



Gallatin Public Utilities

Water ♦ Sewer ♦ Natural Gas

October 30, 2012

Manager, Enforcement and Compliance Section
Tennessee Department of Environment and Conservation
Division of Water Pollution Control
401 Church Street
6th Floor L&C Annex
Nashville, TN 37243

Manager, Nashville Environmental Field Office
Tennessee Department of Environment and Conservation
Division of Water Pollution Control
711 R.S. Gass Boulevard
Nashville, TN 37243

Re: Agreed Order - Case No. WPC11-0066
Docket No. 04.30-116140A
Item No. 4 - Submittal of Draft Sanitary Sewer Overflow Response Plan
Sumner County, Tennessee

Ladies and Gentlemen:

In accordance with the provisions of the Agreed Order, referenced above, Item Number 4 (Sewer Overflow Response Plan), herewith we are transmitting a draft Sanitary Sewer Overflow Response Plan for your review and approval. A copy of this draft Sanitary Sewer Overflow Response Plan is also being placed on our website in the Public Document Repository.

Please do not hesitate to contact me should you have any questions or require any additional information.

Sincerely,

A handwritten signature in black ink, reading 'David T. Kellogg', with a stylized flourish at the end.

David T. Kellogg
Assistant Superintendent
Gallatin Public Utilities

SANITARY SEWER OVERFLOW RESPONSE PLAN

CITY OF GALLATIN
DEPARTMENT OF PUBLIC UTILITIES
SUMNER COUNTY, TENNESSEE
NPDES #TN0020141

PREPARED BY:
THE MANAGEMENT & STAFF
OF GALLATIN PUBLIC UTILITIES



REVISED: SEPTEMBER 20, 2005

GALLATIN PUBLIC UTILITIES

SANITARY SEWER OVERFLOW RESPONSE PLAN

NPDES PERMIT #: TN0020141

**City of Gallatin, Tennessee
Department of Public Utilities
Wastewater Collection System**

Prepared By: The Management and Staff of Gallatin Public Utilities

**Effective Date:
Revision:**

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SANITARY SEWER OVERFLOW RESPONSE PLAN

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This **Sanitary Sewer Overflow Response Plan (SSORP)** outlines the actions that will be taken by Gallatin Public Utilities to reduce the impact of a sanitary sewer overflow (SSO) on our customers and the environment, as well as, to comply with regulatory requirements. This plan is also designed to provide Gallatin Wastewater Collection System personnel with essential information needed when responding to reports of a suspected sanitary sewer overflow incident.

Section I: Authority

The authority for developing and implementing this Sanitary Sewer Overflow Response Plan is derived from several different sources. The two most significant are the National Pollutant Discharge Elimination System (NPDES) permit issued to the City of Gallatin for the operation of the wastewater treatment plant and collection system, as well as the City of Gallatin Municipal Code, Sections 17-115 through 17-239 which contains the Sewer Use regulations for the City of Gallatin.

Section II: General

This Sanitary Sewer Overflow Response Plan is designed to be used as a guide when responding to a reported sanitary sewer overflow and when reporting sanitary sewer overflow incidents. It is also designed to ensure that every report of a suspected sanitary sewer overflow is promptly investigated and that the appropriate actions are taken to minimize the effects of any sanitary sewer overflow. This Sanitary Sewer Overflow Response Plan is a key element in the operation and maintenance of the sanitary sewer collection system and it should be reviewed and revised (as necessary) on an annual basis, or whenever there is a change in a critical element of the Plan (e.g., changes in Department staff, contact information, etc.).

A. Objectives

There are several primary objectives of this Sanitary Sewer Overflow Response Plan, these objectives include:

- İ The protection of the public health for the citizens of Gallatin, Tennessee, as well as that of visitors to our community, by eliminating or reducing sanitary sewer overflows.
- İ The protection of the environment by preventing sanitary sewage from entering the environment or by reducing the amount of sanitary sewage that enters the environment.

- İ To provide a systematic response to reported sanitary sewer overflow incidents, while ensuring sanitary sewer overflow incidents are reported in a timely manner.
- İ The protection of the wastewater collection system, the wastewater treatment plant, and related system appurtenances, by helping to identify components of the sanitary sewer system with hydraulic capacity or structural issues.
- İ The protection of wastewater collection system and wastewater treatment plant personnel.
- İ To protect public and private property beyond the collection and treatment facilities
- İ The compliance with the conditions of the NPDES permit issued to the City of Gallatin, and other regulatory requirements.

B. Organization of the Plan

The primary elements of this Sanitary Sewer Overflow Response Plan are as follows:

Section I	Authority
Section II	General
Section III	Overflow Response Procedures
Section IV	Notification Procedures
Section V	Distribution and Maintenance of Plan

In addition, this plan is organized with several Appendixes which contain the information that is most likely subject to change (personnel listings, contact information, sample forms, etc.).

C. Type of Sanitary Sewer Overflows

There are two (2) major types of sanitary sewer overflows, and it is important to distinguish between the two when analyzing the cause of an overflow, when documenting an overflow incident, and when reporting an overflow incident. The two types of sanitary sewer overflows are a dry weather overflow and a wet weather overflow. Dry weather overflows may be the result of a blockage of the sanitary sewer piping (caused by root intrusion into the pipe or a structural defect in the pipe), the result of a grease build-up in the sanitary sewer piping (typically seen in areas with restaurants), and by the accumulation of debris in the sanitary sewer pipe. Dry weather overflows may also be caused by power outages

(pump stations), mechanical failures, and insufficient capacities in the sanitary sewer system. Wet weather overflows are typically the direct result of an excessive amount of inflow and/or infiltration of storm-water entering the sanitary sewer collection system.

