

Monthly Operations and Maintenance Report

September 2016





**THIS PAGE
INTENTIONALLY
LEFT BLANK**

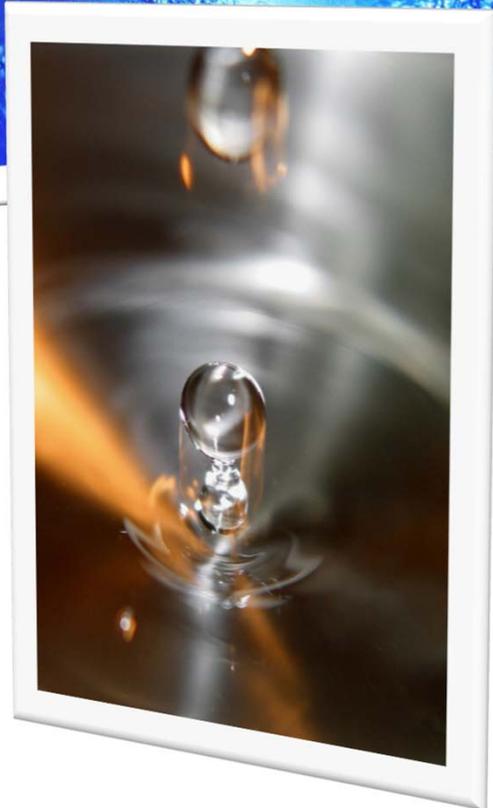


Table of Contents

Section	Page
ACRONYMS AND ABBREVIATIONS	1
EXECUTIVE SUMMARY	7
Summary	7
Water Resources.....	7
Water Distribution, Treatment, and Production	7
Wastewater Treatment.....	7
Wastewater Collections.....	8
Environmental Control.....	8
Laboratory	8
Engineering	8
Stormwater	8
Administration.....	9
WATER RESOURCES	11
Operational Activities.....	11
Outreach and Education.....	12
School Programs.....	12
Water Use Surveys	12
Incentives and Rebates	13
Landscape Programs.....	13
WATER TREATMENT, PRODUCTION, AND DISTRIBUTION	15
Operational Activities.....	15
Regulatory	15
Water Treatment.....	15
Water Production	16
Water Production Summary.....	16
Production/Consumption Summary.....	16
Chemical/Utility Consumption Summary.....	16
Water Distribution.....	17
Construction.....	17
Hydrant	17
Customer Service.....	17
Maintenance.....	17
Distribution.....	17
System Connections.....	17
Water Quality Inquiries	18
Customer Services Operations.....	18
Cross Connection Control Program.....	18

WASTEWATER TREATMENT 19

Operational Activities.....19
Discharge Permit.....19
Residuals Management19
Cake Solids.....19
Odor Control Practices20
Oxidation Pond Levels20
Chemical and Utility Consumption.....20

WASTEWATER COLLECTION SYSTEMS 21

Operational Activities.....21
Regional Water Quality Control Board (RWQCB).....21
Activities Summary.....22
Collection System.....22
Customer Service.....22
Residuals Management.....22
Odor Control Program22
Pumping Facilities22
Wastewater Facility23

ENVIRONMENTAL CONTROL 25

Operational Activities.....25
Reports/Statistics.....25

LABORATORY 27

Operational Activities.....27
Wastewater Sampling and Analyses27
Drinking Water Sampling and Analysis.....28
Laboratory Operations.....28

ENGINEERING 29

Operational Activities.....29
Capital Improvement Project Milestones30

STORMWATER 33

Operational Activities.....33
Stormwater System.....34
Pumping Facilities34
Storm Drainage Maintenance Districts34
Permit Compliance34
Stormwater Inspections.....35

ADMINISTRATION 37

Operational Activities.....37

Health and Safety	37
Human Resources.....	37
Regulatory Compliance.....	38
REFERENCE	41
Tables and Figures.....	41
Water Resources	43
Table 1.1 – Water Waste Complaints	43
Table 1.2 – Water Conservation Outreach	43
Table 1.3 – Water Conservation Surveys	43
Table 1.4 – Water Saving Devices	43
Table 1.5 – HET Direct Install Program.....	43
Water Treatment, Production, and Distribution	45
Table 2.1 - Summary Coliform Monitoring	45
Table 2.2 – Well Operational Status.....	46
Table 2.3 – Production Summary (in Million Gallons).....	47
Table 2.3A--DWTP Influent by Water Source 2016-2017 (in Million Gallons).....	48
Figure 2.A – Production Summary.....	49
Table 2.4 – City of Stockton Water Systems –Production Summaries	50
Table 2.6 – Chemical Consumption Summary.....	53
Table 2.7 – Utility Consumption Summary.....	54
Table 2.8 – Hydrant Maintenance	55
Table 2.9 – Valve Maintenance Program	55
Table 2.10 – Service Connections	55
Table 2.11 – Number of Active Service Meters in Water System - By Size.....	55
Table 2.12 – Water Quality Inquiry Summary	56
Table 2.13 – Customer Services Summary.....	56
Table 2.14 – Cross Connection Control Program (based on a calendar year).....	56
Table 2.15 – Cross Connection Control Program Surveys.....	56
Wastewater Treatment.....	57
Table 3.1 – Summary of Influent and Effluent Parameters	57
Figure 3.A – Wastewater Plant Influent and Effluent Flow	58
Figure 3.B – Wastewater Plant Influent CBOD5 Load	59
Figure 3.C – Wastewater Plant Influent TSS Load	60
Table 3.2 – Residuals and Chemical Management Summary for Biosolids.....	61
Figure 3.D – Cake Solids.....	61
Table 3.3 – Summary of Tertiary Pond Operating Levels.....	62
Table 3.4 – Chemical Consumption Summary – Tertiary Facility	63
Table 3.5 – Utility Consumption	64
Wastewater Collection Systems.....	65
Table 4.1 – Summary of SSOs and Private Sewage Spills	65
Figure 4.A – Public Sanitary Sewer Overflow Events	66
Figure 4.B – Public SSOs Greater than 1,000 gallons – Events	67
Figure 4.C – Public Sanitary Sewer Overflows Discharged to Receiving Water.....	68
Table 4.2 – Sewer Maintenance Activity Summary	69
Table 4.3 – Customer Service and CCTV Activity Summary	71
Table 4.4 – Spoils Activity Summary.....	72
Table 4.5 – Graffiti Removal.....	73
Table 4.6 – Pump Station Maintenance Work Order Summary	73
Table 4.7 – Plant Maintenance Work Order Summary.....	73

Environmental Control	75
Table 5.1 – Operational Activity Summary	77
Laboratory	79
Table 6.1 – Acute Toxicity Testing Summary	79
Table 6.2 – Algae (<i>Selenastrum capricornutum</i>)	79
Table 6.3 – Ceriodaphnia (<i>C. dubia</i>)	79
Table 6.4 – Larval Fathead Minnow (<i>Pimephales Promelas</i>)	79
Table 6.5 – Effluent Ammonia-N Summary	80
Figure 6.A – Laboratory Samples and Analyses	80
Figure 6.B – Contract Laboratory Samples and Analyses	81
Figure 6.C – Laboratory Sample Types	82
Engineering	83
Figure 7.A – Development Reviews Received and Completed	83
Figure 7.B – Development Reviews Received and Completed	84
Table 7.1 – Nonpotable, Stormwater, Water, and Wastewater Projects	85
Stormwater	87
Table 8.1 – Stormwater Maintenance Activity Summary	89
Table 8.2 – Inspections	91
Table 8.3 – Stormwater Pumping Facilities Work Order Summary	92
Administration	93
Safety and Training Activities	93
Table 9.1 – Summary of Unsafe Conditions or Acts	93
Table 9.2 – Summary of Work-Related Injuries and Illnesses	93
Table 9.3 – Summary of Safety Training	93
Human Resources Operational Activities	93
Table 9.4 – Staffing Summary	93
Table 9.5 – Overtime Summary	94
APPENDIX A	I
Water	I
Title 22 Compliance Water Well Sampling	I
Summary Well System Operations	I
APPENDIX B	V
Environmental Compliance	V
Monitored Industrial User Charges	V
Customer Charges Report	V
Septic Waste Haulers’ Charges	V

Acronyms and Abbreviations

ACRONYM	DEFINITION
- A -	
ABS	Acrylonitrile Butadiene Styrene
AED	Automated External Defibrillator
AF	Acre Feet
AICPA	American Institute of Certified Public Accountants
AL	Action Levels
ANSI	American National Standards Institute
APCD	Air Pollution Control District
APN	Assessor Parcel Number
APs	Action Plans
APSA	Aboveground Petroleum Storage Act
AQMD	Air Quality Management District
ARB	Air Resources Board
ARV	Air Relief Valve
ASDWA	Association of State Drinking Water Administrators
ATSDR	Agency for Toxic Substances and Disease Registry
AWWA	American Water Works Association
- B -	
BACC	Bay Area Chemical Consortium
BACM	Best Available Control Measure
BCP	Business Continuity Plan
BFP	Belt Filter Press
BMP	Best Management Practice
BOD	Biochemical Oxygen Demand
BOD ₅	Standard Biochemical Oxygen Demand – 5 day
BOO	Build-Own-Operate
BOT	Build-Own-Transfer
BPMS	Backflow Prevention Management System
BTU	British Thermal Unit
- C -	
CAC	California Administrative Code
CAFR	Comprehensive Annual Financial Report
CalARP	California Accidental Release Prevention
Cal-EMA	California Emergency Management Association

ACRONYM	DEFINITION
Cal-EPA	California Environmental Protection Agency
Cal/OSHA	California Division of Occupational Safety and Health
CAMAL Net	California Mutual Aid Laboratory Network
CASA	California Association of Sanitation Agencies
c/b or cb	Catch Basin
CBOD	Carbonaceous Biochemical Oxygen Demand
CCC	Criterion Continuous Concentration
CCO	Contract Change Order
CCR	California Code of Regulations
CCTV	Closed Circuit Television
CDC	Centers for Disease Control and Prevention
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
CERS	California Environmental Reporting System
CFE	Combined Filter Effluent
CFR	Code of Federal Regulations
cfs	Cubic Feet per Second
CH ₄	Methane
CIEMP	Capital Improvement and Energy Management Plan
C.I.I.	Commercial, Institutional, Industrial
CIP	Capital Improvement Project
CIWMB	California Integrated Waste Management Board
CM	Construction Manager
CMC	Criterion Maximum Concentration
CO	Carbon Monoxide
CO	Correction Order
COD	Chemical Oxygen Demand
COP	Certificate of Participation
CoS	City of Stockton
CCB	Chlorine Contact Basin
CIP	Capital Improvement Projects

ACRONYM	DEFINITION
CMMS	Computerized Maintenance Management Systems
CPFF	Cost Plus Fixed Fee
CPIF	Cost Plus Incentive Fee
CPPC	Cost Plus Percentage
CPR	Cardiopulmonary Resuscitation
CQA	Construction Quality Assurance
CQC	Construction Quality Control
CSO	Combined Sewer Overflow
CSPA	California Sportfishing Protection Alliance
CSR	Customer Service Request
CTG	Control Techniques Guidelines
CUWCC	California Urban Water Conservation Council
CVFPB	Central Valley Flood Protection Board
CWEA	California Water Environment Association
- D -	
DO	Dissolved Oxygen
DAF	Dissolved Air Flotation
DAFT	Dissolved Air Flotation Thickener
DAT	Damage Assessment Team
dBA	Decibels (A weighted)
DBP	Disinfection Byproducts
DPH	Department of Public Health
DOT	Department of Transportation
DWSP	Delta Water Supply Project
DWTP	Delta Water Treatment Plant
- E -	
EC	Environmental Control Division
EC	Effective Concentration
ECTDS	Electrical Conductivity and Total Dissolved Solids
EDU	Equivalent Dwelling Unit
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ELAP	Environmental Laboratory Accreditation Program
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPC	Engineer, Procure, Construct
EPT	Enhanced Primary Treatment
ERAP	Emergency Response Action Plan
ERP	Emergency Response Plan

ACRONYM	DEFINITION
- F -	
FA	First Aid
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
FFY	Federal Fiscal Year
FFP	Firm Fixed Price
FIP	Federal Implementation Plan
FOG	Fats, Oils, and Grease
FY	Fiscal Year
- G -	
GAAP	Generally Accepted Accounting Principles
GAAS	Generally Accepted Auditing Standards
GAO	General Accounting Office
GAS	Government Auditing Standards
GASB	Governmental Accounting Standards Board
GBT	Gravity Belt Thickener
GIS	Geographic Information System
GO	General Obligation (bonds)
gpcd	gallons per capita-day
gpd	gallons per day
gpm	gallons per minute
- H -	
H ₂ S	Hydrogen Sulfide
HAA or HAA5	Halo Acetic Acids
HAP	Hazardous Air Pollutant
HAZMAT	Hazardous Material Response Team
HCFC	Hydrogenated Chlorofluorocarbon
HET	High Efficiency Toilet
HHS	Health and Human Services
HOA	Home Owners' Association
HS	Homeland Security
HSAS	Homeland Security Advisory System
- I -	
I&C	Instrumentation and Control
IC	Inhibition Concentration
IC	Incident Commander
ICS	Incident Command System
I/I	Infiltration/Inflow
IPP	Industrial Pretreatment Program

ACRONYM	DEFINITION
IO	Information Officer
IPM	Integrated Pest Management
IT	Information Technology
- J - K -	
JPA	Joint (exercise of) Powers Authority
- L -	
LCR	Environmental Protection Agency's Lead Copper Rule
LEPC	Local Emergency Planning Commission
LGRS 80	State Controller's Report
LO	Liaison Officer
LPoC	Laboratory Point of Contact
LRAA	Locational Running Annual Average
LRN	Laboratory Response Network
LRO	Legally Responsible Official
- M -	
MACT	Maximum Achievable Control Technology
MBAS	Methylene Blue Active Substances (foaming agents)
MCE	Maximum Credible Earthquake
MCL	Maximum Contaminant Level
MFE	Mixed Final Effluent
MG	Million Gallons
mgd	million gallons per day
mg/L	milligrams per liter
MIL	Million
MMF	Multi Media Filters
MOU	Memorandum of Understanding
MPE	Maximum Probable Earthquake
MPF	Maximum Probable Flood
MPN	Most Probable Number
MRP	Monitoring and Reporting Program
MSDS	Material Safety Data Sheets
MUD	Municipal Utilities Department
- N -	
NaOCl	Sodium Hypochlorite
NaOH	Sodium Hydroxide
NBT	Nitrifying Biotower
NH ₃ -N	Ammonia Nitrogen
NIMS	National Incident Management Systems

ACRONYM	DEFINITION
NIPC	National Infrastructure Protection Center
NIOSH	National Institute for Occupational Safety and Health
NOD	Nitrogenous Oxygen Demand
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
NOI	Notice of Intent
NOT	Notice of Termination
NOV	Notice of Violation
NOX	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
NRR	Noise Reduction Ranking
NRWA	National Rural Water Association
NSPAF	North Stockton Pipeline Ammonia Feed
NTC	Notice To Clean
NTU	Nephelometric Turbidity Units
NWS	National Weather Service
- O -	
O ₃	Ozone
O&M	Operations & Maintenance
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
OCT	Operator Certification Training, Inc.
- P -	
PACP	Pipeline Assessment Certification Program
PAH	Polynuclear Aromatic Hydrocarbon
PCB	Polychlorinated biphenyl
PERL	Pacific EcoRisk Lab
PFRP	Processes to Further Reduce Pathogens
PG&E	Pacific, Gas, and Electric
PIDS	Primary Influent Distribution Structure
PLC	Programmable Logic Controllers
PLSD	Private Lateral Sewage Discharge
PM	Preventive Maintenance

ACRONYM	DEFINITION
PM-10	Particulate Matter <10 microns
PMP	Probable Maximum Precipitation
PMSD	Percent Minimum Statistical Difference
POC	Pollutants of Concern
POL	Petroleum, Oil, and Lubricant
POSM	Pipeline Observation System Management.
POTW	Publicly Owned Treatment Works
PPE	Personal Protective Equipment
ppm	parts per million
PSMP	Process Safety Management Plan
PSRP	Processes to Significantly Reduce Pathogens
PVC	Polyvinyl Chloride
- Q -	
QA	Quality Assurance
QC	Quality Control
- R -	
RACM	Reasonably Available Control Measures
RACT	Reasonably Available Control Technologies
RE	Resident Engineer
REACON	Recycling Energy Air Conservation
RFP	Request for Proposal
RFQ	Request for Qualifications
RMP	Risk Management Plan
RMP	Regional Monitoring Program
RO	Reverse Osmosis
ROW	Right of Way
ROWD	Report of Waste Discharge
RPR	Resident Project Representative
RQ	Reportable Quantity
RSP	Raw Sewage Pump
RST	RS Technical - The name of a company that makes television inspection equipment for sewer lines, and the TV equipment used by MUD.
RTU	Remote Terminal Units
RWCF	Regional Wastewater Control Facility

ACRONYM	DEFINITION
RWQCB	Regional Water Quality Control Board
- S -	
SAR	Sodium Adsorption Ratio
SAWS	Stockton Area Water Suppliers
SCADA	Supervisory Control and Data Acquisition
SCBA	Self-contained Breathing Apparatus
SEMS	Security and Emergency Management System
SEWD	Stockton East Water District
SIP	State Implementation Plan
SJCEHD	San Joaquin County Environmental Health Department
SJVAPCD	San Joaquin Valley Air Pollution Control District
SMARTS	Storm Water Multiple Application and Report Tracking System
SO ₂	Sulfur Dioxide
SOP	Standard Operating Procedure
SPCC Plan	Spill Prevention, Control, and Countermeasures Plan
SS	Settleable Solids
SSES	Sewer System Evaluation Survey
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SSORP	Sanitary Sewer Overflow Response Plan
STEP	Septic Tank Effluent Pumping
STP	Sewage Treatment Plant
SUA	Stockton Urbanized Area
SWMP	Stormwater Management Plan
SWQCCP	Stormwater Quality Control Criteria Plan
SWRCB	State Water Resources Control Board
- T -	
T&M	Time & Materials (contract)
TC	Total Carbon
TDH	Total Dynamic Head
TDS	Total Dissolved Solids
TTHM	Total Trihalomethanes
TIE	Toxicity Identification Evaluation

ACRONYM	DEFINITION
Title V	Federal Clean Air Standards
TKN	Total Kjeldahl Nitrogen
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TOD	Total Oxygen Demand
TSS	Total Suspended Solids
TU _c	Chronic Toxicity Unit
- U - V -	
UDRW	Urban Discharge Receiving Water
UERM	Utility Emergency Response Manager
UEOCM	Utility Emergency Operations Center Manager
U.S. EPA	United States Environmental Protection Agency
USA	Underground Service Alert
VA	Vulnerability Assessment
VAR	Vector Attraction Reduction
VCP	Vitrified Clay Pipe

ACRONYM	DEFINITION
VE	Value Engineering
VFD	Variable Frequency Drive
VOC	Volatile Organic Compound
VSS	Volatile Suspended Solids
VWN	Verbal Warning Notice
- W - X - Y - Z -	
WaterISAC	Water Information and Security Analysis Center
WDR	Waste Discharge Requirements
WERF	Water Environment Research Foundation
WFO	Water Field Office
WID	Woodbridge Irrigation District
WLA	Waste Load Allocation
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

THIS PAGE INTENTIONALLY LEFT BLANK

Executive Summary

Summary

This report is a summary of the information management records of the Water Resources; Water Distribution, Treatment & Production; Wastewater Treatment; Wastewater Collections; Environmental Control; Laboratory, Engineering; Stormwater; and Administration Division activities within the City of Stockton, Municipal Utilities Department (MUD) for September 2016. It includes statistical data and narrative descriptions of reportable activities, events, and issues.

Water Resources

The Water Conservation Program continued to promote water saving programs and incentives in accordance to best management practices and State-mandated water use reductions. For the month of September, the City achieved a 15% water conservation savings. In addition, during the month of September, the City received 51 water waste complaints from the public.

Water Distribution, Treatment, and Production

The Delta Water Treatment Plant continued diversions from the San Joaquin River, and discontinued receiving water from the Woodbridge Irrigation District on September 1. In addition, Stockton East Water District continued delivering water to the South System.

Drinking water treated and produced from the Delta Water Treatment Plant and groundwater wells, and delivered from Stockton East Water District to the City's North, South and Walnut Plant Systems, totaled approximately 977 million gallons for the month of September, and averaged 32.6 million gallons per day (mgd).

Wastewater Treatment

Wastewater Operations continues to meet the treatment and discharge requirements of the NPDES permit while treating 29.0 mgd of influent sewage. Third quarter chronic toxicity testing failed for survival of ceriodaphnia dubia. As required under the permit, accelerated testing will begin immediately. Work continues to transition off the use of gaseous chlorine and sulfur dioxide as part of the wastewater treatment process. Special Trihalomethanes testing continues to improve the chemical dosing. Cleaning has been completed on Digester 4. Once Digester 4 is back in service, cleaning will begin on Digester 5.

Wastewater Collections

Fifteen Sanitary Sewer Overflows (SSOs) occurred. Fourteen were Category 3 SSOs, and one was a Category 1. All pipes and areas affected were cleaned to ensure capture and return of the pollutants to the sanitary sewer system. The City is continuing the odor and corrosion control project on sanitary system 8.

Environmental Control

The Fats, Oils, and Grease (FOG) Program is in its seventh year of restaurant inspections. AS400 data entries are made on a daily basis as officers complete their inspections. The Division is initiating the implementation of a commercial FOG software database system for use in 2016.

Laboratory

The lab analyzed 786 samples for 2470 analyses. Contract labs analyzed 46 samples for 131 analyses. Figures 6.A and 6.B display the results of the samples and analyses. Figure 6.C shows the number of samples processed for permit compliance, process control (plant performance), and drinking water regulatory compliance. There were 152 samples for NPDES permit compliance, 209 samples for process control, and 421 samples for drinking water compliance.

California Environmental Laboratory Accreditation Program (ELAP) is proposing a change of standard to better the quality of the data produced and course of action is still pending.

The lab continues to provide on-going support for additional sampling and analyses to a consultant working on wastewater and water permit compliance items.

Engineering

There were 20 development reviews received and 18 completed and returned during the month of September. The SCADA – Outfall Control Improvements contract was awarded on September 27. Swenson Park Access Road Rehabilitation Plans, Specifications, and Estimates (PS&E) documents are currently out to bid with a tentative bid opening of October 27, 2016.

Stormwater

The downtown business area is being inspected monthly and cleaning of the areas surrounding the catch basins completed on as-needed basis to minimize trash and debris entering the storm system.

Staff released a public bid on August 5, for the routine inspection and maintenance of the eight storm drainage basins operated under the City's storm drainage maintenance assessment districts. No bids were submitted to the Clerk's Office by the deadline of September 8. Staff collaborated with the Purchasing Division and Attorney's Office to adjust bonding requirements in response to feedback provided by the potential bidders.

The bid will be issued again on October 22, 2016, with a new submission deadline of December 1, 2016.

Inspections of construction sites continue to be a priority for the City of Stockton. There were 22 stormwater inspections conducted at active construction sites. There were seven Verbal Warnings, zero Correction Orders, and four Notices to Clean, and zero Notice of Violation. The RWQCB received no referrals by City of Stockton during this period.

Inspections of industrial, commercial facilities and residential complaints and field observation resulted no Administrative Citations. There were no inspections forwarded to the RWQCB during this period.

Administration

There was one unsafe condition, one vehicle accident, and one work related injury. A total of 271 safety-training hours provided to staff this month through tailgate sessions and specialized training. Recruiting efforts have been active to fill openings due to resignations and retirements. Finding and retaining qualified candidates continues to be difficult. Current staff totals 189 of the approved 218 positions. Overtime increased from last month.

THIS PAGE INTENTIONALLY LEFT BLANK

Water Resources

Operational Activities

The Water Resources Division is responsible for overall water supply planning for the Water Utility. Those duties include contracting for purchased water, water conservation, utility planning and reporting, regional water resources planning, budgeting, capital improvement planning, regulatory compliance, and supporting the Community and Economic Development Departments.

Water Resources staff supports the Delta Water Treatment Plant and Water Distribution by employee recruitments and safety training; preparing budgets; capital improvements; procuring materials, chemicals, vehicles and supplies; and negotiating various maintenance and service contracts.

