

## Section 7: WASTEWATER COLLECTION SYSTEM INSPECTION AND MAINTENANCE

### INTRODUCTION

There are approximately 16,000 miles of sewers and more than 450,000 manholes within the Metro Water District. Sewers and manholes within the Metro Water District range in age from new to over 100 years old. As the system continues to age, proper inspections and maintenance are critical. Inspections and maintenance not only maintain a high level of customer service, but also protect water quality. Identifying and correcting collection system deficiencies in conjunction with overflow spill response programs may help local water bodies meet State water quality standards.

NPDES and LAS permits require permittees to properly manage, operate, and maintain at all times all parts of the collection system they control. Some collection system operators within the Metro Water District have found inspection and maintenance programs to be very helpful in meeting their permit obligations, reducing or preventing SSOs, maintaining superior system performance, extending the longevity of sewer system components, maintaining relatively high customer satisfaction, protecting wastewater treatment plants, and protecting human health and the environment.

All local wastewater providers within the Metro Water District must establish or maintain a wastewater collection system inspection and maintenance program. These programs should consist of the minimum elements identified in this Section as well as any additional requirements identified in a local NPDES and LAS wastewater permit.

The programs outlined in this Section are related to the elements of a Capacity Management Operations and Maintenance (CMOM) program. Communities that have an approved CMOM program with Georgia EPD can demonstrate compliance with Section 7 of this Plan through certification of their CMOM program based on the most recent CMOM audit.

## **ACTION ITEM 7.1 – SEWER SYSTEM INVENTORY AND MAPPING**

### **ACTION ITEM**

Maintain a sewer system map based on a survey and inventory of the sewer system.

### **OBJECTIVE**

The survey and inventory data determine attribute locations of the sewer system components to develop a map of the system. Wastewater system maps provide operators and maintenance personnel a better understanding of their system.

### **DESCRIPTION OF MEASURE**

A comprehensive sewer system map is critical for developing a strong inspections and maintenance program. At a minimum, the sewer system map will include survey and inventory of the sewer system and horizontal and vertical locations of critical sewer system components. Without proper mapping of a sewer system, it is difficult to determine which parts of a sewer system need inspection, or to track ongoing, mostly unscheduled, maintenance work. Without proper documentation and tracking of inspection and maintenance work, it is difficult and time consuming to determine the amount of resources that should be allocated to sewer system inspection and maintenance on an annual basis.

The sewer system inventory and mapping is often the basis for a broader asset management program. Information collected as a part of sewer system mapping will vary based on the local wastewater system and may include:

- Pipe information: size; material; age; condition; direction of flow; and slope
- Manhole information: location; diameter; depth; material; age; condition; entering and exit line sizes; direction and elevation
- Pump station information: location; capacity; number of pumps; condition; method of alarm indication and method of back-up power

At a minimum, local wastewater providers must compile system information on a paper map. Most wastewater providers, especially communities with a significant level of new development, will elect for a GIS-based collection system map. While a GIS based map is not required, the Metro Water District recommends this approach for inventorying wastewater collection systems. Collection system maps should be kept current and any system changes should be made to the system map in a timely manner.

Owners of sewer systems can either commit sufficient funding to complete the survey, inventory, and mapping of their system during one budget period, or commit to funding the program over a period of time. Although most local wastewater providers have completed initial mapping of the wastewater system, map maintenance will be an ongoing activity. Once the initial survey, inventory, and mapping are complete, data on new sewers and associated appurtenances can then be added on an ongoing basis.

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### SPECIFIC SUB-TASKS

Sub-Task	Description
Determine sewer system mapping strategy	Outline a plan, schedule, and budget for sewer system mapping.
Collect field data for sewer system database development	Complete sewer system inventory and mapping for critical sanitary sewer components.
Create a sewer system map	Create a sewer system map based on the database. This map may be a paper map or created using GIS from the sewer system database.
Update sewer system maps	Update sewer system maps periodically to include sewer system extensions and rehabilitation projects.