D. Tracking of Sanitary Sewer Overflows

The Gallatin wastewater collection system consists of over 191 miles of sanitary sewer mains, 36 sanitary sewer pumping stations, and 4,780 sanitary sewer manholes. With this amount of infrastructure, the acquisition and maintenance of data is an integral part of this Plan. There are several means by which sanitary sewer overflow incidents will be recorded and tracked. These recordkeeping methods include, a “*Sewer Customer Complaint Log*”, a service order generated through the Department’s UMS Billing Software system, a “*Sanitary Sewer Overflow Report*” form, an entry into the Department’s GIS mapping database, an spreadsheet maintained by the Sewer Collection System Supervisor, and an entry on the Gallatin Public Utilities’ website.

E. Identification of Sensitive Areas

Sensitive areas will be identified in two (2) ways. The first identified sensitive areas are chronic sanitary sewer overflow locations. Chronic sanitary sewer overflow locations are defined as locations (lift stations, manholes, etc.) that overflow five (5) or more times within a 12 month period. The second identified sensitive areas are those areas where a sanitary sewer overflow could have a greater negative impact, such as areas near schools, hospitals, public parks and recreation areas, and environmentally sensitive areas such as creeks, streams, rivers, lakes, and wetlands.

F. Responsibilities of the Department

Gallatin Public Utilities has the responsibility to eliminate sanitary sewer overflows to every extent possible through the proper operation and maintenance of its wastewater collection system. Inevitably, regardless of how well the wastewater collection system is operated and maintained, a sanitary sewer overflow incident can occur. Whenever this may occur, Gallatin Public Utilities has the responsibility to immediately respond to the report sanitary sewer overflow incident and to implement the procedures outlined in this Plan, to the extent possible, to mitigate the impact of a sanitary sewer overflow.

Section III: Overflow Response Procedures

The following Overflow Response Procedures outline a strategy allowing Gallatin Public Utilities to effectively respond to any condition(s) which may result in or contribute to the unpermitted discharge of wastewater. These procedures will serve as a guide for the mobilization and deployment of manpower, equipment, and materials necessary to help mitigate the impacts of a sanitary sewer overflow. While it is understood that the response to each sanitary sewer overflow incident will be unique, these procedures are designed to take into consideration a wide variety of potential system failures and events that could potentially result in a sanitary sewer overflow.

A. Receipt of Information Regarding a Suspected Sanitary Sewer Overflow

A sanitary sewer overflow may be discovered and reported by any of several different parties, including GPU personnel, our customers, and the general public. Typically, the Administrative Office for Gallatin Public Utilities will have the primary responsibility for receiving telephone calls regarding a possible sanitary sewer overflow incident during normal business hours. Our after-hours answering service has the responsibility for receiving telephone calls regarding a possible sanitary sewer overflow incident outside of our normal business hours. Telephone calls regarding a possible sanitary sewer overflow incident may also be received by the Gallatin Police/Fire dispatch center and the Gallatin Wastewater Treatment Plant.

1. Whenever a telephone call is received, during normal business hours, reporting a suspected sanitary sewer overflow, it shall be immediately transferred to the Utility Dispatcher. The dispatcher, or call taker, shall attempt to obtain any relevant information available regarding the suspected sanitary sewer overflow, including:
 - ï The date and time the call is received.
 - ï The specific location of the suspected sanitary sewer overflow.
 - ï The caller's name and telephone number.
 - ï A description of the problem.
 - ï The approximate time the suspected sanitary sewer overflow was first noticed by the caller
 - ï Any observations made by the caller (e.g., odor, appearance, duration, back or front of property, etc.)
 - ï Any other information that may assist the responding personnel to more quickly locate, assess, and correct the sanitary sewer overflow.

The dispatcher will record the information in the “*Sewer Customer Complaint*” log and shall request that a Service Order be generated. The dispatcher will then notify the Sewer Collection System Supervisor, or his designee, of the suspected sanitary sewer overflow incident. The Sewer Collection System Supervisor will then either respond to the location of the suspected sanitary sewer overflow and conduct an investigation into the suspected overflow incident, or he shall dispatch the appropriate personnel to the location to begin an investigation into the suspected overflow incident.

2. Gallatin Public Utilities utilizes a SCADA system on the 14 largest and most critical of our 36 sanitary sewer pumping stations. The SCADA equipment, provided by MISSIONS, gives a near real-time status of the operational condition of the sanitary sewer pumping station where it is installed through a website interface. This equipment also provides alarm notification to collection system maintenance personnel. The SCADA systems assists in both notifications of possible sanitary sewer overflows, as well as, helping to prevent sanitary sewer overflows by alerting personnel whenever conditions (power outage, high water alarm, etc.) change that may result in a sanitary sewer overflow.
3. A sanitary sewer overflow detected by any Department personnel during the course of their normal duties shall be immediately reported to the Sewer Collection System Supervisor and to the Utility Dispatcher. The reporting personnel should record and relay any available, relevant information.
4. The Sewer Collection System Supervisor, or responding personnel, shall either verify the existence of a sanitary sewer overflow or shall confirm that the reported incident is not a sanitary sewer overflow. Until the report of a suspected sanitary sewer overflow is verified, it shall **not** be referred to as a “sewer overflow” – typically these reports will be classified as a “Stopped-Up Sewer” call.

B. Dispatch of Appropriate Personnel to Suspected Overflow Site

The failure of any element within the wastewater collection system that causes or has the potential to cause a sanitary sewer overflow will trigger an immediate response by the Department to identify, isolate, and correct the situation. Crews and equipment shall be available to respond to the report of any suspected

sanitary sewer overflow, and shall be capable of immediately beginning the process of mitigation and clean-up of the overflow.

1. Dispatching Personnel

- İ During normal business hours, the dispatcher shall contact the Sewer Collection System Supervisor by radio (use telephone if necessary) and provide him with the information collected in A1, above. The Sewer Collection System Supervisor shall then dispatch additional personnel and resources, as necessary, to resolve the sanitary sewer overflow incident.
- İ Outside normal business hours, the outside answering service shall gather the same information as outlined in A1, above. The answering service shall then contact the “on-call” personnel for the Water Department by telephone to investigate the suspected sanitary sewer overflow. If the “on-call” personnel confirms that a sanitary sewer overflow event is occurring or has occurred, they shall contact the Sewer Collection System Supervisor. The Sewer Collection System Supervisor shall then ensure that the sanitary sewer overflow incident is handled in accordance with the procedures outline in this Plan.

