Performance Measurement Report

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

Includes Data and Analysis for
Calendar Year 2017

WEST BAY
SANITARY DISTRICT

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Introduction to the Report

This report is the eight 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.wwaterEUM.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, and then only on the measure that are meaningful to management of the District and that the District has some ability (total or partial) to influence.

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Quick-Glance Ratings

This report includes with every measure an analysis of how the District is doing within that area. Additionally, next to each graph or qualitative measure is an icon to help the reader assess quickly 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

Executive Summary

This report is the eighth Performance Measurement Report 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 performance measurements reported in this 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 2017, 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-month schedule as well as patching and repairing of pipe defects have resulted in a great reduction of Sanitary Sewer Overflows. The District had five SSO's in 2017, three of the SSO's were caused by outside influence and contractors. Both the number and volume of spills are significantly below the State and/or Regional average. The number of plugged main lines are down from 81 in 2011 to 28 in 2015, 9 in 2016, and 11 in 2017.

#2

Customer Service –2017 data on response times to calls for service is the fifth full year of data for reporting purposes and continues to improve. The Project Management staff continues to maintain its performance goal for plan review 95% of the time.

#3

Employee and Leadership Development – There was higher than usual turnover due to retirements in 2011, causing a spike in experience turnover, but that trend has not continued and is not expected to continue in the near term. 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 to retirements, in 2016 the District experienced a turnover of 3 of the maintenance folks. Two were maintenance technicians and one was a field supervisor (leadworker). 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. The District also lost two positions to retirement in 2017. Succession planning led to successful transitions beginning before retirement date.

#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. Finally, the implementation of cured-in-place pipe not only increased production but resulted in an increase in net value of District resources. The net value of pipe patching after deducting labor and materials is $296,000/year to the District.

#5

Financial Viability –The ratio of revenue to expenditures continues to increase year over year. The ratio of capital expenditures is at a sustainable level, and the debt service coverage ratio is sustainable. The District maintains adequate policies and internal controls. The sewer service charge rate is evaluated regularly for its ability to cover life-cycle cost of service and capital funding options. The District's reserves are accumulating to maintain stable rates.

#6

Infrastructure Stability – The District has performed an inventory of critical assets as part of the Collection System Master Plan update in 2011. The District also performs condition assessments of the collection system via CCTV every 5 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 very well regarding collection system failure rates. Planned maintenance as a percentage of total maintenance is high in collections, and the District regularly scheduled restaurant inspections to help prevent fats, oil and grease (FOG) problems in the collection system. This resulted in no SSO's due to commercial FOG issues. During the past five years, collection staff has also exceeded its goal of 20 miles by 5 to 15% of main lines annually.

Working with VW Housen and Associates, District staff has developed a linear asset management plan (LAMP) to assist the District in more scientifically prioritizing pipeline rehabilitation and replacement in order to most effectively manage risk. A 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. pipeline or manhole). 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. For 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. The serious accident of 2011 has caused the Experience Modification Rate to increase in 2012 and the District had no lost time incidents in 2013 and 2014 and one in 2015, zero in 2016 and two in 2017. As of February 5, 2018 the District has gone 216 days without a Lost Time Accident and the current ex-mod rate is 110%. The District maintains adequate Emergency Response Plans and practices them regularly. The District is aware of its operational resiliency under emergency conditions.

#8

Community Sustainability – The District has invested in programs that encourage reduced potable water consumption and environmental protection and awareness, and has incorporated "green" practices into its capital planning. Our Regulatory Compliance Department works with commercial customers to explore ways to reduce water usage in their business 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 trenching the whole pipeline, requiring only a pit at the beginning and end of the pipeline. Techniques such as Cured In-Place Pipe lining allows for the rehabilitation of pipe at a significant savings and is also trenchless. These methods significantly reduce asphalting, landfill waste, the use of rock and cement etc., and thus reduces fossil fuel emissions from associated equipment. They also have the side benefit of stretching the District's capital dollars to rehabilitate or replace more pipe and collection system infrastructure. The District has also sought opportunities to replace vehicles and equipment with higher fuel efficiency than in the past thus further reducing greenhouse gas (GHG). The use of field tablets and smart phones for data capturing and access of safety information etc., has increased the community stability component, improved productivity and reduced paper waste.

In 2015 the District entered into an MOU with Sharon Heights Golf Course for the design and build of a Membrane Treatment Facility on their grounds to supplement their irrigation needs and reduce their reliance on Hetch-Hetchy water. The District completed a Facilities Plan (Feasibility Study) for Recycled Water Project – Sharon Heights. The District also successfully completed a CWSRF application qualifying for a 1% loan of $17.3M and up to $5.2M grant to fund the construction of the treatment facility and other structures. The District also began the RFP procurement process for the Design/Build of the project. Design has begun and construction is expected to begin in April of 2018 with a completion date of the treatment facility in late 2019.

#9

Stakeholder Understanding and Support – While the District has sought out customer input and engagement through various news articles recently. The District's sewer service charges compare favorably to other provider's rates, and 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 thorough annual newsletter articles in the Almanac, the District has also 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.

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 2017

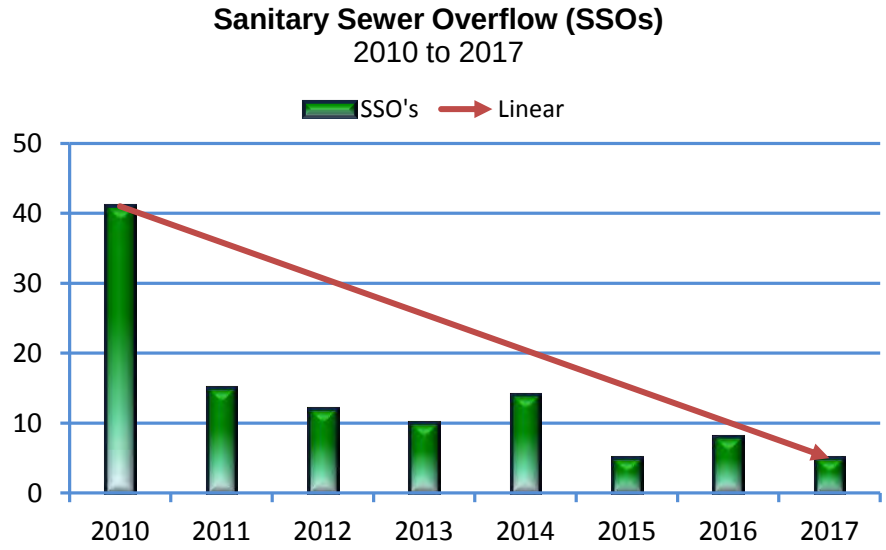
EUM Attribute #1
Product Quality

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.

Category 3 SSO's must submit a certified report within 30 calendar days of the end of the month

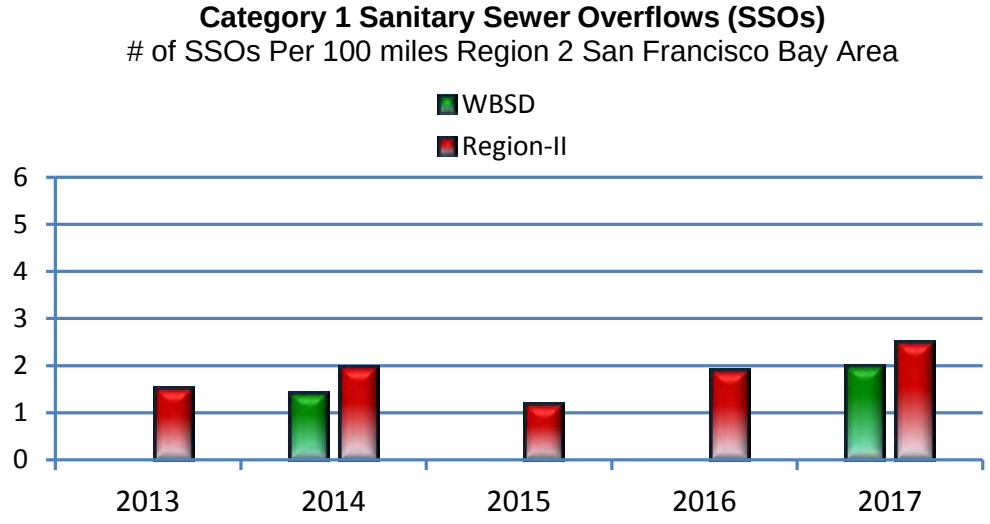
The District's goal is to maintain the sewer collection system so that there are no SSOs. Especially important is to prevent overflows that reach a creek, tributary-drainage channel or other body of water, all of which are considered "Category 1 SSOs". While the overall goal is to prevent all overflows, the interim goal of the District is to have fewer overflows within Region-2 of the San Francisco Bay Area. Region-2 has approximately 115 participating Agencies and that data is more reflective of West Bay Sanitary Districts Age, terrain and geological characteristics.

EUM Attribute #1
Product Quality



Analysis: Over the last eight 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 5-SSO's in 2017. This is the third consecutive year in the District's history to record single digit numbers.

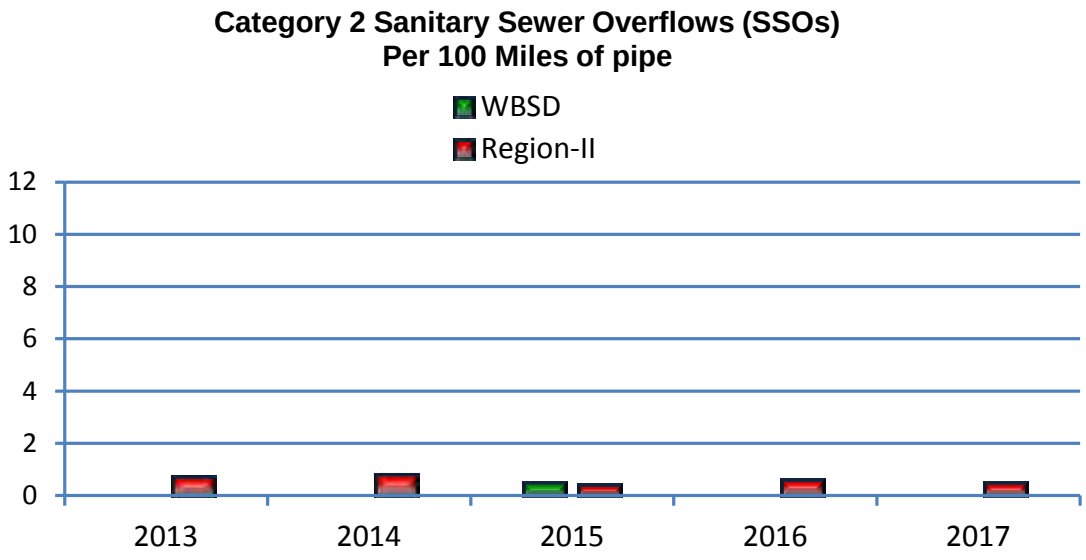
It is also worth noting the number of root related blockages has decreased exponentially from 42 in 2008 to 2 in 2017.



Analysis: The District had 2 Category-1 SSO's in 2017. Both of these spills were caused by outside influence and contractors. Region 2 had an average of 2.5 Category 1, SSO's per 100 miles of pipe in 2017.

EUM Attribute #1
Product Quality

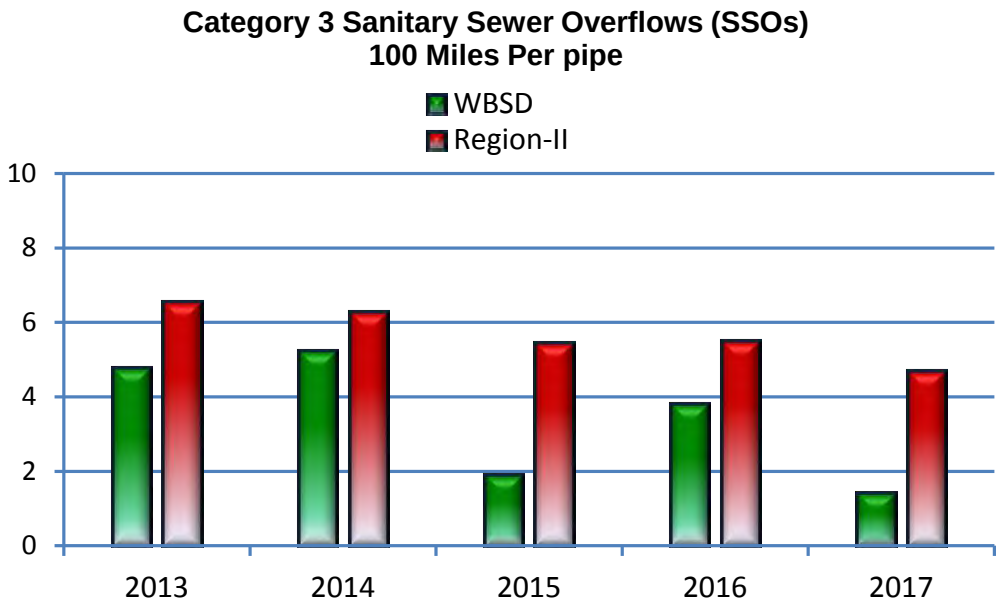
Category-2 SSO's: Are greater than 1,000 gallons, have been fully contained, recovered and returned to the sanitary sewer system. The chart below shows the number of Category 2 SSO's by the District compared to Region 2's sphere of influence.



Analysis: The District did not have any Category type 2 SSO's in 2017. Regionally there were 42 category 2 SSO's (>1K gallons). Spread out over 78331.1 miles of pipe for an average of .05 SSO's per 100 miles of pipe for region II.

EUM Attribute #1
Product Quality

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

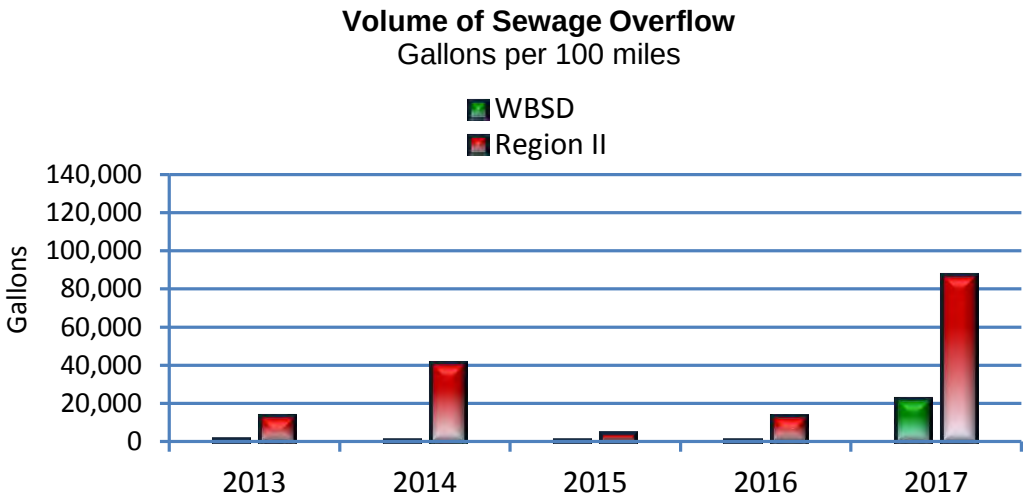


Analysis: In 2017, the District reported 3-spills less than 1,000 gallons. Region II had 669 Category 3 SSO's averaging 4.7 SSO's per 100 miles of Pipe. The District's average for Category 3 SSO's averaged at 1.4 per 100 miles of Pipe in 2017, significantly less than Region II over the last 5 years. This success is due to the Root Foaming Program and increased maintenance by placing all 4, 6, 8 and 10- inch pipe (considered small) on a 12- month cleaning cycle, as well as using hydraulic root cutter with flexible finishing blade cutters and using proofing skids on water nozzles to ensure a thorough cleaning of each line segment.

