MONTECITO SANITARY DISTRICT

2012 ANNUAL SUMMARY REPORT

NPDES No. CA0047899

Order No. R3-2006-0084

Montecito Sanitary District

1042 Monte Cristo Lane
Santa Barbara, CA 93108
General Manager: Diane M. Gabriel, P.E.

A Public Service Agency

PHONE: (805) 969-4200
FAX: (805) 969-9049
E-MAIL: dgabriel@montsan.org

January 30, 2013

California Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

SUBJECT: NPDES Permit No. CA 0047899
Order No. R3-2006-0084
Annual Summary Report 2012

Staff of the Regional Board:

In accordance with the requirements of the general provisions of the District's NPDES Permit No. CA0047899, we are transmitting the District's Annual Report for 2012. The monitoring data compiled throughout the year is presented in both tabular and graphic form.

The report includes the names and job titles of District personnel, the Governing Board of Directors and an organizational chart.

As of January 1, 2013, the status of certified operators employed by the District are as follows:

- Brett J. Walker, Operations & Maintenance Manager, # III-6254, exp. date 12/31/2014
- Mark Liebenow, Operator, #V-8800, exp. date 06/30/2014
- James G. Montijo, Operator, # IV-2306, exp. date12/31/2014
- William E. Caudill, Jr., Operator, # III-28148, exp. date 06/30/2014 *(Released 12/2012)*
- Preston Merlo, Operator in Training, Grade I, exp. date 12/31/2012 *(Released 02/2012)*

During 2012, all parameters of the effluent quality were within the limits set by the District's discharge permit.

Monthly Grease and Oil, the Ammonia (nitrogen) and the Total Coliform Organisms analyses were performed by FGL Environmental of Santa Paula, California. FGL Environmental completed the Annual Effluent / Receiving Water Testing, as well as Sludge Sampling which took place September 10, 2012 through September 14, 2012. Aquatic Bioassay & Consulting Laboratories, Inc. in Ventura, California, performed and completed the Chronic and Acute Bioassay Testing. All of the reports were submitted to the Regional Board on October 30, 2012 with the September 2012 monthly report.

On October 19, 2012 Schock Contracting, Inc. completed the inspection of the District's ocean outfall pipeline. The entire outfall pipeline was inspected and videotaped. A copy of their inspection report is enclosed. The outfall pipeline was found to be in good condition with no leaks and no evidence of stress or damage of any kind.

The Operations and Maintenance Manual for the Montecito Sanitary District Wastewater Treatment Plant that is on file with your office is still valid for the existing plant.

Comments regarding the District's Collection System Maintenance and Renovation Program, as required by the NPDES permit, are included in this report on pages 20 through 22. Also included on pages 23 through 25 is a brief summary of the history of the District, our accomplishments in recent years and goals for the future. Please feel free to contact me if you have any questions or desire additional information.

Sincerely,

Diane Gabriel, P.E.
General Manager/District Engineer

Enclosure: Schock Contracting Inc. – October 2012

Montecito Sanitary District

2012 Annual Report

TABLE OF CONTENTS

MONTECITO SANITARY DISTRICT

January 2012 – December 2012

GOVERNING BOARD

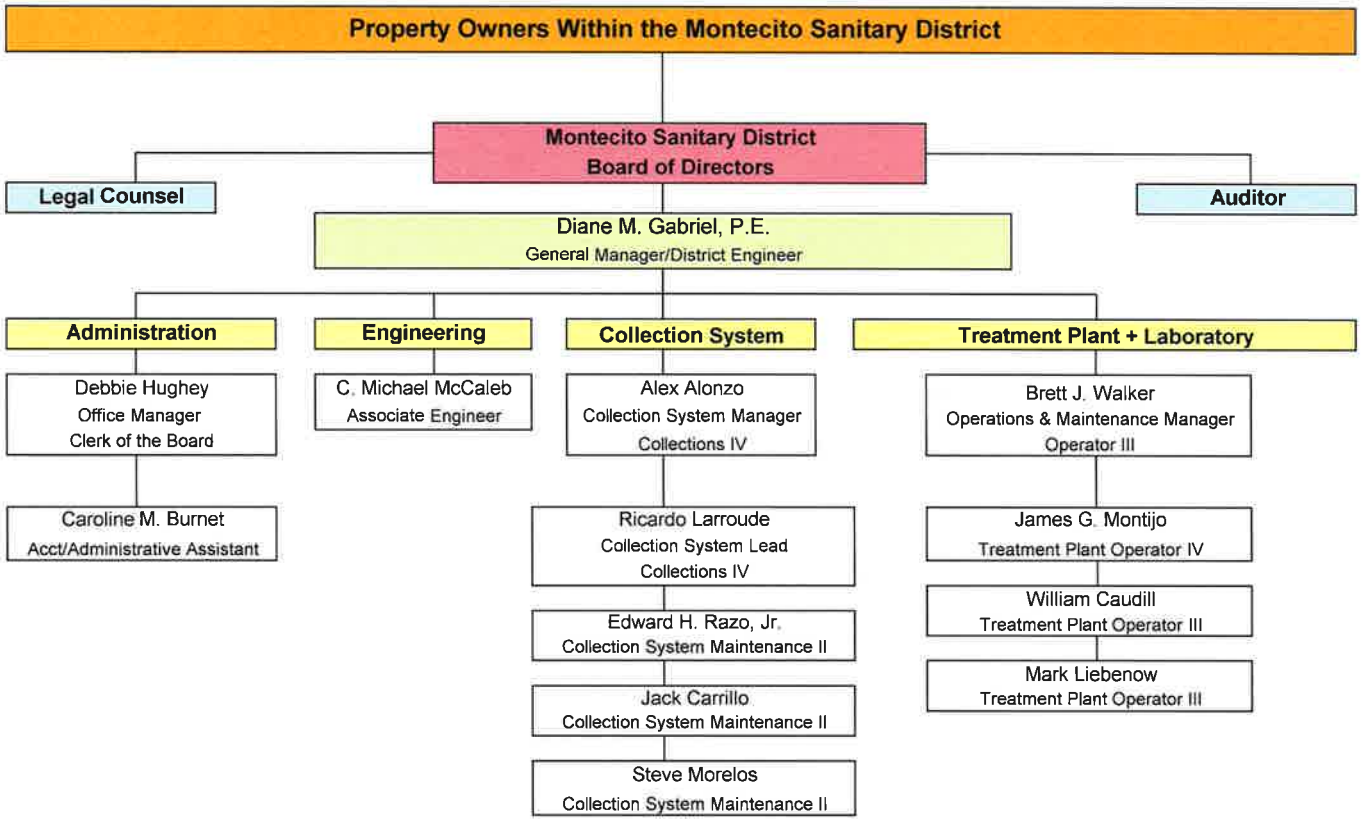
Jeff Kerns	President
Judith M. Ishkanian	Vice President
Charles C. Arnold	Director
Ed McAniff	Treasurer
Deirdre M. Cannata	Secretary