### DATA COLLECTION (OPTIONAL)

Many local wastewater providers are purchasing electronic handheld devices for field personnel that allow for automatic updates to the wastewater system map. Using this technology, data collected in the field can be uploaded into the electronic map and made available to the entire staff. The handheld devices reduce the need for cumbersome printing of map books and the liability of having old, inaccurate maps in the field. While not required by this Wastewater Management Plan, these automatic data collection tools may be helpful for larger utilities as a tool for more efficient map maintenance. This procedure would allow operators and maintenance personnel to better understand their system, and would allow relatively easy retrieval of locational and attribute data when needed for operational, maintenance, and management purposes.

## ACTION ITEM 7.2 – SEWER SYSTEM ASSET MANAGEMENT

### ACTION ITEM

Maintain a computerized maintenance management system or asset management program that ensures proper management of the sanitary sewer system data.

### OBJECTIVE

The objective of establishing a sewer system asset management program is to facilitate effective operation and maintenance of the system to ensure its proper functioning and to minimize the occurrence of overflows that threaten public health and water quality.

### DESCRIPTION OF MEASURE

Collection system assets require routine care to ensure they function properly. A proper asset management program will build on the wastewater system inventory (Action Item 7.1) and identify the necessary maintenance actions recommended for the assets within the system. The asset management program may prioritize maintenance needs based on criticality of system components.

An asset management program, which may include a computerized maintenance management system (CMMS), will be developed to improve sewer system management, operation, inspection and maintenance. A CMMS is a tool for maintaining sewer system data; inventory and tracking equipment, available maintenance and repair materials, and material procurement information; tracking and documenting activities; tracking the value of sewer system assets; facilitating adequate overflow emergency response activities; and facilitating the development and implementation of a capacity certification program. An asset management system can be sophisticated, as in the case of a GIS-based program, or it can be of a more simple form, such as a spreadsheet. If a GIS-based program is chosen, system data may be used to map an entire sewer system; or portions thereof as needed for inspection and maintenance purposes. Moreover, the GIS-based program can be used to overlay sewer systems on land use categories or impaired stream segments for determining areas in need of inspection and maintenance.

Whenever possible, asset management programs for various jurisdictions within the Metro Water District should be designed in a manner that promotes coordination, communication, and data sharing among various sewer systems and local stormwater systems.

### SPECIFIC SUB-TASKS

Sub-Task	Description
Select a CMMS or asset management approach	Determine whether a CMMS or asset management will be used and purchase any necessary software.
Implement a CMMS or asset management system	Maintain information on inspections, maintenance, and rehabilitation in the CMMS or asset management program.

<b>Responsible Party</b>
<input type="checkbox"/> Local Government <input checked="" type="checkbox"/> Local Wastewater Provider <input type="checkbox"/> Other: _____
<b>In Coordination With</b>
<input type="checkbox"/> Site Plan Review Staff <input type="checkbox"/> Community Development/ Zoning <input type="checkbox"/> Local Stormwater Program <input checked="" type="checkbox"/> Local Water Providers <input type="checkbox"/> County Board of Health <input checked="" type="checkbox"/> Other: <u>neighboring wastewater providers, as necessary</u>

## **ACTION ITEM 7.3 – SEWER SYSTEM INSPECTION PROGRAM**

### **ACTION ITEM**

Maintain a sanitary sewer system inspection program that determines the condition of the sanitary sewer system and identifies any needed maintenance and rehabilitation activities.

