pump be out of commission, the pump crew prepares one of two 6" by-pass pumps and is ready to mobilize and connect the by-pass pump should the final lead pump fail.

- **Standby GenSet:** in 2014 replaced 2 standby generators at Hamilton & Henderson and Village Square Pump Stations. In 2020 a spare portable generator was purchase.

- **Sausal Vista Pump Station:** in 2016 reconstruction of the Sausal Vista Pump Station to connect exiting flows from Corte Madera in order to eliminate the Corte Madera Pump Station and has been completed.

- **Backup Power:** backup generators are tested weekly and load tested monthly and Preventative Maintenance is performed annually. The District performs weekly checks and contracts out the annual services and 3-year load bank testing. All of the District's pump stations have backup generators.

- **Critical Staff Resiliency:** This is a measure of the ability for backup staff to cover critical operations and maintenance positions.

- **Collections:** All collection system workers are cross trained on tasks and equipment. Regular tasks are rotated to ensure continued familiarity with all tasks during emergency events. Of the 13 field maintenance workers, all are required to be on the standby rotation.

- **Pump Station Maintenance:** Both staff positions are cross trained in pump operation, repairs, standby generator operation and by-pass equipment. We are currently training additional staff to rotate through the Pump Station Maintenance functions and operation. Both staff positions are required to be on the standby rotation. The Operations Superintendent is the backup person should they not be able to fulfill their commitment. In 2012 we trained a collection system technician to perform basic pump checks and repairs and continued this cross-training in 2013. Beginning in 2015 the backup person was able to cover during standby. This effort shall continue through 2023.

Analysis: There is significant cross training for critical operations and maintenance positions to ensure adequate coverage with the appropriate knowledge, skills, experiences and ability. Note: All sixteen (16) personnel in the maintenance department are cross trained in emergency by-pass and response.

1. Green Infrastructure

"Green infrastructure" includes both the built and natural/non-built environment. This measure assesses the extent to which the District promotes or engages in practices that protect natural resources and the environment.

• **Does the District have procedures that incorporate green infrastructure approaches and performance into new infrastructure investments? (Y/N)**

Yes

Analysis: The District has implemented the following programs or practices:

- **Pipe Bursting and Cured-in-Place Pipe (CIPP) Lining** – the District has developed a preference for pipe bursting or CIPP lining to replace or rehabilitate sewer mains, wherever feasible. These processes eliminate most of the trenching required, thus reducing landfill waste, reducing the use of rock, cement and asphalt to backfill, and reducing diesel emissions from associated equipment.

- **Pipe Patching with In-House Crew-** the District has implemented a Pipe Patch process as part of its Re-Habilitation program. Pipe Patching has many benefits including; not having to excavate soil and remove asphalt. The process for re-constructing both can be very expensive and time consuming. District Crew's perform 2 to 3 Pipe Patches per day when assigned to perform such work.

- **Hybrid/Electric Vehicle –** In 2012 the District performed research on alternative fuel vehicles and determined a hybrid vehicle would be the most efficient type and economical to serve the District's needs. The District has purchased its first hybrid vehicle, and will consider replacing non-emergency vehicles with hybrid units. In 2022 the District purchased its first electric vehicle with plans to purchase 2 more and eventually move to all electric whenever feasible.

- **Tablets Increase Efficiency in the Field –** District staff members are now able to conduct data entry in the field with a tablet computer, eliminating the extra time it takes to travel to the office for that purpose. With advances in new technology our crews can truly go paperless with inexpensive handheld tablets and spend more time in the field. They also have the added efficiency of having maps, safety procedures and infrastructure information literally at their fingertips.

- **Purchase Construction Material in Bulk –** In 2014 District staff began to purchase large amounts of ¾" rock and aggregate base material for its construction operations. This not only saves the District money but it also saves in fuel since staff does not need to travel to purchase small amounts of material every day an open trench repair is performed.

- **Recycled Water Project** - The District has completed construction of a Satellite Recycled Water Treatment Facility at Sharon Heights that will deliver up to 400,000 gallons of recycled water per day. The district has also completed a feasibility study on a Bayfront recycled water facility.

1. Service Affordability

Wastewater service affordability centers on community members' ability to pay for sewer services. The District must balance keeping sewer service affordable while ensuring the rates needed for long- term infrastructure and financial integrity.