EUM Attribute #1
Product Quality

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 per 100 miles of sewer.

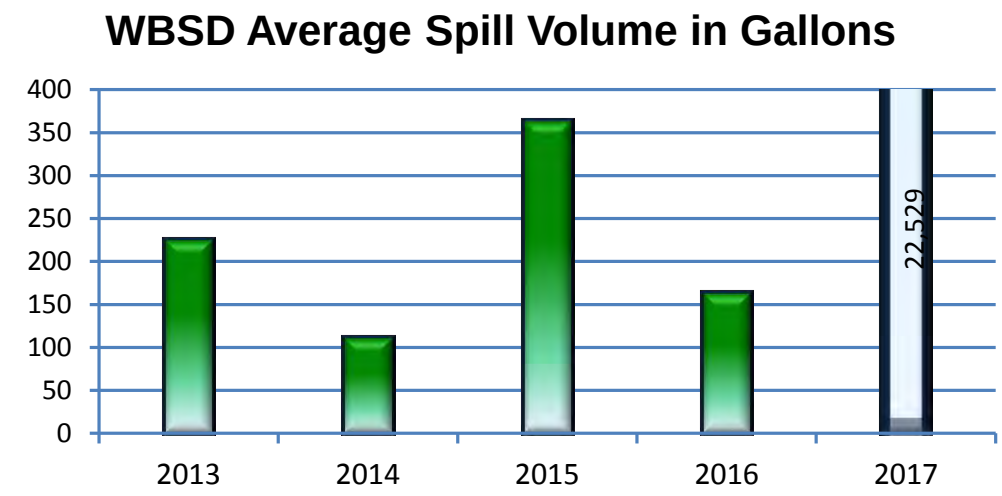


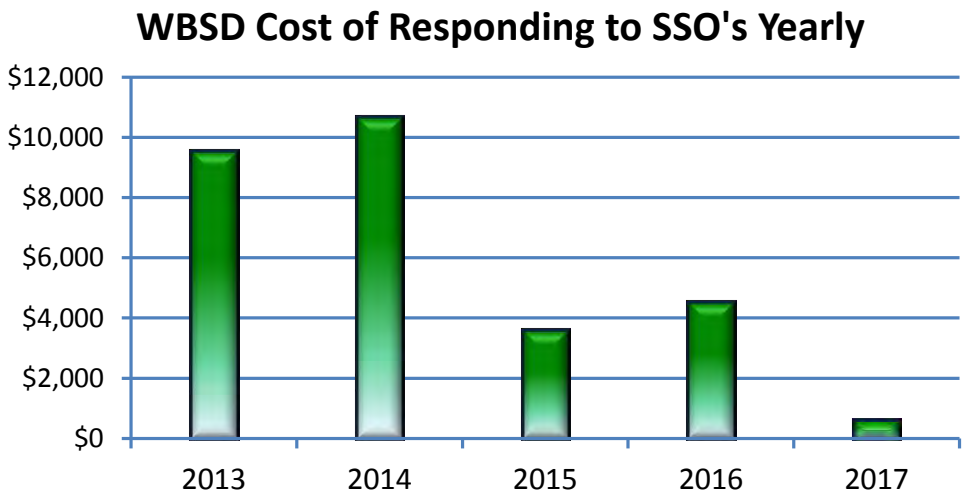
Analysis: The average volume of SSO's in Region 2 for 2017 was 87,394.2 gallons per 100 miles of pipe. The Districts Sewage spill rate in 2017 was 22529.5 gallons per 100 miles of pipe. The average volume of sewage spilled per overflow was dramatically increased in 2017. This increase was due to Outside influence and Contractor Error. The District's quick response time, training, keeping lines cleaner, and performing root control both mechanical and chemical, have allowed for lower spill volumes.

EUM Attribute #1
Product Quality

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.



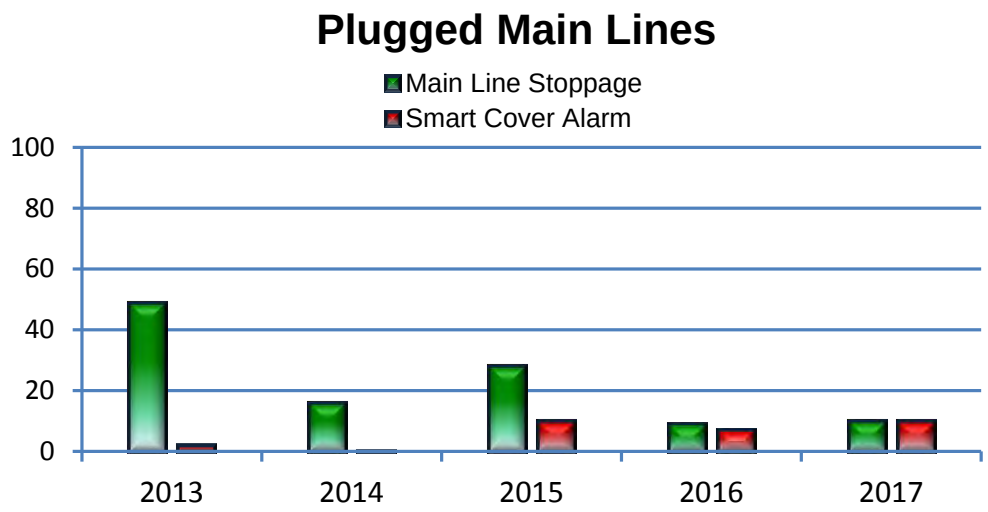


EUM Attribute #1
Product Quality

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).



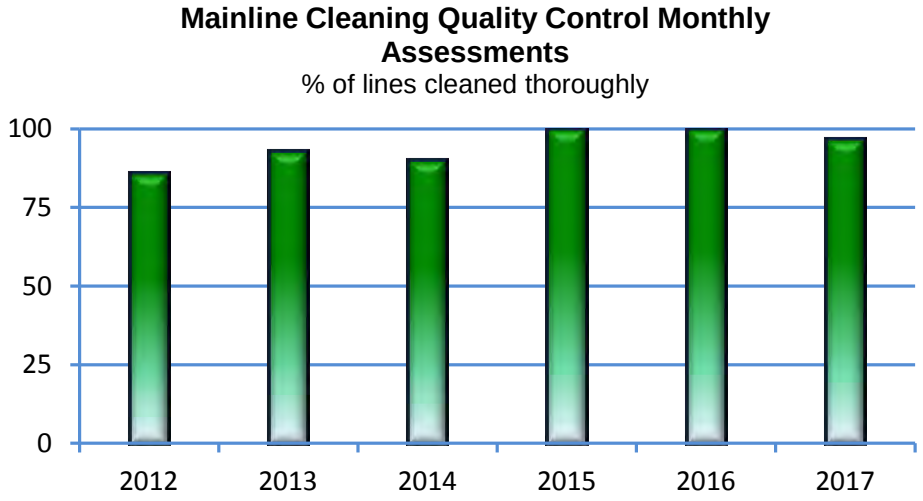
Analysis: The District has made significant improvements in this area and stoppages have dramatically been reduced. A downward trend is indicative of a well-focused maintenance program. 2015 equaled 28 main line stoppages identified by staff during routine maintenance. An additional 10 Smart Cover alarms were installed and several of those prevented potential SSO's in environmentally sensitive areas. In 2016 the District had found 9 sections of mainlines holding prior to performing routine maintenance and 7-smart cover alarms indicating potential problems for a total of 16, 57% less than in 2015.

In 2017, the District found 10 main lines holding and received 10 Smart Cover Alarms. The Smart Cover alarms not only have prevented an SSO from occurring but also provides 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 and or pagers (typically within 30 seconds). In all instances or alarms employees are able to respond quickly and avert potential SSO's

EUM Attribute #1
Product Quality

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.



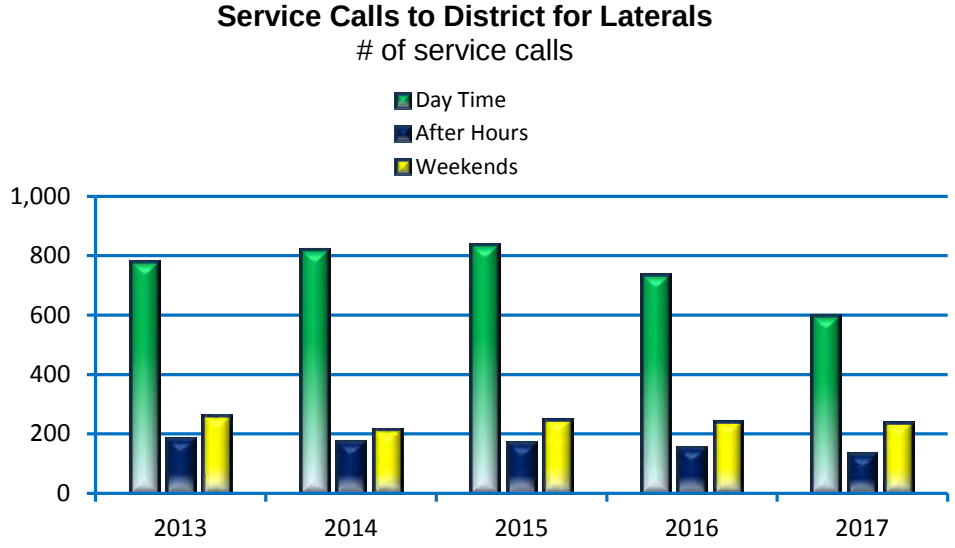
Analysis: In 2011 mainline cleaning quality control and monthly assessments were implemented and reached 85% due to the addition of new nozzles, hydro flusher configurations (hose sizes and nozzle re-jetting) and employee training. In 2012 we achieved an average of 86% lines cleaned thoroughly. In 2013 we increased the amount of line segments which are surveyed for quality control from 4 per month to 5 per month. 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. The result has been that no line segment has needed re-cleaning in 2015 and 2016 as part of the percentage. In 2017 97% of the pipe surveyed were cleaned well and only 2 pipe segments needed re-cleaning.

EUM Attribute #2
Customer Service

1. Customer Complaints

Customer Complaints assesses the complaint rates experience by the District. Currently, the District responds to Customer Complaints 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 complaints, as these problems lead to backups. The goal is to see a downward trend in this number.



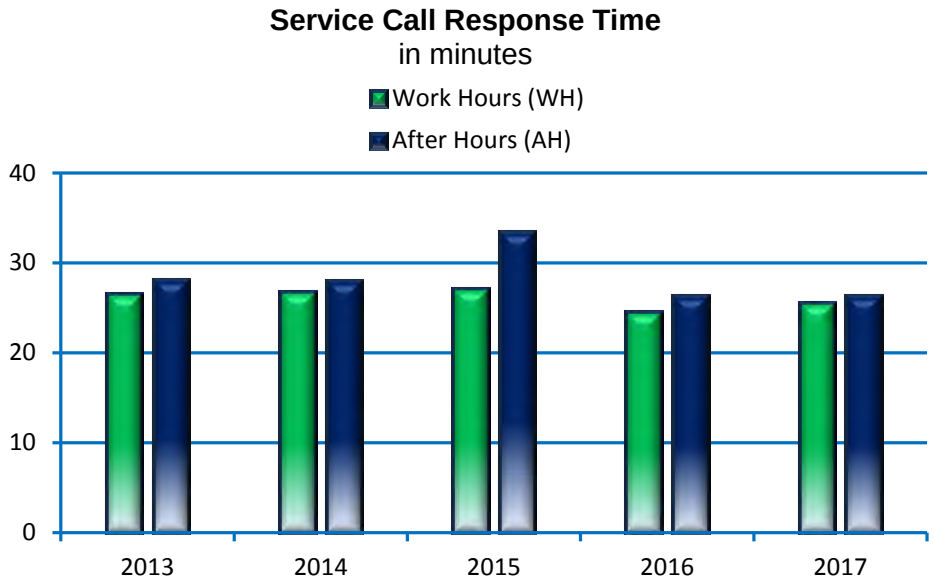
Analysis: Over the past several years, the District has focused on preventive maintenance, partially in an effort to reduce these types of call outs. These efforts have a long-term focus, but it appears that the number of District plugged laterals is decreasing at night as a result of these efforts during the daytime. In 2013 the District added weekend service calls to the chart above. In 2015 weekend service calls are up slightly in part due to increased awareness by customers to "Call Us First," but day time and after hours were comparable to 2014. In 2017 day time and night time calls were down in part due to more aggressive mainline cleaning of smaller diameter pipes which led to the cleaning of more laterals and a lateral chemical root foam program of 70 homes/year.

EUM Attribute #2
Customer Service

2. Customer Service Delivery

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

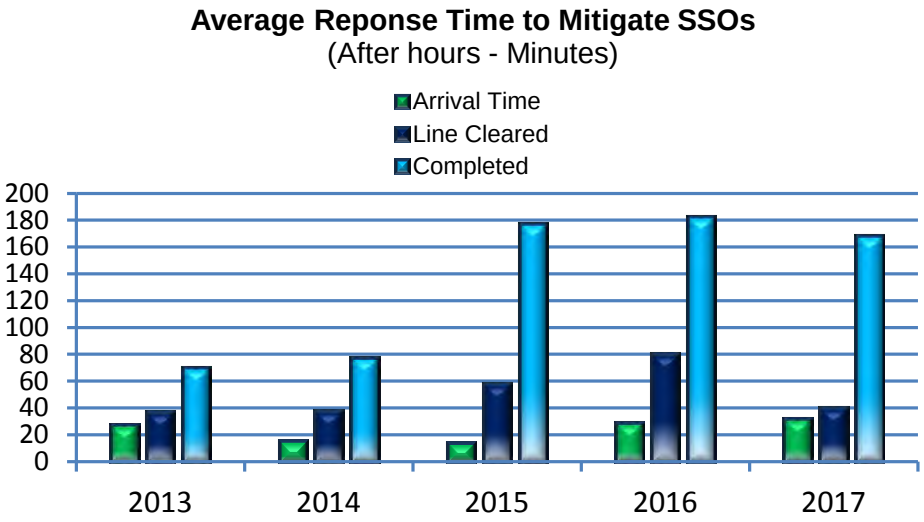
- **Service Call Response Time:** The District maintains a goal of responding to service calls for sewer backups within 45 minutes of the call. This measure shows the average response time within 45 minutes.

