

# California Regional Water Quality Control Board

San Francisco Bay Region

Arnold Schwarzen Governor

Terry Tamminen Secretary for Environmental Protection

1515 Clay Street, Suite 1400, Oakland, California 94612 (510) 622-2300 • Fax (510) 622-2460 http://www.waterboards.ca.gov/sanfranciscobay

> File No. 1210.57 (AMP) NOV 15 2004

Sewer System Authorities (attached list)

SUBJECT: New Requirements for Reporting of Sanitary Sewer Overflows

This letter is to notify you, as a Sewer System Authority, that beginning December 1, 2004, there will be new requirements for reporting of sanitary sewer overflows (SSO) that apply to all Sewer System Authorities in this region. In summary, you are required to:

- 1) electronically report SSOs that occur within a set time frame to the Water Board, and
- 2) annually report all SSOs.

These reporting requirements are described in the attached Monitoring and Reporting Program Requirements. Failure to accurately report will subject you to monetary liabilities that may be imposed by the Water Board. The following provides some background and further details on the requirements and liabilities.

Background

This requirement is the result of a collaborative effort between the Bay Area Clean Water Agencies (BACWA) and the Water Board to reduce and prevent sanitary sewer overflows. Over the past year, BACWA and Water Board staff held numerous meetings and six workshops to develop the content of a comprehensive SSO program. This program is comprised of two components: 1) electronic reporting of SSOs; and, 2) development and implementation of Sanitary Sewer Management Plans (SSMPs). While the requirement for electronic SSO reporting begins December 1, 2004, the guidance document for SSMP preparation is still under development. We are also in the process of developing reporting requirements for activities related to development and implementation of SSMPs. These reporting requirements will be a part of the annual reports, and you will be notified of them at a later date. If you are interested in participating in finalizing the SSMP guidance or the reporting requirements, please contact Ann Powell of the Water Board.

Registration

The first step to electronic reporting is registration at: <a href="https://www.r2esmr.net/sso\_login2.asp">https://www.r2esmr.net/sso\_login2.asp</a>. Prior to reporting SSOs, you will need to go online and complete a "Collection System Questionnaire" to register your agency in the program. After registration, we will e-mail you a username and password. Each agency can register only once, and will be provided only one username and password. You may share this username and password with any authorized user within your agency who has responsibility for reporting SSOs. You do not need to register again if you have already registered as part of the pilot testing of this reporting system.

## **Annual Reports**

The first annual report is due March 15, 2006, and should cover 13 months from December 1, 2004, through December 31, 2005. Subsequent annual reports are due March 15th, and should contain information for the preceding 12-month calendar year. Please refer to the attached document, Sanitary Sewer Overflow Monitoring and Reporting Program Requirements for Sewer System Authorities, for detail on reporting SSO information in the annual report.

Applicability to NPDES Permitted Facilities

For Publicly Owned Treatment Works whose discharges are regulated in NPDES permits, and who also operate sanitary sewer systems, the reporting requirements for SSOs specified in your Permit's Self-Monitoring Program (SMP) are still in effect for SSOs that occur within the treatment plant facility boundaries. For SSOs that occur in the collection system upstream of the treatment plant, the SSO reporting requirements specified in this letter replace those in the SMP.

Basis for Requirement and Liabilities

Because SSOs are a threat to water quality, you should be aware that this letter establishes formal requirements for technical information pursuant to California Water Code Section 13267. Failure to respond, late response, or incomplete response may subject you to civil liability imposed by the Water Board to a maximum of \$1,000 per day. Any revisions of the request set forth must be confirmed in writing by Water Board staff.

Questions

If your agency needs assistance registering or with other aspects of electronic reporting, please contact Johnson Lam at ilam@waterboards.ca.gov or (510) 622-2373. For questions about program requirements or SSMPs, please contact Ann M. Powell at apowell@waterboards.ca.gov or (510) 622-2474.

Sincerely,

Executive Office

#### Attachments:

Sanitary Sewer Authorities Mailing List

 Sanitary Sewer Overflow Monitoring and Reporting Program Requirements for Sewer System Authorities

# San Francisco Bay Area Sanitary Sewer Overflow Monitoring and Reporting Program Requirements for Sewer System Authorities

Sewer system authorities (Authorities) shall monitor and report sanitary sewer overflows (SSO) caused by a problem in or with sewer lines or laterals owned by the Authorities in accordance with the requirements specified in this Monitoring and Reporting Program.

# I. SSO MONITORING REQUIREMENTS

When responding to an SSO event, the first two priorities are protection of public health and eliminating the SSO. If an SSO originating from an Authority's sewer system reaches surface water, Authorities shall conduct the following monitoring to determine the nature and impact of the SSO on the receiving water as soon as monitoring can safely occur without substantially impeding cleanup or other emergency measures:

# 1. Estimation of Spill Volume

Authorities shall record an estimate of the total volume of each SSO. The estimate can be made based on visual observations. See Attachment A for examples of various methods that can be used for estimating spill volume.

#### 2. Visual Monitoring

Authorities shall visually monitor, when and where practical, the receiving water near the location where the SSO entered surface water for abnormal conditions, such as effects to aquatic life, abnormal color, etc. Photos may be used for documentation.

