# MEMORANDUM

**TO:** Victoria J. Li, P.E., Director
Watershed Protection Department (WPD)

Greg Meszaros, Director
Austin Water Utility (AWU)

Daryl Slusher, Assistant Director
Austin Water Utility (AWU)

**FROM:** Mike Personett, Assistant Director
Watershed Protection Department (WPD) MLP

**DATE:** December 11, 2013

**SUBJECT:** Watershed Protection Department and Austin Water Utility Service Agreement

For the last 3 years, staff members from the Austin Water Utility and the Watershed Protection Department worked closely together to update a service agreement between the two departments regarding protocols for best management practices for the protection of water quality. The last updated service agreement between AWU and WPD was completed in 1999, and it did not accurately reflect the current policies and procedures. The outcome of this collaboration will assist the City of Austin in maintaining full compliance with Federal and State environmental regulatory requirements, specifically the City's TPDES Municipal Separate Storm Sewer System (MS4) Permit.

A final draft of the updated service agreement has been reviewed and approved by staff from both departments from all relevant workgroups and divisions. Portions pertaining to each work groups' roles and responsibilities were written by that work group based upon their capabilities within that department. Staff agreed to meet once a year to discuss and update any needed changes. This will allow the agreement to be a living document and help avoid it from falling out of date in the future.

Please see the attached final draft of *Protocol for the Watershed Protection Department and the Austin Water Utility to Implement Best Management Practices for the Protection of Water Quality* for your review and concurrence signature. You will find the signature area on page 2 of the document. We appreciate the positive working relationships forged between the departments in this effort and look forward to continued collaboration.

Attachment

| Concurrence: | Concurrence Date: |
| --- | --- |
| Victoria J.L. Li, P.E., Director (WPD) | 12/11/13 |
| Mike Personett, Assistant Director (WPD) | 12/11/13 |
| Greg Meszaros, Director (AWU) | |
| Daryl Slusher, Assistant Director (AWU) on behalf of Greg Meszaros | 12-30-13 |

# Protocol

# for the

# Watershed Protection Department

# and the

# Austin Water Utility

***To Implement Best Management Practices for the Protection of Water Quality***

**December 10, 2013**

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## List of Acronyms

| | |
|---|---|
| AWU | Austin Water Utility |
| WPD | Watershed Protection Department |
| SSO | Sanitary Sewer Overflow |
| TPDES | Texas Pollutant Discharge Elimination System |
| SR | Service Request |
| CSS-W | Collection System Services - Webberville |
| CSS-N | Collection System Services - North |
| CSE | Collection Systems Engineering |
| CRS | Construction and Rehabilitation Services |
| SSD | Special Service Division |
| IU | Industrial User |
| IW | Industrial Waste |
| TCEQ | Texas Commission on Environmental Quality |
| TPDES | Texas Pollutant Discharge Elimination System |
| UDS | Utility Development Services |
| SCRP | Spills and Complaints Response Program |
| CCTV | Closed Circuit Television |
| USEPA | United States Environmental Protection Agency |
| WWTP | Wastewater Treatment Plant |
| WTP | Water Treatment Plant |
| ppm | parts per million |
| ppb | parts per billion |
| CFR | Code of Federal Regulations |
| AFD | Austin Fire Department |
| PDRD | Planning and Development Review Department |

## 1.0 Purpose and Applicability

This agreement is intended to enhance coordination between two City of Austin departments, the Austin Water Utility (AWU) and Watershed Protection Department (WPD), and to maximize protection of the environment and the public from potentially harmful releases from water, wastewater, reclaim water from lines, plants and other facilities, pest management and herbicide use, construction and maintenance practices; and from any other activities under the purview of the Austin Water Utility that have the potential to create environmental concerns. This document provides standard procedures for coordination between the AWU and the WPD for City of Austin for these activities.

AWU and WPD agree to re-assess this document at least once a year in order to identify any changes in procedure and/or to address any new issues or concerns.

## 2.0 Sanitary Sewer Overflows

Sanitary sewer overflows (SSOs) are surface or subsurface releases of wastewater from building sewers, private laterals, collection lines, lift stations, or treatment plants. SSOs include any event wherein sewage contacts the ground, regardless of volume. Common causes for these releases include obstructions in the lines, broken or damaged lines, surcharges caused by wet weather, pump failures, and vandalism.

Untreated wastewater contains pathogens that can pose serious risks to public health if released into the environment. Wastewater releases can also pose significant threats to the aquatic environment, including increased biochemical oxygen demand, introduction of fecal coliform, increased levels of suspended solids, and increased nutrients. Wastewater that enters a creek can quickly cause ecological impacts, such as fish kills, and may have long-term environmental impacts.

Because of the potential threat to human health and the environment, the City considers SSOs to be emergency situations.

### 2.1 Departmental Roles and Responsibilities

#### 2.1.1 *Austin Water Utility*

AWU is authorized by Texas Pollutant Discharge Elimination System (TPDES) permits to discharge treated wastewater from designated outfalls at wastewater treatment plants. As the TPDES permit holder for the wastewater treatment plants, AWU is also responsible for SSOs from the collection system including, response, mitigation, notification, and cleanup activities.

As the permit holder for the wastewater collection system, AWU will coordinate with WPD, Austin Code Compliance Department, and Austin Travis County Health and Human Services Department to ensure that private entities within the service area resolve and mitigate discharges of sanitary sewage and conditions that could cause discharges from private plumbing.

##### 2.1.1.1 Dispatch Office

AWU maintains an emergency Dispatch Office call center 24 hours a day, 7 days a week to receive information about water and wastewater emergencies. The Dispatch Office phone number is (512) 972-1000.

Dispatch Office personnel record information in the Hansen maintenance management system that is used to assign unique Service Request (SR) numbers to each call. Following receipt of a wastewater emergency call and the assignment of a Service Request number, the Dispatch Office notifies Collection System Services Division - Webberville (CSS-W) emergency response crews via radio. Dispatch Office personnel provide information on the location and type of the emergency. Dispatch Office personnel receive information from crews in the field on the status of the emergency response and enter information in Hansen.

If necessary, the Dispatch Office will notify additional personnel from AWU, WPD, Austin Travis County Health and Human Services Department, or other entities of emergency spills by pager or by phone.

2.1.1.2 Collection System Services Division - Webberville (CSS-W)

AWU has assigned the task of responding to all SSOs to the Collection System Services Division - Webberville (CSS-W). Designated emergency response crews are on duty or on call 24 hours a day, 7 days a week to address all SSOs. In addition, CSS-W emergency response crews address sewer line backups and stopups that have not resulted in overflows. The AWU emergency response crew leader or supervisor is responsible for stopping the overflow, containing the spill, cleaning and recovering the spill, and investigating the cause of the overflow. As part of the emergency response for SSOs, AWU will also be responsible for coordinating with regulatory agencies and the media.

In the event that an AWU supervisor is not on scene and immediate action is necessary, the CSS-W crew leader will contact the AWU supervisor, inform him or her of the situation (and the available options), and relay the supervisor's directions to the crew. In the event that communication cannot be established with the supervisor, the crew leader will be in overall charge of the emergency, until the supervisor arrives on the scene.

During the course of responding to SSOs, stopups, or backups, CSS-W crews will assess the need and priority for excavation and repairs. In the event that an emergency repair is needed to stop the SSO, CSS-W will notify the AWU Dispatch Office to create priority 1 work orders and page maintenance personnel from the Collection System Services Division – North (CSS-N). Pipeline Operations will provide equipment and personnel to perform the emergency repairs identified by CSS-W crews.

2.1.1.3 Collection System Services - North

Collection System Services - North (CSS-N) personnel perform emergency and scheduled repairs on wastewater facilities that have failed or become obstructed causing overflows, backups, or stopups.

Engineering support personnel from the Collection System Engineering Division (CSE) are responsible for reporting overflows in accordance with TCEQ permit requirements. They update and maintain the record of overflows in the Hansen database. They provide verbal and written notification to the TCEQ and to AWU public information and regulatory compliance staff. CSE personnel also identify spill locations that threaten water supply wells and surface water supply intakes. They are responsible for notifying potentially affected parties of SSOs.

2.1.1.4 Special Services Division (Industrial Waste)

The SSD's Pretreatment Workgroup is responsible for regulating all industrial users (IUs) of the AWU's sanitary sewer system as authorized by Chapter 15-10 of the Austin City Code. The SSD's pretreatment personnel investigate SSOs that were either suspected or known to be caused by or contributed to by IUs. Pretreatment personnel are contacted via an emergency pager on all SSOs, but respond only when a site is a known IU or when

they are specifically requested to respond. SSD's pretreatment personnel are also responsible for taking appropriate enforcement actions against any non-compliant IUs that caused or contributed to an SSO.

