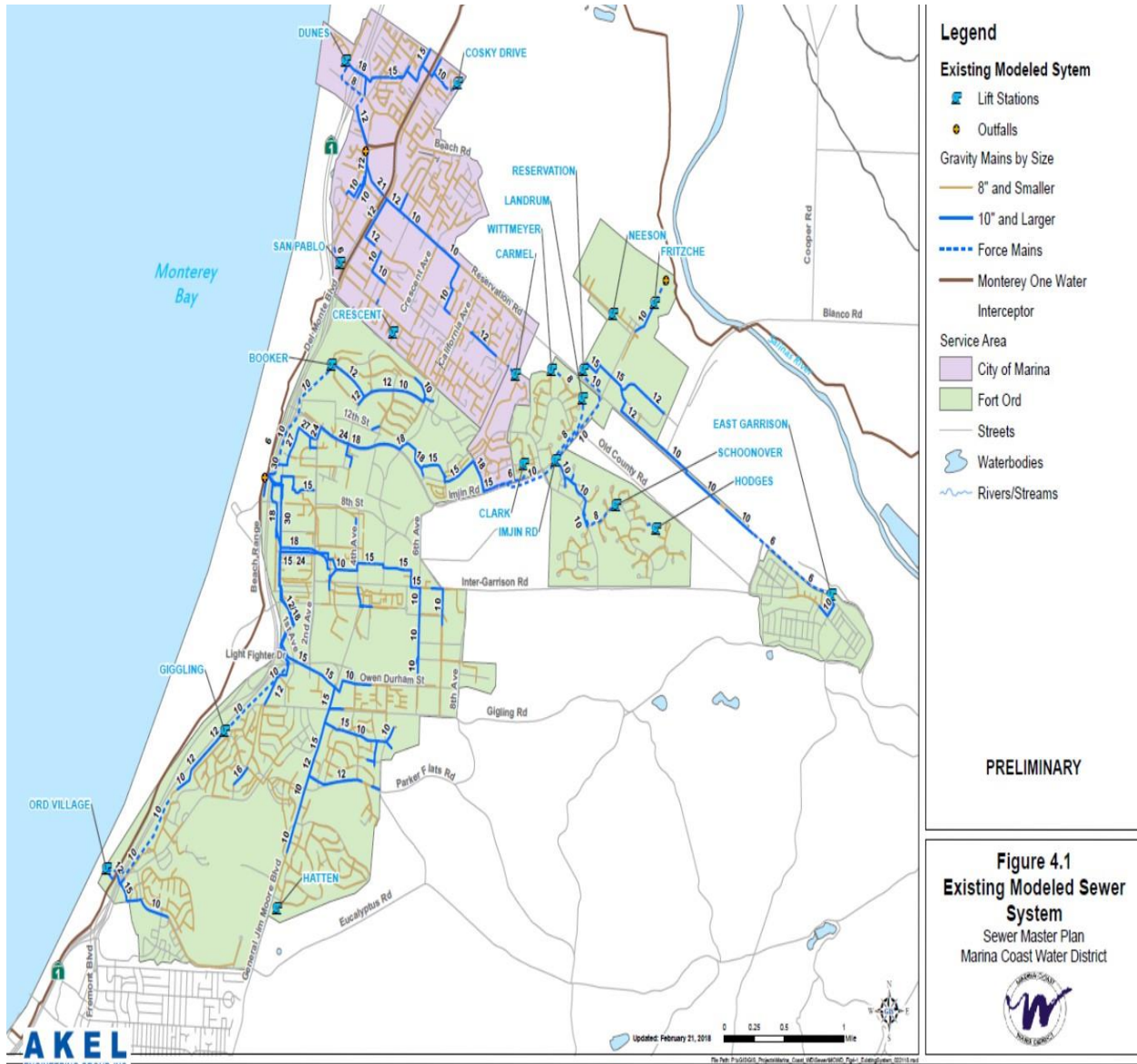




# Marina Coast Water District

## 2018 Sewer System Management Plan Internal Audit



March 2018



## SSMP- 2018 Internal Audit

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## Internal Audit

Title	Requirement	Compliant	Current	Comments
<b>Goals</b>	Reduce, prevent and mitigate SSO's	Yes	Yes	MCWD has reduced SSO's in 2017 from 2016 by 71 percent.
<b>Organization</b>	Designate Legally Responsible Official (LRO)	Yes	No	New Operations and Maintenance Superintendent started with the District January 2018, thus the SSMP needs to be updated.
	Organization chart	Yes	Yes	
	Names and numbers Of key personnel	Yes	No	New Operations and Maintenance Superintendent started with the District January 2018, thus the SSMP needs to be updated.
	Chain of communication for reporting SSO's	Yes	Yes	
<b>Legal Authority</b>	Prevent Illicit discharges to sanitary sewer system	Yes	Yes	District water code provides legal authority to MCWD to prohibit illicit discharges.
	Ensure access for maintenance and inspection	Yes	Yes	
	Limit Fat, Oil, and Grease (FOG) discharges and enforce violations	Yes	Yes	District water code provides legal authority to MCWD to protect the sanitary sewer from FOG, and staff perform bi-annual inspections.
<b>O &amp; M Program</b>	Maintain up to date maps of the sewer	Yes	No	Sewer system maps are updated on GIS periodically to allow staff to have current information. These maps need to be updated more frequently.

## Internal Audit

Title	Requirement	Compliant	Current	Comments
<b>O &amp; M Program Cont...</b>	Describe routine preventative maintenance	Yes	Yes	PM is performed routinely and is documented through the districts CMMS program, Cityworks.
	Develop rehabilitation and replacement plan	Yes	No	O & M currently utilizes closed circuit TV to find deficiencies and those are then conditioned assessed. Major problems are prioritized to the top of the CIP list based of conditioning, previous failures or potential to cause major damage to property. Due to lower staffing levels, CCTV is unable to be utilize as much as the District needs.
	Provide regular training to collections staff	Yes	Yes	Some recent training includes: Confined space, and asbestos training. This is in addition to the staff's weekly tailgate safety meetings. Staff could use more specialized training within collections system maintenance.
