



Agenda

San Miguel Community Services District

Equipment & Facilities Committee Meeting

Wednesday, February 10, 2016
12:00 noon

SMCSD Boardroom 1150 Mission St. San Miguel, CA 93451

Cell Phones: As a courtesy to others, please silence your cell phone or pager during the meeting and engage in conversations outside the Boardroom.

Americans with Disabilities Act: If you need special assistance to participate in this meeting, please contact the CSD Clerk at (805) 467-3388. Notification 48 hours in advance will enable the CSD to make reasonable arrangements to ensure accessibility to this meeting. Assisted listening devices are available for the hearing impaired.

Public Comment: When public attendance is over ten (10) persons, the following policies will go into effect: Any person wishing to address the Board or Standing Committee, please complete a "Request to Speak" form located at the podium in the boardroom in order to address the Board of Directors on any agenda item. Comments are limited to three minutes, unless you have registered your organization with CSD Clerk prior to the meeting.

If you wish to speak on an item not on the agenda, you may do so under "Oral Communications." Any member of the public may address the Board of Directors on items on the Consent Calendar. Please complete a "Request to Speak" form as noted above and indicate which item number you wish to address.

Meeting Schedule: Regular Board of Director meetings are generally held on the fourth Thursday of each month at 7:00 P.M in the CSD boardroom. The Agenda's are posted on the CSD's website at: www.sanmiguelcsd.org

Agendas: Agenda packets are available for the public inspection 72 hours prior to the scheduled meeting at the Counter/ San Miguel CSD, Fire Station located at 1150 Mission St., San Miguel, during normal business hours. Any agenda-related writings or documents provided to a majority of the Board of Directors after distribution of the agenda packet are available for public inspection at the same time at the counter/ San Miguel CSD, Fire Station located at 1150 Mission St., San Miguel, during normal business hours.

I. **Call to Order** **12:00 NOON**

II. **Pledge of Allegiance**

III. **Roll Call** **Directors: Kalvans_____** **Reuck_____**

IV. **Oral and Written Communications:** Persons wishing to speak on a matter not on the agenda may be heard at this time; however, no action will be taken until placed on a future agenda. Speakers are limited to three minutes. Please complete a “Request to Speak” form and place in basket provided.

V. **AGENDA**

1. Discuss and Review of revisions to Will Serve Letters procedures and revisions to will serve and inspection charges.

Staff Recommendation: Discuss and Review proposed revisions to existing Will Serve Letters for new development services and related charges for will serve and inspection procedures and Recommend that the Board of Directors approve the proposed revisions.

2. Discuss and Review of Preliminary Wastewater Treatment Plant (WWTP) Loading Study.

Staff Recommendation: Consider and discuss a preliminary report on Wastewater Treatment Plant Loading Study and make a recommendation to Board of Directors for action. .

3. Discuss and Overview of Sanitary Sewer Master Plan (SSMP) Purpose and Goals.

Staff Recommendation: Consider and discuss an overview of a SSMP purpose and goals.

4. Discuss and Review the use of Fire Department vehicles for utility related work

Staff Recommendation: Discuss and make a recommendation to Board for Fire Department vehicles being used for utility related work.

5. Discuss and Review of a proposal to repair SLT Wellhouse roof due to damages.

Staff Recommendation: Discuss and Review a proposal to repair roof structure at SLT Wellhouse at a cost not to exceed \$5,000.

(continued to next page)

VI. COMMITTEE COMMENTS:

This section is intended as an opportunity for Committee members to make brief announcements, request information from staff, request future agenda item(s) and/or report on their own activities related to District business. No action is to be taken until an item is placed on a future agenda.

VII. ADJOURNMENT

Time: _____

STATE OF CALIFORNIA)
COUNTY OF SAN LUIS OBISPO) ss.
COMMUNITY OF SAN MIGUEL)

I, Tamara Parent, Account Clerk of San Miguel Community Services District, hereby certify that I caused the posting of this agenda at the SMCS D district office on February 3, 2016.

Date: February 4, 2016

Tamara Parent

Tamara Parent, Account Clerk



San Miguel Community Services District Equipment & Facilities Committee

Staff Report

February 10, 2016

AGENDA ITEM: V-1

SUBJECT: Discuss and Review of proposed revisions to Will Serve Letter and Inspection Procedures and Fee Charges.

STAFF RECOMMENDATION:

Committee should discuss and review a proposed revision to District's Will Serve Letter and Inspection Procedures and Fee Charges.

BACKGROUND:

This item is to consider and discuss a proposed revision to District's Will Serve Letter and Inspection Procedures and Fee Charges. This proposal is a comprehensive revision to existing procedures including related fee charges for existing District functions and services provided for water and sewer systems and fire safety services.

The purpose of this proposal is update the District's cost for these services that are typically tied to new development but also certain building activities like commercial building expansion or specific fire safety inspections. The existing Will Serve and Inspection Procedures have not been amended for more than 4 years while costs and regulatory requirements have increased.

Committee Members should review the proposed revisions and make a recommendation to the Board to approve the proposed revisions to the District's Will Serve Letter and Inspection Procedures including related fee charges. These revisions are listed on the 2016 E & F Work Program.

On January 14th this item was reviewed and the changes are noted in the provided documentation

Fiscal Impact:

There is no fiscal impact associated with approving and adopting new procedures and fee charges related to the District's Will Serve and Inspection Procedures. The proposed increase in fee charges will, over time, provide an increase in revenues for these services being performed.

Staff Recommendation: Staff recommends that the Committee recommend approval to the Board.

PREPARED BY:

Kelly Dodds
Utility Supervisor

APPROVED BY:

Darrell Gentry
General Manager

Attachment: Proposed revisions to Will Serve & Inspection Procedures and Fee Charges
Exhibit B – Fee Schedule
Engineering Reimbursement Agreement Form

San Miguel Community Services District
Application for Fire Safety &
Water/ wastewater Will Serve:
Packet & Information

1/4/16

Revision 2-3-16

Fees required at time of application submission: \$1150.00

Fee Breakdown as follows:

1. *A Will Serve Application deposit fee of \$1000.00.*
2. *Fire Safety Review Letter Fee of \$150.00. If the project is over 5000 square feet (sf), an additional fee of \$.025 per sf over 5000 sf will be required.*
3. *Note that additional fees may be due at time of Will Serve Letter, or Fire Safety Letter pickup*

Application check list

Information required for all applications:

Completed Fire ***Safety & Water/ wastewater Will Serve Application***

Items to attach to application:

- 1 Plot Plan
Construction Plans - 1 Electronic PDF file submitted on disc
- 2 Construction Plans – 1 Complete Full Size Plan Set
- 3 Grant Deed or Lot Book Guarantee
- 4 Initial application fee in the amount of \$1150.00

Additional information required for all non-residential applications:

Completed ***Wastewater Survey Form***

Survey is required for all non-residential applications. A Wastewater Discharge Permit may be required based on the information provided in the Wastewater Survey.

Items to attach to application:

- 1 Submit ***Signature of Receipt*** for all non-residential uses.

Completed ***Wastewater Discharge Permit Application***

All food service and/or processing uses are must obtain a wastewater discharge permit and install grease interceptors. A Wastewater Discharge permit may be required for other uses based on the information provided in the Wastewater Survey.

Items to attach to application:

- 1 Specifications of proposed Grease Trap or Interceptor
- 2 Cut Sheets for proposed Grease Trap or Interceptor
- 3 Submit ***Signature of Receipt*** for all non-residential uses.

NOTICE TO BUILDERS/CONTRACTORS/HOMEOWNERS

San Miguel Community Services District Ordinance 2002-3 requires a capital facilities fee of \$.65 per square foot of newly constructed space on all new construction and/or addition, and \$1.19 per square foot of second story newly constructed space or addition.

Comment [KD1]: Need correct ordinance#

San Miguel Community Services District Ordinance 2010-1 requires the following to be fitted with fire safety sprinklers:

New Construction An automatic fire extinguishing system shall be installed and maintained in all new buildings in all occupancies, regardless of type of construction in excess of 500 square feet, for which any Building Permit is issued after the effective date of this Ordinance.

Exceptions:

- (i) Detached Group B, C, M occupancies not exceeding 500 square feet and located at least 10 feet from adjacent buildings and in compliance of all county setbacks from adjacent property lines.
- (ii) Some "U" * uses may be exempted by the fire code official based on specific use (i.e. carports, fences, livestock shelters)

* May not exceed 500 square feet – must be at least 10 feet from adjacent buildings – no second stories – minimum two exists including one pedestrian door – workshops or offices limited to 10% of floor area – cannot be used for a place of employment or for public assemblage/events – cannot be used as a commercial building.

Note: "U" occupancies converted to conditioned habitable space will be required to install an automatic fire extinguishing system.

Existing Construction An automatic fire extinguishing system shall be installed in all existing buildings or structures where proposed or ongoing additions, seismic retrofit, alterations or repairs are commenced over a three-year period, which meet one or more of the following:

- (i) Throughout structure where additions to existing buildings adds up to more than 25% of the original square footage;
- (ii) Alterations including modifications to an existing structure which involves complete removal and replacement of 25% or more of the wallboard;
- (iii) Have a total floor area exceeding five thousand (5,000) square feet;
- (iv) When a second story or higher is added;
- (v) When occupancy change increases fire risk or hazard, as determined by the fire code official.

For the purpose of calculating square footage for the application of fire sprinkler and fire flow requirements, the floor area shall include all combustible areas attached the structure, including garages, patio covers or common areas (protected on three sides), overhangs over 2 feet, and covered walkways.

Furthermore, when an automatic fire extinguishing system is required for an existing single family residence due to an addition the addition and all existing rooms and spaces in the residence shall be equipped with the fire sprinkler system as required by the fire code in effect.

Regardless of additions, alterations or repairs in existing sprinklered buildings, sprinkler coverage shall remain as per the National Fire Protection Association 13, 13R, or 13D Standards, whichever are applied by the fire code official.

Single-family residence builders please note:

Your sprinkler contractor's design and calculations will determine the size of the water meter required. Please consult with your sprinkler contractor prior to requesting your water meter to be installed.

**San Miguel Community Services District
Service Fee and Deposit Schedule**

CURRENT FEES

WATER AND SEWER

Water Unit	\$24,478.00	
Sewer Unit	\$5,441.00	
Water Meter Upgrade to 1"	\$100.00	
Water Meter Upgrade to 1.5"	\$425.00	
Water Meter Upgrade to 2"	\$535.00	
New Meter Install 5/8" - 1"	\$750.00	Covers staff labor & materials for installation
New Meter Install 1.5" - 2"	\$1,000.00	Covers staff labor & materials for installation
Additional Meter Install	\$750.00	Plus \$375 for each add'l meter installed
Underground Inspection (Per utility connection to existing main line, i.e.: Water service, fire service and sewer service connection to main line.)	\$280.00	Residential or Commercial where no deposit agreement is in place.
Back Flow Prevention Fee	\$1.00	Billed monthly per backflow device
New Service Application	\$40.00	

FIRE

Fire Capital Facilities Charge	\$0.65	per SF (single story); \$1.10 per SF (2-story)
Fire Plan Review	\$175.00	minimum + .025 per SF over 5000 SF
Automatic Fire Sprinkler Sys - Commercial	\$245.00	Up to 26,000 SF

ADDITIONAL FEES

Minimum Plan Review Fee	\$75.00	per plan review
Will Serve Letter Application Fee	\$350.00	

LIST OF CURRENT DEPOSITS

New Meter Installation 5/8" - 1"	\$750.00	Covers staff labor & materials for install. If costs incurred are <\$750, the difference will be refunded. If >\$750, difference will be billed.
New Meter Installation 1.5" - 2"	\$1,000.00	Covers staff labor & materials for install. If costs incurred are <\$750, the difference will be refunded. If >\$750, difference will be billed.
Construction Fire Hydrant Meter	\$750.00	Plus monthly usage charges.
Additional Meter (for splitting two connections)	\$750.00	Plus \$375 deposit for each add'l meter installed.

FIRE SAFETY & WATER/WASTEWATER WILL SERVE APPLICATION

Fees required at time of application submission: \$1150.00

Fee Breakdown as follows:

- 1. A Will Serve Application deposit fee of \$1000.00.*
- 2. Fire Safety Review Letter Fee of \$150.00. If the project is over 5000 square feet (sf), an additional fee of \$.025 per sf over 5000 sf will be required.*
- 3. Note that additional fees may be due at time of Will Serve Letter, or Fire Safety Letter pick up.*

APPLICANT INFORMATION (Please fill out completely)

Primary Contact Name: _____ Phone: _____
Title: _____ Email Address: _____

Owner Name: _____

Owner Address: _____

City: _____ State: _____ Zip: _____

Work Phone: (____) _____ Home: (____) _____ Cell: (____) _____

Email Address (Owner): _____

Please note that an agent acting for the owner shall submit written authorization with owner's notarized signature.

Agent Name: _____

Agent Address: _____

City: _____ State: _____ Zip: _____

Work Phone: (____) _____ Home: (____) _____ Cell: (____) _____

Email Address (Agent.): _____ Title: _____

PROJECT INFORMATION (Please fill out completely)

PROJECT LOCATION OR ADDRESS:

Business Name/Type of Business (if applicable): _____

Address: _____

City: _____ State: _____ Zip: _____

APN No: _____ Tract No: _____ Lot No: _____

TYPE OF PROJECT: (Check Appropriate Box)

Residential Zoning: _____ Single Family Multi-Family Residential

Please Note: If new construction includes an accessory building (guest house, granny unit, pool house, garage, shop, etc.), please list the proposed use of the structure in the Project Description section below. Note that all new residential buildings are required to have fire sprinklers installed. "U" and "S" occupancies in excess of 500sqft are required to be protected by an automatic fire sprinkler system. Should actual use be inconsistent with the classifications defined in the California Building Code, now or in the future retrofit of sprinklers will be required.

Commercial/Industrial Zoning: _____

Please complete a wastewater survey form for all commercial/industrial projects.