***

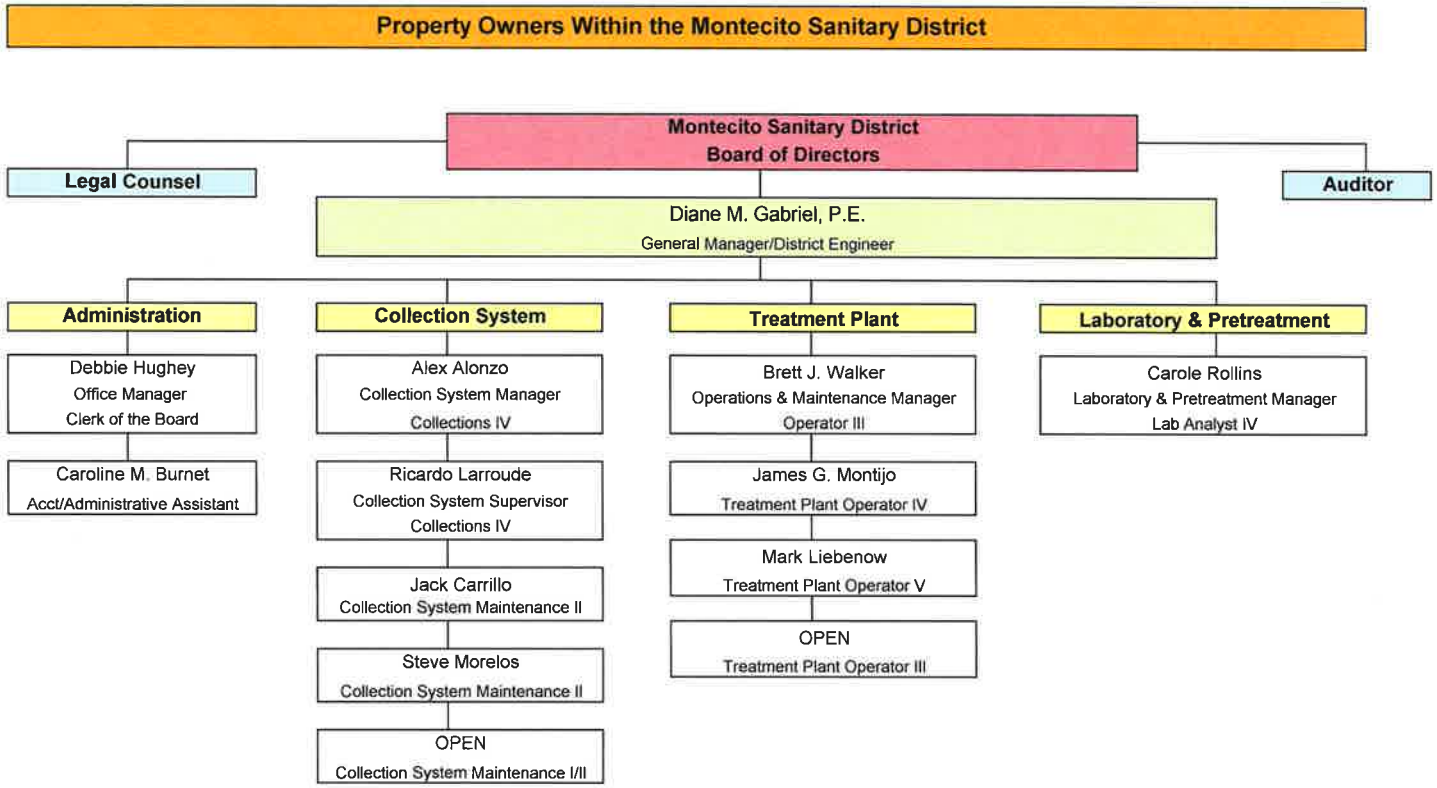
January 2012 – January 2013

STAFF

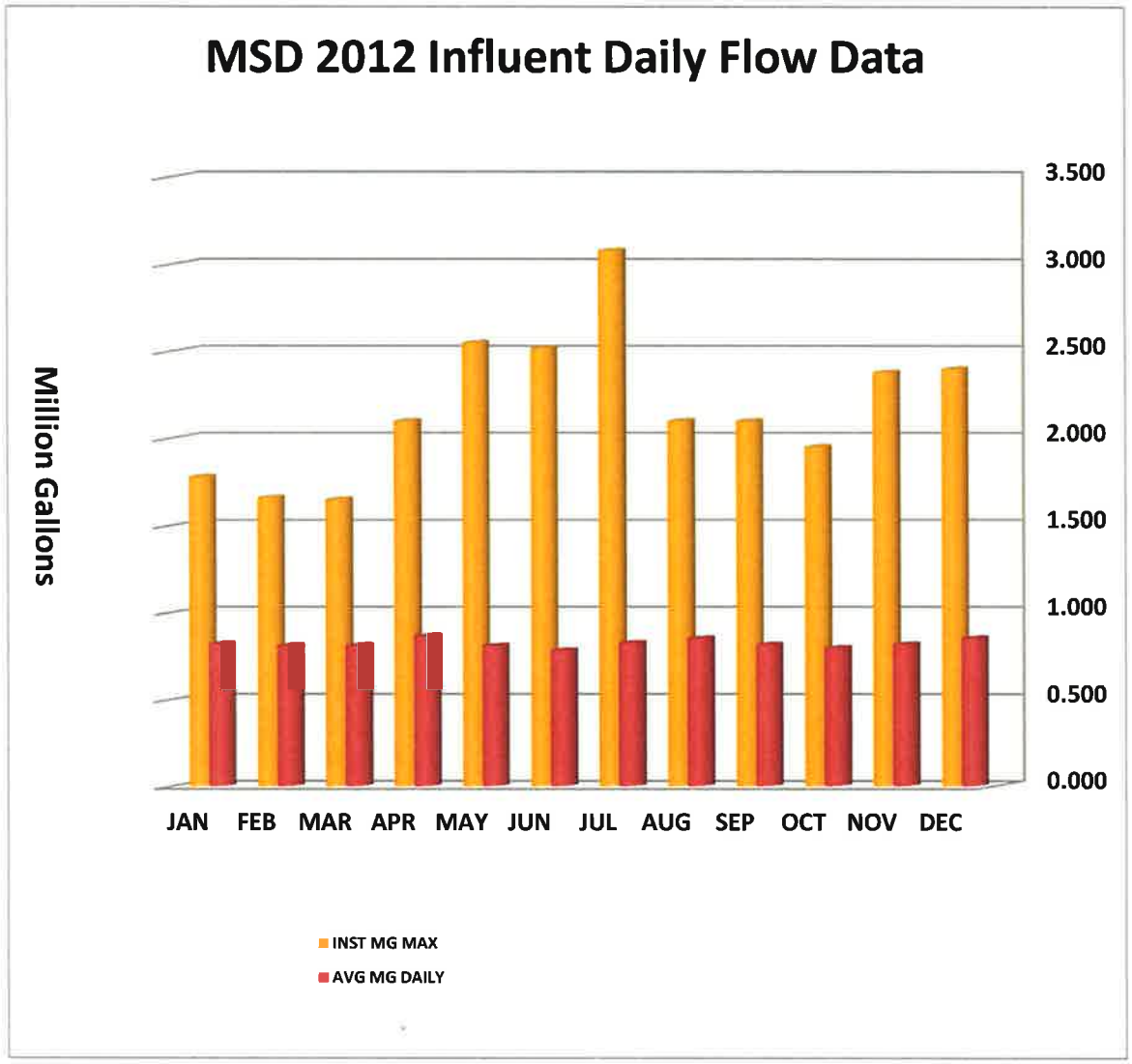
Diane M. Gabriel, P.E.	General Manager/District Engineer
C. Michael McCaleb	Associate Engineer *(Retired 08/2012)*
Debbie Hughey	Office Manager/Clerk of the Board
Caroline M. Burnet	Accounting/Administrative Assistant
Brett J. Walker	Operations & Maintenance Manager
James G. Montijo	Operator IV
William E. Caudill	Operator III *(Released 12/2012)*
Mark Liebenow	Operator III
Preston Merlo	Operator-in-Training *(Released 2/2012)*
Carole Rollins	Pretreatment & Laboratory Manager *(Hired 12/2012)*
Alex Alonzo	Collections System Manager
Ricardo Larroude	Collection System Lead
Alvaro A. Perez	Collections II *(Off Duty since 08/2010)*
Jack R. Carrillo	Collections II
Edward H. Razo, Jr.	Collections II *(Released 12/2012)*
Steve Morelos	Collections II



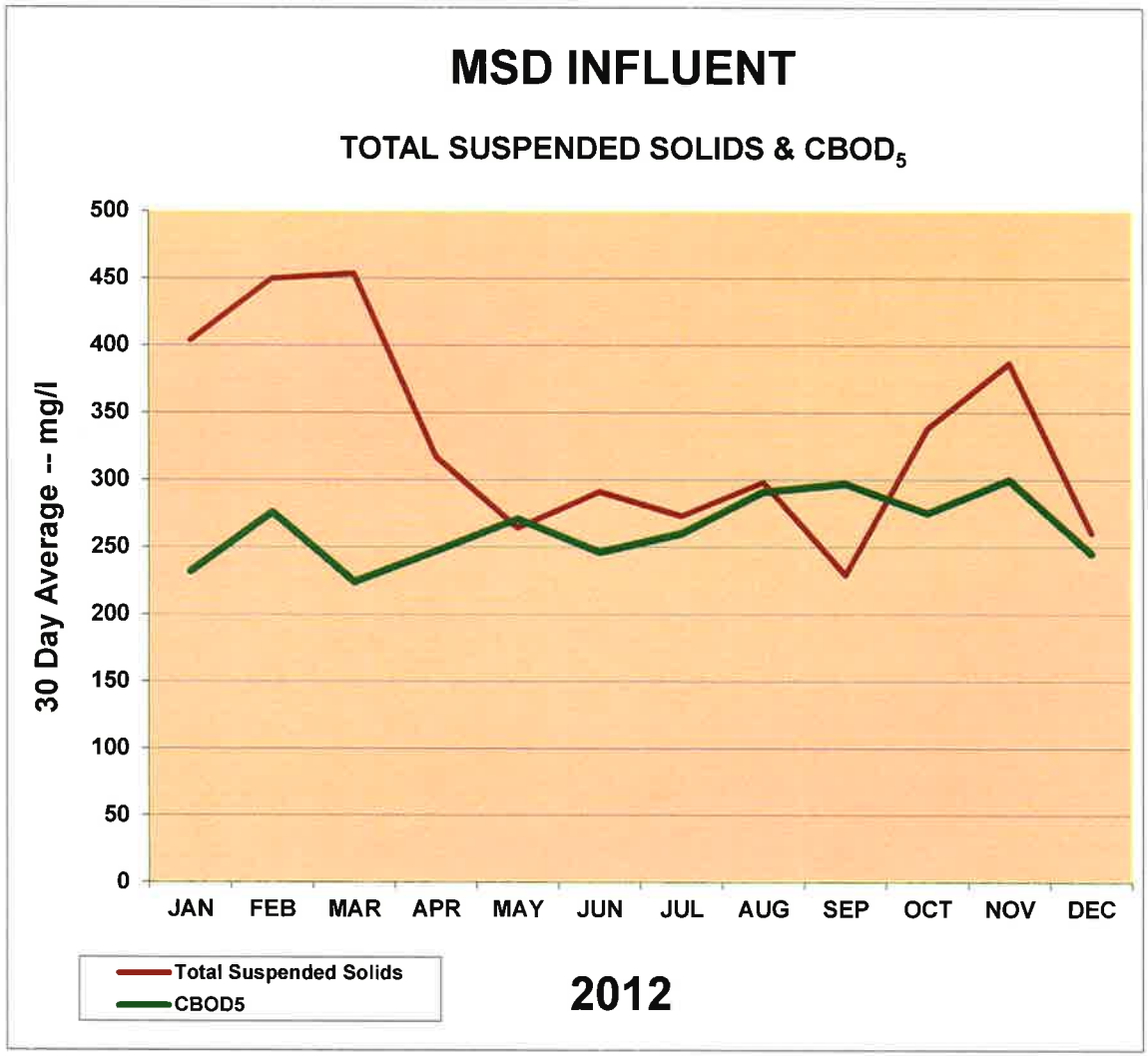
Montecito Sanitary District Organizational Chart
2012



Montecito Sanitary District Organizational Chart
January 2013

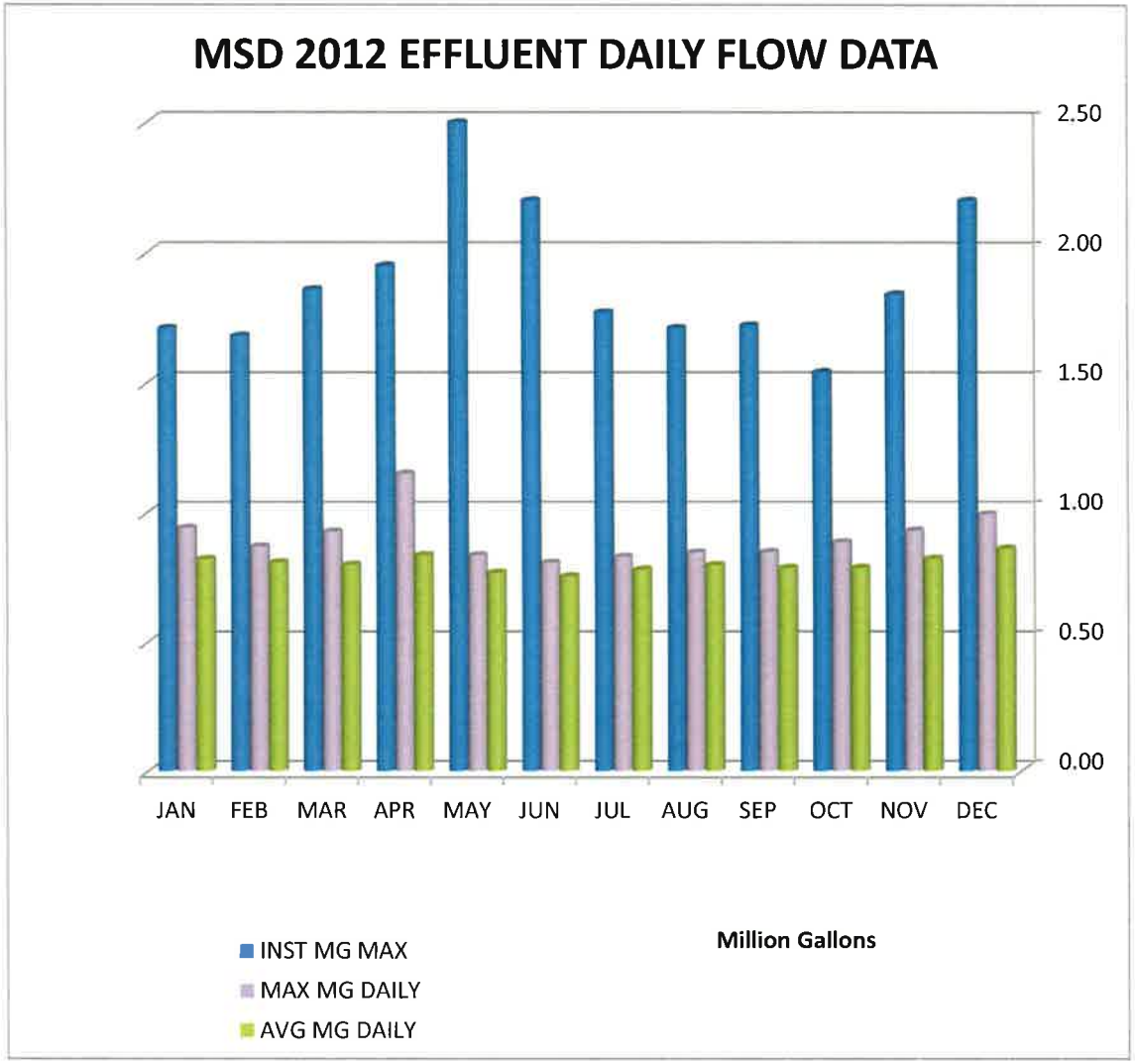


INFLUENT FLOW DATA		
MONTH	INST MG MAX	AVG MG DAILY
JAN	1.780	0.820
FEB	1.660	0.811
MAR	1.650	0.813
APR	2.100	0.866
MAY	2.550	0.810
JUN	2.520	0.784
JUL	3.080	0.827
AUG	2.100	0.852
SEP	2.100	0.817
OCT	1.950	0.798
NOV	2.380	0.818
DEC	2.400	0.853
AVG	**2.189**	**0.822**