## 3. Water Quality Monitoring

When it is determined to be feasible and safe, Authorities shall collect and analyze samples of the receiving water for those SSOs that may imminently and substantially endanger human health and SSOs that cause fish kills. Samples taken in the receiving waters at appropriate locations, such as at the point of discharge, as well as up- and down-stream of the discharge point, shall be analyzed for ammonia, dissolved oxygen, and an indicator bacteria such as total coliform, fecal coliform, or enterococcus. The method of analysis for ammonia and dissolved oxygen may be a readily available, good quality test kit, suitable for field analysis.

Authorities may exercise their best judgment to determine if sampling is appropriate on a case-by-case basis. When reporting SSO data, Authorities should provide discussions on potential influence from other sources such as storm drains, streams, and other water bodies, which can be heavily impacted by normal runoff during both dry and wet weather conditions.

# II. SSO REPORTING REQUIREMENTS

Authorities shall report all SSOs greater than 100 gallons to the Regional Water Quality Control Board, San Francisco Region (Water Board). Authorities shall keep internal records of SSOs less than 100 gallons such that information on the total number of SSOs can be included in the Annual Report as described in Section II.4., below. 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 is caused by a problem in or with sewer system authorities' sewer lines including laterals owned by the authorities. For reporting purposes under this program, SSOs include:

- Overflows or releases of untreated or partially treated wastewater that reach waters of the State:
- Overflows or releases of untreated or partially treated wastewater that do not reach waters of the State; and
- Wastewater backups into buildings that are caused by blockages or high flow conditions
  in a sanitary sewer that are caused by a problem in an Authority's sewer line.
   Wastewater backups into buildings caused by a blockage or other malfunctions of a
  building lateral that is privately owned are not SSOs.

All SSOs must be reported within 10 business days of identification of the SSO by the Authority. More significant SSOs require immediate reporting to the Water Board and the Office of Emergency Services (OES) as shown in Figure 1 and described in Sections II.1. through II.4.

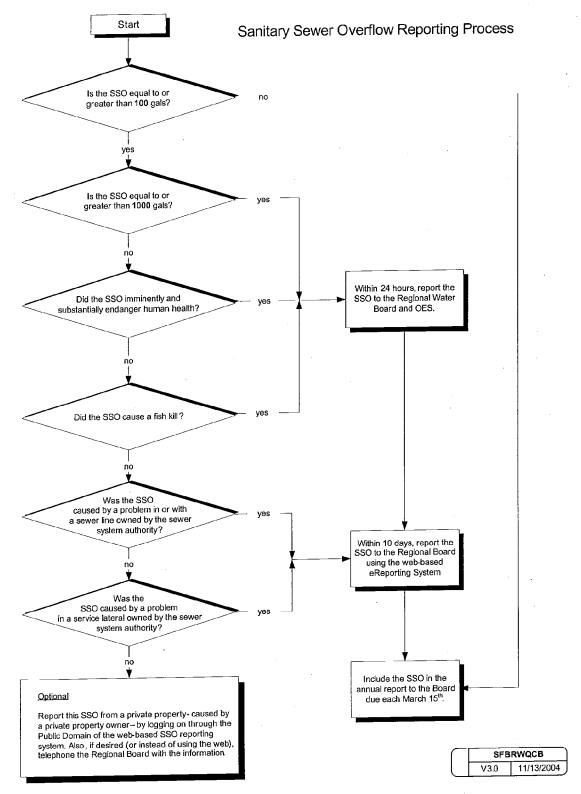


Figure 1. Flow Chart for Deciding How to Report an SSO

# 1. Immediate Reporting (24-Hour Reporting Requirement)

## a. Immediate Reporting to the Water Board

Authorities shall immediately report to the Water Board within 24 hours of Authorities' field staff becoming aware of an SSO<sup>1</sup> that meets the following criteria:

- (i) Any SSO that is 1,000 gallons or more, or
- (ii) Any SSO that may imminently and substantially endanger human health, or
- (iii) Any SSO that causes fish kills.

Authorities are encouraged to meet the immediate (24-hour) reporting requirement using the web-based SSO Electronic Reporting System (SSO ERS). The web-based reporting system requires a shortened amount of information for the 24-hour reporting (if desired by the Authority), with the remaining information to be entered within 10 business days of identification of the SSO by the Authority.

However, if necessary due to time and/or web-access constraints, the Authority can satisfy the 24-hour reporting requirement using Water Board telephone (510.622.) or facsimile (510.622.2460). If a facsimile is used, the form in Attachment B shall be used for the faxed form.

In any event, the Authority must submit a complete ("Long-Form") report of the SSO using the SSO ERS within 10 business days of identification of the SSO. The SSO ERS is described in Section II.3. below.

# b. Immediate Reporting to the Office of Emergency Services

Authorities shall also report all SSOs greater than 1,000 gallons by telephone only to OES<sup>2</sup>:

Office of Emergency Services Phone (800) 825-7550

OES fax for follow-up only Fax (916) 262-1677

<sup>2</sup> Refer to Section 13271 of the Porter Cologne Water Quality Control Act for legal authority.

<sup>&</sup>lt;sup>1</sup> Refer to section 13271 (a)(1) of the Porter Cologne Act and Title 23, Division 3, Chapter 9.2, §2250 of the California Code of Regulations for legal authority.

