

City of Stockton



Sewer System Management Plan

(SSMP) Appendices

Appendix 1

**City of Stockton Council Resolution 07-0108
SSMP 2011-2015 Approval**

**City of Stockton Council Resolution 2016-03-26-0302
SSMP 2016-2020 Updates Approval**

**City of Stockton Council Resolution XX-XXXX
SSMP 2025-2031 Updates Approval**

Resolution No. **11-0108**

STOCKTON CITY COUNCIL

RESOLUTION AUTHORIZING FINAL APPROVAL AND CERTIFICATION OF THE 2011-2015 SEWER SYSTEM MANAGEMENT PLAN AS REQUIRED BY STATE WATER RESOURCES CONTROL BOARD ORDER NO. 2006-0003-DWQ, STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

The City of Stockton is required by State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, dated May 2, 2006, to develop, implement, and cause an Authorized City Representative to certify as complete, a Sewer System Management Plan (SSMP); and

SWRCB Order No. 2006-0003-DWQ also requires that Council must approve the final SSMP prior to an Authorized City Representative's certification of the SSMP as being complete and in compliance; now, therefore,

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF STOCKTON, AS FOLLOWS:

1. The City of Stockton Final 2011 - 2015 SSMP is approved, a copy of which is attached as Exhibit 1 and incorporated by this reference.
2. The City Manager is authorized to take such other actions as are appropriate to carry out the intent of this Resolution.

PASSED, APPROVED, and ADOPTED MAY 10 2011.


 ANN JOHNSTON, Mayor
 of the City of Stockton

ATTEST:


 for KATHERINE GONG MEISSNER, City Clerk
 of the City of Stockton
 ::ODMAIGRPWISE\COS.MUD.MUD_Library:144970.1

City Atty: 
 Review _____
 Date May 2, 2011

Resolution No. 2016-03-26-0302

STOCKTON CITY COUNCIL**RESOLUTION APPROVING THE CITY OF STOCKTON'S 2016-2020 SEWER SYSTEM MANAGEMENT PLAN UPDATES**

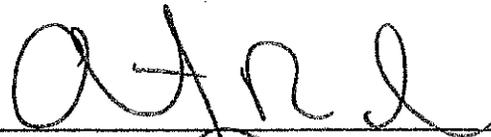
The City of Stockton is required by the Department of Water Quality (DWQ) of the State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ Statewide General Waste Discharge Requirement (GWDR), dated May 2, 2006, to develop, implement, and cause an Authorized City Representative to certify as complete, a Sewer System Management Plan (SSMP); and

SWRCB Order No. 2006-0003-DWQ GWDR, also requires that Council must approve the SSMP whenever significant updates are made to the plan, prior to an Authorized City Representative's certification of the SSMP as being complete and in compliance; now, therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF STOCKTON, AS FOLLOWS:

1. The City Council approves the City of Stockton 2016 - 2020 Sewer System Management Plan, a copy of which is attached as Exhibit "1" and incorporated by this reference.
2. The City Manager is authorized to take whatever actions are appropriate and necessary to carry out the purpose and intent of this resolution.

PASSED, APPROVED, and ADOPTED March 26, 2016.



ANTHONY SILVA, Mayor
of the City of Stockton

ATTEST:


BONNIE PAIGE, City Clerk
of the City of Stockton



STOCKTON FOUNDED JUNE 1849 * O.S.B.
INCORPORATED JULY 1850

Appendix 2

**Water Resources Control Board
Order No. 2022-0103-DWQ**

**STATE WATER RESOURCES CONTROL BOARD
1001 I Street, Sacramento, California 95814
ORDER WQ 2022-0103-DWQ
STATEWIDE WASTE DISCHARGE REQUIREMENTS
GENERAL ORDER FOR SANITARY SEWER SYSTEMS**

This Order was adopted by the State Water Resources Control Board on December 6, 2022.
This Order shall become effective **180 days after the Adoption Date of this General Order**, on June 5, 2023.
The Enrollee shall comply with the requirements of this Order upon the Effective Date of this General Order.

This General Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, protect the Enrollee from liability under federal, state, or local laws, nor create a vested right for the Enrollee to continue the discharge of waste.

CERTIFICATION

I, Jeanine Townsend, Clerk to the Board, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the State Water Board on December 6, 2022.