2.1.1.5 Utility Development Services Division (Private Lateral Program)

When a discharge, stoppage, or other problem occurs on the private side of the collection system (commercial or residential); Collection Systems Services will identify the problem, attempt to provide temporary relief to the property owner, notify the responsible party, and then forward the complaint and associated evidence to Collection Systems Engineering (CSE). CSE will determine if any improvements are needed to the City's collection system. CSE will then send the information and a service request to Utility Development Services (UDS) Division if it is determined that the private lateral has defects.

Once the UDS has received the information, a notice of violation will be sent to the property owner requesting them to make permanent repairs within 120 days of the date of the notice. The Neighborhood Housing and Community Development Department will contact the property owner to notify them of potential financial assistance through a grant program. The grant program is designed to assist low-income owners of homesteaded properties. The property owner will also be notified that all repairs must be conducted in accordance with the City's plumbing code. If the repairs are not completed within the first 90 days, a 30-day reminder letter is sent notifying the property owner that the case will be filed with Municipal Court if the repairs are not completed within the required 120 days.

If the property owner is found guilty and refuses to repair the private lateral, UDS is authorized to contract the repair of the private lateral and place a lien on the property for the cost incurred for the repair of the private lateral.

Additionally, property owners may be provided with legal notice to have the exposed sewage properly cleaned up within 24 hours and to keep the sewage off the ground until permanent repairs of the private lateral are made. Additional legal charges against the property owner may be filed under city, state, or federal water quality regulations, if exposed sewage reaches a storm sewer, watercourse, waters of the state, or waters of the United States.

2.1.1.6 Wastewater Treatment Plants and Lift Stations

Although treatment plants and lift stations are not considered a part of the collection system, vehicles and portable equipment (primarily pumps) located at treatment plants and lift stations can be provided to support the AWU divisions responding to SSOs in the collection system. Responsibility for spills of treated or untreated wastewater from treatment plants and lift stations is covered in section 3.0, below.

2.1.2 *Watershed Protection Department*

The focus of WPD's Spills and Complaints Response Program (SCRP) is protection of the environment through pollution prevention and mitigation. SCRP staff are available to provide, guidance, assistance and regulatory expertise to AWU in situations where there is an environmental threat. Although WPD is not an owner of the collection system, members of the SCRP team will assist AWU staff in environmental protection efforts and oversee compliance with applicable environmental regulations. Assistance may include evaluation of environmental threats and impacts, determination of potential storm sewer discharge points to area creeks and rivers, assisting with, coordination with other environmental regulatory agencies, and providing advice on containment and mitigation techniques. WPD can only respond to external discharges to the environment and cannot respond to discharges that are contained inside a building or within the building footprint. WPD also cannot address any health issues or other nuisance issues associated with a discharge.

In order to effectively assess the environmental threats and impacts associated with a spill and, in turn, to be able to determine the appropriate level of clean-up and to identify potential impacts to receptors, WPD spill response staff will need to estimate the volume and extent of a spill as accurately as possible. WPD spill response staff will rely on the AWU's assistance in determining the actual amount of sewage released (as opposed to the TCEQ reportable volume in cases where the two are not the same) the amount recovered and any possible receptors. The AWU may assist WPD spill response staff in this process by providing flow data and other collection systems data, collecting and analyzing samples, smoke testing, dye tracing etc. In addition, WPD may consider eye-witness testimony regarding how long the discharge was occurring as a factor in determining the overall volume of a spill. SCRP spill response staff will also be available to respond to any media questions regarding water pollution and effects of a spill on water quality.

SCRP staff will provide direction related to environmental compliance to the CSS-W supervisor on scene. In the event that there are no AWU supervisory personnel on site, SCRP staff will communicate directly with the crew leader.

In cases where there is a disagreement regarding compliance with environmental regulations or overflow mitigation, the AWU personnel will refer the matter up the supervisory chain within AWU, so the SCRP investigator can discuss the issue with the appropriate individuals for a timely resolution.

## 2.2 Assessment

Initial information on SSOs and other wastewater trouble calls is received by the AWU Dispatch Office via telephone. Dispatch operators create a Service Request (SR) in the Hansen database system and contact a CSS-W emergency response supervisor by radio with the location and the type of emergency. CSS-W crews report to the location of the problem. The CSS-W crew makes an initial assessment of the problem and verifies if an overflow is occurring or has occurred. They also report on the potential for wastewater to enter a storm sewer or watercourse and determine the level of AWU response necessary.

The CSS-W crew provides the following information to the emergency Dispatch Office for entry into the Hansen:

- Wastewater is contained or uncontained;
- Wastewater is active or inactive;
- Wastewater has entered or may enter any storm drain, storm sewer, ditch, channel, pond, creek, river, lake, or other type of water course or water body;
- Initial estimate of overflow volume or overflow rate; and
- Emitting component and asset number (property owner cleanout, city cleanout, manhole, etc.).

2.3 Notification to SSO Emergency Response Group Page:

For all SSOs, the Dispatch Office sends information from the initial assessment by group to the following parties (General Page):

- WPD Spill and Complaints Response staff;
- AWU CSS-W Manager, Superintendents, and Supervisors;
- AWU CSE Manager, Supervisors, Emergency Response staff ;
- AWU CSS-N, Superintendents, Supervisors, and Customer Service Representative;
- Austin-Travis County Health and Human Services Department on-call pager.

For large volume SSOs that exceed or approach 50,000 gallons (Major SSO), a separate page will also include the following:

- AWU Assistant Director – Engineering Services Program
- AWU Assistant Director – Pipeline Operations Program
- AWU Public Information Office
- AWU Regulatory Compliance Coordinator

For SSOs that exceed or approach 100,000 gallons or threaten a public water supply (Media-Reportable SSO), a separate page will also include the following:

- AWU Director
- AWU Assistant Director – Finance
- AWU Assistant Director – Treatment
- AWU Assistant Director –Environmental Affairs and Conservation

AWU will provide notification to WPD of all SSOs through the SCRP emergency pager at **(512) 802-7354** including:

1. Any SSO that enters a storm sewer or watercourse, regardless of the volume of the overflow. The notification page should specifically indicate "The SSO has entered a storm sewer or watercourse."

2. Any SSO that threatens to enter a storm sewer or watercourse, regardless of the volume of the overflow. Threatens is defined as a spill that has a reasonable possibility of entering a storm sewer or watercourse. See below for additional information.

The phrase, "storm sewer or watercourse" refers to any structure, natural or man-made, wet or dry; that acts as a channel for storm water flow and can include ditches, creeks, storm water ponds, etc.

A spill can "threaten" a storm sewer or watercourse in two ways;

1. The SSO is contained, but is close to a creek, storm drain, roadside ditch, etc. WPD should be notified any time there is an overflow near enough to a creek or storm sewer that a person could throw a rock and hit the creek or storm sewer.

2. Conditions in the sewer line are such that an overflow could start that could enter a storm sewer or water course. For example, if the sewer line is holding during a low flow period (late at night) and it is possible that the line will not be cleared before a high flow period, there is a strong possibility of an overflow that could enter a storm sewer or water course. In this instance, WPD should be notified prior to the actual overflow, so that preparations for containment can begin.

2.4 SSO Reporting to Regulators, Media, and Potentially Affected Parties

Personnel from CSE will determine if the wastewater trouble call is reportable to TCEQ and EPA based on their observation of the location and route of the wastewater discharge. CSE staff will also determine if the SSO should be considered a Media Reportable Health and Environmental Major Threat based on the following criteria:

1. The estimated volume of the overflow is more than 50,000 gallons and the discharge is located near a sensitive water supply well, or is within ¼ mile of a drinking water intake, or
2. The estimated volume of the overflow is more than 100,000 gallons, or
3. The discharge is expected to threaten a drinking water supply (any volume).

These conditions constitute a Media-Reportable Event. CSE staff communicate information on the SSO directly to the Regulatory Compliance Coordinator and the Public Information Office manager to prepare a press release and perform other public notifications. CSE provides verbal notification to TCEQ Regional staff within 24 hours of becoming aware of the SSO. They also provide written notification within 5 days of the SSO in accordance with permit requirements.

2.5 Resource Availability

Because of the high potential for impact to human health and the environment, AWU will give SSO emergency response the highest priority for allocating equipment and personnel. CSS-W has dedicated crews on duty from 7:00 AM to 9:30 PM during week days and 10:00 AM to 8:00 PM on weekends. Designated personnel are also on call after hours to respond to all wastewater trouble calls received by the Dispatch Office.

CSS-W has vehicles and equipment dedicated and available for immediate deployment to the site of an SSO. This equipment includes:

- Flusher trucks,
- Combination flusher / vacuum trucks,
- Trailer mounted flusher units,
- Trailer-mounted flusher / vacuum units,
- Portable trash pumps,
- Portable hydraulic pumps,
- Hoses and couplings,
- Pneumatic plugs, and
- Hand tools and sand bags for containment.