## c. Immediate notification to public

- (i) Authorities must notify the public of those SSOs, including SSOs that do not reach waters of the State, in areas where an SSO has a potential to imminently and substantially affect human health. The criteria for notification shall be developed and specified in Sewer System Management Plans (SSMPs) under Emergency Response Plans.
- (ii) Authorities shall post visible warning signs at the SSO location where there is public access and the SSO may imminently and substantially endanger human health.

## 2. Ten-Day Reporting

Authorities shall also report all other SSOs greater than 100 gallons within 10 business days of identification of SSOs by the Authorities.

# 3. SSO Electronic Reporting System (SSO ERS)

Authorities shall report all SSOs greater than 100 gallons through the Water Board's web-based SSO ERS at <a href="https://www.r2esmr.net/sso\_login2.asp">https://www.r2esmr.net/sso\_login2.asp</a>. Prior to reporting SSOs, a "Collection System Questionnaire" must be filled out online, in order to register your agency in the program. After registration, your agency will be issued a username and password. Only one username and password will be provided for each agency. This same username and password may be provided to any authorized user within the agency. If your agency needs assistance registering or obtaining a username and password, please contact Johnson Lam of the Regional Water Board, at Jlam@waterboards.ca.gov or (510) 622-2373.

Although not required, overflows less than 100 gallons may also be reported using the SSO ERS. The Authority may choose to do this because the SSO ERS is capable of generating summary reports that will satisfy annual reporting requirements and would also be useful for evaluation of system performance. If the Authority chooses not to electronically report these <100 gallon overflows, they are still responsible for tracking these for purposes of annual reporting.

For reporting SSOs, one of two forms shall be used, depending on the type of SSO, as follows:

- Long-Form This form shall be used if the SSO requires immediate reporting as described in Section II.1. above.
- Short-Form This form shall be used for SSOs that are not required to be reported immediately (generally, SSOs between 100 gallons and 1,000 gallons). This section also has a checkbox for spills from laterals, which will only apply to those Authorities who own some or all of the laterals.

If an SSO requires immediate 24-hour reporting, and the web-based reporting system was not used to make the immediate 24-hour report, then the Authority shall still use the Long-Form Report to submit the information via the web-based reporting system within 10 business days of identification of the SSOs by Authorities.

Following electronic reporting of an SSO, a confirmation e-mail will be sent to both the Agency Manager/Director (specified during Online Registration), as well as any individual(s) specified during completion of the SSO report.

# 4. Lateral SSOs on Private Property, Caused By Private Property Owner

SSOs from laterals on private property, that are caused by a private property owner, are not required to be reported. However, as an option, if the Authority wishes to notify the Regional Water Board of these types of SSOs, it can logon to the web-based reporting system through the Public domain (i.e. without passwords) at the logon prompt titled "SSO eReporting by Public or Registered User". By reporting through the Public domain, the accounting of these SSOs will be separate from the SSOs over which the agency has control.

#### 5. Annual Report

## a. Annual Report Content

## IN DEVELOPMENT

Guidance for Annual Report content is currently being developed and will be circulated early in 2005. Note that the first Annual Report is not due until March 15, 2006, and will cover thirteen months, December 2004 - December 2005.

# b. Annual Report Signature Requirement

Pursuant to 40 CFR 122.22, the annual reports shall be certified and signed by either a principal executive officer or a ranking elected official.

The annual reports must be certified with the following statement:

"I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

## c. Annual Reporting Schedule

Sewer system authorities shall submit annual reports to the Regional Water Board for the January 1 to December 31 reporting year no later than March 15 of the following

year. The first annual report is due March 15, 2006. Agencies may request an alternate schedule than the one assigned if there is a compelling reason and the request is made at least one month prior to the due date. Annual reports shall be sent to:

San Francisco Bay Regional Water Quality Control Board 1515 Clay Street, Suite 1400 Oakland, CA 94612 Attention: NPDES Division - Sanitary Sewer Overflow Annual Reports

The Water Board requests all Authorities to submit one paper copy of the annual report, and one electronic copy in Portable Document Format (PDF) of annual reports. Annual reports shall be placed in one PDF file. Hard copy reporting is required, and PDF reporting is voluntary, but requested. The paper copy can be mailed or hand-delivered to the Water Board. All PDF documents should be sent to Water Board File Transfer Protocol (FTP) site at ftp://swrcb2a.swrcb.ca.gov. A guide to submitting electronic documents is in Attachment C to this program.

## III. RECORDS TO BE MAINTAINED

All records of SSOs shall be maintained by Authorities for a minimum of three years from the date of the SSO. This period may be extended during the course of any unresolved enforcement action regarding a discharge or when requested by the Executive Officer.

### Attachment A

## POSSIBLE METHODS FOR ESTIMATING SPILL VOLUME

A variety of approaches exist for the estimation of the volume of a sanitary sewer overflow. This appendix documents four methods that are most often employed. Other methods are also possible. The person preparing the estimate shall use the method most appropriate to the SSO in question using their judgment. If these methods are not practical for your agency, it may be appropriate for your agency to develop its own guidelines. In any event, every effort shall be made to make the best possible estimate of the volume.