Office Retail Medical Restaurant
 Industrial _____ Auto Body Shop Other: _____

PROJECT SIZE Total square footage (sf). List existing and new sf separately if applicable.

1st Floor: _____

2nd Floor: _____

Garage or Accessory structure: _____

Detailed Project Description:

ESTIMATED WATER UNITS OF USE REQUIRED:

Attach water demand calculations for all projects except single family residential.

CONSTRUCTION INFORMATION: (Check Appropriate Box(es))

New Construction Addition and/or Remodel (With added SF) Remodel (No addition of SF)
If adding or remodeling Bathroom(s), Shower Room(s), Kitchen(s) or Laundry Room(s), or adding any water using fixtures, please specify the information below for any added amenities and fixtures.

Bathroom(s) or Shower Room(s)

Remodel or Addition? _____

Remodel or Addition? _____

____ # of washing machines: ____

I # of sinks: _____

I # of tubs: _____

I # of toilets: _____

I # of shower/tub combos: _____

I # of showers: _____

Will there be multiple shower heads? _____

Laundry Room(s)

Kitchen(s)

Remodel or Addition? _____

I # of sinks: _____

I # of icemakers: _____

I # of dishwashers: _____

Other Water Using Fixture(s)

I _____ **I** _____

FIRE DEPARTMENT ACCESS:

Will any portion of the access road or driveway exceed a 12% grade? Yes No

Will any portion of the access road or driveway exceed at 16% grade? Yes No

WATER SUPPLY (FIRE FLOW):

Hydrant Location: _____

How far, in feet, is the building from the fire hydrant by the roadway? _____

COMMENTS:

Please provide any information you feel will be helpful in our Fire Safety Evaluation.

A PLOT PLAN, CONSTRUCTION PLANS AND A GRANT DEED IS REQUIRED WITH THIS APPLICATION.

THE PLAN SHALL INCLUDE AN AREA MAP, ACCESS ROAD, DRIVEWAY, TURNOUTS, PROPOSED AND EXISTING BUILDINGS, AND THE LOCATION OF THE FIRE HYDRANT.

“Fire/Life Safety Requirements” will be available within ten (10) working days after review for fire code compliance. A copy of the requirements shall remain on the project site until final inspection or certification of occupancy has been issued.

If you have any questions, please feel free to contact the San Miguel Community Services District or Fire Department between the hours of 8:30 a.m. and 4:30 p.m. Monday through Friday.

SIGNATURE OF OWNER/AGENT

DATE

Company Name: _____

SITE PLAN

CONSENT OF LANDOWNER

San Miguel Community Services District

APN No _____

I (we) the undersigned owner of record of the fee interest in the parcel of land located at (print address):
_____, identified as Assessor Parcel Number (APN)
_____, for which a Will Serve Letter and/or Fire Review
Letter is being requested for: _____ (specify type of project, for example:
addition to a single family residence; or general plan amendment), do hereby certify that:

1. Such application may be filed and processed with my (our) full consent, and that I (we) have authorized the agent named below to act as my (our) agent in all contacts with the county and to sign for all necessary permits in connection with this matter.
2. I (we) hereby grant consent to the San Miguel Community Services District (District), its officers, agents, employees, independent contractors, consultants, sub-consultants and their officers, agents, and employees to enter the property identified above to conduct any and all surveys and inspections that are considered appropriate by the inspecting person or entity to process this application. This consent also extends to governmental entities other than the District, their officers, agencies, employees, independent contractors, consultants, sub-consultants, and their officers agents or employees if the other governmental entities are providing review, inspections and surveys to assist the county in processing this application. This consent will expire upon completion of the project.
3. If prior notice is required for an entry to survey or inspect the property. Please contact:
Print Name: _____
Daytime Telephone Number: _____
4. I (we) hereby give notice of the following concealed or unconcealed dangerous conditions on the property _____

PERSON OR ENTITY GRANTING CONSENT:

Print Name: _____

Print Address: _____

Daytime Telephone Number: _____

Signature of landowner: _____ Date: _____

AUTHORIZED AGENT:

Print Name: _____

Print Address: _____

Daytime Telephone Number: _____

Signature of authorized agent: _____ Date: _____

**All Non-Residential Applicants please
complete the following forms and submit with
your application:**

1. For all for all office and non-medical uses that generate only domestic wastewater. (Bathrooms only) provide a completed ***Wastewater Survey Form*** and signed ***Signature of Receipt Form***.
2. For all other commercial and industrial uses, provide a completed ***Wastewater Discharge Permit Application*** and signed ***Signature of Receipt Form***. For all food service businesses, include:
 - a. Specifications of proposed Grease Trap or Interceptor
 - b. Cut Sheets for proposed Grease Trap or Interceptor

(go to next page for application form)

Industrial Wastewater Survey for Will Serve Request

Section 1. APPLICANT INFORMATION (Check box for contact person)

Landowner Name _____ Daytime Phone: _____
Mailing Address: _____
Email Address: _____

Applicant Name _____ Daytime Phone: _____
Mailing Address: _____
Email Address: _____

Agent Name _____ Daytime Phone: _____
Mailing Address: _____
Email Address: _____

Section 2. PROPERTY INFORMATION

Legal Description: _____

Assessor Parcel Number(s) _____ Attached Lot Book Guarantee? yes / no

Number and size of lots to be served: _____

Proposed Zoning: _____

Address (es) if known _____
(Street) (City) (State) (Zip Code)

Section 3. OPERATION(S) Check all that apply

<input type="checkbox"/> Auto Detail/Wash	<input type="checkbox"/> Medical Services
<input type="checkbox"/> Auto Service/Repair	<input type="checkbox"/> Personal Services
<input type="checkbox"/> Bakery	<input type="checkbox"/> Pharmacy
<input type="checkbox"/> Automobile Service/Repair	<input type="checkbox"/> Photo Services
<input type="checkbox"/> Dry Cleaning/Laundry	<input type="checkbox"/> Printing
<input type="checkbox"/> Food Processing	<input type="checkbox"/> Professional Services
<input type="checkbox"/> Food Services/Restaurant	<input type="checkbox"/> Public Service
<input type="checkbox"/> Hotel/Motel	<input type="checkbox"/> Retail Sales
<input type="checkbox"/> Laboratory	<input type="checkbox"/> Wholesale Distribution
<input type="checkbox"/> Machine Shop	<input type="checkbox"/> Winery
<input type="checkbox"/> Manufacturing/ All Types	<input type="checkbox"/> Other _____

A. In order to determine whether the proposed project will require pretreatment of wastewater, provide a brief detailed description of the type of manufacturing, business processes, production, or service activities proposed for this site:

Section 4. WASTEWATER INFORMATION

A. If your facility employs processes in any of the industrial categories or business activities listed below, place a check beside the category or activity.

- | | |
|--|---|
| <input type="checkbox"/> Adhesives | <input type="checkbox"/> Mechanical Products |
| <input type="checkbox"/> Aluminum Forming | <input type="checkbox"/> Metal Etching/Chemical Milling |
| <input type="checkbox"/> Anodizing | <input type="checkbox"/> Metal Coating (Phosphating, Coloring,) |
| <input type="checkbox"/> Automobile Maintenance and Repair | <input type="checkbox"/> Nonferrous Materials |
| <input type="checkbox"/> Battery Manufacturing OR Reclaiming | <input type="checkbox"/> Organic Chemicals |
| <input type="checkbox"/> Copper Forming | <input type="checkbox"/> Paint & Ink |
| <input type="checkbox"/> Dairy Products Processing | <input type="checkbox"/> Petroleum Refining |
| <input type="checkbox"/> Electric/Electronic Components | <input type="checkbox"/> Pharmaceuticals |
| <input type="checkbox"/> Electroplating | <input type="checkbox"/> Photographic Supplies |
| <input type="checkbox"/> Fruit or Vegetable Processing | <input type="checkbox"/> Plastic & Synthetic Materials |
| <input type="checkbox"/> Hospital | <input type="checkbox"/> Plastics Processing |
| <input type="checkbox"/> Inorganic Chemicals | <input type="checkbox"/> Porcelain Enamel |
| <input type="checkbox"/> Iron & Steel | <input type="checkbox"/> Printed Circuit Board Manufacturing |
| <input type="checkbox"/> Laundries | <input type="checkbox"/> Printing & Publishing |
| <input type="checkbox"/> Leather Tanning & Finishing | <input type="checkbox"/> Pulp & Paper |
| <input type="checkbox"/> Rubber | |
| <input type="checkbox"/> Soaps & Detergent | |
| <input type="checkbox"/> Winery | |

Section 5. APPLICANTS SIGNATURE

The information provided will be used to determine whether the District has the capacity to provide wastewater treatment for the proposed project. The District will attempt to identify potential problems that may be associated with making service available to the project or parcel. At the time of request for hook-up and service, each individual business is required to complete an Industrial Wastewater Survey and Discharge Permit Application. The District may require pretreatment, testing and reporting of the industrial wastewater based on the type of operations and processes conducted at the business.

Note: It is the applicant's responsibility to notify the District in writing of any changes in the information provided above within 30 days of such change.

Name (Printed)

Title

Signature

Date

San Miguel Community Services District

Signature of Receipt Form

Applicant Information

Owner/TenantName: -----

Address: -----

Home/Business Phone: _____ Cell Phone: _____

Job Site Address (if different from above): -----

I have been informed that I will need to fill out a Waste Water Discharge Permit Application if my establishment is one in which Fats, Oils, and/or Greases (which are prohibited in accordance with the District's Sewer Code) are a byproduct of doing business. I understand fully that if, at any time, this establishment changes business operations and begins creating FOG byproducts, I will approach the District willfully and submit a Waste Water Discharge Permit as to remain in compliance with Federal and State laws and District codes and ordinances.

I acknowledge that I have been given a copy of the pamphlet, Your Establishment and FOG (Fats, Oils, and Greases) describing Best Management Practices to help reduce or eliminate FOG waste from entering the communities Sanitary Sewer System. I have also received the Grease Trap and Interceptor Selection and Maintenance Guide.

I understand that all District ordinances and codes are available to the public and that I may view them at any time for more information.

I am aware that the owner of this establishment is responsible for maintaining compliance with this policy. I am also aware that, if the owner of the establishment and the owner of the building are not one in the same, the owner of the building will also be held responsible for the compliance of this policy and informed if compliance has not been upheld.

I have read and understand this notice. A copy of this form will be given to me at my request.

Signature of Owner/Tenant _____

Date _____

Print Name _____

If you are not the owner of the building, please provide this information below so that we may send them a copy of this form.
Owner: -----
Address: -----
PhoneNumber: -----

|

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San Miguel Community Services District

Fats, Oils and Grease (FOG) Program

Grease Trap and Interceptor Selection and Maintenance Guide

Introduction

San Miguel Community Services District (SMCSD) has a mandated Sewer Ordinance that requires establishments engaging in the preparation of food to install approved grease removal devices and conduct regular maintenance of these devices. Appropriate and frequent grease interceptor maintenance can significantly reduce the discharge of fats, oils, and grease (FOG) into the district's wastewater system.

Questions and Answers

WHY IS FOG A PROBLEM?

When FOG enters the sewer system, they coat sewer pipes and cause blockage. This can lead to sanitary sewer overflows (SSOs) which can require costly repairs, temporary closures of your establishment, not to mention certain health hazards. Properly maintained grease removal devices prevent excess FOG and solids from entering the district's sewer system by routing wastewater from fixtures and equipment that may contain FOG through a trap or inceptor to slow the flow of wastewater. This allows the FOG to solidify and float at the top of the device instead of being washed down into the sewer laterals.

WHAT DETERMINES WHETHER I NEED A GREASE TRAP OR GREASE INTERCEPTOR?

The type of grease removal device required is determined by the number of fixtures or equipment in the facility that discharge grease to the sewer system and the flow from these fixtures. Refer to the "Sizing Worksheets" section of this guide.

WHAT ARE THE REQUIREMENTS AFTER THE GREASE TRAP/INTERCEPTOR IS INSTALLED?

Food establishments are asked to implement *best management practices (BMPs)* for FOG. Refer to the "Your Restaurant and FOG" brochure to see recommended BMPs. S M C S D will require *regular maintenance* of grease trap/interceptors in order to properly protect the District's sewer collection system. A grease trap/inceptor *maintenance log* will be required to be kept to document cleaning intervals. *Receipts* for cleaning interceptors should be maintained and available for review.

WHO PERFORMS MAINTENANCE ON GREASE TRAPS?

Generally, grease trap maintenance is performed by the maintenance staff, or other employees of a food establishment. Refer to your particular grease trap manufacturer's recommended maintenance procedures. Remember, as the owner, you are ultimately responsible for the

functionality and maintenance of your grease trap, so you may wish to oversee all maintenance procedures.

WHO PERFORMS MAINTENANCE ON GREASE INTERCEPTORS?

Grease interceptor maintenance and service is usually performed by permitted haulers or recyclers. This maintenance consists of removing all solids and liquids from the grease interceptor and properly disposing of the material in accordance with federal, state, and/or local laws. Remember, as the owner, you are ultimately responsible for the functionality and maintenance of your grease interceptor, so you may wish to oversee all maintenance procedures.

HOW OFTEN DO I NEED TO PERFORM MAINTENANCE ON MY GREASE TRAP OR INTERCEPTOR?

The required frequency for grease trap and interceptor maintenance depends greatly on the amount of FOG a facility generates as well as any best management practices (BMPs) that your establishment implements to reduce the FOG discharged into the sewer system. A good rule of thumb is to clean out grease traps on a weekly basis and grease interceptors on a monthly basis. Refer to the "Your Restaurant and FOG" brochure to see recommended BMPs.

WHAT FIXTURES OR EQUIPMENT CANNOT BE PLUMBED TO A GREASE INTERCEPTOR?

Food grinders, dishwashers, and wastes from toilets, urinals, wash basins, and other fixtures containing fecal matter should not be plumbed through the grease inceptor.