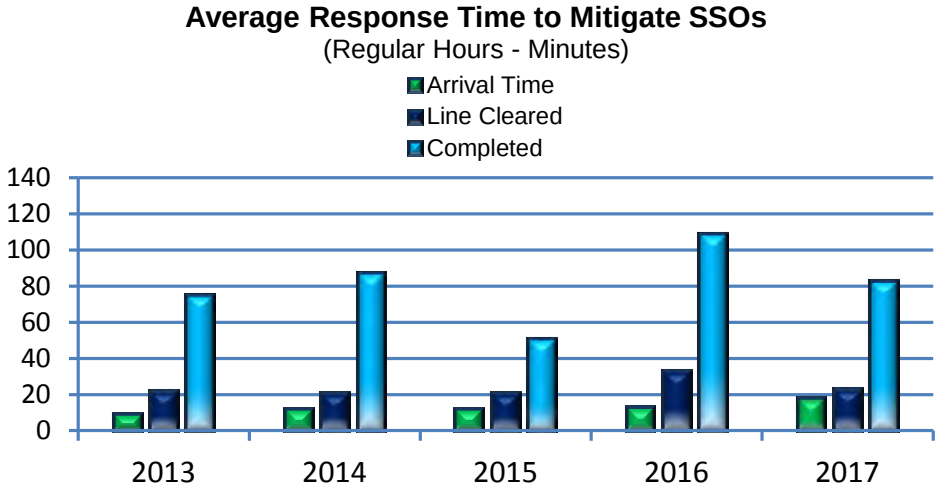


Analysis: The District started tracking this response time requirement, in 2012. The service call response time is facing an ever increasing challenge due to increased traffic in the area since Facebook has begun expanding their employee base. Response time is down in 2016 due to the fewer service calls and new on-call employees living closer to the District. In 2017 after hour response time remained the same; however, "work hours" response time inched upward. The increase in response time may be attributed to increased traffic during the day and the increase in Underground Service Alert marking required due to all the recent construction.

EUM Attribute #2
Customer Service

- **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.

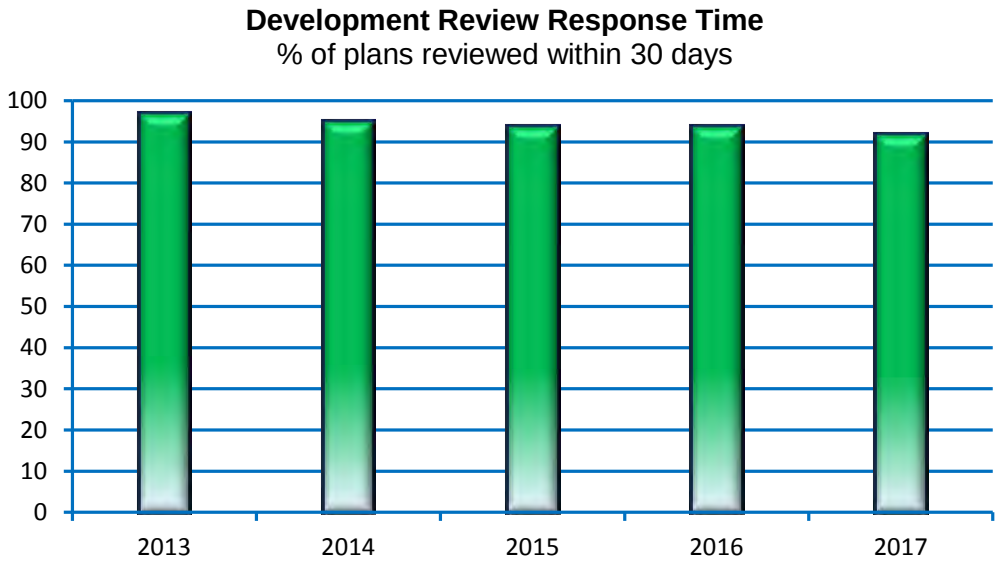




Analysis: Staff has been able to arrive on site well within the District's standard 45 minute window, and in most cases have the blockage cleared, leaving enough time to report a category-1 spill. Average arrival time during regular hours was 18 minutes and after-hours was 32 minutes in 2017

EUM Attribute #2
Customer Service

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.



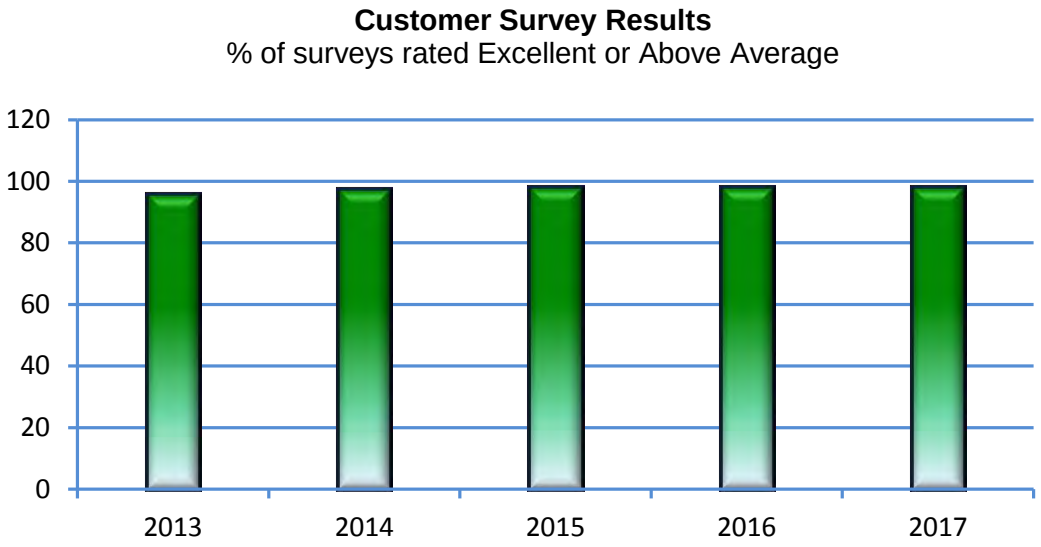
Analysis: Over the past five years that this data was captured, the percentage of plans reviewed within the goal of 30 calendar days had a decrease due to the increase of development in the area. The Department has also established and strengthened expectations among staff regarding the 30-day goal. 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 and IT Manager. Percentage stayed the same for the following year as new Engineering Tech was in training.

EUM Attribute #2
Customer Service

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.



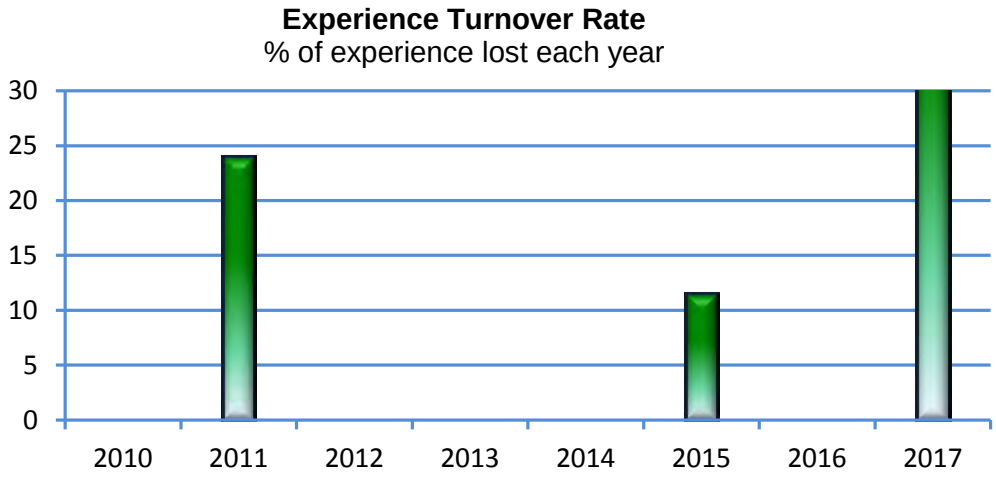
Analysis: Customer satisfaction is a measurement of customer survey results on an annual basis over the past 5 years. The goal is to achieve greater than 90% of the surveys received rating the District Excellent or Above Average. The goal was achieved for all the previous 5 years. In 2010 we began counting 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% responding Excellent or Above Average, compared to 94.8 % in 2013. In 2015 the District rated at 98.29% up slightly from 2014. The 2017 survey results measured 98.66%.

EUM Attribute #3
Employee and Leadership Development

1. Employee Retention and Satisfaction

This measure gauges the District's progress toward developing and maintaining a competent and stable workforce.

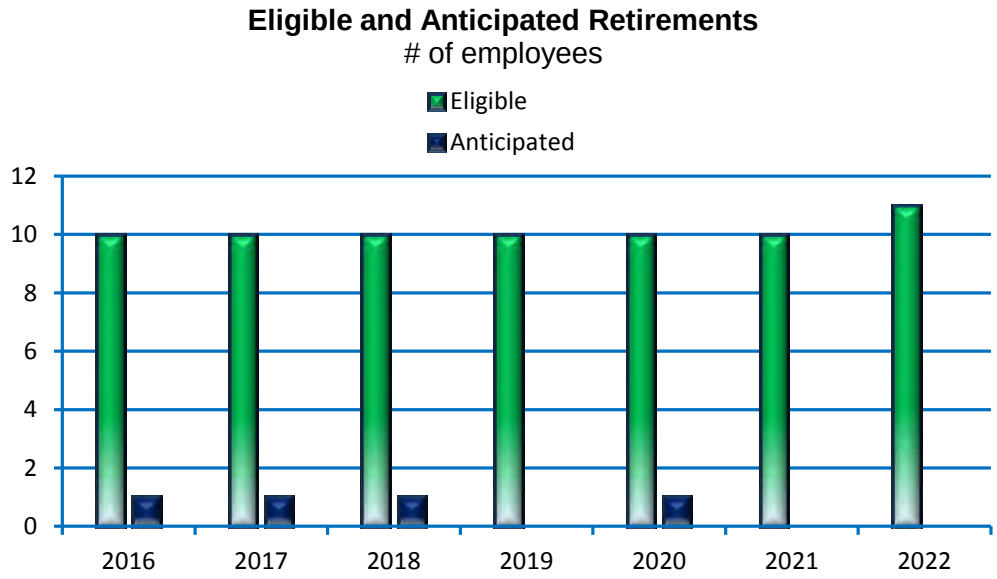
- **Experience Turnover Rate**: This is the percentage of years that retiring employees worked at the District compared to the total number of years of experience for all employees. It measures the amount of experience lost in any given year due to retirements at the District.



Analysis: Most employees who leave employment from the District 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.

EUM Attribute #3
Employee and Leadership Development

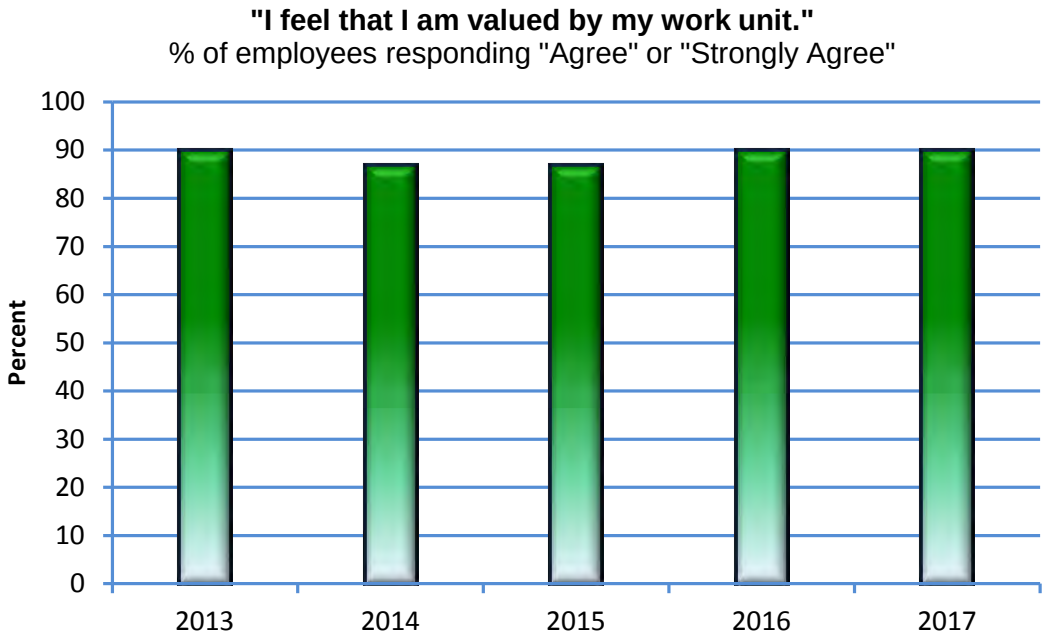
The experience turnover rate from retirements at the District is not a controllable measure, and as such this is not a performance measure as much as it's a data set that helps to inform whether there are trends in the workforce to which management needs to respond. Two employees retired in 2017. Eligible and anticipated retirements for the next 5 years are as follows:

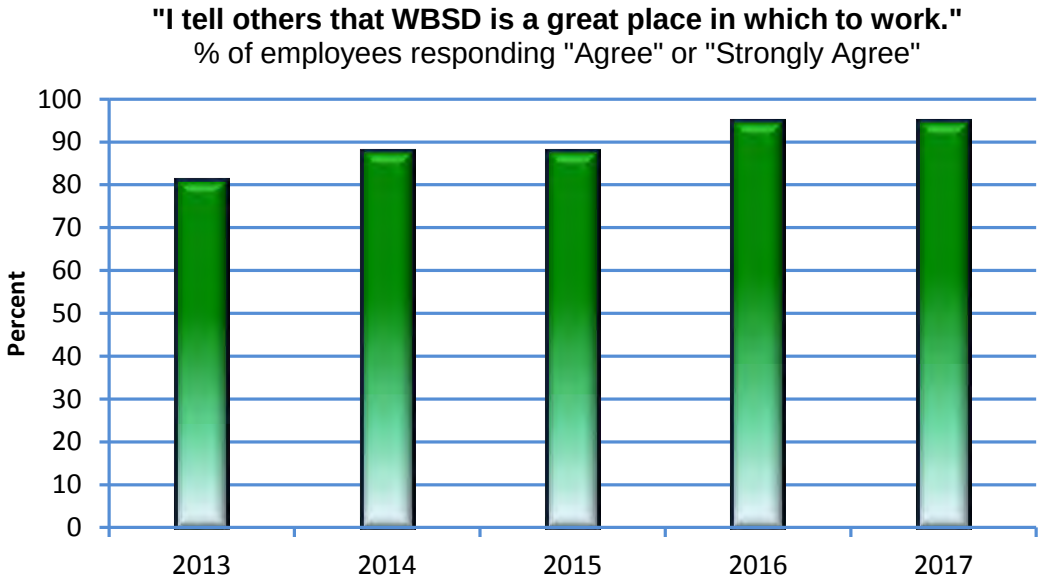


Analysis: There is nothing in the data to suggest that employees are retiring faster than would normally be expected. For 2017, two employees retired with 52 years of service/experience.