#### Method 1 Eyeball Estimate

The volume of very small spills can be estimated using an "eyeball estimate." To use this method imagine the amount of water that would spill from a bucket or a barrel. A bucket contains 5 gallons and a barrel contains 50 gallons. If the spill is larger than 50 gallons, try to break the standing water into barrels and then multiply by 50 gallons. This method is useful for contained spills up to 100 gallons.

#### Method 2 Measured Volume

The volume of some small spills can be estimated using this method if it is not raining. In addition, the shape, dimensions, and depth of the spilled wastewater are needed. The shape and dimensions are used to calculate the area of the spills and the depth is used to calculate the volume.

- Step 1 Sketch the shape of the contained sewage
- Step 2 Measure or pace off the dimensions.
- Step 3 Measure the depth in several locations
- Step 4 Convert the dimensions, including depth to feet.
- Step 5 Calculate the area using the following formulas:

Rectangle Area = length x width

Circle Area = diameter x diameter x 0.785

Triangle Area = base x height x 0.5

Step 6 Multiply the area times the depth

Step 7 Multiply the volume by 7.5 to convert it to gallons

## Method 3 Duration and Flow Rate

Calculating the volume of spills where it is difficult or impossible to measure the area and depth requires a different approach. In this method separate estimates are made of the duration of the spill and the flow rate. The methods of estimating duration and flow rate are:

Duration: The duration is the elapsed time from the start time to the time the spill stopped.

Start time is sometimes difficult to establish. Here are two approaches:

For very large overflows, changes in flow on a downstream flow meter can be used to establish the start time. Typically the daily flow peaks are "cut off" or flattened by the loss of flow. This can be identified by comparing hourly flow data.

Conditions at the spill site change with time. Initially there will be limited deposits of grease and toilet paper. After a few days to a week, the grease forms a light colored residue. After a few weeks to a month the grease turns dark. In both cases the quantity of toilet paper and other materials of sewage origin increase in amount. These changes with time can be used to estimate the start time in the absence of other information.

Sometimes it is simply not possible to estimate the start time.

**End time** is usually much easier to establish. Field crews on-site observe the "blow down" that occurs when the blockage has been removed. The "blow down" can also be observed in downstream flow meters.

Flow Rate: The flow rate is the average flow left in the sewer system during the time the spill stopped. There are three ways to estimate the flow rate:

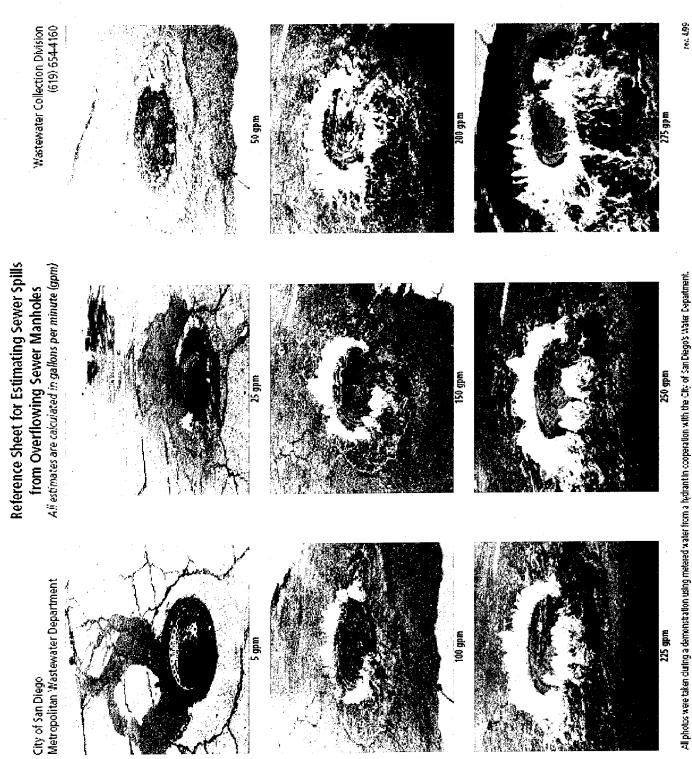
San Diego Manhole Flow Rate Reference Sheet: This sheet, presented in Figure A-1, shows the sewage flowing from a manhole cover for a variety of flow rates. The observations of the field crew are used to select the approximate flow rate from the chart.

Flow meter: Changes in flows in the downstream flow meters can be used to estimate the flow rate during the spill (better for large SSOs),

Estimate based on up-stream connections: Once the location of the spill is known, the number of upstream connections can be determined from the field books. Multiply the number of connection by 200 to 250 gallons per day per connection or 8-10 gallons per hour per connection, or other flow rates that are consistent with an agency's data for its connections.

Once duration and flow rate have been estimated, the volume of the spill is the product of the duration in hours or days times the flow rate in gallons per hour or gallons per day.

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#### Attachment B

# SANITARY SEWER OVERFLOW REPORT FORM FOR IMMEDIATE REPORTING BY FAX

This form may be used to record SSO information for immediate reporting purposes. Submittal of this form via fax or email to the Water Board within 24 hours of an event satisfies the Immediate Reporting requirement; however, complete reporting must also be submitted using the web-based reporting system, (SSO ERS) within 10 business days in which the SSO was identified by the Authority.