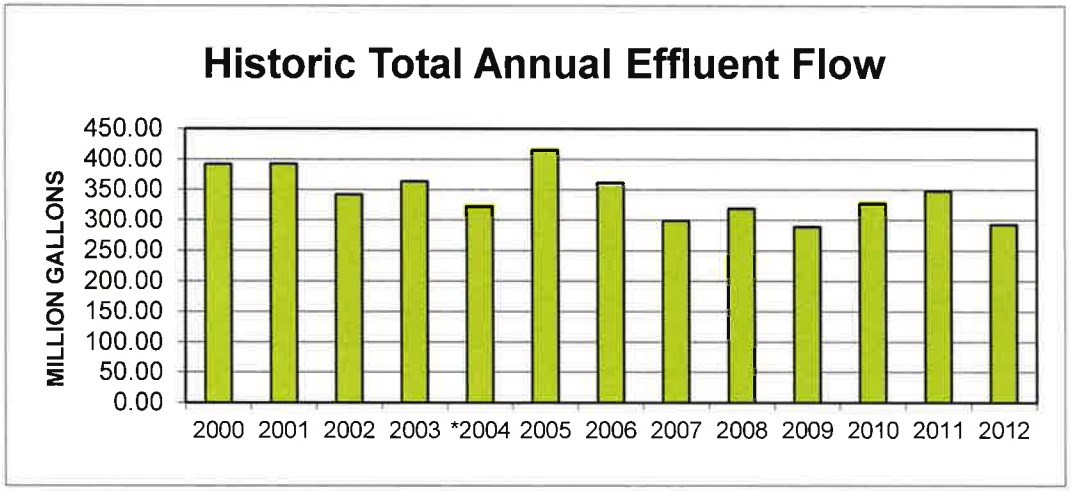
INFLUENT		
Month	Total Suspended Solids	$CBOD_5$
	mg/l	mg/l
JAN	404	232
FEB	450	276
MAR	454	224
APR	317	247
MAY	264	271
JUN	291	246
JUL	273	260
AUG	298	291
SEP	229	297
OCT	338	275
NOV	387	300
DEC	260	245

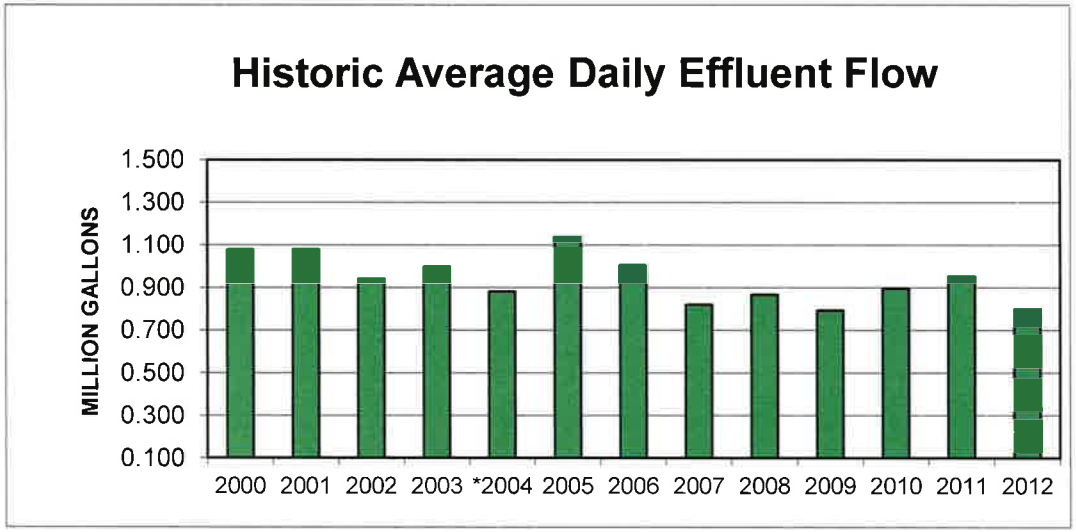
AVG	330	264



EFFLUENT FLOW DATA			
MONTH	INST MG MAX	MAX MG DAILY	AVG MG DAILY
JAN	1.71	0.940	0.820
FEB	1.68	0.868	0.807
MAR	1.86	0.926	0.798
APR	1.95	1.149	0.835
MAY	2.50	0.834	0.767
JUN	2.20	0.805	0.752
JUL	1.77	0.828	0.778
AUG	1.71	0.844	0.796
SEP	1.72	0.846	0.785
OCT	1.54	0.884	0.785
NOV	1.84	0.928	0.820
DEC	2.20	0.992	0.859

YEARLY AVERAGES		
1.89	0.904	0.800

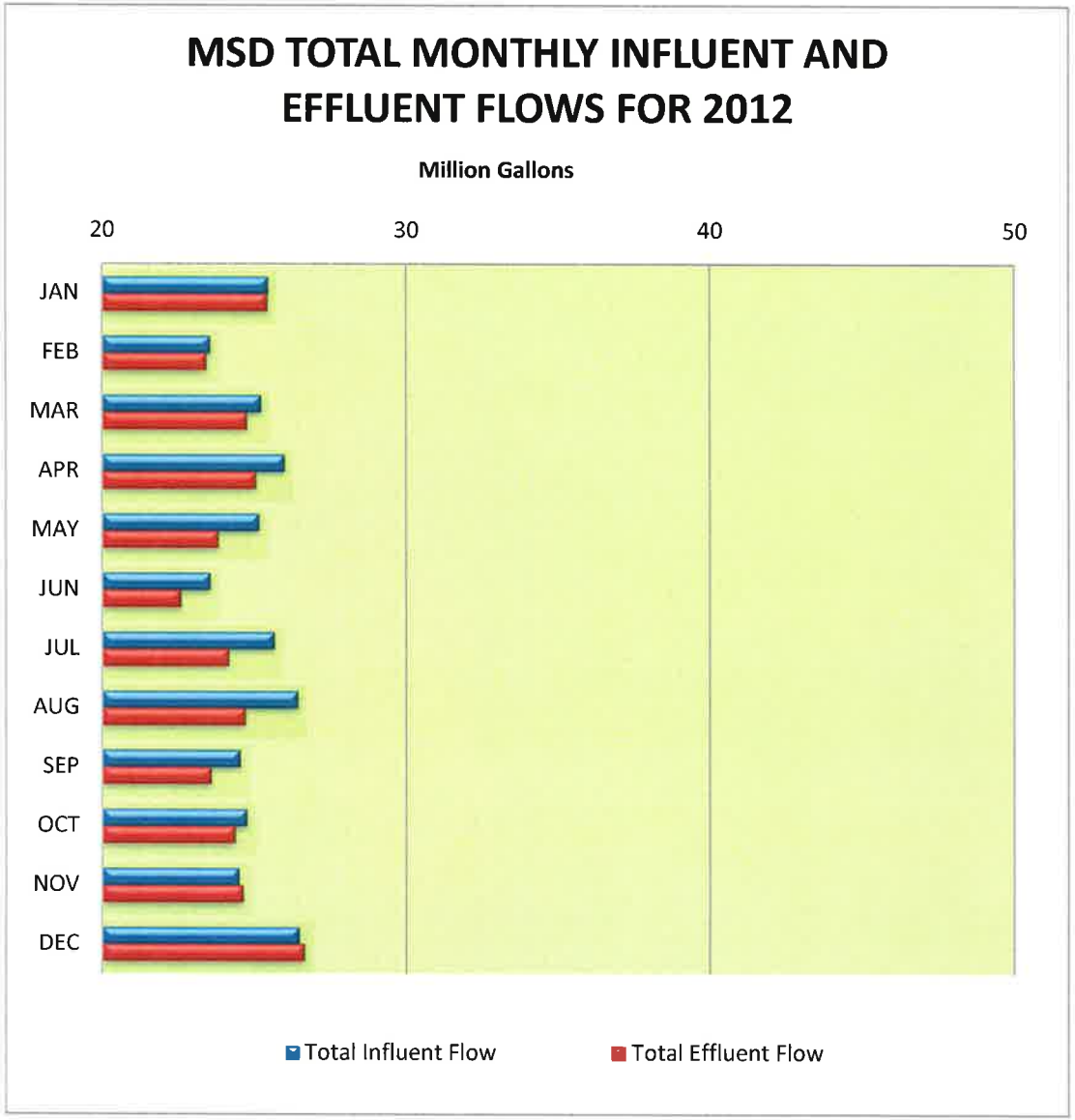




YEAR	TOTAL ANNUAL FLOW
2000	392.00
2001	392.60
2002	342.20
2003	363.35
*2004	322.40
2005	415.28
2006	361.23
2007	299.15
2008	319.48
2009	289.00
2010	327.40
2011	348.00
2012	292.90

YEAR	AVG DAILY FLOW
2000	1.074
2001	1.076
2002	0.938
2003	0.996
*2004	0.881
2005	1.135
2006	1.005
2007	0.820
2008	0.867
2009	0.792
2010	0.897
2011	0.954
2012	0.800

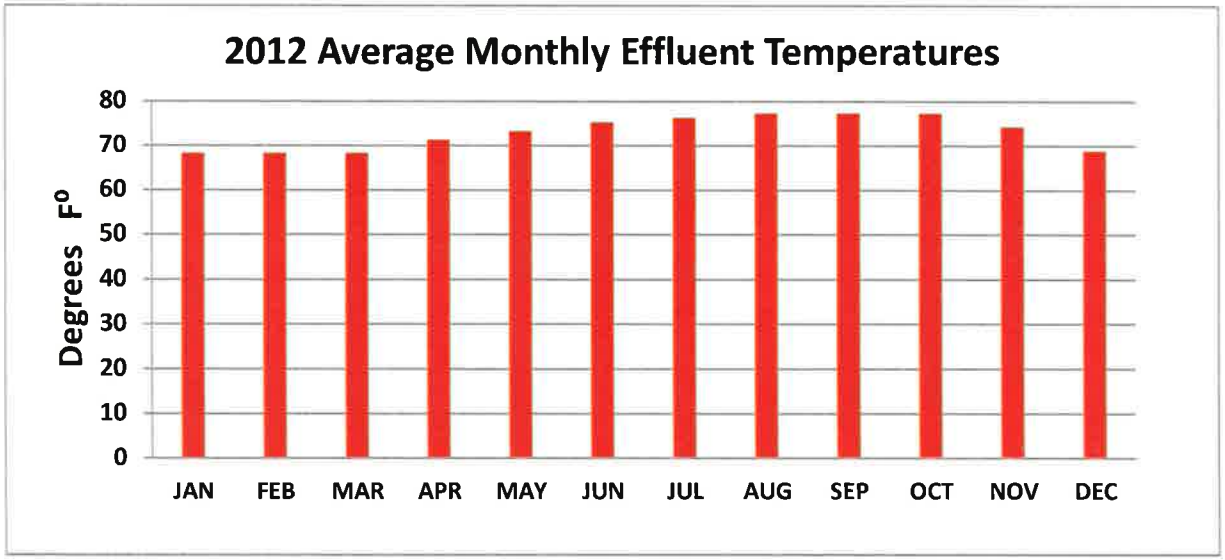
*** = New effluent flow meter installed on April 10, 2004.**



Month	Total Influent Flow	Total Effluent Flow
JAN	25.433	25.41
FEB	23.527	23.40
MAR	25.196	24.73
APR	25.975	25.04
MAY	25.122	23.79
JUN	23.526	22.56
JUL	25.626	24.13
AUG	26.409	24.68
SEP	24.498	23.55
OCT	24.731	24.34
NOV	24.467	24.60
DEC	26.444	26.63
Total	**301.0**	**292.9**