Chloramines were introduced into the North distribution system on January 13, 2016, in order to comply with State and Federal disinfection byproduct regulations. Disinfection byproduct monitoring is conducted quarterly, and U. S. EPA Triennial Lead and Copper sampling was completed in August. The South and Walnut Plant service areas continue using free chlorine as a disinfectant in the distribution systems.

Treated surface water from the Delta Water Treatment Plant (DWTP) provides the majority of the City's water service areas' drinking water. Water purchased from the Stockton East Water District and the City's groundwater wells supplement DWTP's surface water.

The Stockton East Water District (SEWD) was informed by the Bureau of Reclamation that they would be receiving 0% of their annual allocation from the New Melones Reservoir, but 20,000 acre-feet of water from New Hogan Reservoir and five groundwater wells within SEWD's property are available to the Stockton Area Water Suppliers, which is comprised of the City of Stockton, California Water Service Company and San Joaquin County.

The Governor's Proclamation of declaring a State of Emergency in the State of California due to severe drought conditions has led staff to plan for extended drought conditions and increased water conservation messaging for this year. The City water utility's conservation target was mandated at 28% by the State Water Resources Control Board, using 2013 as a baseline. On May 19, 2015, an emergency ordinance was passed by the City Council for additional water conservation measures to ensure compliance with the State Water Resources Control Board's emergency water conservation measures. On April 1, 2016, the State Water Resources Control Board lowered the City water utility's water conservation savings to 26%, down from 28%. Recent State legislation allowed urban water suppliers to self-certify water conservation goals. The City submitted the required forms on June 22, 2016, and the resulting self-certified water conservation goal was 0%.

The City Council declared a Stage 1 Water Shortage Emergency on September 23, 2014, requiring a mandatory 10% reduction in water use. Since current City Council policy requires mandatory reductions in water use, the City continues to promote water conservation to its urban water customers. For the month of September, the City achieved a 15% reduction in water consumption when compared to the same month in 2013.

In the following sections, a summary of water conservation programs and incentives are presented.

Outreach and Education

As part of the City's efforts to educate the community, customers are encouraged to notify the City when they witness water waste. This allows members of the community and staff to identify potential water leaks, excessive watering, and/or misuse of water supplies. This is done in an effort to work cooperatively toward a solution. There were 51 complaints received for the month of September, and staff was able to respond to and resolve 51 complaints. Table 1.1 provides a summary of these activities.

Outreach and education was achieved through monthly utility bill inserts, print and web-based publications. Table 1.2 illustrates the number of impressions made as part of these outreach efforts.

The San Joaquin County Master Gardener Program met in September. This group typically meets monthly at the DWTP on the second Saturday of each month.

School Programs

Through participation in the Stockton Area Water Suppliers (SAWS), local area schools are offered onsite assemblies, in-class presentations and after-school programs. The City receives an annual report on the SAWS Water Education Program that summarizes the programs and information provided, the number of students that were reached, and feedback from teaching professionals. For the 2015/2016 school year, the SAWS Water Education Program reached a total of 30,086 students and participants; 24,350 through in-class event and after-school programs, and 5,736 through the Zun Zun assembly program.

Water Use Surveys

In May 2009, in-home water use surveys became available to Stockton residents when staffing resources are available. This offered residents the opportunity to review one-on-one with Water Conservation staff their current water use practices and methods by which residents can save both water and money. In August 2011, self-certification water use surveys became available during times when staffing resources are limited. Through both surveys, customers are able to evaluate their water use and calculate estimated savings with the use of water efficient devices. Currently, only the self-certification water use surveys are available for customers due to limited staffing.

Table 1.3 identifies the number of surveys requested and completed. At the end of each residential survey, water efficient devices are provided to respective customers. A summary of water saving devices distributed is provided in Table 1.4.

Incentives and Rebates

The High Efficiency Toilet (HET) Direct Install Program was approved by City Council to reduce water use by commercial, industrial, and institutional customers, and ultimately, assist in reducing their cost of doing business. The program covers the material and installation cost of replacing older, inefficient toilets with EPA WaterSense labeled devices through local plumbing contractors. The program has exhausted its funding; and staff will be recommending to the City Council the addition of funding to the program in the near future.

Table 1.5 identifies the current number of installations for this program to-date, including estimated water savings.

Landscape Programs

Program development continues to assist large landscape customers in identifying ways to reduce water use. Upon request, water conservation staff will meet with homeowners' associations and other large landscape users to evaluate water use and provide recommendations for improvement.

Water conservation staff continued the pilot program, which calculates and distributes ongoing water use reports to large landscape sites. These reports compare actual water use to a budget benchmark based on site-specific characteristics and real-time weather from approximately 120 sites. To date, three field surveys have been completed. Survey customers were provided with a comprehensive report of findings and recommendations. The ultimate goal of the program is to improve water efficiency among large landscape customers.

There is an internet resource, www.stockton.watersavingplants.com, made available free of charge through the Water Conservation Program. This website provides information on water efficient gardens, resources, and watering tips. The site also allows users to plan their own water efficient garden online.

THIS PAGE INTENTIONALLY LEFT BLANK

Water Treatment, Production, and Distribution

Operational Activities

The City's Delta Water Treatment and Water Distribution Divisions are responsible for the treatment, production, operation, and maintenance of the City of Stockton's Water Treatment Plant and Distribution Systems. The distribution systems use a combination of surface water - treated and delivered by the City's water treatment plant from the Sacramento/San Joaquin Delta and the Mokelumne River, groundwater wells, and surface water treated and delivered by a water wholesaler - Stockton East Water District (SEWD) - from the New Hogan and New Melones Reservoirs.

Staff is responsible for treating and distributing potable drinking water to more than 48,000 service connections. This is done through a networked, looped system of wells, reservoirs (above-ground storage tanks), pipelines, valves, and meters. The system is monitored and maintained 24/7 through electronic equipment, telemetry and manual operation. Adequate water pressure must be maintained throughout the system at all times for water quality, firefighting, industrial, commercial, and residential use. Leaks are a high priority and are usually investigated within an hour of the report. Water quality complaints, such as pressure, odor, taste, or color issues, are handled on a same-day basis.

Additional responsibilities include enforcement of the water conservation program, collecting water samples for regulatory compliance, implementation and monitoring of the City's Cross-Connection Prevention Program, reading more than 48,000 water meters for billing each month, investigating high bill complaints, performing fire flow tests, and the maintenance and repair of over 7,000 fire hydrants.

Regulatory

There were zero bacteriological water quality violations for the month.

The monthly coliform monitoring report was submitted to the State Water Resources Control Board Division of Drinking Water, Stockton Office on September 9. Table 2.1 presents a summary of the Coliform Monitoring results in the distribution system.

Water Treatment

The Delta Water Treatment Plant (DWTP) started taking water from the Delta on July 13, 2016, and continued to accept surface water deliveries from the Woodbridge Irrigation District and deliveries stopped on August 31, 2016. In September, DWTP treated and produced 649 million gallons for the North water system, and SEWD delivered 188 million gallons to the South distribution system. The plant met regulatory limits for Combined Filter Effluent (CFE), maintained at 0.1 Nephelometric Turbidity Units (NTU) at all times.

Water Production

Staff continued daily well/reservoir checks and maintenance throughout the month. A Computerized Maintenance Management System (CMMS) program to track maintenance and operational activities is being implemented. Improvements were made on the ammonia injection at various sites. Coordination with DWTP to optimize and balance water storage and peak demands for system requirements is ongoing. Operational status for existing wells is shown on Table 2.2.

Water Production Summary

Table 2.3 and Figure 2.A illustrate water production in million gallons (MG) pumped from the City's two well production systems, DWTP, and purchased water delivered to the North, Walnut Plant, and South systems from SEWD. The SEWD North system total includes water purchased by San Joaquin County and wheeled through the City's system. Table 2.3A shows total influent for the Delta Water Treatment Plant by water source. The detail of the production report is included in Appendix A-2. The corresponding table from fiscal year 2015-2016 is presented for comparison.

Production/Consumption Summary

Table 2.4 and 2.5 present the overall summary of water production and consumption for the previous month, current month, and fiscal year-to-date. The corresponding table from fiscal year 2015-2016 is presented for comparison. The metered consumption figures are not available until after all billing is completed in the City's billing system and are not included in the current month column.

Stockton East Water District City/County North System total includes water purchased by San Joaquin County from SEWD and wheeled through the City's System. This sum also includes City water wholesaled to the County.

The unmetered water consumption quantities are based upon estimates made from observations and documentation provided by other City departments.

Chemical/Utility Consumption Summary

Table 2.6 presents a summary of chemical consumption in connection with operation of the production system, including the DWTP. Electricity totals for the wells, reservoirs, and booster station are now being reported separately. These totals are not available for the previous months. The corresponding table from fiscal year 2015-2016 is presented for comparison.

Table 2.7 presents a summary of utility consumption and outages in connection with operation of the production system, including the DWTP. Table 2.7 also shows power generated by the DWTP solar energy system. The corresponding table from fiscal year 2015-2016 is presented for comparison.

Water Distribution

Construction

Construction crews replaced five 1-inch, three 1.5-inch, and one 2-inch service lines. Staff repaired one 8-inch, and one 12-inch main line gate valves. Crews raised/replaced 18 meter boxes. Construction staff continued to assist other crews replacing meters and repairing minor leaks when time permitted. Outside contractors were used once during the month on emergency breaks.

Hydrant

Crews repaired 16 hydrants. Repairs consisted of cap, O-ring, valve gasket, chain, and coupler repair/replacement. Table 2.8 presents a summary of the hydrant maintenance and other duties performed by the crew. Staff performed two fire flow tests and responded to three two-alarm fires. In addition, routine maintenance consisting of marker replacement, valve location, and weed control continued.

Customer Service

There were 48,905 water meters read for monthly billing. There were 851 meters turned-on or locked-off for account openings or closings. Crews responded to 58 high bill complaints. Staff continued to replace broken registers, repair damaged touch-read wires, and respond to various customer inquiries.

Maintenance

Crews responded to 116 service calls consisting of small meter leaks, emergency customer water shut offs, and answering customer water-related questions. Staff replaced one 3" meter, and 75 meters ranging in size from 5/8" to 2". Personnel replaced 109 registers, and installed ten new meters for new construction. Crews completed 104 miscellaneous work orders for meter, valve and meter box issues. Staff continued to assist customer service with monthly meter reading and construction crews on emergency service line repairs when needed.

Distribution

Staff performed monthly backflow tests/surveys, valve exercising, and air relief valve maintenance. Table 2.9 presents a summary of the valve maintenance program. Personnel completed numerous underground service alert tickets with emphasis on the Thornton Road widening project. Crews completed 25 backflow tests at DWTP and completed testing of 23 backflow devices at the MUD Wastewater Treatment Plant. Staff assisted hydrant crews with two fire flow tests. Weekly bacteriological sampling continued throughout the month.

System Connections

Table 2.10 presents a summary of new meter installations applied to the reading routes. There may be a delay in applying the meter to the route once it has been installed, causing a difference from the actual number of new meter installations. The total number of active meter connections by size is presented in Table 2.11.

Water Quality Inquiries

Table 2.12 presents a summary of water quality inquiries and the corrective measures that were taken to resolve those inquiries.

Customer Services Operations

Table 2.13 presents a summary of the meters read during the month, and the account openings and closings.

Cross Connection Control Program

Table 2.14 presents the number of backflow devices in Stockton's service area and statistics for the number tested, installed, reactivated, and inactivated.

Staff continued cross connection survey efforts to identify and follow-up with water customers who are required to install backflow prevention devices on their water system. As the potential hazards are located, notices are sent to the locations with staff following-up and working to bring them into compliance. Table 2.15 presents the total number of cross connection surveys conducted for the fiscal year-to-date.

Wastewater Treatment

Operational Activities

The Wastewater Treatment Division is responsible for operating and maintaining the RWCF. The Deputy Director of Wastewater manages the division. The Assistant Director has been providing interim oversight since the position became vacant in June 2015. There are 28 Operations employees with three current vacancies. Recruitment for the vacated positions has begun and interviews are to be scheduled soon. Operations staff works 24-hours a day, 7-days a week, treating more than 23 million gallons of sewage per day prior to discharge into the Delta.

Discharge Permit

All permit treatment limits were met. Table 3.1 presents a summary of influent and effluent discharge averages as compared with the National Pollutant Discharge Elimination System (NPDES) permit limits. The RWCF treated an average flow of 29.0 million gallons per day (mgd). Figures 3.A, 3.B, and 3.C are graphical representations of the year-to-date actual values for the flow and loading parameters. Prior year data is also shown for comparison. Quarterly chronic toxicity testing failed and accelerated testing began as required under the permit. More detail on the test results can be found in the Laboratory section.

Residuals Management

Table 3.2 presents a summary of the biosolids processed and disposed for the current month and year-to-date. Cleaning of Digester 4 has been completed, below the original estimated cost, due to the efforts of Operations de-watering the residual sludge prior to removal by contractors. Digester 4 will be recommissioned after the structural engineer completes the inspection report on the condition of the center stem. Once Digester 4 is back in service, crews will begin to dewater Digester 5 for cleaning.

Cake Solids

The Belt Filter Press is the wastewater treatment dewatering process that produces sludge cake solids. The sludge cake solids are collected, removed offsite, and applied to agricultural land. Figure 3.D presents actual values for the total percentage of cake solids produced.

Odor Control Practices

Bioscrubber air emissions are monitored routinely to ensure compliance with emission standards set by the San Joaquin Valley Air Pollution Control District under the Title V permit. Staff coordinates with Evoqua Water Technologies to determine dosage rates for the hydrogen peroxide addition on a weekly basis. Depending on the weather conditions, dosage rates could be determined twice per week. The proper dosage reduces the hydrogen sulfide and corrosion production in the plant influent wastewater, reducing the odors.

Oxidation Pond Levels

Table 3.3 presents a summary of the Tertiary Pond operating levels. This advanced secondary treatment process provides for increased metal removal from the effluent water, along with operational flexibility and storage capacity. The minimum level of freeboard in the tertiary treatment ponds is a requirement of the plant's NPDES permit and is monitored daily.

Chemical and Utility Consumption

Various chemicals are used in the treatment process. Chlorine and aqueous ammonia are used for disinfection. Polymer is used for coagulation to increase the removal of solids in various processes throughout the plant. A new polymer blending system was installed and put in service this month. The improved mixing should reduce polymer use, and subsequently reduce costs.

Sulfur dioxide is used to neutralize the chlorine used to disinfect the effluent prior to discharge to the river thus protecting water quality and wildlife. Staff has coordinated the installation of new holding tanks and pumps for the use of sodium bisulfite (SBS) in place of sulfur dioxide. The pumps are expected to arrive in October 2016. It is anticipated treatment can switch permanently to SBS from sulfur dioxide once the new pumps are installed and start-up testing protocols are passed. The current pumps are unreliable and cannot meet the dosing quantities required for treatment.

Efforts to improve the chloramination process continue with coordination between Operations, Maintenance, and Engineering staff. Crews are completing installation of the pipe this month. Contracts for connecting the tanks, pumps, and pipework; and programming for SCADA have been issued.

Additional testing for Trihalomethanes is ongoing to provide data to adjust chemical dosing in the treatment process. Table 3.4 presents a summary of the chemical consumption for the wastewater treatment facilities.

The cogeneration engines burned Digester gas this month. Efforts to return all three engines to operating condition continue. Table 3.5 summarizes the utility consumption at the RWCF.

Wastewater Collection Systems

Operational Activities

The primary responsibilities of the Wastewater Collection Systems Division are the maintenance, repair, and response to community concerns as they relate to the sanitary sewer systems within the City of Stockton.

Work orders are generated daily to address routine maintenance issues and public concerns. Each work order is categorized and addressed according to its priority.

Sanitary line maintenance work is primarily driven by preventive maintenance activities. The main focus of the daily activities are systematic cleaning of the sanitary system, followed by closed circuit television (CCTV) inspections, and responding to customer issues with the lower lateral.

Sanitary pump station maintenance is focused on repair and rehabilitation of the deteriorating infrastructure and implementing preventive maintenance measures. The current emphasis is on the testing, maintenance, repair, and replacement of air relief valves (ARV).

Regional Water Quality Control Board (RWQCB)

Fifteen Sanitary Sewer Overflows (SSOs) occurred. Fourteen were Category 3 SSOs, one was a Category 1. All pipes and areas affected were cleaned to ensure capture and return of the pollutants to the sanitary sewer system.

Details of the immediately reportable SSOs are listed in Table 4.1, with annual trend comparisons in Figures 4.A through 4.C.

Sanitary Sewer Overflows are categorized as follows:

Category 1 SSO – Discharges of untreated or partially treated wastewater of any volume resulting from a City's sewer system failure or flow condition that:

- Reach surface water and/or reach a drainage channel tributary to a surface water, or
- Reach a Municipal Separate Storm Sewer System (MS4); are not fully captured and returned to the sanitary sewer system; or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water, unless the storm drain system discharges to a dedicated stormwater or groundwater infiltration basin (e.g., infiltration pit, percolation pond).

Category 2 SSO – Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from a City sanitary sewer system failure or flow condition that does not reach surface water, a drainage channel, or the MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.

Category 3 SSO – Category 3 SSOs are all other discharges of untreated or partially treated wastewater resulting from a City sanitary sewer system failure or flow condition.

Activities Summary

Collection System

Collections work includes line cleaning, CCTV inspection, main line and lower lateral repair, and preventive maintenance. SSO records indicate continued problems with lower lateral sections of the City's pipes. Staff has initiated a program to address maintenance issues with the lower laterals. The summary of maintenance work performed is shown in Table 4.2 and a comparative table of prior year activities is presented for comparison.

Customer Service

Table 4.3 presents a summary of the customer services activities performed. A table of prior year activities is also presented for comparison.

Residuals Management

Table 4.4 presents a summary of spoils activities (material taken to a dumpsite) in the repair and maintenance of the stormwater and wastewater pumping stations, and the RWCF. Data is gathered on how many loads of spoils are removed from the plant site, and the tonnage of all the loads hauled.

Odor Control Program

The City is continuing the odor and corrosion control pilot project on sanitary system 8. There were seven odor complaints this month; however they were not in system 7 & 8. In the event there is an odor complaint, staff investigates to confirm if the odor complaint is associated with the City's sanitary sewer system and identify specific pipeline segments where the odors are coming from.

Pumping Facilities

Preventive maintenance on the sanitary stations continued. Pump impeller inspection and pump housing de-ragging continued at various sanitary sewer stations on a daily basis to keep the stations operating efficiently. Table 4.5 and 4.6 summarizes collection systems pump station maintenance activities.

In addition, the following work was performed:

- North Pump Sanitary Station – Removed temporary bypass pumping system.
- 14 Mile Sanitary Station - Rebuilt and installed the #1 sewage pump.
- Smith Canal Sanitary Station – Pulled the #3 sewage pump transformer for emergency repair.
- Smith Canal Sanitary Station – Pulled air relief valve and repaired broken force main line. The air relief valve was put back in service.

Wastewater Facility

Preventive maintenance work continued at the Main Plant and Tertiary facility to ensure all treatment processes are checked regularly and run properly. Part of those activities is to maintain the cogeneration engines to offset the amount of power purchased for operations. Table 4.7 provides a breakdown of preventive and corrective maintenance activities at the Main Plant and Tertiary Plant. Maintenance and repair activities are ongoing, with highlights of recent activities including:

- Main Plant – Sludge pump #2 for thickener #2 was removed and a new pump was installed.
- Main Plant Headworks area – Bar screen #4 was removed and replaced, and unit was put back on line.
- Main Plant Headworks area – Annual preventive maintenance was completed on grit channel #1, and #5.
- Main Plant Headworks area – Ejector valve was replaced on grit ejector.

THIS PAGE INTENTIONALLY LEFT BLANK

Environmental Control

Operational Activities

The Environmental Control Division (EC) is tasked with the responsibility of protecting the City's wastewater collection system, treatment plant, and biological treatment processes from interference, pass-through, and sludge contamination. This is accomplished through a system of permitting, monitoring, and enforcement of regulated sewer dischargers. Permitted users include significant industrial dischargers, categorical industrial users, groundwater remediation project discharges, and hauled waste discharges.

Staff conducts inspections, takes samples of wastewater, reviews self-monitoring reports, writes permits, and enforces permit requirements as specified in Stockton Municipal Code, Chapter 13.08 (Pretreatment Ordinance).

Staff is also tasked with implementing the Fats, Oils, and Grease (FOG) Control Program. This program involves inspecting all food service establishments in the City's sewer service area to ensure compliance with Stockton Municipal Code Chapter 13.40 (FOG Control Ordinance).

Staff responds to stormwater illicit discharge complaints and hazardous material spills, which potentially threaten the City's stormwater collection system and receiving waters. These responses are required to ensure public safety, environmental protection, and compliance with Stockton Municipal Code Chapter 13.16 (Stormwater Ordinance).

Reports/Statistics

Table 5.1 represents statistics of all pretreatment, waste hauler, stormwater, and FOG Program activities on a monthly basis. Some items reflect the previous month's data due to the timing of when the data is received.

There were eleven pretreatment enforcement actions, no stormwater complaints, and no stormwater enforcement actions.

There was a decrease in FOG initial inspections and FOG follow-up inspections in comparison to last month.

THIS PAGE INTENTIONALLY LEFT BLANK

Laboratory

Operational Activities

The Laboratory Division collects and analyzes samples for National Pollutant Discharge Elimination System (NPDES) permit compliance for the Wastewater Division, and analyzes and oversees contract lab analyses for Title 22 compliance for the Water Division.

The Regional Wastewater Control Facility (RWCF) Laboratory located on 2500 Navy Drive is certified under the California State Water Resources Control Board (CA_SWRCB) Environmental Laboratory Accreditation Program (ELAP) Certificate #2693 in the following fields of testing:

Field of Testing 101: Microbiology of Drinking Water

Field of Testing 102: Inorganic Chemistry of Drinking water

Field of Testing 107: Microbiology of Waste Water

Field of Testing 108: Inorganic Chemistry of Waste Water

Field of Testing 113: Whole Effluent Toxicity of Wastewater

The Delta Water Treatment Plant (DWTP) Laboratory located on 11373 N. Lower Sacramento Road in Lodi is certified under the CA_SWRCB ELAP Certificate #2988 in the Field of Testing 101: Microbiology of Drinking Water.

Wastewater Sampling and Analyses

Effluent Monthly Acute Static-renewal Toxicity Testing with Rainbow Trout

The monthly test had 100% survival of Rainbow Trout. Results are shown in Table 6.1. Analyses were done by Pacific EcoRisk Laboratory (PERL).

Effluent Quarterly Chronic 3-Species Toxicity Testing – Accelerated Testing

Aqua Science did routine quarterly testing in August 2016. Results of the testing are shown in Tables 6.2, 6.3, and 6.4. Final results were reported in September, the EFF-001 sample produced significant reproductive toxicity in Ceriodaphnia dubia (>1.0 TUc; 100/NOEC). This triggered the accelerated monitoring and was collected on September 18. Results are pending.

The next quarterly monitoring is scheduled for November 2016.

Effluent Ammonia Testing

The Waste Discharge Requirements (WDR) contains a requirement to monitor the treatment plant effluent three times a week. The permit contains limits of monthly average (2.4 mg/L) and daily maximum (9.6 mg/L) requirements. There were no daily maximum limit exceedances as shown on Table 6.5. The monthly average was <0.64 mg/L, the monthly maximum was 0.80 mg/L.

Drinking Water Sampling and Analysis

Routine domestic water quality for finished water and raw water wells was completed. All but one sample has reported absence for Total Coliform and all absence for E.coli indicating that the regulatory limits have been met.

Laboratory Operations

The lab analyzed 786 samples for 2,470 analyses. Contract labs analyzed 46 samples for 131 analyses. Figures 6.A and 6.B display the results of the samples and analyses. Figure 6.C shows the number of samples processed for permit compliance, process control (plant performance), and drinking water regulatory compliance. There were 152 samples for NPDES permit compliance, 209 samples for process control, and 421 samples for drinking water compliance.

California Environmental Laboratory Accreditation Program (ELAP) is proposing a change of standard to better the quality of the data produced and course of action is still pending.

The lab continues to provide on-going support for additional sampling and analyses to a consultant working on wastewater and water permit compliance items.