WHAT REQUIREMENTS MUST BE MET?

New facilities and remodels must install a grease interceptor (to be approved by SMCSD) per the 2013 California Plumbing Code.

Existing facilities should install a grease interceptor per the 2013 California Plumbing Code; however, grease traps may be approved by the District due to physical constraints. Multiple units may be used to achieve the intent of the law must be approved by SMCSD.

WHAT IS THE APPROVAL AND INSTALLATION PROCESS REQUIREMENTS?

- **Contact a licensed contractor** to help determine the proper sizing of the grease removal device.
- **Submit your completed Grease Trap/Interceptor Sizing Worksheet with all plan sets**, showing location and size of grease trap to SMCSD District Engineer for approval.
- **Apply for a building permit** from the County of San Luis Obispo and provide a copy of the application and receipt for permit fees to SMCSD.
- **Install the grease removal device** and obtain inspections from the County per the permit requirements and inspection approval by SMCSD representative.
- **Provide a copy of the Building Permit completion (sign-off card)** obtained from the County of San Luis Obispo to verify compliance with grease trap/interceptor installation requirements.

- **Grease Inceptors**

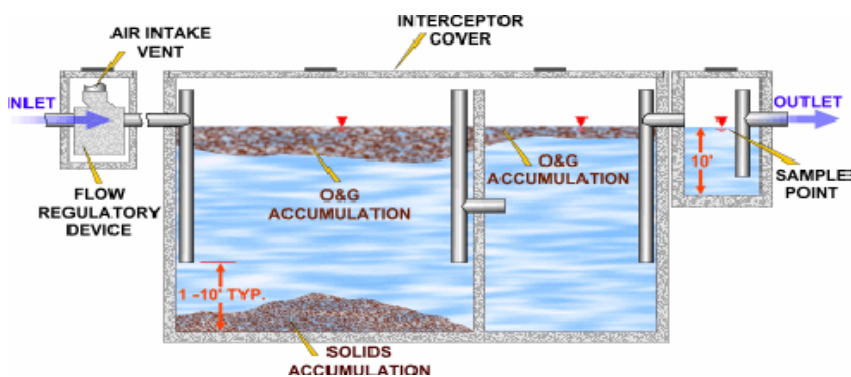
What is a Grease Inceptor? Grease inceptors are usually in-ground devices located outside of the building, made of concrete with a minimum capacity of 750 gallons, and are usually configured with multiple chambers. The capacity of the inceptor allows time for the wastewater to cool, allowing the grease time to congeal and rise to the surface. Inceptors are the most efficient method for removing grease.

Grease Inceptor Maintenance

Grease inceptors will usually be cleaned by a state licensed septic hauler, grease hauler, or recycler. It is recommended that you clean your grease inceptor once a month but is ultimately dependent on the type of establishment, the size of the inceptor, and the volume of flow discharged to the inceptor.

Proper procedure for grease inceptor maintenance:

Step 1	Schedule your grease hauler or recycler for cleaning service.
Step 2	Shut of the isolation valve to stop flow to the grease inceptor.
Step 3	Remove lid and dip out any water in the inceptor. Dispose of this water into the sewer system.
Step 4	Remove baffles, if possible.
Step 5	Scoop out the accumulated grease from the inceptor and contain in a watertight container (ex: a 55 gallon drum with lid)
Step 6	Pump out the settled solids and any remaining liquids.
Step 7	Using a putty knife or other applicable tool, scrape sides, lid, and baffles to remove as much grease residue as possible. Dispose of into a watertight container.
Step 8	Replace the baffle and lid.
Step 9	Document your maintenance on your <i>Maintenance Log</i> .



REMINDER: DEGREASERS, DETERGENTS, AND WATER EXCEEDING 140 DEGREES SHOULD NOT BE PASSED THROUGH THE GREASE REMOVAL DEVICES.

Sizing Worksheet

Grease Interceptor Sizing Worksheet

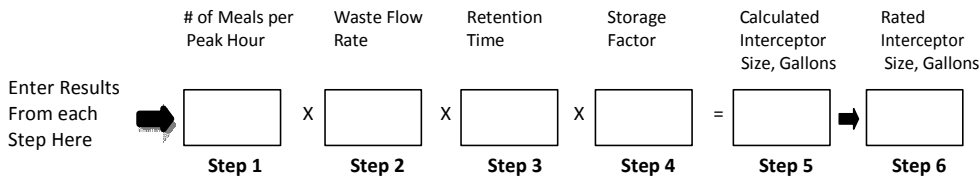
Establishment Name: _____

Address: _____

Contact Name: _____ Phone: _____

Contact Email Address: _____

Follow these six simple steps to determine the size of your grease interceptor:



Step 1 Number of Meals per Peak Hour (Recommended Formula)

1

Seating Capacity		X	Meal Factor		=	Meals per Peak Hour
<input type="text"/>			<input type="text"/>			<input type="text"/>

Establishment Type	Meal Factor
△ Fast Food (45 minutes)	1.33
△ Restaurant (60 minutes)	1.00
△ Leisure Dining (90 minutes)	0.67
△ Dinner Club (120 minutes)	0.50

Step 2 Waste Flow Rate (Add all that apply)

2

Condition	Waste Flow Rate
△ With a dishwashing machine	6 gallons
△ Without a dishwashing machine	5 gallons
△ Single service kitchen	2 gallons
△ (Disposable dishes and utensils)	
△ Food waste disposer (Grinder)	1 gallon

Total Waste Flow Rate **➔** _____

Step 3 Retention Time

3

Commercial kitchen waste	
○ Dishwasher	2.5 hours
Single service kitchen	
○ Single serving	1.5 hours

(cont'd on next page)

Step	Storage Factor	
4	Fully equipped commercial kitchen	
	△ 8-hr operation	1
	△ 16-hr operation	2
	△ 24-hr operation	3
	Single service kitchen	
	△ Single Service Kitchen	1.5
<hr/>		
Step 5	Calculate Hydraulic Capacity	
	Multiply the values obtained from steps 1, 2, 3, and 4. The result is the minimum approximate grease interceptor size for this application.	
<hr/>		
Step 6	Select Grease Inceptor Size	
	Using the approximate required hydraulic capacity from Step 5, select an appropriate size as recommended by the manufacturer. Attach copy of manufacturer specifications.	
	**Minimum size: 750 gallons	

The Sewer Ordinance adopted by San Miguel Community Services District requires grease interceptors to be designed sized and designed in accordance with the Uniform Plumbing Code. This Grease Interceptor Sizing Worksheet follows the formula taken from Appendix H of the Uniform Plumbing Code.

FACTORS AFFECTING GREASE INTERCEPTOR PERFORMANCE:

- **Velocity of Incoming Water.** The higher the velocity of water coming into the system, the more turbulence there is created. This disrupts the FOG separation process, therefore reducing the efficiency of the grease interceptor.
- **FOG to Water Ratio.** The higher the ration of FOG particles to the water, the lower the efficiency of the grease interceptor.
- **Specific Gravity (Density) of FOG.** The specific gravity of FOG is lower than that of water allowing the FOG to rise to the surface quickly. Food particles having a higher specific gravity that water will accumulate on the bottom of the system and will ultimately pass through the interceptor to the sewer system.
- **Detergents in the System.** Grease-cutting and cleaning detergents will break the liquid grease into very small particles which will allow these undesirable FOGs to pass through the interceptor into the sewer system.
- **Hot Water.** Water exceeding 140 degrees should not be sent through the grease interceptor as it will dissolve grease and pass it through into the sewer system.

Grease Traps

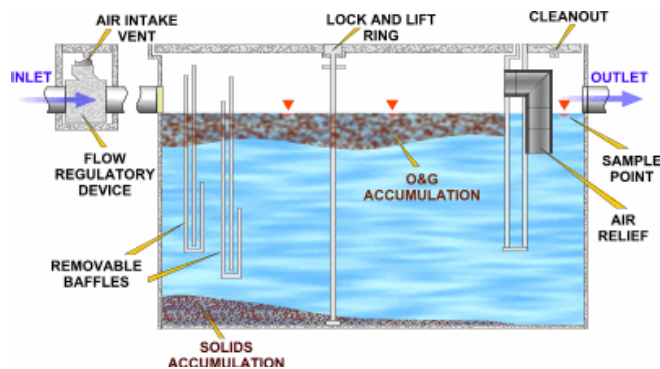
What is a Grease Trap? Grease traps are small units usually found inside the building under a sink or near the fixtures discharging grease. Grease traps are usually single chambered devices with baffles inside designed to slow the flow of wastewater allowing the grease to rise to the surface. Their capacities are rated in gallons of flow and pounds of grease they hold. Grease traps are not as efficient at removing grease as an interceptor and require more frequent cleaning in order to properly maintain them and to prevent odors.

Grease Trap Maintenance

Grease traps are usually maintained by maintenance staff or other employees of the food establishment. Since these units are much smaller than its larger interceptor counterpart, it is recommended that they are cleaned out on a weekly basis.

Proper procedures for grease trap maintenance:

Step 1	Dip out any water in the trap. Dispose of this water into the sewer system.
Step 2	Remove baffles, if possible.
Step 3	Scoop out the accumulated grease from the interceptor and contain in a watertight container (ex: a 55 gallon drum with lid)
Step 4	Using a putty knife or other applicable tool, scrape sides, lid, and baffles to remove as much grease residue as possible. Dispose of into a watertight container.
Step 5	Contact a hauler or recycler for grease pick-up as your disposal container gets close to being full.
Step 6	Replace the baffle and lid.
Step 7	Document your maintenance on your <i>Maintenance Log</i> .



REMINDER: DEGREASERS, DETERGENTS, AND WATER EXCEEDING 140 DEGREES SHOULD NOT BE PASSED THROUGH THE GREASE REMOVAL DEVICES.

Sizing Worksheet

Grease Trap Sizing Worksheet

Establishment Name: _____

Address: _____

Contact Name: _____ Phone: _____

Contact Email Address: _____

For a multi-fixture grease trap, the following method may be used for grease trap sizing:

1. Calculate the capacity of each fixture.

Cubic content of each fixture = $\frac{\text{Length (in)} \times \text{Width (in)} \times \text{Depth (in)}}{231 \text{ (cubic inches per gallon)}}$ = Capacity in Gallons

$$\boxed{} \text{ in} \times \boxed{} \text{ in} \times \boxed{} \text{ in} / 231 = \boxed{} \text{ Gallons}$$

2. Calculate the flow rate.

$\frac{\text{Capacity in Gallons}}{\text{Drainage Period in Minutes}}$ = Flow Rate in gallons per minute (gpm)

Note: The most generally accepted drainage period is one minute. The maximum drainage period allowed is 2 minutes.

$$\frac{\boxed{} \text{ gallons}}{\boxed{} \text{ mins}} = \boxed{} \text{ gpm}$$

3. Total flow rate. Add the gpm requirement for each fixture to arrive at a total flow rate. For fixtures that do not have a calculable volume, i.e. water wash hoods, wok ranges (with or without curtain) and pre-rinse stations, allow 10 gpm or the actual flow rate, whichever is greater.

4. Grease trap capacity. Use the grease trap table to approximate grease trap capacity. If the maximum flow rate is exceeded from the number of fixtures, the grease trap is to be sized by selecting a device with an appropriate flow rate.

Number of Fixtures	Maximum Rate of Flow (gpm)	Grease Capacity (lbs)
1	20	40
2	25	50
3	35	70
4	50	100

CONSENT OF LANDOWNER

San Miguel Community Services District

APN No _____

I (we) the undersigned owner of record of the fee interest in the parcel of land located at (print address):
_____, identified as Assessor Parcel Number (APN)
_____, for which a Will Serve Letter and/or Fire Review
Letter is being requested for: _____ (specify type of project, for example:
addition to a single family residence; or general plan amendment), do hereby certify that:

1. Such application may be filed and processed with my (our) full consent, and that I (we) have authorized the agent named below to act as my (our) agent in all contacts with the county and to sign for all necessary permits in connection with this matter.
2. I (we) hereby grant consent to the San Miguel Community Services District (District), its officers, agents, employees, independent contractors, consultants, sub-consultants and their officers, agents, and employees to enter the property identified above to conduct any and all surveys and inspections that are considered appropriate by the inspecting person or entity to process this application. This consent also extends to governmental entities other than the District, their officers, agencies, employees, independent contractors, consultants, sub-consultants, and their officers agents or employees if the other governmental entities are providing review, inspections and surveys to assist the county in processing this application. This consent will expire upon completion of the project.
3. If prior notice is required for an entry to survey or inspect the property. Please contact:
Print Name: _____
Daytime Telephone Number: _____
4. I (we) hereby give notice of the following concealed or unconcealed dangerous conditions on the property _____

PERSON OR ENTITY GRANTING CONSENT:

Print Name: _____

Print Address: _____

Daytime Telephone Number: _____

Signature of landowner: _____ Date: _____

AUTHORIZED AGENT:

Print Name: _____

Print Address: _____

Daytime Telephone Number: _____

Signature of authorized agent: _____ Date: _____

DRAFT

San Miguel Community Services District revised FEE SCHEDULE

Description	FEE	TYPE	Fund
Fire			
Tracts			
New Fire plan check and inspections - tracts (up to 2 hours)	150	Flat	Fire
Additional new Fire plan check and reinspections - tracts (per hour over 2 hours)	45	Hourly	Fire
Single family residences and Commercial up to 5000 sqft			
Remodel/ addition fire plan check and inspection (up to 1 hours)	75	Flat	Fire
Remodel/ addition Fire plan recheck and reinspections (per hour over 1 hours)	45	Hourly	Fire
Fire sprinkler permit - includes plan review and one rough and one final inspection	150	Flat	Fire
Fire sprinkler additional inspections (per hour)	45	Hourly	Fire
Other			
Parade Permit - Includes parade review and hanging and removing banner	150	Flat	Fire
Traffic control for parades or road closures (\$25/ hour x number of people)		Hourly	Fire
Business reinspections (per hour after initial and one reinspection)	75	Hourly	Fire
Weed abatement (actual abatement cost plus \$50.00)			Fire
Illegal burn (After one warning)	250	Flat	Fire
Illegal burn (second offence)	500	Flat	Fire
Illegal burn (third offence)	1000	Flat	Fire
Illegal burn, in the District, extinguished by SMF personnel			
Chief officers (multiply by number of chief officers x hours on call)	50	Hourly	Fire
Firefighters (multiply by number of firefighters x hours on call)	30	Hourly	Fire
Equipment (multiply by number of apparatus x hours on call)	50	Hourly	Fire