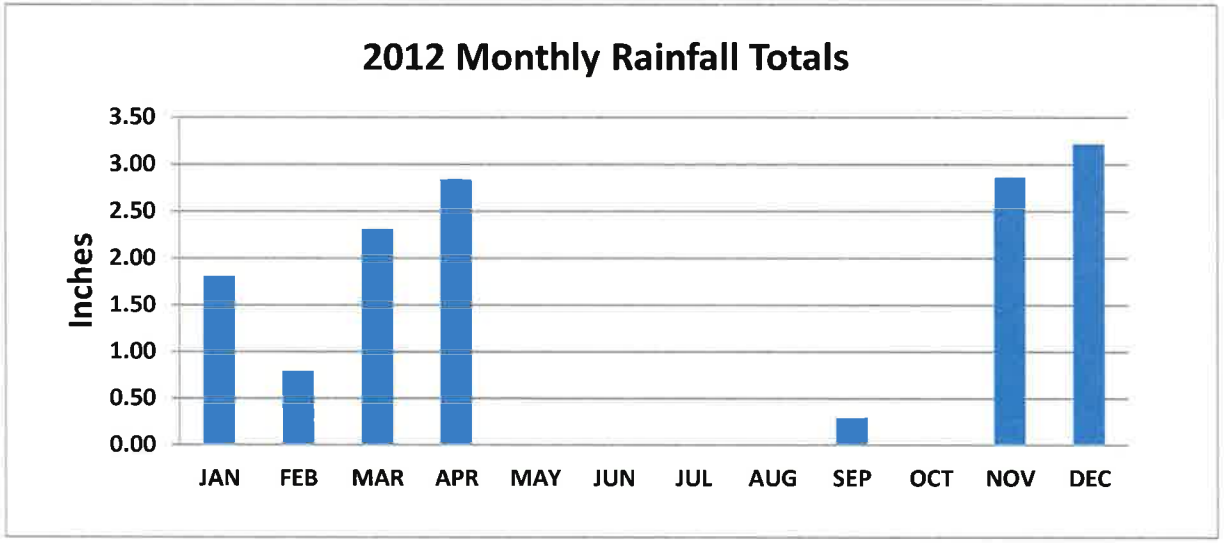
Million Gallons

Note: Influent and Effluent flow variations are due to process recycled flows and process cleaning or maintenance draining water back to the headworks. Additionally, two different flow measuring devices are used "in-pipe" (Influent) and open channel (Effluent).



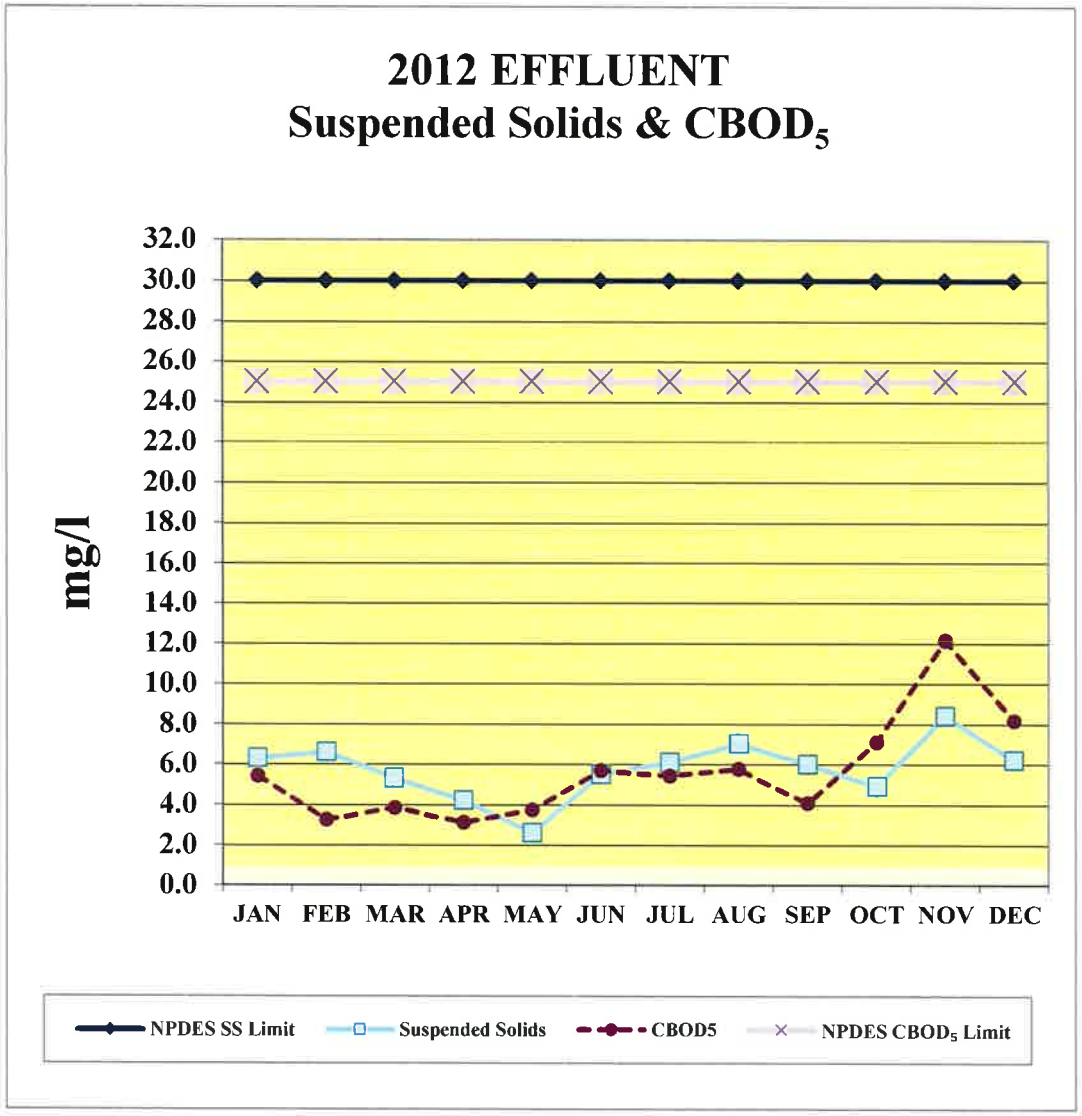
Month	AVG Temp Degrees F °
JAN	68
FEB	68
MAR	68
APR	71
MAY	73
JUN	75
JUL	76
AUG	77
SEP	77
OCT	77
NOV	74
DEC	69

AVG	73

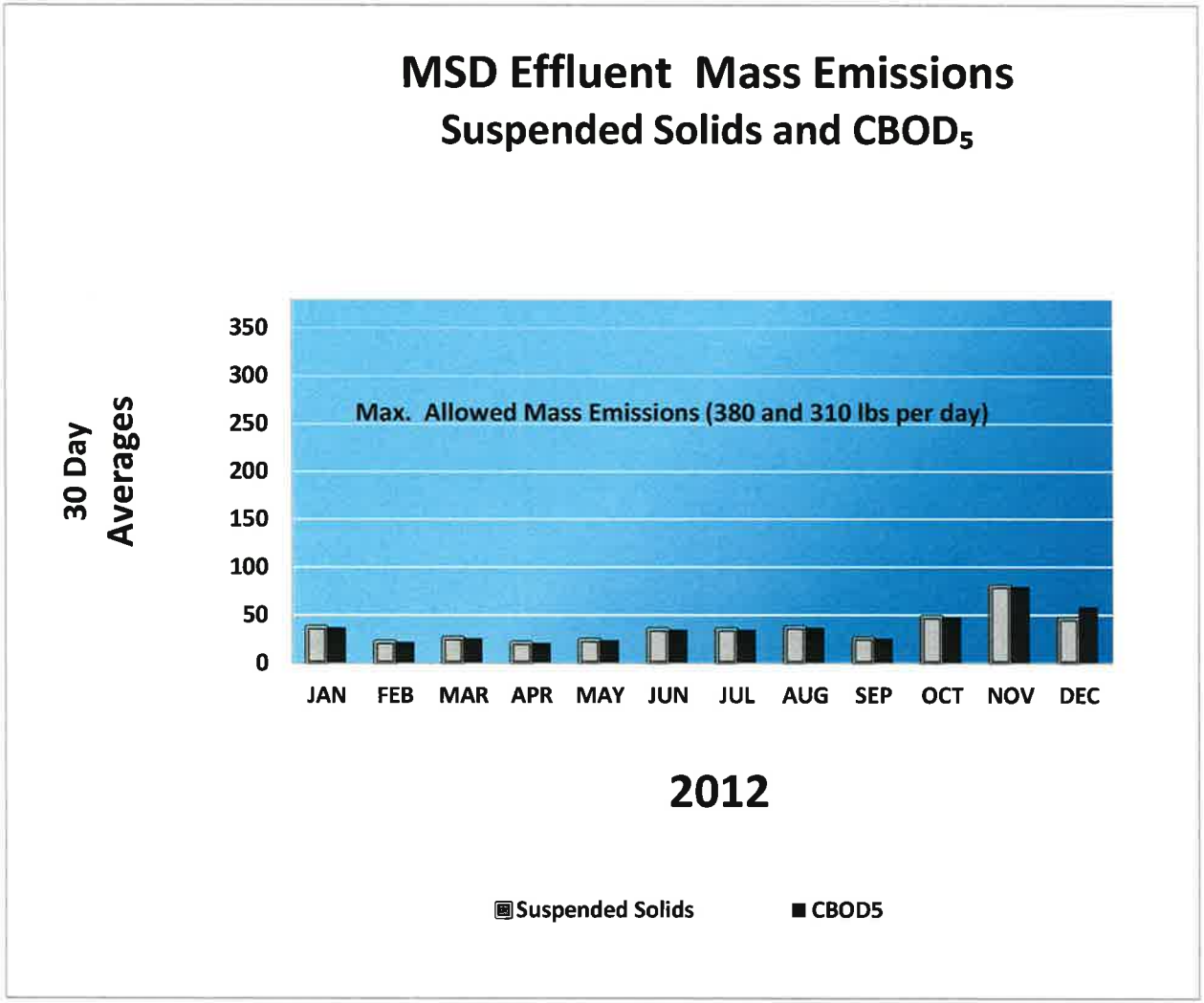


Month	Rainfall Inches
JAN	1.81
FEB	0.80
MAR	2.31
APR	2.84
MAY	0.00
JUN	0.00
JUL	0.01
AUG	0.01
SEP	0.30
OCT	0.01
NOV	2.86
DEC	3.22