### **OBJECTIVE**

Sanitary sewer inspections are critical in identifying existing problems as well as identifying future collection system operational challenges. Sanitary sewer system inspections can be used to:

- Evaluate the prevailing conditions of various sewer system components
- Identify the types and locations of sewer system defects that allow the entry of extraneous flow (I/I)
- Estimate the volume of I/I from various sewer system defects and the total I/I entering the system, to the extent possible, and document I/I estimation method
- Gather data needed to facilitate the correction of sewer system defects

#### **Responsible Party**

- Local Government
- Local Wastewater Provider
- Other: \_\_\_\_\_

#### **In Coordination With**

- Site Plan Review Staff
- Community Development/ Zoning
- Local Stormwater Program
- Local Water Provider
- County Board of Health
- Other: \_\_\_\_\_

### **DESCRIPTION OF MEASURE**

The sewer system inspections program may be regularly scheduled inspections of the entire system or may follow a criticality-based asset management approach. Older areas of the wastewater system, areas with higher flow volumes, and certain pipe materials are more prone to failures, therefore local wastewater providers may choose to inspect these areas more regularly due to the greater risk of failure or sanitary sewer overflows in these areas.

There are a number of sewer system inspection methods, depending on the area of the system being investigated and the purpose of the investigation. Table 7-1 lists several example inspection techniques and their applicability. The wastewater system inspection program must identify the regularity and type of inspections that will occur depending on the type and/or criticality of the assets in the wastewater collection system. The wastewater system inspection program must identify who is responsible for documentation of the inspections, using either handheld devices connected to the inventory database or using paper records.

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**TABLE 7-1**  
**Example Sanitary Sewer System Inspection Methods**

Inspection Method	Where it should be used	What it will find
Physical inspections of manholes and sewer pipes/lines	Manholes and above-ground sewer pipes	Manholes Frame & cover defects Structural defects Flow surcharging Root intrusion Sewer pipes Signs of leakage and blockages Exterior structural defects
Smoke testing	Manholes and sewer pipes	Sources of I/I Location of illegal connections Location of broken sewers Location of buried manholes
Dye-water testing	Sewer pipes	Sources of Exflow/Exfiltration Proof of building connection to sewer system Location of illegal connections Estimating flow velocity
Closed Circuit Television Inspection (CCTV) or other internal pipe evaluation	Sewer pipes	Structural defects Maintenance Needs Sources of I/I at joints, breaks, connections Cross connections or illegal connections
Right-of-way/easement inspection		Missing/unrecorded sewer pipes and manholes Flow surcharging Trees with potential for root intrusion

### SPECIFIC SUB-TASKS

Sub-Task	Description
Establish inspections procedures	Develop an inspection schedule, inspection types to be performed, and necessary procedures for system inspections.
Execute inspection program	Perform inspections, tracking information using the CMMS or asset management program.

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### **IMPAIRED WATERS (OPTIONAL)**

Local wastewater providers may choose to inspect portions of the collection system that are adjacent to impaired waterbodies more regularly than other areas of their system. Surface water data revealing high fecal coliform levels, for example, may indicate a sewer line failure. Therefore, increased inspections of these areas may be a priority, depending on local conditions.

### **STANDARDIZED CONDITION ASSESSMENT (OPTIONAL)**

Predicting and monitoring the internal conditions of sanitary sewer gravity pipes is challenging. Many local wastewater providers in the Metro Water District have developed programs to assess the condition of their sanitary sewer collection system. The most common inspections are of gravity sewers and manholes. There are standards for the assessment of both gravity pipelines and manholes developed by the National Association of Sewer Service Companies (NASSCO). Local wastewater providers may elect to use NASSCO programs or any other method of assessing infrastructure condition. This standardized condition assessment is outlined as one option available to Metro Water District communities.

The NASSCO Pipeline Assessment and Certification Program (PACP) presents a standardized assessment methodology of manholes based on a visual assessment and of gravity sewer pipes based on internal inspections (such as CCTV). The PACP ranking system was developed to be direct and objective, allowing for the true prioritization of pipes within the system for maintenance or rehabilitation. The PACP assigns a condition grade on a scale of 1 through 5, where 5 indicates sewer system infrastructure requiring immediate attention. Grades are based on the potential for further pipe deterioration or failure. Grades are assigned for two categories, structural defects that would be handled through a pipe rehabilitation program (Action Item 7.5) or Operation and Maintenance (O&M) defects that would be handled through pipe maintenance (Action Item 7.4). Using the assessment of each segment of pipe and the overall pipe rating, there is a PACP procedure to calculate a pipe rating index, which is an indicator of the distribution of severe defects for that pipe. Priorities for maintenance and rehabilitation can then objectively be made based on the pipe rating index.