1.	OES Control number (Not applicable for SSOs <1000 gallons):			
2.	Method of 24-hr Reporting To Regional Board. Check all that apply.  □ Fax (510-622-2450) □ email □ Voice Mail (510-622-xxxx) □ Staff Contacted: (staff name)			
3.	Date Reported:/_	/ (MM/DD/		
4.	Time Reported: (Military or 24-Hour Time)			
5.	Reported By:		Phone Number: ()	
6.	Reporting Sewer Agency:			
7.	Responsible Sewer Agency:			
8.	Overflow Street Location:  (If the overflow did not occur at a street location, then use other identifiers, such as the grid information in Thomas Brothers Maps)			
	City:	Zip Code	e:County:	
9.		•	(MM/DD/YYYY); _ (Military or 24-Hour Time)	
10.	Overflow End:	Date://	(MM/DD/YYYY);  filitary or 24-Hour Time)	
11.	Estimated Overflow Flow	Rate:	(gallons per minute)	
12.	Estimated Total Overflow	Volume:	(gallons) – See Attachment A for guidance	
	Overflow volume recovered			

#### Attachment C

# GUIDE FOR SUBMITTING ELECTRONIC DOCUMENTS SAN FRANCISCO BAY REGIONAL WATER QUALITY CONTROL BOARD

## **Document Requirements**

- Submit all documents to the Board both as a paper copy for staff review and as an electronic file copy via Internet for archiving (electronic reporting is voluntary).
- Submit electronic documents as Portable Document Format (PDF) files.
- The PDF files shall include images of signed, dated and letterhead pages as appropriate. Submit each document as a single PDF file. For example, signed cover letters accompanying reports should be included as the first page(s) of the PDF file. Each report should be submitted as a single PDF file, not as separate chapters, figures, etc.
- The file name should be representative of the document or project. Example: Use "ParkRoadBeniciaRptSept03.pdf" instead of "4365.00 Final"
- Submit files to the appropriate Board staff person's folder in the Board's File Transfer Protocol (FTP) site (see below).

### **Document Submittal Procedure**

1. Access our FTP site via your Internet browser.

Address:

ftp://swrcb2a.swrcb.ca.gov/

[After accessing the website, right-click on the screen and then Login as:]

User Name:

rb2ftp

Password:

sfbayrb2

- 2. Click on the "Staff" folder.
- 3. Open the "Sanitary Sewer Overflow" folder and copy the file into it.
- 4. Send a confirming e-mail to Greg Walker at gwalker@waterboards.ca.gov.

California Regional Water Quality Control Board

San Francisco Bay Region

Terry Tamminen 1515 Clay Street, Suite 1400, Oakland, California 94612

Secretary for (510) 622-2300 • Fax (510) 622-2460

Environmental http://www.waterboards.ca.gov/sanfranciscobay

Protection

File No. 1210.57 (AMP)

NOV152004

TO: Sewer System Authorities (attached list)

SUBJECT: New Requirements for Reporting of Sanitary Sewer Overflows

Arnold Schwarzenegger

Governor

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1) electronically report SSOs that occur within a set time frame to the Water Board, and 2) annually report all SSOs.

These reporting requirements are described in the attached Monitoring and Reporting Program Requirements. Failure to accurately report will subject you to monetary liabilities that may be imposed by the Water Board. The following provides some background and further details on the requirements and liabilities.

#### Background

This requirement is the result of a collaborative effort between the Bay Area Clean Water Agencies (BACWA) and the Water Board to reduce and prevent sanitary sewer overflows. Over the past year, BACWA and Water Board staff held numerous meetings and six workshops to develop the content of a comprehensive SSO program. This program is comprised of two components: 1) electronic reporting of SSOs; and, 2) development and implementation of Sanitary Sewer Management Plans (SSMPs). While the requirement for electronic SSO reporting begins December 1, 2004, the guidance document for SSMP preparation is still under development. We are also in the process of developing reporting requirements for activities related to development and implementation of SSMPs. These reporting requirements will be a part of the annual reports, and you will be notified of them at a later date. If you are interested in participating in finalizing the SSMP guidance or the reporting requirements, please contact Ann Powell of the Water Board.

#### Registration

The first step to electronic reporting is registration at: https://www,r2esmr.net/sso login2.asp. Prior to reporting SSOs, you will need to go online and complete a "Collection System Questionnaire" to register your agency in the program. After registration, we will e-mail you a username and password. Each agency can register only once, and will be provided only one username and password. You may share this username and password with any authorized user within your agency who has responsibility for reporting SSOs. You do not need to register again if you have already registered as part of the pilot testing of this reporting system.

Preserving, enhancing, and restoring the San Francisco Bay Area's waters for over 50 years

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SSO Reporting Requirements - 2

**Annual Reports** 

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#### Attachments:

- Sanitary Sewer Authorities Mailing List
- Sanitary Sewer Overflow Monitoring and Reporting Program Requirements for Sewer System Authorities

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San Francisco Bay Area

Sanitary Sewer Overflow Monitoring and Reporting Program

Requirements for Sewer System Authorities

Sewer system authorities (Authorities) shall monitor and report sanitary sewer overflows (SSO) caused by a problem in or with sewer lines or laterals owned by the Authorities in accordance with the requirements specified in this Monitoring and Reporting Program.