EUM Attribute #3
Employee and Leadership Development

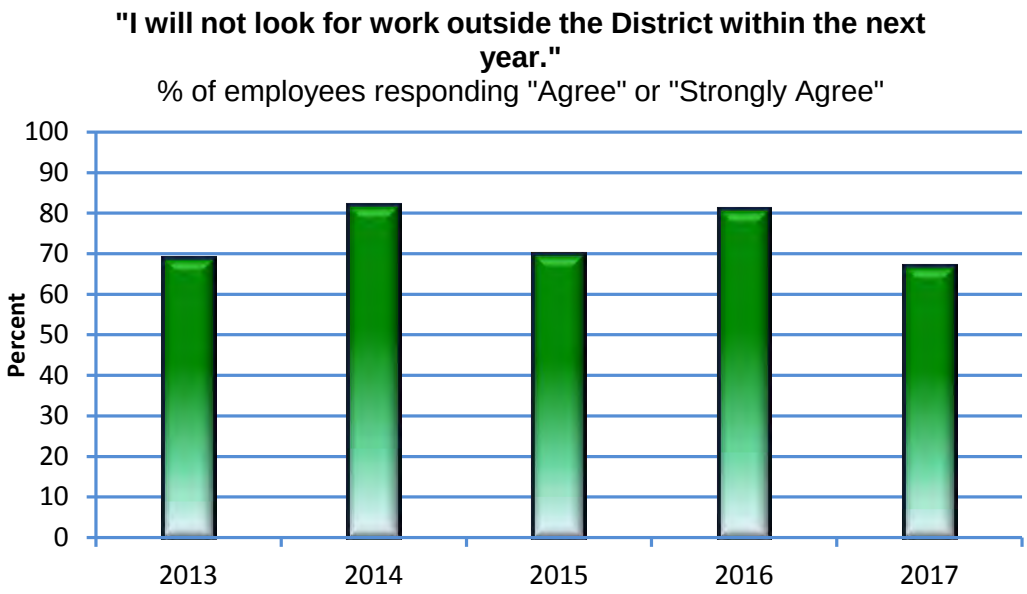
- **Employee Survey Response**: The following charts show the response to three questions asked during an annual employee survey. These questions are designed to gauge employee satisfaction. The first survey was conducted in 2011.





EUM Attribute #3

Employee and Leadership Development



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 there was over a 10% increase 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 2017 results indicated a decrease in employee satisfaction by 12%, as we enter the 4th year of a 4 year MOU.

EUM Attribute #3
Employee and Leadership Development

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 level of the certificates (i.e. from Grade I to Grade II and so on) they hold 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 90% or 17 of 19 employees certified in CWEA that are significantly involved with operations.

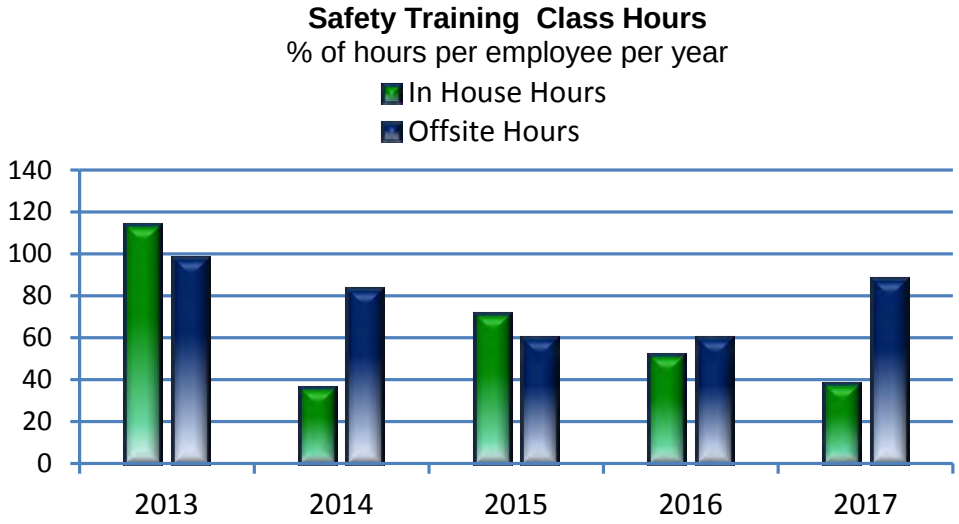
- **Management Training**: Management receives increased training on policies, regulations, and Coaching and Mentoring techniques. New and revised policies are developed collaboratively with management staff and affected staff trained on the changes. Regulation updates are regularly presented and discussed 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 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.

EUM Attribute #3
Employee and Leadership Development

- **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.



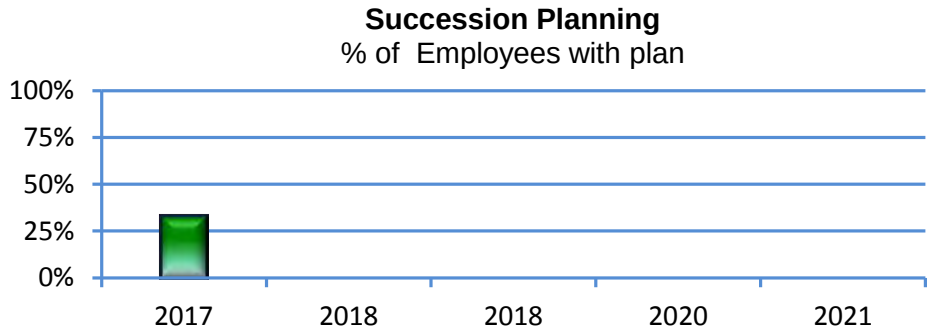
Analysis: Training hours now include hours of training performed or made available through outside associations such as California Water Environment Association. The total number of training hours will also increase in years with first year employees and then decrease slightly as they become more proficient.

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.

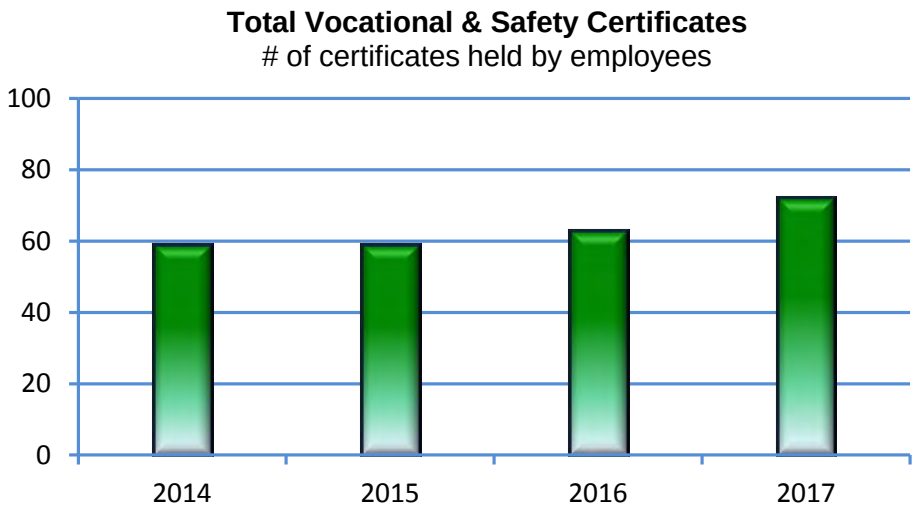
Succession planning includes many facets, typical indicators to watch for are employee(s) (EE's) years of experience with the District, vocational certificates, college education levels, EE's with career development goals, and EE's feeling of readiness for advancement.

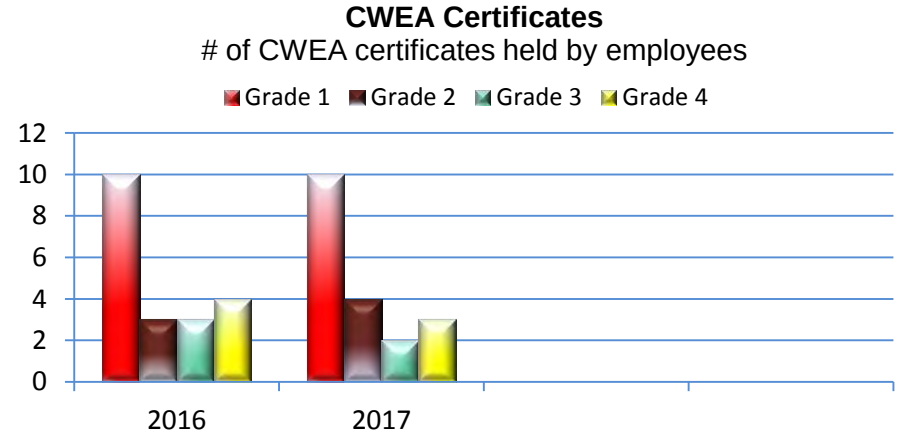


EUM Attribute #3
Employee and Leadership Development

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.

Cross training2 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.



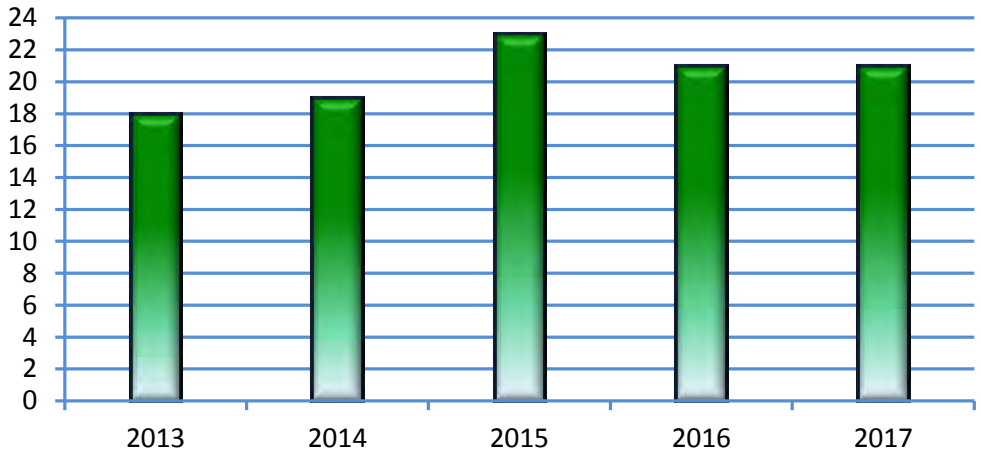


EUM Attribute #3

Employee and Leadership Development

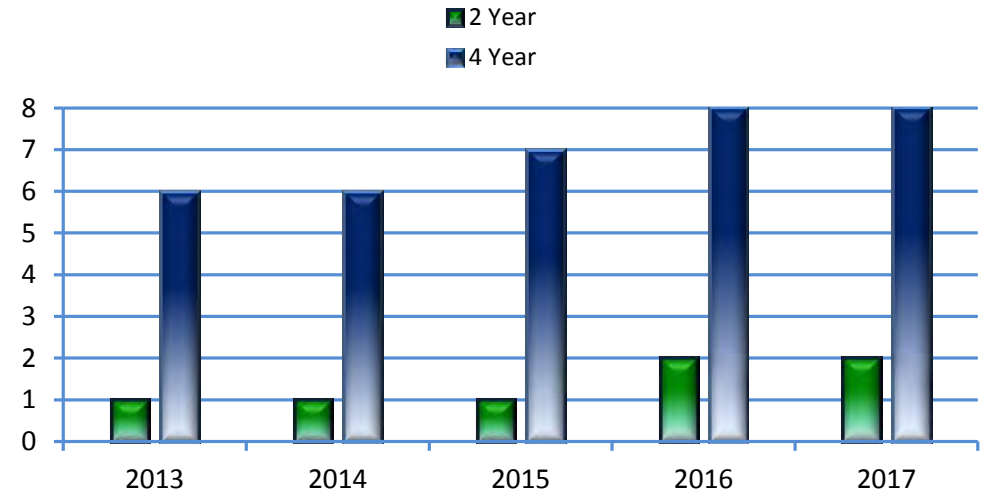
5 or More Years of Service

# of employees with five years of service with WBSD



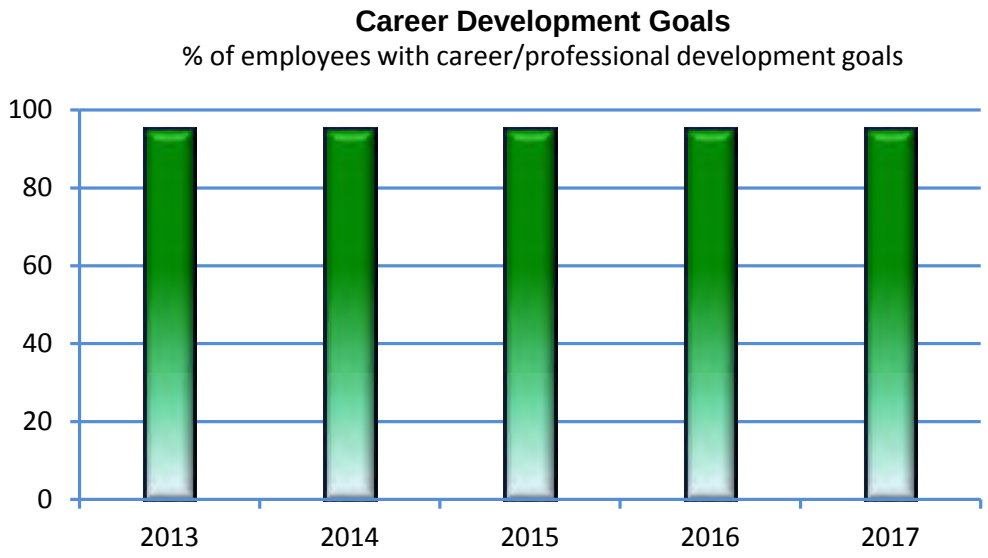
College Education

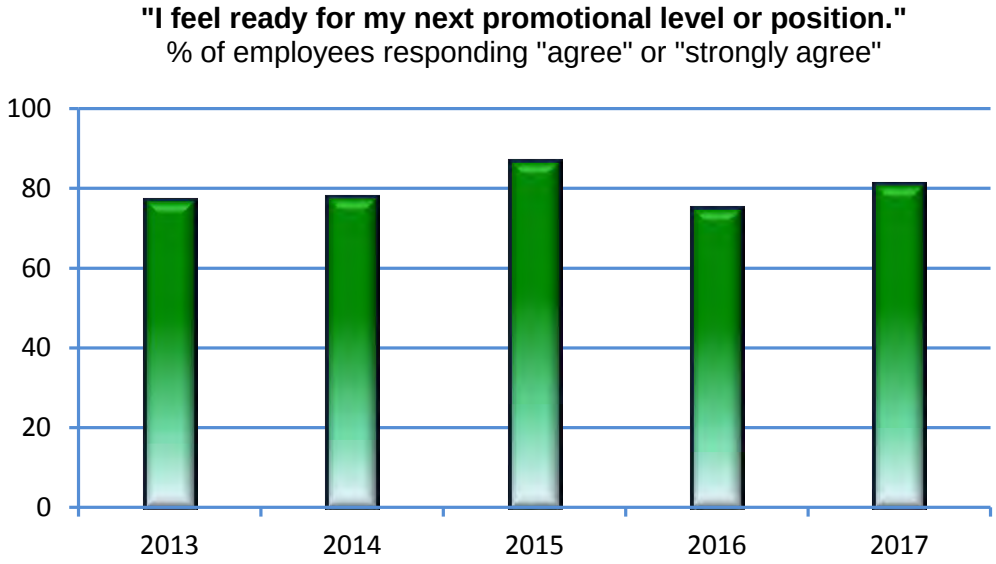
# of employees with two and four year degrees



EUM Attribute #3

Employee and Leadership Development



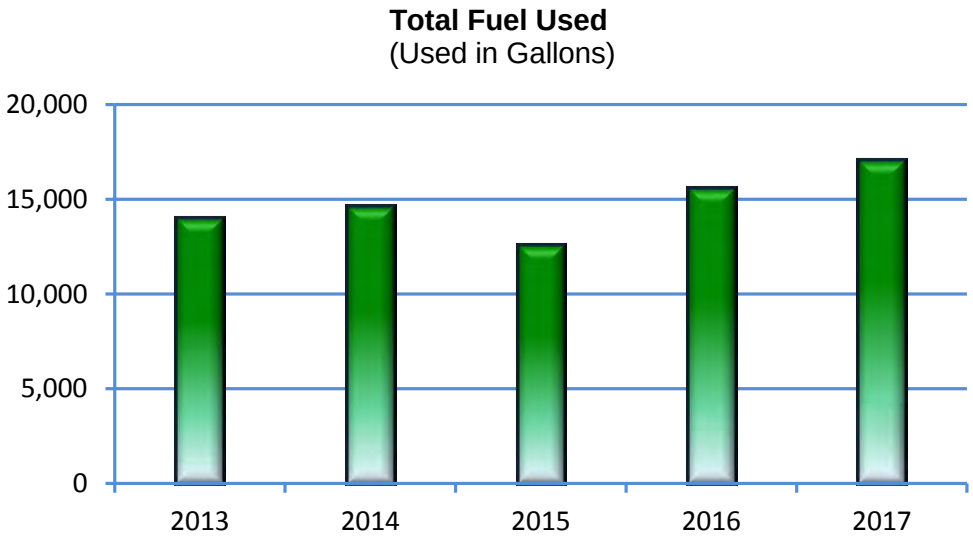


Analysis: In 2010, management implemented a new performance evaluation form to include written goals and objectives written collaboratively by the employee and their supervisors to set short term and long term goals. Responses for 2012 were provided by employees in the employee survey and offered options 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 maintenance department employees were also cross-trained in CCTV and construction inspection.