The NASSCO manhole condition assessment and certification program (MACP) was developed for the standardized grading of defects within manholes. It offers a reliable and consistent manhole evaluation system to the sanitary sewer industry. The MACP uses the defect coding system, form and style established in the PACP, and incorporates manhole standards developed by the American Society of Civil Engineers (ASCE).

## **ACTION ITEM 7.4 – SEWER SYSTEM MAINTENANCE PROGRAM**

### **ACTION ITEM**

Maintain a sanitary sewer system maintenance program that focuses on minimizing system failures and cost-effectively extending the longevity of the wastewater collection system.

### **OBJECTIVE**

Scheduled proactive maintenance of the sanitary sewer collection system can prevent SSOs and other problems from occurring. Emergency maintenance activities may also be required based on information learned during sanitary sewer system inspection activities.

### **DESCRIPTION OF MEASURE**

The focus of sewer system maintenance activities is maintaining the hydraulic capacity of the sewer system since the primary function of the sanitary sewer system is conveyance. Additionally, a maintenance program must ensure operation and reliability of mechanical systems such as pump stations and generators.

Typically, two different classes of problems can reduce hydraulic capacity and reliability: structural and operational. Structural defects involve the degradation of the sewer pipe itself. Serious structural defects can lead to pipe collapse, causing SSOs. Sewer repair and rehabilitation activities are focused on restoring the structural integrity of the pipe. Most operational defects affect the hydraulic capacity of the pipe. Roots, sediments, fats, oils, and grease can all reduce the cross-sectional area of the pipe, which in turn reduces its hydraulic capacity. Sewer cleaning and source control activities are directed toward preventing or reducing the impacts of operational defects on the collection system. The sewer system maintenance program will include the following:

- Standard operating procedures as needed to support maintenance activities
- Routine inspection and service of all pumps and associated equipment
- Periodic cleaning of sewers and associated appurtenances
- Routine inspection and maintenance of the sewer system such as rights-of-way, stream crossings, stream banks adjacent to sewers, and force mains
- Tracking of maintenance activities

Maintenance data should be tracked, either in paper files, in an asset management database, or in a GIS database, to facilitate easy access and coordination with other sewer system management-related activities.

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### SPECIFIC SUB-TASKS

Sub-Task	Description
Establish maintenance procedures	Develop a program and schedule for collection system maintenance activities
Implement maintenance program	Perform maintenance activities; either a routine maintenance program or a criticality-based approach.

## ACTION ITEM 7.5 – SEWER SYSTEM REHABILITATION PROGRAM

### ACTION ITEM

Maintain a program for prioritizing and performing needed sanitary sewer system rehabilitation projects.

### OBJECTIVE

Sanitary sewer system rehabilitation projects restore the structural integrity of the sewer system and reduce the hydraulic loads by eliminating I/I.

### DESCRIPTION OF MEASURE

Local wastewater providers within the Metro Water District will maintain a sewer system rehabilitation program. The purpose of a sewer system rehabilitation program is to ensure rehabilitation projects identified during system inspections are properly recorded and implemented. The sewer system rehabilitation program, at a minimum, will include the following:

- Procedures for prioritizing rehabilitation projects based on severity of defects, cost effectiveness, and hydraulic capacity
- Schedule for sewer system rehabilitation projects

**Responsible Party**

Local Government

Local Wastewater Provider

Other: \_\_\_\_\_

  

**In Coordination With**

Site Plan Review Staff

Community Development/ Zoning

Local Stormwater Program

Local Water Providers

Local Wastewater Provider

County Board of Health

Other: neighboring wastewater providers, as necessary

### SPECIFIC SUB-TASKS

Sub-Task	Description
Prioritize rehabilitation projects	Develop a priority list of rehabilitation projects.
Develop schedule and budget	Based on available budget and staff project the timeframe for the most critical rehabilitation projects.
Implement rehabilitation program	Rehab infrastructure based on schedule and budget for critical infrastructure.
Annual planning and budgeting	Consider rehabilitation needs as part of the annual budget process.
Rehabilitation project documentation	Document the rehabilitation performed in the asset management program or CMMS program.