#### 1. SSO MONITORING REQUIREMENTS

When responding to an SSO event, the first two priorities are protection of public health and eliminating the SSO. If an SSO originating from an Authority's sewer system reaches surface water, Authorities shall conduct the following monitoring to determine the nature and impact of the SSO on the receiving water as soon as monitoring can safely occur without substantially impeding cleanup or other emergency measures:

#### 1. Estimation of Spill Volume

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#### 3. Water Quality Monitoring

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Authorities may exercise their best judgment to determine if sampling is appropriate on a case-by-case basis. When reporting SSO data, Authorities should provide discussions on potential influence from other sources such as storm drains, streams, and other water bodies, which can be heavily impacted by normal runoff during both dry and wet weather conditions.

#### SSO Reporting Program 1

#### II. SSO REPORTING REQUIREMENTS

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- Overflows or releases of untreated or partially treated wastewater that reach waters of the State;
- Overflows or releases of untreated or partially treated wastewater that do not reach waters
  of the State; and
- Wastewater backups into buildings that are caused by blockages or high flow conditions in a sanitary sewer that are caused by a problem in an Authority's sewer line.
   Wastewater backups into buildings caused by a blockage or other malfunctions of a building lateral that is privately owned are not SSOs.

All SSOs must be reported within 10 business days of identification of the SSO by the Authority. More significant SSOs require immediate reporting to the Water Board and the Office of Emergency Services (OES) as shown in Figure 1 and described in Sections 11. 1. through II.4.

SSO Reporting Program Sanitary Sewer Overflow Reporting Process no Did the SSO imminently and

substantially endanger human health?

yes

no

Within 24 hours, report the SSO to the Regional Water

Board and OES.

Was the SSO

caused by a problem in or with

a sewer line owned by the sewer

system authority?

no

Was the

SSO caused by a problem

in a service lateral owned by the sewer

system authority?

Optional

Report this SSO from a private property- caused by a private property owner- by logging on through the Public Domain of the web-based SSO reporting system. Also, if desired (or instead of using the web),

telephone the Regional Board with the information

yes - yes

yes

yes

ves --J

Within 10 days, report the SSO to the Regional Board using the web-based eReporting System

Include the SSO in the

annual report to the Board

due each March 15".

**SFBRWQCB** 

V3.0 11/13/2004

Figure 1. Flow Chart for Deciding How to Report an SSO

SSO Reporting Program 3

1. Immediate Reporting (24-Hour Reporting Requirement)

a. Immediate Reporting to the Water Board

Authorities shall immediately report to the Water Board within 24 hours of

Authorities' field staff becoming aware of an SSO1 that meets the following criteria:

(i) Any SSO that is 1,000 gallons or more, or

(ii) Any SSO that may imminently and substantially endanger human health, or

(iii) Any SSO that causes fish kills.

Authorities are encouraged to meet the immediate (24-hour) reporting requirement using the web-based SSO Electronic Reporting System (SSO ERS). The web-based reporting system requires a shortened amount of information for the 24-hour reporting (if desired by the Authority), with the remaining information to be entered within 10 business days of identification of the SSO by the Authority.

However, if necessary due to time and/or web-access constraints, the Authority can satisfy the 24-hour reporting requirement using Water Board telephone (510.622.) or facsimile (510.622.2460). If a facsimile is used, the form in Attachment B shall be used for the faxed form.

In any event, the Authority must submit a complete ("Long-Form") report of the SSO using the SSO ERS within 10 business days of identification of the SSO. The SSO ERS is described in Section 11.3, below.

b. Immediate Reporting to the Office of Emergency Services

Authorities shall also report all SSOs greater than 1,000 gallons by telephone only to OES2:

Office of Emergency Services

Phone (800) 825-7550

OES fax for follow-up only

Fax (916) 262-1677

Refer to section 13271 (a)(1) of the Porter Cologne Act and Title 23, Division 3, Chapter 9.2, §2250 of the California Code of Regulations for legal authority.

2 Refer to Section 13271 of the Porter Cologne Water Quality Control Act for legal authority.

SSO Reporting Program 4

- c. Immediate notification to public
- (i) Authorities must notify the public of those SSOs, including SSOs that do not

reach waters of the State, in areas where an SSO has a potential to imminently and substantially affect human health. The criteria for notification shall be developed and specified in Sewer System Management Plans (SSMPs) under Emergency Response Plans.

(ii) Authorities shall post visible warning signs at the SSO location where there is public access and the SSO may imminently and substantially endanger human health. 2. Ten-Day Reporting

Authorities shall also report all other SSOs greater than 100 gallons within 10 business days of identification of SSOs by the Authorities.

3. SSO Electronic Reporting System (SSO ERS)

Authorities shall report all SSOs greater than 100 gallons through the Water Board's web-based SSO'ERS at https://hw~ww.r2esnir.nettsso login2.asp. Prior to reporting SSOs, a "Collection System Questionnaire" must be filled out online, in order to register your agency in the program. After registration, your agency will be issued a username and password. Only one username and password will be provided for each agency. This same username and password may be provided to any authorized user within the agency. If your agency needs assistance registering or obtaining a username and password, please contact Johnson Lam of the Regional Water Board, at Jlam@waterboards.ca.gov or (510) 622-2373.