2. Crew Instructions and Service Orders

- İ Ideally, all personnel responding to a suspected sanitary sewer overflow should be dispatched by radio. The sewer collection field crews and other “on-call” personnel should receive their instructions from the Sewer Collection System Supervisor regarding the need for additional personnel, equipment, and material.
- İ The dispatcher shall ensure that the responding personnel received and acknowledged the dispatched message, using standard communication protocols. All personnel dispatched to the scene of a suspected sanitary sewer overflow shall proceed immediately to the site of the overflow, and shall immediately report any delays or conflicts in this assignment to the Sewer Collection System Supervisor.
- İ The personnel responding to a suspected sanitary sewer overflow shall report their findings, including any possible impact to public or private property, to the Sewer Collection System Supervisor as soon as possible following their initial investigation. In the event the Sewer Collection Supervisor has not received a report from the responding personnel within

thirty (30) minutes of the initial dispatch; he shall contact the responding personnel to determine the status of the incident.

3. Requests for Additional Resources

The Sewer Collection System Supervisor shall receive all requests for additional resources (personnel, equipment, and material) from the responding personnel; and shall address these requests as appropriate to ensure that the provisions of this plan are met. Whenever it is determined that outside resources are required, the Sewer Collection System Supervisor shall convey these requests to the Assistant Superintendent.

4. Preliminary Damage Assessments to Public and Private Property

Our primary focus is to resolve the problem. Responding personnel should use reasonable discretion in assisting the customer and/or property owner/occupant with these situations. Responding personnel should **not** enter private property for the purpose of assessing damage, this task shall be the responsibility of the Sewer Collection System Supervisor (and then only with the permission of the customer). The appropriate digital photographs should be taken of the sanitary sewer overflow and of any areas impacted by the sanitary sewer overflow; these photographs will be used to thoroughly document the nature and extent of the impact of the sanitary sewer overflow. The Sewer Collection System Supervisor shall also be responsible for completing and submitting the “*Employee Report of Potential Claim*” forms. All “*Employee Report of Potential Claim*” forms and corresponding photographs shall be submitted to the Assistant Superintendent for processing.

5. Field Inspection and Supervision

The Sewer Collection System Supervisor shall visit the site of all confirmed sanitary sewer overflows in order to ensure that the provisions of this Sanitary Sewer Overflow Response Plan and other Department directives are complied with.

6. Coordination with Hazardous Materials Response

- ï If upon arrival at the location of a suspected sanitary sewer overflow, the responding personnel discovers a suspicious substance (e.g., oil sheen,

unusual odor, etc.), or there is the presence of a suspicious odor (e.g., smell of solvents, gasoline, etc.) not normally found in the wastewater collection system, the responding personnel shall immediately contact the Assistant Superintendent for guidance prior to taking any further actions

- İ Should the Assistant Superintendent determine that it is necessary to alert a hazardous materials response team, the responding personnel shall await the arrival of the Gallatin Fire Department and/or the Sumner County Emergency Management Agency prior to taking any further actions. **Remember: Keep a safe distance and observe caution until assistance arrives. Any open flame, vehicle engine, or portable pump could serve as an ignition source should there be any flammable liquids or vapors present, resulting in an explosion or fire.**
- İ The Assistant Superintendent shall coordinate with the officer in-charge of the responding hazardous materials response agency to resolve the situation. Responding personnel may proceed with the procedures outlined in this Sanitary Sewer Overflow Response Plan (containment, correction, and clean-up), only after clearance is given by the Assistant Superintendent.

C. Determination of Responsibility

Personnel dispatched to the location of a suspected sanitary sewer overflow should immediately begin the process of determining the cause of the overflow, and whether the overflow is the responsibility of the Department or the customer. Under the Gallatin Municipal Code, the customer is responsible for maintain the sanitary sewer service line all the way to the sanitary sewer main. A sanitary sewer overflows that occurs in a customer's residence or on a customer's property may be the responsibility of the customer, such as when a blockage (tree roots, grease, etc.) or material failure results in an overflow. Gallatin Public Utilities is tasked with the operation and maintenance of the sanitary sewer mains and related appurtenances, and shall responsible sanitary sewer overflows that occur as the result of blockages or other issues in the sanitary sewer collection system. In any event, the responding personnel should direct their efforts toward identifying the cause of the overflow and to mitigating the effects of the overflow. When the cause of a sanitary sewer overflow is determined to be the customer's responsibility, this information will be promptly communicated to the customer and the Department's responsibility for the incident will end.

Whenever a sanitary sewer overflow, that has been determined to be the Department's responsibility, affects a customer's property (flooded basement, water on the floor, etc.), the Sewer Collection System Supervisor shall document and photograph the scene (entering the customer's premises only with permission). The Sewer Collection System Supervisor shall also offer the customer a "*Citizen Claim Form*", which the customer may complete and return to the City Attorney's office for processing.

D. Sanitary Sewer Overflow Containment, Correction, and Clean-up

Sanitary sewer overflows (SSO) of varying volumes may occur from time to time, in spite of the most concerted prevention efforts. Sanitary sewer overflows may result from excessive rainfall, sewer main or service line blockages, pipe failures, mechanical malfunctions, as well as, other man-made or natural causes. Gallatin Public Utilities is committed to respond to these incidents upon notification and confirmation. This section of the Sanitary Sewer Overflow Response Plan describes specific actions that may be taken or performed by Department personnel during an overflow incident. The objectives of these actions are:

- İ To protect the public health, the environment, and property from sanitary sewer overflows; to mitigate the impacts of sanitary sewer overflows; and to restore the area back to normal conditions as soon as possible.
- İ To establish perimeters and to control access to areas impacted by a sanitary sewer overflow, by the use of barricades, cones, and signs.
- İ To promptly notify the Tennessee Department of Environment and Conservation of overflow information and potential impacts.
- İ To contain the sanitary sewer overflow to the maximum extent possible, including preventing the discharge of sewage into surface waters, where practical.
- İ To minimize Gallatin Public Utilities exposure to any regulatory agency enforcement actions.