	Provide equipment and replacement parts	Yes	Yes	Staff maintains critical backup equipment including but not limited to: spare plc's, radios, level transducers, floats, pipe, and trailer haul portable generator.
<b>Design &amp; Performance Provisions</b>	Design & construction standards & specs.	Yes	No	MCWD maintains design standards and specs that contractors must adhere to. These standards and specs were last updated in 2007. They should be looked at again and updated as needed.
	Procedures & standards for inspection of sewer systems	Yes	No	MCWD has standard plans and specs that require all new sewer be mandrel (depending on size) and CCTV. Internal repairs also adhere to the same standards. These standards are from 2007 and should be looked at again and updated as needed.
<b>Overflow Emergency Response Plan</b>	Procedure for proper notification	Yes	Yes	List of contact numbers and agency names are located within the SSMP and have been distributed to MCWD collections staff
	Program to ensure response to SSO	Yes	Yes	Notification and response times are defined in the SSMP.
	Procedure to ensure prompt notification to regulatory agency	Yes	Yes	Contact numbers and times have not changed since last update. Staff are aware of the importance and requirements of notification.
	Procedure to ensure staff are aware of ERP.	Yes	Yes	Staff recently went through a ERP training exercise in January of 2018.

## Internal Audit

Title	Requirements	Compliant	Current	Comments
<b>Overflow Emergency Response Plan</b>	Proper notification of primary responders	Yes	Yes	MCWD Staff is trained and have been following proper response protocol.
	Program to ensure appropriate response	Yes	Yes	
	Procedure to ensure prompt notification to regulatory agencies	Yes	Yes	Staff are trained in MCWD SSO's Notification and Response Plan which defines who to contact depending on the spill.
	Procedure to ensure staff are trained to follow OERP	Yes	Yes	
	Procedures to address emergency operations	Yes	Yes	
	Program to prevent and contain SSO's	Yes	No	Lift stations are monitored through SCADA for levels and faults. Collection system is routinely jetted and has a priority "hot spot" that staff routinely addresses. Due to lack of CCTV, MCWD does not have current data on all gravity main conditions.