TOTAL	14.17



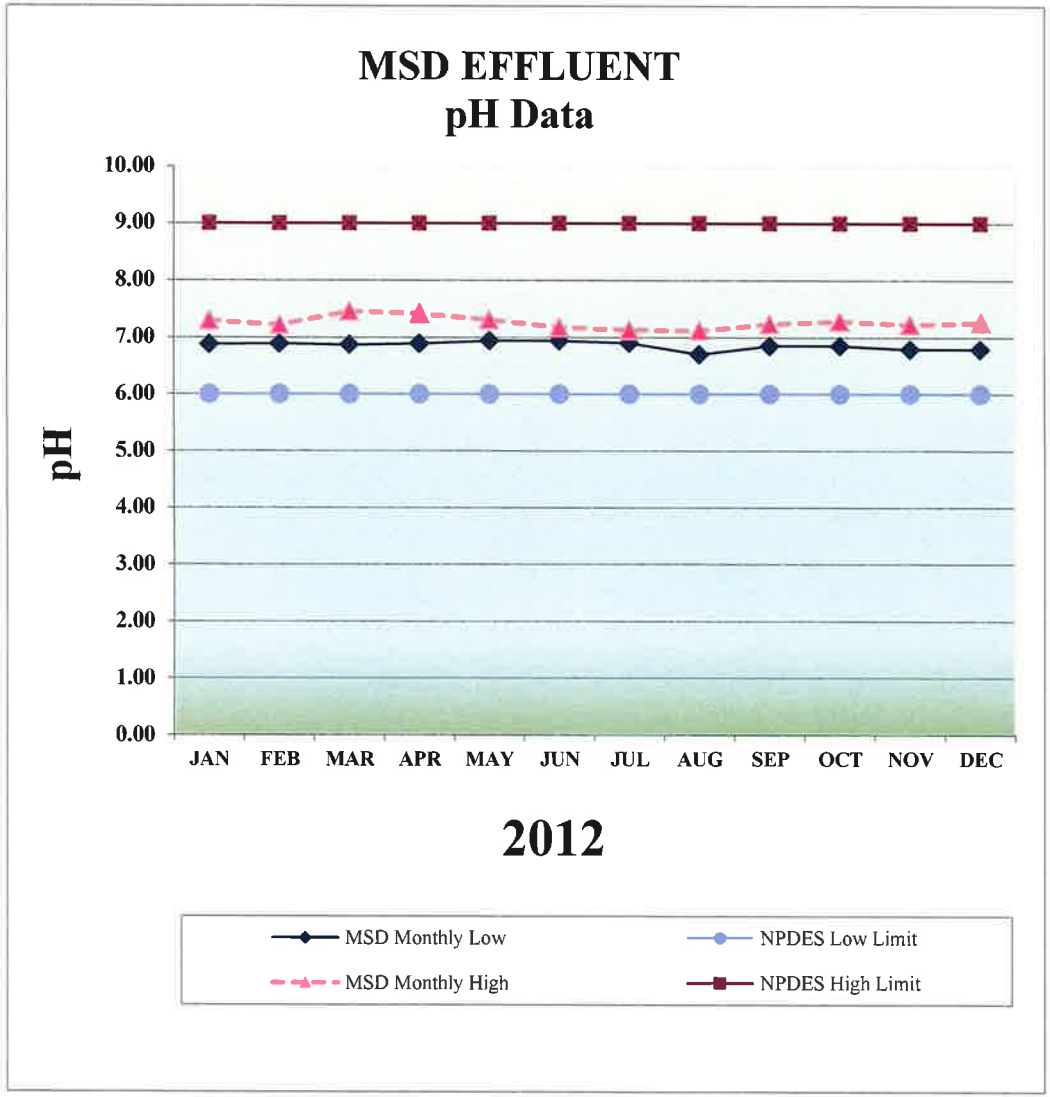
Month	NPDES SS Limit	Effluent Suspended Solids	NPDES $CBOD_5$ Limit	Effluent $CBOD_5$
JAN	mg/l	mg/l	mg/L	mg/l
FEB	30.0	6.3	25.0	5.4
MAR	30.0	6.6	25.0	3.2
APR	30.0	5.3	25.0	3.8
MAY	30.0	4.2	25.0	3.1
JUN	30.0	2.6	25.0	3.7
JUL	30.0	5.5	25.0	5.7
AUG	30.0	6.1	25.0	5.4
SEP	30.0	7.0	25.0	5.8
OCT	30.0	6.0	25.0	4.1
NOV	30.0	4.9	25.0	7.1
DEC	30.0	8.4	25.0	12.1
	30.0	6.2	25.0	8.2
Monthly Average		5.8		5.6



Month	Effluent Suspended Solids lbs/day	Effluent $CBOD_5$ lbs/day
JAN	37	37
FEB	22	22
MAR	26	26
APR	21	21
MAY	24	24
JUN	35	35
JUL	35	35
AUG	37	37
SEP	26	26
OCT	48	48
NOV	80	80
DEC	46	59

AVG	**36**	**38**

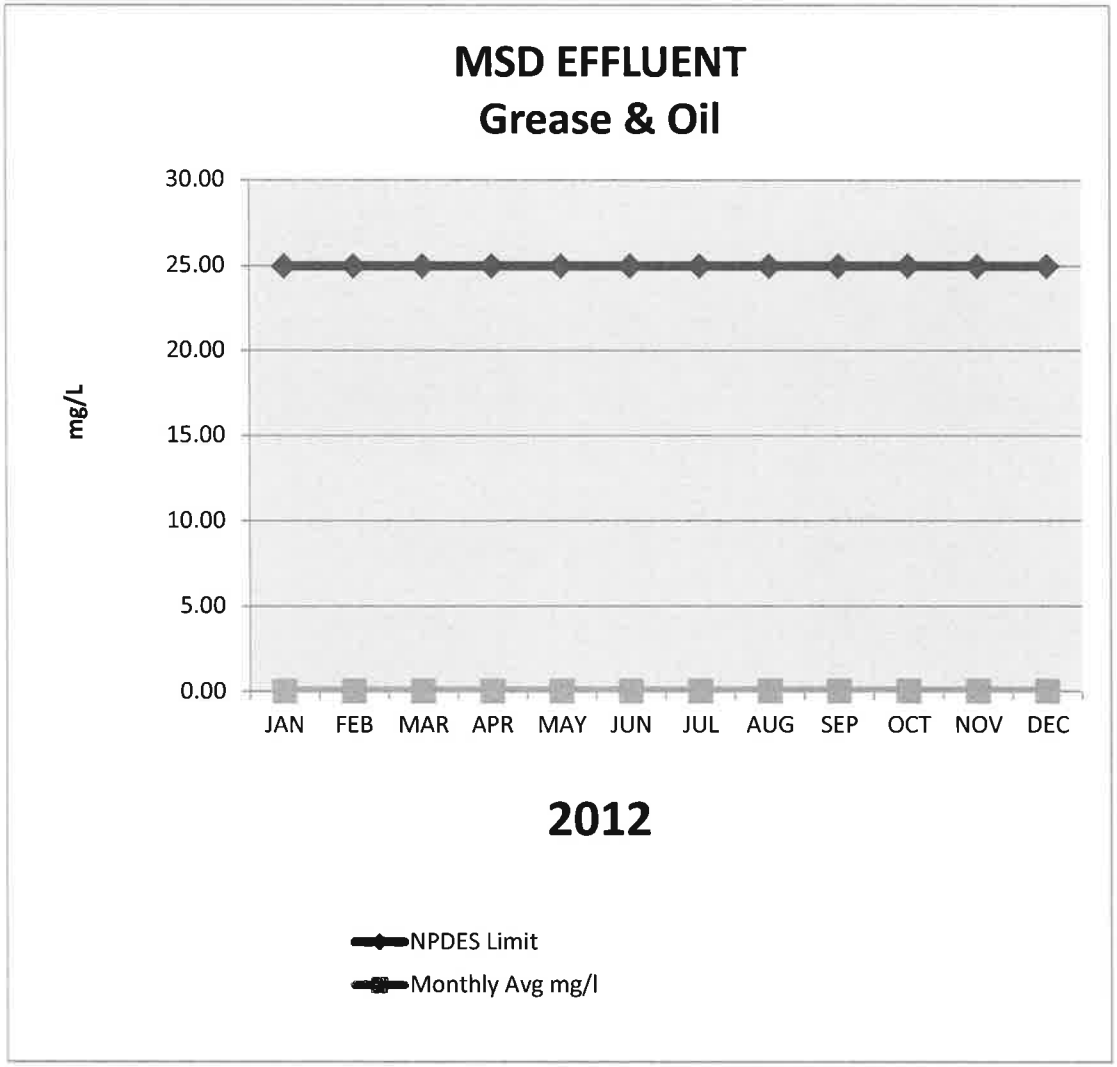
	lbs per day	lbs per day
Max Allowed	**380**	**310**



Month	MSD Monthly Low	NPDES Low Limit	MSD Monthly High	NPDES High Limit
JAN	6.88	6.00	7.30	9.00
FEB	6.89	6.00	7.22	9.00
MAR	6.87	6.00	7.46	9.00
APR	6.89	6.00	7.42	9.00
MAY	6.94	6.00	7.31	9.00
JUN	6.94	6.00	7.18	9.00
JUL	6.90	6.00	7.13	9.00
AUG	6.70	6.00	7.12	9.00
SEP	6.85	6.00	7.23	9.00
OCT	6.85	6.00	7.28	9.00
NOV	6.79	6.00	7.22	9.00
DEC	6.79	6.00	7.26	9.00

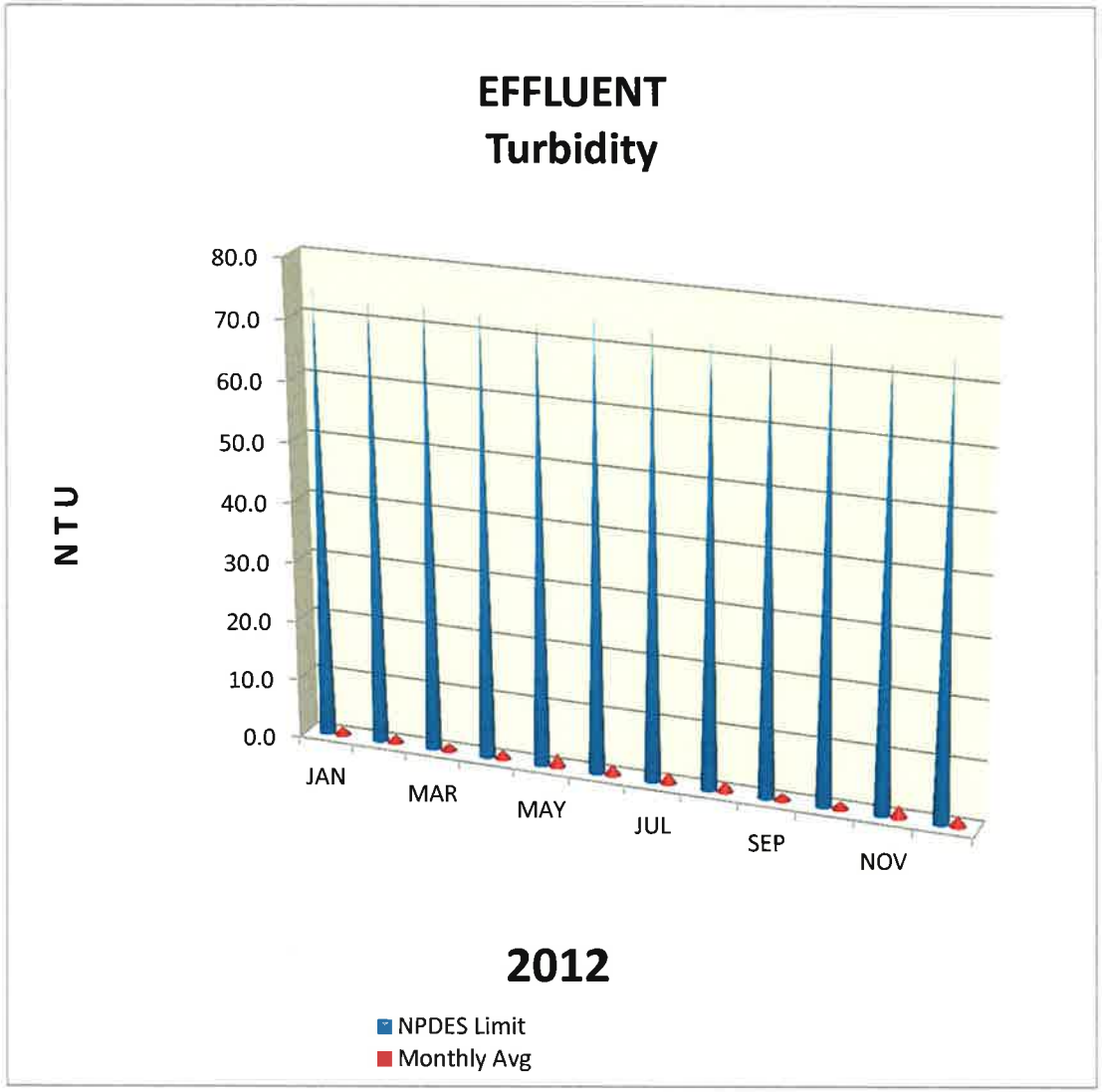
AVERAGES

6.86		**7.26**



Grease & Oil		
Month	NPDES Limit	Monthly Avg mg/l
JAN	25.00	0.0
FEB	25.00	0.0
MAR	25.00	0.0
APR	25.00	0.0
MAY	25.00	0.0
JUN	25.00	0.0
JUL	25.00	0.0
AUG	25.00	0.0
SEP	25.00	0.0
OCT	25.00	0.0
NOV	25.00	0.0
DEC	25.00	0.0