Under most normal circumstances, Gallatin Public Utilities will handle the response to sanitary sewer overflow incidents with its own sewer collection system personnel. Gallatin Public Utilities has the necessary experience, skill,

manpower, equipment, and material to respond to most sanitary sewer overflow incidents rapidly and in an appropriate manner. One important aspect for responding personnel to consider is to ensure that any temporary actions taken to address the sanitary sewer overflow and make necessary repairs does not result in an issue elsewhere in the collection system. For example, a repair to a broken sanitary sewer force main may require the temporary shut-down of the pump station and a diversion of flow at an upstream location. The shut-down and diversion must be properly handled, otherwise it may create a sewer system back-up and other overflows. There are circumstances that may arise where Gallatin Public Utilities could benefit from the support of private-sector contractors. This would be particularly true in the case of large diameter sewer mains and/or deeply buried pipes.

1. Responsibilities of the Responding Personnel Upon Arrival

It is the responsibility of the first responding personnel who arrive at the scene of a sanitary sewer overflow incident to protect the health and safety of the public, by mitigating the impact of the overflow to the extent possible. Should the suspected sanitary sewer overflow not be the responsibility of Gallatin Public Utilities, but there is an imminent threat to the public health, the environment, or property, then prudent steps should be taken until the responsible party assumes responsibility and takes action. Upon arrival at a suspected sanitary sewer overflow location, the responding personnel should do the following:

- İ Determine the cause of the sanitary sewer overflow.
- İ To identify and request, if necessary, any assistance or additional resources necessary to correct and minimize the impact of the sanitary sewer overflow.
- İ Determine if private property or the environment is impacted.
- İ Take immediate actions to stop the sanitary sewer overflow (e.g., clear sewer main blockage, manually operate pump station controls, repair pipe, etc.). Extraordinary steps may be considered when a sanitary sewer overflow from private property threatens the public health or environment.

2. Initial Measures To Be Taken For Overflow Containment

Personnel responding to a suspected sanitary sewer overflow incident shall initiate measures to contain the overflowing sewage and to recover, where practical, the sewage which has already been discharged, thereby minimizing the impact to the public health or the environment.

- İ Determine the immediate destination of the overflowing sewage (e.g., the ground, a storm drain, a ditch, a stream, etc.).
- İ Identify and request the personnel, equipment, and materials necessary to contain or isolate the sanitary sewer overflow.
- İ Take immediate actions to contain the overflow (e.g., block or sand bag storm drains, divert flow to a downstream manhole, etc.).

3. Additional Measures To Be Taken For Potentially Prolonged Overflow Events

In the event of a prolonged sanitary sewer overflow event (e.g., a sewer main blockage, sewer main collapse, pump station failure, etc.), a determination should be made as to the feasibility of setting-up a temporary bypass pumping operation around the overflow area.

- İ Determine the appropriate number and size of pumps required to effectively handle the sewage flow, as well as, the number, size, and length of suction and discharge hoses.
- İ Personnel scheduling for continuous or periodic monitoring of the bypass pumping operation shall be implemented, as required.
- İ Regulatory agency issues shall be addressed in conjunction with the emergency repairs.

4. Sanitary Sewer Overflow Clean-up

Sanitary sewer overflow sites are to be thoroughly cleaned following an overflow incident. There shall be no readily identifiable residue (e.g., sewage solids, papers, rags, plastics, etc.) remaining at the site following clean-up activities.

- ï If the sanitary sewer overflow site is in a public area or requires more than two (2) hours to clean-up, then the site shall be secured (with barricade tape or fencing) to prevent contact by members of the public or animals until the site has been thoroughly cleaned. Warning signs, if required, shall be posted in accordance with Section IV, below.
- ï Where it is practical, the area is to be thoroughly flushed and cleaned of any sewage or wash-down water. Any solids and debris are to be flushed, raked, swept, picked-up, and transported for proper disposal.
- ï Where the sanitary sewer overflow has result in the ponding or pooling of sewage, the ponded or pooled area should be pumped dry and the residue shall be disposed of in accordance with applicable policies and regulations (e.g., taken to the Wastewater Treatment Plant).
- ï When a pooled or ponded area contains sewage which cannot be pumped dry, the area may be treated with bleach or other disinfectant. Do not release disinfected water into waterways containing fish or aquatic life. Contact the Tennessee Department of Environment and Conservation or the Tennessee Wildlife Resources Agency for specific instructions for these instances.
- ï The use of portable aerators may be required where the complete recovery of the sewage is not practical, and where severe oxygen depletion in existing surface water is expected.
- ï Where appropriate, the sanitary sewer overflow site will be disinfected, agricultural lime, bleach, or other products may be used.

5. Incident Investigation

Once a sanitary sewer overflow event has been abated and clean-up has been completed, the cause of the sanitary sewer overflow shall be investigated. This investigation can be a CCTV inspection of the sanitary sewer main, a physical inspection of a pumping station, or other means necessary to determine the cause of the overflow. The information gathered during this investigation will be used to help prevent future sanitary sewer overflows from occurring, by identifying potential maintenance issues and repairs that can be made.