## CIWQS SSO Database for MCWD

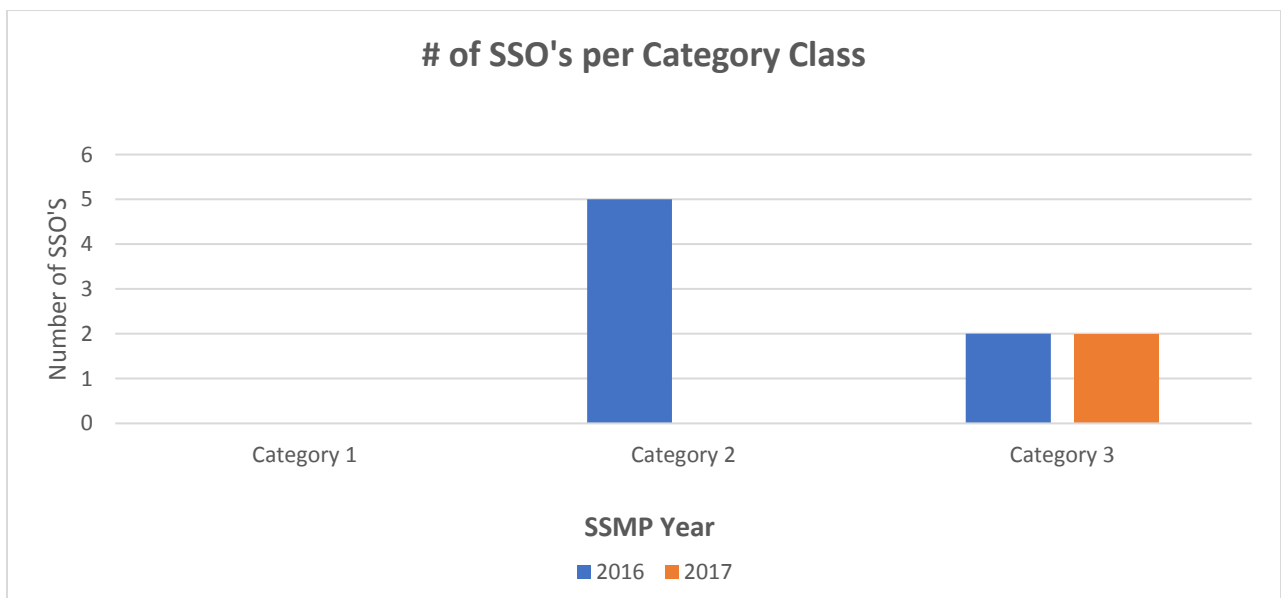
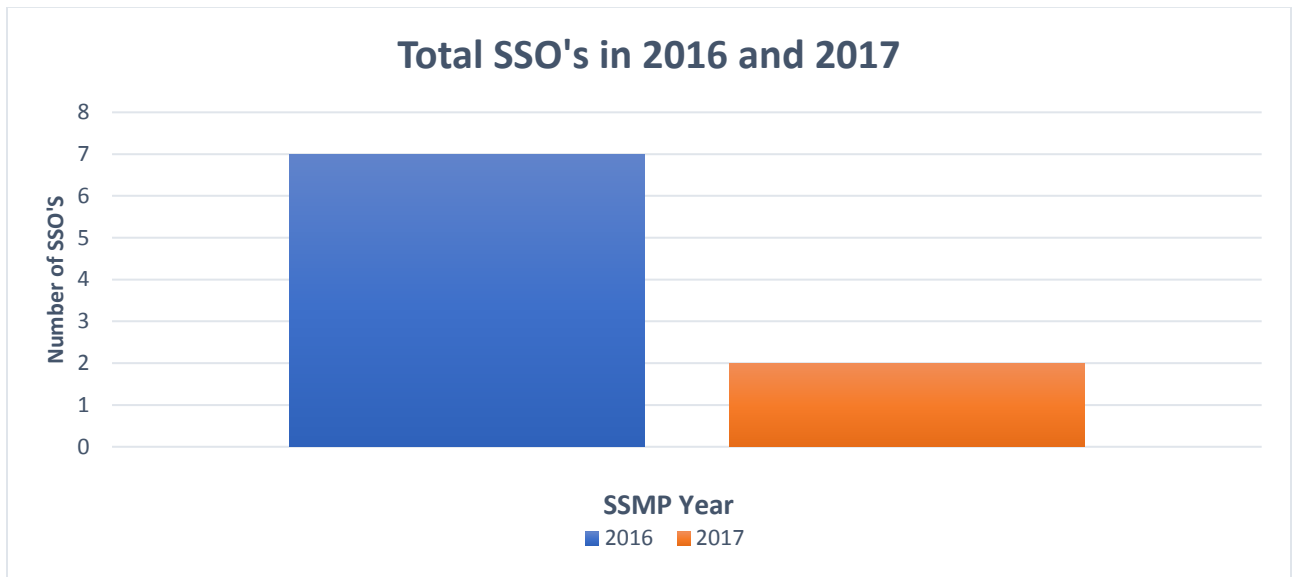
### Certified SSO's from January 2016-January 2018