Although not required, overflows less than 100 gallons may also be reported using the SSO ERS. The Authority may choose to do this because the SSO ERS is capable of generating summary reports that will satisfy annual reporting requirements and would also be useful for evaluation of system performance. If the Authority chooses not to electronically report these <100 gallon overflows, they are still responsible for tracking these for purposes of annual reporting.

For reporting SSOs, one of two forms shall be used, depending on the type of SSO, as follows:

- Long-Form This form shall be used if the SSO requires immediate reporting as described in Section H. 1. above.
- Short-Form This form shall be used for SSOs that are not required to be reported immediately (generally, SSOs between 100 gallons and 1,000 gallons). This section also has a checkbox for spills from laterals, which will only apply to those Authorities who own some or all of the laterals.

SSO Reporting Program 5

If an SSO requires immediate 24-hour reporting, and the web-based reporting system was not used to make the immediate 24-hour report, then the Authority shall still use the Long-Form Report to submit the information via the web-based reporting system within 10 business days of identification of the SSOs by Authorities.

Following electronic reporting of an SSO, a confirmation e-mail will be sent to both the Agency Manager/Director (specified during Online Registration), as well as any individual(s) specified during completion of the SSO report.

4. Lateral SSOs on Private Property, Caused By Private Property Owner SSOs from laterals on private property, that are caused by a private property owner, are not required to be reported. However, as an option, if the Authority wishes to notify the Regional Water Board of these types of SSOs, it can logon to the web-based reporting system through the Public domain (i.e. without passwords) at the logon prompt titled "SSO eReporting by Public or Registered User". By reporting through the Public domain, the accounting of these SSOs will be separate from the SSOs over which the agency has control.

5. Annual Report

a. Annual Report Content

IN DEVELOPMENT

Guidance for Annual Report content is currently being developed and will be circulated early in 2005. Note that the first Annual Report is not due until March 15, 2006, and will cover thirteen months, December 2004 - December 2005.

b. Annual Report Signature Requirement

Pursuant to 40 CFR 122.22, the annual reports shall be certified and signed by either a principal executive officer or a ranking elected official.

The annual reports must be certified with the following statement:

"I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

c. Annual Reporting Schedule

Sewer system authorities shall submit annual reports to the Regional Water Board for

the January 1 to December 31 reporting year no later than March 15 of the following SSO Reporting Program 6

year. The first annual report is due March 15, 2006. Agencies may request an alternate schedule than the one assigned if there is a compelling reason and the request is made at least one month prior to the due date. Annual reports shall be sent to:

San Francisco Bay Regional Water Quality Control Board 1515 Clay Street, Suite 1400

Oakland, CA 94612

Attention: NPDES Division - Sanitary Sewer Overflow Annual Reports
The Water Board requests all Authorities to submit one paper copy of the annual report, and one electronic copy in Portable Document Format (PDF) of annual reports. Annual reports shall be placed in one PDF file. Hard copy reporting is required, and PDF reporting is voluntary, but requested. The paper copy can be mailed or hand-delivered to the Water Board. All PDF documents should be sent to Water Board File Transfer Protocol (FTP) site at ftp://swrcb2a.swreb.ca.gov. A guide to submitting electronic documents is in Attachment C to this program.

III. RECORDS TO BE MAINTAINED

All records of SSOs shall be maintained by Authorities for a minimum of three years from the date of the SSO. This period may be extended during the course of any unresolved enforcement action regarding a discharge or when requested by the Executive Officer. SSO Reporting Program 7

Attachment A

#### POSSIBLE METHODS FOR ESTIMATING SPILL VOLUME

A variety of approaches exist for the estimation of the volume of a sanitary sewer overflow. This appendix documents four methods that are most often employed. 'Other methods are also possible. The person preparing the estimate shall use the method most appropriate to the SSO in question using their judgment. If these methods are not practical for your agency, it may be appropriate for your agency to develop its own guidelines. In any event, every effort shall be made to make the best possible estimate of the volume.

Method 1 Eyeball Estimate

The volume of very small spills can be estimated using an "eyeball estimate." To use this method imagine the amount of water that would spill from a bucket or a barrel. A bucket contains 5 gallons and a barrel contains 50 gallons. If the spill is larger than 50 gallons, try to break the standing water into barrels and then multiply by 50 gallons. This method is useful for contained spills up to 100 gallons.

Method 2 Measured Volume

The volume of some small spills can be estimated using this method if it is not raining. In addition, the shape, dimensions, and depth of the spilled wastewater are needed. The shape and dimensions are used to calculate the area of the spills and the depth is used to calculate the volume

Step 1 Sketch the shape of the contained sewage

Step 2 Measure or pace off the dimensions.

Step 3 Measure the depth in several locations

Step 4 Convert the dimensions, including depth to feet.