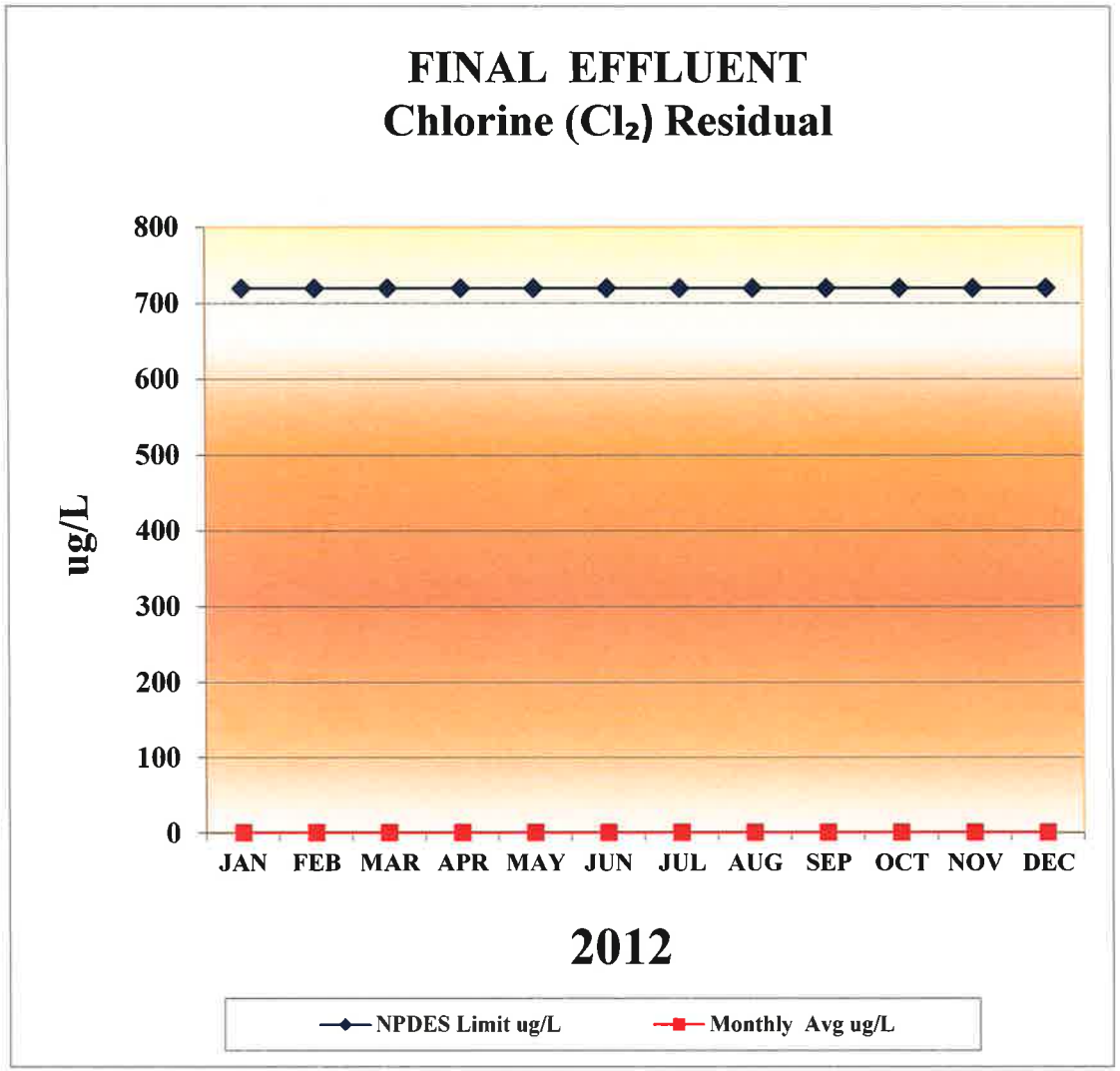
Note:
The laboratory analysis Method Detection Limit (MDL) is 3.0 mg/L
Non Detect is reported as 0.0 mg/L



Turbidity - NTU		
Month	NPDES Limit	Monthly Avg
JAN	75.0	1.5
FEB	75.0	1.4
MAR	75.0	1.3
APR	75.0	1.6
MAY	75.0	2.3
JUN	75.0	1.8
JUL	75.0	1.9
AUG	75.0	1.8
SEP	75.0	1.3
OCT	75.0	1.3
NOV	75.0	2.1
DEC	75.0	1.8

	AVG	1.7

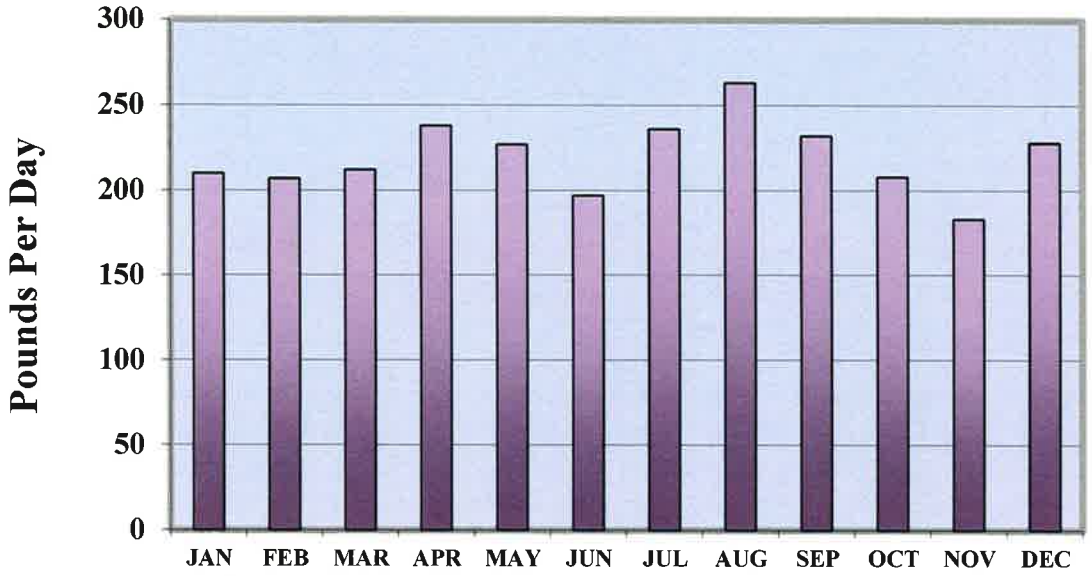
NTU= Nephelometric Turbidity Unit



CHLORINE RESIDUAL		
Month	NPDES Limit ug/L	Monthly Avg ug/L
JAN	720	0
FEB	720	0
MAR	720	0
APR	720	0
MAY	720	0
JUN	720	0
JUL	720	0
AUG	720	0
SEP	720	0
OCT	720	0
NOV	720	0
DEC	720	0