Water and Wastewater

During normal business hours

Water/ wastewater plan review (staff/ hourly)	50	Hourly	Water/Sewer
Water/ wastewater inspection (staff/ hourly) Supervisor	50	Hourly	Water/Sewer
Water/ wastewater inspection (staff/ hourly) Operator	30	Hourly	Water/Sewer
Water/ wastewater system tie in and repairs (staff/ hourly) Number of People x hours	50	Hourly	Water/Sewer
Temporary water disconnection for contractors (door hangers)	5	Each	Water/Sewer
Temporary water disconnection and standby for contractors (water shutoff and turn on) During normal hours only	25	Hour	Water/Sewer
Rental Equipment rates will be at actual rental cost plus 20%			Water/Sewer
District owned Equipment rates	45	Hour	Water/Sewer
District Engineer plan review (Billed at actual cost)			Water/Sewer

After hours, weekend or holidays

Water/ wastewater inspection (staff/ hourly) Supervisor	75	Hourly	Water/Sewer
Water/ wastewater inspection (staff/ hourly) Operator	60	Hourly	Water/Sewer
Water/ wastewater system tie in and repairs (staff/ hourly) Number of People x hours	75	Hourly	Water/Sewer
Rental Equipment rates will be at actual rental cost plus 20%			Water/Sewer
District owned Equipment rates	45	Hour	Water/Sewer

Past Due

Past Due penalty on balances over 30 days will be applied on the 11th of each month	10%	Monthly	Water/Sewer
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DRAFT

New Accounts

New Account activation (application required)	25	Each	Water/Sewer
Owner Deposit - may be refunded after 12 months with good credit history with district- upon request	100	Each	Water/Sewer
Renter Deposit - will be refunded after deducting any outstanding balances upon leaving rental property.	100	Each	Water/Sewer

Service interruption

24 hour shutoff door hanger (for non-payment) - (Up to 2 in 6 months for same address, occupant)	15	Each	Water/Sewer
Service Disconnect Door Hanger (for non-payment) - in addition to the reconnect fee	30	Each	Water/Sewer
Service Reconnect after service has been locked off (account must be brought current)	75	Each	Water/Sewer
AFTER HOURS Reconnect after service has been locked off (account must be brought current proof of payment required)	275	Each	Water/Sewer

Other/ Special

Payment Arrangement Agreement (Agreement - application required- plus 10% of balance)	10%		Water/Sewer
Payment Arrangement Agreement door hanger for missed payment (up to 1 during arrangement)	0	Each	Water/Sewer
Payment Arrangement Agreement door hanger for missed payment (2 or more during arrangement)	15	Each	Water/Sewer
Service needed (Up to 2 in 6 months for same address, occupant)	0	Each	Water/Sewer
Service needed (3 or more in 6 months for same address, occupant)	25	Each	Water/Sewer

LEAKS

Leak letter and inspection (up to 1 in 3 months)	0	Each	Water
Leak letter and inspection (after 1 letter/ inspection in 3 months)	10	Each	Water
Leak door hanger (up to 1 in 3 months)	10	Each	Water
Leak door hanger (after 1 hanger in 3 months without proof of repairing the prior leak)	20	Each	Water

Drought related penalties

Declared Stage one - surcharges (1 hour of drought education per 5 hcf over minimum or \$20 fee)			Water
Declared Stage two - surcharges (2 hours of drought education per 5 hcf over minimum or \$40 fee)			Water
Declared Stage three - surcharges (addition to existing tier charges - all tiers)	5	per HCF	Water
Door hanger to adjust or stop wasting water (up to 1 in 3 months)	0	Each	Water
Door hanger to adjust or stop wasting water (after 1 hanger in 3 months)	25	Each	Water
Intervention by district staff to repair or stop the willful loss of potable water (staff/ hourly)			
Number of People x hours minimum 3 hours	75	Each	Water

Water meters

5/8" or 1" water meter for new service -per service	450	Each	Water
1 1/2" water meter for new service -per service	600	Each	Water

DRAFT

2" water meter for new service-per service	750	Each	Water
5/8" or 1" replacement water meter for existing service - per meter	375	Each	Water
1 1/2" replacement water meter for existing service - per meter	550	Each	Water
2" replacement water meter for existing service - per meter	700	Each	Water
Meters larger then 2" must be quoted		Each	Water

Will serve

New project will serve for water and sewer - application required (\$250 Processing, \$150 fire safety review, \$750 toward water, sewer plan checking)	1150	Each app	water/ sewer/ fire
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Connection fees

See approved fee schedule for water and sewer connection fees			
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100% of fee due prior to meter set.

San Miguel Community Services District

REIMBURSEMENT AGREEMENT

Vesting Tentative Tract No. (_____)

This Agreement, made and entered into this _____ day of _____ 201_, at San Miguel, California, by and between the San Miguel Community Services District hereinafter referred to as _____ the _____ "District", _____ and _____ (_____) _____, San Miguel, California, hereinafter referred to as the "Developer."

NOW, THEREFORE, IT IS HEREBY AGREED THAT:

The Developer shall reimburse the District for the cost of services related to engineering, plan checking and construction inspection and any District related improvements associated with the above _____ mentioned _____ development _____ located _____ on _____ the _____ (_____) (hereinafter referred to as the Project). For all services rendered by District personnel, the Developer shall be charged and paid to the District the actual cost. The District shall invoice the Developer for such plan checking and inspection costs and amounts unpaid 30 days from the date of the District's invoice shall bear interest at the rate of 1 ½ % per month beginning 30 days after the date of said invoice.

Permission is hereby granted to the District, or its authorized agent, to enter upon the land that is the subject of the Project for the purpose of inspection of any and/or all work to be done under this agreement.

The District, or its designated representative, may make such additional inspection as is deemed necessary and shall be available to review field conditions and/or proposed changes.

The Developer shall defend, indemnify and save harmless the District, its officers, agents, engineers and employees from any and all claims, demands, damages, costs, expenses or liability occasioned by the performance or attempted performance of the provisions hereof.

Developer agrees to complete said improvements pursuant to this Agreement, Conditions of Approval and on the date specified in the Encroachment Permit, and to diligently prosecute the same to completion within the time stipulated.

If either party becomes involved in arbitration or litigation arising out of this contract or the performance of it, the court or tribunal in such arbitration or litigation or in a separate suit shall award reasonable costs and expenses of arbitration and litigation, including expert witness fees and attorney fees, to the prevailing party or parties.

IN WITNESS WHEREOF, the parties to these present hereunto set their hands on the date first above written.

Developer

San Miguel Community Services District

BY _____

BY _____

General Manager

DATE _____

DATE _____



San Miguel Community Services District Equipment & Facilities Committee

Staff Report

February 10, 2016

AGENDA ITEM: V-2

SUBJECT: Discuss and Review of Preliminary Wastewater Treatment Plant (WWTP) Loading Study.

STAFF RECOMMENDATION:

Committee should discuss the preliminary wastewater treatment plant loading study and provide comments to Staff.

BACKGROUND:

Last year, the District embarked on a treatment plant loading study to determine whether or not the treatment plant was operating efficiently or if it was being overloaded.

In the attached report, the District Engineer compiles the data collected over the last 6 months of 2015 for loading and flow information. This information shows that;

- The plant is currently running at 65-70% of the current designed flow capacity of .2 MGD.
- The plant is currently at 75-80% of the current designed BOD loading capacity of 300 MGL.

Regional Water Quality Control board specifies that agencies should begin exploring plant upgrades when 50% of capacity is reached. When the plant operations reaches 75% capacity, the agency should begin developing feasibility and designing for plant upgrades and expansion.

The loading study is providing information in support for beginning the process of expanding and upgrading our treatment plant operations. This process can take 5-10 years to complete, start to finish, required feasibility analysis, land acquisition (if needed), engineering design work and environmental analysis and documentation. This planning and design phase is important to begin in the next Fiscal Year and become a part of ongoing budget processes.

(continued on next page)

Fiscal Impact:

No fiscal impact at this time. Future budgeting must plan for feasibility analysis, environmental documentation work and engineering studies.

Staff Recommendation: Staff recommends that the Committee discuss findings and provide direction to staff.

PREPARED BY:

Kelly Dodds
Utility Supervisor

APPROVED BY:

Darrell Gentry
General Manager

Attachment: Loading study from Wallace Group

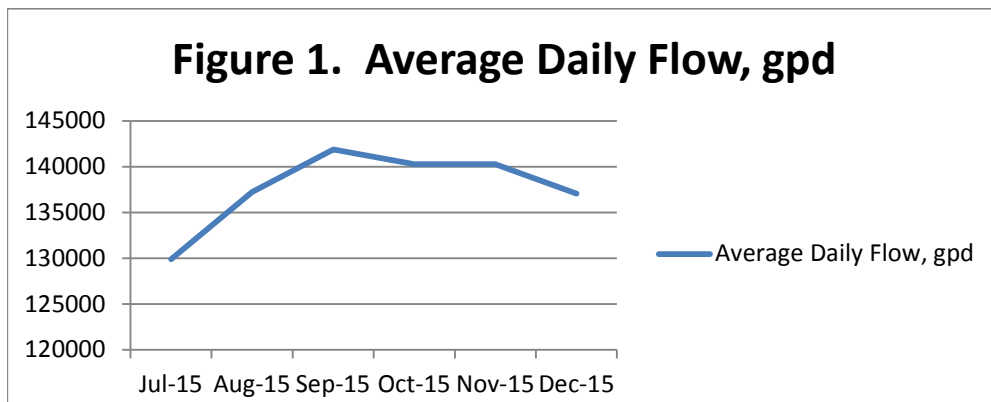
EVALUATION OF WASTEWATER TREATMENT FACILITY SAN MIGUEL COMMUNITY SERVICES DISTRICT

Background

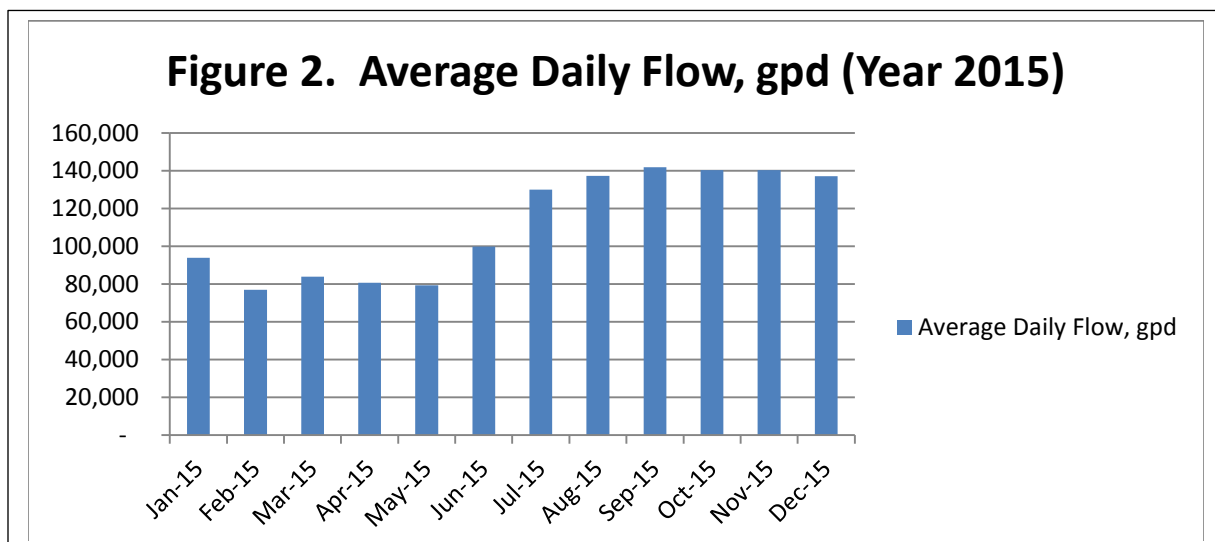
The San Miguel CSD owns and operates an existing wastewater treatment facility, located on the north end of the District's service area. The plant underwent a significant upgrade in the late 1990s, bringing its current and permitted capacity at 200,000 gpd (0.2 mgd). The District current treats an average of approximately 140,000 gpd.

Current Wastewater Flows

The District recently replaced the influent flow meter in June 2015. Prior daily flow records were considered inaccurate for the purposes of this study, thus July 2015 through December 2015 flow values were used (see Figure 1). Based on this six month period, maximum month average daily flow to the San Miguel CSD WWTP is approximately 140,000 gpd, or at 70% of



total permitted capacity (on a flow basis). A summary of flows for Year 2015 is included as Figure 2, which shows a sharp increase in wastewater from between June and July 2015 (due to meter replacement).



The daily flow data was not uniform day to day, so it was difficult to ascertain and evaluate maximum daily flow trends. Given that the San Miguel area should not experience large peaks from tourism or other factors, it is expected that the daily flows are relatively consistent day to day. It is recommended that the District endeavor to correct the daily flow readings so that they are representative of daily flows, and to allow a better assessment of maximum day flows to the plant. In addition, this information is reported to the Regional Board and should as accurate as possible. It is noted that District staff indicated a substantial inflow/infiltration (I/I) component in response to rainfall. This should be closely monitored during this El Nino rain year, and further I/I studies should be conducted to define the extent and sources of I/I in the sewer collection system.