<u>Event ID</u>	<u>Cert Step</u>	<u>Version</u>	<u>Region</u>	<u>Type</u>	<u>Category</u>	<u>Spill Volume</u>	<u>Collection System</u>	<u>WDID</u>	<u>Spill Start</u>	<u>Location Name</u>	<u>Address</u>
<a href="#">834200</a>	Certified	1.0	3	SSO	Category 3	50	Marina Coast Wd CS	3SSO10287	2017-04-01 16:30:00	303 Ardennes Circle	CA
<a href="#">832927</a>	Certified	1.0	3	SSO	Category 3	100	Marina Coast Wd CS	3SSO10287	2017-02-16 00:00:00	230 Cosky Drive	CA
<a href="#">831206</a>	Certified	1.1	3	SSO	Category 2	1200	Marina Coast Wd CS	3SSO10287	2016-12-28 00:00:00	Manhole D464	CA
<a href="#">828622</a>	Certified	1.0	3	SSO	Category 3	4	Marina Coast Wd CS	3SSO10287	2016-09-23 00:00:00	General Jim Moore Blvd. South of Fist St. Seaside, CA	CA
<a href="#">828118</a>	Certified	1.0	3	SSO	Category 2	110500	Marina Coast Wd CS	3SSO10287	2016-09-08 00:00:00	Monterey Rd./Coe Ave Seaside CA	CA
<a href="#">827380</a>	Certified	1.0	3	SSO	Category 3	2	Marina Coast Wd CS	3SSO10287	2016-08-16 00:00:00	Dunes Drive Lift Station	CA
<a href="#">824594</a>	Certified	1.1	3	SSO	Category 2	2000	Marina Coast Wd CS	3SSO10287	2016-05-15 00:00:00	Noumea and Bataan	CA
<a href="#">822828</a>	Certified	1.0	3	SSO	Category 2	43000	Marina Coast Wd CS	3SSO10287	2016-03-09 00:00:00	West of 358/360 Buna Road, Seaside , CA	CA
<a href="#">822755</a>	Certified	1.1	3	SSO	Category 2	1500	Marina Coast Wd CS	3SSO10287	2016-03-07 00:00:00	Ord Village Lift Station	CA