EUM Attribute #4
Resource Optimization

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 2010 the District used approximately 17,478 gallons of fuel. Total fuel usage in 2011 was 14,123 gallons in 2012 usage was 11,685 gallons in 2013 fuel usage was 13,992 gallons and in 2014 fuel usage was 14,678 the increase in fuel consumption is a result of increased cleaning efforts. 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.



EUM Attribute #4
Resource Optimization

- Savings in Purchases: 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 Vactor	$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 215- F550 (½”	$59,000	$54,000	$5,000
½ Jetter Unit	$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

*M*MSRP was taken from the Ford website. In 2016 Unit 207 and Unit 202 were replaced. A total of $16,613 was saved.

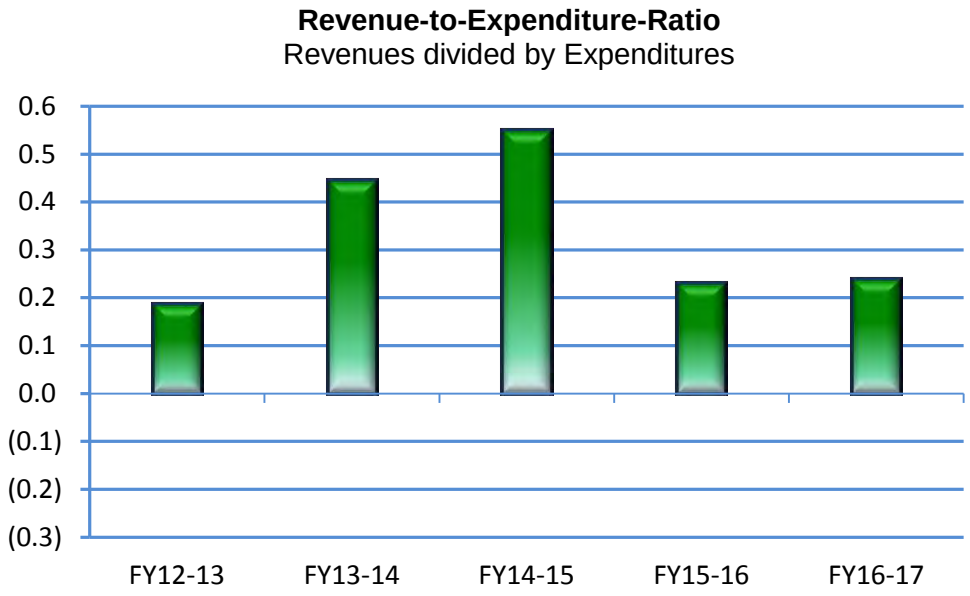
Analysis: The District makes a considerable effort to make large purchases through the Bid Process or by using co-operatives to make sure the District obtains the best price for its necessary products and equipment.

EUM Attribute #5
Financial Viability

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.

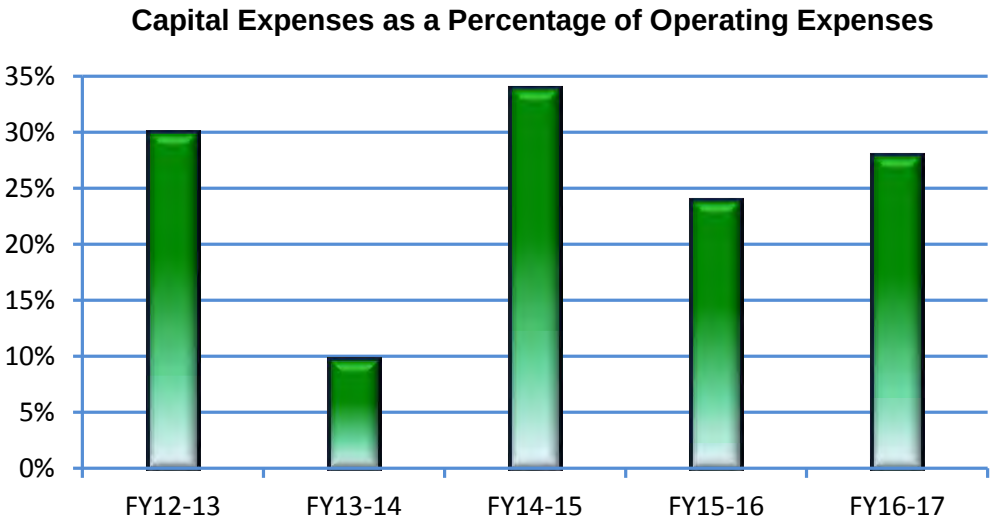
- **Revenue-to-Expenditure Ratio**: This ratio is total revenue from all sources divided by total expenditures, including debt service and capital, but excluding depreciation, minus 1. This ratio shows the annual impact to fund equity. A ratio below 0 means that there were more expenses than revenues 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.



Analysis: Steady increases in sewer service fees over the past 5 years have offset the significant increases in SVCW debt service, increasing the Revenue to Expenditure Ratio from .18 in FY 12-13 to .55 in FY 14-15. However, in FY 15-16 and FY 16-17 this ratio declined to .23 and .24 respectively as operating expenses increased significantly primarily to increased expenses from the treatment plant for operations and debt service.

EUM Attribute #5
Financial Viability

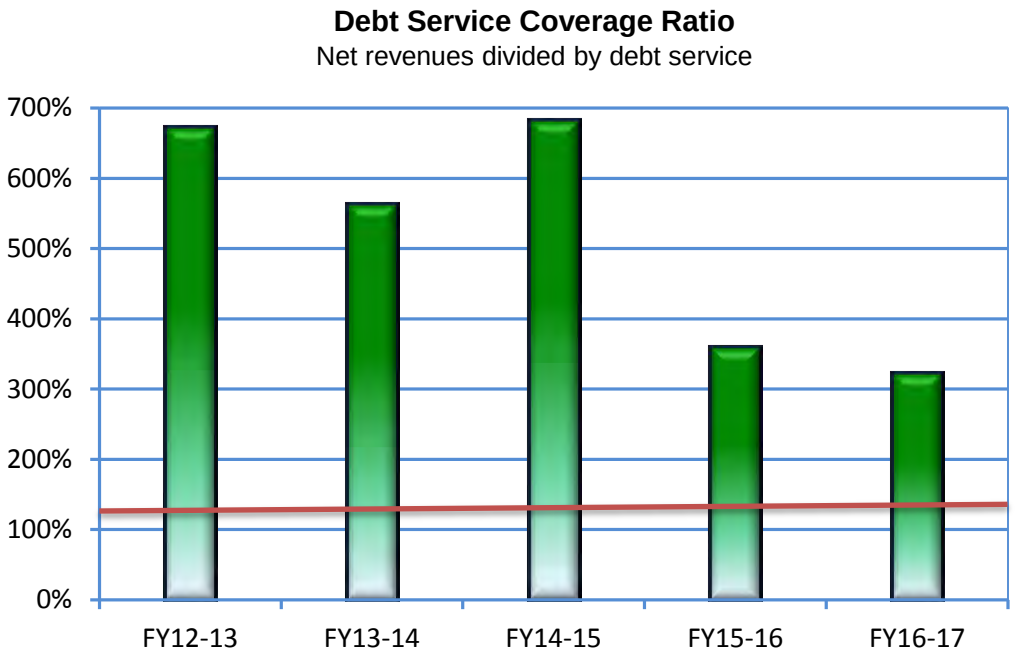
- **Capital Expenses Compared to Operating Expenses**: Capital expenses as a percentage of operating expenses (less depreciation) is a measure that has meaning only when compared against itself over time, or compared to other similar agencies. An upward trend is indicative of an expansion period or a 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.



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 $46 million over 10 years for pipeline replacement and rehabilitation alone. With the exception of FY13-14, which saw lower capital spending due to timing, annual capital expenditures have been on track to achieve this goal. A total of $18.5 million has been spent during the past 5 years on capital equipment and projects.

EUM Attribute #5
Financial Viability

- **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.



Analysis: Although the District carries no debt of its own, as member of a JPA for waste treatment provided by Silicon Valley Clean Water, the District is obligated to pay its share of debt for bonds and SRF loans secured by the treatment facility. Using the District's share of debt service to calculate coverage, the District has maintained a healthy ratio exceeding 300%.

EUM Attribute #5
Financial Viability

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. Comprehensive policies were adopted in June 2008, and are revised and updated annually at each fiscal year end.

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

Yes. The District is required to conduct an annual audit.

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

No. 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 (FY2013-FY2017).

- **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 5 months operating budget, an emergency capital reserve of $5 million, and a capital project reserve of $3.5 million, the District added a rate stabilization fund of $3 million in October 2015 which has increased to $5.6 million and a recycled water treatment facility cash flow reserve of $8 million in December 2016.

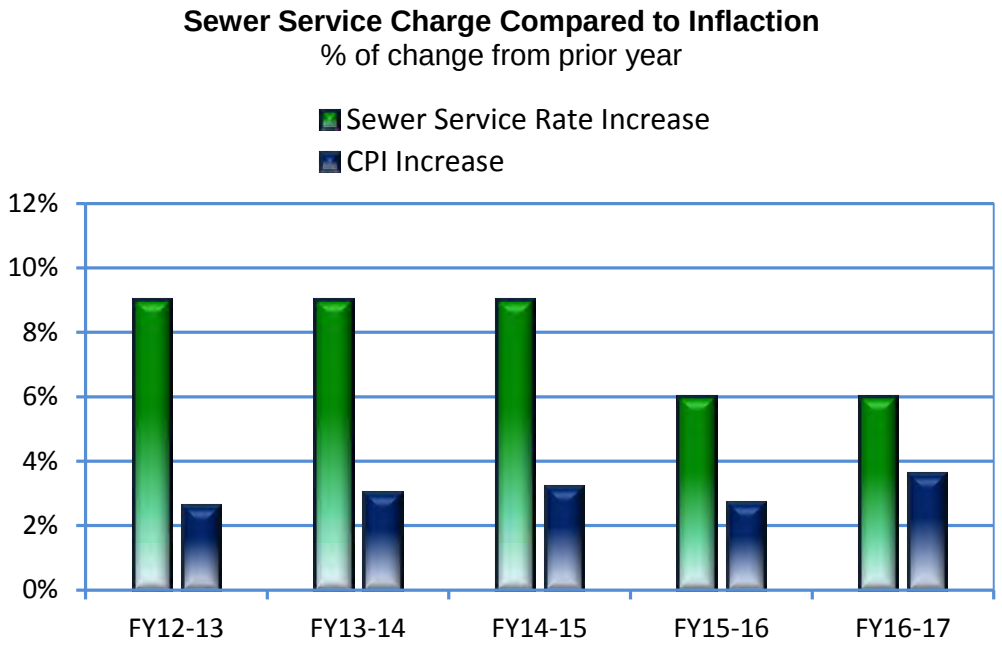
Analysis: Sewer Service Charges (SSC's) constitute over 99% of District revenues, with the significant majority of that revenue coming from residential customers. SSC's are collected as an assessment on the property tax statements. This factor helps to provide adequate revenue stability for the District. The establishment of the reserves, which are fully funded, help to provide financial stability.

EUM Attribute #5
Financial Viability

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.



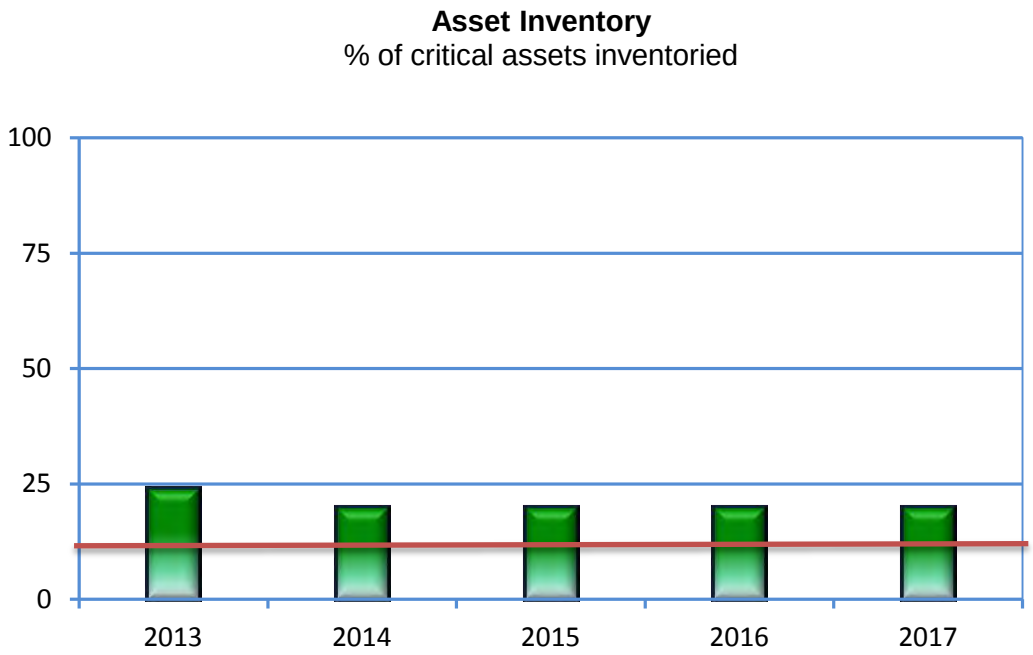
Analysis: There were SSC increases from FY 12-13 through FY 16-17, of %, 6%, 9%, 9%, 6% and 6% respectively. These rate increases were intended to bring the rate up to meet operational demands within the collection system and at the treatment plant and to fund capital improvements.

EUM Attribute #6
Infrastructure Stability

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.