Engineering

Operational Activities

The primary responsibilities of the Engineering Division are management and execution of the Department's Capital Improvement Program (CIP) and Development Services.

Development-related submittals are received daily from Public Works, Community Development, other City Departments, and government agencies. The submittals, collectively called "development reviews," encompass environmental documents, fiscal impact analysis reports, feasibility analyses, utility master plans, engineering reports, improvement plans, permit applications, tentative subdivision maps, and parcel maps. Development reviews are assigned to individual engineers within the Engineering Division with specific completion dates.

The Department's CIP consists of the master planning, budgeting, design, competitive bidding, and construction management of capital improvement projects involving water, sanitary sewer, storm drainage, and non-potable water. Engineering offers the full array of CIP services, including computer-aided design and drafting, modeling, and construction administration and inspections.

Figure 7.A represents the number of development submittals received and completed on a weekly basis. The amount of development reviews received in a particular week may not coincide with the number completed in the same week because of differing complexities and review times required for the submittals. There were 20 development reviews received and 18 completed and returned. In fiscal year 2015-2016, 260 development reviews were completed.

Development Review Projects

Short descriptions of the development reviews received this month are as follows:

- General Plan Update – Administrative Draft Infill Opportunities Report
- Improvement Plan – 2655 E Miner Avenue
- Improvement Plan – Cal Water Sewer Connections at various locations
- Request for Utility Service – 2434 E Waterloo Road
- Storm Water Quality Control Plan – 4199 Gibraltar Court
- Storm Water Quality Control Plan – Anchor Village at 601 N Hunter Street
- Storm Water Quality Control Plan – Gill Grove South (2nd Submittal)
- Storm Water Quality Control Plan – Nations Food Service (2nd Submittal)
- Stormwater Discharge Study – Tra Vigne
- Temporary Activity Permit – 314 Villa Point Drive
- Utility Verification Request – 105 W Park Street

- Utility Verification Request – 1627 Army Court
- Utility Verification Request – 1787 N Marshall Avenue
- Utility Verification Request – 2067 Michael Avenue
- Utility Verification Request – 2265 Peralta Avenue
- Utility Verification Request – 926 S Sierra Nevada Street
- Utility Verification Request – Area of Plymouth Street and Marietta Court
- Utility Verification Request – Cherokee Road Improvements
- Utility Verification Request – Eight Mile Road Resurfacing Project
- Utility Verification Request – Washington Street Resurfacing Project

Figure 7.B represents the number of development reviews received and completed since the start of the 2016-2017 fiscal year.

Capital Improvement Project Milestones

The Engineering Division has 42 budgeted CIPs in fiscal year 2016-2017. Table 7.1 is a graphic summary of the most active, current CIPs.

Upcoming and completed milestones for a few, select CIP projects are listed below with an updated status for each project.

Capital Improvement and Energy Management Plan EIR (M12019)

Robertson Bryan, Inc. is in the process of including Nitrate permit requirements into the Environmental Impact Report (EIR). The preparation of the EIR is temporarily on hold pending procurement efforts for the Design-Build firm to perform the work contained in the 2011 Capital Improvement and Energy Management Plan (CIEMP).

Request for Qualifications were issued for Progressive Design-Build Services for the RWCF project on January 20, 2015. This was the first step in the procurement process leading to a contract in 2016 for the design and construction of projects identified in the CIEMP. Statements of Qualifications were received on March 5, 2015; and a Request for Proposals was issued on May 8, 2015, to four firms who submitted proposals on July 23, 2015. The preferred firm has been selected and negotiations regarding the contract and scope are currently in process.

Water Well 25 & 26 Engine Conversion (M14020)

Small engines and generators have been removed. The motor control center for the electric motor has been fabricated. Electric motors for Water Well 25 are currently being installed. PG&E has notified individuals affected by the removal of existing transformer at Well 25. The transformer switch at Water Well 25 was successfully completed on March 30, 2015. PG&E negotiations with East Bay MUD for right-of-way has been completed; PG&E's plans to provide electrical service to Well 26 is currently being revised to incorporate needed change.

Crown and Pershing Avenues Sewer Crossing at the Calaveras River (M13005)

Recent findings show that the design plan of inverted siphon is not viable. The design firm, Siegfried Engineering, Inc. submitted a memo for conceptual alternatives and their associated cost. Staff will be reviewing the memo with the Collections division.

Highway 99 at Farmington Fresh Sewer Replacement (M14034)

The project bid opening was held on August 11, 2016. Two bids were received, and they were higher than engineer's estimate. Staff is exploring alternatives and will present the findings to MUD management.

2014 Sanitary Sewer Maintenance Hole Rehabilitation Project (M15004)

The construction of the project is complete. A notice of completion will be filed once the project balancing change order is executed.

Eighth Street Storm Water Pump Station (M14019) and Weston Ranch Storm Water Pump Station (M13014)

Construction has been completed on both projects. A second no-cost contract change order for an additional 14 calendar days on Project M13014 is being processed. The time extension was given due to the flooding issue that occurred inside the wet well and delayed the repair work.

Rehabilitation/Replacement of Distributor Arms - Biotower No. 4 (M14027)

Council approved the project award on June 21, 2016, to the lowest bidder, Martech of Lodi, California for \$355,750. The preconstruction meeting was held on September 28. The project completion is anticipated in spring of 2017.

Rehabilitate Don Avenue (M13010) and Thornton Road (M13009) Sanitary Pump Stations

The design of the pump stations is being updated to enhance worker safety by moving the electrical and mechanical pumping equipment above ground so that confined space entries can be eliminated for maintenance and repairs. A contract change order for the redesign is being processed administratively. The schedule for the project is also being updated.

Rehabilitate Harding Way Subway (M15010) and Wilson Way Subway (M15011) Storm Drain Pump Stations Design

Both projects are in the design phase, which is being done in-house except for the electrical part. Staff is reviewing the electrical plans that were submitted by the consultant, HCS Engineering Inc. The funds for the construction phase will be budgeted in the upcoming FY 2017-2018.

Storm Drain Pump Stations & Forcemains Cathodic Protection Repairs (M16010)

The project is in the preliminary phase. A qualifications based Request for Proposal (RFP) was released to retain a firm to design and to provide bidding documents to repair or install cathodic protections on 12 storm drain pump stations. Four firms responded to the RFP. The negotiations with the most qualified firm, HDR, Inc. was unsuccessful due to high design cost. Staff negotiated with the second most qualified firm, JDH Corrosion Consultants, Inc. and reached an agreement for \$74,506. The engineer's estimate for the design was \$74,000. The professional services agreement is being prepared, and the design work is anticipated to start in mid-December 2016.

SCADA Master Plan – Outfall Controls Improvements (Task 8.5, - M14010)

Council approved the contract award to Schrader Mechanical, Inc. of Lodi, California for \$259,639.18. The contract is in route for signatures. The pre-construction meeting is scheduled on October 27, 2016.

Swenson Park Access Road Rehabilitation (M16015)

The project was advertised for bids on September 9. A mandatory pre-bid conference will be held on October 11, 2016, at the Swenson Park Golf Course. The bids are due on October 27, 2016.

Stormwater

Operational Activities

The Stormwater Division is responsible for ensuring compliance with the City's municipal Stormwater National Pollutant Discharge Elimination System (NPDES) permit. The NPDES program is mandated by the Federal Clean Water Act, and administered in California by the State Water Resources Control Board and the Regional Water Quality Control Boards (RWQCB) on behalf of the U.S. Environmental Protection Agency (USEPA). The primary goals of the program are water quality protection and to improve local water quality to the maximum extent practical.

Activities of the Stormwater Division include permit mandated programs and activities; collection system inspection, maintenance and repair; catch basin inspection and cleaning; pump station repair, maintenance and rehabilitation; and response to community concerns as they relate to the stormwater systems within the City of Stockton. On average, 50% of stormwater pump station's wet wells are cleaned annually. Preventive maintenance measures are used to identify the most urgent areas. Closed Circuit Television (CCTV) inspection of the discharge lines from each station has commenced and will continue at the request of San Joaquin County Flood Control.

The City's storm drain system collects water from numerous nonpoint sources (i.e., water pollution that cannot be attributed to a discernible source; and excess fertilizers, oils, grease, and other pollutants on the ground that are transported by stormwater) that discharge into local waterways and into the Delta. The City complies with the requirements of its NPDES permit by implementing various stormwater pollution prevention activities, including:

- Ensuring pollutants stay out of the storm drain system, creeks, and the Delta
- Managing and enforcing the City's Municipal Code to minimize stormwater impacts
- Requiring new development projects mitigate any impacts to the stormwater system
- Requiring development projects incorporate various structural and non-structural control measures, commonly referred to as Low Impact Development features, where feasible to restore the natural hydrological watershed processes (i.e., infiltration), such as treatment of stormwater prior to discharge offsite and/or detain stormwater prior to discharge to protect waterways from increased flows throughout the anticipated life span of the developed site.
- Promoting pollution prevention awareness
- Education Programs and outreach to the public
- Supporting local nonprofit creek groups
- Inspecting businesses to ensure responsible stormwater-related practices
- Investigating and responding to illicit discharges

Stormwater System

The downtown business area is being inspected monthly and cleaning of the areas surrounding the catch basins completed on as-needed basis to minimize trash and debris entering the storm system.

Table 8.1 presents a summary of the stormwater system maintenance and repair activities. A table of prior year activities is also presented for comparison.

Pumping Facilities

In addition to the regular preventive maintenance activities at the storm stations, the following repairs were made.

- Weston Ranch Storm Station – Repaired broken bar rake system to keep debris out of the storm pumps.
- Eighth St. Storm Station – Repaired broken bar rake system to keep debris out of the storm pumps.
- Weston Ranch Storm Station – Storm pump #8 was removed for repairs.
- Victory Park Ponds – Replaced level control valve on system to raise the level in the ponds.

Storm Drainage Maintenance Districts

Staff released a public bid on August 5, 2016, for the routine inspection and maintenance of the eight storm drainage basins operated under the City's storm drainage maintenance assessment districts. No bids were submitted to the Clerk's Office by the deadline of September 8. Staff collaborated with the Purchasing Division and the City Attorney's Office to adjust bonding requirements in response to feedback provided by the potential bidders. The bid will be issued again on October 22, 2016, with a new submission deadline of December 1, 2016. Maintenance activities include mowing of weeds, pest control, compaction of siding, discing of basin bottoms, and trash removal and disposal. In the interim, until the bidding process has been completed and a longer term contract is approved by Council, some routine pre-rainy season maintenance including the mow down of weeds and siding repairs to the basins have been completed by city staff.

Permit Compliance

The Central Valley region wide Municipal Separate Storm Sewer Systems (MS4s) General Permit will be effective on October 1, 2016, pending Federal Environmental Protection Agency approval. All Phase I communities in the California Central Valley will be required to seek permit coverage under this permit with the submission of a Notice of Intent (NOI) to enroll. The NOI will need to be filed by November 1, 2016.

Once approved for coverage, the City will be required to conduct a Reasonable Assurance Analysis (RAA) and update its Stormwater Management Plan (SWMP). The RAA is a new permit requirement and is referred to as a "recipe for compliance." Through the RAA process, the City will need to evaluate and prioritize the nonstructural and structural control measures that it will be implementing to yield/ensure compliance under the permit, reduce water pollution, and improve overall water quality. It is anticipated to take approximately 2-3 years to complete the RAA and revisions to the SWMP.

Until a new SWMP is approved and adopted by the Regional Water Board, the City must continue to comply with the goals, objectives, and activities under the current SWMP.

Staff has been working in collaboration throughout the month of September with the City's permit consultant as well as the City and County of Sacramento on the format and conditions of the NOI package that must be filed with the Regional Water Board. The goal of the collaboration is to present similar packages and messaging back to the Board as to the approach and design of the RAA for developing the prioritization of goals/objectives and work efforts under our individual stormwater management plans in the subsequent years of the permit. This will provide consistency among the permittees.

Stormwater Inspections

Inspections of construction sites continue to be a priority for the City of Stockton. There were 22 stormwater inspections conducted at active construction sites. There were seven Verbal Warnings, zero Correction Orders, and four Notices to Clean and zero Notice of Violation. There were no referrals to the RWQCB by the City of Stockton during this period.

Inspections of industrial, commercial facilities and residential complaints and field observation resulted no Administrative Citations. There were no inspections forwarded to the RWQCB by the City of Stockton during this period.

Table 8.2 presents a summary of the stormwater inspections. A table of prior year inspections is also presented for comparison.

THIS PAGE INTENTIONALLY LEFT BLANK

Administration

Operational Activities

The Administration division is responsible for the overall operation of the Municipal Utilities Department, including personnel, purchasing, public outreach, health and safety, regulatory compliance, finance, budgeting, and accounts payable.

Health and Safety

The Health and Safety program monitors the training and safety activities of the Department. Unsafe conditions, unsafe activities by staff or contractors, and accidents are tracked and reported according to Cal/OSHA guidelines. Table 9.1 provides a summary of unsafe conditions or acts that occurred during the month, along with a running total for the year. Table 9.2 provides information on work-related injuries and illnesses. This continuously evolving program responds to the needs of staff to work in a safe and accident free environment. It is important to note that Cal/OSHA requires reporting on a calendar year. All statistics and data noted for the Health and Safety program are from January through December.

To promote safe work habits and to comply with Cal/OSHA requirements, regular tailgate safety meetings are held in all divisions. Topics vary depending on the needs and work requirements of each division. Specialized training is also provided to ensure that proper work habits and techniques are used in all work situations. Table 9.3 provides a summary of the tailgate and specialized training provided.

Safety Activities

The following safety activities occurred during the month: one unsafe condition, one vehicle accident reported, and one work-related injury.

A total of 271 safety-training hours were provided to staff through tailgate sessions and specialized training.

Human Resources

Staffing Activities

Recruitment activities continue on an ongoing basis to fill vacated and recently approved positions. MUD is currently staffed at 189 of the approved 218 positions. Table 9.4 presents the staffing changes by division.

The status of various positions to be filled is shown below.

Positions in Active Recruitment / Background Check / Civil Service Commission

- Deputy MUD Director/Wastewater (active recruitment)
- Assistant Civil Engineer (active recruitment)
- Plant Operations Supervisor (active recruitment)
- Plant Operator/Wastewater (pre-employment process)
- Laboratory Technician (active recruitment)
- Water Systems Operator (pre-employment process)
- Senior Plant Maintenance Mechanic (active recruitment)
- Collection Systems Operator (pre-employment process)

Positions Filled / Department Transfer

- None

Resignations / Separations / Retirements

- Collection Systems Operator

Overtime Tracking

Overtime hours are tracked as part of the Department's internal monitoring. This information helps determine if the Department is at appropriate staffing levels, and where and when work demand is spiking. Because of the 24-hour shift work at the RWCF, overtime is expected to spike during holidays, closed days, and vacations to maintain adequate staffing for operations. Overtime increased from the previous month.

Table 9.5 details the overtime hours for each division to-date. For comparison, overtime hours for fiscal year 2015-2016 are also shown in Table 9.5.

Regulatory Compliance

The Regulatory Compliance Officer (RCO) is responsible for assisting all Municipal Utilities Department divisions in achieving general compliance with local, state, and federal regulations originating from the Federal Clean Water Act, the Federal Safe Drinking Water Act, the Federal Clean Air Act, the Federal Resource Conservation and Recovery Act, and associated environmental laws. The RCO coordinates with all local, state, and federal regulators, and MUD divisions, as well as other City departments to accomplish environmental compliance across the wastewater, drinking water, and stormwater utilities.

Industrial Railways Company performed the monthly inspection at the Tertiary Facility rail spur on September 27. There were no deficiencies identified.

The San Joaquin Valley Air Pollution Control District conducted an inspection at North pump station on September 13.

There was one tour of the RWCF.

There was one tour of 15 people at the bird watching area.

THIS PAGE INTENTIONALLY LEFT BLANK

Reference

Tables and Figures

THIS PAGE INTENTIONALLY LEFT BLANK

Water Resources

Table 1.1 – Water Waste Complaints

<i>Water Conservation</i>	<i>Month-to-Date</i>			<i>Fiscal Year-to-Date</i>
	<i>New</i>	<i>Open</i>	<i>Closed</i>	<i>Completed</i>
Complaints				
Broken Sprinklers / Irrigation Leaks/ Other Leaks	3	0	3	7
Over-irrigation / Water Run-off	19	1	18	50
Watering during Restricted Hours	1	0	1	8
Watering on a Restricted Day	15	0	15	46
Invalid/Unable to Verify	6	0	6	6
Other Conservation Calls	7	0	7	11
Totals	51	1	51	138
Pool Filling or Drain and Refill	2	0	2	15
Totals	55	1	55	153

Table 1.2 – Water Conservation Outreach

Description	Type	Date(s)	Impressions
Stockton.watersavingplants.com	Website	September	207
Utility Bill Insert	Print Media	September	0

Table 1.3 – Water Conservation Surveys

<i>Survey Type</i>	<i>Requested / Pending</i>	<i>Completed</i>
In-Home Single Family	0	0
In-Home Multi-Family	0	0
REACON Business	0	0
Self-Certified Surveys	0	0
Other	0	0
TOTAL	0	0
FY-to-Date	0	0

Table 1.4 – Water Saving Devices

<i>Device Description</i>	<i>Quantity Distributed</i>	<i>Fiscal Year-to-Date</i>
Low Flow Showerhead	0	0
Low Flow Faucet Aerators	0	0
Toilet Flapper	0	0
Leak Detection Tablet Packets	0	0
Positive Shut-off Hose Nozzles	0	0
Water-efficient Plant Seed Packets	0	0
TOTAL	0	0

Table 1.5 – HET Direct Install Program

<i>Device Description</i>	<i>Devices Installed</i>	<i>Water Savings (in Acre Feet)</i>
High Efficiency Toilet (Commercial)	0	0
TOTAL	0	0
FY-to-Date	0	0
Program-to-Date (since February 2010)	411	364.167

THIS PAGE INTENTIONALLY LEFT BLANK

Water Treatment, Production, and Distribution

Table 2.1 - Summary Coliform Monitoring

<i>Routine Samples</i>	<i># Required</i>	<i># Taken</i>	<i>Total Coliform Positive</i>	<i>E. Coli Positive</i>
North System	180	180	0	0
Walnut Plant	1	1	0	0
South System	30	30	0	0

Table 2.2 – Well Operational Status

Well #	Well Station Location	DPH In Service Status			Well Status if Limited Use or Not Available for Operation				Emergency Use Only
		Active	Stand-by	Inactive	Exceeds Sec MCL	Arsenic	Bacti	Mechanical	
NORTH WELL SYSTEM									
1	Parkwoods		X		X			X	
4	Villa Dorado		X		X				
7	Galloway	X						X	
9	Don Carlos			X				X	
10R	Valverde Park	X							
11	Inglewood		X		X				
15	Glasgow		X		X				
16	Royal Oaks		X		X				
18	Hickock	X							
19	Morada/West Ln	X							
20	West Ln/Mosher	X							
21	Cortez Park	X							
24	Saffron	X			X				
25	Panella Park	X							
26	Auto Center		X					X	X
27	Horse Park	X							
28	Blossom Ranch	X						X	
29	Baxter Park	X							
30	Grider	X							
31	Ivano Ln	X							
32	Hwy 99 Frontage	X							
33 (3-R)	West Ln @ WFO	X							
NWR	Northwest Reservoir	X							
14 Mile	14 Mile Reservoir	X							
SOUTH WELL SYSTEM									
SS1	Qantas	X							
SS2	N Arch Frontage	X							
SS3	Frontier	X							
SS4	Airport South			X		X			
SS5	Airport North			X	X				
SS8	Shropshire Park	X							
SS9	B St & Littlejohn	X							
WSTN	Weston Ranch Res	X							
SSA	South Sys Aqueduct	X							
INTERCONNECTIONS									
Cal Wtr	Airport Wy/Industrial	X							X
Cal Wtr	Airport/Sperry	X							X
Cal Wtr	El Dorado (S of March)	X							X
Cal Wtr	Filbert/Marsh	X							X
Cal Wtr	Filbert/Miner	X							
Cal Wtr	Diamond/Charter	X							
Cal Wtr	El Dorado (March/Pardee)	X							X
Cal Wtr	Pershing/Longview	X							X
Cal Wtr	Zephyr (Future/not connected)			X					-
Lathrop	Roth/Harlan	X							X
SJ Cty	Balboa	X							
SJ Cty	Greeley Wy/Lincoln	X							
SJ Cty	Swain/Grigsby Pl	X							X
SJ Cty	Pershing/Lincoln Rd	X							X
SJ Cty	Hammer / Misty Ln	X							X
SJ Cty	Pershing Av (S of Ben Holt)	X							
SJ Cty	Plymouth Rd/Rutledge	X							
SJ Cty	Portola Av	X							
SJ Cty	Thornton Rd	X							

Table 2.3 – Production Summary (in Million Gallons)

	System	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Year to Date
■	No. Sys	194.10	198.87	186.15										579.12
■	So. Sys	4.54	0.00	0.26										4.80
■	DWTP	760.97	752.29	648.49										2,161.75
■	SEWD WP	7.50	8.24	7.04										22.78
■	SEWD/North	0.00	0.00	0.00										0.00
■	SEWD/South	197.31	198.23	187.76										583.30
	Total	1,164.42	1,157.63	1,029.70	0.00	3,351.75								

Production Summary Comparison Year 2015-2016 (in Million Gallons)

	System	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Year to Date
■	No. Sys	188.57	221.80	172.46	225.32	77.90	45.72	64.90	89.45	65.77	40.33	92.23	163.12	1,447.57
■	So. Sys	60.17	0.52	4.38	27.36	1.25	0.00	20.26	2.63	1.67	4.62	12.85	2.46	138.17
■	DWTP	654.19	526.24	532.05	412.57	169.81	123.07	251.21	272.99	342.63	483.40	585.59	697.46	5,051.21
■	SEWD WP	5.69	5.41	6.13	5.76	5.26	4.50	3.95	3.80	4.50	4.83	4.88	6.63	61.34
■	SEWD/North	9.70	43.50	31.57	12.82	189.45	226.84	38.95	6.17	0.00	0.00	0.00	0.00	559.00
■	SEWD/South	57.13	168.45	159.15	113.33	109.50	99.63	74.61	87.61	102.66	113.67	128.12	177.59	1,391.45
	Total	975.45	965.92	905.74	797.16	553.17	499.76	453.88	462.65	517.23	646.85	823.67	1,047.26	8,648.74

■	City North System Wells
■	City South System Wells
■	Delta Water Treatment Plant (DWTP)
■	MLK Diamond & Filbert Interconnect (SEWD) City Walnut System
■	Stockton East Water District (SEWD) City / County North System
■	Stockton East Water District (SEWD) City South System

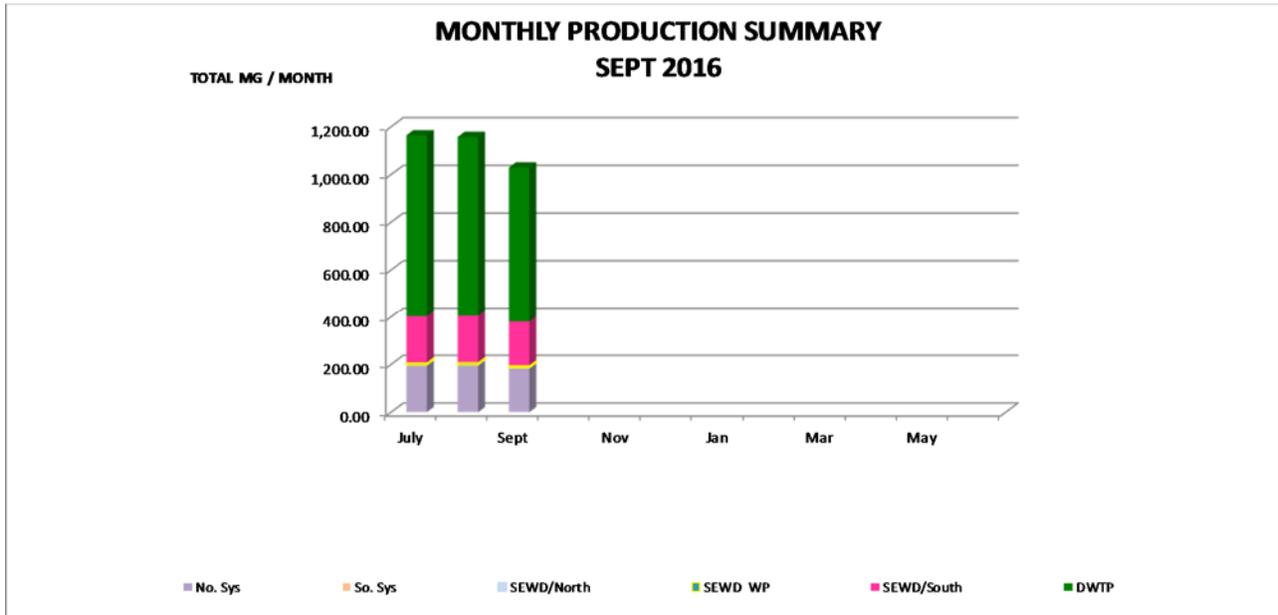
Table 2.3A--DWTP Influent by Water Source 2016-2017 (in Million Gallons)