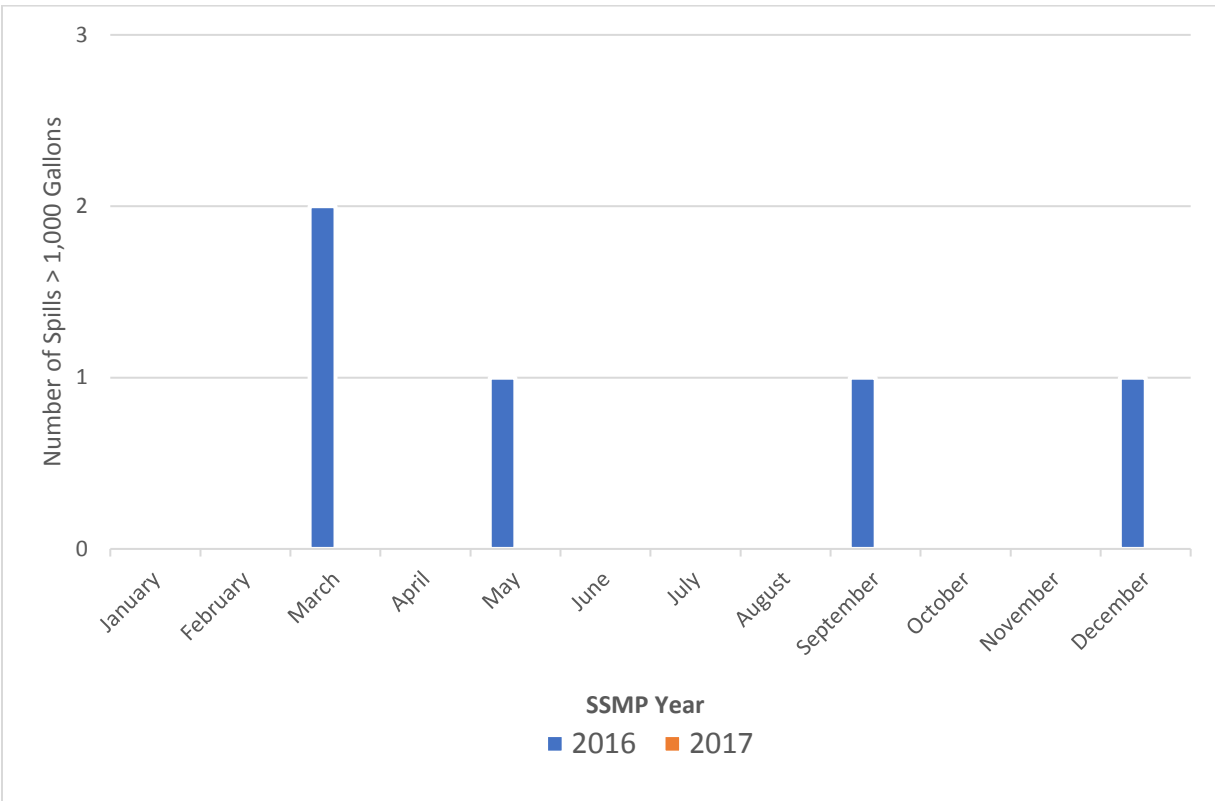
## Graphs & Tables

### Yearly SSO Comparison Charts CY 2016 & CY 2017



## Graphs & Tables

Number of Spills Greater Than 1,000 Gallons CY 2016-CY 2018



\*No spills in 2017 were greater than 1,000 gallons



## Graphs & Tables

### Spills Volumes by Month

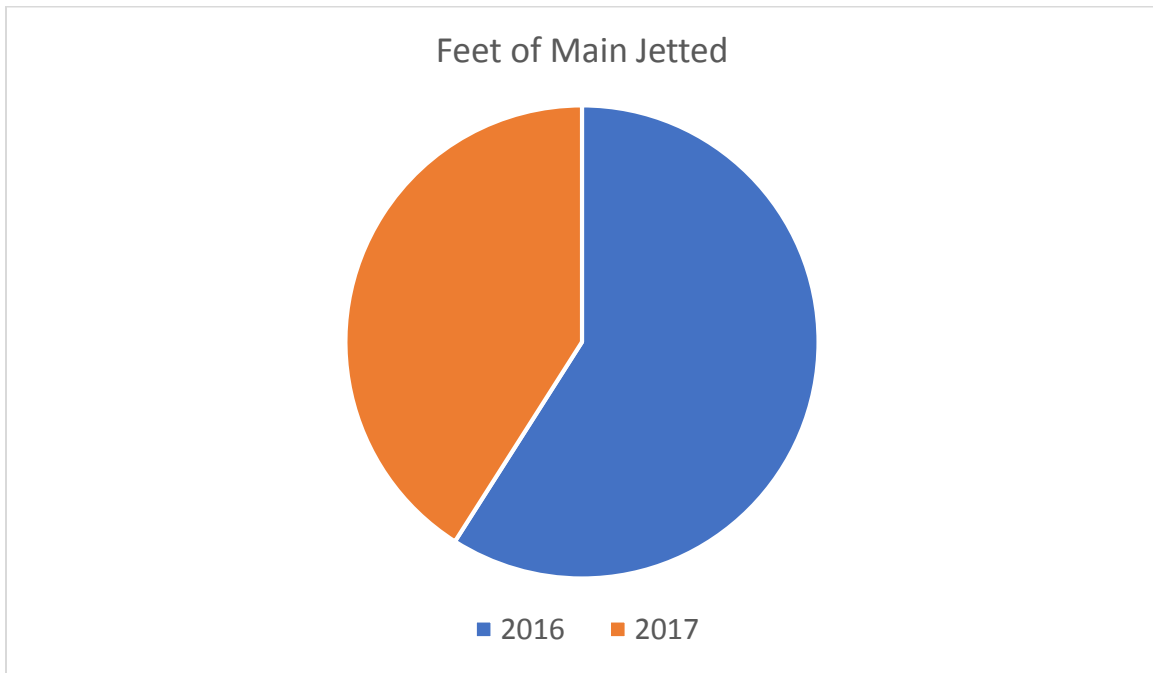
<b>2016</b>	<b>Category</b>	<b>Volume (gallons)</b>
January		
February		
March (2 Spills)	2	1,500 & 43,000
April		
May	2	2,000
June		
July		
August	3	2
September ( 2 Spills)	2 & 3	110,500 & 4
October		
November		
December	2	1,200
<b>Total Gallons</b>		<b>158,206</b>

<b>2017</b>	<b>Category</b>	<b>Volume (gallons)</b>
January		
February	3	100
March		
April	3	50
May		
June		
July		
August		
September		
October		
November		
December		
<b>Total Gallons</b>		<b>150</b>