AYE: Chair E. Joaquin Esquivel
 Vice Chair Dorene D'Adamo
 Board Member Sean Maguire
 Board Member Laurel Firestone
 Board Member Nichole Morgan

NAY: None

ABSENT: None

ABSTAIN: None

Courtney Tyler for
Jeanine Townsend
Clerk to the Board

STATEWIDE SANITARY SEWER SYSTEMS GENERAL ORDER

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STATEWIDE SANITARY SEWER SYSTEMS GENERAL ORDER

1. INTRODUCTION

This General Order regulates sanitary sewer systems designed to convey sewage. For the purpose of this Order, a sanitary sewer system includes, but is not limited to, pipes, valves, pump stations, manholes, siphons, wet wells, diversion structures and/or other pertinent infrastructure, upstream of a wastewater treatment plant headworks. A sanitary sewer system includes:

- Laterals owned and/or operated by the Enrollee;
- Satellite sewer systems; and/or
- Temporary conveyance and storage facilities, including but not limited to temporary piping, vaults, construction trenches, wet wells, impoundments, tanks and diversion structures.

Sewage is untreated or partially treated domestic, municipal, commercial and/or industrial waste (including sewage sludge), and any mixture of these wastes with inflow or infiltration of stormwater or groundwater, conveyed in a sanitary sewer system. Sewage contains high levels of suspended solids, non-digested organic waste, pathogenic bacteria, viruses, toxic pollutants, nutrients, oxygen-demanding organic compounds, oils, grease, pharmaceuticals, and other harmful pollutants.

For the purpose of this General Order, a spill is a discharge of sewage from any portion of a sanitary sewer system due to a sanitary sewer system overflow, operational failure, and/or infrastructure failure. Sewage and its associated wastewater spilled from a sanitary sewer system may threaten public health, beneficial uses of waters of the State, and the environment.

This General Order serves as statewide waste discharge requirements and supersedes the previous State Water Resources Control Board (State Water Board) Order 2006-0003-DWQ and amendments thereafter. All sections and attachments of this General Order are enforceable by the State Water Board and Regional Water Quality Control Boards (Regional Water Boards). Through this General Order, the State Water Board requires an Enrollee to:

- Comply with federal and state prohibitions of discharge of sewage to waters of the State, including federal waters of the United States;
- Comply with specifications, and notification, monitoring, reporting and recordkeeping requirements in this General Order that implement the federal Clean Water Act, the California Water Code (Water Code), water quality control plans (including Regional Water Board Basin Plans) and policies;
- Proactively operate and maintain resilient sanitary sewer systems to prevent spills;
- Eliminate discharges of sewage to waters of the State through effective implementation of a Sewer System Management Plan;
- Monitor, track, and analyze spills for ongoing system-specific performance improvements; and
- Report noncompliance with this General Order per reporting requirements.

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An Enrollee is a public, private, or other non-governmental entity that has obtained approval for regulatory coverage under this General Order, including:

- A state agency, municipality, special district, or other public entity that owns and/or operates one or more sanitary sewer systems:
 - greater than one (1) mile in length (each individual sanitary sewer system);
 - one (1) mile or less in length where the State Water Board or a Regional Water Board requires regulatory coverage under this Order; or
- A federal agency, private company, or other non-governmental entity that owns and/or operates a sanitary sewer system of any size where the State Water Board or a Regional Water Board requires regulatory coverage under this Order in response to a history of spills, proximity to surface water, or other factors supporting regulatory coverage.

For the purpose of this Order, a sanitary sewer system includes only systems owned and/or operated by the Enrollee.

2. REGULATORY COVERAGE AND APPLICATION REQUIREMENTS

2.1. Requirements for Continuation of Existing Regulatory Coverage

To continue regulatory coverage from previous Order 2006-0003-DWQ under this General Order, **within the 60-days-prior-to the Effective Date of this General Order**, the Legally Responsible Official of an existing Enrollee shall electronically certify the Continuation of Existing Regulatory Coverage form in the online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database. The Legally Responsible Official will receive an automated CIWQS-issued Notice of Applicability email, confirming continuation of regulatory coverage under this General Order. All regulatory coverage under previous Order 2006-0003-DWQ will cease on the Effective Date of this Order.