CSS-W is responsible for ensuring that equipment is properly maintained and fully operational for use in emergency response. Austin Water equipment maintenance personnel will give priority to equipment needed for response to overflows as required by CSS-W.

If necessary, resources will be redirected from non-emergency tasks, such as construction and routine maintenance, and devoted to repair and cleanup of wastewater overflows. If needed, all divisions within AWU may be called on for resources. AWU will also employ resources from other City departments and private contractors as needed to stop SSOs and recover spills.

2.6 SSO Mitigation and Control

After assessing the magnitude of the overflow incident, the Supervisor or crew leader will utilize equipment and personnel necessary for stopping the overflow, containing the spill by diverting or diking, and mitigating it. Resources will be employed to stop the overflow and recover the spill simultaneously. For example, in the event of a line blocked with grease and wastewater pooled in a creek, CSS-W staff will utilize pumps to set up a bypass, a flusher truck to clear the line, and pumps or a combination vacuum truck to recover spilled wastewater at the same time. This will provide the greatest level of protection for human health and the environment SSD will be contacted when an IU could be responsible for line blockage caused by grease.

CSS-W will be responsible for identifying the need for bypass pumping to stop an overflow. CSS-W will determine the location of the bypass, if needed, and install and set up the plugs, pumps, hoses, and traffic control. CSS-W will man the bypass pumping operation until emergency crews from CSS-N arrive on site to begin repairs. Collection System Services - North personnel will assume control and responsibility of the bypass pumping until emergency repairs are completed.

If crews are unable to bypass the line or contain the wastewater, diverting the flow of wastewater away from environmentally sensitive areas should be attempted. Diking

techniques using sand bags or soil berms can be used to contain or divert spilled wastewater to prevent it from entering storm sewer or watercourses.

## 2.7 Recovery and Cleanup

The goal of the cleanup is to recover the maximum amount of spilled material possible to protect human health and the environment. CSS-W will provide sufficient resources so that the source of the SSO is eliminated; the spill is contained or diverted away from creeks, streams, and areas of public contact; and spilled wastewater is recovered as rapidly as possible.

If resources for recovery and cleanup are not readily available within AWU, private contractors will be used for assistance. For this purpose, AWU will maintain a contract for emergency vacuum truck services, pump systems, installation of temporary lines, etc. to be available on short notice for cleanup of spills or installation of large volume bypasses. CSS-W supervisors, in charge of emergency response, will have the authority to call in vacuum truck contractors. CSE will maintain a contract for emergency construction.

Maximizing pollutant removal should always be the goal of recovery efforts. Emergency response crews should explore every available avenue for recovering all wastewater that has been released. Commonly used cleanup methods include:

- Pumping: Small or large pumps can be used to pump wastewater from pooled areas into nearby manholes or to tank trucks for transport and disposal.
- Flushing and Pumping: After wastewater is recovered from an area, the area may be flushed with potable water and that water collected for disposal. Wastewater that is in an inaccessible area can be flushed to an accessible area for collection and disposal. **This should only be done under the direction of WPD spill response staff.**
- Flushing Without Pumping: As a last resort, wastewater that cannot be recovered can be flushed with potable water without recovery. This allows for dilution of the wastewater and may reduce environmental impact. **This should only be done under the direction of WPD spill response staff.**

This is not intended to be an all inclusive list of potential cleanup methods. Spills occur under a wide variety of conditions and it is crucial that responders are able to adapt various solutions to the many possible situations.

## 2.8 Disinfection

To protect public health, some surfaces that come in contact with wastewater may need to be disinfected. The Austin-Travis County Health and Human Services Department addresses public health issues and that Department may be contacted for information on disinfection procedures. In all cases, disinfection should be done in a manner that does not present a threat to water quality. Disinfectants should not be applied near watercourses or storm sewers without approval of WPD.

2.9 SSO Investigation (Line Televising)
As part of the emergency response, CSS-W crews will investigate the cause of the overflow utilizing closed circuit television (CCTV) equipment. Depending on the results of the investigation, the need for emergency repairs will be immediately communicated to the AWU Dispatch Office to notify CSS-N construction crews. Industrial Waste staff from SSD will be contacted if an IU is suspected to have contributed to the cause of the SSO.

2.10 Water Quality Sampling
Under some circumstances, it may be necessary to sample creeks to determine the effectiveness of cleanup activities. Typical water quality parameters that may be needed include bacteriological analysis (e. coli), ammonia-nitrogen, and nitrate-nitrogen. WPD will collect these samples and have them analyzed in a manner consistent with USEPA requirements in 40 CFR 136. The AWU laboratory at Walnut Creek WWTP will be used for analyses that are within their capabilities

2.11 Repair of Sewer Mains
When an SSO requires spot repair of a line beyond basic flushing, AWU CSS-N performs these repairs. CSS-N personnel are on duty or on call 24 hours a day, 7 days a week to make emergency spot repairs to blocked sewer mains or service lines. Pipeline Operations supervisors will coordinate with CSS-W emergency response supervisors and/or CSE to clarify the location and scope of the repair.

Larger or more complex repairs will be performed by contract construction crews under the direction of CSE.

2.12 Erosion and Sedimentation Control and Revegetation
AWU is the holder of a General Permit issued by the Planning and Development Review Department (PDRD) for maintenance of the wastewater system. This permit requires compliance with the City's Land Development Code, which contains requirements for temporary erosion and sedimentation controls and revegetation of excavated areas. The General Permit requires that temporary controls be put in place once the initial emergency has abated. PDRD's General Permit Office, **(512) 974-6330**, should be contacted within 24 hours of beginning work under AWU's General Permit.

To clarify the issue of when controls must be placed, AWU should begin placement of temporary erosion controls at the earliest possible time, but prior to any excavation or pumping of sediment laden water. Controls should be adequate in size and capacity for the expected flow of water. If inlet covers are used, they should be removed after final grading and replaced with controls around the immediate work site. Tree protection may also be necessary in work areas that are near trees. If tree removal is necessary, other regulations may need to be complied with, contact the General Permit office for information. Specifications for temporary controls and tree protection are contained in the City's Environmental Criteria Manual.

After repairs are made, mud and sediment on streets and paved surfaces will be removed using front-end loaders, brooms, and/or street sweepers. Flushing with water is only allowed if the water is to be collected or there are controls in place to prevent discharge of sediment to storm sewers and watercourses.

Vegetated areas that must be excavated for repair of sewer lines should be revegetated immediately after final grading. These areas should be seeded or sodded and watered until sufficient growth has been established as per Land Development Code requirements. Solid grass sodding is required in improved turf areas such as yards and landscaped areas. Temporary erosion and sedimentation controls must remain in place until there is sufficient growth to prevent erosion. Contact the General Permit Office for approval to remove temporary controls.

2.13 SSOs from Privately-Owned Facilities

It is the responsibility of AWU to determine whether or not a reported overflow is caused by a malfunction in a private wastewater system or the City's sanitary sewer system. This is accomplished by pinpointing the location of the problem and delineating ownership boundaries. Regardless of the ownership of the system, AWU emergency response crews will take immediate action to temporarily stop the overflow, as well as contain and clean up the spilled sewage. AWU personnel will then investigate the overflow to make a clear determination of the cause of the overflow.

If an SSO from a private wastewater system is contained and does not threaten a storm sewer or watercourse, WPD will rely on AWU to:

1) Require the responsible party to clean up the wastewater so that no wastewater will be released to a storm sewer or watercourse in the event of rainfall and
2) Require the responsible party to properly repair and maintain their sewer system in order to prevent repeat discharges.

When WPD spill response staff is the first responder to an overflow, they will request that CSS-W respond and assist in making a final determination of the cause of the overflow. WPD spill response staff also may request AWU to respond and provide relief to overflows which seem to be caused by a malfunction in a private system if the owner/operator of that system cannot immediately abate the overflow or if the overflow is in a sensitive area and will cause immediate environmental impact. SCRP requests will be through the AWU Dispatch Office.

Depending on the terms of the contract, for wholesale wastewater customers of the City, it is the responsibility of the wholesale wastewater customer to notify the City of any sewer system overflows inside the wholesale customer's service area. The wholesale customer is responsible for timely correction of the problem giving rise to the sanitary sewer overflow and for providing any required notice to EPA and the TCEQ regarding any overflows. AWU Utility Development Services Division should be contacted if issues occur with any wholesale customer.

## 2.14 Detection, Mitigation, and Repair of Chronic Wastewater Leaks

See Urban Seep Assessment portion of this document, in section 7.0 below.

## 3.0 Discharges from Wastewater Treatment Plants, Lift Stations and Residuals

### 3.1 Treatment Plants

AWU wastewater treatment plants rarely experience unauthorized discharges of wastewater from the treatment or dewatering process. This section will address only these events at the wastewater treatment plants. If these discharges do not make their way beyond the plant property lines, then AWU staff will handle the event in the appropriate manner without notification of WPD. If the event causes a discharge to a storm sewer, the ground or a watercourse that will move beyond the property line, then AWU staff will notify WPD, TCEQ and, if necessary, EPA or other appropriate agencies.