E. Sanitary Sewer Overflow Reporting

A “*Sanitary Sewer Overflow Report*” form (see Appendix B) shall be completed by the Sewer Collection System Supervisor for all confirmed sanitary sewer overflows. The “*Sanitary Sewer Overflow Report*” form shall be completed and submitted within **24 hours** of the confirmation of the sanitary sewer overflow. A the “*Employee Report of Potential Claim*” form shall be completed by the Sewer Collection System Supervisor for all sanitary sewer overflows that has been determined the Department’s responsibility and affects a customer’s property. The following information should be collected for all sanitary sewer overflow incidents:

1. Indication of whether the sanitary sewer overflow had reached surface waters (e.g., all overflow where sewage was observed running into surface waters, or there is obvious indication that sewage flowed to surface waters.
2. Indication that the sanitary sewer overflow had not reached surface waters, this determination can be may by:
 - ï Sanitary sewer overflows to covered storm drains (with no public access), where personnel can verify, by inspection, that the entire volume of the sanitary sewer overflow is contained in a sump or impoundment and where complete clean-up occurs.
 - ï Sanitary sewer overflows where on-site evidence or observations clearly indicates that all sewage was retained on land and did not reach surface water, and where complete clean-up occurs.
3. Determination of the time that the sanitary sewer overflow began, this determination can be made by one of the following methods:
 - ï The date and time the sanitary sewer overflow was reported or information was received about the suspected sanitary sewer overflow, and this information is later confirmed by responding personnel.
 - ï The visual observation of the sanitary sewer overflow by responding personnel.

- i Pump station flow charts, telemetry readings, or other recorded data, that is confirmed by responding personnel.
4. Determination of the time that the sanitary sewer overflow ended, this determination can be made by one of the following methods:
- i When a sewer main blockage is cleared and returns to normal flow conditions, or when repairs have been completed and the sewer main returns to normal flow conditions.
 - i When a pump station returns to normal operating conditions and the overflow is confirmed to have stopped.
 - i The arrival time of the responding personnel, if the sanitary sewer overflow has stopped prior to their arrival,
5. Visual observations, including:
- i An estimation of the rate of the sanitary sewer overflow (in gallons per minute), by one of the following methods:
 - f The measurement of the actual sanitary sewer overflow from a sewer main or overflow pipe.
 - f The direct observation of the sanitary sewer overflow and comparison with a guide for estimating the volume of a sanitary sewer discharge from a manhole.
 - i The determination of the volume of the sanitary sewer overflow.
 - f When the rate of the sanitary sewer overflow is known, multiple the rate times the duration of the sanitary sewer overflow.
 - f When the rate of the sanitary sewer overflow is unknown, investigate the area surrounding the overflow location for evidence of ponding or other indicators or overflow volume.
 - i Digital photographs of the sanitary sewer overflow incident, where possible.
 - i The assessment of any damage to the exterior of public or private property. The Sewer Collection System Supervisor should enter private

property (only with prior permission) for the purpose of documenting damage to structures and personnel property.

6. Estimation of the volume of the sanitary sewer overflow.

Section IV: Notification Procedures

This section of the Sanitary Sewer Overflow Response Plan outlines the actions that should be taken by Gallatin Public Utilities to notify the public and regulatory agencies of the existence of a confirmed sanitary sewer overflow.

A. Public Notification

Gallatin Public Utilities should, in cooperation with the Tennessee Department of Environment and Conservation and the Sumner County Health Department, work to limit public access to areas that have potentially been impacted by a sanitary sewer overflow event. All sanitary sewer overflows entering waters of the State require the posting of the affected area.

1. Signs

Gallatin Public Utilities, in conjunction with the Tennessee Department of Environment and Conservation, has the primary responsibility for determining when to post and removed public notices of a sanitary sewer overflow. These notices will apply to surface water bodies and/or ground surface areas that are impacted by a sanitary sewer overflow. These postings do not necessarily prohibit the use of an area, but serve as a warning of the potential health risks associated with the sewage contamination.

A permanent “*TDEC Overflow Notification*” sign (as shown in Appendix C) shall be installed and maintained at all chronic sanitary sewer overflow sites (greater than 5 times per year), and at all other locations with a designed and constructed overflow point.

Temporary “*Public Notification*” signs (as shown in Appendix D) and barricades shall be used to limit access to an area and to alert the public of the sanitary sewer overflow. This action should be taken during clean-up activities, when waters of the State are impacted, and for longer duration overflow events.

2. Determining When Temporary Signage is Posted and Removed

When temporary public notifications are posted to limit access to waters of the State impacted by a sanitary sewer overflow, water samples should be taken upstream and downstream of the overflow location for analysis. These water samples are to be analyzed at the Gallatin Wastewater Treatment Plant for E-coli bacteria. The results of the analysis will be used to aid in determining when to remove posted signs. A 25% or less differential in the upstream and downstream sample results will be used as an indicator of when signs can be removed.

3. Other Notifications

In some situations it may be necessary to additionally advise the public of the sanitary sewer overflow through the local news media. The additional public notification may be made through the use of preprinted notices made available to the news media or through other measures as deemed appropriate (e.g., door hangers, flyers, etc.).

B. Regulatory Agency Notification

Formal notice to the Tennessee Department of Environment and Conservation is required as part of the reporting for all confirmed sanitary sewer overflow events.

1. Immediate Notifications

Gallatin Public Utilities shall notify the Tennessee Department of Environment and Conservation by telephone, e-mail, or fax within **24 hours** after a sanitary sewer overflow event is confirmed. This notification shall be made in accordance with the procedures outline in “*Standard Operating Procedure #SC-1*” contained in Appendix A. This information also is required to be reported in the monthly Discharge Monitoring Report.