As indicated earlier, the maximum month average daily flow was determined to be approximately 140,000 gpd. Maximum daily flow was not able to be determined based on provided flow data, due to the large discrepancies in flow reporting. Based on Metcalf & Eddy, and for a town of this size, the maximum day is likely less than 1.5 times the average daily flow, and is likely very close to the average daily flow during the maximum month (or ~1.1 times the average annual flow). Based on an estimate average daily flow of 131,000 gpd, the current maximum daily flow is estimated to be 145,000 gpd. For the permitted flow at 200,000 gpd, the maximum day is estimated to be 220,000 gpd (153 gpm). The instantaneous peak hour can be derived from typical diurnal curves that express flow fluctuations throughout the day, and would on the order of 1.5 times the average daily flow. At maximum day flow of 220,000 gpd (153 gpm), the peak hour flow is estimated to be 330,000 gpd (230 gpm).

Current Service Conditions

The District has a total of 653 sewer service connections as of the date of this study. These connections are broken down as follows:

- SFR/MFR, 625
- Commercial, 1
- Industrial/Business, 20
- Public, 7
- Total, 653

In the main zone, there are currently six septic tanks, and at San Lawrence Terrace (SLT), a total of 65 septic tanks. At this time, it is not expected that the SLT septic tanks will be served in the future by public wastewater facilities; however, there are provisions to accommodate a sewer in the River Road bridge crossing the Nacimiento River, should the need arise in the future. As for the six septic tanks in the main zone, it is possible that these will be served by the wastewater plant in the future; however, this number is small and will have little consequence to the outcome of this study.

The current population served by the District is estimated at 2,336. Based on the total number of dwelling units, the household density is estimated at 3.3 per household. This may be slightly high, but expected given the demographics of the area. Using a ratio of SFR/MFR connections to the total (including septic tanks), the population served by the wastewater treatment plant would be $(625/696 \times 2,336)$ 2,098 persons.

Based on monthly maximum average wastewater flows to the plant of 140,000 gpd, and population of 2,098 persons, the wastewater flow is calculated to be 67 gallons per capita per

day (gpcd). This is within the expected range, and considered a reasonable estimate of wastewater flow per capita.

Summary of Existing Waste Discharge Requirements

The District’s facilities are regulated by Region 3 (Central Coast Region) Regional Water Quality Control Board (Regional Board) Order No. 99-046. At the time the WDRs were issued, they were issued to the San Miguel Sanitary District, which was dissolved in the early 2000s, and subsequently the District resumed all wastewater responsibilities in the San Miguel CSD service area. The existing facility was upgraded during this time frame, to include the full expansion described in Finding No. 5 of the WDRs, that is to construct the second of two 940,000 gallon aerated lagoons. The permitted treatment capacity is 200,000 gpd (0.2 mgd) on a maximum month basis. As these WDRs are approximately 15 years old, it is anticipated that the Regional Board will update the WDRs at some point in the near future.

- Requirements of the WDRs are summarized as follows:
- Permitted treatment capacity, mgd 0.2 (max. month)
- Effluent limitations:

	<u>Avg. last 6 samples</u>	<u>Maximum</u>
TDS, mg/L	825	900
Chloride, mg/L	180	200
Sulfate, mg/L	175	200
Sodium, mg/L	150	170
- The treatment ponds must maintain a minimum 2.0 feet freeboard at all times, and must maintain dissolved oxygen of 1.0 mg/L minimum at all times.
- Effluent pH shall range between 6.5 and 8.4 at all times.
- Discharge shall not cause nitrate concentrations in downgradient GW to exceed 5 mg/L (as N)
- Discharge shall not cause “significant” increase in TDS.

Under these current WDRs, the District is not required to sample influent or effluent organic waste strength parameters (total suspended solids (TSS), biochemical oxygen demand (BOD₅)). However, the District must submit quarterly monitoring reports, and also must submit an annual report summarizing the past year’s effluent and disposal area monitoring.

Wastewater Design Criteria

The wastewater treatment plant is summarized as follows:

Headworks. At this time, there is not a headworks associated with this plant, only influent pumping/metering of wastewater. Raw wastewater is pumped from the influent wetwell to the first aerated treatment pond.

Aerated Treatment Ponds, Stage 1. There are two 0.94 MG aerated aerobic ponds, equipped with 30 and 25 horsepower ponds, respectively. These are completely mixed aerated lagoons.

Thus, the floating aerators keep all solids in suspension while maintaining dissolved oxygen levels. Solids do not appreciably deposit in Ponds 1 and 2, but instead settle out predominantly in Pond 3. Floatable plastics and debris must be raked out of these ponds by hand.

Aerated Treatment Ponds, Stage 2. There is a single 0.87 MG Stage 2 Pond, with a 7.5 HP aerator. This pond and floating aerator maintains dissolved oxygen levels in the pond, while allowing solids to settle to the bottom of the pond. Solids settle to the bottom of the pond, and organic matter in the sludge slowly decomposes anaerobically. This pond is generally referred to as a facultative pond, with an upper aerobic zone and lower anaerobic zone.

Aerated Treatment Ponds, Stage 3. There is a single 0.87 MG pond equipped with a 7.5 HP aerator. This is the final (fourth) pond that also maintains dissolved oxygen levels in the upper zone. Very little sludge settles in this pond, and this pond would be considered a final polishing pond prior to discharge to the percolation ponds/beds.

Percolation Ponds. There are three percolation ponds totaling 1.7 acres in area. The two northernmost ponds were re-conditioned in 2008. At that time, both ponds had silted up considerably, and were not effectively percolating effluent. Both ponds were dried out and ripped, and the upper several feet of material was removed, and replaced with clean sand. In addition, the percolation ponds were deep-ripped in several locations to allow better connectivity to the underlying more permeable soils. The third and southernmost pond was not re-worked at that time, but continues to serve as a percolation pond.

Design criteria for the existing wastewater treatment facilities are summarized in Table 1.

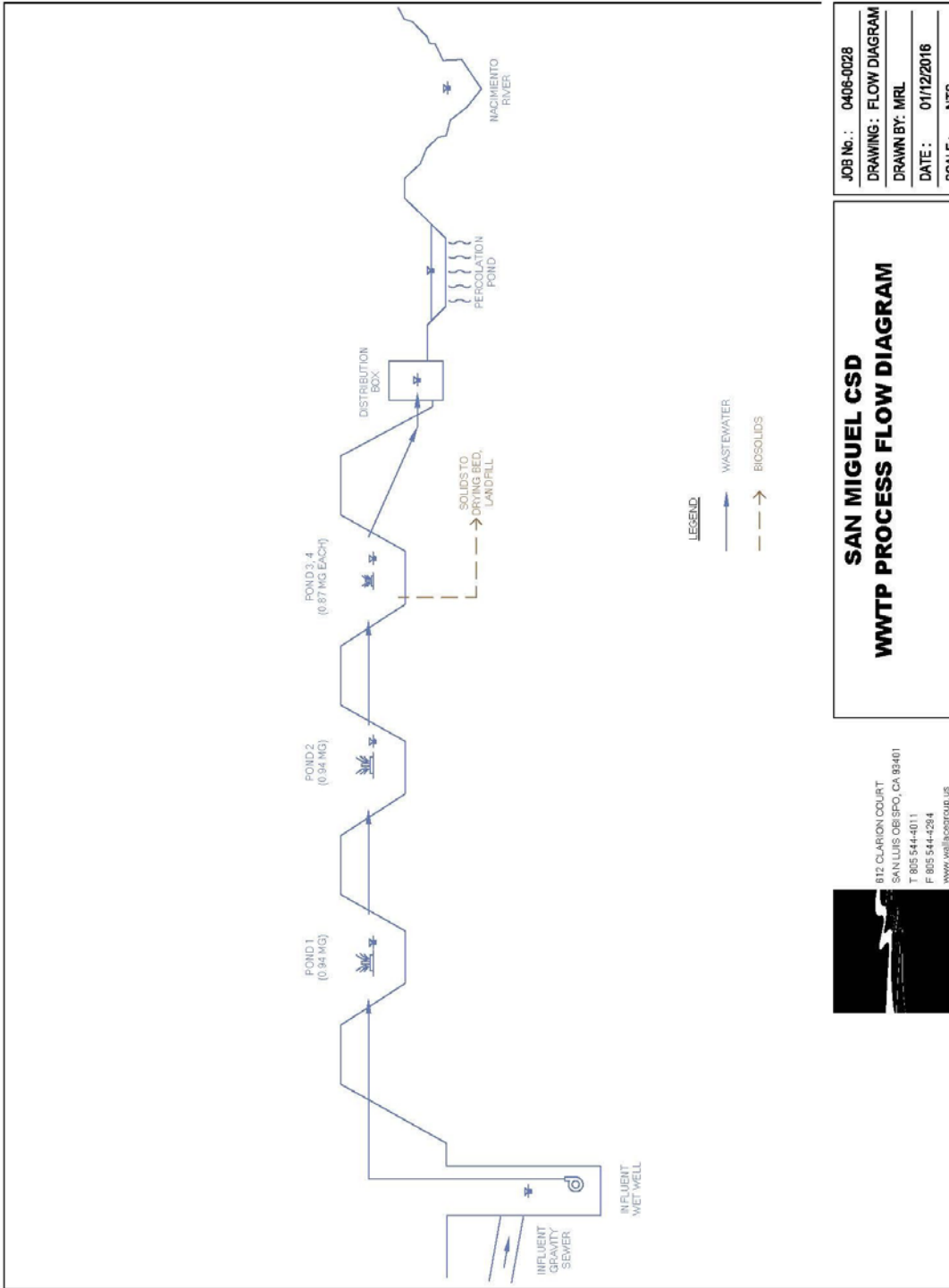
Table1. Summary of Design Criteria, San Miguel CSD WWTP

Parameter, units	Value
FLOWS	
Average Daily Flow (ADF) mgd	0.2
Maximum Daily Flow (MDF), mgd	0.20 ^A
Peak Hourly Flow (PHF), mgd	0.80
WASTE STRENGTH AND LOADING	
Influent BOD ₅ , mg/L (design) [lbs/day]	300 [500]
Influent TSS, mg/L (design) [lbs/day]	250 [417]
INFLUENT LIFT STATION	
Pump Type	Submersible

Parameter, units	Value
No. of Pumps	2
Pump Horsepower (HP), each	7.5
Capacity, Each Pump, gpm	300
Total Dynamic Head, TDH, feet	17
TREATMENT PONDS	
Stage 1 (2 ponds):	
Surface Area, Acres, each	0.44
Depth, Feet, each	12
Volume, Million Gallons, each	0.94
Hydraulic Retention Time, Days, each	4.7
Aerator Horsepower, HP	30, 25
Stage 2:	
Surface Area, Acres	0.41
Depth, Feet	10
Volume, Million Gallons	0.87
Hydraulic Retention Time, Days	4.4
Aerator Horsepower, HP	7.5
Stage 3:	
Surface Area, Acres	0.41
Depth, Feet	10
Volume, Million Gallons	0.87
Hydraulic Retention Time, Days	4.4
Aerator Horsepower, HP	7.5
EFFLUENT PERCOLATION/DISPOSAL	
Pond 1:	
Surface Area, SF (acres)	26,500 (0.61)
Pond 2:	
Surface Area, SF (acres)	24,200 (0.56)
Pond 3:	
Surface Area, SF (acres)	23,200 (0.53)

^aIt is noted that the design hydraulic maximum design flow rate criteria could not be found.

A wastewater process schematic is presented as Figure 3. An aerial google earth image of the plant is included as Figure 4.



JOB No. : 0406-0028
 DRAWING : FLOW DIAGRAM
 DRAWN BY: MRL
 DATE : 01/12/2016
 SCALE : NTS

**SAN MIGUEL CSD
 WWTP PROCESS FLOW DIAGRAM**

812 CLARION COURT
 SAN LUIS OBISPO, CA 93401
 T 805 544-4011
 F 805 544-4284
 www.wellscogroup.us



Figure 4. WWTP Aerial View

Sampling Program

As part of this WWTP evaluation, Wallace Group requested the District to implement a sampling program, to provide analytical results to better assess the plant's performance. The sampling program predominantly focused on traditional waste strength parameters (BOD₅, TSS) and nitrogen compounds. The District's sampling period extended from April 2015 through September 2015. All influent samples were 24-hour composite samples, and effluent and intermediate pond samples were all grab samples.



Influent sampling is summarized in Table 2, based on a total of 15 influent composite samples analyzed. Based on a review of the influent waste strength, the wastewater is considered typical of ordinary wastewater strength, and is actually on the weaker side of what is typically seen in this region, particularly given the degree of water conservation efforts that tend to concentrate wastewater strength.

As summarized in the design criteria Table 1, the plant had a design organic loading of 300 mg/L BOD₅. Based on the permitted flow of 0.2 mgd, this calculates to a daily allowable loading of 500 pounds of BOD₅ per day. The sampling results indicate a weaker strength wastewater than designed for, which from the standpoint of actual plant organic loading, the plant is receiving less organic waste strength. This indicates the following:

Table 2. Summary of Influent Wastewater Sampling

Parameter	Average	Max	Min
BOD ₅ , mg/L	238	359	157
TSS, mg/L	100	220	52

- At 140,000 gpd, at a design organic loading of 300 mg/L BOD₅, the plant would be receiving 350 lb/day BOD₅, or 70% capacity expressed as a percentage of design loading capacity.
- At 140,000 gpd, at an actual organic loading of 238 mg/L BOD₅, the plant would be receiving 238 lb/day BOD₅, or 56% capacity expressed as a percentage of design loading capacity.
- Regardless of the above, the plant is limited to a treatment/discharge capacity of 200,000 gpd (irrespective of actual plant organic loading).

The above is important to note as this study evaluates the current status of the plant. To be conservative, it is recommended to forecast future waste strength at the design strength of 300 mg/L, even though current sampling suggests a weaker raw sewage. However, current plant performance will be assessed based on actual sampling results.