An Enrollee continuing existing regulatory coverage is not required to submit a new application package or pay an application fee for enrollment under this General Order. The annual fee due date for continued regulatory coverage from previous Order 2006-0003-DWQ to this General Order remains unchanged.

A previous Enrollee of Order 2006-0003-DWQ that fails to certify the Continuation of Existing Regulatory Coverage form in the online CIWQS database by the Effective Date of this Order is considered a New Applicant, and will not have regulatory coverage for its sanitary sewer system(s) until:

- A new application package for system(s) enrollment is submitted per section 2.2 (Requirements for New Regulatory Coverage) below; and
- The new application package is approved per section 2.2.2 (Approval of Application Package (For New Applicants Only)).

2.2. Requirements for New Regulatory Coverage

No later than 60 days prior to commencing and/or assuming operation and maintenance responsibilities of a sanitary sewer system, a duly authorized representative that

STATEWIDE SANITARY SEWER SYSTEMS GENERAL ORDER

maintains legal authority over the public or private sanitary sewer system is required to enroll under this General Order by submitting a complete application package as specified below and as provided in Attachment B (Application for Enrollment Form) of this General Order.

Unless required by a Regional Water Board, a public agency that owns a combined sewer system subject to the Combined Sewer Overflow Control Policy (33 U.S. Code § 1342(q)), is not required to enroll, under this Order, the portions of its sanitary sewer system(s) that collects combined sanitary wastewater and stormwater.

2.2.1. Application Package Requirements

The Application for Enrollment package for new applicants must include the following items:

- **Application for Enrollment Form.** The form in Attachment B of this General Order must be completed, signed, and certified by a Legally Responsible Official, in accordance with section 5.1 (Designation of a Legally Responsible Official) of this General Order. If an electronic Application for Enrollment form is available at the time of application, a new applicant shall submit its application form electronically; and
- **Application Fee.** A fee payable to the “State Water Resources Control Board” in accordance with the Fee Schedule in the California Code of Regulations, Title 23, section 2200, or subsequent fee regulations updates.

The application fee for this General Order is based on the sanitary sewer system’s threat to water quality and complexity designations of category 2C or 3C, which is assigned based on the population served by the system. The current Fee Schedule for sanitary sewer systems is listed under subdivision (a)(2) at the following website: [Fee Schedule](https://www.waterboards.ca.gov/resources/fees/water_quality/) (https://www.waterboards.ca.gov/resources/fees/water_quality/).

2.2.2. Approval of Application Package (For New Applicants Only)

The Deputy Director of the State Water Board, Division of Water Quality (Deputy Director) will consider approval of each complete Application for Enrollment package. The Deputy Director will issue a Notice of Applicability letter which serves as approved regulatory coverage for the new Enrollee.

If the submitted application package is not complete in accordance with section 2.2.1 (Application Package Requirements) of this General Order, the Deputy Director will send a response letter to the applicant outlining the application deficiencies. The applicant will have 60 days from the date of the response letter to correct the application deficiencies and submit the identified items necessary to complete the application package to the State Water Board.

2.2.3. Electronic Reporting Account for New Enrollee

Within 30 days after the date of the Approval of Complete Application Package for System Enrollment, a duly authorized representative for the Enrollee shall obtain a CIWQS Sanitary Sewer System Database user account by clicking the “User Registration” button and following the directions on the [CIWQS Login Page](#)

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(<https://ciwqs.waterboards.ca.gov>). If additional assistance is needed to establish an online CIWQS user account, contact State Water Board staff by email at CIWQS@waterboards.ca.gov. The online user account will provide the Enrollee secure access to the online CIWQS database for electronic reporting.

2.3. Regulatory Coverage Transfer

Regulatory coverage under this General Order is not transferable to any person or party except after an existing Enrollee submits a written request for a regulatory coverage transfer to the Deputy Director, at least 60 days in advance of any proposed system ownership transfer. The written request must include a written agreement between the existing Enrollee and the new Enrollee containing:

- Acknowledgement that the transfer of ownership is solely of an existing system with an existing waste discharge identification (WDID) number;
- The specific ownership transfer date in which the responsibility and regulatory coverage transfer between the existing Enrollee and the new Enrollee becomes effective; and
- Acknowledgement that the existing Enrollee is liable for violations occurring up to the ownership transfer date and that the new Enrollee is liable for violations occurring on and after the ownership transfer date.