DWTP Influent by Source	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YTD
San Joaquin River/Delta	182.40	515.23	648.28										697.63
Mokelumne River/WID	569.72	239.23	-										808.95
Total Influent (DWTP)	752.12	754.46	648.28	-	-	-	-	-	-	-	-	-	1,506.58

DWTP Influent by Water Source Year 2015-2016 (in Million Gallons)

DWTP Influent by Source	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YTD
San Joaquin River/Delta	322.42	426.26	423.81	312.42	123.83	85.92	251.86	270.94	50.06	4.35	4.29	-	2,276.16
Mokelumne River/WID	214.01	-	0.00	-	0.01	-	-	-	282.46	476.34	574.44	687.10	2,234.37
Total Influent (DWTP)	536.43	426.26	423.81	312.42	123.85	85.92	251.86	270.94	332.52	480.69	578.73	687.10	4,510.53

Figure 2.A – Production Summary



Production Summary Comparison Year 2015-2016

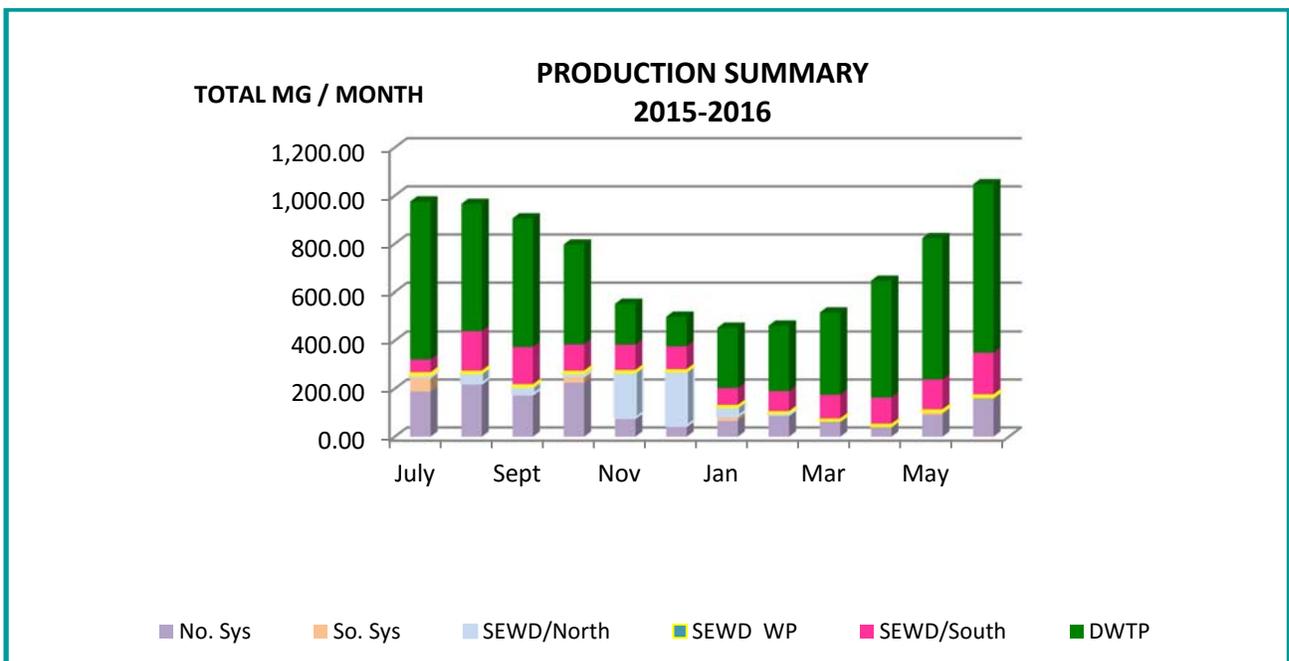


Table 2.4 – City of Stockton Water Systems –Production Summaries

PRODUCTION (Million Gallons)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YTD
City System Potable Water Production													
City North System Wells	194.10	198.87	186.15										579.12
City South System Wells	4.54	-	0.26										4.80
Delta Water Treatment Plant	760.97	752.29	648.49										2,161.75
MLK Diamond & Filbert Interconnect (SEWD) City Walnut System	7.50	8.42	7.04										22.96
Stockton East Water District (SEWD) City/County North System	-	-	-										-
Stockton East Water District (SEWD) City South System	197.31	198.23	187.76										583.30
Total City System	1,164.42	1,157.81	1,029.70	-	-	-	-	-	-	-	-	-	3,351.93
System - Nonpotable Water Production													
Recycle Water (Reclaimed WW)	-												-
Total Production	1,164.42	1,157.81	1,029.70	-	-	-	-	-	-	-	-	-	3,351.93

2015-2016 –Production Summaries

PRODUCTION (Million Gallons)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YTD
City System Potable Water Production													
City North System Wells	188.57	221.80	172.46	225.32	77.90	45.72	64.90	89.45	65.77	40.33	92.23	163.12	1,447.57
City South System Wells	60.17	0.52	4.38	27.36	1.25	-	20.26	2.63	1.67	4.62	12.85	2.46	138.17
Delta Water Treatment Plant	654.19	526.24	532.05	412.57	169.81	123.07	251.21	272.99	342.63	483.40	585.59	697.46	5,051.21
MLK Diamond & Filbert Interconnect (SEWD) City Walnut System	5.69	5.41	6.13	5.76	5.26	4.50	3.95	3.80	4.50	4.83	4.88	6.63	61.34
Stockton East Water District (SEWD) City/County North System	9.70	43.50	31.57	12.82	189.45	226.84	38.95	6.17	-	-	-	-	559.00
Stockton East Water District (SEWD) City South System	57.13	168.45	159.15	113.33	109.50	99.63	74.61	87.61	102.66	113.67	128.12	177.59	1,391.45
Total City System	975.45	965.92	905.74	797.16	553.17	499.76	453.88	462.65	517.23	646.85	823.67	1,047.26	8,648.74
System - Nonpotable Water Production													
Recycle Water (Reclaimed WW)	-												-
Total Production	975.45	965.92	905.74	797.16	553.17	499.76	453.88	462.65	517.23	646.85	823.67	1,047.26	8,648.74

Table 2.5 – City of Stockton Water Systems –Consumption Summaries

(Million Gallons)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YTD
City System - Metered Consumption													
Single Family Residential	595.37	565.33											1,160.70
Multi-family Residential	88.01	86.13											174.14
Commercial/Institutional	163.39	155.67											319.06
Irrigation	93.97	138.82											232.79
Non-potable Water	-	-											-
Const/Hydrant/Jumpers/Load Counts	1.50	3.16	1.26										5.92
Other (Industrial)	21.30	20.86											42.16
Subtotal Metered	963.54	969.97	1.26	-	1,934.77								
City System - Unmetered Consumption													-
Main Line / Service Repair Losses	0.04	0.25	0.15										0.44
Commercial/Residential Construction Usage	0.01	0.01	0.01										0.03
City Trucks/Parks Trucks/Street Sweepers	1.10	0.06	0.09										1.25
Hydrant / Blow-off Flushing	0.15	0.03	0.05										0.23
System Flushing	0.40	0.05	-										0.45
City Fire Dept. Fire Flow	0.01	0.04	0.02										0.07
City Fire Dept. Training/Equip Testing	0.01	0.01	0.01										0.03
Subtotal Unmetered	1.72	0.45	0.33	-	2.50								
Total City System	965.26	970.42	1.59	-	1,937.27								
Water Wheeled & Wholesaled (S J County Interconnects)													
Metered to San Joaquin County	65.22	64.97	52.72										182.91
Total Wheeled & Wholesaled	65.22	64.97	52.72	-	182.91								

2015-2016–Consumption Summaries

(Million Gallons)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YTD
City System - Metered Consumption													
Single Family Residential	521.55	501.91	451.90	443.00	353.84	273.55	243.38	221.63	251.29	300.70	350.19	478.33	4,391.27
Multi-family Residential	85.38	84.67	79.40	75.87	68.86	60.02	66.64	50.85	62.57	65.64	67.21	78.70	845.81
Commercial/Institutional	135.22	130.94	113.43	118.68	91.54	71.09	69.02	51.57	63.12	80.88	95.25	128.67	1,149.41
Irrigation	93.91	94.08	91.70	89.91	51.98	16.38	8.76	6.10	10.89	33.35	61.71	93.97	652.74
Non-potable Water	-	-	-	-	-	-	-	-	-	-	-	-	-
Const/Hydrant/Jumpers/Load Counts	0.75	1.61	0.38	0.20	0.17	0.32	0.58	0.38	0.58	0.39	1.83	1.52	8.71
Other (Industrial)	23.48	19.91	20.89	20.52	17.30	19.25	17.89	17.70	20.87	22.02	21.32	23.61	244.76
Subtotal Metered	860.29	833.12	757.70	748.18	583.69	440.61	406.27	348.23	409.32	502.98	597.51	804.80	7,292.70
City System - Unmetered Consumption													
Main Line / Service Repair Losses	0.76	0.21	1.30	0.22	0.38	0.36	0.60	0.46	0.54	0.04	0.40	1.45	6.72
Commercial/Residential Construction Usage	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.12
City Trucks/Parks Trucks/Street Sweepers	0.06	0.07	0.09	0.06	0.06	0.08	0.09	0.10	0.22	0.19	0.20	0.16	1.38
Hydrant / Blow-off Flushing	0.01	0.02	0.04	0.01	0.02	0.02	0.03	0.04	0.02	0.03	0.03	0.02	0.29
System Flushing	0.14	0.10	0.01	0.30	0.80	0.03	0.34	0.10	0.01	0.27	0.02	0.01	2.13
City Fire Dept. Fire Flow	0.01	0.01	0.01	0.01	0.01	0.04	0.02	0.01	0.01	0.01	0.01	0.01	0.16
City Fire Dept. Training/Equip Testing	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.12
Subtotal Unmetered	1.00	0.43	1.47	0.62	1.29	0.55	1.10	0.73	0.82	0.56	0.68	1.67	10.92
Total City System	861.29	833.55	759.17	748.80	584.98	441.16	407.37	348.96	410.14	503.54	598.19	806.47	7,303.62
Water Wheeled & Wholesaled (S J County Interconnects)													
Metered to San Joaquin County	66.78	43.97	51.77	46.03	27.18	24.38	24.91	22.91	28.08	34.94	43.38	59.69	474.02
Total Wheeled & Wholesaled	66.78	43.97	51.77	46.03	27.18	24.38	24.91	22.91	28.08	34.94	43.38	59.69	474.02

Table 2.6 – Chemical Consumption Summary

Water Production System	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YTD
North Wells													
Chlorine Gas, Lbs.	1,918.00	1,605.00	1,827.00										5,350.00
South Wells													-
Chlorine Gas, Lbs.	173.00	59.00	39.00										271.00
Delta Water Treatment Plant													-
Ammonia Gal	2,546.74	1,574.14	2,251.74										
Liquid Oxygen, Gal. (Ozone)	6,566.02	106.29	9,956.19										16,628.50
Sodium Hypochlorite, Gal.	19,521.74	15,013.67	15,717.95										50,253.36
Sodium Hydroxide (Caustic Soda), Gal.	1,118.86	542.81	1,474.83										3,136.50
Aluminum Chlorohydrate (ACH), Gal.	8,643.12	9,195.64	10,863.97										28,702.73
Corrosion Inhibitor, Gal	2,408.96	2,377.21	2,152.83										6,939.00
Citric Acid, Gal.	84.47	70.93	227.68										383.08
Sulfuric Acid, Gal.	159.03	78.37	98.79										336.19
Sodium Bisulfite, Gal.	50.58	3.20	17.26										71.04

2015-2016 – Chemical Consumption

Water Production System	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YTD
North Wells													
Chlorine Gas, Lbs.	835.00	1,197.00	1,181.00	1,138.00	555.00	409.00	512.00	767.00	497.00	418.00	576.00	1,333.00	9,418.00
South Wells													-
Chlorine Gas, Lbs.	206.00	40.00	131.00	141.00	62.00	59.00	191.00	92.00	48.00	70.00	67.00	75.00	1,182.00
Delta Water Treatment Plant													-
Ammonia Gal	-	-	-	-	-	-	736.02	887.48	1,032.18		1,933.56	2,408.28	
Liquid Oxygen, Gal.	367.20	356.40	388.80	306.00	165.60	640.80	5,536.80	-	-				7,761.60
Sodium Hypochlorite, Gal.	10,731.38	21,804.16	14,480.76	9,713.92	4,280.94	35,912.12	8,427.56	10,455.02	8,923.44	11,837.63	13,721.44	16,080.88	166,369.25
Sodium Hydroxide (Caustic Soda), Gal.	5,133.80	8,546.89	6,047.50	4,649.21	1,599.66	-	482.22	3,070.44	893.46	1,252.19	477.03	1,357.24	33,509.64
Aluminum Chlorohydrate (ACH), Gal.	13,755.95	8,468.46	8,815.32	6,082.74	3,942.36	2,918.70	5,803.56	7,821.99	5,480.73	4,082.96	5,371.44	6,444.96	78,989.17
Corrosion Inhibitor, Gal	29.61	-	-	1,059.62	406.08	8.46	63.45	1,104.99	1,312.44	1,712.52	1,951.73	2,493.64	10,142.54
Citric Acid, Gal.	105.60	92.00	112.00	88.00	41.60	107.20	88.00	94.05	183.34	93.08	214.94	179.05	1,398.86
Sulfuric Acid, Gal.	164.00	139.20	120.00	72.00	32.00	28.80	60.80	57.51	66.53	67.24	123.70	214.70	1,146.48
Sodium Bisulfite, Gal.	17.60	17.60	26.40	19.20	8.00	21.60	37.60	31.41	30.92	109.86	39.91	49.80	409.90

Table 2.7 – Utility Consumption Summary

CONSUMPTION	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YTD
North													
N. Well Electricity, KWH	261,207	264,626	246,218										772,051
N. Reservoir Electricity, KWH	52,040	38,200	55,020										145,260
Electricity, KWH	313,247	302,826	301,238										917,311
Natural Gas, 1,000 Ft	-	-	-										-
South													
S. Well Electricity, KWH	9,368	4,084	1,772										15,224
S. Reservoir Electricity, KWH	5,760	13,600	10,720										30,080
S. Cl2 Booster Station, KWH	37	36	47										120
Electricity, KWH	15,165	17,720	12,539										45,424
Natural Gas, 1,000 Ft	-	-	-										-
Delta Water Treat Plant													
Electricity Used, KWH (Intake)	122,400	154,880	106,560										383,840
Electricity Used, KWH (Treatment Plant)	196,000	988,000	502,000										1,686,000
Electricity Generated, KWH (Solar)	10,680	8,590	6,120										25,390
DWTP Total Electricity Used													-

2015-2016– Utility Consumption Summary

CONSUMPTION	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YTD
North													
N. Well Electricity, KWH	255,136	368,313	233,644	304,697	108,343	86,136	306,533	134,408	99,553	63,098	123,273	216,611	2,299,745
N. Reservoir Electricity, KWH	69,080	73,300	75,080	65,800	46,440	60,120	52,880	47,440	48,860	49,320	59,740	59,040	707,100
Electricity, KWH	324,216	295,013	308,724	370,497	154,783	146,256	359,413	181,848	148,413	112,418	183,013	275,651	2,860,245
Natural Gas, 1,000 Ft	-	316	7	-	1	-	-	294	110	-	-	-	728
South													
S. Well Electricity, KWH	74,176	3,147	6,789	35,154	3,684	2,525	26,820	5,858	4,827	6,723	18,231	3,934	191,868
S. Reservoir Electricity, KWH	13,600	15,360	15,360	9,600	8,640	14,880	14,240	9,280	9,600	8,160	10,400	12,640	141,760
S. Cl2 Booster Station, KWH	30	34	38	51	108	141	112	94	94	68	53	37	860
Electricity, KWH	87,806	18,541	22,187	44,805	12,332	17,546	41,172	15,232	14,521	14,951	28,684	16,611	334,388
Natural Gas, 1,000 Ft	-	-	-	-	-	-	-	-	-	-	-	-	-
Delta Water Treat Plant													
Electricity Used, KWH (Intake)	114,240	154,880	174,880	114,880		14,720	68,320	65,920	45,440	10,560	6,560		770,400
Electricity Used, KWH (Treatment Plant)	712,000	552,000	518,000	410,000	346,000	112,000	318,000	380,000	366,000	526,000	584,000		4,824,000
Electricity Generated, KWH (Solar)	20,030	16,290	10,950	10,690	8,120	5,820	5,610	10,060	7,060	9,400	10,520	11,280	125,830
DWTP Total Electricity Used													-

Table 2.8 – Hydrant Maintenance

	<i>Current Month</i>	<i>Fiscal YTD</i>
Hydrant Repairs		
Leaks	4	5
Vehicle Accidents	4	6
Routine Maintenance Repair	11	5
Painted Hydrant	0	0
Installed New/Replaced Hydrant	1	0
Assist Fire Department	3	0
Emergency Fire Response	0	3
Fire Flow Test	0	2
Removed Hydrant/Spool	0	0
Relocated Hydrant	0	0
Gate Valve Maintenance	0	0

Table 2.9 – Valve Maintenance Program

	<i>Current Month</i>	<i>Fiscal YTD</i>	<i># of Valves in System</i>
Air Relief Valves Inspected	0	8	198
Distribution Valves Located	4	11	10,491
Distribution Valves Exercised	4	15	10,491
Distribution Valves Installed (New)	0	0	10,491
Blow-off Valves Flushed	0	2	1,282
Valves Repaired (all types)	4	9	11,971

Table 2.10 – Service Connections

<i>Meters Applied to Routes- Current Month</i>	
Meters Applied to Routes - Fiscal Year-to-Date	5
Total Number of Service Meters in Water System (Active + Inactive)	48,905

Table 2.11 – Number of Active Service Meters in Water System - By Size

Meter Size (in inches)	Residential	Industrial	Commercial / Institutional	Irrigation
5/8	1,794	0	16	15
3/4	25,265	14	217	74
1	18,550	0	247	151
1½	259	0	234	161
2	257	2	609	436
3	12	0	68	25
4	7	3	46	20
6	5	1	18	2
8	0	0	5	0
10	0	0	2	0
12	0	0	2	0
Totals	46,149	20	1,464	884

Table 2.12 – Water Quality Inquiry Summary

Inquiry	Quantity	Follow-up Action
Taste / Odor	(none)	
Color	2	-1- Complaint of greyish water. Operator spoke to customer. Customer to flush hot water heater. -1- Complaint of brownish water. Operator spoke to customer and advised flushing at front hose bib. Customer reported water cleared.
Turbidity	(none)	
Suspended Solids	(none)	
Pressure	(none)	
Sediment	(none)	
Air	(none)	
Sand	(none)	
Miscellaneous Inquiry	1	-1- Complaint of black specks in water. Operator spoke to customer and explained possible causes. Customer to clean aerators.

Table 2.13 – Customer Services Summary

<i>Customer Service Operations</i>	<i>Current Month</i>
Residential Meter Routes	90
Commercial Meter Routes	13
Estimated Meter Reads by Utility Billing	0
Total Meters Read	48,905
Number of Check Reads (All Routes)	380
Number of Service Turn-on/Turn-offs	851

Table 2.14 – Cross Connection Control Program (based on a calendar year)

2017	Beginning of Year	This Month	Year to Date
Total Devices in COS System	2,801	727	2,851
Due for Testing to Date		360	2592
Tested to Date		229	2277
Outstanding		131	315
Installed/Added		7	66
Reactivated		0	0
Inactivated from Cos System		0	16

Table 2.15 – Cross Connection Control Program Surveys

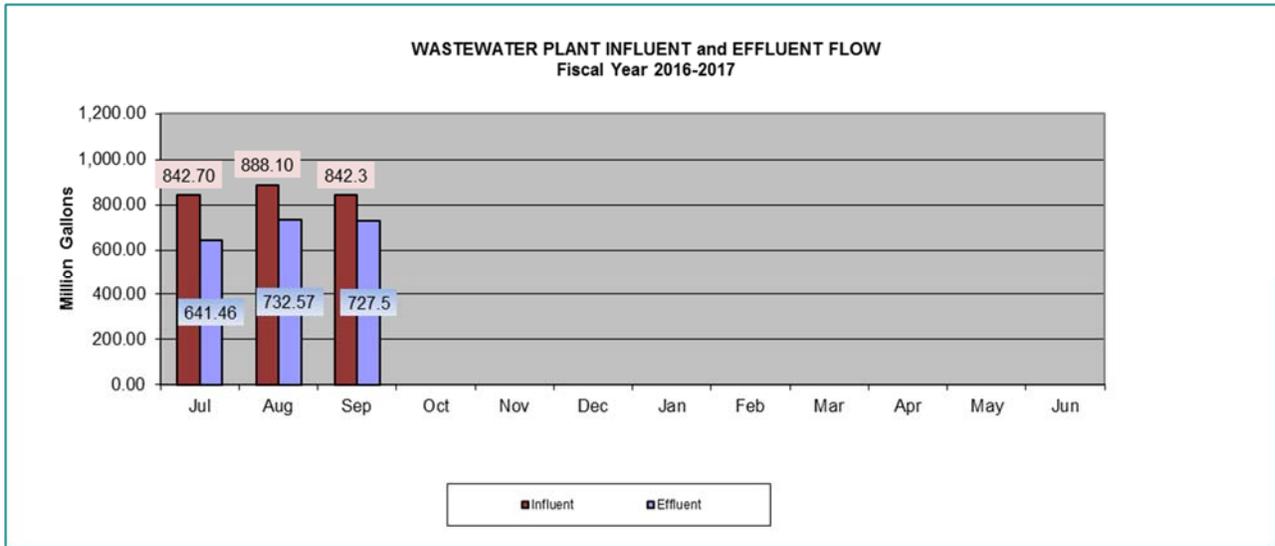
	<i>Surveyed</i>	<i>Surveyed Fiscal Year-to-Date</i>
Customer Connections Surveyed	31	44

Wastewater Treatment

Table 3.1 – Summary of Influent and Effluent Parameters

<i>Influent Parameters</i>	<i>Actual Month Average</i>	
Flow, MGD	29.0	
cBOD, mg/L	350	
TSS, mg/L	320	
Effluent Parameters	Actual Month Average	NPDES Permit Limit Monthly Average
Flow, MGD	24.3	55 Average Dry Weather Flow
cBOD, mg/L	<2.2	10
cBOD Removal, %	>99.4	85
TSS, mg/L	<2.6	10
TSS Removal, %	>99.3	85
Ammonia, mg/L	0.6	1.2 AMEL/4.0 MDEL - April 1 - October 31 2.3 AMEL/9.9 MDEL - November 1 - November 30 2.4 AMEL/9.6 MDEL - December 1 - March 31
Turbidity (NTU) Daily minimum-daily maximum	1.5 0.7 - 2.8	2 (daily average) Daily maximum limit > 5 NTU no more than 3 mins/hr or 72 mins/24 hr run time
pH, standard units (Min/Max)	6.6 - 7.5	6.5 - 8.5
DO, mg/L (Min. Daily Average)	8.1	6.0 01-Sep thru 30-Nov
Ponds, Free Board, feet (Daily Average)	2.05- 3.20	>= 2 feet (Daily Avg) No less than 1.0 ft (Daily Max)