2. Secondary Notifications

In addition to the notification requirements above, the following agencies should be contacted, as appropriate, as well as any other interested or potentially impacted parties:

- Sumner County Health Department
- Gallatin Fire Department

- İ Sumner County Emergency Management Agency
- İ Tennessee Emergency Management Agency

C. Media Notification

When a sanitary sewer overflow incident has been confirmed and it has been determined to pose a threat to the public health, the following actions should be taken (as necessary) to notify the local media:

1. The responding personnel shall confirm the sanitary sewer overflow and report that information to the Sewer Collection System Supervisor.
2. The Sewer Collection System Supervisor notifies the Assistant Superintendent of the confirmed sanitary sewer overflow and the potential threat to the public health.
3. The Assistant Superintendent shall inform the Superintendent of the situation, and the Superintendent, or his designee, shall make the call in order for the media to alert the general public.
4. All after hours and weekend sanitary sewer overflow reports shall be handled by the “on-call” personnel in accordance with these same procedures.
5. All calls received by the Switchboard Operator or the Utility Dispatcher from the media, at any time, will be referred to the Superintendent or Assistant Superintendent.
6. Only personnel with prior approval from the Superintendent will be allowed to make statements to or be interviewed by the media.

Section V: Distribution and Maintenance of Plan

A. Availability of the Sanitary Sewer Overflow Response Plan

All personnel who may become involved in the response to a suspected or confirmed sanitary sewer overflow should be familiar with the provisions of this Sanitary Sewer Overflow Response Plan. Copies of this Sanitary Sewer Overflow Response Plan and any appendixes, amendments, and/or attachments shall be distributed to the following:

Superintendent of Public Utilities
Assistant Superintendent of Public Utilities
Operations Support Coordinator
Sewer Collection System Supervisor
Crew Supervisor – Sewer Collections
Utility Maintenance Supervisor
Pump Station Technicians
Service Technicians – Sewer Collection
Utility Dispatcher
Water Distribution Supervisor
Crew Supervisor – Water Distribution
Service Technicians – Water Distribution
Gallatin Wastewater Treatment Plant

B. Review and Revision of the Sanitary Sewer Overflow Response Plan

This Sanitary Sewer Overflow Response Plan should be reviewed and revised annually, or whenever there is a change in a critical element of the Plan. In addition, this Sanitary Sewer Overflow Response Plan should be reviewed and updated as follows:

- With any change in personnel or contact information listed in the Plan.
- With the re-issuance of the NPDES permit
- With the issuance or re-issuance of any State permits or requirements

C. Available Resources

A copy of this Sanitary Sewer Overflow Response Plan will be carried in every vehicle that may be required to respond to a sanitary sewer overflow incident.

In addition, the Department has the following equipment available to assist in mitigating the duration and/or impacts of a sanitary sewer overflow:

- Vac-Con Combination Truck
- SREECO Jetter Truck
- CUES CCTV Inspection Truck
- John Deere 310SG Backhoe
- Terex T120, 95kW Trailer Mounted Generator
- Godwin 6" Trailer Mounted Pump

İ Godwin 4" Trailer Mounted Pump

D. Personnel Training

In-house training will be provided for all personnel with responsibilities that may be covered under this plan. A review of this Sanitary Sewer Overflow Response Plan and accompanying information will be conducted for all covered personnel. Annual training on the proper operation and maintenance of the equipment covered under this plan will be coordinated by the Sewer Collection System Supervisor.

	OPERATING PROCEDURES	Revision #3
Procedure #SC-1	Sewer Collections	Effective Date: 10/01/2012
	Sanitary Sewer Overflow Reporting	Page 1 of 2
Gallatin Public Utilities		Sewer Collections Sewer Collections Procedures

PURPOSE

The purpose of this Sewer Collections - SOP is to provide a detailed description of the procedures to be used in reporting sanitary sewer overflows.

PROCEDURE

1. Determine that a Sanitary Sewer Overflow Incident is occurring or has occurred
2. Determine and record the Overflow Location on the Sanitary Sewer Overflow Report form
3. Determine and record the Type of Overflow on the Sanitary Sewer Overflow Report form (check **one** box only)
 - Gravity Sewer Manhole
 - Sanitary Sewer Pump Station
 - Other – Be Specific
4. Identify and record the Discharge Location on the Sanitary Sewer Overflow Report form (check **one** box only)
 - Directly to Receiving Water
 - On to the Ground
 - Into a Storm Drain and Then Into Receiving Water
 - Building
 - Ground to Receiving Water
 - Other – Be Specific
5. Determine and record the date and time that the overflow incident began on the Sanitary Sewer Overflow Report form (be specific, note AM and/or PM)
6. Notify the Wastewater Treatment Plant by telephone (615-452-4362) **as soon** as the overflow incident is discovered
7. Determine and record the suspected Cause of the Overflow Incident on the Sanitary Sewer Overflow Report form (check **one** box only)
 - Rainfall
 - High Ground Water
 - Other Excessive Flow
 - Sewer System Blockage or Collapse
 - Pump Station Failure
 - Other – Be Specific
8. Determine and record the date and time that the overflow incident ends on the Sanitary Sewer Overflow Report form (be specific, note AM and/or PM)
9. Identify and record any Corrective Measures taken on the Sanitary Sewer Overflow Report form, including actions taken to prevent a reoccurrence of the overflow incident and any clean-up measures taken
 - No Action Taken
 - Removed Blockage
 - Repaired Pump Station