The Deputy Director will consider approval of the written request. If approved, the Deputy Director will issue a Notice of Applicability letter which serves as an approved transfer of regulatory coverage to the new Enrollee.

3. FINDINGS

3.1. Legal Authorities

3.1.1. Federal and State Regulatory Authority

The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the waters of the United States (33 U.S.C. 1251). The Water Code authorizes the State Water Board to implement the Clean Water Act in the State and to protect the quality of all waters of the State (Water Code sections 13000 and 13160).

3.1.2. Discharge of Sewage

A discharge of untreated or partially treated sewage is a discharge of waste as defined in Water Code section 13050(d) that could affect the quality of waters of the State and is subject to regulation by waste discharge requirements issued pursuant to Water Code section 13263 and Chapter 9, Division 3, Title 23 of the California Code of Regulations. A discharge of sewage may pollute and alter the quality of the waters of the State to a degree that unreasonably affects the beneficial uses of the receiving water body or facilities that serve those beneficial uses (Water Code section 13050(l)(1)).

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3.1.3 Water Boards Authority to Require Technical Reports, Monitoring, and Reporting

Water Code sections 13267 and 13383 authorize the Regional Water Boards and the State Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. Water Code section 13267(b), authorizes the Regional Water Boards to “require any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region... or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of water within its region shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires...In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.” Water Code section 13267(f) authorizes the State Water Board to require this information if it consults with the Regional Water Boards and determines that it will not duplicate the efforts of the Regional Water Boards. The State Water Board has consulted with the Regional Water Boards and made this determination.

The technical and monitoring reports required by this General Order and Attachment E (Notification, Monitoring, Reporting and Recordkeeping Requirements) are necessary to evaluate and ensure compliance with this General Order. The effort to develop required technical reports will vary depending on the system size and complexity and the needs of the specific technical report. The burden and cost of these reports are reasonable and consistent with the interest of the state in protecting water quality, which is the primary purpose of requiring the reports.

Water Code section 13383(a) authorizes the Water Boards to “establish monitoring, inspection, entry, reporting, and recordkeeping requirements... for any person who discharges, or proposes to discharge, to navigable waters, any person who introduces pollutants into a publicly owned treatment works, any person who owns or operates, or proposes to own or operate, a publicly owned treatment works or other treatment works treating domestic sewage, or any person who uses or disposes, or proposes to use or dispose, of sewage sludge.” Section 13383(b) continues, “the state board or the regional boards may require any person subject to this section to establish and maintain monitoring equipment or methods, including, where appropriate, biological monitoring methods, sample effluent as prescribed, and provide other information as may be reasonably required.”

Reporting of spills from privately owned sewer laterals and systems pursuant to section 5.15 (Voluntary Reporting of Spills from Privately-Owned Sewer Laterals and/or Private Sanitary Sewer Systems) of this General Order is authorized by Water Code section 13225(c) and encouraged by the State Water Board, wherein a local agency may investigate and report on any technical factors involved in water quality control provided the burden including costs of such reports bears a reasonable relationship to the need for the report and the benefits to be obtained therefrom. The burden of reporting private spills under section 5.15 (Voluntary Reporting of Spills from Privately-Owned Sewer Laterals and/or Private Sanitary Sewer Systems) is minimal and is outweighed by the benefit of providing Regional Water Boards an opportunity to respond to these spills

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when an Enrollee, which in many cases has a contractual relationship with the owner of the private system, has knowledge of the spills.

3.1.4. Water Board Authority to Prescribe General Waste Discharge Requirements

Water Code section 13263(i) provides that the State Water Board may prescribe general waste discharge requirements for a category of discharges if the State Water Board finds or determines that:

- The discharges are produced by the same or similar operations;
- The discharges involve the same or similar types of waste;
- The discharges require the same or similar treatment standards; and
- The discharges are more appropriately regulated under general waste discharge requirements than individual waste discharge requirements.