Figure 3.A – Wastewater Plant Influent and Effluent Flow



Wastewater Plant Influent and Effluent Flow Comparison Year 2015-2016

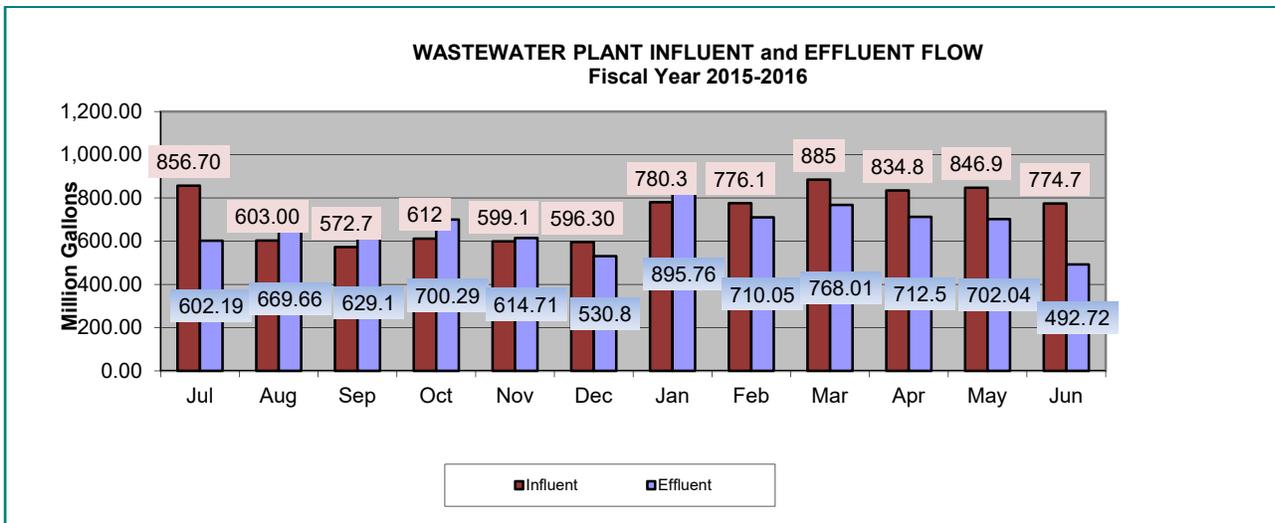
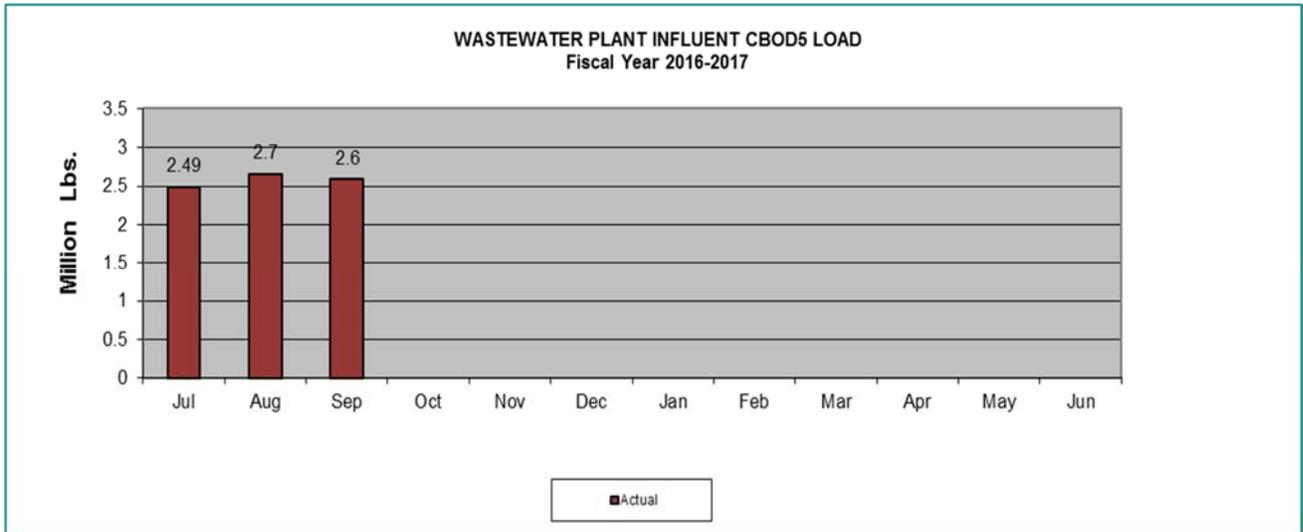


Figure 3.B – Wastewater Plant Influent CBOD5 Load



Wastewater Plant Influent CBOD5 Load Comparison Year 2015-2016

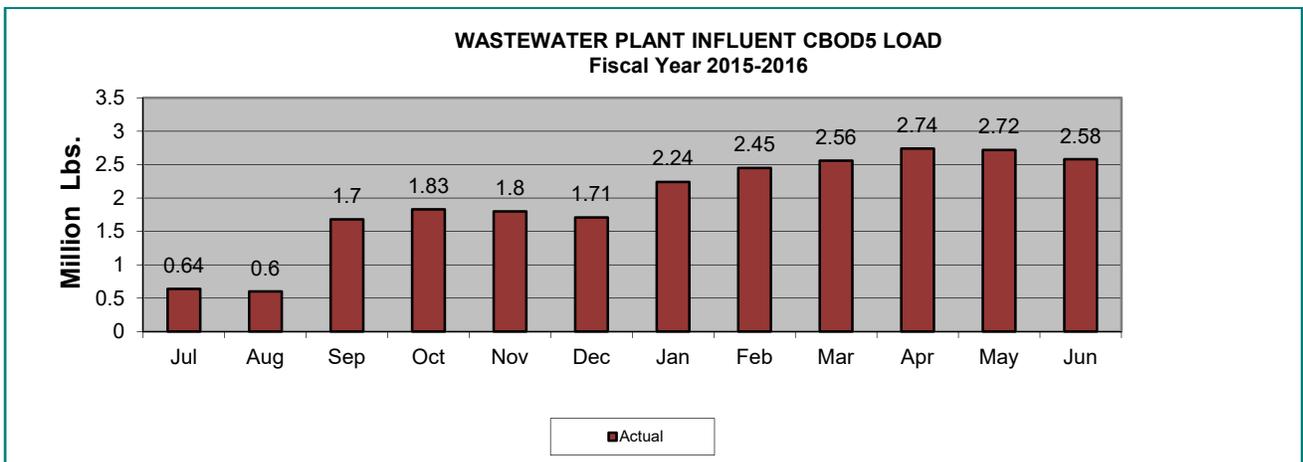
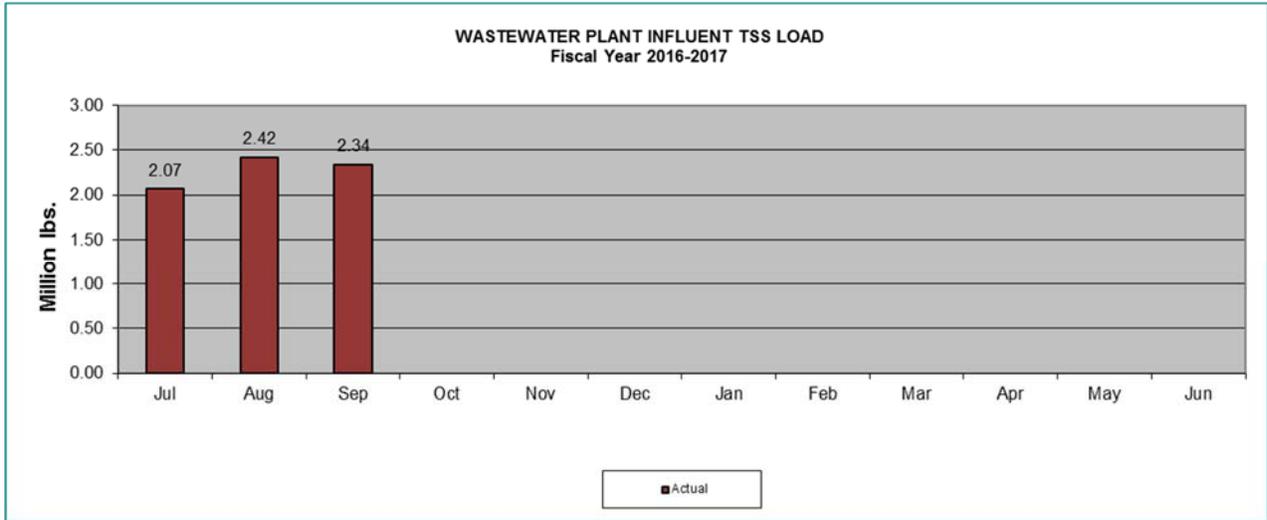


Figure 3.C – Wastewater Plant Influent TSS Load



Wastewater Plant Influent TSS Load Comparison Year 2015-2016

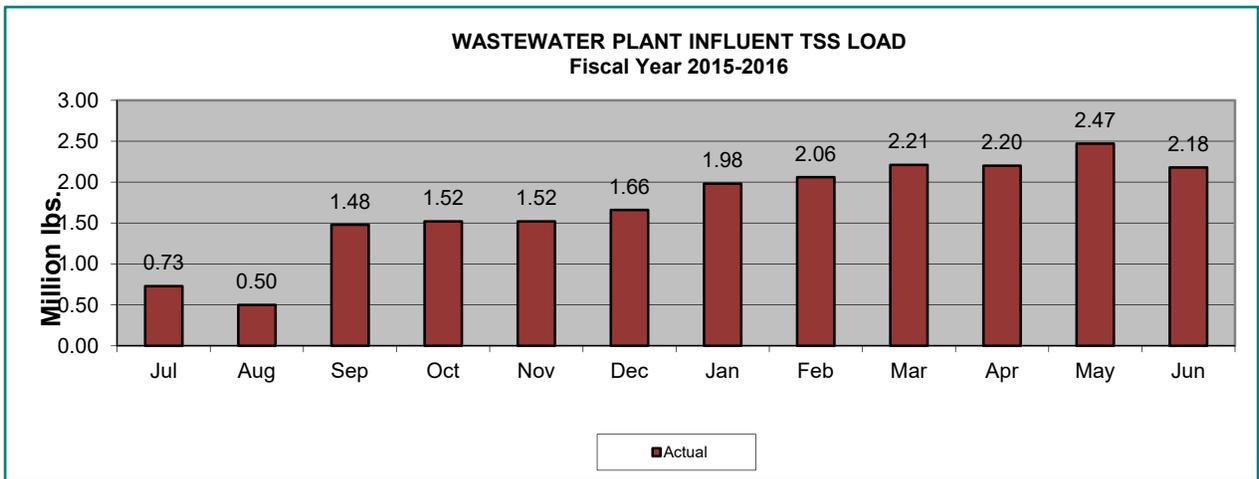
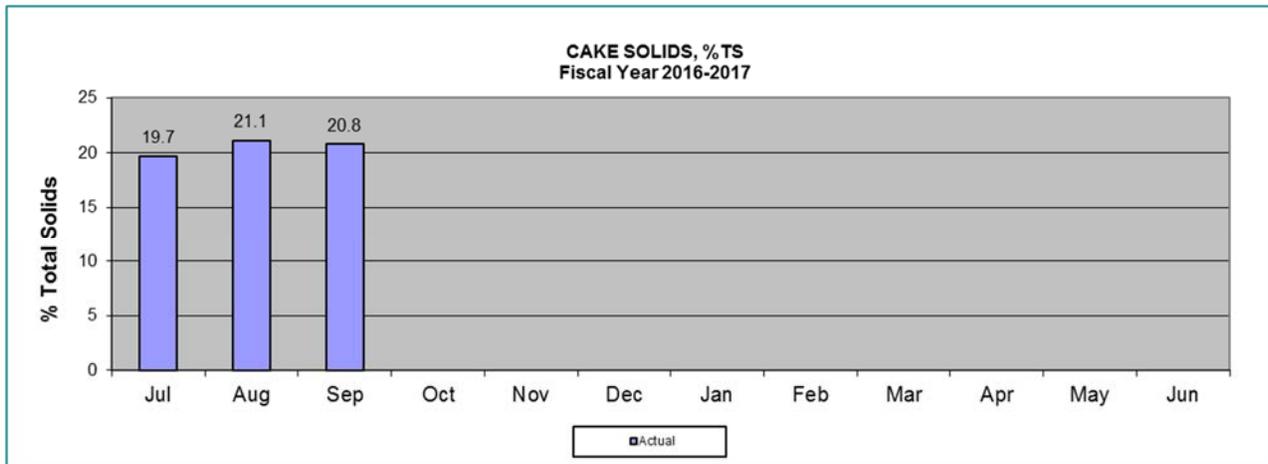


Table 3.2 – Residuals and Chemical Management Summary for Biosolids

Digester Biosolids	Current Month	Fiscal Year-to-Date
Total Feed, gals.	4,098,500	13,772,200
Total Gas Production, CuFt.	14,590,626	47,476,626
Sludge Lagoon, gals.	0	0
Ferric Chloride, gal.	5,872	19,618
Ferric Chloride (EPT), lbs.		0
Dewatered Biosolids		0
Total Feed, gals.	2,162,172	9,577,214
Polymer, lbs.	28,507	238,359
Cake, Wet Tons	2,030	5,205
Biosolids Truck Loads Hauled	82	235

Figure 3.D – Cake Solids



Cake Solids Comparison Year 2015-2016

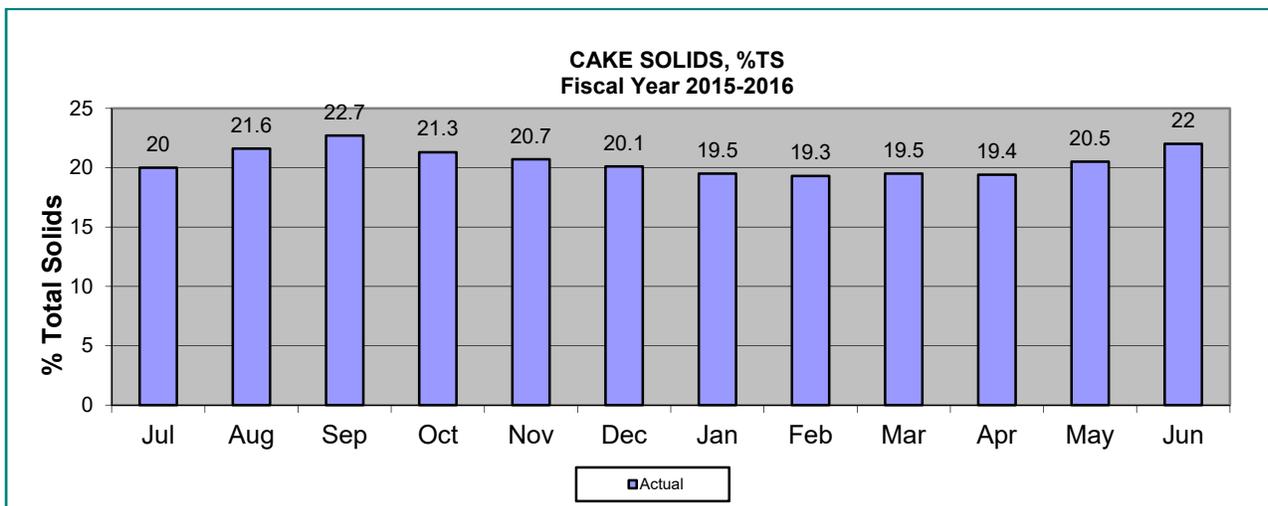


Table 3.3 – Summary of Tertiary Pond Operating Levels

Tertiary Pond	Start Freeboard	End Freeboard	Reserve Capacity (Million Gallons)
Pond #1 (190 ac.)	1.81	2.21	136.82
Pond #2 (135 ac.)	2.47	3.42	139.30
Pond #3 (125 ac.)	2.15	3.13	137.69
		Total	413.81
		Total Reserve Days	18.84

Table 3.4 – Chemical Consumption Summary – Tertiary Facility

Chemical Used	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Fiscal Year-to-Date
Chlorine Gas, lbs.	40,981	46,200	43,578										130,759
Sulfur Dioxide, lbs.	23,400	9,300	33,250										65,950
Caustic Soda, gals	0	0	0										0
Aqueous Ammonia, gals.	4,118	5,047	4,981										14,146
Polymer, lbs	337,008	337,447	335,759										1,010,214

Comparison Year 2015-2016- Chemical Consumption Summary – Tertiary Facility

Chemical Used	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Fiscal Year-to-Date
Chlorine Gas, lbs.	39,357	43,980	41,666	48,734	43,393	29,760	49,573	40,600	43,532	42,942	41,955	31,967	497,459
Sulfur Dioxide, lbs.	31,820	38,058	33,200	33,600	33,200	972,228	36,200	30,100	36,200	32,400	7,000	20,100	1,304,106
Caustic Soda, gals	0	0	0	350	2,113	0	3,828	919	2,188	315	0	216	9,929
Aqueous Ammonia, gals.	4,322	5,609	5,870	5,691	1,501	486	2,854	3,278	4,104	3,566	3,574	3,337	44,192
Polymer, lbs	226,517	415,617	430,019	454,602	317,845	317,026	470,551	408,160	456,239	498,113	503,167	296,610	4,794,466

Table 3.5 – Utility Consumption

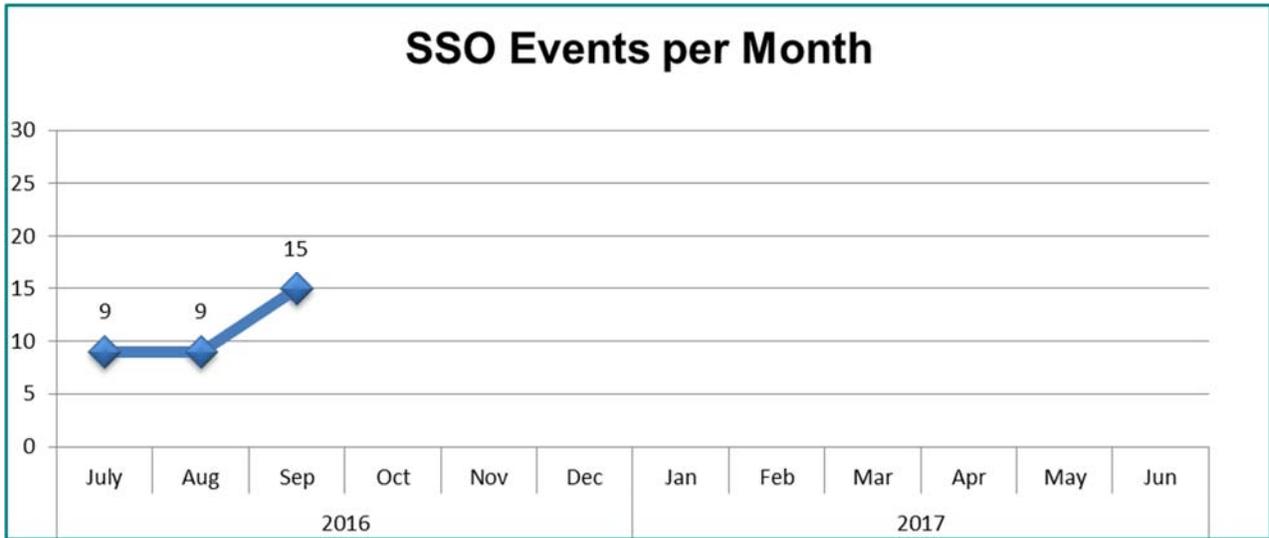
	Current Month	Fiscal Year-to-Date
Electricity		
Main Facility Total Usage, KW	1,295,863	4,324,003
Tertiary Facility Total Usage, KW	658,616	2,001,333
Total Facility Usage, KW	1,954,479	6,325,336
PG&E, Purchased KW	1,532,370	1,304,099
Co-Generation Production, KW	422,109	1,695,055
Total Facility Prod./Purch. KW	1,954,479	6,325,336
Natural Gas		
Co-Generation Fuel, Therms	1,530	93,490
Building Fuel, Therms	0.61	3
Methane Gas, Digester Production, CuFt.	14,590,626	47,476,626
Methane Gas, Digester Production, Therms	90,102	289,633
Water		
Wastewater Facilities Total Usage, gals.	673,400	3,088,400

Wastewater Collection Systems

Table 4.1 – Summary of SSOs and Private Sewage Spills

Date	Address	Spill Gallons	Gallons Recovered	Gal to Surf Water	Cause	Receiving Water or Containment	Line Type	Pipe Size
CATEGORY 1								
9/27/2016	Fontana Ave.	450	0	50	Broken ARV Pipe Structure	Smith Canal	Other	
CATEGORY 2								
			NONE					
CATEGORY 3								
9/1/2016	Plantation Pl.	6	6	0	Debris	Gutter	Lateral	4"
9/2/2016	Pyrenees Ct.	28	28	0	Grease	Gutter	Lateral	4"
9/6/2016	Sutherland Dr.	9	9	0	Roots	Gutter	Lateral	4"
9/7/2016	Tilden Park St.	2	2	0	Debris	Gutter	Lateral	4"
9/16/2016	W. Yokuts Ave.	12	12	0	Debris	Paved Surface	Main	10"
9/19/2016	N. Van Buren St.	41	41	0	Roots	Gutter	Lateral	4"
9/19/2016	Figuroa St.	10	10	0	Roots	Gutter	Lateral	4"
9/19/2016	S. Sutter St.	1	1	0	Debris	Gutter	Lateral	4"
9/21/2016	Vicente Way	18	18	0	Grease	Storm Drain	Main	6"
9/23/2016	Knickerbocker Dr.	20	20	0	Debris	Gutter	Lateral	4"
9/27/2016	Shimizu Dr.	55	0	0	Broken ARV Pipe Structure	Gutter	Other	
9/27/2016	N. American Ave.	4	4	0	Grease	Gutter	Main	6"
9/28/2016	N. San Jose St.	7	7	0	Debris	Gutter	Main	6"
9/29/2016	E. Eighth St.	11	11	0	Debris	Gutter	Lateral	4"
9/30/2016								
9/10/2016	Almondwood Ln.	26	26	0	Debris	Gutter	Lateral	4"
9/19/2016	Village Green Dr.	10	10	0	Debris	Gutter	Lateral	4"
Total Public SSO Events		15		Total Gallons		674		
Total Private Spills		2		Total Gallons		36		
Total Public & Private Spill Events		17		Total Gallons		710		

