



**CITY OF HUNTINGTON BEACH
PUBLIC WORKS COMMISSION
INFORMATION ITEM**

Item No. PWC 08-12

SUBMITTED TO: Chairman Rivera and Members of the Commission

SUBMITTED BY: Travis K. Hopkins, PE, Director of Public Works

DATE: March 19, 2008

SUBJECT: FOG Control Program Report

The Fats, Oils and Grease (FOG) Control Program is fully developed and operational. A report has been prepared to review program progress, associated costs and the fee schedule.

Analysis: The Fats, Oils and Grease (FOG) Control Program was implemented in January 2005. This report covers the overall goals and progress of the FOG Program through fiscal year 2006/07. The FOG program is focused on Food Service Establishments (FSEs) that use fats, oil and grease in the preparation process. Improper disposal of FOG into the sewer systems can cause buildup that result in sewer line blockages and potential overflows. City staff has developed and implemented a FOG education and inspection program that addresses proper FOG handling techniques. The FOG report details the education program, inspection schedules and sewer maintenance procedures. Fiscal year 2006/07 provided the first opportunity to assess program costs, as all components of the program were established and operational. This third year of the program also showed comparisons with the previous year to document program effectiveness.

Per City Council Resolution No. 2004-89, the FOG fee is intended to recover the cost of administering the program. The General Fund supports the FOG administration and inspection program. Currently, the Sewer Service Fund is not reimbursed for the cost of sewer line video inspections. It is the staff recommendation that the fee adjustment be limited to reimbursement for the General Fund only. In the context of Sewer Fund revenues estimated at \$8.5 million in 2007/08 and \$10 million in 2008/09, the \$34,000 expense of sewer line video process is inconsequential. This function is absorbed in the routine maintenance of the sewer system.

F-3¹

FOG Control Program Report
March 19, 2008
Page 2

FOG fees were based on the fully burdened hourly rate (FBR) that includes salary, benefits and city overhead. In 2004, the city overhead rate was 100%. That rate has since been reduced to 60%. For this reason, the current rates are close to cost recovery, despite the increase in estimated hours spent on the program. A new cost allocation study, resulting in a new overhead rate is anticipated concurrent with the FY2008/09 budget process. The staff recommendation is to adjust the FOG fees concurrent with the budgetary process.

Attachments:

FOG Control Program Report

F-3²

F-33

ATTACHMENT #1

FOG Control Program Review

The Fats, Oil and Grease (FOG) Control Program was approved by the City Council in October 2004. Fees were established and implemented effective January 2005. The program recently completed a third year of operation. During the first two years, the customer list of Food Service Establishments (FSE) was verified and sewer line conditions at the FSEs were documented. An inspection and enforcement program was created and implemented. At this time, both maintenance and inspection components are fully operational.

Introduction

The FOG Control Program is an essential element of the City's Sewer System Management Plan (SSMP) which was developed in accordance with California Regional Water Quality Board, Santa Ana Region, to address and prevent sewer system overflows (SSOs). The introduction of FOG into the sewer system is a major cause of SSOs. Overflows significantly increase sewer system maintenance and operational costs, and can negatively affect the quality of water flowing into the local channels and ocean.

Program Overview

The goal of the FOG Control Program is to reduce the volume of FOG discharged to the sewage collection system by restaurants, cafeterias and food manufacturing facilities. These businesses are documented to be the largest contributors of FOG into the collection system.

The cornerstone of the FOG Program is the implementation of an effective education and outreach process that informs FSE managers and employees about methods to eliminate the discharge of FOG into the collection system, including how to properly maintain grease control devices. The education and outreach is conducted through facility inspections. To achieve maximum effectiveness, the materials and outreach are designed to clearly convey proper methods to eliminate the introduction of FOG into the sewer using simple and effective control methods.

The education program includes outreach on kitchen Best Management Practices (BMPs) for use by the FSE management. User friendly training tools identify potential sources of FOG and provide effective prevention techniques. Educational and outreach materials have been developed for distribution to FSEs during the course of inspection and BMP evaluation.

1. FOG Control Training Manual

The FOG Control Training Manual was developed by City staff to simplify compliance for FSEs. The manual incorporates written and visual descriptions of kitchen BMPs and potential sources of grease. The manual was designed to be used by the FSE management to train employees on implementation of BMPs. The manual includes a section for documenting all FOG control BMP training and a list of grease collection providers in the area.