#### 3.1.1 *Department Roles and Responsibilities*

##### 3.1.1.1 Austin Water Utility

As operator of the wastewater treatment plants, AWU is responsible for compliance with all applicable local, State and Federal laws. AWU will provide the necessary equipment and personnel to mitigate the impact of the unauthorized discharge which includes reducing the impact of treated and untreated wastewater or solids on any receiving stream water quality. AWU reserves the right to delegate and supervise containment and remediation using all means necessary to mitigate the spill wholly and expeditiously.

This includes, but is not limited to, the practices of pumping, sand bagging or diking of flows, and vacuuming of solids and liquids for proper disposal. The Superintendent will be responsible for assigning the collection of samples and laboratory analysis of watercourses and water wells affected by any spills, when applicable.

##### 3.1.1.2 Watershed Protection Department

The role of WPD spill response staff is to assist in environmental protection efforts and compliance with applicable environmental regulations. This assistance may include evaluation of environmental threats and impacts, determination of potential storm sewer discharge points, evaluation of impacts on watercourses, and providing advice on containment and mitigation techniques.

#### 3.1.2 *Initial Response and Notification*

When a discharge occurs at a plant, the operator will stop the flow as soon as it can be safely accomplished. If the discharge has entered a storm drain or left the plant property, AWU staff will notify the Dispatch Office at (512) 972-1000 and WPD through the SCRP emergency pager, **(512) 802-7354.** Information provided to WPD will include plant location, estimated volume of discharge, and whether or not the discharge has entered a storm sewer or watercourse. AWU staff will also make all necessary notifications required by State or Federal laws, which includes notification of the Texas Commission on Environmental Quality, if required.

#### 3.1.3 *Cleanup and Disposal*

Cleanup operations will proceed under the direction of the plant superintendent with assistance from other AWU staff. WPD spill response staff will provide advice and recommendations on clean up methods and assist AWU in making sure that applicable environmental regulations are met. AWU will provide the equipment and personnel necessary to complete the cleanup and disposal process. Any collected water or residuals will be disposed according to applicable regulations which may include discharge to sanitary sewer or return to the plants treatment process.

## 3.2 Lift Stations

AWU has numerous collection system lift stations, remote treatment plants and tunnel access shafts located throughout the city. There may be occasional overflows of raw wastewater from the wet wells during power outages or unexpected emergencies. If these overflows do not make their way beyond the lift station property lines, then AWU staff will handle the event in the appropriate manner without notification of WPD. If the event causes a discharge to a storm sewer, the ground or a watercourse that will move beyond the property line, then AWU staff will immediately notify WPD.

### 3.2.1 *Department Roles and Responsibilities*

#### 3.2.1.1 Austin Water Utility

As operator of the wastewater collection system, AWU is responsible for compliance with all applicable local, State or Federal laws. AWU will provide the necessary equipment and personnel to mitigate the impact of the unauthorized discharge which includes reducing the impact of treated and untreated wastewater or solids on any receiving stream water quality. AWU reserves the right to delegate and supervise containment and remediation using all means necessary to mitigate the spill wholly and expeditiously.

This includes, but is not limited to, the practices of pumping, sand bagging or diking of flows, and vacuuming of solids and liquids for proper disposal. The Superintendent will be responsible for assigning the collection of samples and laboratory analysis of watercourses and water wells affected by any spills, when applicable.

AWU has a telemetry system in place which monitors all lift stations and remote wastewater treatment plants. An "On-Call" person responds to these facilities 24 hours a day and acts as first responder, when an SSO or a threat of an SSO is imminent. AWU's Lift Station Supervisor has the responsibility of responding to all SSO's, directly on lift station property and is available to assist other City Departments and Divisions with any environmental or lift station related emergencies. A chain of command is in place to address large scale contingencies, coordinate resources, and perform remediation.

#### 3.2.1.2 Watershed Protection Department

The role of WPD spill response staff is to assist in environmental protection efforts and compliance with applicable environmental regulations. This assistance may include evaluation of environmental threats and impacts, determination of potential storm sewer

discharge points, evaluation of impacts on watercourses, and providing advice on containment and mitigation techniques.

3.2.2 *Initial Response and Notification*
When a discharge occurs at a lift station, AWU staff will stop the flow as soon as it can be safely accomplished. If the discharge has entered a storm drain or left the lift station property, AWU staff will immediately notify the Dispatch Office at (512) 972-1000 and WPD through the SCRP emergency pager, **(512) 802-7354**. Information provided to WPD will include lift station location, estimated volume of discharge, and whether or not the discharge has entered a storm sewer or watercourse. AWU staff will also make all necessary notifications required by State or Federal laws, which includes notification of the Texas Commission on Environmental Quality if required.

3.2.3 *Repair and Mitigation*
Any overflows or discharges will be stopped as quickly as possible. Any remediation or sedimentation controls will be put in place by AWU similar to those outlined in section 3.1.3.

3.3 Remote Wastewater Treatment Plant (sludge) Residuals
The de-watering process employed at AWU's wastewater treatment plants generates a waste stream. This material is transported by truck to the Walnut Creek WWTP for disposal. Each truck carries approximately 3,000 to 7,000 gallons. Depending on the amount of wastewater being treated, AWU transports an average of 10 truckloads of wastewater sludge per week.

These residuals may be spilled during transport, either on the plant site or en route to the Walnut Creek WWTP. This section will address spills which occur outside the plant site or spills on the plant site that are not confined to the plant boundaries. The goal of this section of the document is to provide guidance for responding Departments in working together to successfully mitigate wastewater treatment plant residual spills. For this section of the document, a spill is defined as any unintended or unauthorized release of wastewater treatment plant residuals.

3.3.1 *Departmental Roles and Responsibilities*

3.3.1.1 Austin Water Utility
As operator of the publicly owned treatment works, AWU is responsible for all activities required by local, State or Federal regulations. This includes notification, response and cleanup.

3.3.1.2 Austin Fire Department
Certain incidents may have safety concerns which require assistance from the Austin Fire Department (AFD). When notified, AFD will respond with units appropriate to the incident based on their standard response policies. AFD has specialized training and equipment for spill response. When AFD responds to spills, responding Departments will work in cooperation with the AFD's Incident Command System. This System provides

for a team approach to response with AFD in overall command of the incident and other Departments in support and advisory roles. Once on scene, AFD will assume incident command until AFD is satisfied that there is no threat to health, safety, or property. If the spill is in a roadway, AFD may request assistance from the Austin Police Department to evaluate and address traffic control needs. If AFD is not on scene, a designated AWU official will be in charge of the cleanup.

#### 3.3.1.3 Watershed Protection Department

Under the Incident Command System, WPD spill response staff will generally be assigned as technical specialists within the Research Sector or Hazmat Group. WPD spill response staff will provide advice and recommendations to AFD and AWU staff in environmental protection efforts and compliance with applicable environmental regulations. This may include evaluation of environmental threats, determination of possible storm sewer discharge points, liaison with other environmental regulatory agencies, and advice on containment and mitigation techniques.

### 3.3.2 *Initial Response*

When any spill occurs during transport, the driver, of the vehicle, as first responder under the Incident Command System, will stop the vehicle immediately, if safe to do so, or pull off the road safely. If possible, the driver should stop in the roadway at the location of the spill to prevent traffic accidents and reduce spreading of the spill. The driver should follow standard traffic safety precautions. If traffic conditions make it unsafe to stop in the roadway, the driver should pull over at the nearest safe area. If it can be done safely, the driver should attempt to contain the spill, then follow the notification procedures outlined in 3.3.3.

When spills occur at the treatment plants during processing, the driver and plant staff should attempt to contain the spill if it can be done safely. If the wastewater residuals have entered a storm drain or left the plant property, AWU staff should then follow the procedures outlined below in 3.3.3.

AWU personnel on the scene of spills on or off the plant site should take whatever steps possible to contain, redirect, or slow the flow of the wastewater residuals to prevent entry into storm sewers or watercourses. Diking with sandbags or earthen berms are the most common methods used.

### 3.3.3 *Notification*

In the event of a spill, drivers and plant employees should immediately contact their Supervisor and inform them that a wastewater residual spill has occurred. The following information should be provided:

- Location.
- Estimated volume of the spill.
- Whether or not the spill is contained or in a roadway.
- Whether or not the spill has entered a storm sewer or watercourse.

The Supervisor should notify the Austin Fire Department by calling **911,** the Dispatch Office at (512) 972-1000, and the Watershed Protection Department through the SCRP emergency pager, **(512) 802-7354** and provide the above information.

AWU is responsible for all official spill notifications required by State or Federal law or permit.