## Graphs & Tables

### Feet of Sewer Mains Jetted by Month

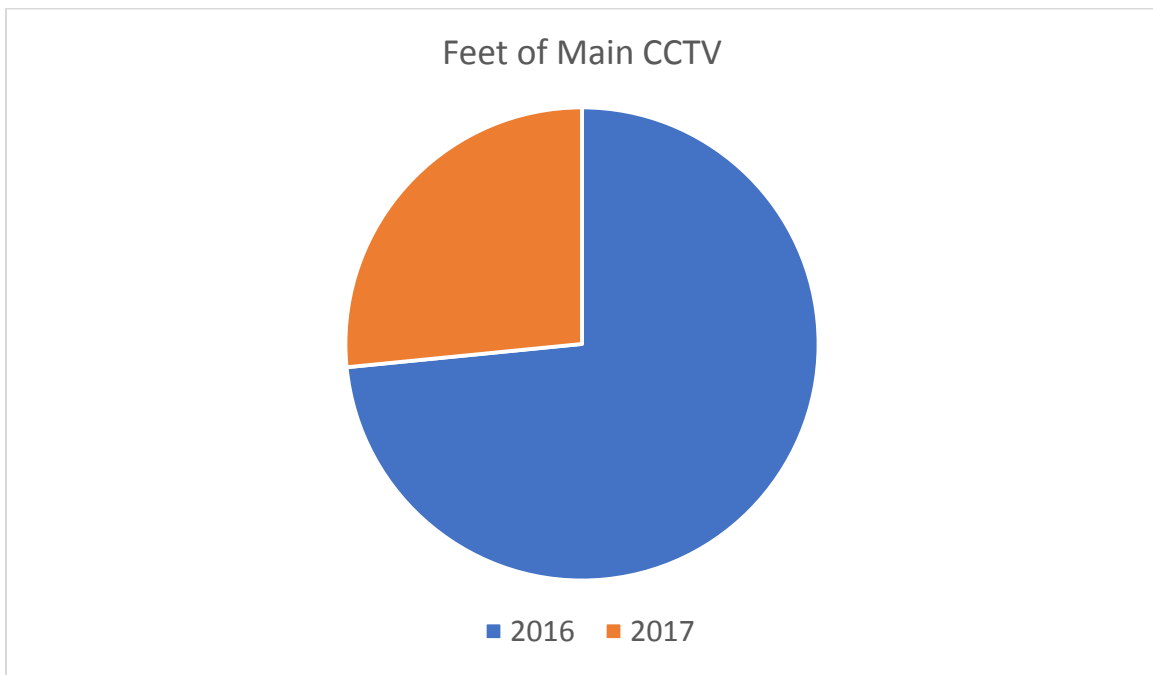
2016	Feet of Main Jetted	2017	Feet of Main Jetted
January	41,405	January	31,256
February	48,860	February	12,284
March	35,031	March	12,841
April	24,547	April	21,056
May	25,674	May	21,257
June	25,358	June	20,741
July	23,226	July	32,038
August	26,311	August	29,402
September	42,597	September	30,722
October	38,328	October	27,790
November	18,963	November	15,605
December	28,505	December	7,973
<b>Total Feet Jetted</b>	<b>378,802</b>	<b>Total Feet Jetted</b>	<b>262,966</b>



## Graphs & Tables

### Feet of Sewer Mains CCTV by Month

2016	Feet of Main CCTV	2017	Feet of Main CCTV
January	2,282	January	5,382
February	15,398	February	1,592
March	12,054	March	5,666
April	15,918	April	5,844
May	9,771	May	2,766
June	10,600	June	6,036
July	1,152	July	347
August	12,808	August	773
September	4,192	September	5,351
October	14,268	October	8,277
November	14,202	November	0
December	3,378	December	0
<b>Total Feet Jetted</b>	<b>116,020</b>	<b>Total Feet Jetted</b>	<b>41,983</b>



## Graphs & Tables

### FOG Inspections

2016

Number of Facilities	Number of Inspections Performed
95	190

2017

Number of Facilities	Number of Inspections Performed
102	204



## MCWD Trouble Spots

**2017/2018**

NO.	Spot Name	City	Every	Last	Last
1	Parson Circle	Marina	4 Months		
2	Penninsula & Susan rd	Marina	3 Months		
3	Nicklas Lane	Marina	4 Months		
4	Ora Court to Carroza Ave. ( Low Pressure)	Marina	3 Months		
5	Robin Dr.	Marina	4 Months		
6	Dog Alley ( Access road to Parson Circle )	Marina	4 Months		
7	Cypress ave. and Sunset Ave.	Marina	3 Months		
8	Del Monte ave. & Cypress	Marina	2 Months		
9	Lynscott Dr. to Crivello Rd. Low Pressure at Top	Marina	3 Months		
10	Modern Lane	Marina	2 Months		
11	Eucalyptus Street	Marina	2 Months		
12	Vista Del Camino & Penninsula dr.	Marina	3 Months		
13	Viking Lane ( Low Pressure )	Marina	2 Months		
14	Horse Stable at 4th California or 4th avenue	Marina	6 Months		
15	Crestview Court by Perc Lot	Marina	2 Months		
16	Palm ave. & lake Drive	Marina	6 Months		
17	Patton Drive	Marina	3 Months		
18	Abdy Way by Church and perc lot	Marina	2 Months		
19	Crescent Street Manhole By Lift Station	Marina	3 Months		
20	San Pablo ave. & Marina Drive	Marina	2 Months		
21	Seaside Circle by Holiday Inn	Marina	3 Months		
22	Owen Rd. & Reindollar Ave.	Marina	6 Months		
23	Messinger Dr. To Perc Lot	Marina	4 Months		
24	Westwood Court to Perc Lot	Marina	3 Months		
25	Jordan Ct	Marina	3 Months		
26	Ellen Ct.	Marina	3 Months		
27	Sunset ave. and Hillcrest ave.	Marina	4 Months		
28	California ave. and Carmel ave.	Marina	4 Months		
29	Carmel ave. and Redwood rd.	Marina	3 Months		
30	Carmel ave and Sunset Ave.	Marina	3 Months		
31	Owen rd.& Hillcrest Ave.	Marina	4 Months		
32	Barbee Ct.	Ord	3 Months		
33	Scott Ct.	Ord	3 Months		
34	Livarty rd. By College	Ord	3 Months		
35	Arloncourt & Hatten Rd.	Ord	4 Months		
36	Fredericksburg ave.	Ord	2 Months		
37	Malmedy # 604	Ord	3 Months		
38	Carentan & Elbe ct.	Ord	3 Months		
39	Okinawa Rd # 195	Ord	3 Months		