2. FOG Training Video (CD-ROM)

A training video developed by the Orange County Sanitation District that identifies potential sources of grease within a typical kitchen and how to properly implement kitchen BMPs is provided to the FSEs. The CD-ROM video is eight minutes in length and available in multiple languages.

"No Dumping Grease" Sign

A "No Dumping Grease" sign was developed by City staff for placement over the wash sink as a reminder to FSE employees to discourage dumping grease into the sink. The 11" x 17" laminated poster is written in English and Spanish.

3. Restaurant BMPs Poster

The Restaurant Poster was developed by the County of Orange and identifies the minimum BMPs required of all restaurants and other food facility establishments. The poster is to be displayed at all FSEs and includes tips on achieving minimum compliance with both storm water and FOG regulations.

In addition to the educational materials, staff maintains an inspection form to document kitchen BMPs during the course of inspection. The inspection form is comprised of two sections; the first section is an assessment of kitchen BMPs and the second section is an assessment of storm water BMPs. The form is in triplicate, and a copy is left with the owner/operator after the inspection is complete. The inspection is conducted in a manner that emphasizes a cohesive, mutually beneficial partnership between the City and the FSEs.

The first years of program implementation were successful in reducing FOG accumulation in the sanitary sewer system. FSE operators were educated and trained on the proper method to dispose of FOG. The first year approach was to operate in a business friendly fashion and work with the FSEs to gain compliance. Although this approach has taken more time and resources to implement, staff believes it will pay off in the long term through increased compliance.

Inspections

Initially, the focus of the inspection program was the evaluation of FOG control BMPs. The evaluation of storm water BMPs is included since the inspections have similar components. Adding these items helps achieve compliance with the City's National Pollution Discharge Elimination System (NPDES) Permit. Program modifications included adding the inspection of ventilation hood filters and cleaning/maintenance practices of hoods and filters. This was not identified as a potential grease source until it was discovered that many FSEs clean hood filters in the wash sink. Hood filters are designed to capture and prevent vaporized grease that can release large amounts of grease into the sewer collection system if cleaned in the wash sink. To address the new issue, the inspection form was modified to evaluate the maintenance frequency and cleaning practices and identify proper cleaning methods.

Challenges encountered during the implementation included a general lack of written facility maintenance practices of each FSE. Many owners/operators were not aware that their facility had a grease trap or grease interceptor, therefore, no maintenance was being performed. Lack of documentation for grease trap/interceptor maintenance and documentation of all FOG training was another common problem even on the second and third inspection. High turnover of management and employees and a lack of consistent BMP implementation are the major concern.

Staff continually evaluates the effectiveness of the educational materials to promote a successful FOG Control Program. The materials can be integrated into daily practices and survive the high turnover of management and staff. In most cases, FSEs are willing to address the deficiencies noted during inspections and implement the necessary corrective BMPs.

Table 1 Food Service Establishment Inventory

	<i>FSEs</i>	<i>With grease control device</i>		<i>Without device</i>	
2006	276	113	41%	163	59%
2007	292	140	48%	152	52%

Table 2 Inspections Conducted in 2007

<i>Description</i>	<i>Required</i>	<i>Complete</i>	<i>Percent</i>
w/Grease trap/ interceptor (1x /yr)	140	140	100%
w/o Grease removal equipment	304	288*	95%

* Outstanding inspections include FSEs opened within a few months of year end, or that could not be inspected due to operating hours

Regulation and Citations

In 2007, City staff moved to a more regulatory approach with FSEs that continue to violate the FOG ordinance. Through the administrative citation procedure, Notices of Non-Compliance, citations, and fines are issued to FSEs not in compliance with the FOG program.

Table 3 Enforcement Actions Taken

Notice of non-compliance (<i>written warning</i>)	53
Citations	4

Approximately 75% of the violations were for a failure to implement FOG training for employees. The four citations issued were to repeat violators. Three of these were issued for failing to implement FOG training as specified on the Notice of Non-compliance and one for failure to maintain a grease trap.