### 3.3.4 *Assessment*

When notified, AFD will respond using their normal protocols and assume Incident Command. AFD will be responsible for initial site safety and spill containment. If the spill is in a roadway, AFD will request APD assistance to evaluate and address traffic control needs. AFD will remain in Incident Command until AFD is satisfied that there is no threat to health, safety, or property.

Upon notification, the AWU Treatment O&M Supervisor will respond to the scene to assess the situation. The Supervisor will work with AFD and WPD staff to determine needed resources. AWU equipment contractors that may be called may include, but not be limited to, traffic safety equipment (cones, barricades, signs), dump trucks, front-end loaders, personnel for flagging and spill mitigation assistance.

### 3.3.5 *Resource Availability*

As the responsible party, AWU will be responsible for the spill cleanup. AWU will provide necessary equipment and personnel to remove the spilled wastewater residuals. Spills to roadways, storm sewers or watercourses will receive the highest priority for allocation of AWU resources. In the unusual instance that a resource availability conflict arises with AWU equipment, cleanup of wastewater or wastewater sludge spills are a higher priority, than Water Treatment Plant residual spills due to a higher potential for an adverse public health impact. Equipment and personnel from other City Departments may be called upon for cleanup. AWU or AFD will coordinate obtaining these resources if necessary.

AFD will provide equipment and personnel according to its normal response protocols. Their response and cleanup assistance will be determined by factors such as ongoing incidents, imminent or predicted weather conditions, scope of the spill, location of the spill, impact to major transportation arteries, and any other factors.

### 3.3.6 *Cleanup*

Cleanup operations will proceed under the direction of AFD, if they remain in command of the incident, or under the direction of AWU's O&M supervisor on scene. WPD spill response staff will provide advice and recommendations to AFD or AWU.

The general goal of the cleanup is to capture the maximum amount of spilled material possible to protect public health and safety and prevent polluting discharges to all storm sewers and watercourses. At all times during the cleanup, safety issues will be a top priority in selection of cleanup methods.

Unless directed otherwise by AFD, AWU will use its own discretion in choosing cleanup methods to meet the cleanup goals. Spills or spill residue should never be flushed to a storm sewer or watercourse. Cleanup activities should continue until no visual residue is present or to the limits of the available recovery methods. Potential methods for cleanup include, but are not limited to:

- Sweeping: manual sweeping using hand brooms, mechanical sweeping using power brooms (non-vacuum), or mechanical sweeping using vacuum sweepers. The use of power brooms will require additional effort to physically pick up spilled solids.
- Shoveling: manual using hand shovels or mechanical using equipment with front-end loaders. This method may leave a layer of wastewater residuals which will need to be removed using other methods.
- Absorbents: Use of absorbents such as sand or kitty litter can reduce the flow of wastewater residuals and can simplify cleanup by shoveling, particularly of small spills.
- Flushing: water flushing can be an acceptable and efficient method for cleanup provided the flushed water is captured for appropriate disposal.

Since spills occur under a wide variety of conditions, it is crucial that responders are able to select the appropriate techniques to fit each unique situation.

### 3.3.7 *Disposal*

The collected wastewater residuals will be evaluated by AWU to determine the appropriate method for disposal. Disposal of any spilled residuals and any collected wastewater will be in accordance with all applicable regulations. In most cases, the wastewater residuals will be sent to its original destination, the Walnut Creek WWTP.

## 4.0 Water Line Discharges

The AWU potable water transmission system occasionally has unauthorized discharges of potable water and hyperchlorinated water to storm sewers and watercourses. These discharges are generally from four sources; water line breaks, leaking valves, routine water line flushing, and hyperchlorinated wastewater from new line disinfection. The AWU's potable water contains from 2-2.5 ppm chlorine. Hyperchlorinated water for water line disinfection typically contains a minimum of 25 ppm chlorine.

Chlorine, even at the relatively low levels contained in potable water, can have severe impacts to aquatic systems. The USEPA Water Quality Criteria 1-hour chlorine exposure guideline for prevention of impact to aquatic life is 19 micrograms per liter (0.019 ppm) total residual chlorine. Because local creeks often have relatively small volumes of water in them, water line breaks can often cause chlorine levels in the creeks to be well in excess of the EPA criteria.

Water line breaks can also cause heavy discharges of sediment from the area of the break to nearby storm sewers and watercourses. Sediment can cause obstructions of storm sewers and watercourses as well as impact to aquatic plants and animals by smothering and reducing in available light.

### 4.1 Water Line Breaks

Water line breaks occur at random throughout the City. They can be caused by many factors, including shifting of soil during periods of wet or dry weather, third party damage (generally construction), corrosion, age, and "water hammer."

#### 4.1.1 Departmental Roles and Responsibilities

##### 4.1.1.1 Austin Water Utility

As the operator of the water system, AWU is responsible for compliance with all applicable local, State, or Federal laws or permits. AWU will provide necessary equipment and personnel to repair water line breaks and mitigate the impact of unauthorized discharges from those breaks.

AWU has staff and equipment available for large and small-scale dechlorination of potable and hyperchlorinated water, as well as sediment control. These resources should be used to prevent or reduce the impact of chlorine and sediment on receiving waters.

##### 4.1.1.2 Watershed Protection Department

The role of WPD spill response staff is to assist AWU staff in environmental protection efforts and compliance with applicable environmental regulations. This assistance may include evaluation of environmental threats and impacts, determination of potential storm sewer discharge points, coordination with other environmental regulatory agencies, and providing advice on containment and mitigation techniques.

WPD spill response staff will provide direction to the senior AWU person available, unless directed otherwise by AWU. In the event that there are no AWU supervisory

personnel on site, WPD spill response staff will request a supervisor to respond on scene if they feel it is necessary.

4.1.2 *Notification for Water Line Breaks*
AWU will provide notification to the Dispatch Office at (512) 972-1000 and WPD through the SCRP emergency pager at **(512) 802-7354** on all field verified water line breaks from lines 12" or greater and for any water line break where a fish kill has been verified, alleged, or is otherwise suspected. In addition, AWU will provide immediate notification to WPD for any chlorinated water discharge that enters or threatens to enter Barton Springs Pool. WPD will respond to water line breaks to assist in assessing what needs to be done to protect and maintain water quality (e.g. dechlorination, sediment removal, etc.) during and after a water line break. Due to the large number of water line breaks each year, the notification criteria will be implemented on a trial basis and will be modified as necessary.

AWU is responsible for all official spill notifications required by State or Federal law or permit. AWU will notify the TCEQ Regional office within 24 hours of becoming aware that a water line break has caused a fish kill in a watercourse. The 24 hour number for TCEQ spill reporting is (800) 832-8224.

4.1.3 *Assessment of Water Line Breaks*
AWU staff are dispatched to active water line breaks within 1 hour of the customer call to assess the magnitude of the break. Any notifications required will proceed as described above in section 4.1.2

4.1.4 *Repair and Mitigation*
AWU will work to stop the flow of potable water to storm sewer and watercourses as quickly as possible. Until discharges are stopped, the water must be dechlorinated as quickly as possible in areas designated by WPD. Sedimentation controls will be put in place by AWU until the problem has been repaired.

Water discharged from repaired water lines which need to be flushed before being put back in service will be dechlorinated prior to entry into a creek or lake. Chlorine levels will be tested to verify sufficient dechlorination. Under no circumstances will lines be flushed to streams without dechlorination and testing. Dechlorination should be sufficient to bring the total chlorine concentration to below the detection limit as read on field testing instruments.

4.1.5 *Erosion and Sedimentation Control and Revegetation*
AWU is the holder of a General Permit issued by the WPD for maintenance of water lines. This permit requires compliance with the City's Land Development Code, which contains requirements for temporary erosion and sedimentation controls and revegetation of excavated areas. PDRD's General Permit Office, **(512) 974-6330**, should be contacted within 24 hours of beginning work under AWU's General Permit.

The General Permit requires that temporary erosion and sedimentation controls be put in place once the initial emergency has abated. To clarify this issue, AWU should begin placement of temporary erosion controls at the earliest possible time, but prior to any excavation or pumping of sediment laden water. If the water line cannot be immediately shut off for any reason, controls should be put in place to trap sediment being carried by the flowing potable water. Controls should be adequate in size and capacity for the expected flow of water. If inlet covers are used, they should be removed after final grading and replaced with controls around the immediate work site. Tree protection may be necessary in work areas that are near trees. If tree removal is necessary, other regulations may need to be complied with, contact the General Permit office for information. Specifications for temporary controls and tree protection are contained in the City's Environmental Criteria manual.

After repairs are made, mud and sediment on streets and paved surfaces will be removed using front-end loaders, brooms and/or street sweepers. These areas may be flushed with water only if the water is to be collected or there are controls in place to prevent discharge of sediment to storm sewers and watercourses.