## MCWD Trouble Spots

**2017/2018**

40	General Moore Behind Fitch Housing	Ord	4 Months		
41	Metz Rd # 202	Ord	3 Months		
42	Metz & Tunisia	Ord	3 Months		
43	Noumea rd & New Guinea	Ord	3 Months		
44	Saipan & Rabb	Ord	3 Months		
45	Chapel Drive Behind Marshall Housing	Ord	3 Months		
46	Ardennes Rd. 218	Ord	3 Months		
47	Noumea rd & Luzon Rd.	Ord	3 Months		
48	Aachen Ct.	Ord	3 Months		
49	Noumea Rd # 140	Ord	3 Months		
50	Metz rd. 226	Ord	6 Months		
51	Combs ct.	Ord	3 Months		
52	Normandy and Anzio rd.	Ord	3 Months		
53	Normandy and Monterey rd.	Ord	3 Months		
54	Ardennes circle. # 354	Ord	3 Months		
55	Napples and Anzio	Ord	4 Months		
56	Salerno Rd.	Ord	4 Months		
57	Neeson Rd.	Ord	4 Months		
58	Coe Ave. & Buttercup Blvd.	Ord	4 Months		
59	Fora Buildings	Ord	4 Months		
60	Luzon Rd. # 190	Ord	3 Months		
61	Imgman ct.	Ord	6 Months		
62	Okinawa & Noumea Rd.	Ord	3 Months		
63	Third ave. & 10th Street	Ord	2 Months		
64	Gigling ave. & California Rd.	Ord	4 Months		
65	Okinawa Rd # 158	Ord	4 Months		
66	Parker Flats by The Clinic	Ord	4 Months		
67	Malmedy & Kalborn Rd.	Ord	4 Months		
68	Nijgemen Rd.	Ord	4 Months		
69	Manhole between Kalborn and Nijgemen rd.	Ord	4 Months		



## Capital Improvement Project Activities

### CY 2016

- First Avenue Sewer Main Lining
- Remove Reservation Road Siphon
- Started Cosky Lift Station Replacement
- Installed new Flygt Pumps at Ord Lift Station
- Installed new Flygt Pumps at Giggling Lift Station

### CY 2017

- 5<sup>th</sup> Street Sewer Main Replacement
- Clark Lift Station Replacement



## MCWD Operations Staff Training Activities

### CY 2016

- Forklift Safety
- AC Pipe safe practices and handling
- CPR and First Aid
- CCTV, PACP Training

### CY 2017

- AC Pipe safe practices and handling
- Confined Space Class
- Respiratory mask fit
- CWEA Operator Training Conference



# MCWD Operations and Maintenance Sewer Certification and Organizational Chart