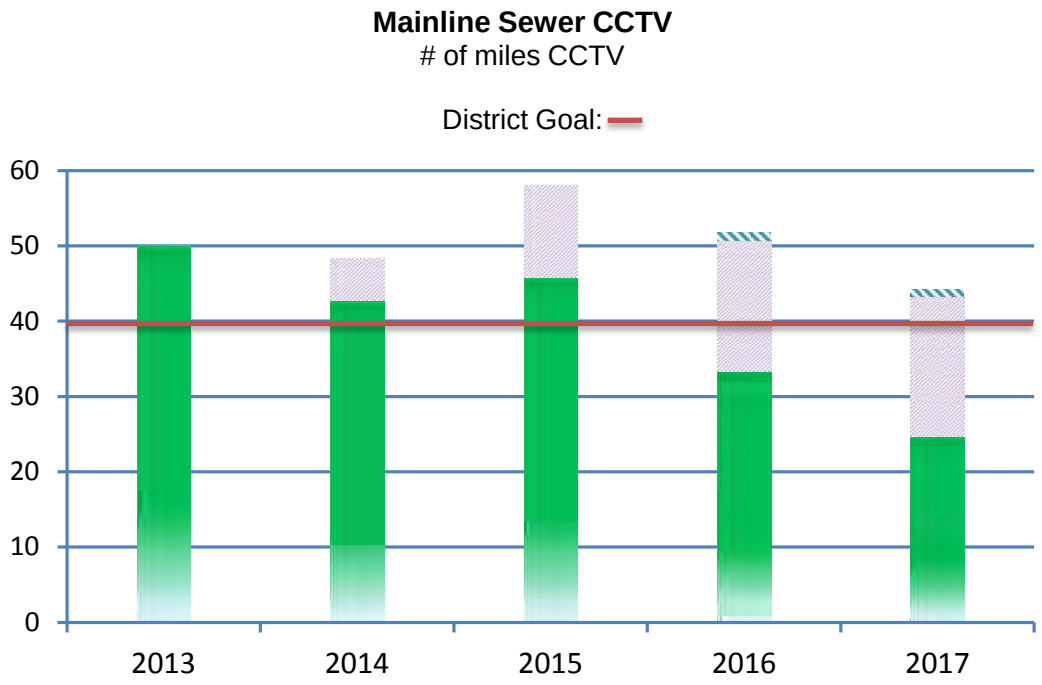
- **Asset Inventory**: This is the percent of the District's critical assets that have been inventoried within the past 5-10 years.



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 20% per year. In 2017 District crews re-assessed 11.8% of the system.

EUM Attribute #6
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.



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 7 years. The goal is to CCTV the entire system in 5 years. In 2014 the District CCTV inspected 42.8 miles of pipe without the use of outside contractors. Also assessed 5.5 miles for the Town of Los Altos Hills under contract, for a total for 48.3 miles. In 2015 the District CCTV inspected 45.9 miles of pipe (in addition to 12.2 miles for the Town of Los Altos Hills). In 2017 the District CCTV inspected 24.8 miles of West Bay pipes, 18.4 for Town of Los Altos and Town of Woodside, for a total of 43.2 miles. High turnover in the CCTV Inspection group contributed to the decrease in miles. (The shaded area above the bar graph for 2014, 2015, and 2016, and 2017 represent the CCTV footage for LAH and TOW).

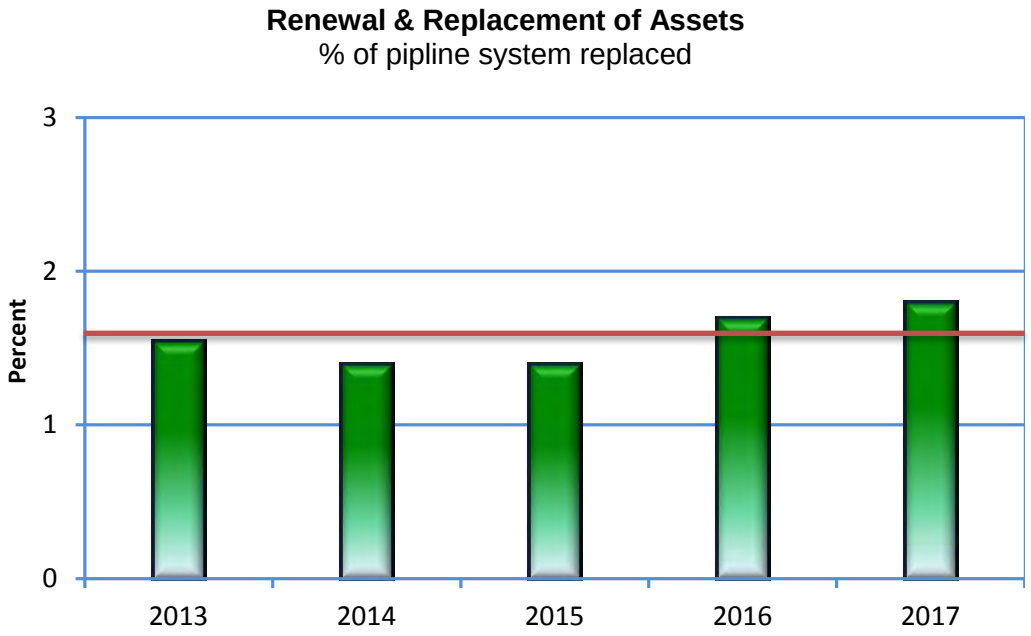
Now that we've televised the entire LAH system the District percent of system TV's should increase 2018.

EUM Attribute #6
Infrastructure Stability

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.

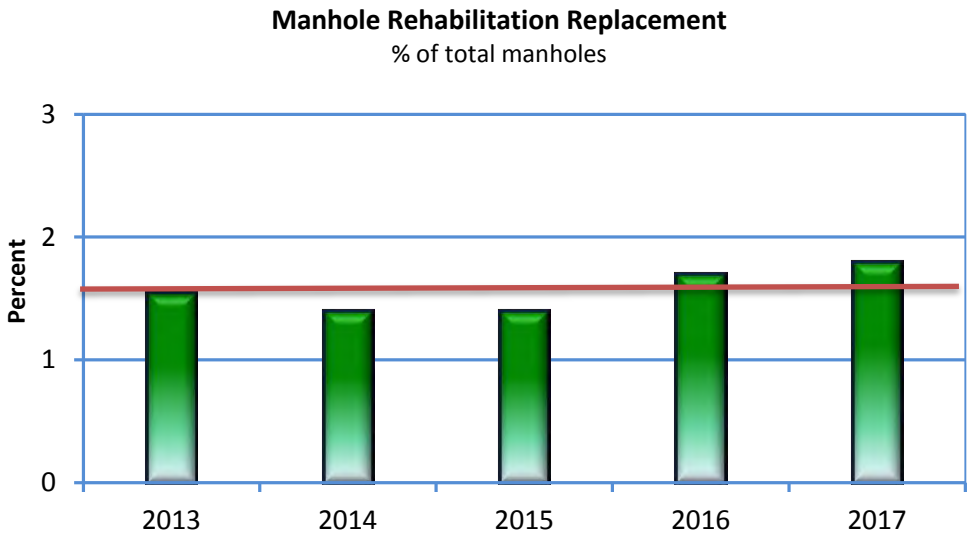
- **Renewal & Replacement of Pipeline**: This graph shows the amount of pipeline actually renewed or replaced as a percentage of the total pipeline infrastructure in the District.



Analysis: The District should be replacing between 1.5% and 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.

EUM Attribute #6
Infrastructure Stability

- **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).



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.

EUM Attribute #6
Infrastructure Stability

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.

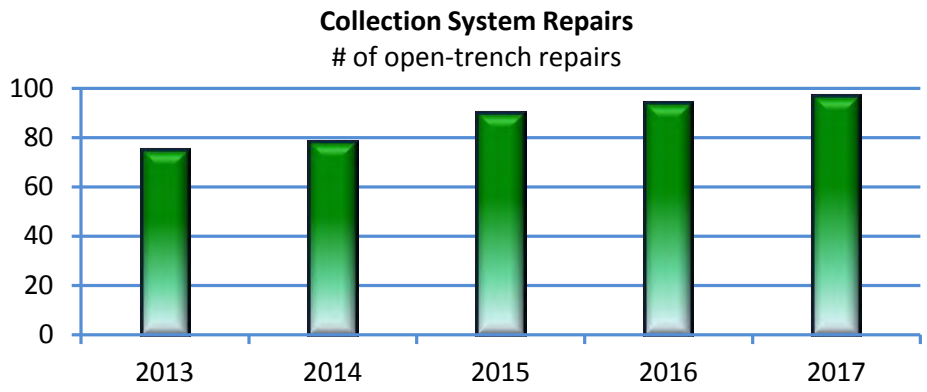
- **Collection System Failure Rate**: A collection system failure is when a portion of sewer pipe collapses and flows become obstructed or uncontained from that collapse, rather than being caused by sediment, grease, roots or some other foreign object.

    - 2017 Alameda & Campo Bello Pipelines Failure
    - 2016 none
    - 2015 none
    - 2014 none
    - 2013 none
    - 2012 none
    - 2011 none
    - 2010 – December 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 be meaningful. The District's record of failure rates is outstanding.

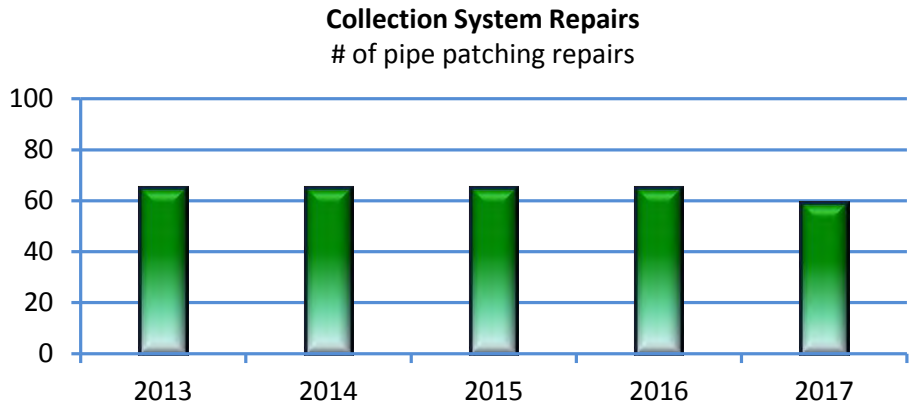
EUM Attribute #6
Infrastructure Stability

- **Collections System Repairs**: This is the total number of open-trench repairs made to the collection system by staff.



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 2014 District crews performed 78 open-trench repairs with a contract value of $624,000.00 or $8,000.00 per repair. 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**.**

- **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.



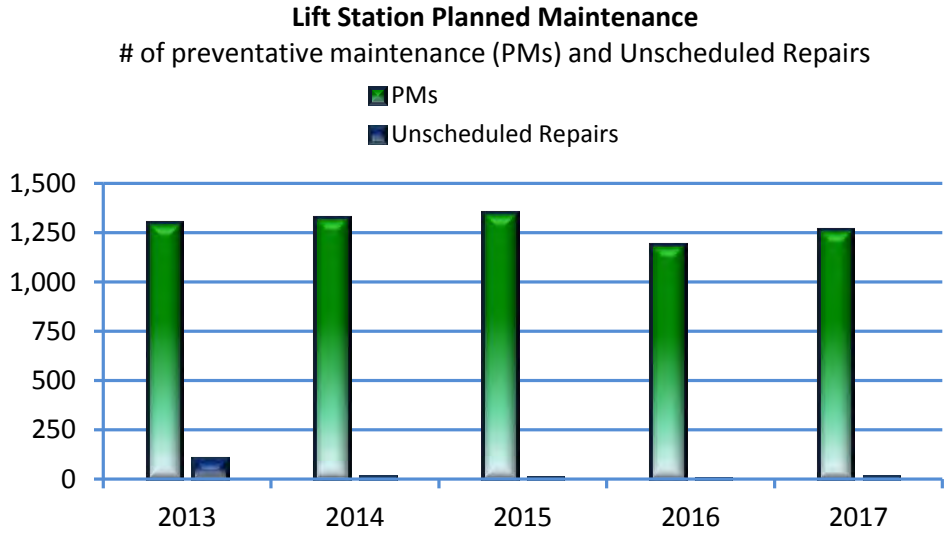
Analysis: The pipe patch program was implemented in 2010 and staff has been successful repairing sewer lines without open-cut trenching when possible. This method not only saves costs but reduces risk to the workers. The pipe patching method is allowing the District to maintain and improve its collection 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

EUM Attribute #6
Infrastructure Stability

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.

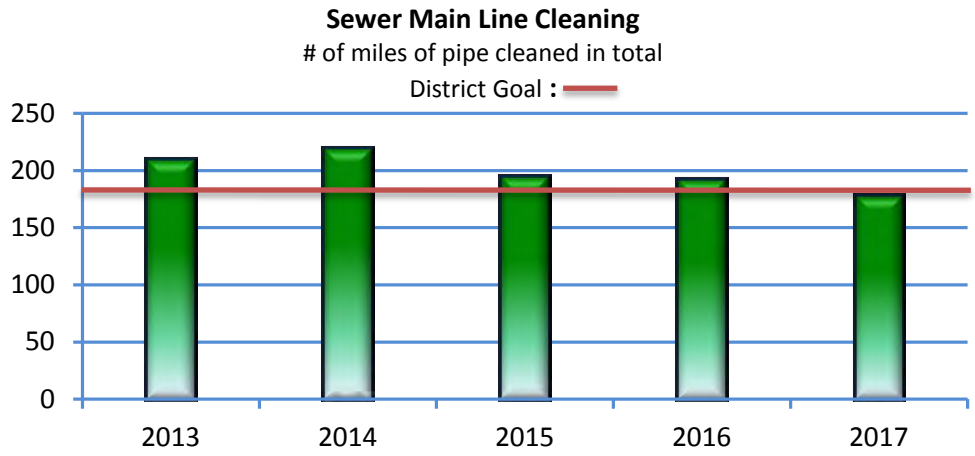
- **Lift Station Planned Maintenance Ratio:** The chart below indicates Preventative Maintenance Repairs (PM) and Unscheduled Repairs performed throughout the year. There is a direct correlation between the number of Preventative Maintenance Repairs and low number of Unscheduled Repairs. As the crew 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.



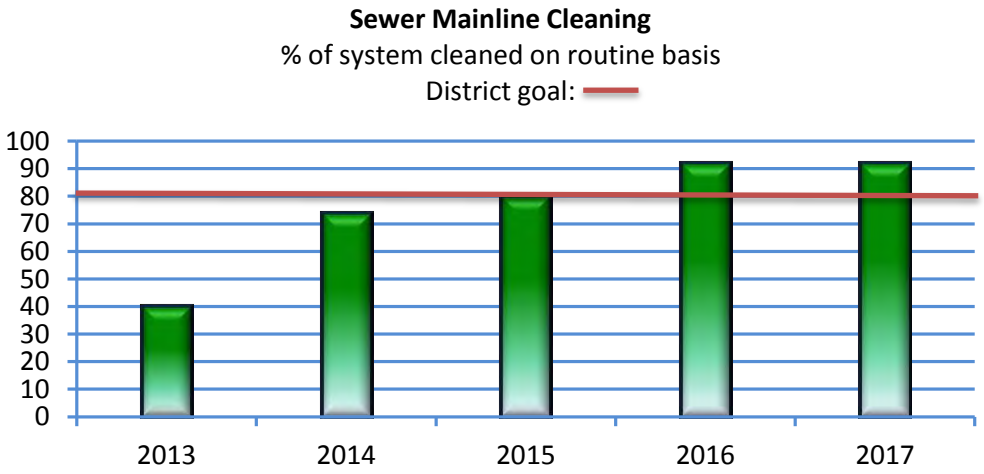
Analysis: Reliable data for this measure starts in 2011. Prior to 2011 such PMs or repairs were not being tracked in this manner. The District will continue to collect such data and observe any trends. A full year worth of data using our new Preventative Maintenance (PM) program and schedule was collected in 2012. PM efforts were increased in 2012 and many maintenance hours were utilized in solving the odor issues at the Corte Madera lift station (removed from system in 2016, flows were redirected to the Sausal Vista Lift Station). In 2014 crews performed 1328 PMs and only had 10 unscheduled repairs to perform. In 2015 crews performed 1349 PMs and only 6 unscheduled repairs were performed. In 2016 crews performed 1188 PMs and only 5 unscheduled repairs were performed. 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.