Since 2006, the State Water Board has been regulating over 1,100 publicly owned sanitary sewer systems (See section 3.1.5 (Previous Statewide General Waste Discharge Requirements) of this General Order). California also has a large unknown number of unregulated privately owned sanitary sewer systems. All waste conveyed in publicly owned and privately owned sanitary sewer systems (as defined in this General Order) is comprised of untreated or partially treated domestic waste and/or industrial waste. Generally, sanitary sewer systems are designed and operated to convey waste by gravity or under pressure; system-specific design elements and system-specific operations do not change the common nature of the waste, the common threat to public health, or the common impacts on water quality. Spills of waste from a sanitary sewer system prior to reaching the ultimate downstream treatment facility are unauthorized and enforceable by the State Water Board and/or a Regional Water Board. Therefore, spills from sanitary sewer systems are more appropriately regulated under general waste discharge requirements.

As specified in Water Code sections 13263(a) and 13241, the implementation of requirements set forth in this Order is for the reasonable protection of past, present, and probable future beneficial uses of water and the prevention of nuisance. The requirements implement the water quality control plans (Basin Plans) for each Regional Water Board and take into account the environmental characteristics of sewer service areas and hydrographic units within the state. Additionally, the State Water Board has considered water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality, costs associated with compliance with these requirements, the need for developing housing within California, and the need to protect sources of drinking water and other water supplies.

3.1.5. Previous Statewide General Waste Discharge Requirements

On May 2, 2006, the State Water Board adopted Order 2006-0003-DWQ serving as Waste Discharge Requirements pursuant to Article 4, Chapter 4, Division 7 of the Water Code (commencing with section 13260) for inadvertent discharges to waters of the State. Order 2006-0003-DWQ prohibited discharges of untreated or partially treated sewage. Order 2006-0003-DWQ also required system-specific management, operation, and maintenance of publicly owned sewer systems greater than one mile in length.

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To decrease the impacts on human health and the environment caused by sewage spills, the previous Order required enrollees to develop a rehabilitation and replacement plan that identifies system deficiencies and prioritizes short-term and long-term rehabilitation actions. The previous Order also required enrollees to:

1. Maintain information that can be used to establish and prioritize appropriate Sewer System Management Plan activities; and
2. Implement a proactive approach to reduce spills.

The previous Order required Sewer System Management Plan elements for “the proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management.”

On July 30, 2013, the State Water Board amended General Order 2006-0003-DWQ with Order WQ 2013-0058-EXEC, Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

Many enrollees of Order 2006-0003-DWQ have already implemented proactive measures to reduce sewage spills. Other enrollees, however, still need technical assistance and funding to improve sanitary sewer system operation and maintenance for the reduction of sewage spills.

3.1.6. Existing Memorandum of Agreement with California Water Environment Association

The California Water Environment Association is a nonprofit organization dedicated to providing water industry certifications, training, and networking opportunities. The Association’s Technical Certification Program provides accredited sanitary sewer system operator certification for collection system operators and maintenance workers.

On February 10, 2016, the State Water Board entered into a collaborative agreement with the Association titled *Memorandum of Agreement Between the California State Water Resources Control Board and the California Water Environment Association - Training Regarding Requirements Set Forth in Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*. The Memorandum sets forth collaborative training necessary for regulated sanitary sewer system personnel to operate and maintain a well operating system and ensure full compliance with statewide sewer system regulations.

On March 15, 2018, the State Water Board and the California Water Environment Association amended the existing Memorandum of Agreement to include collaborative outreach and expand training needs associated with further updates to Water Board regulations for sanitary sewer systems. The State Water Board encourages further Agreement updates as necessary to support improved sewer system operations and the professionalism of collection system operators.

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3.2. General**3.2.1. Waters of the State**

Waters of the State include any surface water or groundwater, including saline waters, within the boundaries of the state as defined in Water Code section 13050(e), and are inclusive of waters of the United States.

3.2.2. Sanitary Sewer System Spill Threats to Public Health and Beneficial Uses

Sewage contains high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. Sewage spills may cause a public nuisance, particularly when sewage is discharged to areas with high public exposure such as streets and surface waters used for drinking, irrigation, fishing, recreation, or other public consumption or contact uses.