Figure 4.A – Public Sanitary Sewer Overflow Events



Public Sanitary Sewer Overflow Events - Comparison Year 2015-2016

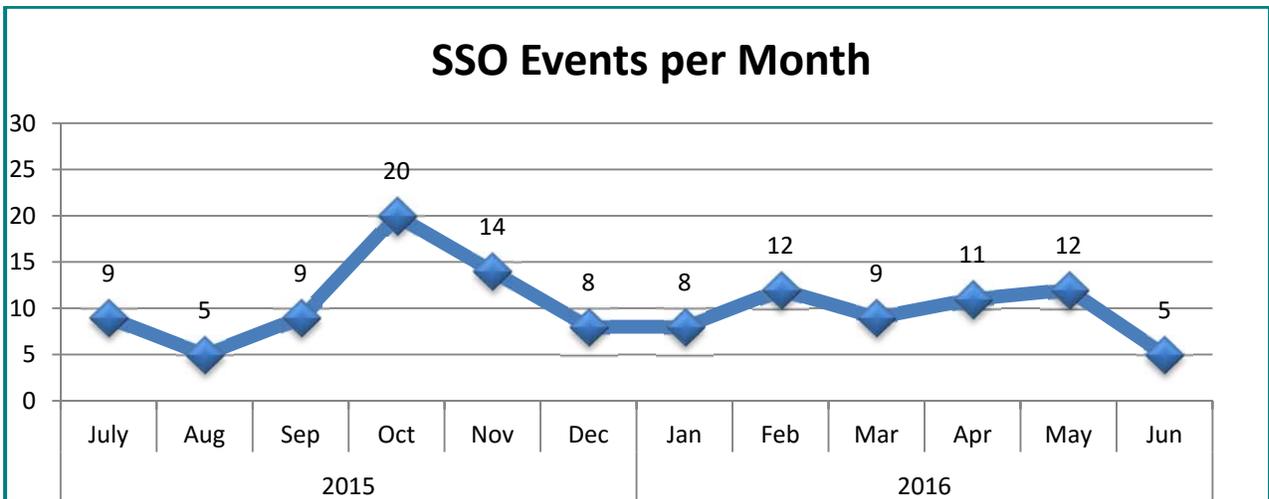
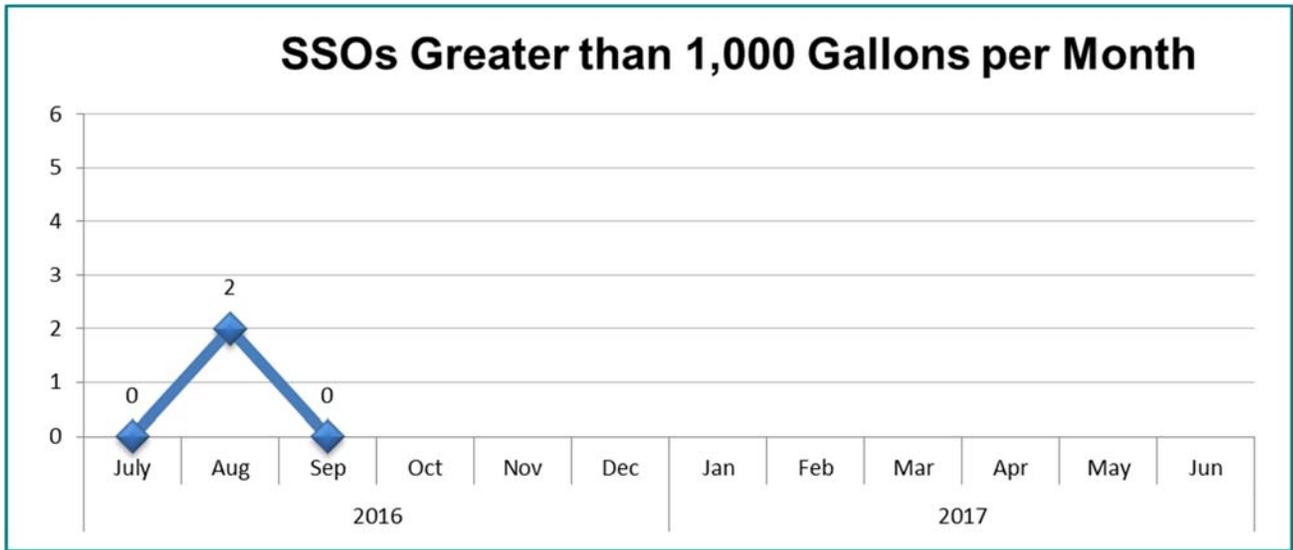


Figure 4.B – Public SSOs Greater than 1,000 gallons – Events



Public SSOs Greater than 1,000 gallons Events – Comparison Year 2015-2016

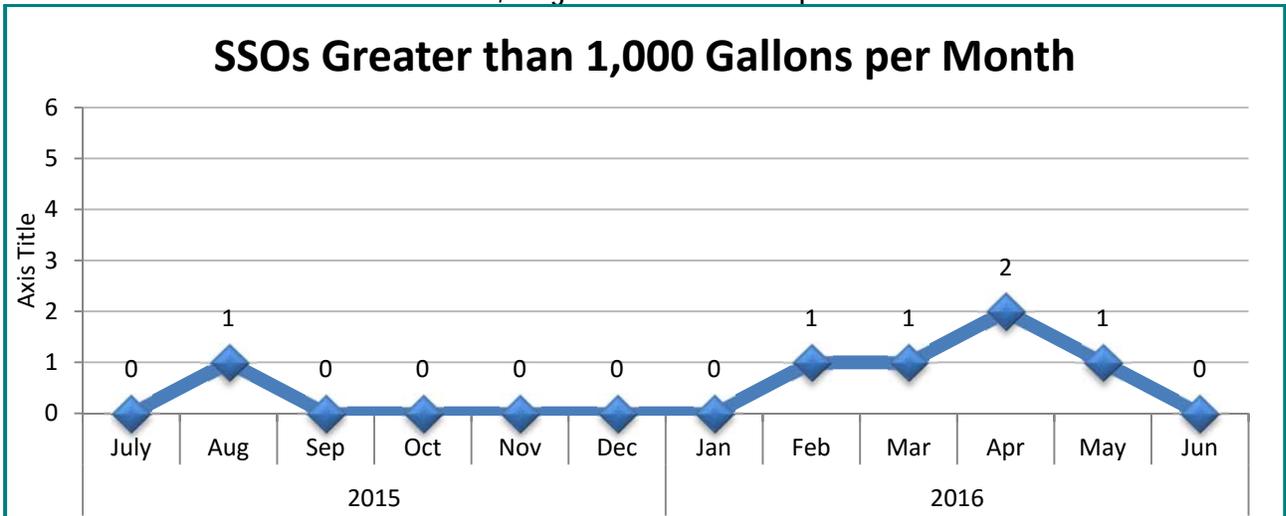
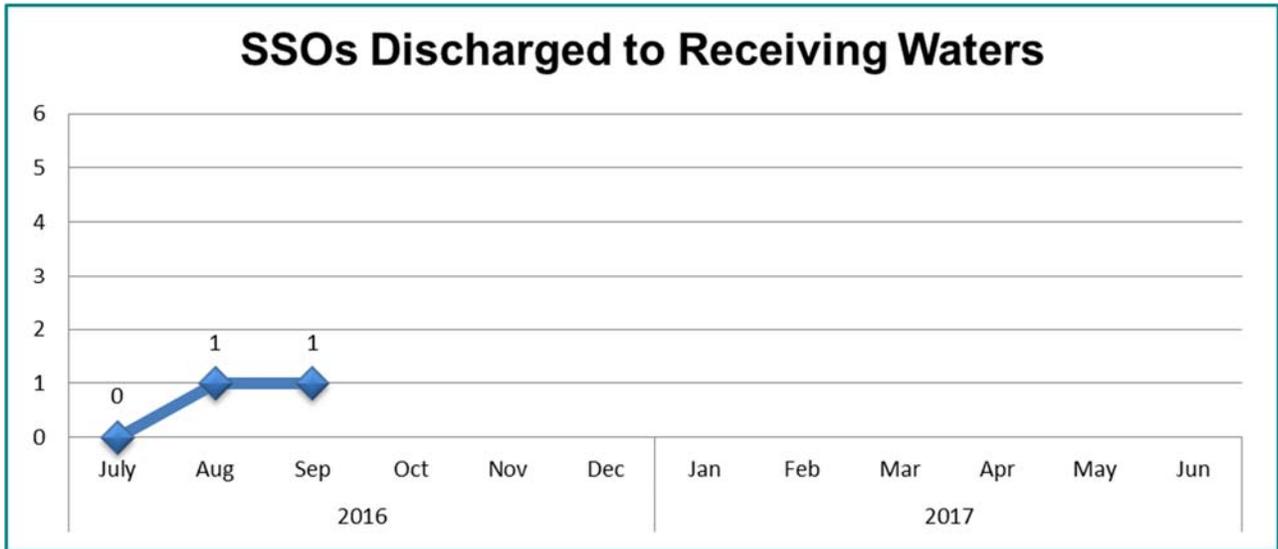


Figure 4.C – Public Sanitary Sewer Overflows Discharged to Receiving Water



Public Sanitary Sewer Overflows Discharged to Receiving Water – Comparison Year 2015-2016

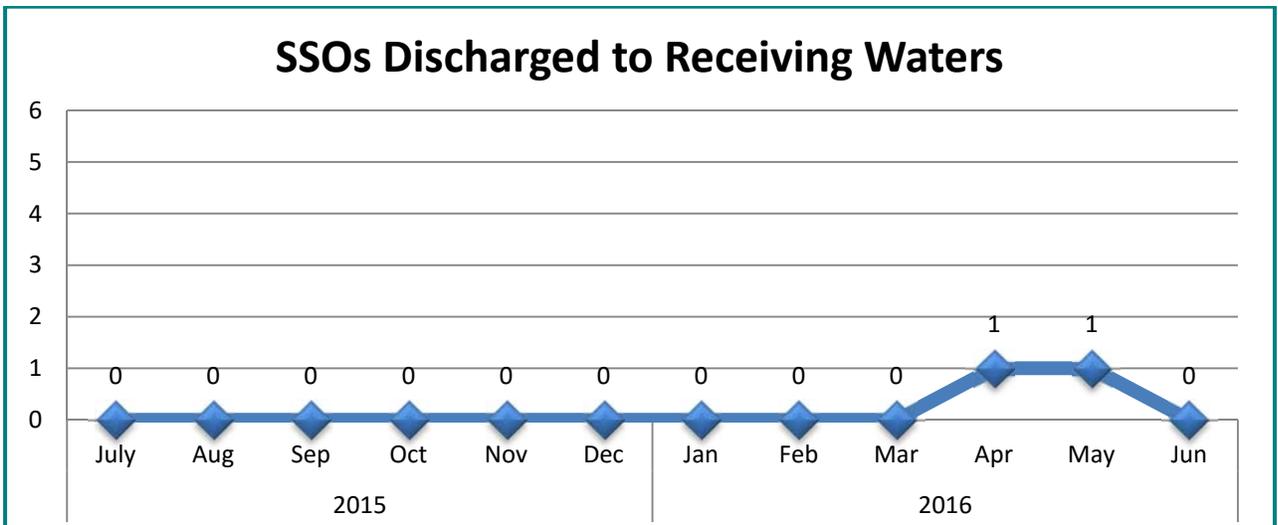


Table 4.2 – Sewer Maintenance Activity Summary

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YTD
Repairs – Sewer													
# of Lateral Repairs	14	14	14										42
Lateral Repairs, Linear Feet	78	109	51										238
# of Main Line Repairs	7	10	12										29
Main Line Repairs, Linear Feet	37	46	54										137
Maintenance Hole Repair/New	2	4	7										13
Sewer Taps	0	0	0										0
Maintenance – Sewer													
# of Main Line Segments Jetted	400	475	376										1,251
Main Line Linear Feet Jetted	143,361	139,331	103,836										386,528
# of Main Line Segments Rodded	16	30	41										87
Main Line Linear Feet Rodded	6,602	9,040	13,011										28,653
Laterals Foamed	49	84	74										207
Laterals Foamed, Linear Feet	1,470	2,520	2,220										6,210

(Chart totals do not include work done by contractors.)

Comparison Year 2015-2016 – Sewer Maintenance Activity Summary

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YTD
Repairs – Sewer													
# of Lateral Repairs	7	12	2	1	7	14	5	11	11	19	8	12	109
Lateral Repairs, Linear Feet	71	111	16	5	32	20	103	74	94	77	36	109	748
# of Main Line Repairs	13	6	3	3	3	3	0	4	14	14	15	13	91
Main Line Repairs, Linear Feet	63	21	27	15	14	18	0	23	75	87	75	50	468
Maintenance Hole Repair/New	1	2	6	10	9	2	2	2	2	7	0	0	43
Sewer Taps	1	0	0	0	0	0	0	0	0	0	1	0	2
Maintenance – Sewer													
# of Main Line Segments Jetted	612	620	465	495	257	394	363	506	554	561	597	545	5,969
Main Line Linear Feet Jetted	185,379	185,771	138,293	159,933	88,760	132,467	127,096	159,544	143,615	164,396	163,591	144,535	1,793,380
# of Main Line Segments Rodded	57	16	17	33	17	19	12	17	24	1	0	0	213
Main Line Linear Feet Rodded	17,098	1,519	7,339	10,910	6,418	5,064	4,016	4,753	8,366	225	0	0	65,708
Laterals Foamed	106	144	165	33	85	128	99	160	138	92	108	187	1,445
Laterals Foamed, Linear Feet	3,180	4,320	4,950	990	2,550	3,840	2,940	4,800	4,140	2,760	3,240	5,610	43,320

(Chart totals do not include work done by contractors.)

Table 4.3 – Customer Service and CCTV Activity Summary

<i>CUSTOMER SERVICE</i>	<i>JUL</i>	<i>AUG</i>	<i>SEP</i>	<i>OCT</i>	<i>NOV</i>	<i>DEC</i>	<i>JAN</i>	<i>FEB</i>	<i>MAR</i>	<i>APR</i>	<i>MAY</i>	<i>JUN</i>	<i>FISCAL YTD</i>
Service Calls	250	338	291										879
USA Requests	1,076	1362	1,066										3,504
TV Sanitary Line Segment Inspections	106	162	140										408
TV Sanitary Line Segment Inspections, Linear Feet	16,397	30,897	19,655										66,949
TV Sanitary Lateral Inspections	28	38	25										91
TV Sanitary Lateral Inspections, Linear Feet	675	723	624										2,022

(Chart totals do not include work done by contractors.)

Comparison Year 2015-2016 – Customer Service and CCTV Activity Summary

<i>CUSTOMER SERVICE</i>	<i>JUL</i>	<i>AUG</i>	<i>SEP</i>	<i>OCT</i>	<i>NOV</i>	<i>DEC</i>	<i>JAN</i>	<i>FEB</i>	<i>MAR</i>	<i>APR</i>	<i>MAY</i>	<i>JUN</i>	<i>FISCAL YTD</i>
Service Calls	254	260	392	327	396	462	467	413	321	354	271	314	4,231
USA Requests	828	720	839	662	451	812	881	630	848	1,023	1,117	1,259	10,070
TV Sanitary Line Segment Inspections	61	121	144	81	22	50	73	86	62	85	103	36	924
TV Sanitary Line Segment Inspections, Linear Feet	11,946	17,249	18,227	13,217	5,423	12,047	13,574	14,580	6,808	11,538	8,485	6,368	139,462
TV Sanitary Lateral Inspections	32	258	92	24	107	88	39	116	59	33	33	23	893
TV Sanitary Lateral Inspections, Linear Feet	872	8,230	3,982	729	1,697	1,799	875	2,851	1,570	1,027	756	438	24,826

(Chart totals do not include work done by contractors.)

Table 4.4 – Spoils Activity Summary

<i>SPOILS ACTIVITY SUMMARY</i>	<i>JUL</i>	<i>AUG</i>	<i>SEP</i>	<i>OCT</i>	<i>NOV</i>	<i>DEC</i>	<i>JAN</i>	<i>FEB</i>	<i>MAR</i>	<i>APR</i>	<i>MAY</i>	<i>JUN</i>	<i>FISCAL YTD</i>
Operations / Grit Hauling - # of Loads	0	0	1										1
Operations / Grit Hauling - Tonnage	0	0	6.55										6.55
Sanitary Lines / Pump Stations - # of Loads	0	4	0										4
Sanitary Lines / Pump Stations - Tonnage	0	31.02	0										31.02
Construction Hauling – # of Loads	3	8	1										12
Construction Hauling – Tonnage	39.84	92.97	11.55										144.36
Total Loads	3	12	2										17
Total Tonnage	39.84	123.99	18.2										182.03

Comparison Year 2015-2016 – Spoils Activity Summary

<i>SPOILS ACTIVITY SUMMARY</i>	<i>JUL</i>	<i>AUG</i>	<i>SEP</i>	<i>OCT</i>	<i>NOV</i>	<i>DEC</i>	<i>JAN</i>	<i>FEB</i>	<i>MAR</i>	<i>APR</i>	<i>MAY</i>	<i>JUN</i>	<i>FISCAL YTD</i>
Operations / Grit Hauling - # of Loads	1	0	0	0	1	3	0	1	1	4	0	0	11
Operations / Grit Hauling - Tonnage	6.63	0	0	0	6.73	20.86	0	11.69	7.08	67.31	0	0	120.30
Sanitary Lines / Pump Stations - # of Loads	8	0	6	11	5	10	9	0	14	12	5	6	86
Sanitary Lines / Pump Stations - Tonnage	126.19	0	73.01	128.00	65.48	86.12	138.83	0	156.44	105.17	36.29	69.89	985.42
Construction Hauling – # of Loads	17	0	15	5	6	5	9	6	3	2	4	15	87
Construction Hauling – Tonnage	224.97	0	195.59	55.24	67.62	60.32	96.98	70.58	13.72	17.28	13.54	53.72	869.56
Total Loads	26	0	21	16	12	18	18	7	18	18	9	21	184
Total Tonnage	357.79	0	268.60	183.24	139.83	167.30	235.81	82.27	177.24	189.76	49.83	123.61	1,975.28

Table 4.5 – Graffiti Removal

<i>Name / Location of Pump Stations Painted</i>
NONE

Table 4.6 – Pump Station Maintenance Work Order Summary

<i>Maintenance Work Orders</i>	<i>Corrective Maintenance</i>	<i>Corrective Maintenance % Completed</i>	<i>Corrective Maintenance %Backlog</i>	<i>Preventive Maintenance % Backlog</i>
Sanitary Pumping Facilities				
Pump Station Mechanical	N/A	N/A	N/A	N/A
Pump Station Electrical	N/A	N/A	N/A	N/A

Table 4.7 – Plant Maintenance Work Order Summary

<i>Maintenance Work Orders</i>	<i>Corrective Maintenance WOs Issued</i>	<i>Corrective Maintenance % Completed</i>	<i>Preventative Maintenance WOs Issued</i>	<i>Preventive Maintenance % Complete</i>
RWCF Treatment Plant				
Main Plant				
Tertiary Plant				
Main Plant				
Main Plant Electrical				
Tertiary Plant				
Tertiary Plant Electrical				

Due to a backlog in data entry, percent complete numbers are not yet available.

THIS PAGE INTENTIONALLY LEFT BLANK

Environmental Control

THIS PAGE INTENTIONALLY LEFT BLANK

Table 5.1 – Operational Activity Summary

Activity/Indicator	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Pretreatment Program												
Industrial Inspections	26	38	36									
Industrial Sampling	23	31	20									
Discharge Permits (new) *	0	0	1									
Discharge Permits (renewal) **	2	0	0									
Industrial Flow, MG	143.66	157.59										
Industrial BOD, lbs.	943,600	1,035,500										
Industrial TSS, lbs.	459,440	498,550										
Industrial Revenue	\$ 578,950	\$ 590,821										
Pretreatment Enforcement Actions***	1	11										
Waste Hauler Program												
Trucked-in Waste Loads	241	214										
Trucked-in Waste Gallons	749,656	679,794										
Trucked-in Waste Revenue	\$ 25,866	\$ 23,105										
Stormwater Program												
Hazardous Materials Spills ****	0	0	0									
Stormwater Complaints *****	2	0	0									
Stormwater Enforcement Actions*****	1	0	0									
FOG Program												
FOG Initial Inspections	66	76	59									
FOG Enforcement Actions	55	80	69									
FOG Follow-up Inspections	25	45	37									
* Discharge Permits (New) - One (1) Special Wastewater Discharge Permit					**** Hazardous Materials Spills – NONE							
** Discharge Permits (Renewal) – NONE					***** Stormwater Complaints – NONE							
*** Pretreatment Enforcement Actions – Eleven (11) 7/2016 – NOV/CO: Late Reporting & failure to submit 3 manifests Violations 8/2016 – NOV/CO: BOD Violation 8/2016 – NOV/CO/FINE: Late reporting & failure to submit 10 manifests Violations, \$1,000 Fine 8/2016 – NOV/CO: TSS Violation 8/1/2016 & 8/25/2016 – NOV/CO: TDS Violations 8/7/2016 – NOV/CO: Failure to monitor equipment & missed sample Violations 8/14/2016 – NOV/CO/SNC/FINE: Failure to notify violations, \$1,000 Fine 8/23/2016 – NOV/CO/FINE: Accidental discharge/partial bypass to sanitary sewer Violation, \$1,000 Fine 8/31/2016 – NOV/CO: VOC Violation 9/20/2016 – NOV/CO: Failure to maintain equipment Violation 9/21/2016 – NOV/CO/C&D: Failure to maintain equipment Violation					***** Stormwater Enforcement Actions – NONE							

Comparison Year 2015-2016 – Operational Activities Summary

Activity/Indicator	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Pretreatment Program												
Industrial Inspections	66	46	47	52	44	34	35	43	42	36	30	58
Industrial Sampling	54	43	37	31	26	28	32	31	33	34	20	52
Discharge Permits (new) *	0	0	0	1	2	0	0	1	0	0	0	1
Discharge Permits (renewal) **	1	3	0	0	0	1	0	0	1	1	2	2
Industrial Flow, MG	148.91	158.98	132.07	89.74	68.45	65.34	82.45	73	86.64	80.59	76.03	
Industrial BOD, lbs.	1,061,940	1,229,740	782,150	551,210	555,450	440,340	696,450	578,230	511,490	577,360	561,200	
Industrial TSS, lbs.	462,480	742,990	430,130	160,590	102,090	89,380	175,370	216,290	111,140	141,730	108,790	
Industrial Revenue	\$ 587,542	\$ 621,344	\$ 564,162	\$ 521,795	\$ 504,939	\$ 506,690	\$ 558,483	\$ 510,424	\$ 520,585	\$ 515,186	\$ 504,237	
Pretreatment Enforcement Actions***	8	7	10	7	6	7	9	6	7	8	2	5
Waste Hauler Program												
Trucked-in Waste Loads	227	239	247	225	224	240	231	240	248	304	270	
Trucked-in Waste Gallons	691,998	722,084	742,659	665,496	676,153	703,905	692,313	715,513	739,717	868,697	772,044	
Trucked-in Waste Revenue	\$ 24,225	\$ 25,443	\$ 26,259	\$ 23,813	\$ 23,840	\$ 25,343	\$ 24,537	\$ 25,456	\$ 26,308	\$ 31,877	\$ 28,317	
Stormwater Program												
Hazardous Materials Spills ****	0	0	0	0	1	0	0	0	2	0	1	0
Stormwater Complaints *****	1	3	3	2	3	0	0	4	4	3	2	0
Stormwater Enforcement Actions*****	2	1	1	0	2	0	0	1	3	0	0	0
FOG Program												
FOG Initial Inspections	74	62	73	42	3	7	95	105	100	80	103	75
FOG Enforcement Actions	37	23	0	0	0	0	0	0	0	0	0	0
FOG Follow-up Inspections	41	42	71	44	17	17	23	31	37	31	46	31

Laboratory

Table 6.1 – Acute Toxicity Testing Summary

Date of EFF-001 Sample (composite)	Percent survival	Lab
01-03-16	100	PERL
02-02-16	100	PERL
03-07-16	100	PERL
04-03-16	100	PERL
05-02-16	100	PERL
06-05-16	100	PERL
07-11-16	100	PERL
08-14-16	100	PERL
09-11-16	100	PERL

Chronic Toxicity – Performed by Aqua Science

Table 6.2 – Algae (*Selenastrum capricornutum*)

Sample Date	NOEC	TUc (100/NOEC)	Comments
03-07-16	100%	1.0	Lab water control
05-15-16	100%	1.0	Lab water control
08-07-16	100%	1.0	Lab water control

Table 6.3 – Ceriodaphnia (*C. dubia*)

Sample Date	Survival		Reproduction	
	NOEC	TUc (100/NOEC)	NOEC	TUc (100/NOEL)
03-07-16 ¹	<100%	> 1.0	<100%	> 1.0
04-10-16	100%	1.0	100%	1.0
08-07-16 ²	<100%	> 1.0	<100%	> 1.0
09-18-16 ³	<100%	> 1.0	<100%	> 1.0

¹ March: Toxicity to survival and reproduction initiates accelerated monitoring.

April accelerated monitoring result used for the 2nd Quarter Chronic Toxicity Testing

² August: Toxicity to survival and reproduction initiates accelerated monitoring.

³ August: Toxicity to survival and reproduction initiates TRE (Toxicity Reduction Evaluation).