- Other – Be Specific
 - Site Cleaned – Debris Removal – Chlorine Solution – Other – Be Specific
10. Record any additional information as necessary
 11. Record the Person Making the Report on the Sanitary Sewer Overflow Report form
 12. All completed Sanitary Sewer Overflow Report forms shall be given to the **Sewer Collections Supervisor** for recordkeeping and reporting purposes
 13. The **Sewer Collections Supervisor** shall be responsible for ensuring that the completed Sanitary Sewer Overflow Report is submitted to the appropriate agencies and/or personnel
 14. Completed Sanitary Sewer Overflow Reports shall be submitted to the Tennessee Department of Environment & Conservation, the Gallatin Wastewater Treatment Plant, and the Gallatin Storm Water Management Coordinator
 15. Overflows that impact or close a drinking water intake, or result in a fish kill require a notification within **two (2) hours**
 16. All other overflows require a notification within **twenty-four (24) hours**
 17. The Sewer Collections Supervisor will bring the completed Sanitary Sewer Overflow Report forms to the Executive Secretary for automatic e-mailing via the scanner/copier (if the Executive Secretary is unavailable have the Operations Support Coordinator or someone else in the office scan and send the reports)
 18. The automatic e-mail will be sent to the following:
 - TDEC – Currently set-up as “Mike Thornton – TDEC”
 - WWTP – Currently set-up as “Brandon Traughber”
 - Engineering – Currently set-up as “Zack Wilkinson”
 - Service Center – Currently set-up as “Sam Reynolds”
 - Administration – Currently set-up as “David Kellogg”
 19. Once the reports have been scanned and e-mailed, the Executive Secretary will give the original Sanitary Sewer Overflow Report forms back to the Sewer Collections Supervisor
 19. The e-mail will automatically print on the Service Center printer
 20. The Sewer Collections Supervisor will retrieve the printed e-mail from the Service Center printer and attach to the original report form for recordkeeping and verification

Procedure Approved:

David Kellogg
Asst. Supt. of Public Utilities

SANITARY SEWER OVERFLOW REPORT

Name of Collection System: City of Gallatin – Public Utilities

NPDES Permit #: TN00020141

Overflow Location: _____

Type of Overflow:

☐ Gravity Sewer Manhole ☐ Sewer Pump Station ☐ Other _____

Discharge Location:

☐ Directly to Receiving Water ☐ Receiving Water Via Storm Drain ☐ Building

☐ Ground ☐ Ground to Receiving Water ☐ Other _____

Date and Time of Overflow Incident:

When did the incident begin? Date: _____

Time: _____

➤ Notify Wastewater Treatment Plant By Telephone As Soon As The Overflow Is Discovered

When did the incident end? Date: _____

Time: _____

Cause of Overflow Incident:

☐ Rain ☐ High Ground Water ☐ Other Excessive Flow ☐ Sewer System Blockage or Collapse

☐ Pump/Lift Station Failure ☐ Other _____

Corrective Measures Taken:

☐ No Action Taken ☐ Removed Blockage ☐ Repaired Pump Station ☐ Other _____

☐ Site Cleaned: ☐ Debris Removed ☐ Chlorine Solution ☐ Other _____

Additional Comments:

Person Making This Report: _____

Submit Completed Reports To The Office For Sending To The WWTP And TDEC

CITY OF GALLATIN
DEPARTMENT OF PUBLIC UTILITIES
NPDES PERMIT #: TN0020141

SANITARY SEWER OVERFLOW POINT

UNTREATED SANITARY WASTEWATER MAY
OVERFLOW FROM THIS MANHOLE\SEWER LIFT
STATION UNDER CERTAIN CONDITIONS.

PLEASE CALL GALLATIN PUBLIC UTILITIES IMMEDIATELY
IF THERE IS A DISCHARGE FROM THIS LOCATION;

(615) 451-5922 OR (615) 452-4362

TENNESSEE DEPARTMENT OF ENVIRONMENT &
CONSERVATION DIVISION OF WATER POLLUTION CONTROL

1-888-891-8332

WARNING

CONTAMINATED WATER AVOID CONTACT

**THE OVERFLOW OF UNTREATED SEWAGE
HAS OCCURRED AT OR NEAR THIS LOCATION.
CONTACT WITH PONDED WATER NEAR
THIS LOCATION SHOULD BE AVOIDED.
PLEASE REPORT ANY DISCHARGE TO
GALLATIN PUBLIC UTILITIES AT
(615) 451-5922**

NPDES PERMIT# TN0020141

FOR INFORMATION CONTACT:

**GALLATIN PUBLIC UTILITIES
TDEC-WPC**

**(615) 451-5922
(888) 891-8332**



CONTACT INFORMATION

PERSONNEL DIRECTORY:

NAME	TITLE	CONTACT PHONE
David Gregory	Superintendent of Public Utilities	615-478-2527
David Kellogg	Asst. Supt. Of Public Utilities	615-478-0269
James H. Lee	General Supervisor - Sewer Collection	615-478-0311
Dennis Pope	Crew Supervisor - Sewer Collection	615-804-0309
Tom Johnson	Utility Maintenance Supervisor	615-339-6662
David Sutton	Pump Station Technician	615-308-7949
David Cowan	Pump Station Technician	615-633-7817
David Vizzolini	TV/Seal Technician	615-925-9879
Tom van Keuren	Utility Service Technician - Sewer	615-604-8470
David Shackelford	Utility Service Technician - Sewer	615-879-2334
Gregg Carr	Motor Equipment Operator III	615-670-2491
Steve Kendall	Utility Service Worker - Sewer	615-429-4517
Daniel Bowman	Utility Service Worker - Sewer	615-504-6043
Chris Sexton	Utility Service Worker - Sewer	615-655-2961
Todd Rollin	Utility Service Worker - Sewer	615-519-1286
Donald Alexander	Utility Service Worker - Sewer	615-604-3224
John Roberts	Utility Service Worker - Sewer	615-806-0542

AGENCY DIRECTORY:

Gallatin Public Utilities – Administrative Offices	615-451-5922
Gallatin Wastewater Treatment Plant	615-452-0568
Gallatin Fire Department	911 615-452-1313 (Emergency) 615-452-2771 (Non-Emergency)
Gallatin Police Department	911 615-452-1313

Gallatin Department of Electricity	615-452-5152
Sumner County Emergency Management Agency	615-452-7584
Sumner County Emergency Medical Services	911 615-451-0429 (Main) 615-451-6070 (Dispatch)
Sumner County Sheriff's Office	615-452-2616
Sumner County Health Department	615-206-1100

Tennessee Department of Environment & Conservation:

Central Office	1-888-891-8332 615-532-0625
Nashville Environmental Assistance Center	615-687-7000
Tennessee Emergency Management Agency	615-741-0001 (Main) 615-741-7342 (Region) 1-800-422-7342
National Weather Service	615-754-8500
Environmental Science Corporation	1-800-767-5859

LOCAL MEDIA:

Newspaper

The Gallatin Newspaper	615-452-4940
The News Examiner	615-575-7191
The Tennessean	615-259-8000 (Main) 615-259-8095 (Newsroom)

Radio

WHIN (1010-AM)	615-451-0450
WMRO (1560-AM)	615-451-2131

WVCP (88.5-FM)

615-230-3618 or 615-230-3219

Television

WKRN (Channel 2)

615-369-7222 or 615-369-7329

WSMV (Channel 4)

615-353-4444 or 615-353-2231

WTVF (Channel 5)

615-244-5000 or 615-248-5250

WZTV (Channel 17)

615-369-1717 or 615-259-5617

NOTE: The primary media spokesperson for Gallatin Public Utilities is the Superintendent of Public Utilities; and the alternate media spokesperson for Gallatin Public Utilities is the Assistant Superintendent of Public Utilities. All media requests shall be directed to those persons.

SANITARY SEWER OVERFLOW – VOLUME ESTIMATION PROCEDURES

There are a variety of approaches available for estimating the volume of a sanitary sewer overflow. In this appendix are three examples of methods that are most frequently used. The person preparing the overflow volume estimate should use the information available to select the method most appropriate for the overflow in question.

Eyeball Estimate Method:

The volume of small overflows can be estimated using the “eyeball” method. To use this method imagine the amount of water that would spill from a 5-gallon bucket or a 55-gallon barrel. If the overflow is larger than 55 gallons, try breaking the standing water into barrels and multiplying by 55.

Measured Volume Method:

The volume of overflows that have been contained can be estimated using this method. The shape, dimensions, and depth of the overflow will be necessary. This information is used to calculate the area of the overflow and the volume.

1. Sketch the shape of the overflow area
2. Measure the dimensions of the overflow (in feet)
3. Measure the depth of the overflow (in feet) in several locations and average
4. Calculate the area in square feet using one or more of the following formulas:
 - I Rectangle: $\text{Area} = \text{Length} \times \text{Width}$
 - I Circle: $\text{Area} = \text{Diameter} \times \text{Diameter} \times 0.785$
 - I Triangle: $\text{Area} = \text{Base} \times \text{Height} \times 0.5$
5. Multiply the area (in square feet) times the depth (in feet) to obtain the volume in cubic feet
6. Multiply the volume in cubic feet times 7.5 to convert the volume to gallons

Duration and Flow Rate Method:

For the volume estimation of larger overflows (where it is difficult to measure the area and/or depth) a different method can be used. For this method, estimates are made of the duration of the overflow and the flow rate of the overflow.

Duration

The duration is the time elapsed from the time the overflow started until the time the overflow stopped. The start time can be difficult to establish, but can be estimated from available information (time overflow reported, information from local residents, conditions at the overflow site, etc.). The end time is established by on-site personnel when the overflow has stopped.

Flow Rate

The flow rate is the average flow that left the sanitary sewer system during the overflow. The flow rate can be estimated using the San Diego (Sacramento) Manhole Overflow Rate Chart provided in this appendix. This chart contains pictures of water flowing from manhole covers at a variety of flow rates. Field personnel observations and photographs can be used to select the most appropriate flow rate from the chart.

Overflow Volume

The overflow volume can be estimated using the duration of the overflow and the rate of the overflow ($\text{Duration} \times \text{Rate} = \text{Volume}$).

SSO Flow Estimation Pictures

**Reference Sheet for Estimating Sewer Spills
from Overflowing Sewer Maintenance Holes**
All estimates are calculated in gallons per minute (gpm)



County of Sacramento



5 gpm



25 gpm



50 gpm



100 gpm



150 gpm



200 gpm



225 gpm



250 gpm



275 gpm

GLOSSARY OF TERMS

Dry Weather Overflows – Sanitary sewer overflows which occur during a period of relatively dry weather. Typically, dry weather overflows are caused by sewer line blockages (from roots, grease, debris, etc.) or failure in the sewer collection system (mechanical failure, power outage, line failure, etc.).

Infiltration – Water, other than wastewater, that seeps into the sanitary sewer system; typically through defective pipes, leaks at joints, or cracks in pipes or manholes. Typically infiltration is a smaller volume of water entering the sanitary sewer system over a longer duration than inflow.

Inflow – Water (rainwater) that enters the sanitary sewer system through holes in manhole covers, defective cleanouts, illegal storm drain connections, broken pipes, and defective manholes. Typically inflow is a larger volume of water entering the sanitary sewer system over a shorter period of time than infiltration.

Sanitary Sewer Collection System – Also known as the wastewater collection system, a system of pipes and pumps designed to convey municipal and industrial sewage to a wastewater treatment facility. A sanitary sewer system is not designed to handle storm water drainage.

Sanitary Sewer Overflow – The intentional or unintentional diversion of flow from a sanitary sewer collection system, which occurs prior to the head-works of a wastewater treatment plant. Sanitary sewer overflows include discharges to waters of the state, as well as, discharges to public or private property and the environment that do not reach waters of the state, including overflows onto the land or streets and into houses or businesses.

Storm Drain – A pipeline system designed to carry only drainage, storm water, and surface runoff.

“Waters of the State” – Any and all water, public or private, on or beneath the surface of the ground, that are contained within, flow through, or border upon Tennessee or any portion thereof, except those bodies of water confined to and retained within the limits of private property in single ownership that do not combine or effect a junction with natural surface or underground waters. These would include navigable waters, rivers, streams, lakes, wetlands, and ponds.

Wet Weather Overflows – Sanitary sewer overflows which occur during or immediately following periods of rainfall. Typically, wet weather overflows are the result of an excessive volume of inflow and/or infiltration entering the sanitary sewer collection system.