Vegetated areas that must be excavated for repair of water lines should be revegetated immediately after final grading. These areas should be seeded or sodded and watered until sufficient growth has been established as per Land Development Code requirements. Solid grass sodding is required in improved turf areas such as yards and landscaped areas. Temporary erosion and sedimentation controls will remain in place until there is sufficient growth to prevent erosion. Contact the General Permit Office for approval to remove temporary controls.

4.1.6 *Routine Water Line Flushing*

AWU regularly flushes City water lines to remove stagnant water and sediment from the water transmission system. This water may contain chlorine levels from 0 to 2.5 ppm. AWU will test water to be discharge for residual chlorine prior to discharge to the City's storm sewers and watercourses. If the chlorine residual is detectable at the point where it enters surface water, the water should be dechlorinated. Temporary sedimentation controls should be used if the water to be discharged contains sediment. Water that is cloudy, discolored or odorous may not be discharged to storm sewers or watercourses and should be disposed of in the sanitary sewer, to vegetation, or by another approved method.

4.1.7 *New Construction (Hyperchlorinated Water)*

AWU requires all hyperchlorinated water to be dechlorinated before discharging into either Storm Sewers, Sanitary Sewers, or sprayed onto pervious cover as beneficial reuse. This wastewater is typically discharged as beneficial reuse or through storm sewers. Under certain conditions, such as the lack of pervious cover on the site for beneficial reuse or storm sewers, the sanitary sewer discharge would be acceptable. This will be subject to AWU approval.

## 5.0 Discharges from Water Treatment Plants, Pump Stations and Reservoirs, and Residuals

### 5.1 Treatment Plants

AWU water treatment plants only very occasionally experience unauthorized discharges of chlorinated water from some step in the treatment process or discharge of residuals from the dewatering process. This section will address only these events at the treatment plants. If these discharges do not make their way beyond the plant property lines, then AWU staff will handle the event in the appropriate manner without notification of WPD. If the event causes a discharge to a storm sewer, the ground or a watercourse that will move beyond the property line, then AWU staff will notify WPD.

#### 5.1.1 *Department Roles and Responsibilities*

##### 5.1.1.1 Austin Water Utility

As operator of the water treatment plants, AWU is responsible for compliance with all applicable local, State or Federal laws. AWU will provide the necessary equipment and personnel to mitigate the impact of the unauthorized discharge which includes reducing the impact of chlorinated water, semi-solid foam, or solids on any receiving stream water quality. This includes but is not limited to the practices of dechlorination, sand bagging or diking of flows, water sampling, and vacuuming of solids and liquids for proper disposal. The plant superintendent along with other AWU staff will be responsible for all actions taken.

##### 5.1.1.2 Watershed Protection Department

The role of WPD spill response staff is to assist in environmental protection efforts and compliance with applicable environmental regulations. This assistance may include evaluation of environmental threats and impacts, determination of potential storm sewer discharge points, evaluation of impacts on watercourses, and providing advice on containment and mitigation techniques.

#### 5.1.2 *Initial Response and Notification*

When a discharge occurs at the plant, the operator will stop and contain the flow as soon as it can be safely accomplished. If the discharge has entered a storm drain or left the plant property, AWU staff will notify the Dispatch Office at (512) 972-1000 and WPD through the SCRP emergency pager, **(512) 802-7354**. Information provided to WPD will include plant location, estimated volume of discharge, and whether or not the discharge has entered a storm sewer or watercourse. AWU staff will also make all necessary notifications required by State or Federal laws, which includes notification of the Texas Commission on Environmental Quality when required.

#### 5.1.3 *Cleanup and Disposal*

Cleanup operations will proceed under the direction of the plant superintendent with assistance from other AWU staff. WPD spill response staff will provide advice and recommendations on clean up methods and assist AWU in making sure that applicable environmental regulations are met. AWU will provide the equipment and personnel

necessary to complete the cleanup and disposal process. Any collected water or residuals will be disposed according to applicable regulations which may include discharge to sanitary sewer, return to the plants residual handling process or disposal at Shaw Lane.

## 5.2 Pump Stations and Reservoirs

AWU has numerous distribution system pump stations, reservoirs and elevated tanks located throughout the city. There are occasional overflows of chlorinated water from the tanks or disposal of chlorinated water during periods of tank maintenance. For any overflow or discharge other than drips or small, incidental discharges, AWU staff will notify WPD.

### 5.2.1 *Department Roles and Responsibilities*

#### 5.2.1.1 Austin Water Utility

As operator of the water system, AWU is responsible for compliance with all applicable local, State or Federal laws. AWU will provide the necessary equipment and personnel to mitigate the impact of the potable water discharge which includes reducing the impact of chlorinated water on any receiving stream water quality. This includes, but is not limited, to the practices of dechlorination, sand bagging or diking of flows. The Pumping and Distribution Division Manager along with other AWU staff will be responsible for all actions taken.

#### 5.2.1.2 Watershed Protection Department

The role of WPD spill response staff is to assist in environmental protection efforts and compliance with applicable environmental regulations. This assistance may include evaluation of environmental threats and impacts, determination of potential storm sewer discharge points, evaluation of impacts on watercourses, and providing advice on containment and mitigation techniques.

### 5.2.2 *Initial Response and Notification*

When a discharge occurs at a pump station or reservoir, AWU staff will stop the flow as soon as it can be safely accomplished. For any discharge other than drips and other small, incidental discharges, AWU staff will notify the Dispatch Office at (512) 972-1000 and WPD through the SCRP emergency pager, **(512) 802-7354**. Information provided to WPD will include pump station or reservoir location, estimated volume of discharge, and whether or not the discharge has entered a storm sewer or watercourse. AWU staff will also make all necessary notifications required by State or Federal laws, which includes notification of the Texas Commission on Environmental Quality when required.

### 5.2.3 *Repair and Mitigation*

AWU will work to stop the flow of potable water to storm sewer and watercourses as quickly as possible. Until discharges are stopped, the water must be dechlorinated as quickly as possible in areas designated by WPD. Sedimentation controls will be put in place by AWU until the problem has been repaired.

## 5.3 Water Treatment Plant (WTP) Residuals

The lime softening process employed at AWU's water treatment plants generates a waste stream that is approximately 60 percent solids. This material is transported by truck to a City-owned and TCEQ-permitted landfill disposal site on Shaw Lane in Southeast Austin. Depending on the amount of water being treated, AWU's fleet of trucks may haul 30 or more loads of residuals a day from AWU's three water treatment plants. Each truck carries approximately 14 cubic yards of residuals weighing approximately 40,000 pounds.

Occasionally, WTP residuals are spilled during transport, either on the plant site or en route to the disposal site. This section will address spills which occur outside the plant site or spills on the plant site that are not confined to the plant boundaries. The goal of this section of the document is to provide guidance for responding Departments in working together to successfully mitigate water treatment plant residual spills. For this section of the document, a spill is defined as any unintended or unauthorized release of WTP residuals.

### 5.3.1 *Departmental Roles and Responsibilities*

#### 5.3.1.1 Austin Water Utility

As operator of the public water supply system, AWU is responsible for all activities required by local, State or Federal regulations. This includes notification, response and cleanup.

#### 5.3.1.2 Austin Fire Department

When notified, the AFD will respond with units appropriate to the incident based on their standard response policies. AFD has specialized training and equipment for spill response. When AFD responds to spills, responding Departments will work within the AFD's Incident Command System. This System provides for a team approach to response with AFD in overall command of the incident and other Departments in support and advisory roles. Once on scene, AFD will assume incident command until AFD is satisfied that there is no threat to health, safety, or property. If the spill is in a roadway, AFD may request assistance from the Austin Police Department to evaluate and address traffic control needs. If AFD is not on scene, a designated AWU official will be in charge of the cleanup.

#### 5.3.1.3 Watershed Protection Department

Under the Incident Command System, WPD spill response staff will generally be assigned as technical specialists within the Research Sector or Hazmat Group. WPD spill response staff will provide advice and recommendations to AFD and AWU staff in environmental protection efforts and compliance with applicable environmental regulations. This may include evaluation of environmental threats, determination of possible storm sewer discharge points, liaison with other environmental regulatory agencies, and advice on containment and mitigation techniques.

### 5.3.2 *Initial Response*

When any spill occurs during transport, the driver of the vehicle will stop the vehicle immediately, if safe to do so, or pull off the road safely. If possible, the driver should stop in the roadway at the location of the spill to prevent traffic accidents and reduce spreading of the spill. The driver should follow standard traffic safety precautions. If traffic conditions make it unsafe to stop in the roadway, the driver should pull over at the nearest safe area. If it can be done safely, the driver should attempt to contain the spill and then follow the procedures outlined below in 5.3.3.

When spills occur at the treatment plants during processing, the driver and plant staff should attempt to contain the spill if it can be done safely. If the WTP residuals have entered a storm drain or left the plant property, AWU staff should then follow the procedures outlined below in 5.3.3.