### REHABILITATION TECHNIQUES (OPTIONAL)

Several traditional and new rehabilitation projects that may be considered by local wastewater providers are outlined below. Many of the local wastewater providers in the Metro Water District have ongoing rehabilitation programs, with a number of projects already accomplished.

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Trenchless technology is a method of construction for replacing sanitary sewer pipelines without employing the longer-term disruptive aspects of conventional open cut excavation. Benefits of rehabilitation work performed using trenchless technology versus conventional rehabilitation methods include shorter disruption of sewer service during work and lower costs. Common trenchless technologies used in sewer system rehabilitation programs include pipe bursting and sliplining. Pipe bursting is a method for replacing a failing sewer pipe by inserting a new pipe of equal or larger diameter into an existing pipe by bursting open the existing pipe and pulling or pushing a new pipe into the old pipe and expanding it into the surrounding soil. The new pipe is simultaneously inserted into the hole created by the expander. Sliplining involves sliding a liner pipe of slightly smaller diameter into an existing sewer pipeline and grouting the residual annular space to secure the liner position and improve resistance to external loads.

Manhole repair technologies include grouting, cementitious lining, fiberglass, epoxy and expansive synthetic materials. Grouting rehabilitation involves grouting manhole defect areas where there is evidence of leaks. Manhole leaks are often concentrated at joints, pipe inverts or lift holes. Typically, grouting is used to repair smaller leak areas found in manholes. Alternatively, cementitious lining, fiberglass, epoxy and expansive synthetic materials are used for full manhole rehabilitation where leaks are found over a large proportion of the manhole. In this technology, manholes are fully lined to seal the areas where leaks are occurring.

## **ACTION ITEM 7.6 – CAPACITY CERTIFICATION PROGRAM**

### **ACTION ITEM**

Maintain a program and process for certifying wastewater collection system capacity for new development and redevelopment projects.

### **OBJECTIVE**

A capacity certification program, that includes the calculation of a system’s capacity, can reduce the number of SSOs in the Metro Water District. Capacity certification programs allow local wastewater providers to determine whether adequate wastewater collection and treatment capacities exist or will be available within their sewer systems, before authorizing new flows and sewer service connections.

Some portions of the Metro Water District are experiencing a great deal of infill development and re-development activity, which is expected to continue. When one home on a large lot is subdivided into multiple lots and residences, the volume of the wastewater increases. Similarly, if a sewer system extends beyond the originally planned boundaries; additional flows are added to the system. These additional flows can strain the existing collection system that was initially designed for lower volume flows. Capacity certification programs allow local wastewater providers to determine whether adequate wastewater collection and treatment capacities exist or will exist within their sewer systems, before authorizing new flows and sewer service connections.

### **DESCRIPTION OF MEASURE**

The conveyance capacity of a sanitary sewer system can be estimated using manual calculations or a commercially-available hydraulic model. The prevailing base and peak flows are estimated using data from strategically placed permanent and temporary flow meters, rainfall data collectors and sewer system inspection data. A hydraulic model or calculations estimate the remaining (unused) capacity of the sewer system. The accuracy of the capacity determination is dependent upon the quality of data used in its calculation.

The intent of the capacity certification program is to base decisions regarding system expansions and new connections on the available sewer system capacity. Prior to allowing new connections into a sewer system, local wastewater providers should ensure there is sufficient capacity in the sewer system to handle predicted flows.