WWTP Performance Evaluation

The WWTP performance evaluation is based on the following clarifications:

- The actual influent BOD₅ strength was used to evaluate the performance of the overall WWTP and the effectiveness of each wastewater pond.
- Sampling indicates a slightly lower organic waste strength than the design strength of 300 mg/L; the actual data was used to evaluate the plant performance during the sampling period.

Table 3. Summary of WWTP Flows, Organic Loading and Performance

Sample Location	Date	BOD ₅ , mg/L	Average Daily Flow, mgd ^{1,2}	BOD ₅ Loading, lbs/day	% BOD ₅ Removal
INFLUENT	4/20/2015	286.0	0.130	310	N/A
	5/28/2015	288.0	0.130	312	N/A
	6/22/2015	359.0	0.130	389	N/A
	7/27/2015	248.0	0.130	269	N/A
	8/24/2015	266.0	0.137	304	N/A
Average³:		237.7	0.131	261	N/A
POND 1	4/20/2015	144.0	0.130	156	49.7%
	5/28/2015	162.0	0.130	176	43.8%
	6/22/2015	58.0	0.130	63	83.8%
	7/27/2015	79.0	0.130	86	68.1%
	8/24/2015	69.7	0.137	80	73.8%
Average³:		102.5	0.131	112	56.9%
POND 2	4/20/2015	5.0	0.130	5	96.5%
	5/28/2015	111.0	0.130	120	31.5%
	6/22/2015	26.9	0.130	29	53.6%
	7/27/2015	37.1	0.130	40	53.0%
	8/24/2015	12.8	0.137	15	81.6%
Average³:		64.0	0.131	70	37.6%
POND 3	42114	114.0	0.130	124	-2189.2%
	5/28/2015	29.0	0.130	31	73.9%
	6/22/2015	38.5	0.130	42	-43.1%
	7/27/2015	54.2	0.130	59	-46.1%
	8/24/2015	15.4	0.137	18	-20.3%
Average³:		50.2	0.131	55	21.5%
POND 4/EFFLUENT	42114	17.0	0.130	18	85.1%
	5/28/2015	9.3	0.130	10	67.9%
	6/22/2015	6.4	0.130	7	83.5%
	7/27/2015	36.6	0.130	40	32.5%
	8/24/2015	10.2	0.137	12	33.8%
Average³:		15.9	0.131	17	68.3%
SYSTEM TOTAL					94.3%

NOTES:
 1. Daily flows for April to June adjusted for meter reading error.
 2. Daily flows on specific sampling dates were input as average daily flow for the month, due to day to day reading anomalies.

It is noted that the existing waste discharge requirements do not have an effluent limitation for BOD₅ and TSS. However, the federal standard for secondary treatment standards is for a 30-day average BOD₅ effluent concentration of 30 mg/L. A summary of plant sampling, organic loading (expressed as BOD₅) and percent BOD₅ removal, are included in Table 3.

Overall, the current plant BOD₅ removal is 94.3%, and effluent BOD₅ is average 17 mg/L. This is considered very good performance for the plant, particularly given the type of pond system. Sometimes, plant algae can elevate effluent BOD₅ and TSS readings. It is noted that during this sampling interval, effluent TSS to the percolation ponds averaged 24 mg/L, also considered to be a very good level of treatment.

Biological processes such as activated sludge and aerated lagoon processes can be assessed based on the metabolic biological removal constant, known as “k”. This value typically ranges from 0.2 to 1.0 for complete mix aerated lagoon systems. The following Metcalf & Eddy equation for biological decay for complete mix aerated lagoons 1 and 2, was referenced:

$S/S_o =$	1		Metcalf & Eddy
	$1+k(V/Q)$		
where S=effluent BOD ₅ concentration, mg/L			
S _o = influent BOD ₅ concentration, mg/L			
k=overall first order BOD ₅ removal rate constant, d ⁻¹			
V=volume, Mgal			
Q=flow rate, mgd			

Based on viewing Ponds 1 and 2 together as a single pond, and using the effluent quality from Pond 3 (Pond 3 acts like a secondary clarifier to the complete mix aerated lagoon process), and solving for k:

Pond 1&2:	Solving for k, k=	$S_o/S - 1$	
		(V/Q)	
	S _o =	237.71 mg/L	
	S=	50.22 mg/L	
	V=	1.88 Mgal	
	Q=	0.131 mgd	
	k=	0.26	

For Ponds 3 and 4, actual percent removal was calculated based on sampling data. It should be noted that Pond 3 had a much lower removal rate (22%) as compared to Pond 4 (68%), due to the sludge blanket stored in Pond 3. Using the k value calculated for Ponds 1 and 2, plant design flow of 0.20 mgd (maximum month flow), an influent BOD₅ value of 300 mg/L, and estimated removal efficiencies in Ponds 3 and 4, the projected plant effluent quality (BOD₅) was calculated as follows:

Future Flow Condition:					
	Solving for S, S=		$[1/((1+k(V/Q)))] \times S_o$		
	S_o =		300.00 mg/L		
	V=		1.88 Mgal		
	Q=		0.200 mgd		
	k=		0.26		
	S=		86.9 mg/L (leaving Pond 2)		
	Pond 3 influent BOD=		86.9 mg/L		
	Pond 3 removal eff.=		22%		
	Pond 3 effluent BOD=		68.2 mg/L		
	Pond 4 influent BOD=		68.2 mg/L		
	Pond 4 removal eff.=		55% assumed		
	Pond 4 effluent BOD=		30.7 mg/L		

Based on this calculation, it is projected that at a design organic loading of 300 mg/L BOD₅, and at the permitted maximum month average daily flow of 0.2 mgd, the effluent quality is projected to marginally meet a secondary treatment standard of 30 mg/L (however keep in mind that this is not a stipulated requirement in the current permit). The BOD removal efficiencies were based on typical ranges expected for facultative lagoons. Again, it is noted that the current permit does not stipulate an effluent limitation.

Based on other pond systems in this region, if waste discharge requirements were updated and such effluent limitations were imposed, this WWTP would likely see effluent limitations of “60/60”, that is, effluent limitation of 60 mg/L BOD₅, and 60 mg/L TSS. This plant would still likely meet these requirements.

Oxygen Requirements. The theoretical oxygen requirement for BOD₅ removal is 1.5 pounds O₂/pound BOD₅ removed. The oxygen transfer rate for floating aerators is 1.4 lbs O₂/day/HP-hr. The oxygen requirements may be critical to Ponds 1 and 2 as flows approach the design capacity of 0.2 mgd, thus such oxygen loading is checked as follows:

Check Pond Loading Conditions:	
Theoretical O ₂ required per BOD ₅ removed=	1.5 lbs
Aerator transfer rate=	1.4 lbs O ₂ /day/HP-hr
Pond 1	
At design rate of 0.2 mgd @ 300 mg/L BOD ₅ (assuming 60% removal in Pond 1):	
BOD ₅ loading=	200.16 lbs/day BOD ₅ to Pond 1
Oxygen required=	300.24 lbs/day
At 7.5 HP, O ₂ capacity=	252 lbs/day
When Pond 1 aerator requires replacement, consider if aerator capacity should be upsized to 10 HP.	
Pond 2	
BOD ₅ loading=	120.1 lbs/day BOD ₅ to Pond 2 based on 40% removal
The 7.5 HP aerator on Pond 2 is expected to be sufficient horsepower through the design maximum flow condition.	

Based on this review, the aerator for Pond 1 should transfer theoretically 250 pounds/day of oxygen, as compared to an ultimate loading of approximately 200 pounds per day. Factors that can affect this include biological treatment efficiencies, changing organic loading/strength, and inefficiencies in oxygen transfer as aerator ages. The District should monitor this closely, and should the Pond 1 aerator appear to not maintain oxygen levels at higher flow/loading rates, consider upgrading to a 10 HP aerator. This should especially be considered if/when the useful life of the Pond 1 aerator is realized. Also, according to District staff, the 7.5 HP aerator and Pond 1 are already experiencing some difficulties with maintaining dissolved oxygen levels above 1.0 mg/L, and the aerator must run almost continuously.

Pond 3 should be monitored, and the sludge blanket in Pond 3 should be removed routinely, thus not allow a large buildup of sludge. The build-up of sludge blanket in this pond can significantly impact BOD₅ removal efficiency in the pond.

Hydraulic Considerations. The San Miguel CSD WWTP process performance is based on organic loading and hydraulic retention time overall in the four ponds. A single large flow event is not likely to have major impacts to the treatment plant; however, the influent wetwell must be capable of handling all influent flows. The peak hour flow at design capacity, was estimated at 230 mg/L. When compared to a single pump capacity of 300 gpm, the plant should be able to handle peak hydraulic loading. Additional I/I study should be conducted, however, to verify that I/I flows do not make influent plant flows exceed the capacity of a single pump, or 300 gpm (0.43 mgd).

Effluent Disposal. Effluent requirements stipulate that nitrates shall not increase by more than 5 mg/L (as Nitrate-Nitrogen) in the downgradient well, and that TDS levels shall not be significantly increased. In 2015, the downgradient well was dry all year round, and thus no sampling was able to be performed on downgradient water quality. The 2012 through first quarter 2013 GW monitoring results are summarized in Figures 5 through 9. Based on these results, the effluent disposal operations do have an impact on local GW quality.

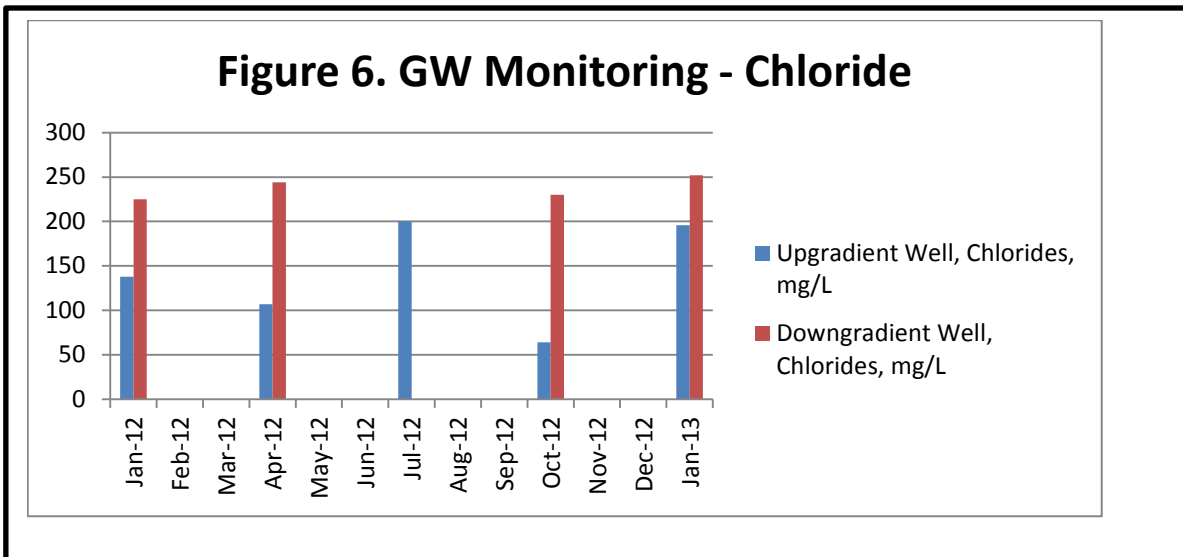
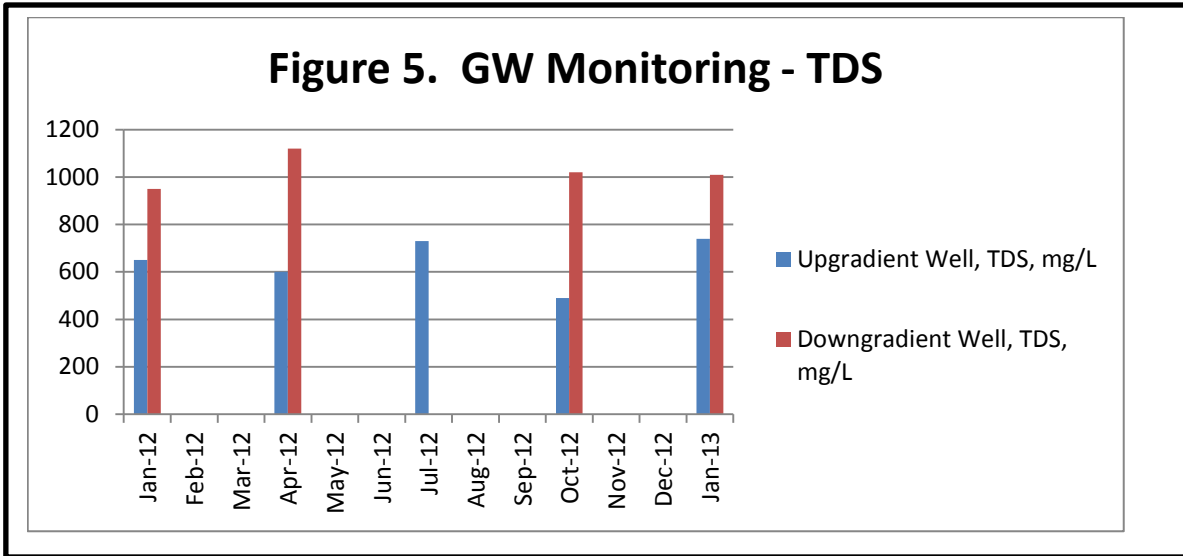