- **Sewer Service Charge Bill Affordability:** Affordability is subjective. However, tracked over time, the District can evaluate whether the sewer service charges (SSCs) are becoming more or less affordable as compared to median household incomes for the District, using U.S. Census Bureau data.
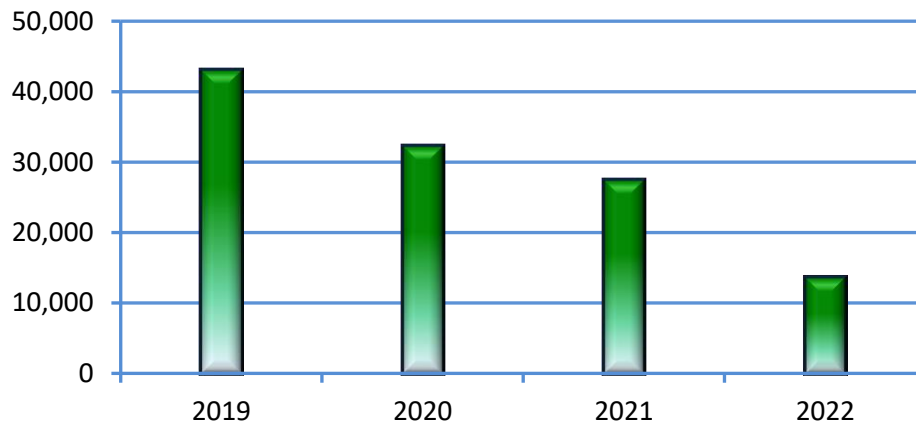
Affordability of Sewer Service Charges (SSCs)
SSCs as a % of median household income
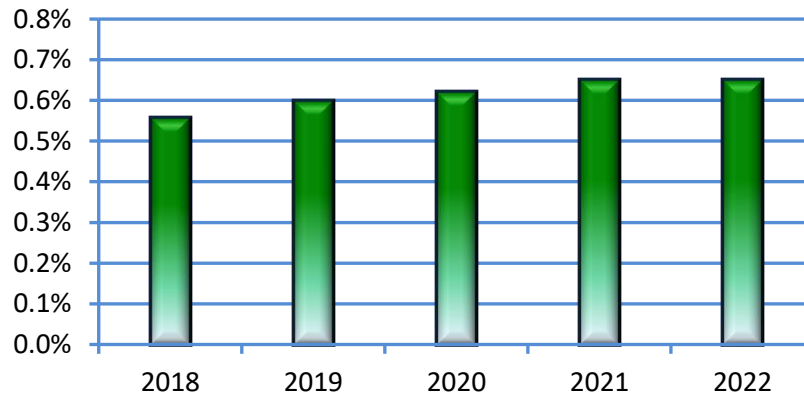
Analysis: The most recent data from 2020 reports Median Household Income (MHI) on Data USA as $154,137 and Atherton is $250,000 MHI. The SSC as a percentage of MHI went up from FY16 to FY20.
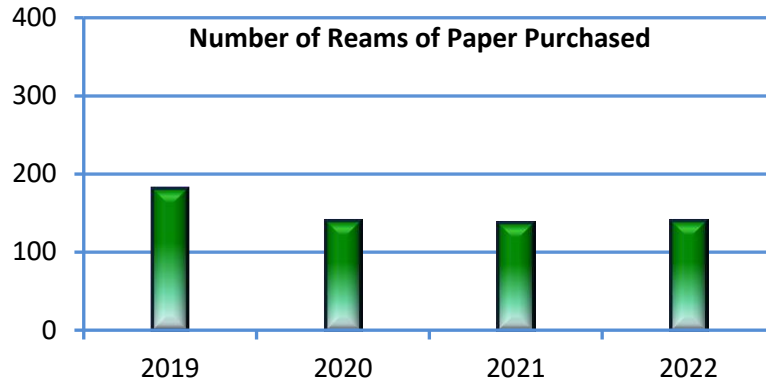
Number of Copies Printed

Analysis: The District made significant efforts to reduce paper. In 2020 staff printed an approximate 10,000 copies less than in 2019. In 2022 the District printed 13,000 copies compared to 27,000 copies the previous year.

Number of Reams of Paper Purchased

2019	2020	2021	2022

Analysis: In 2019 staff purchased 181 reams of paper. In 2020 and 202reams of paper were purchased showing a reduction in 2020 of 41 reams of paper or 20,500 sheets of paper.

1. Stakeholder Satisfaction
This measure addresses stakeholder perceptions of the District. Possible calculations of stakeholder satisfaction include overall satisfaction surveys, or message recollection for outreach programs.

- The District has not been able to conduct public event surveys in 2022 like previously at the Chamber of Commerce Block Party due to Covid-19. – The District plans to participate at public events in 2023.

- The District also sends customer service surveys to residents who call for service. The results are on page 25.

2. Comparative Rate Rank
This measure depicts how the District's sewer service charge compares to similar service providers in the region (i.e., local area wastewater providers with treatment and/or collections systems.).

- **Comparative Rate Rank:** The measure takes the District's sewer service charge (SSC) and graphically compares it with the SSC for comparable wastewater providers in the region.

Analysis: The District's 2019 SSC ranks in the mid-range as compared to other providers in the region. The District also compares well (upper mid-range) with SVCW partners, shown in blue.