Table 6.4 – Larval Fathead Minnow (*Pimephales Promelas*)

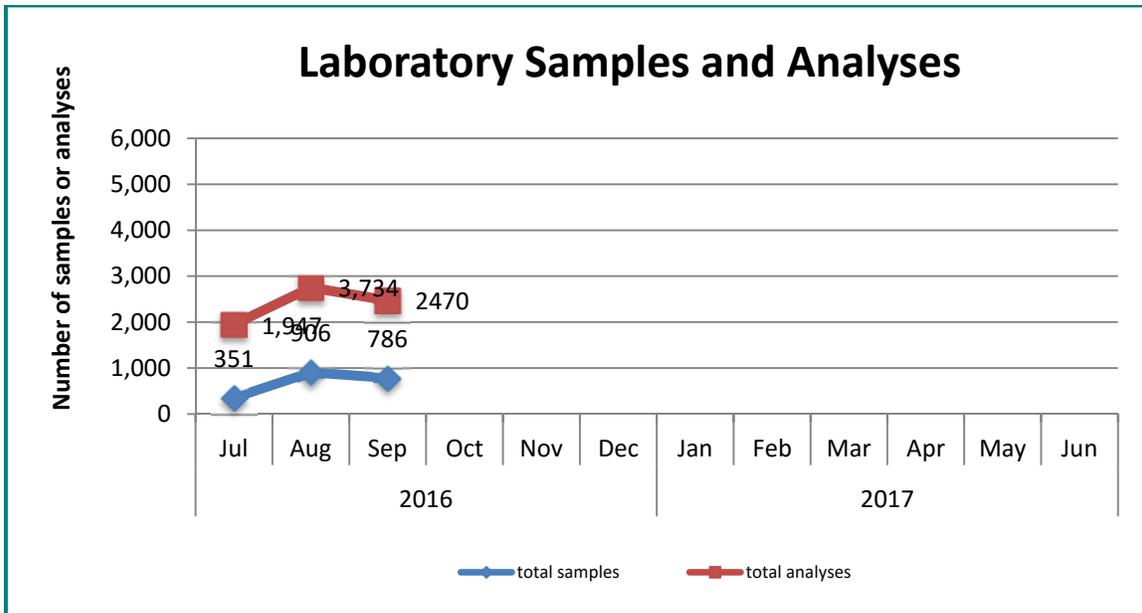
Sample Date	Survival		Growth	
	NOEC	TUc (100/NOEC)	NOEC	TUc (100/NOEL)
03-07-16	100%	1.0	100%	1.0
05-15-16	100%	1.0	100%	1.0
08-07-16	100%	1.0	100%	1.0
09-18-16	100%	1.0	100%	1.0

Testing continues quarterly.

Table 6.5 – Effluent Ammonia-N Summary

EFF-001 (Final Effluent)	Regulatory NH3-N, mg/L	Process Control NH3-N, mg/L
Monthly Minimum	<0.50	0.49
Monthly Maximum	0.80	0.85
Monthly Average	<0.64	0.66

Figure 6.A – Laboratory Samples and Analyses



Laboratory Samples and Analyses – Comparison Year 2015-2016

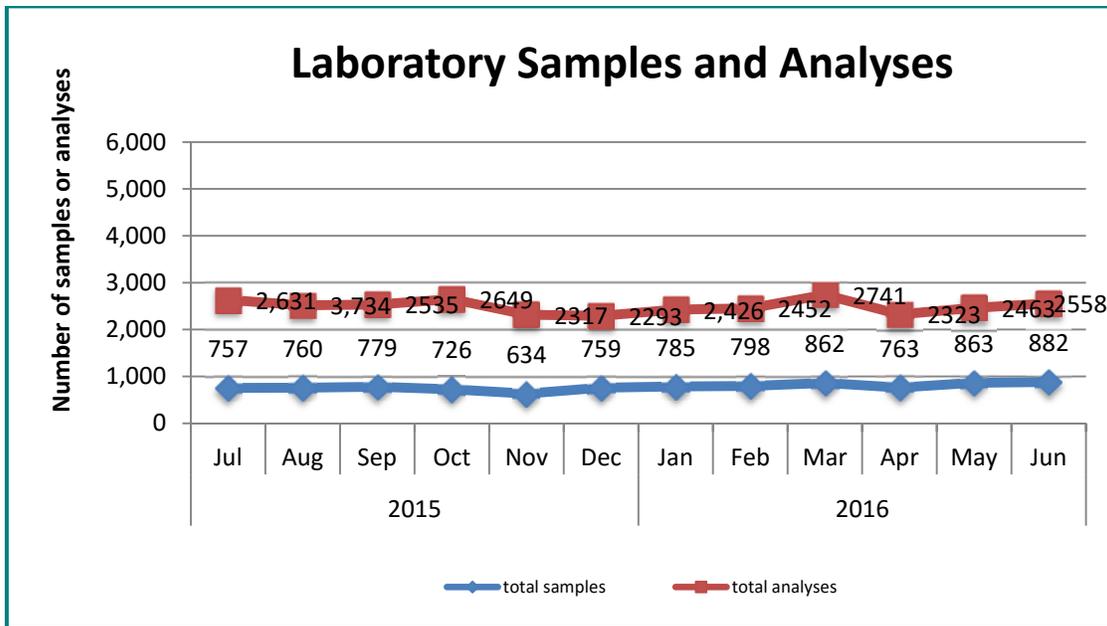
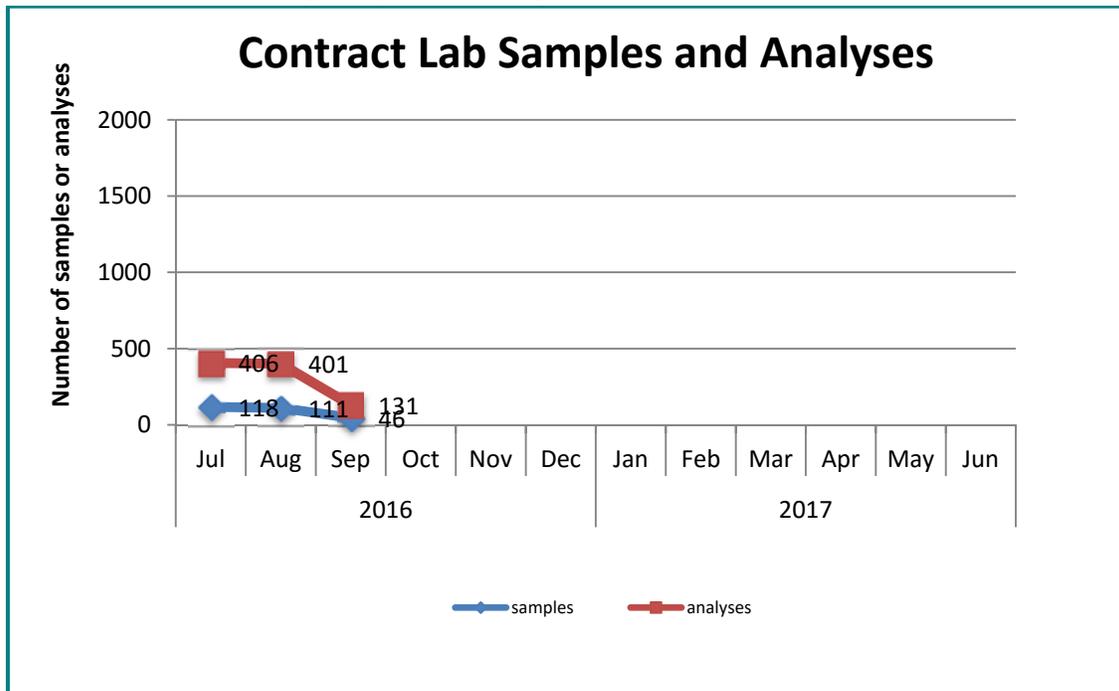


Figure 6.B – Contract Laboratory Samples and Analyses



Contract Laboratory Samples and Analyses – Comparison Year 2015-2016

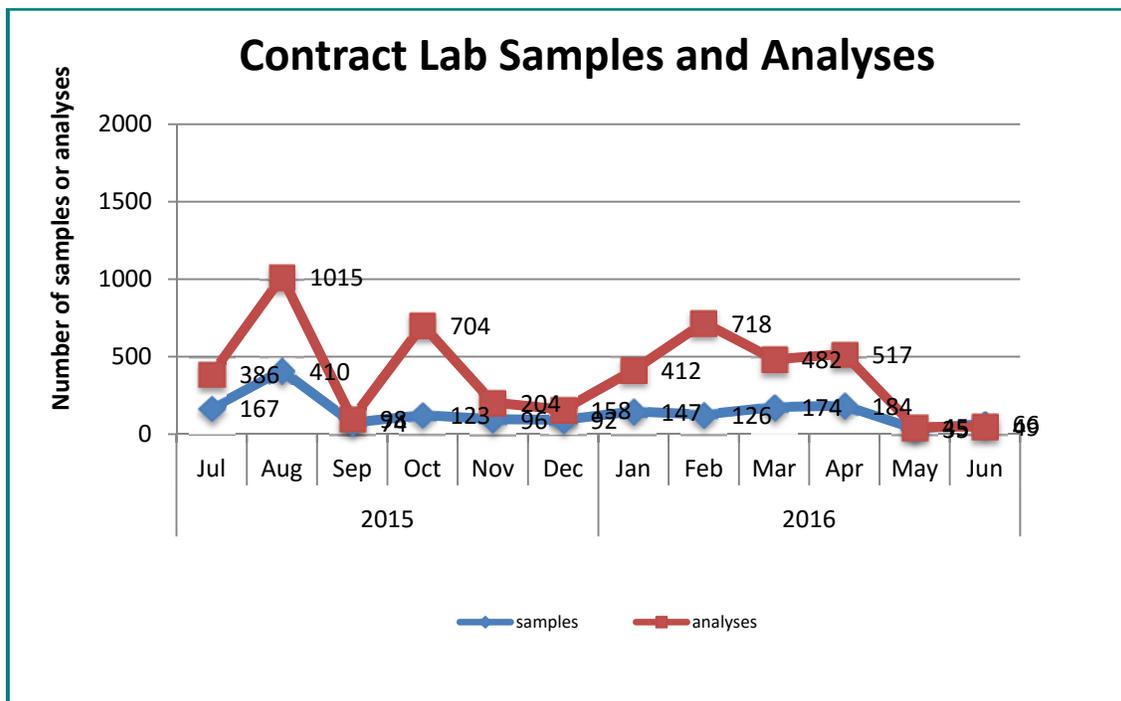
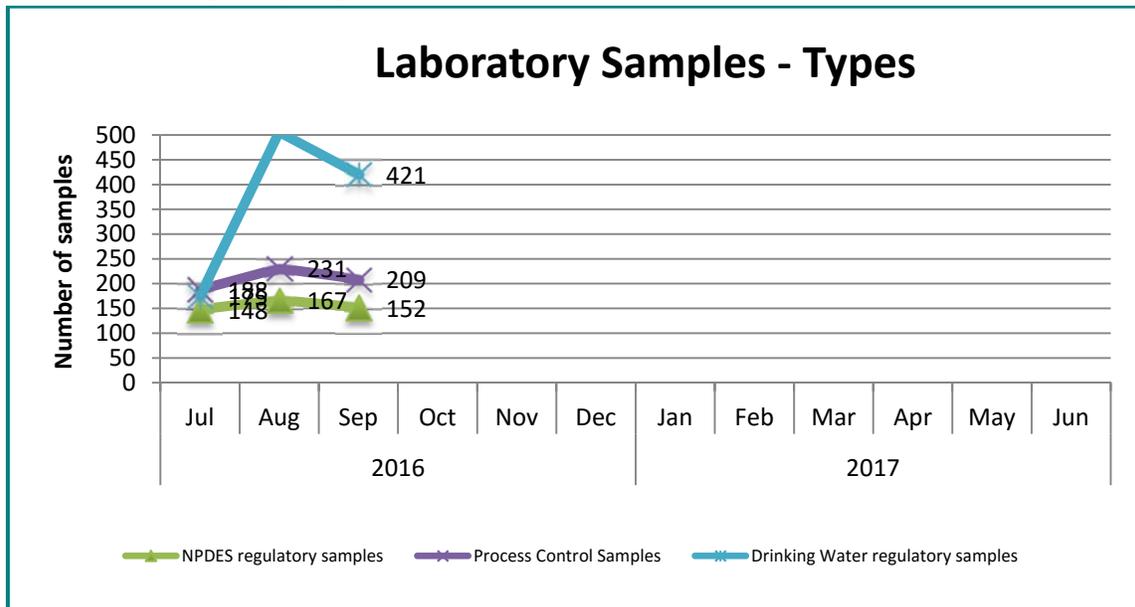
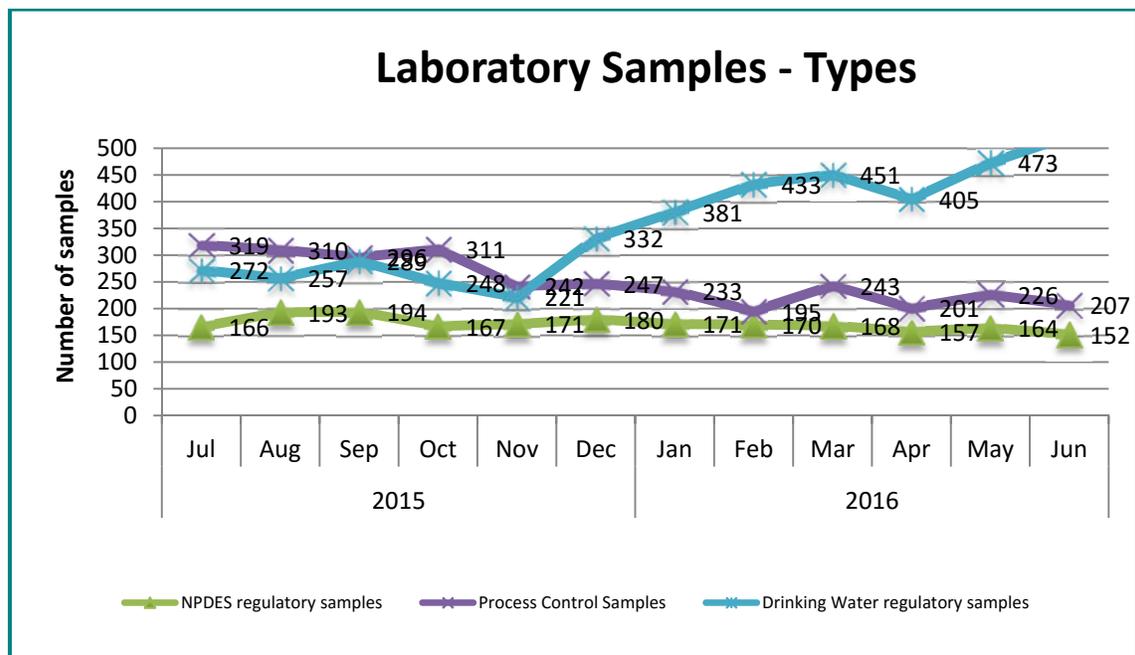


Figure 6.C – Laboratory Sample Types



Laboratory Sample Types Comparison Year 2015-2016



Engineering

Figure 7.A – Development Reviews Received and Completed

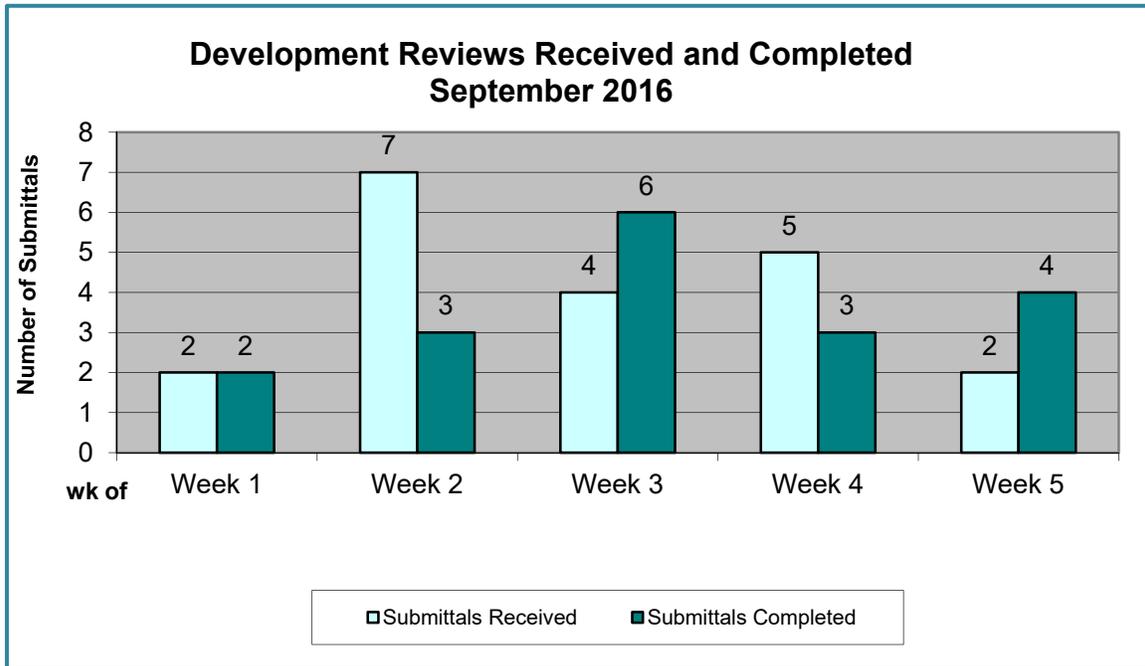
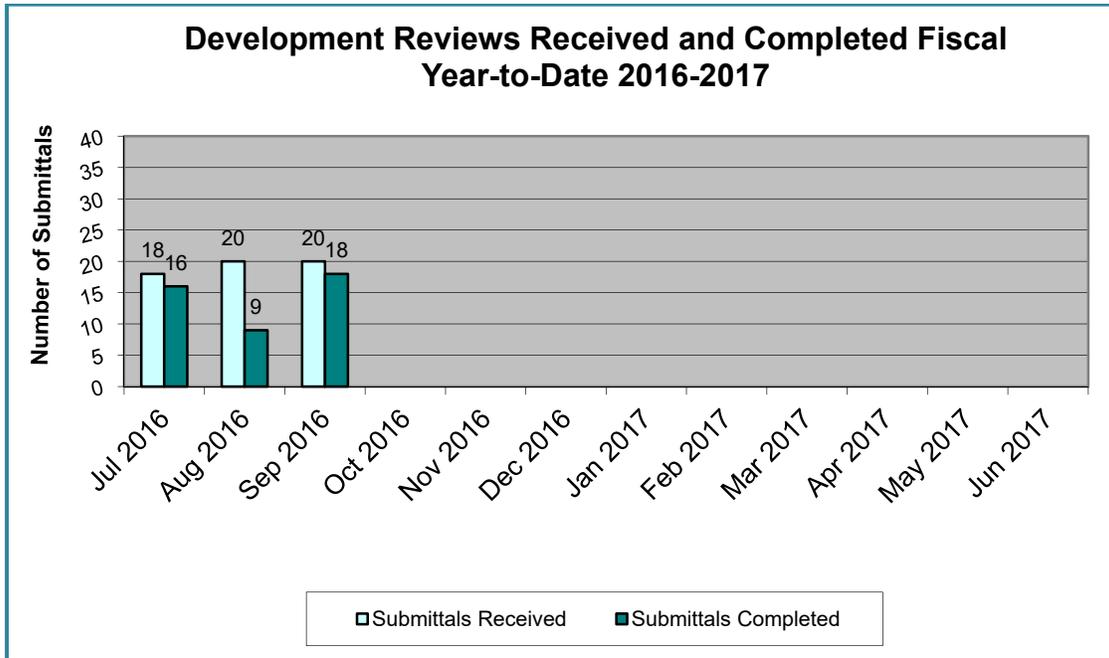


Figure 7.B – Development Reviews Received and Completed



Development Reviews Received and Completed – Comparison Year 2015-2016

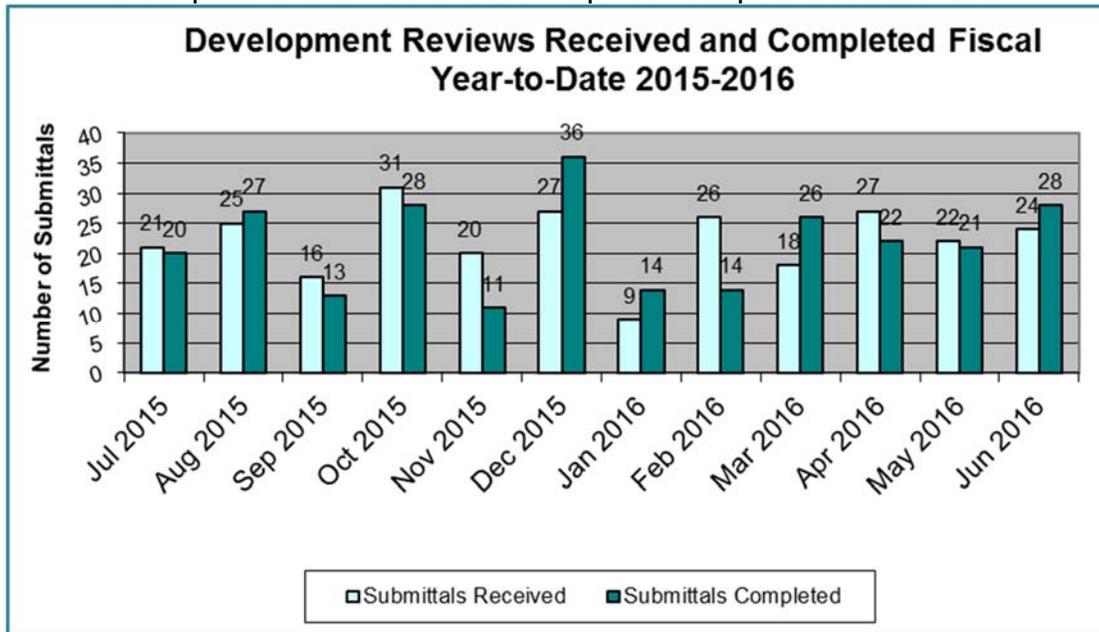


Table 7.1 – Nonpotable, Stormwater, Water, and Wastewater Projects

<i>LEGEND</i>			
<i>Project Type</i>		<i>Phase Of Project</i>	
Nonpotable	Purple		Beginning Planning
Stormwater	Magenta		Planning Completed
Water	Blue		Beginning Design
Wastewater	Green		Ending Design
			Beginning Construction
			Construction Continuing
			Project Completed
<i>Projects</i>	<i>Project Type</i>	<i>Cost</i>	<i>Project Phase</i>
Capital Improvement and Energy Management Plan EIR (M12019)		\$400,000	
Water Well 25 & 26 Engine Conversion (M14020)		\$282,800	
Crown and Pershing Avenues Sewer Crossing at the Calaveras River (M13005)		\$1,999,000	
Highway 99 at Farmington Fresh Sewer Replacement (M14034)		\$238,000	
2014 Sanitary Sewer Maintenance Hole Rehabilitation Project (M15004)		\$5,000,000	
Eighth Street Storm Water Pump Station (M14019) and Weston Ranch Storm Water Pump Station (M13014)		\$208,000	
Rehabilitation/Replacement of Distributor Arms - Biotower No. 4 (M14027)		\$355,750	
Rehabilitate Don Avenue (M13010) and Thornton Road (M13009) Sanitary Pump Stations		\$590,000	
Rehabilitate Harding Way Subway (M15010) and Wilson Way Subway (M15011) Storm Drain Pump Stations Design		\$134,000	
Storm Drain Pump Stations & Forcemains Cathodic Protection Repairs (M16010)		\$74,506	
SCADA Master Plan – Outfall Controls Improvements (Task 8.5, - M14010)		\$259,638	
Swenson Park Access Road Rehabilitation (M16015)		\$313,000	

THIS PAGE INTENTIONALLY LEFT BLANK

Stormwater

THIS PAGE INTENTIONALLY LEFT BLANK

Table 8.1 – Stormwater Maintenance Activity Summary

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YTD
Repairs – Storm													
# of Catch Basin Lateral Repairs/New	0	0	0										0
Catch Basin Lateral Repairs/New, Linear Feet	0	0	0										0
# of Storm Main Line Repairs	1	1	0										2
Storm Main Line Repairs, Linear Feet	120	240	0										360
# of Catch Basin Storm Repairs/New	1	1	2										4
# of Storm Maintenance-hole Repairs/New	0	1	0										1
Storm – Maintenance													
# of Catch Basin Laterals Cleaned	0	92	98										190
Catch Basin Laterals Jetted, Linear Feet	0	51	0										51
# of Catch Basin Laterals Rodded	0	4	2										6
Catch Basin Laterals Rodded, Linear Feet	0	200	0										200
# of Storm Main Lines Jetted	0	0	1										1
Storm Main Lines Jetted, Linear Feet	0	0	300										300
# of Storm Main Lines Rodded	0	0	0										0
Storm Main Lines Rodded, Linear Feet	0	0	0										0
# of Storm Maintenance-holes Cleaned	1	1	0										2
# of Storm Pump Stations Cleaned	13	13	9										35
# of tons of Debris Removed from Storm Stations	10.10	6.10	5.20										21.40
# of Storm Catch Basins Inspected	2,920	1,563	0										4,483
# of Storm Catch Basins Stenciled	770	468	0										1,238
# of Storm Event Calls	0	0	0										0
Storm Event Line Clean-up, Linear Feet	0	0	0										0
TV Storm Line Segment Inspections	2	2	1										5
TV Storm Line Segment Inspections, Linear Feet	316	262	61										639
Spoils Storm Pump Stations / CBs - # of Loads	0	0	0										0
Spoils Storm Pump Stations / CBs - Tonnage	0	0	0										0

(Chart totals do not include work done by contractors.)