Figure 7. GW Monitoring - Sulfates

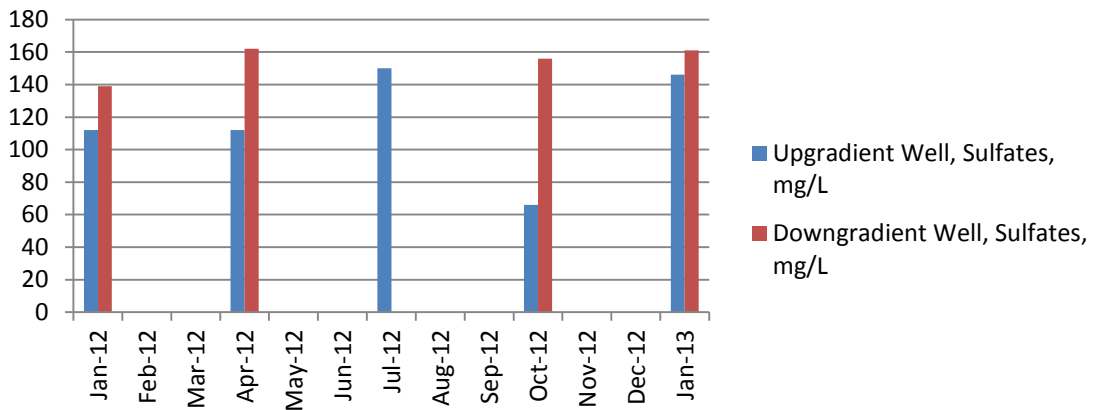


Figure 8. GW Monitoring - Sodium

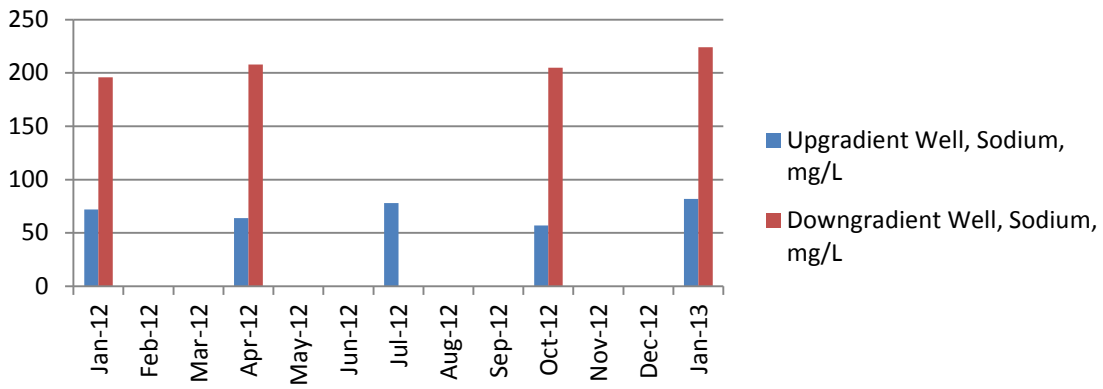


Figure 9. GW Monitoring - Nitrate Nitrogen

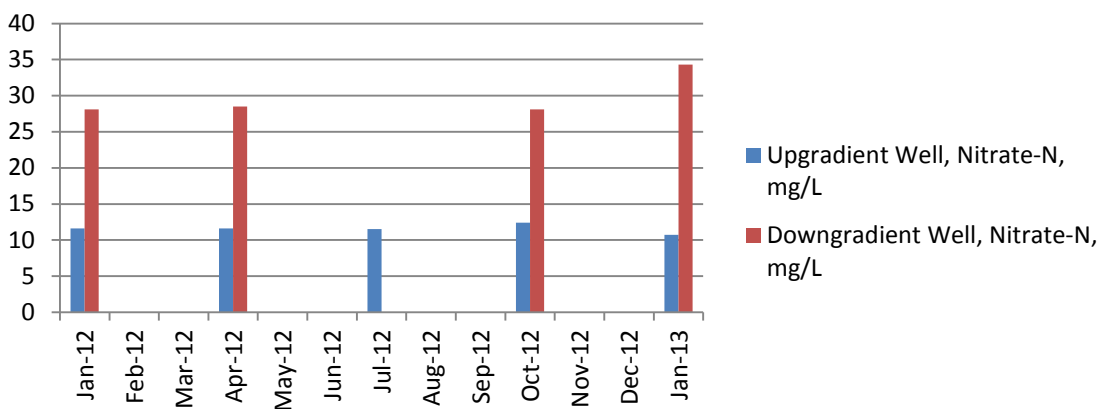


Figure 10. Summary of TDS Quality

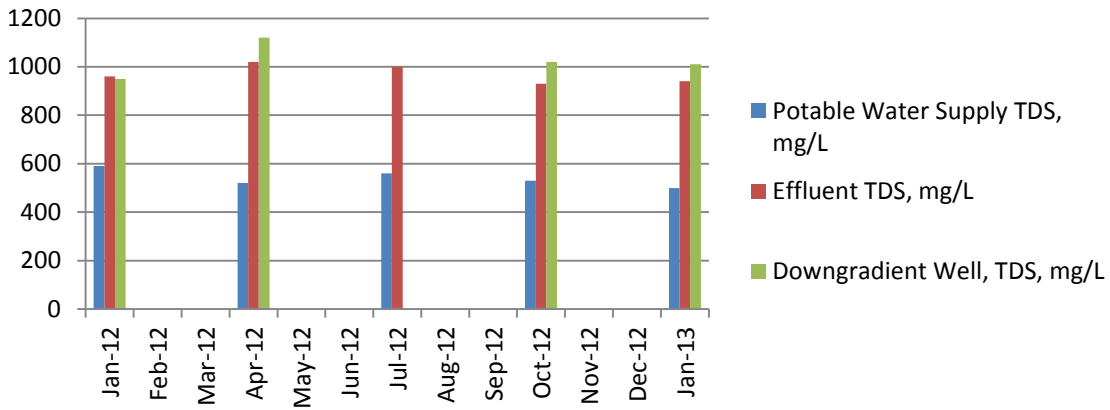
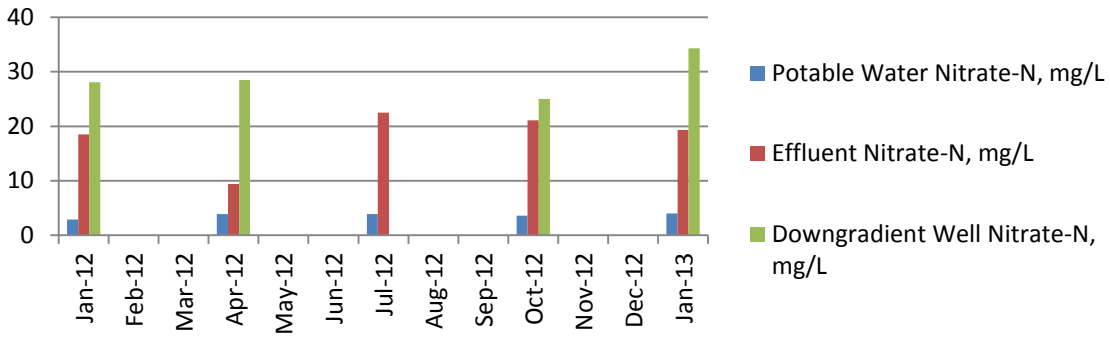


Figure 11. Summary of Nitrate Nitrogen Quality



For 2014 and 2015, the downgradient well was dry and thus not able to be sampled. However, in review of the 2012 and 2013 monitoring data, the TDS quality in the effluent and GW are directly related to the potable water quality, and effluent TDS quality appears to be in direct correlation with the downstream GW quality. However, the effluent TDS concentrations are stable and not increasing over time. Nitrate-Nitrogen concentrations are not in direct relation to potable water quality, but are a function of the nitrogen cycle as nitrogen compounds go through the treatment process. With limited data, it is difficult to draw a clear conclusion; however, it is evident that there is a direct correlation between effluent nitrate-N quality and downgradient well quality. The April 2012 effluent nitrate-N reading may be an anomaly.

Effluent Percolation Ponds

The effluent percolation pond capacity is difficult to ascertain, due to changing conditions over time, and variability in percolation rates between the three percolation ponds. It is recommended that the District monitor the performance of the ponds as is currently done on a daily basis, and assess the ponds more formally on an annual basis. This annual review should assess and review logs of quantities of effluent discharged to the ponds, length of time required to remove standing water in between applications, and overall general performance of the ponds. In 2007, the two northernmost ponds were scarified, reconditioned, and new material placed in the bottom of the ponds, to enhance performance. This was necessitated due to poor percolation performance, resulting from the build-up of fine matter in the soils over time. Since this work was performed in 2007, the percolation ponds have performed well, and little standing water is maintained in the percolation ponds.

Solids Handling

Currently, there is a single un-lined earthen bermed area that can receive sewage sludge/biosolids for drying. The District must manually pump solids (mostly from Pond 3) to this drying area, manually dry the solids, and contract with a service to haul and dispose of sludge. It is envisioned that in the future, the Regional Board will require lined drying beds; however, at this time, with the Regional Board not requiring lined drying beds, the District can continue current day operations. Unless a major change is made to the current process (aeration ponds), the existing drying operation is suitable for the foreseeable future. Should the District desire to make significant changes to this operation, it would likely require filing of a Report of Waste Discharge, which could then spark additional regulatory changes from the Regional Board sooner rather than later.

Conclusions

The existing WWTP is performing well, achieving an overall organic constituent removal of 94%. Based on the current plant performance, and projecting out to design flow capacity of 200,000 gpd, the plant is expected to achieve good levels of treatment, and continue to meet equivalent secondary treatment standards at the design flow capacity.

Based on the current flow of 130,000 to 140,000 gpd, the District should begin to initiate future planning for plant expansion. The Regional Board typically requires Dischargers to begin this planning process when the plant reaches 75% of capacity (150,000 gpd).

The Pond 1 aerator (and pond oxygen levels) should be carefully monitored as flows increase, to determine if an upsized aerator (to 10 HP) is warranted to feed sufficient oxygen to Pond 1. This should be especially considered if/when the aerator us up for replacement. Maintaining sludge to minimum levels in Pond 3 will allow for optimum BOD removal in this Pond, and will enhance the overall effluent quality discharged to the percolation ponds.

The effluent and groundwater monitoring program does show water quality impacts directly resulting from effluent disposal operations. However, these results are indicate of immediate downstream impacts to GW quality, and may not be representative of significant water quality impacts to water supplies downstream of San Miguel. The District should continue to following the monitoring and reporting program, and should consider the addition of a deeper downgradient monitoring well to allow continued monitoring of downgradient conditions.

SGT:



San Miguel Community Services District Equipment & Facilities Committee

Staff Report

February 10, 2016

AGENDA ITEM: V-3

SUBJECT: Discuss and Review of Sewer System Management Plan (SSMP).

STAFF RECOMMENDATION:

Committee should discuss and review the why have an SSMP document and what are the goals of such a plan document and how is it used. Committee may provide comment and direction to Staff.

BACKGROUND:

For a number of years now, the District Engineer has provided and prepared a District SSMP. Annually, there is an audit of SSMP by regional agencies as well as District operational staff. So what is a SSMP and why should Board of Directors care about the document.

This Committee session is intended to be an educational and informational review. If there are comments and/or directions given to Staff as result of discussion and presentation, then Staff will proceed accordingly.

Overview:

What is a Sewer System Management Plan?

A Sewer System Management Plan, also called an SSMP, is a document describing activities used to manage the wastewater collection system effectively.

Effective management of a wastewater collection system includes:

1. Maintaining or improving the condition of the collection system infrastructure to provide reliable service into the future.
2. Minimizing infiltration/inflow (I/I) cost-effectively and providing adequate sewer capacity to accommodate storm flows; and
3. Minimizing the number and impact of sanitary sewer overflows (SSOs) that occur;

In order to achieve, the above goals each wastewater collection system agency should develop and implement an SSMP.

Why are SSMPs Being Required Now?

Collection Systems are the last major component of the wastewater management system to be regulated. Treatment plants, including pretreatment programs, have been regulated for some time. In addition, other networks have been regulated as well, such as potable water, natural gas, electricity, and liquid fuels, among others.

While the federal government has developed unpublished draft regulations (sometimes referred to as the “CMOM” program, which stands for Capacity, Management, Operations, and Maintenance), this program has not been officially implemented. Regional Water Boards in California have decided to move forward and implement their own SSO control programs due to the growing emphasis on reducing overflows (spills).

Where is the District at the present time?

Every 5 years, an update is required to be prepared in accordance with State Water Resources Control Board (SWRCB) Statewide General Wastewater Discharge Requirements (GWDR) for sewer systems that conforms to specifications of the SWRCB’s Monitoring and Reporting Program that requires an SSMP.

In such an update, the SSMP must be updated to include any significant program changes. Re-certification by SMCSB Board of Directors is required when significant updates are made. The most recent audit of the existing SSMP was performed in July 2014 as required by WDR Order 2006-0003. T2014 audit recommended significant revisions and updates to existing SSMP, which would include but not be limited to: developing emergency operating procedures, SOP’s and management practices.

Fiscal Impact:

No fiscal impact at this time associated with the educational and informational presentation. Future budgeting must plan for cost of preparing an update to current SWRCB and GWDR requirements as well as individual WDR Orders for the District. The District Engineer estimates cost for a 2-part task for this SSMP update would be \$4,800 to \$10,000.

Staff Recommendation: Staff recommends that the Committee discuss findings and provide direction to staff.

PREPARED BY:

Kelly Dodds
Utility Supervisor

APPROVED BY:

Darrell Gentry
General Manager

Attachment: Attachment “A”

ATTACHMENT "A"



SMCSD Sewer System Management Plan (SSMP) Development Guide

GENERAL INFORMATION

What is a Sewer System Management Plan?

A Sewer System Management Plan, also called an SSMP, is a document describing activities used to manage the wastewater collection system effectively.

Effective management of a wastewater collection system includes:

- 1.** Maintaining or improving the condition of the collection system infrastructure to provide reliable service into the future.
- 2.** Minimizing infiltration/inflow (I/I) cost-effectively and providing adequate sewer capacity to accommodate storm flows; and
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In order to achieve, the above goals each wastewater collection system agency should develop and implement an SSMP.

Why are SSMPs Being Required Now?