3. Media/Press Coverage
This measure captures media portrayal of the District in terms of awareness, accuracy and tone.

- **Amount of Coverage:** This is the total number of Almanac News and Daily Post articles concerning the District per year.
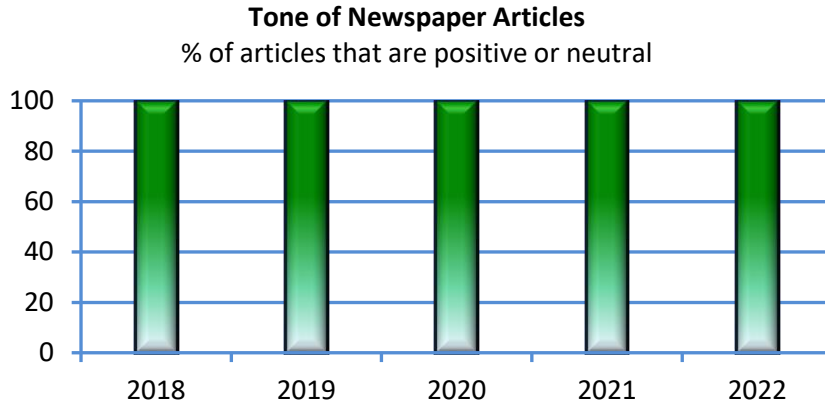
Newspaper Articles
per year
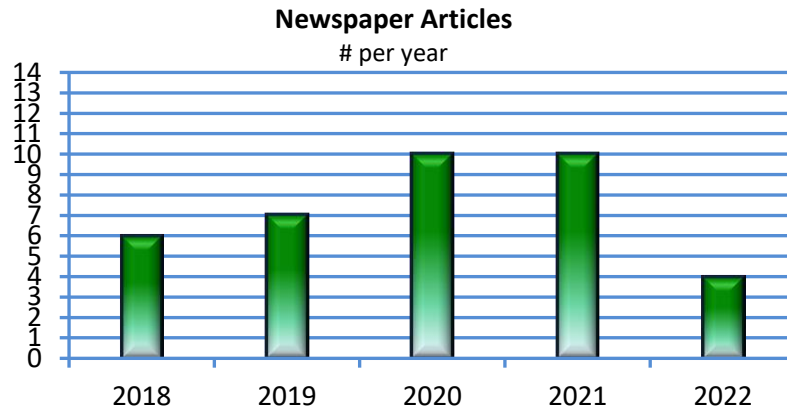
Analysis: Currently, news releases includes District awards, partnerships with HomeServe USA and OpenGov, fee schedule changes, FOG ordinance changes, and the District's Annual Winter Bulletin. In 2018, 2019, and 2020 news articles increased from the previous years due to articles on the District's recycled water project and an increase in wipes during the COVID-19 Pandemic.

Stakeholder Understanding & Support

- **Media Coverage Tone:** This is the percent of newspaper stories that cover the District in a positive or neutral way.

Tone of Newspaper Articles
% of articles that are positive or neutral

Analysis: Coverage of the District's activities, programs and policies has been predominantly covered in a neutral or positive tone. This includes editorials and opinion columns. In 2022 the tone of newspaper articles have stayed consistent with previous years. The District's YouTube ads were viewed approximately 120,000 times by local residents and Facebook ads were viewed by approximately 43,000 local residents.

- **Media Coverage Accuracy:** This is the percent of the accuracy of newspaper stories that cover the District.

Accuracy of Newspaper Articles
% of article that are generally accurate
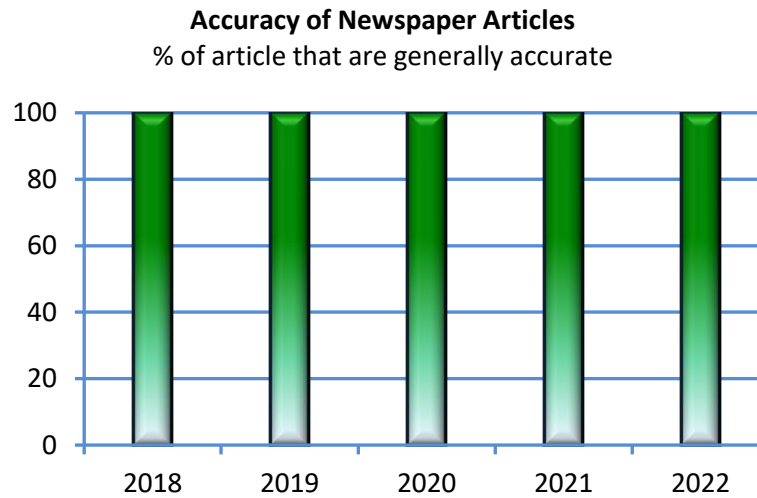
Analysis: "Accuracy" can be subjective, so here it has been defined narrowly as meaning that there were no significant factual errors in the story that could cause a reader to misinterpret what was being reported. Media coverage continues to be very accurate over the past 5 years. In 2022 the accuracy of newspaper articles has stayed consistent with previous years.