EUM Attribute #6
Infrastructure Stability

- **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.



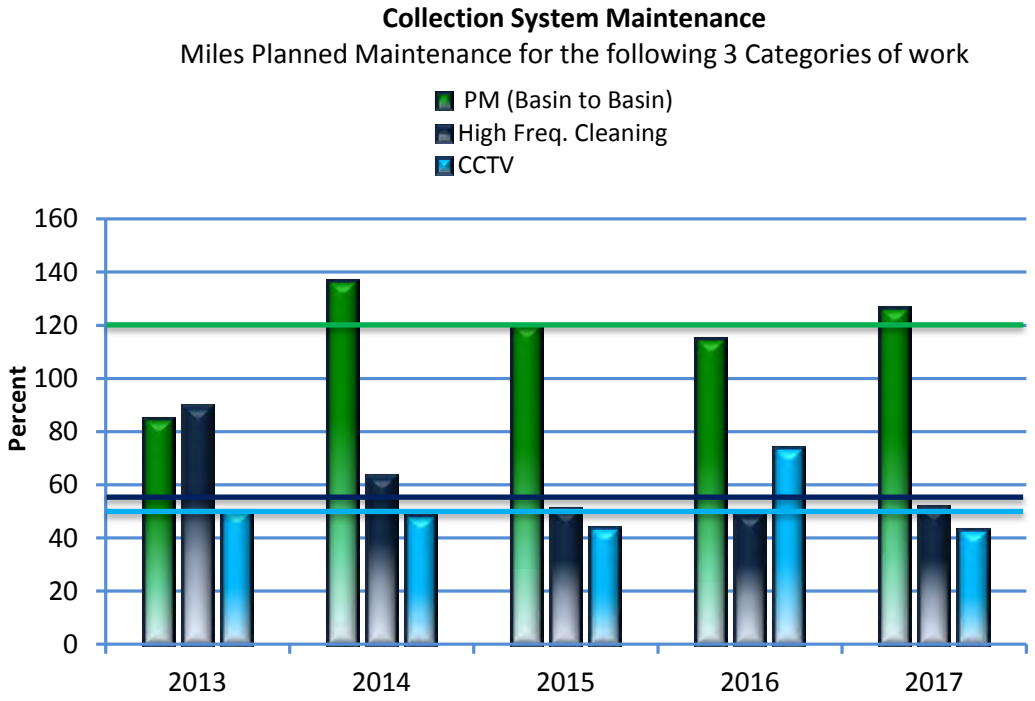
Analysis: In 2012 we re-assessed many of our high frequency lines and pushed their frequency back. We also removed some lines from our high frequency due to a successful pipe line replacement program. In 2014 we began to clean 4", 6" 8" and 10" pipes on an annual basis, based on the fact that our SSOs were from smaller diameter pipe and a more aggressive root growth during the recent drought. In 2014 the crews cleaned 220 miles of pipe. In 2015 the crew cleaned 195 miles of pipe. In 2016 the crews cleaned 193 miles of pipe. In 2017 crews cleaned 179.6 miles of pipe.



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 months in order to reduce SSO's even further. In 2017 crews cleaned an equivalent of 85% of the system, resulting in only 7 SSO's. 3 SSO's were caused by contractor error and vandalism.

EUM Attribute #6
Infrastructure Stability

- **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).



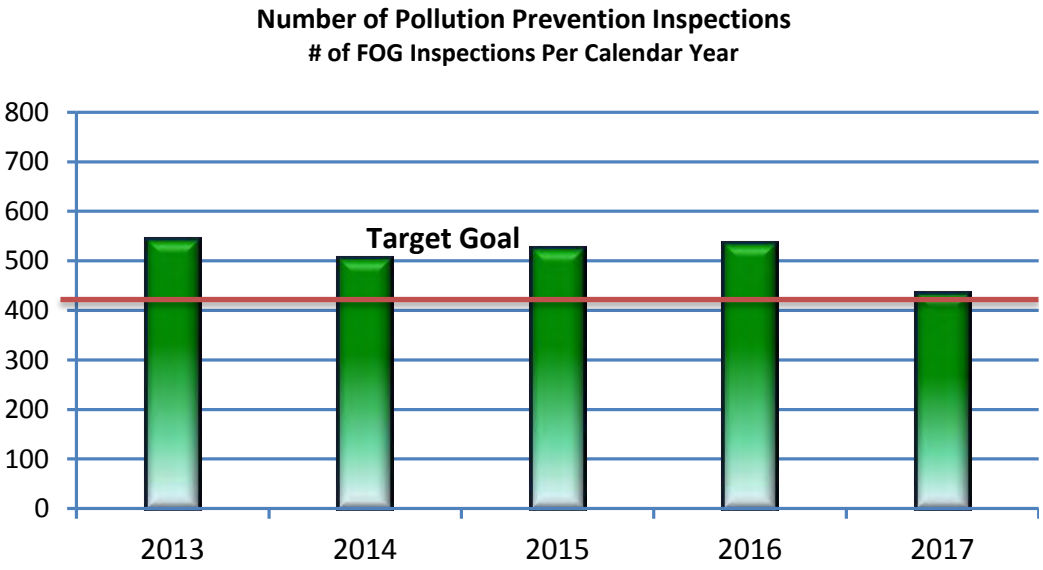
Analysis: This data represents 3 collection system categories. PM (basin to basin) cleaning, high frequency cleaning and CCTV operations. In 2014 crews cleaned 137 miles of basin to basin cleaning, 63 miles of high frequency cleaning and 42.8 miles of CCTV (plus 5.5 miles for the Town of Los Altos Hills under contract). In 2015 crews cleaned 120 miles of basin to basin cleaning (small pipe 4-10 inch in diameter), 55 miles of high frequency cleaning and 45.9 miles of CCTV (in addition to 14.8 miles for the Town of Los Altos Hills under contract). 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.

EUM Attribute #6
Infrastructure Stability

5. FOG Program:

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

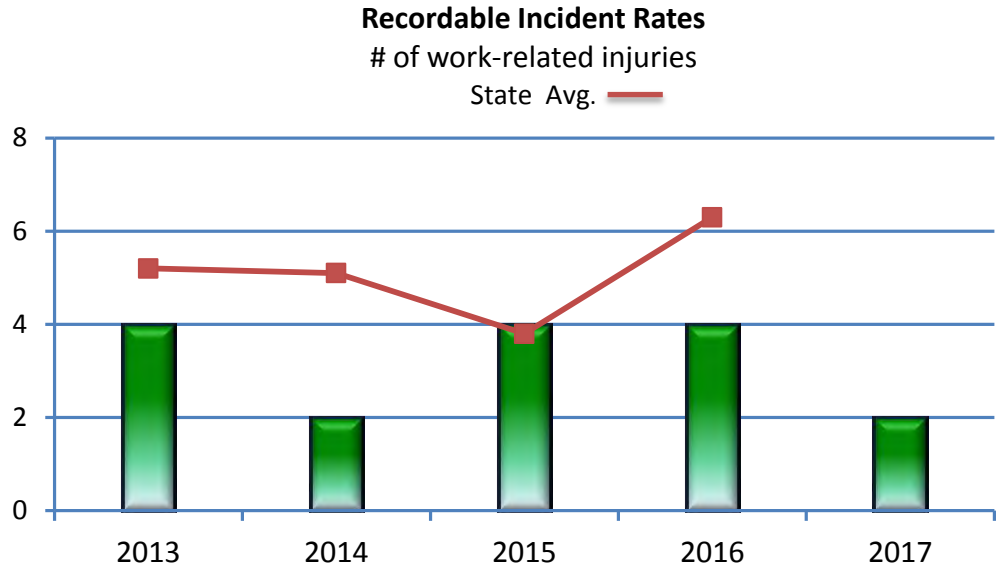
- **Pollution Prevention Inspections:** Pollution prevention inspections ensure that restaurants and other businesses are properly maintaining their grease traps/interceptors and oil water separators while following Best Management Practices. Properly maintaining this equipment results in fewer corrective 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.



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. Prior to FY 14/15 and current District Goal was to perform 600 inspections and was reduced to 500 inspections per year. In calendar year 2014 January 1 – December 31 staff did perform 527 FOG inspections & 11 HMBP Inspections. The reasoning for the reduction in FOG inspections was to allow for increased sampling and monitoring programs). Food establishments were 81% compliant in 2015. In calendar year 2016 staff performed 501 FOG Inspections for WBSD and 36 for Sewer Authority Mid-Coastside and 10 for the Town of Woodside for a total of 537 FOG inspection, and 12 HMBP Inspection. Percentage of Compliance for 2016 was 84.2%, up 3% from 2015. In 2017 we performed 435 FOG inspections with an initial 70% compliance rate upon inspection. Facilities found not in compliance were given 5-days to have their equipment brought into compliance. Those facilities that did not comply were issued a Notice of Violation and invoiced for non-compliance. This close scrutiny helps keep for FOG related SSO rate under control.

EUM Attribute #7
Operational Resiliency

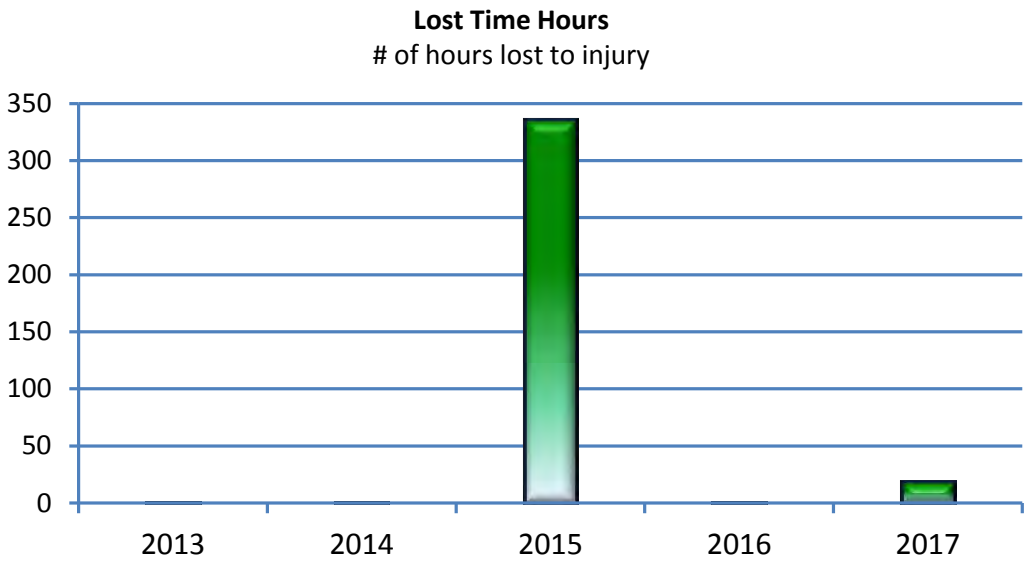
1. Total Recordable Incident Rate:
This is the number of work-related injuries and illnesses times 20,000 divided by the number of employee hours worked. This is the standard formula used by OSHA to normalize data. The 200,000 represents 100 employees working 40 hours per week, 50 weeks per year, and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



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 when compared with 2014 data. In 2015 the District was slightly above the Industry Average of 3.8 with 4 recordable incidents. The 2016 State average for work-related injuries was 6.3 with four recordable incidents. In 2017, we had two incidents. The State's data is one year behind and we will update their findings in the 2018 report.

EUM Attribute #7
Operational Resiliency

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.



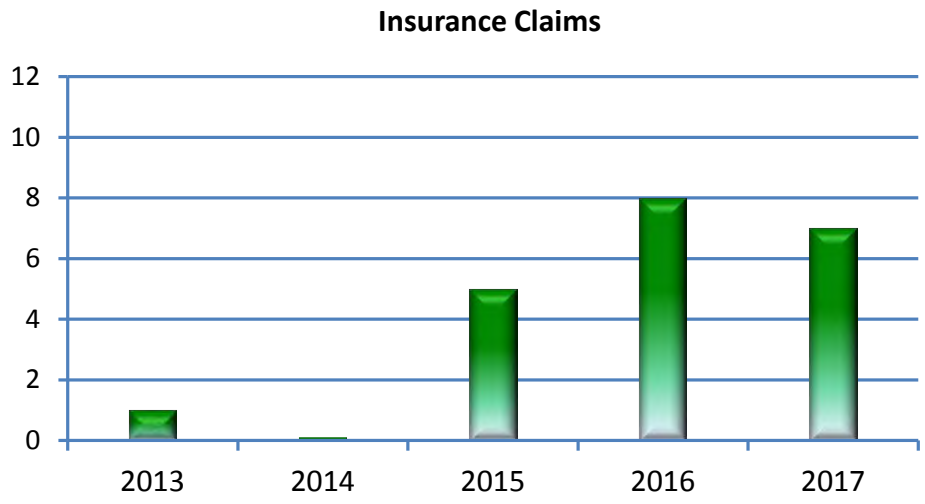
Analysis: The District's most recent Lost Time Incident was on August 28, 2015 due to surgery for deterioration of the rotator cuff caused by repetitive lifting at work. At that time we had gone 1,382 days without a LTA. As of March 13, 2017 we have gone 566 days without LTA. In 2017 we had two Lost Time incidents, as of January 15, 2018 we have gone 244 days without a Lost Time Accident.

EUM Attribute #7
Operational Resiliency

2. Insurance Claims

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

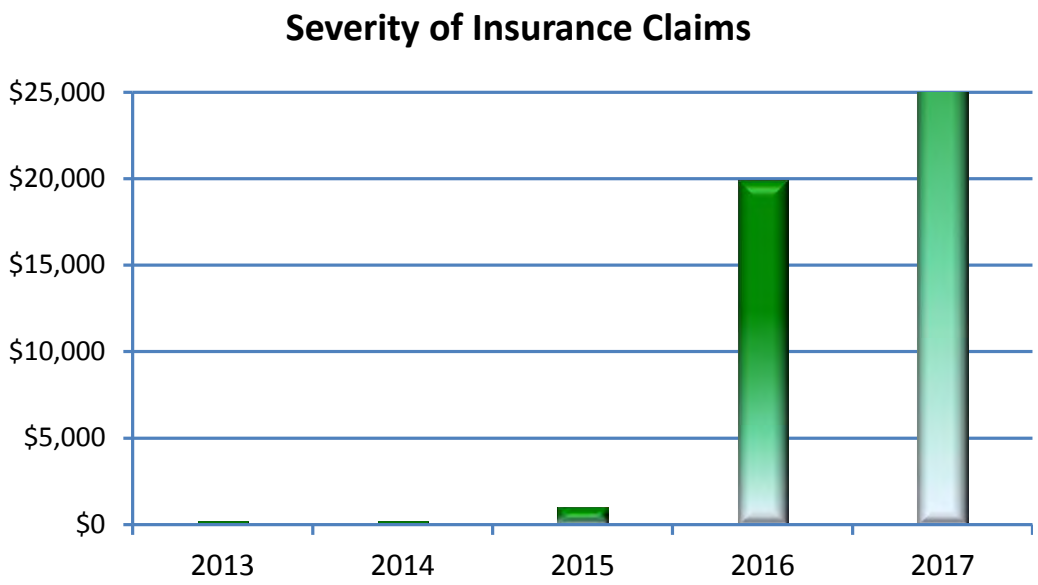
- **Number of Insurance Claims:** This is the number of general liability and automobile liability claims per year.