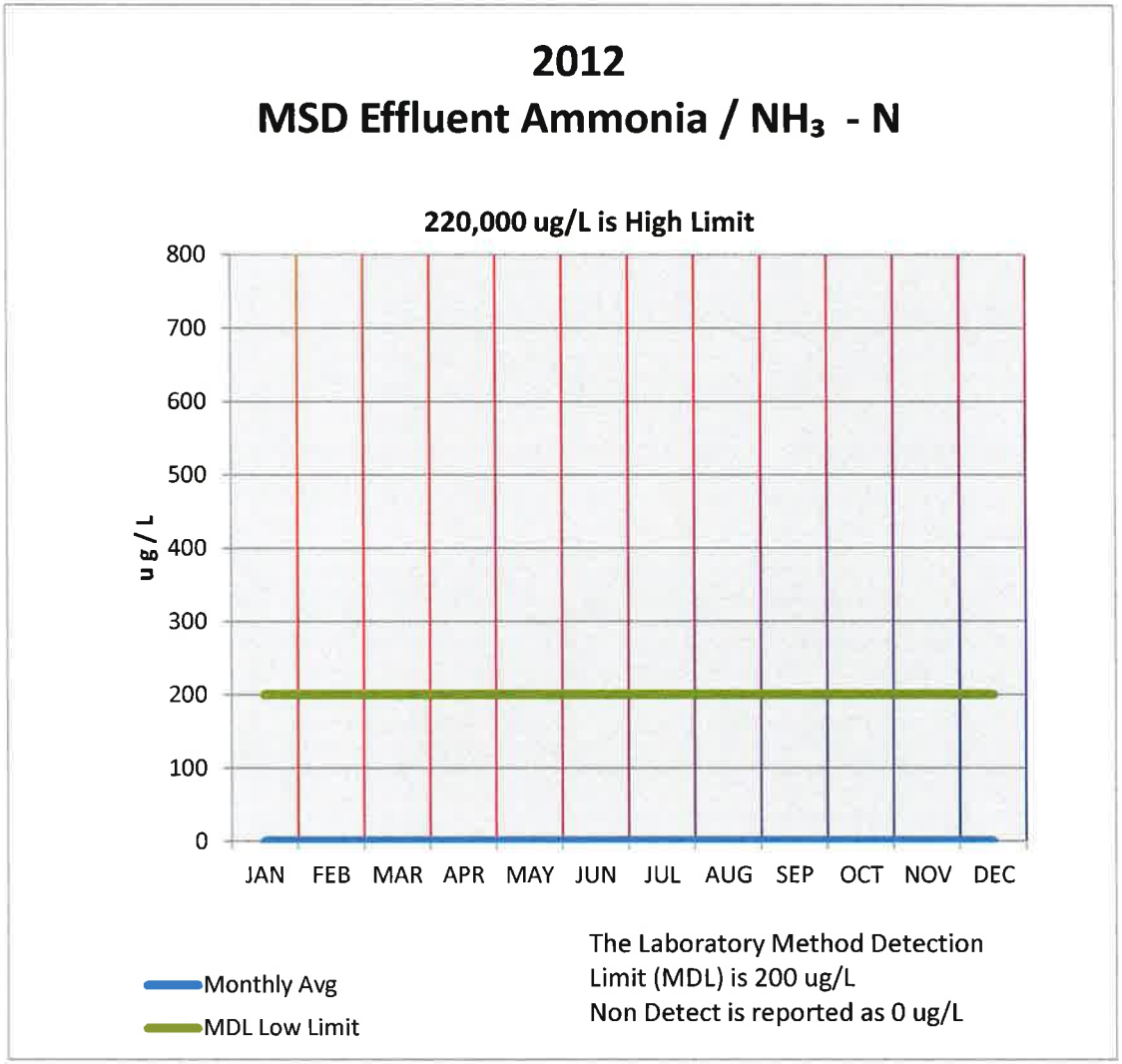
AVG	0

EFFLUENT
Total Chlorine (Cl_2) Used



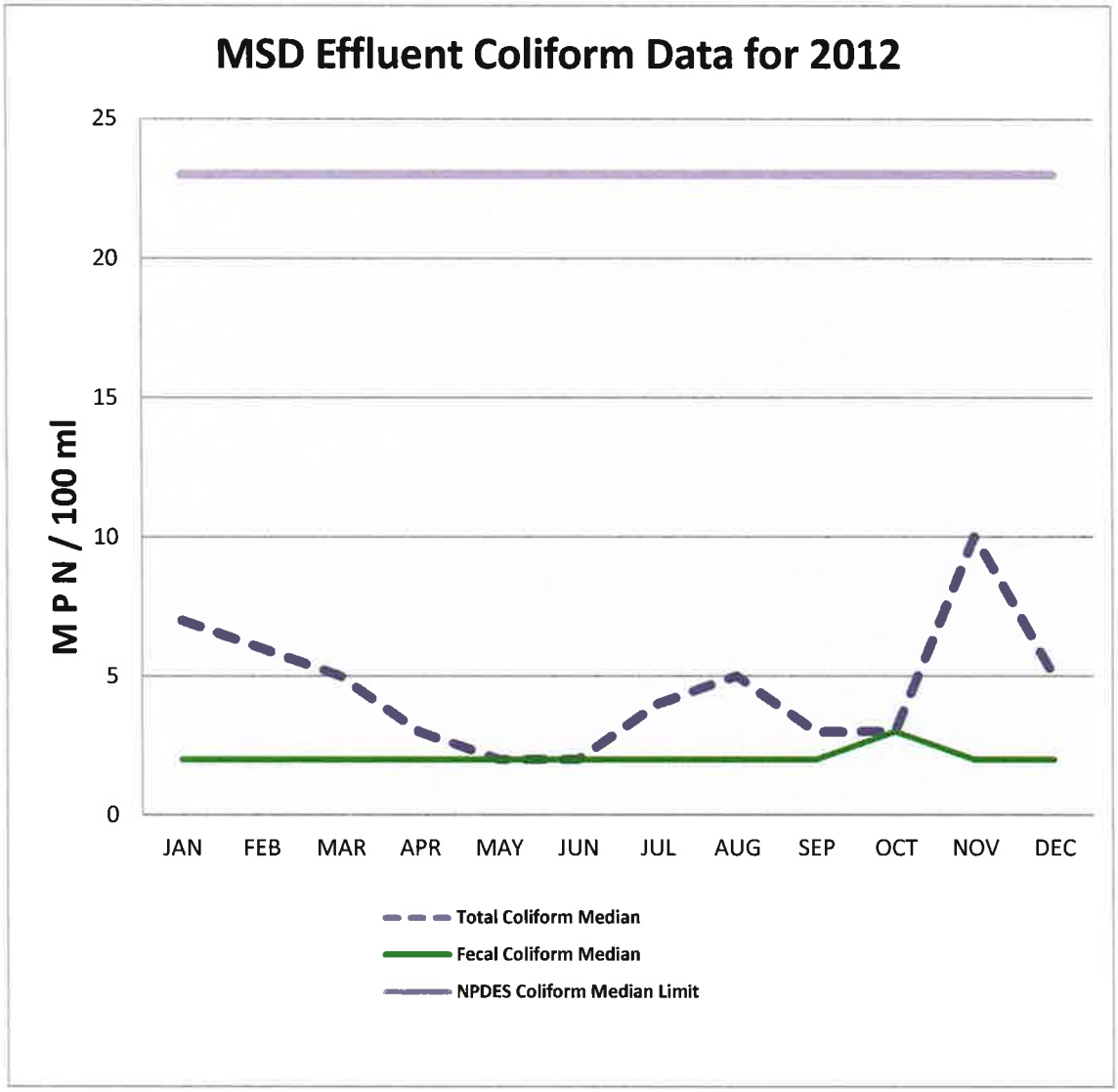
Month	Daily Average lbs Per Day
JAN	210
FEB	207
MAR	212
APR	238
MAY	227
JUN	197
JUL	236
AUG	263
SEP	232
OCT	208
NOV	183
DEC	228

AVG	220



	Ammonia / NH_3-N		
	Monthly Avg	MDL Low Limit	NPDES High Limit
	ug/L	ug/L	ug/L
JAN	0	200	220,000
FEB	0	200	220,000
MAR	0	200	220,000
APR	0	200	220,000
MAY	0	200	220,000
JUN	0	200	220,000
JUL	0	200	220,000
AUG	0	200	220,000
SEP	0	200	220,000
OCT	0	200	220,000
NOV	0	200	220,000
DEC	0	200	220,000

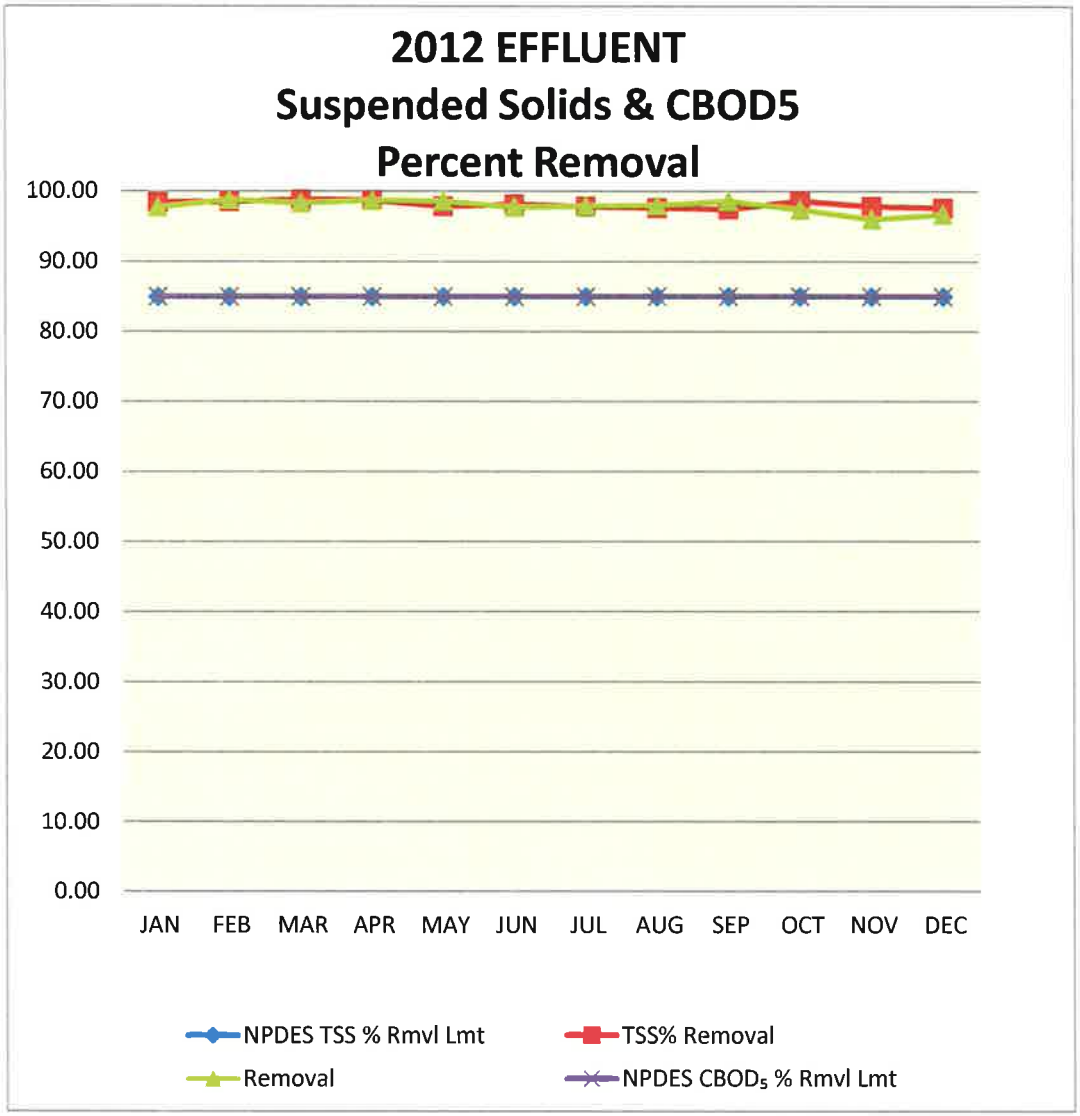
AVG	0



Month	Total Coliform Median	Fecal Coliform Median	NPDES Coliform Median Limit
JAN	7	**2**	23
FEB	6	**2**	23
MAR	5	**2**	23
APR	3	**2**	23
MAY	2	**2**	23
JUN	2	**2**	23
JUL	4	**2**	23
AUG	5	**2**	23
SEP	3	**2**	23
OCT	3	**3**	23
NOV	10	**2**	23
DEC	5	**2**	23

Median	**3**	**2**

Note:
The Method Detection Limit (MDL) for total and fecal coliform range is 2 MPN/100 ml - 160,000 MPN/100 ml



Month	NPDES TSS % Rmvl Lmt	Monthly TSS% Removal	NPDES $CBOD_5$ % Rmvl Lmt	Monthly $CBOD_5$ % Removal
JAN	85.0	98.4	85.0	97.7
FEB	85.0	98.5	85.0	98.8
MAR	85.0	98.8	85.0	98.3
APR	85.0	98.7	85.0	98.7
MAY	85.0	97.8	85.0	98.6
JUN	85.0	98.1	85.0	97.7
JUL	85.0	97.8	85.0	97.9
AUG	85.0	97.6	85.0	98.0
SEP	85.0	97.4	85.0	98.6
OCT	85.0	98.6	85.0	97.4
NOV	85.0	97.8	85.0	96.0
DEC	85.0	97.6	85.0	96.7
Monthly Average		**98.1**		**97.9**

Tabular Data for 2012 Summary Report

INFLUENT							
2012 Month	Monthly Total Flow MG	Inst Peak MGD	Avg Daily MGD	6-day TSS mg/L	6-day TSS lbs	6-day $CBOD_5$ mg/L	6-day $CBOD_5$ lbs
Jan	25.433	1.780	0.820	404	2,749	232	1,579
Feb	23.527	1.660	0.811	450	3,022	276	1,866
Mar	25.196	1.650	0.813	454	3,066	224	1,500
Apr	25.975	2.100	0.866	317	2,158	247	1,680
May	25.122	2.550	0.810	264	1,716	271	1,767
Jun	23.526	2.520	0.784	291	1,797	246	1,517
Jul	25.626	3.080	0.827	273	1,741	260	1,663
Aug	26.409	2.100	0.852	298	1,953	291	1,892
Sep	24.498	2.100	0.817	229	1,507	297	1,939
Oct	24.731	1.950	0.798	338	2,217	275	1,807
Nov	24.467	2.380	0.818	387	2,723	300	2,076
Dec	26.444	2.400	0.853	260	1,913	245	1,794
AVG	25.080	2.189	0.822	330	2214	264	1757
TOTALS	301.0						