The capacity certification program must be clearly described. It should address at what point in the planning/development process various levels of review are performed (during initial building permit application, requests for zoning/rezoning, sewer connection requests, etc.) and which agencies of the organization will be responsible for certifying capacity availability. Building permit applications should include detailed plans, estimated wastewater flows, and supporting calculations. The authorizing agency within a jurisdiction will certify that the system has available adequate capacity to collect, transmit, and treat additional flows associated with new building construction and occupancy. Alternately, the authorizing agency will certify that ongoing or planned sewer system improvements

#### **Responsible Party**

- Local Government
- Local Wastewater Provider
- Other: \_\_\_\_\_

#### **In Coordination With**

- Site Plan Review Staff
- Community Development/ Zoning
- Local Stormwater Program
- Local Water Providers
- County Board of Health
- Other: neighboring wastewater providers, as necessary

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would provide the capacity needed to handle the additional flows. A capacity certification form will be completed and signed by authorized representatives before a service connection is allowed.

Certification of sewer collection capacity alone is not sufficient. In addition to certifying capacity, it is necessary to certify transmission and treatment capacities to ensure reduction in sewer system overflows, while ensuring compliance with the requirements of wastewater permits. Using these guidelines, each jurisdiction will develop its own unique capacity certification program based on system specific conditions and available information.

### SPECIFIC SUB-TASKS

Sub-Task	Description
Maintain a flow and rainfall monitoring program	Maintain flow and rainfall monitoring to support the hydraulic modeling and capacity certification program.
Maintain a hydraulic model or manual calculation approach	Maintain a modeling software or manual calculation approach to determine available capacity.
Determine system capacity	Using manual calculations or hydraulic modeling, determine the system capacity.
Maintain procedures for certifying available capacity	Maintain a written procedure for certifying available capacity for proposed developments and sewer system extensions
Certify availability of capacity for proposed developments	Certify that capacity is available or will be available.

### FLOW & RAINFALL MONITORING

Most wastewater treatment facilities have flow and rainfall monitors as part of their wastewater permit requirements. Additional flow monitors may be needed to address capacity certification, depending on the location of existing flow monitoring devices and the extent of the system.

If strategically located, flow monitors can track wastewater flow trends and aid in determining the volume of I/I entering the collection system upstream of the flow monitor. The combination of flow and rainfall monitoring is typically used to estimate the peak flows associated with various rainfall events. It is recommended that flow and rainfall monitoring be performed continuously within old and deteriorating sewer systems. Where possible, flow monitoring should be performed continuously at all major pump stations and wastewater treatment facilities. If possible, it is recommended that flow and rainfall data be stored in the asset management database discussed in this Section.

In lieu of traditional flow monitoring, some systems may be able to determine actual flows using run time data from pump stations within the collection system. Pump station run time calculations are acceptable if they accurately determine the volume of flow through the system.

### HYDRAULIC MODELING

The conveyance capacity of a sewer system can be estimated through manual calculations or based on data output from a hydraulic model of the collection system.

A hydraulic model is a tool that can be used to determine the available sewer system capacity and to estimate the ability of the system to handle additional wastewater flows. Local wastewater providers

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with rapidly expanding collection systems, planning facility expansions, experiencing redevelopment at higher densities, or having sanitary sewer overflow challenges may require a hydraulic model of their system or the affected portion of their system to support the capacity certification program. A computer-based model may be preferred due to the number of iterations expected with planned system extension. A comprehensive sewer system map (Action Item 7.1) will provide the base data needed to develop an accurate hydraulic model. Flow and rainfall monitoring will be used to calibrate the hydraulic model as well as provide the needed information on anticipated inflow and infiltration volumes.

The hydraulic model of each sewer system will be maintained and updated as needed to minimize sanitary sewer overflows, but at a minimum prior to planned future expansions that may stress the collection system. Some local wastewater providers may choose a method of calculation of available capacity in lieu of developing a hydraulic model, such as a spreadsheet. Regardless of the tool chosen, the local wastewater provider must have a means for determining available capacity in the system and determining the impact of additional wastewater flows on the collection system.

## ACTION ITEM 7.7 – GREASE MANAGEMENT PROGRAM

### ACTION ITEM

Develop a grease management program.

### OBJECTIVE

Fats, oils, and grease (FOG) management programs can ensure the longevity of sanitary sewer system capacity by alleviating maintenance challenges and overflows caused by blockages associated with grease accumulation in sewers.