FOG Training Educational Materials

During the initial inspection of an FSE, the business is provided with the FOG BMP Training Manual that includes the following items:

1. Narrative description of the FOG program and FOG BMPs
2. Employee Training Log
3. Grease Trap Maintenance Log
4. Grease Recycling Service Providers in the Area
5. FOG Training Video
6. *Restaurants Protecting our Waterways* video as provided by the County of Orange Stormwater public education program
7. Brochure "Help Prevent Ocean Pollution: A Guide for Food Service Establishments" in English and Spanish as provided by the County of Orange Stormwater Public Education program

Table 4 Educational Material Distribution in 2007

Educational Material	Number
FOG BMPs Binder	180
Brochures – separate from FOG Binder	20
No Dumping Grease Sign	197
Prevent Stormwater Pollution Poster	192
FOG Video (<i>initial & replacement</i>)	203

Sewer Maintenance Program

Response to Spills/Overflows/Blockages

During Fiscal Year 2006/07, the Sewer Service Maintenance crews responded to a number of overflows, spills, blockages and other incidences related to fats, oils and greases build up from Food Service Establishments. Previous practice was to bill the responsible party only in extreme instances. However, in an effort to better recover costs, the Utilities Division has implemented the practice of billing for each call out when it can be determined that the spill/overflow was directly the result of improper FOG control or practices. In many instances, the blockage occurs in a sewer line common to multiple FSEs. If the blockage cannot be traced to a specific location or facility, reimbursement is generally not pursued.

Table 5 FOG Related Spills or Overflows

Fiscal Year	No. of Incidents
October 2005 – September 2006	8
October 2006 – September 2007	4

Line Cleaning and Televising

Sewer line cleaning and television inspection related to the FOG program were performed by City crews. The program focused on the 160+ FSEs without FOG control measures in place. The table below provides a breakdown of the costs, which were charged to the Sewer Service Fund as part of operations and maintenance.

Revenue and Expenditures

Table 6 FOG Program Budget Fiscal Year 2006/07

<i>Revenue</i>		
FOG Fees	General Fund	\$ 71,300
Spill Response Reimbursement	Sewer Fund	2,000
Revenue Total		\$ 73,300
<i>Expenditures</i>		
Inspections	General Fund	\$74,800
Maintenance (labor & equipment)	Sewer Fund	\$34,000
Expenditure Total		\$108,800

Fee Schedule

The fee schedule for FOG has not been adjusted since program inception. A fully burdened rate that includes staff hours, benefits, equipment usage, and citywide overhead was used to determine the initial fees. In 2004, the year of the FOG program implementation, the City overhead rate was 100%. The rate was adjusted to 60% in 2006. A fee and cost allocation study is currently underway and will be completed by August 2008. The study will result in an updated overhead rate for the department.

Table 7 Initial Staff Hour Estimates vs. Actual Hours in FY 2006/07

<i>Program Component</i>	<i>Estimated hours</i>	<i>Actual Hours</i>
FSE Inspection	390	800
Sewer Camera Inspection	180	570
Program management	150	50
	720	1,420

Initial estimates of inspection staff hours underestimated the number of hours necessary for facilities inspection and BMP education. In 2006/07 the field review, inspection, and employee education at FSEs required approximately 800 hours. Program management has been reduced to 50 hours per year.

The inspection and management of the FOG program is charged to the General Fund. Revenue from the FSE charge is deposited to the General Fund. Sewer line inspection and spill response is funded through the citywide Sewer Service Charge. The recommend fee adjustment of seven percent (7%) would fully recover estimated costs to the General Fund.

Table 8 Current FSE Annual Fees and Estimated Revenue

<i>FSE Type</i>	<i>No. Jan 2008</i>	<i>Annual Fee</i>	<i>Annual Revenue</i>
With grease control device	140	\$126	\$17,640
Without device	152	\$348	52,900
Total			\$70,540

Table 9 Proposed Fees for Full General Fund Cost Recovery = 7% adjustment

<i>FSE Type</i>	<i>No. Jan 2008</i>	<i>Annual Fee</i>	<i>Annual Revenue</i>
With grease control device	140	\$134	\$18,760
Without device	152	\$372	56,544
Total			\$75,304

The FOG program is now in the third year of operation. Several indications of program success are apparent. The majority of FSEs now understand the FOG control requirements. Compliance with notices of violation approaches 100%. Spill, overflow and blockage incidents have been reduced by over 50%. The success of the program can be greatly attributed to Administrative Environmental Specialists, Jim Merid and Marty Haber, and Environmental Principal Engineer Geraldine Lucas. Through their efforts, the City of Huntington Beach has achieved an exemplary FOG control program.