AWU personnel on the scene of spills on or off the plant site should take whatever steps possible to contain, redirect, or slow the flow of the WTP residuals to prevent entry into storm sewers or watercourses. Drip pans, diking with sandbags or earthen berms are the most common methods used. Five-gallon drip pans should be available for immediate recovery.

### 5.3.3 *Notification*

In the event of a spill, drivers and plant employees should immediately contact their Supervisor and inform them that a WTP residual spill has occurred. The following information should be provided:

- Location;
- Estimated volume of the spill;
- Whether or not the spill is contained or in a roadway; and
- Whether or not the spill has entered a storm sewer or watercourse.

The Supervisor should notify the Dispatch Office at (512) 972-1000 and the Watershed Protection Department through the SCRP emergency pager, **(512) 802-7354** and provide the above information. The Supervisor may at their discretion notify the AFD by calling **911**; AFD should be notified on all spills that cause a safety hazard on the roadway.

AWU is responsible for all official spill notifications required by State or Federal law or permit.

### 5.3.4 *Assessment*

When notified, AFD will respond using their normal protocols and assume Incident Command. AFD will be responsible for initial site safety and spill containment. If the spill is in a roadway, AFD will request APD assistance to evaluate and address traffic control needs. AFD will remain in Incident Command until AFD is satisfied that there is no threat to health, safety, or property.

Upon notification, the AWU Support Services Supervisor will respond to the scene to assess the situation. The Supervisor will work with AFD and WPD staff to determine needed resources. AWU equipment that may be called may include, but not be limited to, traffic safety equipment (cones, barricades, and signs), dump trucks, front-end loaders, personnel for flagging and spill mitigation assistance.

### 5.3.5 *Resource Availability*

As the responsible party, AWU is required to do the spill cleanup. AWU will provide necessary equipment and personnel to remove the spilled WTP residuals. Spills to roadways, storm sewers or watercourses will receive the highest priority for allocation of AWU resources. In the unusual instance that a resource availability conflict arises with AWU equipment, cleanup of wastewater or wastewater sludge spills are a higher priority than WTP residual spills due to a higher potential for an adverse public health impact. Equipment and personnel from other City Departments may be called upon for cleanup. AWU or AFD will coordinate obtaining these resources if necessary.

AFD will provide equipment and personnel according to its normal response protocols. Their response and cleanup assistance will be determined by factors such as ongoing incidents, imminent or predicted weather conditions, scope of the spill, location of the spill, impact to major transportation arteries, and any other factors.

### 5.3.6 *Cleanup*

Cleanup operations will proceed under the direction of AFD, if they remain in command of the incident, or under the direction of the AWU supervisor on scene. WPD spill response staff will provide advice and recommendations to AFD or AWU, depending on who is in charge.

The general goal of the cleanup is to capture the maximum amount of spilled material possible to protect public health and safety and prevent polluting discharges to City of Austin storm sewers and watercourses. At all times during the cleanup, safety issues will be taken into consideration in selection of cleanup methods.

Unless directed otherwise by AFD, AWU will use its own discretion in choosing cleanup methods to meet the cleanup goals. Spills or spill residue should never be flushed to a storm sewer or watercourse. Cleanup activities should continue until no visual residue is present or to the limits of the available recovery methods. Potential methods for cleanup include, but are not limited to:

- Sweeping: manual sweeping using hand brooms, mechanical sweeping using power brooms (non-vacuum), or mechanical sweeping using vacuum sweepers. The use of power brooms will require additional effort to physically pick up spilled solids.
- Shoveling: manual using hand shovels or mechanical using equipment with front-end loaders. This method may leave a layer of WTP residuals which will need to be removed using other methods.
- Sorbents: Use of sorbents such as sand or kitty litter can reduce the flow of WTP residuals and can simplify cleanup by shoveling, particularly of small spills.

- Flushing: water flushing can be an acceptable and efficient method for cleanup provided the flushed water is captured for appropriate disposal.

Since spills occur under a wide variety of conditions, it is crucial that responders are able to select the appropriate techniques to fit each unique situation.

### 5.3.7 *Disposal*

The collected WTP residuals will be evaluated by AWU to determine the appropriate method for disposal. Disposal of any spilled residuals and any collected wastewater will be in accordance with all applicable regulations. In most cases, the WTP residuals will be sent to its original destination, the Shaw Lane disposal site.

## *6.0* Reclaimed Water Discharges

Reclaimed water is highly-treated wastewater effluent that is ordinarily discharged to the Colorado River. Prior to discharge, some of the effluent is diverted, stored in tanks, and pumped to customers where it is used, predominantly, for landscape irrigation. The construction of the reclaim water infrastructure began in 1986 and currently comprises approximately 47.2 miles of ductile iron and PVC mains located in the eastern part of the City outside of the Barton Creek watershed and the Edwards Aquifer recharge zone.

Although infrequent, the City's reclaimed water system has unauthorized discharges that have the potential to reach to storm sewers and watercourses. These discharges are generally from two sources; line breaks and line flushing. Reclaimed water contains nutrients like nitrogen and phosphorus, and residual chlorine to minimize microbial regrowth. Line breaks may also cause discharges of sediment from the area of the break to nearby storm sewers and watercourses.

While AWU requires that new potable water lines be disinfected prior to being placed into service, this is not a requirement for new reclaimed lines. Therefore, there is no hyperchlorinated water to be disposed of in the construction of reclaimed lines.

### 6.1 Line Breaks

Reclaimed line breaks occur randomly throughout the reclaimed water system. They can be caused by many factors, including shifting of soil during periods of wet or dry weather, third party damage (generally construction), corrosion, age, and "water hammer."

#### 6.1.1 *Departmental Roles and Responsibilities*

##### 6.1.1.1 Austin Water Utility

As the owner and operator of the reclaimed system, AWU is responsible for compliance with applicable local, State or Federal laws or permits. AWU will provide equipment and personnel to repair line breaks and mitigate the impact of unauthorized discharges from those breaks.

The AWU is equipped and staffed to handle large and small-scale dechlorination of reclaimed water. These resources shall be used to prevent or reduce the impact of chlorine on receiving water quality.

##### 6.1.1.2 Watershed Protection Department

The role of WPD spill response staff is to assist AWU staff in environmental protection efforts and compliance with applicable environmental regulations. This assistance may include evaluation of environmental threats and impacts, determination of potential storm sewer discharge points, coordinating with other environmental regulatory agencies, and providing advice on containment and mitigation techniques.

6.1.2 *Notification*
AWU staff will notify the Dispatch Office at (512) 972-1000 and WPD for all significant reclaimed water discharges through the SCRP emergency pager, **(512) 802-7354.** Information provided to WPD will include location, estimated volume of discharge, and whether or not the discharge has entered a storm sewer or watercourse. AWU will also immediately notify WPD as soon as they realize that required line flushing will result in a discharge to a storm sewer or watercourse. AWU staff will also make all necessary notifications required by State or Federal laws, which includes notification of the Texas Commission on Environmental Quality, if required.

6.1.3 *Assessment*
AWU staff is dispatched to reported line breaks within 30 minutes to assess the magnitude of the break and whether or not storm sewers or watercourses have been impacted. If AWU staff determines that the flow from the break is entering a storm sewer or watercourse, they will immediately notify WPD via procedures in 6.1.2. WPD spill response staff will immediately dispatch an investigator to the scene to assess for environmental impacts.

6.1.4 *Repair and Mitigation*
AWU Pipeline Operations will work to stop the flow of reclaimed water to storm sewer and watercourses as quickly as possible. Until discharges are stopped, the water must be dechlorinated as quickly as possible. Sedimentation controls will be put in place by AWU until the problem has been repaired.

When reclaimed lines are flushed after being repaired, AWU will make every effort to prevent discharge to a storm sewer or watercourse. If a discharge cannot be avoided, the discharge will be treated to meet the discharge requirements of Title VI, Chapter VI of City code. Chlorine levels will be tested by AWU and if the chlorine residual at the point where it enters surface water is detectable the water will be dechlorinated. Under no circumstances will lines be flushed to streams without dechlorination and testing.

6.1.5 *Erosion and Sedimentation Control and Revegetation*
AWU is the holder of a General Permit issued by the Planning and Development Review Department (PDRD). This permit requires compliance with the City's Land Development Code, which contains requirements for temporary erosion and sedimentation controls and revegetation of excavated areas. PDRD's General Permit Office, **(512) 974-6330**, should be contacted within 24 hours of beginning work under AWU's General Permit.