### DESCRIPTION OF MEASURE

The discharge of grease into sewer systems contributes to serious clogging problems and costs the local wastewater providers substantial amounts of time and money in unclogging and cleaning the system. Major grease discharges typically include industrial facilities, commercial facilities (such as restaurants), multi-family residential units, and schools. The cumulative effects of grease discharges from single-family residential units can also be considerable, especially in areas with smaller than 8-inch sewer lines. Grease is responsible for a significant amount of system blockages experienced in the Metro Water District.

Many municipalities in the Metro Water District have incorporated grease trap requirements for commercial food establishments or processors that discharge a large volume of waste oils or tallow. Although existing municipal codes and ordinances require the installation of grease traps, the lack of routine maintenance of grease traps can lead to sewer line failure. Local governments have a role in assuring that grease trap owners routinely maintain their traps and reduce the amount of waste oils discharged to the sewer system. Control of grease from commercial establishments, multi-family units, and institutions would further reduce the amount of grease entering sanitary sewer systems, which would undoubtedly reduce clogging of sewer systems.

The grease management program must include the following:

- Legal authority regulating the discharge of grease from industrial and commercial facilities
- Legal authority for an enforcement program
- Written methods and procedures for preventing/controlling discharges of grease from industrial and commercial facilities
- Inspection/tracking method
- Grease management education program to ensure that the community understands the importance of reducing/eliminating grease discharges into the sewer system
- Inspection and permitting program for trucks used in pumping of grease traps

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Commercial waste transports must be registered with Georgia EPD, as outlined in the Georgia Water Quality Control Act (O.C.G.A. §12-15-21). This Act also requires that a local governing authority inspect commercial trucks annually. Local governments in the Metro Water District can choose to implement an inspection program or delegate inspection responsibilities to a designee. The Georgia FOG (Fats, Oils and Grease) Alliance provides training for local government staff on conducting these inspections.

The grease management program must include an education component for industrial and commercial facilities, residents, schools and others that have grease traps installed at their facilities. Education of these groups will highlight the importance of routine maintenance and the proper disposal of fats, oils and grease. More information on establishing a public education program can be found in the education section of this plan.

### SPECIFIC SUB-TASKS

Sub-Task	Description
Develop procedures for grease control and enforcement	Establish grease trap requirements for industrial and commercial facilities
Fats, oils and grease (FOG) education	Implement education targeted at generators of fats, oils and grease

### GREASE STORAGE (OPTIONAL)

Local wastewater providers may also choose to require secondary containment for outdoor grease storage containers (optional). Spills from grease storage containers stored outdoors will not negatively impact the collection system but will negatively impact watershed health. Examination of outdoor grease containment areas is optional as part of the local grease trap inspection program.

Some local wastewater providers may choose to inspect and track the collection, transport and disposal of grease trap waste. Tracking grease is optional, but may help communities with challenges related to improper grease disposal or illicit discharges.



## ACTION ITEM 7.8 – SEWER SYSTEM OVERFLOW EMERGENCY RESPONSE PROGRAM

### ACTION ITEM

Maintain a local Standard Operating Procedure (SOP) for responding to and reporting sanitary sewer overflows that complies with Georgia EPD and US EPA requirements.

### OBJECTIVE

A sanitary sewer system overflow response program ensures a reliable process for responding to and reporting sanitary sewer overflows to protect human health and the environment. Maintaining a SOP will likely improve response time for responding to and reporting overflows or spills.

### DESCRIPTION OF MEASURE

Local wastewater providers in the Metro Water District must maintain a written SOP for responding to and reporting sanitary sewer overflows or “spills.”

### SPECIFIC SUB-TASKS

Sub-Task	Description
Review overflow response program	Ensure local response program complies with Federal and State requirements.
Add SOPs to ensure proper response to overflows	Develop and add SOPs as needed to ensure proper response to overflows.