Analysis: In 2015 we had 5 claims, 2 of those claims were due to contractor error, and the contractor is working on settling those claims: One vehicle claim and two residential claims. The above claims have been settled. 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, several are still open cases.

EUM Attribute #7
Operational Resiliency

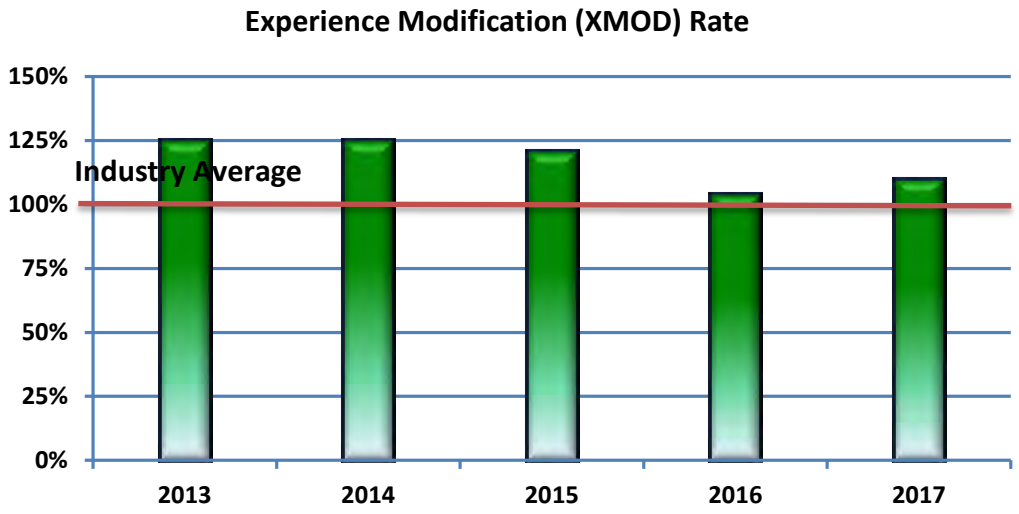
- **Severity of Insurance Claims:** This is the total amount paid out for general liability and automobile liability claims per year.



Analysis: The District continues to maintain a lower rate of insurance claims over the past several years. In 2015 we had five claims; all have been closed. 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.

EUM Attribute #7
Operational Resiliency

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.



Analysis: The District's XMOD rate had remained below 100 percent for many years. However, in late 2011 one very serious accident caused our rate to increase. In a letter written to the District in April of 2012, "The workers compensation Insurance Bureau made several adjustments to the experience rating formula effective January 1, 2012, which resulted in an average increase in CSRMA's Ex-Mod of 5%." The adjusted increase in 2013 is significantly higher than in previous years. This is due to the increase in the number of worker compensation claims (4) in 2013 at the District and State modifications to the system. One claim from 2011 closed out in 2016. In 2014 we had 2 reportable worker compensation claims, in 2015 we had 4 reportable compensation claims and we had 4 worker compensation claims in 2016, (but no lost time accident). With the two lost time incidents of 2017 our Ex-Mod factor went up to 110% an increase of 6 percent from the previous year.

EUM Attribute #7
Operational Resiliency

3. Risk Assessment and Response Preparedness

This measure asks whether the District has assessed it's 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.

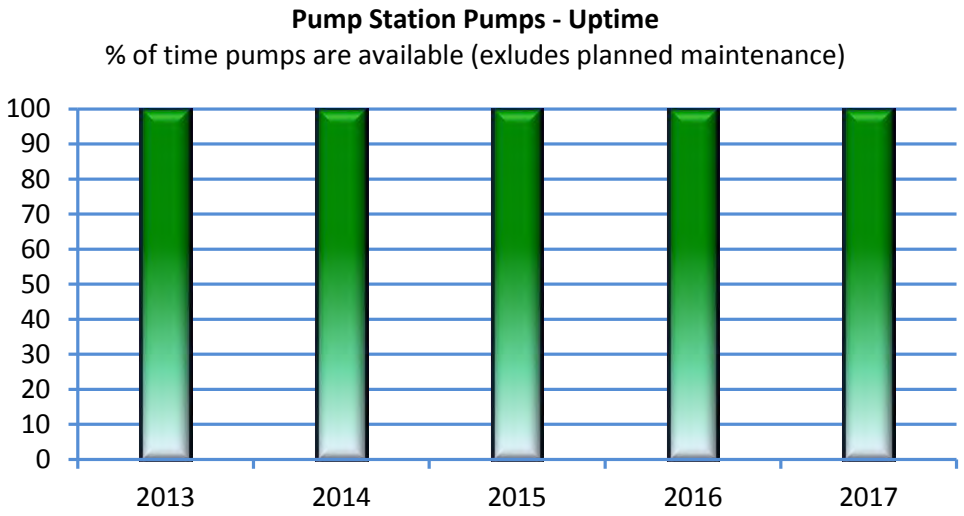
Analysis: Maintenance Personnel trains on and practices its Emergency Response Plan training once per year. In 2014, staff reviewed EAP and agreed we should implement additional Disaster Response Training and incorporate training with the local E.O.C. in 2015. Program review was performed in 2017, and continues every other year, next in 2019.

EUM Attribute #7
Operational Resiliency

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.



Analysis: Corte Madera Pump Station has been decommissioned and the number of pump stations has dropped from 13 to 12. 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 2011 through 2017 the District experienced no major down time where both pumps at a station were down simultaneously.

EUM Attribute #7
Operational Resiliency

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 FEF, 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.

EUM Attribute #7
Operational Resiliency

- **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.

- **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 12 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 2018.

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.

EUM Attribute #8
Community Sustainability

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 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.

- **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.

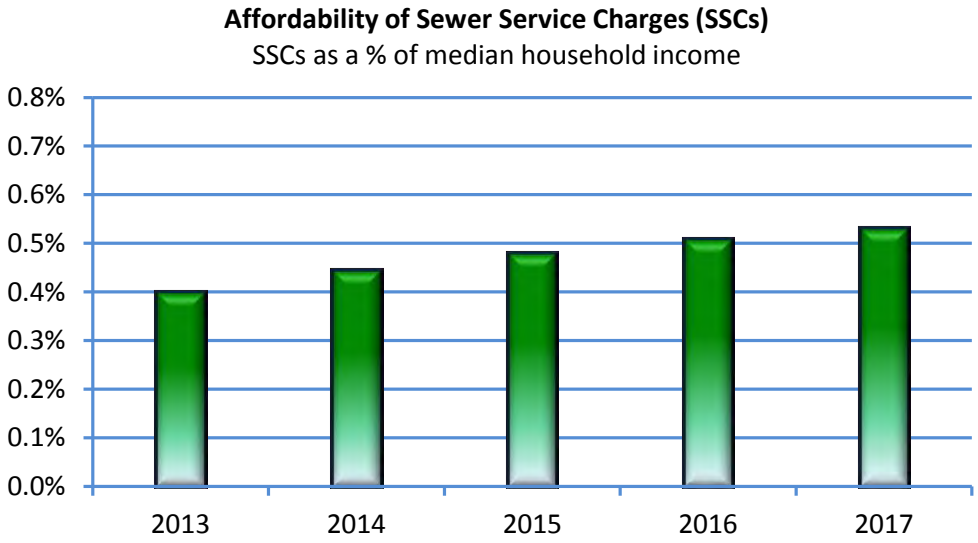
- **Recycled Water Project** - The District is under way with construction of a Satellite Recycled Water Treatment Facility at Sharon Heights that will deliver up to 400,000 gallons of recycled water per day. The district is also performing a feasibility study on a Bayfront recycled water facility.

EUM Attribute #8
Community Sustainability

2. 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.



Analysis: The most recent data from 2015 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 FY13 to FY17.

EUM Attribute #9

Stakeholder Understanding & Support

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 provided surveys at the Chamber of Commerce street faire – the results are as follows: 74% of those surveyed thought that WBSD provides wastewater collection only, while 45% believed that the District provided both wastewater and garbage collection. 100% responded they were aware the District provides a courtesy cleaning from sewer laterals and 81% said they have never had to call WBSD for any sewer problems.

- 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.

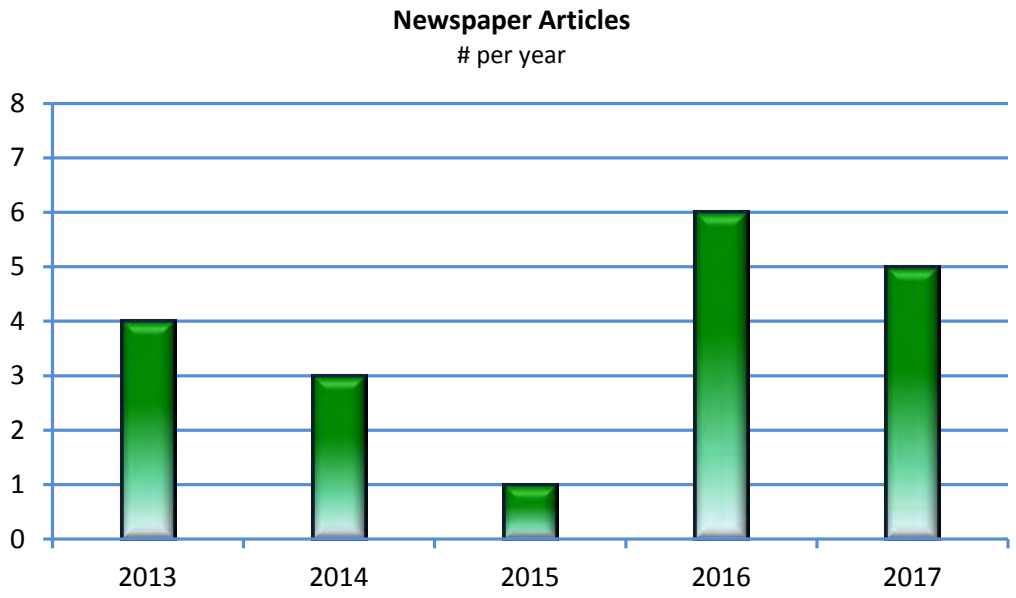
Analysis: The District's 2016 SSC ranks in the mid-range as compared to other providers in the region. The District also compares well (upper mid-range) with SVCW partners, shown in blue.

EUM Attribute #9
Stakeholder Understanding & Support

3. Media/Press Coverage

This measure captures media portrayal of the District in terms of awareness, accuracy and tone.

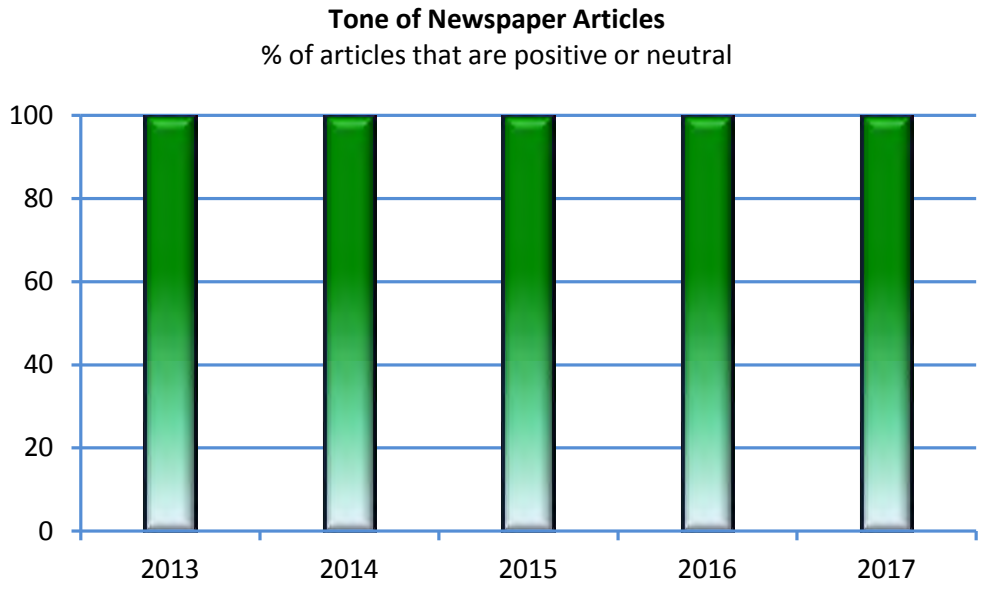
- **Amount of Coverage:** This is the total number of Almanac News and Daily Post articles concerning the District per year.



Analysis: 2012 saw a large number of articles due to the increased District public awareness campaign and Baykeepers settlement. 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 2016 and 2017 news articles increased from the previous years due to articles on the District's recycled water project.

EUM Attribute #9
Stakeholder Understanding & Support

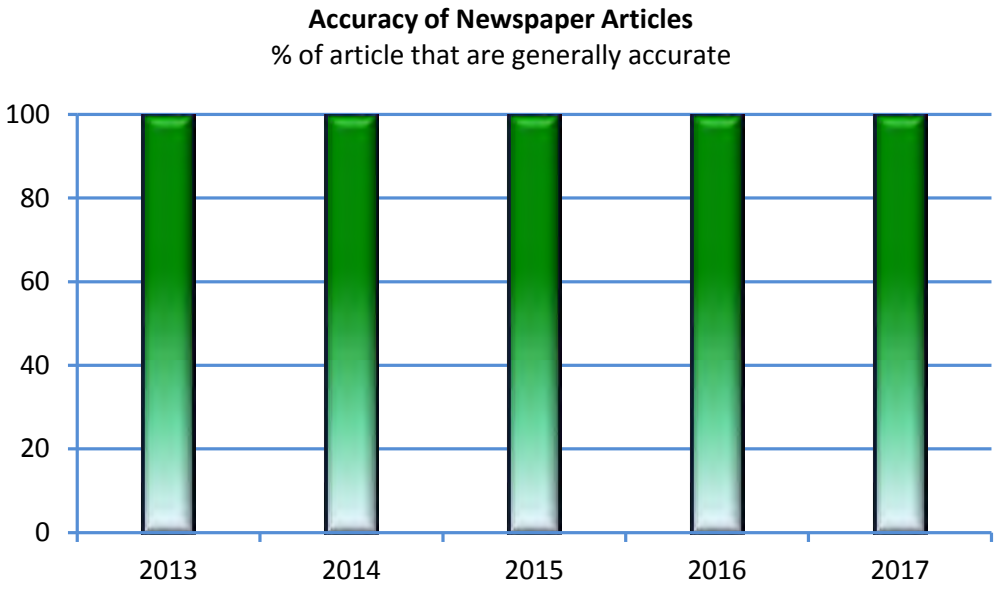
- **Media Coverage Tone:** This is the percent of newspaper stories that cover the District in a positive or neutral way.



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 2017 the tone of newspaper articles have stayed consistent with previous years.

EUM Attribute #9
Stakeholder Understanding & Support

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



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 2017 the accuracy of newspaper articles has stayed consistent with previous years.