FINAL EFFLUENT							
Monthly Rain Inches	Monthly Total Flow MGM	Inst Peak MGD	Max Daily MGD	Avg MGD	6-day TSS mg/L	6-day TSS lbs	Monthly Min. TSS % Removal
1.81	25.41	1.71	0.940	0.820	6	37	98.4
0.80	23.40	1.68	0.868	0.807	7	22	98.5
2.31	24.73	1.86	0.926	0.798	5	26	98.8
2.84	25.04	1.95	1.149	0.835	4	21	98.7
0.00	23.79	2.50	0.834	0.767	3	24	97.8
0.00	22.56	2.20	0.805	0.752	6	35	98.1
0.01	24.13	1.77	0.828	0.778	6	35	97.8
0.01	24.68	1.71	0.844	0.796	7	37	97.6
0.30	23.55	1.72	0.846	0.785	6	26	97.4
0.01	24.34	1.54	0.884	0.785	5	48	98.6
2.86	24.60	1.84	0.928	0.820	8	80	97.8
3.22	26.63	2.20	0.992	0.859	6	46	97.6
	24.405	1.89	0.904	0.800	5.8	36	98.1
14.17	292.9						

Tabular Data for 2012 Summary Report

FINAL E F F L U E N T														
6-day $CBOD_5$ mg/L	6-day $CBOD_5$ lbs	Monthly Min.$CBOD_5$ % Removal	Monthly NH3-N ug/L	Monthly NH3-N lbs	Monthly O & G mg/l	Monthly O & G lbs/day	6-day Turb NTU	pH High SU	pH Low SU	Final Effluent Cl2 ug/L	Cl2 Total lbs/day	Temp °F	Coliform Median Total MPN	Coliform Median Fecal MPN
5.4	37	97.7	0	**0**	0	0	1.5	7.30	6.88	0.0	210	68	7	**2**
3.2	22	98.8	0	**0**	0	0	1.4	7.22	6.89	0.0	207	68	6	**2**
3.8	26	98.3	0	**0**	0	0	1.3	7.46	6.87	0.0	212	68	5	**2**
3.1	21	98.7	0	**0**	0	0	1.6	7.42	6.89	0.0	238	71	3	**2**
3.7	24	98.6	0	**0**	0	0	2.3	7.31	6.94	0.0	227	73	2	**2**
5.7	35	97.7	0	**0**	0	0	1.8	7.18	6.94	0.0	197	75	2	**2**
5.4	35	97.9	0	**0**	0	0	1.9	7.13	6.90	0.0	236	76	4	**2**
5.8	37	98.0	0	**0**	0	0	1.8	7.12	6.70	0.0	263	77	5	**2**
4.1	26	98.6	0	**0**	0	0	1.3	7.23	6.85	0.0	232	77	3	**2**
7.1	48	97.4	0	**0**	4	28	1.3	7.28	6.85	0.0	208	77	4	**2**
12.1	80	96.0	0	**0**	0	0	1.0	7.47	6.89	0.0	167	70	3	**3**
8.2	59	96.7	0	**0**	0	0	1.8	7.26	6.79	0.0	228	71	5	**2**

5.6	**38**	**97.9**	**0**	**0**			**1.6**	**7.28**	**6.87**	**0**	**219**	**73**	**3 Median**	**2**	**AVG**

MONTECITO SANITARY DISTRICT

Collection System Maintenance and Renovation Program 2012

OBJECTIVE

To reduce Sanitary Sewer Overflows (SSO's), increase system reliability, optimize service life of all collection system components and plan for facility replacement.

GOALS – SHORT AND LONG TERM

Short Term:

1. Rehabilitate pipe sections that have been identified as needing repair/replacement.

2. Continue a systematic maintenance program based on past years data to indentify lines that need to be cleaned and give each line segment a rating to be evaluated by Closed Circuit Television (CCTV).

3. Continue a systematic CCTV program based on the maintenance line segment ratings to identify intrusion of roots, grease and/or structural defects and also check on the effectiveness of the District's cleaning procedures and equipment.

4. Continue to monitor the institutional facilities for compliance with the District's voluntary fats, oils & grease source control program.

5. Continue to enhance the District's Geographic Information System (GIS) of the collection system piping, including routine updating of the District's maintenance activities consisting of cleaning, CCTV, and manhole inspection.

6. Continue to prioritize and make repairs on collection system piping as it is found during regular CCTV'ing activities.

7. Continue to promote and fund a program which provides a financial incentive to property owners (offering a rebate up to $2,000) for the rehabilitation and/or replacement of private sewer laterals. The District's FY 2012-13 funding for this program is $40,000.

8. Continue to train staff and practice the lift station maintenance program consisting of a routine maintenance schedule and emergency by-passing of Lift Stations.

9. Purchase a new Hydro Cleaning Truck.

Long Term:

1. Continue to investigate the Inflow & Infiltration issues that are known to exist within the District.

2. Clean entire collection system performing a complete condition appraisal of each line segment.

3. Inspect and record the entire collection system with the Closed Circuit Television Van, which was purchased new in 2012.

ACTIONS COMPLETED IN 2012

1. Performed closed circuit video inspection of approximately 12 miles of collection system piping.

2. Cleaned approximately 36 miles of collection system piping.

3. Promoted and provided financial incentive for the rehabilitation/replacement of private sewer laterals. In 2012, 20 property owners participated in this program and replaced/repaired their deteriorated laterals.

4. Identified and raised/rehabilitated 29 manholes and 1 cleanout in various locations throughout the District totaling $65,920.

5. On February 13, 2012 District Board of Directors voted to award the contract to Elxsi-Cues for the purchase of a new CCTV Van and Equipment, and on July 17, 2012 the new CCTV Van was delivered to the District office. The final contract amount for the purchase of the CCTV Van was $169,405.

6. On August 15, 2012 the Collections Crew completed a three day Infrastructure Condition Assessment Course and Certification Program sponsored by NASSCO Training for pipeline inspection and condition assessment for closed circuit television operators.

2012 SANITARY SEWER OVERFLOW (SSO) REPORT SUMMARY

PRIVATE

1. 2/26/12 – 196 La Vereda Road: Private sewer lateral clean-out located in a path on San Ysidro Road overflowed. The County had recently had a contractor construct a pedestrian walkway. The construction was done is such a way that it caused the private lateral to partially collapse resulting in a sewer spill of approximately 25 gallons. The Collections Crew notified the residents to stop using the water and built a berm out of dirt to contain the spill and prevent private lateral sewage flows from traveling into the street. The District required the property owner to contact a plumber to clear the blockage and subsequently the lateral was replaced.

2. 12/17/12 – 70 Butterfly Lane: Private sewer lateral clean-out located at the property line overflowed resulting in a spill of approximately 40 gallons. The Collections Crew placed sandbags along the side street and notified the owner to stop using their water and call a plumber. The plumber cleared the private lateral and found that roots were the cause of the blockage. The property owner was required by the District to have their lateral video inspected.

DISTRICT

1. 6/22/12 – Category 1: Manhole #329-3C – Intersection of Sycamore Canyon and Hot Springs Road. A large chunk of concrete was found in the manhole and identified as the reason the manhole overflowed causing a sewer spill of approximately 1,850 gallons. The spill traveled from the manhole down the street 200 feet to a drainage ditch. The Collections Crew used sand bags to block the spill in the drainage ditch and rinsed down the area. All wash down water and wastewater of approximately 1,200 gallons was pumped back into the collection system and collected and removed two large trash bags full of leaves from the drainage channel. The Collections Crew used a micro-septic disinfectant to clean the drainage ditch.

MONTECITO SANITARY DISTRICT

Mission, History and Future Goals

OUR MISSION

To provide the residents of Montecito with a community service to protect public health and to preserve the natural environment through collection, treatment and disposal of wastewater in the most cost effective way possible.

To meet all regulatory discharge requirements as directed by Local, State and Federal agencies.

OUR BACKGROUND

The Montecito Sanitary District (MSD) is an independent special district voted into existence in 1947 by the residents of Montecito. A few highlights of MSD's history include the following:

- 1947: The Montecito Sanitary District was voted into existence by the residents.
- 1947-1960: The community worked toward implementation of service by approving a bond issue, selecting a plant site, and establishing a District boundary.
- 1960: A $900,000 bond issue was passed to build a 750,000 gallon per day extended aeration, secondary treatment plant, an ocean outfall and trunk sewer system.
- 1961-1969: Six assessment districts were formed to finance the installation of 70 miles of collection system pipelines.
- 1981: Voters approved a $3.1 million revenue bond issue to incorporate new technology and expand the plant's capacity to 1.5 MGD.
- 1982-1999: During this time period a second activated sludge reactor basin was added to the treatment plant; two additional secondary clarifiers were constructed; the volume of the aerobic digester was increased; a dissolved air flotation thickener and a belt filter press were installed; a second effluent chlorine contact chamber was constructed along with a de-chlorination chamber; a 250 KW emergency generator was installed at the treatment plant. In the mid 1990's, sodium hypochlorite and sodium bisulfite liquids, replaced gaseous chlorine and sulfur dioxide for safety reasons.

- 2000 - 2006: During this time period the District completed the following capital improvement projects: bulk chemical storage tanks were replaced with larger, double wall containment with earthquake restraints; six new disinfection chemical feed pumps for sodium hypochlorite and sodium bisulfite were installed, improving reliability and adding redundancy; a paperless data trend process recorder was installed; an aeration system optimization project was completed, the laboratory was upgraded; the influent pump station was replaced, increasing the station's pumping capacity from 3.5 MGD to 5.0 MGD; a SCADA control center and the construction of a new 3,600 square foot maintenance building.

- 2007 - 2008: The Montecito Board of Director's identified and approved "mission critical" capital improvement projects totaling approximately $11 million. The District then issued Certificates of Participation (COP's) to fund the capital program. The following projects were completed in 2007 and 2008: a new SCADA server with expandability for future was put on line for the influent pump station control; the waste activated sludge pump was replaced; the aeration air header made of deteriorated ductile iron pipe was replaced with a new stainless steel pipe; a new 125 KW portable emergency generator that can be used to power a portion of the treatment plant or as a redundant back up at pump stations was purchased; the Posilipo Lift Station (Lift Station No. 4) was completely refurbished including the replacement of the existing 6" dual force mains with dual 8" lines; a new fully redundant pumping system (three new pumps) were installed along with an automatic switch over to generator power.

- 2009: The District completed the following capital improvement projects: the influent channel grinders were replaced with two new units increasing flow volume from 3.5 mgd to 6.0 mgd; the secondary clarifiers (3 & 4) were refurbished and the effluent channel was refurbished.

- 2010: Completed the refurbishment of two motor control centers (MCC) and replacement of another (MCC); installation of a new 450 KW emergency diesel powered generator providing 100 percent of the treatment plant and associated facilities power requirements during main power outages. The total cost of these treatment plant electrical upgrades was $540,000. The new laboratory building design and site grading was completed in the fall of 2010.

- 2011: The new laboratory building construction was completed in December 2011 and the District Board accepted the project as complete in January 2012. Also completed in 2011 were upgrades to the treatment plant SCADA monitoring system. Additional essential treatment plant equipment was added to the SCADA system. An after-hours alarm notification system was added to the SCADA system as the primary notification system with the existing auto dialer (ADA) becoming the back up. Three effluent disinfection chemical dosing pumps were replaced with new pumps.

- 2012: Capital projects completed included the refurbishment of all four Secondary Clarifiers; installation of two new Sodium Hypochlorite chemical feed pumps and one Sodium Bisulfite chemical feed pump; all three Influent Pumps were retrofitted with new high chrome impellors and volutes and the Influent Variable Frequency Drive motors were replaced with new energy efficient units.

    - Operations staff moved the laboratory operations from the main office building to the new laboratory building in April 2012. Quality Assurance Services was contracted to provide training on the newly prepared Quality Assurance & Quality Control manuals and assist with certification by the California Environmental Laboratories Accreditation Program.

- 2013 – 2014: Future projects include ELAP Certification of the District's Testing Laboratory; replacement of the Belt Filter Press; replacement of all three Aeration Blowers; replacement of the Sodium Hypochlorite tank and updating of the treatment plant SCADA computer system.