The sanitary sewer overflow SOP needs to be in accordance with the Georgia Rules and Regulations for Water Quality Control (391-3-6-.05) Emergency Actions. The sanitary sewer overflow SOP must include procedures that will be followed, to ensure expedient notification and response to spills, major spill, or overflows impacting or having the potential to impact the public, surface waters, ground surfaces, and structures. Common SOP provisions include:

- Procedures to ensure dispatch of personnel and equipment immediately to correct and repair conditions causing or contributing to overflows
- Procedures for investigating the causes of overflow events or spills
- Procedures for estimating spill quantities and areal extents
- Procedures for immediate Georgia EPD notification in the event a spill or major spill occurs
- Procedures for public notification in the event an overflow occurs
- Procedures for reporting spill or major spill to the local media (television, radio and print media)
- Procedures for limiting public access to areas affected by overflows

**Responsible Party**

Local Government

Local Wastewater Provider

Other: \_\_\_\_\_

  

**In Coordination With**

Site Plan Review Staff

Community Development/ Zoning

Local Stormwater Program

Local Water Providers

County Board of Health

Other: Georgia EPD

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- Procedures for reporting spill or major spill to local health departments immediately
- Procedures for City/County stormwater staff notification
- Procedure for immediately posting a notice as close as possible to where the spill or major spill occurred and where the spill or major spill entered State waters
- Procedure for publishing notice of major spill according to the Georgia Rules and Regulations for Water Quality Control
- Procedures for notifying downstream city, county and public agencies as required by the Georgia Rules and Regulations for Water Quality Control
- Training program to ensure personnel are adequately trained regarding the provisions and implementation of the SOP when overflows occur
- Procedures to minimize the volume of untreated wastewater flowing or transmitted to the portion of the sewer system impacted by overflow events
- Procedures for monitoring and sampling major spill-impacted waters immediately, as well as procedures for analyzing water samples impacted, or potentially impacted, by overflow events
- Procedures for reporting the results of the monitoring, sampling, and analysis of water samples, impacted or potentially impacted by overflows, to appropriate regulatory authorities

In order to integrate wastewater management with watershed management in the Metro Water District, wastewater providers should notify appropriate staff as soon as possible regarding any SSOs or spills that might affect surface waters or drinking water supplies both within and downstream of the local wastewater provider's jurisdiction.

## ACTION ITEM 7.9 – SEWER SYSTEM INSPECTION AND MAINTENANCE TRAINING

### ACTION ITEM

Maintain a staff training program for sewer system inspection and maintenance.

### OBJECTIVE

New staff training programs and continuing education for inspection and maintenance personnel is needed to ensure the sewer system inspection and maintenance program is effective.

### DESCRIPTION OF MEASURE

The training program should be designed so that wastewater personnel are well trained regarding all aspects of the sewer system inspection and maintenance program, especially related to their areas of responsibility. The sewer system inspection and maintenance training program should include the following:

- Format and outline of initial general training for all employees. This training should cover all aspects of the sewer system, including the management, operation, inspection and maintenance program
- Format and outline of employee-specific training programs. These programs should include detailed courses covering specific inspection and maintenance activities
- Procedures for tracking all training activities
- Schedules for personnel training, including periodic refresher training

Staff training programs and continuing education may be designed to comply with State requirements for operations and maintenance personnel. For example, local wastewater providers must provide State mandated training such as Wastewater Collections System Operator training and Erosion and Sedimentation Control training to appropriate staff.

### SPECIFIC SUB-TASKS

Sub-Task	Description
Review existing staff certifications	Review existing staff certifications to ensure they meet State requirements.
Secure additional needed training	Schedule additional training, as needed for new or existing personnel.

**Responsible Party**

Local Government

Local Wastewater Provider

Other: \_\_\_\_\_

  

**In Coordination With**

Site Plan Review Staff

Community Development/ Zoning

Local Stormwater Program

Local Water Providers

County Board of Health

Other: neighboring wastewater providers, as necessary

## **Section 7: COLLECTION SYSTEM INSPECTION AND MAINTENANCE**

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