Collection Systems are the last major component of the wastewater management system yet to be regulated. Treatment plants, including pretreatment programs, have been regulated for some time. In addition, other networks have been regulated as well, such as potable water, natural gas, electricity, and liquid fuels, among others. While the federal government has developed unpublished draft regulations (sometimes referred to as the “CMOM” program, which stands for Capacity, Management, Operations, and Maintenance), this program has not been officially implemented for a variety of reasons. Regional Water Boards in California have decided to move forward and implement their own SSO control programs due to the growing emphasis on reducing overflows.

What Is Required of Your Agency?

This document contains a description of the required elements of an SSMP, as well as helpful information to consider in meeting the requirements.

Each wastewater collection system is different, and some of the differences that affect the content of an SSMP include geographical terrain (hilly or flat), number and type of connections (residential, commercial, industrial), soil types, weather patterns, age of sewers, condition of sewers, materials of sewers, history of sewer management practices, number of SSOs, affordability of sewer rates, type of agency (municipal government or special district), and other factors.

The required information includes elements that industry experts agree are necessary to manage a wastewater collection system effectively. For small communities, some requirements may not be productive or appropriate, as described in detail in later sections of this document.

In summary, the required elements of an SSMP include:

1. Collection system management goals
2. Organization of personnel, including the chain of command and communications
3. Overflow emergency response plan
4. Fats, oils, and grease (FOG) control program
5. Legal authority for permitting flows into the system, inflow/infiltration control as well as enforcement of proper design, installation, and testing standards, and inspection requirements for new and rehabilitated sewers
6. Measures and activities to maintain the wastewater collection system
7. Design and construction standards
8. Capacity management
9. Monitoring plan for SSMP program effectiveness
10. Periodic SSMP Audits, periodic SSMP updates, and implementation of program improvements

Data Management

Wastewater collection system agencies are not required to use computer-based maintenance management and GIS software to manage their wastewater collection systems. There is a wide range of software currently available to match most agencies needs and budgets, both large and small. Collection system agencies may find that computer-based solutions are a more effective way to manage large numbers of wastewater collection system assets. Regardless of the method selected for managing information, operations, maintenance and capital improvement procedures should be documented in writing. An SSMP is intended to fulfill that role.

Terms That Appear in This Guide

Some terms and acronyms used in this document, along with their definitions, are as follows:
The San Miguel Community Services District (SMCSD) vision is to:

Develop a community-wide understanding of the watershed protection and enhancement needs through reliance on sound scientific, environmental and economic information; and ensure that this understanding leads to long-term stewardship within the Estrella Sub-basin.

SMCSD working in collaboration with the Regional Water Board developed this SSMP development document.

Geographical Information System (GIS) – A database linked with mapping, which includes various layers of information used by government officials. Examples of information found on a GIS can include a sewer map; sewer features such as pipe location, diameter, material, condition, last date cleaned or repaired. The GIS also typically contains base information such as streets and parcels.

Infiltration/Inflow (I/I) – Infiltration is generally considered to be extraneous water that enters the sewer system over longer periods of time, such as groundwater seepage through cracks in the sewer. Inflow is generally considered to be extraneous water that enters the system as a direct

result of a rain event, such as through improper connections to the sanitary sewer, through flooded manhole covers, or through defects in the sewer. While it is impossible to control all I/I, it is certainly desirable to reduce I/I when cost-effective.

Lateral – The portion of sewer that connects a home or business with the main line in the street. Sometimes sewer system agencies own or maintain a portion of the lateral.

Regional Water Board – Short name for Central Coast Regional Water Quality Control Board (also known as RWQCB). The mission of this state regulatory agency is to: preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. The Regional Water Board has worked in collaboration with SMCSO to develop this SSMP development guide.

Sanitary Sewer Overflow (SSO) – For the San Miguel SSO program, an SSO is defined as a spill, release, or unauthorized discharge of wastewater from a sanitary sewer system at any point upstream of a wastewater treatment facility that may be caused by a problem in or with sewer system authorities' sewer lines including laterals owned by the agency. For reporting purposes, overflows greater than 100 gallons are to be reported electronically to the Regional Water Board.

Sewer System Agency – The legal entity that owns and is ultimately responsible for the wastewater collection system is called wastewater collection system agency.

Stoppage – A build up of debris in the sewer which stops the flow of wastewater and allows the water to back up behind the stoppage, sometimes causing an overflow. Also called a blockage.

Blockage – A build up of debris in the sewer, which stops the flow of wastewater and allows the water to back up behind the stoppage, sometimes causing an overflow. Also called a stoppage.

Wastewater Collection System – All pipelines, pump stations, and other facilities upstream of the headworks of the wastewater treatment plant that transport wastewater from its source to the wastewater treatment plant.

Wastewater Collection System Agency – The legal entity that owns and is ultimately responsible for the wastewater collection system. Also called sewer system agency.

ELEMENTS OF AN SSMP

1. Goals

Helpful Information

Goals are an important aspect of an SSMP because they provide focus for agency staff to continue good work and/or to implement improvements in management of the wastewater collection system. Goals may also reflect performance, safety, levels of service, resource use, and other considerations.

The goals section of the SSMP may also refer to the SSMP as a supplement to an existing wastewater collection system management program, if one already exists.

2. Organization

Requirement: Each wastewater collection agency shall, at a minimum, provide information regarding the organization:

- **Identify agency staff responsible for implementing, managing, and updating the SSMP**
- **Identify chain of communication for responding to SSOs**
- **Identify chain of communication for reporting SSOs**

This section is applicable to all wastewater collection systems.

Key Point

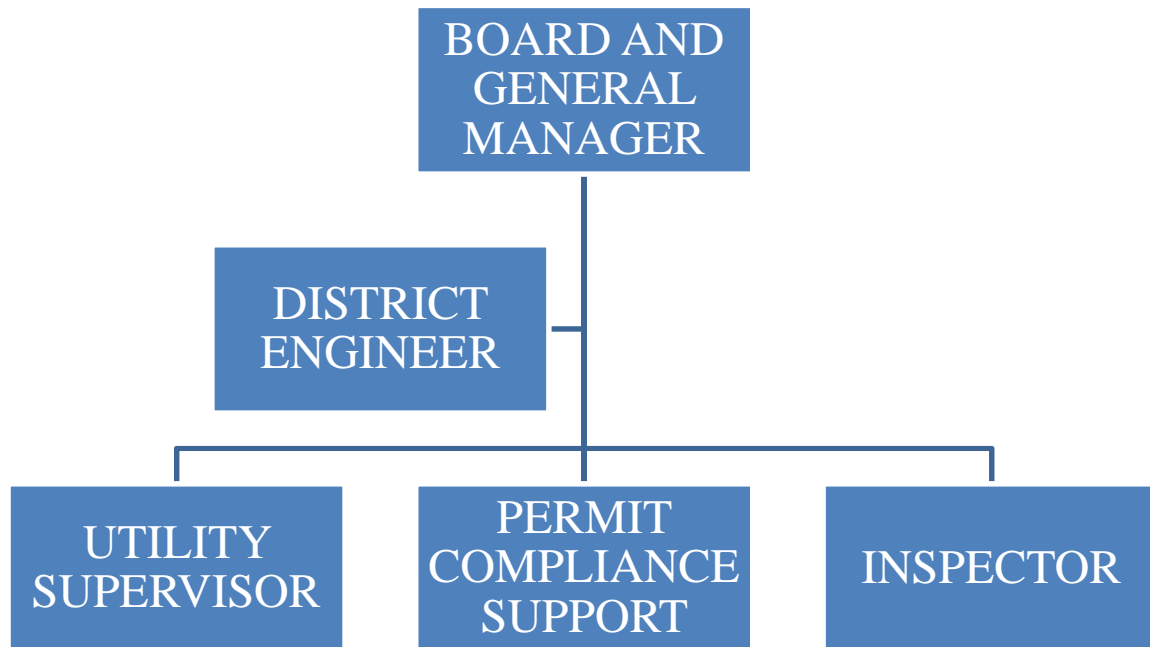
The organization of a wastewater collection system agency can be provided in either a tabular form or as an organization chart and should be used to identify administrative and maintenance positions responsible for implementing the SSMP, including the chain of communication for reporting SSOs. An example organization chart, annotated at the bottom to identify responsibilities, is shown in Figure 1.

The organization identifies those agency staff who are responsible for implementing, managing, and updating the SSMP. The communication plan identifies agency staff who are responsible for managing the SSO response, investigating the cause, and reporting the SSO to the appropriate parties. It also provides a consolidated list of contact information for key agency personnel.

This portion of the SSMP should also describe lines of communication by which an SSO is reported to the wastewater collection system agency (for example by members of the public); how management staff is notified; and how maintenance staff, contractors, and equipment are mobilized.

(continued on next page)

Figure 1. Example Organization



Examples of SSMP Roles for wastewater collection system agency staff are:

General Manager, City Manager, or Public Works Director – Establishes policy, plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and may serve as public information officer.

Collection System Manager –Manages field operations and maintenance activities, provides relevant information to agency management, prepares and implements contingency plans, leads emergency response, investigates and reports SSOs, and trains field crews.

Field Crew— leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and may serve as public information officer.

District Engineer or City Engineer – Prepares wastewater collection system planning documents; manages capital improvement delivery system; documents new and rehabilitated assets; and coordinates development and implementation of SSMP.

Inspector – Ensures that new and rehabilitated assets meet agency standards, works with field crews to handle emergencies when contractors are involved; and provides verbal reports to District Engineer.

Permit Compliance Specialist – Works as needed on applicable permits, laws, and regulations; provides support to all parts of operation.



San Miguel Community Services District Equipment & Facilities Committee

Staff Report

February 10, 2016

AGENDA ITEM: V-4

SUBJECT: Review and discuss the use of Fire department vehicles for utilities related work.

STAFF RECOMMENDATION:

Committee should review and discuss the use of Fire department vehicles for utilities related work.

BACKGROUND:

Currently, the Utilities Departments has one utility vehicle, and uses the fire department utility (2004 F150) as a second vehicle for performing normal daily functions.

The board approved purchasing a dump trailer to aid in water and wastewater repair and maintenance operations. The current utility vehicle is adequate for most of the utility maintenance needs. This utility vehicle is not capable of towing a loaded the trailer with equipment.

The District has equipment delivered when equipment is rented for utility maintenance work. These rentals occur on an as needed basis for repair and maintenance work, we rarely have planned rentals for projects. This delivery and pickup of rented equipment can cost between \$100 - \$200 per rental, depending on which equipment and which vendor is providing the equipment. District is altering its need for renting equipment by acquiring essential equipment for our use.

In 2010, the Fire Department purchased a Ford F550 truck, which was built into a quick attack light brush fire truck. This fire truck is equip with a receiver and has the ability to tow trailers, if necessary. However its primary mission is to be available to respond to fires and medical emergencies.

In 2010, the Water Department used this truck on several occasions, mainly in the summer time, to retrieve equipment. District Utility crew was repairing water line leaks. Fire vehicle was used to tow trailers and move equipment. When the fire vehicle was used for this purpose, there was a call for service requiring the fire vehicle to immediately return to the fire station to protect life

and property. After several instances in which this happened, the Fire Chief, at that time, established an administrative policy that the vehicle no longer be used for utility operations. This policy and practice has been followed since the Fire Chief made the request in 2010.

In 2010, there was a proposal, which was agreed to by the Board at the time, to sell the Water Utility Ford Ranger and purchase another vehicle that met all needs of repair and maintenance work performed, including towing and transport of equipment. The sale of the Ranger was approved but was halted with direction not to purchase of the replacement vehicle. The Vehicle Replacement Program will require a review and evaluation of all vehicles later this year in accordance with Board policy. Recommendations for replacing or purchasing of vehicles can be made during this upcoming review and evaluation.

The Utility Supervisor and Fire Chief have conferred about this proposal to allow fire vehicles to be used for utility work purposes, the consensus is using the F550 fire truck is not an appropriate use of equipment and puts an undue burden on fire protection service. Additionally, since 2010, there has been no lack of ability to get utility equipment delivered for planned utility jobs or repairs, which proves that the need for using fire vehicles for utility purposes is not essential.

Fiscal Impact:

There is no fiscal impact since this informational only in consideration of a long-standing administrative policy.

Staff Recommendation:

Staff recommends that the Committee discuss and provide direction to staff. Staff, however, is recommending that the Committee support keeping the present administrative policy of not using fire vehicles for purposes of towing or hauling equipment to meet the needs of the utility work projects.

PREPARED BY:

Kelly Dodds
Utility Supervisor

REVIEWED BY:

Rob Roberson
Fire Chief

APPROVED BY:

Darrell Gentry
General Manager



San Miguel Community Services District Equipment & Facilities Committee

Staff Report

February 10, 2016

AGENDA ITEM: V-5

SUBJECT: Review and approve repairing damage to the SLT Well house roof failure.

STAFF RECOMMENDATION:

Committee should review and approve repairing the damage to the SLT Well House and make a recommendation to Board to approve an appropriation for Water Capital Reserve for this repair.

BACKGROUND:

Over the course of the last year, we have experienced damage to the SLT Well house stemming from a small concealed roof leak which was hidden from detection until a lot of damage was done. Efforts were made to seal the leak in the roof but unfortunately the damage to the roof sheeting made it nearly impossible to keep leak from reoccurring. Staff also removed the interior sheeting and insulation only to find an even worse than expected due to amount of water damage to the sheeting and insulation.

The proposal is to remove the roofing, all damaged roof sheeting, as well as any damaged interior sheeting and insulation, then replace the sheeting and insulation, install a rubber membrane type roofing that will last at least 20 years with no maintenance. Once the repairs are made, District will have the well house and control building repainted inside and out.

Fiscal Impact:

The initial estimate from CGM Construction is \$4,318.00 for all needed work less painting. Painting is proposed to be done by District staff but can be contracting out for painting is also an option. Additional bids (at least 2-3) may also be secured prior to Committee decision.

Staff Recommendation: Staff recommends that the Committee recommend approval to the Board.

PREPARED BY:

Kelly Dodds
Utility Supervisor

APPROVED BY:

Darrell Gentry
General Manager