More specifically, sanitary sewer spills may:

- Adversely affect aquatic life and/or threaten water quality when reaching receiving waters;
- Inadvertently release trash, including plastics;
- Impair the recreational use and aesthetic enjoyment of surface waters by polluting surface water or groundwater;
- Threaten public health through direct public exposure to bacteria, viruses, intestinal parasites, and other microorganisms that can cause serious illness such as gastroenteritis, hepatitis, cryptosporidiosis, and giardiasis;
- Negatively impact ecological receptors and biota within surface waters; and
- Cause nuisance including odors, closure of beaches and recreational areas, and property damage.

Sanitary sewer system spills may pollute receiving waters and threaten beneficial uses of surface water and groundwater. Potentially threatened beneficial uses include, but are not limited to the following (with associated acronym representations as included in statewide water quality control plans and Regional Water Boards' Basin Plans):

- Municipal and Domestic Supply (MUN)
- Water Contact Recreation (REC-1) and Non-Contact Water Recreation (REC-2)
- Cold Freshwater Habitat (COLD)
- Warm Freshwater Habitat (WARM)
- Native American Culture (CUL)
- Wildlife Habitat (WILD)
- Rare, Threatened, or Endangered Species (RARE)
- Spawning, Reproduction, and/or Early Development (SPWN)
- Wetland Habitat (WET)
- Agricultural Supply (AGR)
- Estuarine Habitat (EST)

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- Commercial and Sport Fishing (COMM)
- Subsistence Fishing (SUB)
- Tribal Tradition and Culture (CUL)
- Tribal Subsistence Fishing (T-SUB)
- Aquaculture (AQUA)
- Marine Habitat (MAR)
- Preservation of Biological Habitats of Special Significance (BIOL)
- Migration of Aquatic Organisms (MIGR)
- Shellfish Harvesting (SHELL)
- Industrial Process Supply (PROC)
- Industrial Service Supply (IND)
- Hydropower Generation (POW)
- Navigation (NAV)
- Flood Peak Attenuation/Flood Water Storage (FLD)
- Water Quality Enhancement (WQE)
- Fresh Water Replenishment (FRSH)
- Groundwater Recharge (GWR)
- Inland Saline Water Habitat (SAL)

3.2.3. Proactive Sanitary Sewer System Management to Eliminate Spill Causes

Finding 3 of the previous Order, 2006-0003-DWQ, states: “Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO [sanitary sewer overflow]. A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state. This approach will in turn decrease the risk to human health and the environment caused by SSOs.”

Many spills are preventable through proactive attention on sanitary sewer system management using the best practices and technologies available to address major causes of spills, including but not limited to:

- Blockages from sources including but not limited to:
 - Fats, oils and grease;
 - Tree roots;
 - Rags, wipes and other paper, cloth and plastic products; and
 - Sediment and debris.
- Sewer system damage and exceedance of sewer system hydraulic capacity from identified system-specific environmental, and climate-change impacts, including but not limited to:

STATEWIDE SANITARY SEWER SYSTEMS GENERAL ORDER

- Sea level rise impacts including flooding, coastal erosion, seawater intrusion, tidal inundation and submerged lands;
- Increased surface water flows due to higher intensity rain events;
- Flooding;
- Wildfires and wildfire induced impacts;
- Earthquake induced damage;
- Landslides; and
- Subsidence.
- Infrastructure deficiencies and failures, including but not limited to:
 - Pump station mechanical failures;
 - System age;
 - Construction material failures;
 - Manhole cover failures;
 - Structural failures; and
 - Lack of proper operation and maintenance.
- Insufficient system capacity (temporary or sustained), due to factors including but not limited to:
 - Excessive and/or increased storm or groundwater inflow/infiltration;
 - Insufficient capacity due to population increase and/or new connections from industrial, commercial and other system users; and
 - Stormwater capture projects utilizing a sanitary sewer system to convey stormwater to treatment facilities for reuse.
- Community impacts, including but not limited to:
 - Power outages;
 - Vandalism; and
 - Contractor-caused or other third party-caused damages.

3.2.4. Underground Sanitary Sewer System Leakage

Portions of some sanitary sewer systems may leak, causing underground exfiltration (exiting) of sewage from the system. Exfiltrated sewage that remains in the underground infrastructure trench and/or the soil matrix, and that does not discharge into waters of the State (surface water or groundwater) may not threaten beneficial uses.