The General Permit requires that temporary erosion and sedimentation controls be put in place once the initial emergency has abated. To clarify this issue, AWU should begin placement of temporary erosion controls at the earliest possible time, but <u>prior to any excavation or pumping of sediment laden water</u>. If the reclaimed water line cannot be shut off immediately for any reason, controls should be put in place to trap sediment being carried by the flowing potable water. Controls should be adequate in size and capacity for the expected flow of water. If inlet covers are used they should be removed after final grading and replaced with controls around the immediate work site. Tree

protection may be necessary in work areas that are near trees. If tree removal is necessary, other regulations may need to be complied with, contact the General Permit office for information. Specifications for temporary controls and tree protection are contained in the City's Environmental Criteria manual.

After repairs are made, mud and sediment on streets and paved surfaces will be removed using front-end loaders, brooms and/or street sweepers. These areas may be flushed with water only if the water is to be collected or there are controls in place to prevent discharge of sediment to storm sewers and watercourses.

Vegetated areas that must be excavated for repair of water lines should be revegetated immediately after final grading. These areas should be seeded or sodded and watered until sufficient growth has been established as per Land Development Code requirements. Solid grass sodding is required in improved turf areas such as yards and landscaped areas. Temporary erosion and sedimentation controls will remain in place until there is sufficient growth to prevent erosion. Contact the General Permit Office for approval to remove temporary controls.

### 6.2 Planned Flushing

Reclaimed water is not intended for human consumption. Its quality is much less of an issue and there is less need to flush reclaimed lines. On occasion however, AWU will flush reclaimed lines to remove stagnant water. AWU will make reasonable efforts to dispose of discharges from planned flushing events in the sanitary sewer or by another approved method. In the event that flush water from a planned event must be discharged to a storm sewer or watercourse, AWU will provide whatever is necessary to meet the discharge requirements of Title VI, Chapter VI of City code. In addition, AWU will test the water to be discharged for residual chlorine prior to discharge to the City's storm sewers and watercourses. If the chlorine residual at the point where it enters surface water is detectable, the water shall be dechlorinated. If the water to be discharged contains sediment, temporary sedimentation controls shall be used if the water to be discharged contains sediment.

#### 6.2.1 *Notification*

For any planned discharge of reclaim water, AWU will notify TCEQ in advance of the discharge and will notify WPD at least 3 days in advance of any planned discharge of reclaimed water from a reservoir or other collection facility to a storm sewer or watercourse via the SCRP Emergency Pager at **(512) 802-7354**.

AWU staff will also notify the Dispatch Office at (512) 972-1000 and WPD for all unplanned reclaimed water discharges. Information provided to WPD will include location, estimated volume of discharge, and whether or not the discharge has entered a storm sewer or watercourse. AWU will also immediately notify WPD as soon as they realize that required line flushing will result in a discharge to a storm sewer or watercourse. AWU staff will also make all necessary notifications required by State or Federal laws, which includes notification of the Texas Commission on Environmental Quality, if required.

## 7.0 Urban Seep Assessment

The City of Austin has established an inter-departmental team to implement an Urban Seep Assessment Program in order to effectively respond to alleged groundwater complaints to determine whether or not they are naturally occurring, and to mitigate any associated City responsibilities.

When the source of a discharge is not immediately discernable, it is necessary to perform an urban seep assessment to differentiate between discharges of groundwater from natural sources such as springs, seeps, shallow aquifers, etc. and discharges from sources such as public and private water, wastewater, and reclaim lines. In these cases, WPD and the AWU will work together to attempt to identify the source of the discharge in hopes of mitigating any problems stemming from discharges originating from City owned water, wastewater, or reclaim water facilities. If the discharge is found to contain pollutants, WPD spill response staff will seek Responsible Party removal of the contamination. Sources involving City infrastructure, City property, Public Safety, or Land Development will be referred to the appropriate City department. Uncontaminated groundwater sources will be referred to WPD geologists for investigation. WPD geologists' investigation may require a site visit and water quality sampling and analysis to determine a groundwater source. In some cases, dye injections and monitoring may be necessary to determine sources. It will be the responsibility of WPD geologists to determine the schedule and level of effort appropriate for each uncontaminated groundwater investigation. WPD spill response staff can take no further action on discharges found to be from uncontaminated sources. Mitigation of uncontaminated sources may be suggested by WPD geologists; however, funding for such projects would have to be determined on a case-by-case basis.

### 7.1 Source Determination

#### 7.1.1 *Departmental Roles and Responsibilities*

##### 7.1.1.1 Austin Water Utility

For sites within the AWU distribution and collection system areas, AWU leak detection staff will perform the initial investigation, including the collection of samples for field and laboratory analysis, in order to determine if the discharge has characteristics of either city water, city reclaim water or wastewater. Typical water quality parameters that it may be necessary to sample for in order to make an accurate source determination include, but are not limited to, e. coli, ammonia nitrogen, nitrate nitrogen, total chlorine, pH, conductivity, hardness, etc. Where appropriate, AWU will collect these samples and will transport them to an AWU laboratory for analysis. When analytical results clearly indicate the presence of a pollutant and/or involvement of AWU infrastructure, AWU will immediately notify WPD. If the investigation by AWU staff indicates the discharge cannot be readily identified as either City water, City reclaimed water, or wastewater, AWU staff will refer the investigation to the WPD Spills and Complaints Response Program for further investigation as a possible pollutant discharge along with the results

of the field and laboratory analysis. AWU will not designate a discharge as groundwater without consultation with WPD hdyrogeologists.

When AWU has sufficient evidence to suggest AWU infrastructure (facilities, transmission lines, collection lines, etc.) involvement, AWU staff will immediately notify WPD. WPD will then work with AWU staff to verify the source and mitigate the discharge. Once a problem is verified to be originating from AWU infrastructure, AWU will be responsible for any required mitigation. AWU will take responsibility for the investigation using a variety of techniques, including but not limited to: televising and simple dye tracing of AWU infrastructure including abandoned lines; smoke testing; combined dye tracing and sampling; excavation to expose buried infrastructure; etc. If the discharge is shown to originate from private facilities connected to AWU infrastructure, AWU will take the lead in notifying the responsible party and working with them to mitigate any problems. AWU agrees to defer any determinations that a water source is from groundwater to WPD geologists. In some cases, the source will be from a combined AWU infrastructure and uncontaminated groundwater source. In this case, WPD geologists will consult with AWU staff on appropriate actions for mitigating both sources.

#### 7.1.1.2 Watershed Protection Department

WPD spill response staff will take the lead in investigating discharges that are believed to contain a pollutant and for all discharges from sites that are within the city's planning jurisdiction, but outside of any possible influence of AWU's distribution and collection systems. The focus of WPD spill response staff efforts will be limited to water pollution prevention. If the discharge is found to contain pollutants, WPD spill response staff will seek Responsible Party removal of the contamination. WPD geologists will take the lead in the investigation and verification of uncontaminated discharges believed to be originating from a groundwater source. For the discharges which are shown to originate from an uncontaminated groundwater source, WPD geologists will communicate results with the complainant(s). WPD geologists may provide consultation to spill response staff on underground transport of contaminated water from groundwater sources. WPD geologists will also consult spills staff on combined contaminated urban seeps and uncontaminated groundwater. In some cases, seeps may be shown to originate with WPD water quality or flood control ponds and will be referred to WPD CIP or Field Operations programs for mitigation. In other cases, despite all reasonable investigations, a source determination may not be possible. In these cases, combined correspondence from AWU and WPD to complainant(s) will be necessary.

### 7.1.2 *Notification*

If after completing their initial investigation AWU staff determine the discharge cannot be positively identified as either City water, City reclaimed water, or wastewater, AWU staff will refer the investigation to the WPD Spills and Complaints Response Program for further investigation along with the results of the field and laboratory analysis. If the site is located outside of AWU's distribution and collection system, but within the City's

planning jurisdiction, AWU will provide notification to WPD through the SCRP emergency pager at **(512) 802-7354.** WPD spill response staff will contact staff geologists as needed for assessment of groundwater sources.

### 7.1.3 *Mitigation*

If a discharge is shown to have characteristics of either city water, wastewater, or reclaim water, then the investigation will proceed according to the appropriate protocol as described elsewhere in this document. In cases where a discharge originating from AWU infrastructure or from private facilities connected to AWU infrastructure is shown not to contain a pollutant but is alleged to pose a threat to public health and/or safety or public or private property, AWU staff will take the lead in negotiating mitigation of the problem and communicating with the complainant(s). If the discharge is found to contain pollutants, WPD spill response staff will seek Responsible Party removal of the contamination. For discharges which are shown to originate from an uncontaminated groundwater source, WPD geologists will take the lead in communicating with the complainant(s). AWU agrees that, when it is concluded that the source of water discharged is from groundwater, it is the responsibility of WPD geologists, and will defer this determination accordingly. If a groundwater discharge is alleged to pose a threat to public health and/or safety or property (both public and private), the case will be referred to the appropriate City entity for evaluation. Capital projects for interception and redirection of uncontaminated groundwater sources to benign discharge will be determined according to WPD funding priorities.