Comparison Year 2015-2016 – Stormwater Maintenance Activity Summary

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YTD
Repairs – Storm													
# of Catch Basin Lateral Repairs/New	1	0	0	0	0	0	0	0	1	0	0	0	2
Catch Basin Lateral Repairs/New, Linear Feet	16	0	0	0	0	0	0	0	7	0	0	0	23
# of Storm Main Line Repairs	1	0	0	0	0	0	0	3	0	0	2	2	8
Storm Main Line Repairs, Linear Feet	3	0	0	0	0	0	0	4	0	0	2	5	14
# of Catch Basin Storm Repairs/New	1	2	0	1	0	1	1	0	1	0	1	3	11
# of Storm Maintenance-hole Repairs/New	5	1	0	0	0	0	0	1	0	0	1	1	9
Storm – Maintenance													
# of Catch Basin Laterals Cleaned	1	28	72	7	16	93	9	5	13	1	12	1	258
Catch Basin Laterals Jetted, Linear Feet	25	60	245	278	30	152	0	0	766	50	150	0	1,756
# of Catch Basin Laterals Rodded	0	0	0	0	1	1	0	0	6	0	0	0	8
Catch Basin Laterals Rodded, Linear Feet	0	0	0	0	35	2	0	0	390	0	0	0	427
# of Storm Main Lines Jetted	0	4	0	0	2	1	2	1	5	3	0	2	20
Storm Main Lines Jetted, Linear Feet	0	664	0	0	400	380	200	400	1,255	510	0	580	4,389
# of Storm Main Lines Rodded	0	0	0	0	0	0	5	0	0	0	0	0	5
Storm Main Lines Rodded, Linear Feet	0	0	0	0	0	0	975	0	0	0	0	0	975
# of Storm Maintenance-holes Cleaned	0	1	0	0	0	1	1	0	12	1	0	2	18
# of Storm Pump Stations Cleaned	2	6	3	6	0	0	0	0	0	0	1	3	21
# of tons of Debris Removed from Storm Stations	.30	6.15	5.00	2.50	0.00	0.00	0	0	0	0	.15	1	14.10
# of Storm Catch Basins Inspected	739	474	239	35	0	3	0	1	3	0	0	0	1,494
# of Storm Catch Basins Stenciled	332	257	63	0	0	0	0	0	0	0	0	0	652
# of Storm Event Calls	0	0	0	0	174	17	534	3	165	1	0	0	894
Storm Event Line Clean-up, Linear Feet	0	0	0	0	55	100	1,659	50	364	75	0	0	2,303
TV Storm Line Segment Inspections	1	0	1	0	0	0	1	2	0	2	0	1	8
TV Storm Line Segment Inspections, Linear Feet	289	0	460	0	0	0	18	77	0	199	0	19	1,062
Spoils Storm Pump Stations / CBs - # of Loads	0	0	0	2	1	0	0	0	0	0	0	0	3
Spoils Storm Pump Stations / CBs - Tonnage	0	0	0.00	18.22	14.40	0.00	0	0	0	0	0	0	33

(Chart totals do not include work done by contractors.)

Table 8.2 – Inspections

	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>
Total Sites	24	25	22									
Inspections	24	25	22									
Verbal Warnings	10	8	7									
Correction Orders	4	8	0									
Notice to Clean	3	5	4									
Notice of Violation	2	1	0									
Admin. Citations	0	3	0									
Referred to RWQCB	1	1	0									

Inspections – Comparison Year 2015-2016

	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>
Total Sites	18	22	21	21	20	22	22	24	24	24	20	24
Inspections	18	22	21	21	20	22	22	24	24	24	20	24
Verbal Warnings	4	8	10	9	10	9	11	13	3	8	5	10
Correction Orders	2	6	5	8	5	7	9	10	3	4	3	4
Notice to Clean	2	6	6	5	7	7	5	7	2	4	3	3
Notice of Violation	1	0	0	0	0	0	0	0	3	2	1	2
Admin. Citations	1	0	0	0	0	0	0	0	3	0	0	0
Referred to RWQCB	1	0	0	0	0	0	0	0	1	1	1	0

Table 8.3 –Stormwater Pumping Facilities Work Order Summary

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Pump Station Mechanical												
<i>Corrective Maintenance</i>	6	N/A	N/A									
% Completed	4	N/A	N/A									
% Backlog	33.3											
<i>Preventive Maintenance - % Backlog</i>	30.9	N/A	N/A									
Pump Station Electrical												
<i>Corrective Maintenance</i>	6	N/A	N/A									
% Completed	83.3	N/A	N/A									
% Backlog	16.7	N/A	N/A									
<i>Preventive Maintenance - % Backlog</i>	25.0	N/A	N/A									

Work Order Summary - Comparison Year 2015-2016

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Pump Station Mechanical												
<i>Corrective Maintenance</i>	11	22	8	8	11	8	21	10	7	40	13	14
% Completed	54.5	50.0	50	37.5	54.5	87.5	10	60.0	42.9	15.0	92.3	92.9
% Backlog	45.5	50.0	50	62.5	45.5	12.5	52.4	40.0	57.1	85.0	7.7	7.1
<i>Preventive Maintenance</i>												
% Backlog	81.1	41.0	69.2	74.8	76.1	27.8	75.7	50.3	64.2	27.1	13.2	18.7
Pump Station Electrical												
<i>Corrective Maintenance</i>	9	15	13	6	12	6	14	9	27	11	10	11
% Completed	100.0	80.0	53.8	66.7	100.0	100.0	71.4	88.9	51.9	54.5	70.0	100.0
% Backlog	0.0	20.0	46.2	33.3	0.0	0.0	28.6	11.1	48.1	45.5	30.0	0.0
<i>Preventive Maintenance - % Backlog</i>	75.0	100.0	100	100	0.0	77.3	0.0	52.2	0.0	25.0	42.9	73.7

Administration

Safety and Training Activities

Table 9.1 – Summary of Unsafe Conditions or Acts

	<i>Current Month</i>	<i>Calendar Year</i>
Number of Unsafe Conditions or Acts Reported	1	8
Number of Vehicle Incidents: No Fault of Employee	0	4
Number of Vehicle Incidents: Fault of Employee	1	4

Table 9.2 – Summary of Work-Related Injuries and Illnesses

	<i>Current Month</i>	<i>Calendar Year</i>
Number of Cases	1	18
Number of Cases with Lost Time	1	6
Number of Cases with Work Restrictions	1	8

Table 9.3 – Summary of Safety Training

	<i>Hours Delivered</i>	<i># of Attendees</i>	<i>Total Attendee Hours</i>
Tailgate Sessions			
Buckle Up	0.5	6	3
Close Look at Close Calls	0.5	6	3
Preventing Overexertion	0.5	6	3
Vac Truck Safety	1	32	32
General Training			
Fire Drill	1	62	62
PPE Training	1	168	168
TOTAL	4.5	280	271

Human Resources Operational Activities

Table 9.4 – Staffing Summary

<i>Divisions</i>	<i># of Positions</i>	<i># of Employees</i>	<i>Vacancies</i>	<i>Change (+/-)</i>
Administration	19	15	4	-1
Financial Services	5	5	0	
Collections	48	44	4	
Engineering	14	13	1	
Environmental Control	7	6	1	+1
Laboratory	7	6	1	-1
Maintenance	43	36	7	
Wastewater Treatment	31	28	3	
Water Treatment/Distribution	27	23	4	
Water Resources/Treatment	17	16	1	
Total Staff Count	218	192	26	+1/-2

Table 9.5 – Overtime Summary

<i>Division</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>
Administration	13.5	3.75	21									
Financial Services	0	1.5	3									
Collections	266	291	315									
Engineering	4	0	0									
Env. Control	22.25	30.75	21.5									
Laboratory	11.75	0	6									
Maintenance	218.50	200.25	246.25									
WW Treatment	708.25	657.75	761.75									
Stormwater	0	18	23									
Water Distribution	114	96.75	97.50									
Water Resources	1.5	0	0									
Water Treatment	263.25	257	269.75									
TOTALS	1623.00	1556.75	1764.75									

Overtime Summary – Comparison Year 2015-2016

<i>Division</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>
Administration	8	3	22.25	14.75	17.75	12.75	26.25	18.75	15.25	17.5	18.5	22.25
Financial Services	0	0	0	0	0	0	2.5	3.25	2.5	0	.5	0
Collections	465	473.25	518	438	167	220.5	250.25	210.75	297.5	144.25	126.75	178.25
Engineering	0	4	9.5	21	6	0	0	0	2.5	3	6	7.5
Env. Control	32.5	13.5	5	28	29.5	40	9	19.5	81.75	36.75	13.25	17
Laboratory	10	0	7.5	0	16	8.75	18.5	13.75	8	8.5	7	9.5
Maintenance	248	352.75	279	574.25	198.5	296.75	796.00	376.25	574.75	234	253	114.50
WW Treatment	567	754.75	658.5	689.75	959.25	686.25	744.75	760.25	725.50	606	721	734.5
Stormwater	0	0	0	0	0	0	0	0	0	0	0	12.5
Water Distribution	192.5	164.75	226.25	105.5	124.5	122.5	199.25	103.50	108.75	81.5	114.25	161.25
Water Resources	0	0	7.5	0	0	0	0	0	7.25	7.5	6.25	0
Water Treatment	359.5	331.50	261.25	368	466.25	347.25	364.75	269.75	227.50	175.5	184	190
TOTALS	1882.50	2097.50	1994.75	2239.25	1984.50	1734.75	2411.25	1775.75	2051.25	1314.50	1450.50	1447.25

Appendix A

Water

Title 22 Compliance Water Well Sampling Summary Well System Operations

THIS PAGE INTENTIONALLY LEFT BLANK

Title 22 Compliance - Drinking Water Monitoring

Compliance Sampling

Title 22 Monthly Compliance Report

Source & Distribution System (excluding monthly bact sampling)

Required Monitoring

updated: 10-04-16

Source (Well # or DS)	Sample Date	Parameter
32	09-07-16	VOCs

Exceptions

NONE

Well Status Changes

NONE

Other

NONE

Appendix B

Environmental Compliance

Monitored Industrial User Charges

Customer Charges Report

Septic Waste Haulers' Charges

THIS PAGE INTENTIONALLY LEFT BLANK

9/28/2016

MONITORED INDUSTRIAL USER MONTHLY CHARGES

CUST ID #	COMPANY	CHG CODE	STANDBY			LOADING			OTHER	SUB-TOTAL	ADMIN FEE	TOTAL
			FLOW	BOD	TSS	FLOW	BOD	TSS				
6305	American Sunny Foods	SIM15	0.48	1.20	0.45	0.11	0.52	0.26	\$0.00	\$23.16	\$563.03	
86601	Boretech Resource Recovery	SIM33	0.83	0.68	0.17	0.76	0.09	0.04	\$0.00	\$23.16	\$1,019.18	
85629	Foodliner	SIM16	0.51	39.92	1.25	0.26	39.92	0.33	\$0.00	\$23.16	\$6,026.19	
84901	Niagara 811 Zephyr	SIM28	7.86	12.78	3.29	2.11	0.00	0.27	\$0.00	\$23.16	\$7,481.77	
86651	JIMS Holding Company LLC	SIM2				0.02	0.00	0.00	\$7.41	\$23.16	\$43.49	
4960	California Tank Lines	SIM17	1.00	14.18	4.90	0.77	4.81	3.46	\$0.00	\$23.16	\$3,194.67	
6240	Campbell Soup Supply	SIM12	65.00	330.00	230.00	43.48	172.86	151.93	\$0.00	\$23.16	\$127,860.36	
43328	Cintas Corporation	SIM24	3.60	23.00	12.00	2.87	3.38	2.90	\$0.00	\$23.16	\$7,207.72	
6245	Ingredion Incorporated	SIM3	40.45	458.58	93.50	24.13	345.77	57.92	\$0.00	\$23.16	\$106,221.03	
88946	Le Toile	SIM34	0.35	0.35	0.30	0.07	0.29	0.05	\$0.00	\$23.16	\$348.02	
83095	California Health Care Facility	US6				2.07			\$0.00	\$23.16	\$5,630.17	
43838	Midway, Crosstown Commons	SIM4	3.00	10.00	0.30	0.00	0.00	0.00	\$0.00	\$23.16	\$2,880.21	
6270	Diamond of California	SIM5	8.00	210.00	145.00	2.81	34.23	13.90	\$0.00	\$23.16	\$39,900.84	
76519	Dole Packaged Foods LLC Stock	SIM30	1.22	10.30	5.22	0.32	1.46	0.55	\$0.00	\$23.16	\$2,427.36	
5700	Duralframe	SIM14	3.10	3.75	1.75	0.06	0.01	0.01	\$0.00	\$23.16	\$2,087.21	
5100	San Joaquin County French Camp	US4				10.34			\$0.00	\$23.16	\$28,092.82	
34202	Grimaud Farms	SIM19	0.80	6.00	2.00	1.05	5.03	1.93	\$0.00	\$23.16	\$2,111.32	
47912	New Stockton Poultry	SIM25	0.75	8.37	3.04	0.62	3.01	0.93	\$0.00	\$23.16	\$2,032.59	
52651	Niagara	SIM27	7.50	2.04	0.75	6.39	0.92	0.75	\$0.00	\$23.16	\$8,352.65	
5625	Northern California Youth Center	US8				4.26			\$0.00	\$23.16	\$11,562.50	
61285	Pacific Ethanol	SIM29	4.50	3.94	1.45	1.64	0.74	0.40	\$0.00	\$23.16	\$4,204.49	
89372	AFCOM Tech Svcs	US5				0.36			\$0.00	\$23.16	\$813.22	
11149	Port of Stockton - Rough and Ready	US2				2.14			\$0.00	\$23.16	\$5,825.49	
6250	DTE	SIM10	5.50	7.62	7.62	3.00	0.18	0.81	\$0.00	\$23.16	\$6,355.96	
86113	Aramark	SIM18	6.93	26.60	6.77	3.02	9.96	2.85	\$0.00	\$23.16	\$9,838.32	
21193	Stockton Sanitary Wash Rack	SIM20	0.64	50.06	5.12	0.15	35.14	0.28	\$0.00	\$23.16	\$7,155.38	
42136	Tankwash USA	SIM22	1.00	22.39	6.79	0.75	20.34	2.45	\$0.00	\$23.16	\$4,650.21	
88939	Mizkan (R&B Foods)	SIM13	60.00	675.00	300.00	39.90	338.11	251.10	\$0.00	\$23.16	\$174,226.32	
40039	Unifirst Corp	SIM21	3.25	16.82	4.44	2.39	14.84	3.56	\$0.00	\$23.16	\$6,037.94	
80635	Wilmar Gavilon LLC	SIM31	1.00	1.50	1.00	0.41	0.32	0.16	\$0.00	\$23.16	\$1,099.18	
83502	Zacky Kitchens	SIM11	5.37	6.32	8.86	1.33	3.57	1.88	\$0.00	\$23.16	\$5,541.40	
APPROVED BY:			232.63	1944.38	845.96	167.59	1035.50	486.55	\$7.41	\$717.96	\$590,821.05	

\$590,821.05

9/28/2016

WORKSHEET FOR MONITORED INDUSTRIAL USER MONTHLY CHARGES

August-16

COMPANY	CURRENT FLOW READING	PREVIOUS FLOW READING	TOTAL MONTHLY FLOW	AVERAGE BOD	TOTAL 1,000 LBS BOD	AVERAGE TSS	TOTAL 1,000 LBS TSS	OTHER CHARGES \$0.00	DATE ENTERED Mo.-Yr. Sep-16
American Sunny Foods	33223614	3214212	0.11	570	0.52	289.52	0.26	\$0.00	Sep-16
Boretech Resource Recovery	6516119	5759754	0.76	14	0.09	6.8	0.04	\$0.00	Sep-16
Foodliner	28615206	28357072	0.26	18543	39.92	152.333	0.33	\$0.00	Sep-16
Niaqara 811 Zephyr	203374094	201265054	2.11	0	0.00	15.4	0.27	\$0.00	Sep-16
JMS Holding Company, LLC	228041109	228016752	0.02	0	0.00	0	0.00	\$0.00	Sep-16
California Tank lines	76144318	75370605	0.77	745	4.81	536	3.46	\$0.00	Sep-16
Campbell Soup Supply	513686280	470202480	43.48	476	172.86	416	151.93	\$0.00	Sep-16
Cintas Corporation	156923200	154054840	2.87	141	3.38	121	2.90	\$0.00	Sep-16
Inprecion	1094374144	1069227840	24.13	1740	345.77	285	57.92	\$0.00	Sep-16
Le Tote	121360	46380	0.07	469.75	0.29	76	0.05	\$0.00	Sep-16
California Health Care Facility	13383519	11317488	2.07	0	0.00	0	0.00	\$0.00	Sep-16
Midway, Crosstown Commons	1588020	1588020	0.00	0	0.00	0	0.00	\$0.00	Sep-16
Diamond of California			2.81	1471	34.23	597	13.90	\$0.00	Sep-16
Dole Packaged Foods LLC Stockton	23415718	23097359	0.32	549	1.46	207.5	0.55	\$0.00	Sep-16
Duraflame/Cal Cedar	5970004	5907350	0.06	23.5	0.01	12.5	0.01	\$0.00	Sep-16
San Joaquin County - French Camp			10.34					\$0.00	Sep-16
Grimaud Farms	100424590	98378253	1.05	576.8	5.03	221.6	1.93	\$0.00	Sep-16
New Stockton Poultry	72758229	72135931	0.62	580.6	3.01	179.4	0.93	\$0.00	Sep-16
Niaqara	74640228	68250629	6.39	17.2	0.92	14	0.75	\$0.00	Sep-16
Northern California Youth Center	184236336	179977032	4.26	170	6.04	167	5.93	\$0.00	Sep-16
Pacific Ethanol	13212242	11570117	1.64	54	0.74	29	0.40	\$0.00	Sep-16
AECOM (was Parsons Eng)			0.36					\$0.00	Sep-16
Port of Stockton - Rough and Ready			2.14					\$0.00	Sep-16
DTE Stockton	127944381	124944736	3.00	7.25	0.18	32.4	0.81	\$0.00	Sep-16
Aramark	14733900	11712100	3.02	395	9.96	105.00	2.65	\$0.00	Sep-16
Stockton Sanitary Wash Rack	3612672	3462476	0.15	28055	35.14	222	0.28	\$0.00	Sep-16
Tankerwash USA	62411578	61660742	0.75	3248	20.34	392	2.45	\$0.00	Sep-16
Mizkan	72446470	32549990	39.90	1055	338.11	775	251.10	\$0.00	Sep-16
Unifirst Corp	3151236	947407	2.39	745	14.84	178.89	3.56	\$0.00	Sep-16
Wilmar Cavilon LLC	9490196	9079184	0.41	92	0.32	52.0	0.16	\$0.00	Sep-16
Zacky Kitchens	135290335	133957260	1.33	331	3.57	176	1.86	\$0.00	Sep-16
TOTAL			157.59		1041.54		504.48	\$0.00	

9/19/2016

Customer Monthly Charges Report
 Date Range: 8/1/2016 to 8/31/2016

Customer ID	Customer Name	Total Gallons	Gallon Charge	Trip Charge	Other Charges	Total Charges
85508	A-1 Septic	0	\$0.00	\$0.00	\$0.00	\$0.00
10708	A & A Portables	20,085	\$195.83	\$693.00	\$0.00	\$888.83
78477	A & J Rentals	8,800	\$85.80	\$616.00	\$0.00	\$701.80
11153	AAA Septic & Rooter	47,600	\$464.10	\$1,078.00	\$0.00	\$1,542.10
11491	ABC Plumbing	0	\$0.00	\$0.00	\$0.00	\$0.00
10495	ET Services	0	\$0.00	\$0.00	\$0.00	\$0.00
6195	Frank & Jrs Sewer Service	53,550	\$522.11	\$1,309.00	\$0.00	\$1,831.11
6200	G & C Septic	9,692	\$94.50	\$231.00	\$0.00	\$325.50
4735	Parrish and Sons	136,600	\$1,331.85	\$2,926.00	\$0.00	\$4,257.85
75717	Premium Packing	4,500	\$43.88	\$231.00	\$0.00	\$274.88
6210	Richards Pumping	147,500	\$1,438.13	\$4,543.00	\$0.00	\$5,981.13
39444	Roto Rooter Sewer Service	175,749	\$1,713.55	\$3,542.00	\$0.00	\$5,255.55
74032	SRC Pumping Co	75,718	\$738.25	\$1,309.00	\$0.00	\$2,047.25
Grand Totals		679,794	\$6,627.99	\$16,478.00	\$0.00	\$23,105.99

Approved By: _____

9/19/2016

Septic Waste Haulers Monthly Charges

Date Range: 8/1/2016 to 8/31/2016

Customer Name	Truck License	Tank Capacity	Total Trips	Total Gallons	Per 1000 Gal \$9.75	Per Trip \$77.00	Additional Charges
A-1 Septic	52396P1	2500	0	0	\$0.00	\$0.00	\$0.00
A&A Portables	54107P1	1600	6	9,600	\$93.60	\$462.00	\$0.00
A&A Portables	8K42091	3495	2	6,990	\$68.15	\$154.00	\$0.00
A&A Portables	8H57716	1400	0	0	\$0.00	\$0.00	\$0.00
A&A Portables	27308L1	2000	0	0	\$0.00	\$0.00	\$0.00
A&A Portables	7X14631	1500	0	0	\$0.00	\$0.00	\$0.00
A&A Portables	44377M1	3495	1	3,495	\$34.08	\$77.00	\$0.00
A&J Rentals	8A44004	650	0	0	\$0.00	\$0.00	\$0.00
A&J Rentals	66261V1	1100	8	8,800	\$85.80	\$616.00	\$0.00
AAA Septic & Rooter	7S15871	3400	14	47,600	\$464.10	\$1,078.00	\$0.00
ABC Plumbing	7X61008	2400	0	0	\$0.00	\$0.00	\$0.00
ET Services	7M36196	4000	0	0	\$0.00	\$0.00	\$0.00
Frank & Jrs Sewer Service	8M50181	3150	17	53,550	\$522.11	\$1,309.00	\$0.00
G&C Septic	33525L1	3350	1	3,350	\$32.66	\$77.00	\$0.00
G&C Septic	8W07059	3171	2	6,342	\$61.83	\$154.00	\$0.00
Parrish and Sons	43308P1	3600	37	133,200	\$1,298.70	\$2,849.00	\$0.00
Parrish and Sons	7H09683	3400	1	3,400	\$33.15	\$77.00	\$0.00
Premium Packing	7R84640	1500	3	4,500	\$43.88	\$231.00	\$0.00
Richards Pumping	SE598579	2500	59	147,500	\$1,438.13	\$4,543.00	\$0.00
Roto Rooter Sewer Services	7T36952	3382	5	16,910	\$164.87	\$385.00	\$0.00
Roto Rooter Sewer Services	5E84939	3200	4	12,800	\$124.80	\$308.00	\$0.00
Roto Rooter Sewer Services	1055401	3947	37	146,039	\$1,423.88	\$2,849.00	\$0.00
SRC Pumping Co	4DE5675	4454	17	75,718	\$738.25	\$1,309.00	\$0.00
Monthly Total Charges:			214	679,794	\$6,627.99	\$16,478.00	\$0.00

Grand Total: \$23,105.99