Step 5 Calculate the area using the following formulas:

Rectangle Area = length x width

Circle Area = diameter x diameter x 0.785

Triangle Area = base x height x 0.5

Step 6 Multiply the area times the depth

Step 7 Multiply the volume by 7.5 to convert it to gallons

Method 3 Duration and Flow Rate

Calculating the volume of spills where it is difficult or impossible to measure the area and depth requires a different approach. In this method separate estimates are made of the duration of the spill and the flow rate. The methods of estimating duration and flow rate are:

Duration: The duration is the elapsed time from the start time to the time the spill stopped.

Start time is sometimes difficult to establish. Here are two approaches:

For very large overflows, changes in flow on a downstream flow meter can be used to establish the start time. Typically the daily flow peaks are "cut off' or flattened by the loss of flow. This can be identified by comparing hourly flow data.

Conditions at the spill site change with time. Initially there will be limited deposits of grease and toilet paper. After a few days to a week, the grease forms a light colored residue. After a few weeks to a month the grease turns dark. In both cases the quantity of toilet paper and other materials of sewage origin increase in amount. These changes with time can be used to estimate the start time in the absence of other information.

Sometimes it is simply not possible to estimate the start time.

End time is usually much easier to establish. Field crews on-site observe the "blow

down" that occurs when the blockage has been removed. The "blow down" can also be observed in downstream flow meters.

Flow Rate: The flow rate is the average flow left in the sewer system during the time the spill stopped. There are three ways to estimate the flow rate:

San Diego Manhole Flow Rate Reference Sheet: This sheet, presented in Figure A-1, shows the sewage flowing from a manhole cover for a variety of flow rates. The observations of the field crew are used to select the approximate flow rate from the chart. Flow meter: Changes in flows in the downstream flow meters can be used to estimate the flow rate during the spill (better for large SSOs),

Estimate based on up-stream connections: Once the location of the spill is known, the number of upstream connections can be determined from the field books. Multiply the number of connection by 200 to 250 gallons per day per connection or 8-10 gallons per hour per connection, or other flow rates that are consistent with an agency's data for its connections.

Once duration and flow rate have been estimated, the volume of the spill is the product of the duration in hours or days times the flow rate in gallons per hour or gallons per day.

I City of San Diego

M tropolitan Wastewater Department

Reference Sheet for Estimating Sewer Spills

from Overflowing Sewer Manholes

h estimates are caiculated m~ gallons perm in ute (gpm)

100 pin

150

25 gpm

qpm

225 gpm 250 gpm

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'J': astewater Collection. Division

(619) 654-4160

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Attachment B

#### SANITARY SEWER OVERFLOW REPORT FORM FOR

IMMEDIATE REPORTING BY FAX

This form may be used to record SSO information for immediate reporting purposes. Submittal of this form via fax or email to the Water Board within 24 hours of an event satisfies the Immediate Reporting requirement; however, complete reporting must also be submitted using the web-based reporting system, (SSO ERS) within 10 business days in which the SSO was identified by the Authority.

- 1. OES Control number (Not applicable for SSOs <1000 gallons):
- 2. Method of 24-hr Reporting To Regional Board. Check all that apply.

^ Fax (510-622-2450) ^ email ^ Voice Mail (510-622-xxxx) ^ Staff Contacted: (staff name)

- 3. Date Reported: // (MM/DD/YY)
- 4. Time Reported: (Military or 24-Hour Time)
- 5. Reported By: Phone Number: (
- 6. Reporting Sewer Agency:
- 7. Responsible Sewer Agency:
- 8. Overflow Street Location:

(If the overflow did not occur at a street location, then use other identifiers, such as the grid information in Thomas Brothers Maps)

City: Zip Code: County:

9. Overflow Start Estimate: Date: // (MM/DD/YYYY);

Time: (Military or 24-Hour Time)

Overflow End: Date: // (MM/DD/YYYY);
 Time: (Mil itary or 24-Hour Time)

11. Estimated Overflow Flow Rate: (gallons per minute)

12. Estimated Total Overflow Volume: (gallons) - See Attachment A for guidance

13. Overflow volume recovered: (gallons)

Attachment C

GUIDE FOR SUBMITTING ELECTRONIC DOCUMENTS

SAN FRANCISCO BAY REGIONAL WATER QUALITY CONTROL

BOARD

Document Requirements

- Submit all documents to the Board both as a paper copy for staff review and as an electronic file copy via Internet for archiving (electronic reporting is voluntary).
- Submit electronic documents as Portable Document Format (PDF) files.

- The PDF files shall include images of signed, dated and letterhead pages as appropriate. Submit each document as a single PDF file. For example, signed cover letters accompanying reports should be included as the first page(s) of the PDF file. Each report should be submitted as a single PDF file, not as separate chapters, figures, etc.
- The file name should be representative of the document or project. Example: Use
- "ParkRoadBeniciaRptSept03.pdf" instead of "4365.00 Final"
- Submit files to the appropriate Board staff person's folder in the Board's File Transfer Protocol (FTP) site (see below).

Document Submittal Procedure

1. Access our FTP site via your Internet browser.

Address: ftp://swreb2a.swreb.ca.gov/

[After accessing the website, right-click on the screen and then Login as:]

User Name: rb2ftp Password: sfbayrb2

2. Click on the "Staff' folder.

- 3. Open the "Sanitary Sewer Overflow" folder and copy the file into it.
- 4. Send a confirming e-mail to Greg Walker at gwalker@waterboards.ca.gov.