Underground exfiltrated sewage may threaten beneficial uses if discharged to waters of the State. Exfiltrated sewage that discharges to groundwater may impact beneficial uses of groundwater and pollute groundwater supply. Additionally, if in close proximity, exfiltrated sewage may enter into a compromised underground drainage conveyance system that discharges into a water of the United States, or into groundwater that is hydrologically connected to (feeds into) a water of the United States, thus potentially causing: (1) a Clean Water Act violation, (2) threat and impact to beneficial uses, and/or (3) surface water pollution.

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3.2.5. Proactive Sanitary Sewer System Management to Reduce Inflow and Infiltration

Excessive inflow (stormwater entering) and infiltration (groundwater seepage entering) to sanitary sewer systems is preventable through proactive sewer system management using the best practices and technologies available. The efficiency of the downstream wastewater treatment processes is dependent on the performance of the sanitary sewer system. When the structural integrity of a sanitary sewer system deteriorates, high volumes of inflow and infiltration can enter the sewer system. High levels of inflow and infiltration increase the hydraulic load on the downstream treatment plant, which can reduce treatment efficiency, lead to bypassing a portion of the treatment process, cause illegal discharge of partially treated effluent, or in extreme situations make biological treatment facilities inoperable (e.g., wash out the biological organisms that treat the waste).

3.3. Water Quality Control Plans, Policies and Resolutions

The nine Regional Water Boards have adopted region-specific water quality control plans (commonly referred to as Basin Plans) that designate beneficial uses, establish water quality objectives, and contain implementation programs and policies to achieve those objectives. The State Water Board has adopted statewide water quality control plans, policies and resolutions establishing statewide water quality objectives, implementation programs and initiatives.

3.3.1. State Water Board Antidegradation Policy

On October 28, 1968, the State Water Board adopted Resolution 68-16, titled Statement of Policy with Respect to Maintaining High Quality of Waters in California, which incorporates the federal antidegradation policy. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings.

The continued prohibition of sewage discharges from sanitary sewer systems into waters of the State aligns with Resolution 68-16. A sewage discharge from sanitary sewers to waters of the State is prohibited by this Order. Therefore, this Order does not allow degradation of waters of the State. In addition, this Order: (1) further expands the existing prohibition of sewage discharges to include waters of the State, in addition to waters of the United States as provided in previous Order 2006-0003-DWQ, and (2) enhances the ability for Water Board enforcement of violations of the established prohibitions.

3.3.2. State Water Board Sources of Drinking Water Policy

On May 19, 1988, the State Water Board adopted Resolution 88-63 (amended on February 1, 2006), titled Sources of Drinking Water, establishing state policy that all waters of the State, with certain exceptions, are suitable or potentially suitable for municipal or domestic supply.

3.3.3. State Water Board Cost of Compliance Resolution

On September 24, 2013, the State Water Board adopted Resolution 2013-0029, titled Directing Actions in Response to Efforts by Stakeholders on Reducing Costs of

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Compliance While Maintaining Water Quality Protection. Through this resolution, the State Water Board committed to continued stakeholder engagement in identifying and implementing measures to reduce costs of compliance with regulatory orders while maintaining water quality protection and improving regulatory program outcomes.

3.3.4. State Water Board Human Right to Water Resolution

On February 16, 2016, the State Water Board adopted Resolution 2016-0010, titled Adopting the Human Right to Water as a Core Value and Directing its Implementation in Water Board Programs and Activities, addressing the human right to water as a core value and directing Water Board programs to implement requirements to support safe drinking water for all Californians.

On November 16, 2021, the State Water Board adopted Resolution 2021-0050 titled Condemning Racism, Xenophobia, Bigotry, and Racial Injustice, and Strengthening Commitment to Racial Equity, Diversity, Inclusion, Access, and Anti-racism. Among other actions, through Resolution 2021-0050, the State Water Board, in summary as corresponding to this General Order, reaffirms its commitment to its Human Right to Water resolution, upholding that every human being in California deserves safe, clean, affordable, and accessible water for human consumption, cooking, and sanitation purposes. Resolution 2021-0050 provides the State Water Board commitment to:

- Protect public health and beneficial uses of waterbodies in all communities, including communities disproportionately burdened by wastes discharge of waste to land and surface water;
- Restore impaired surface waterbodies and degraded aquifers; and
- Promote multi-benefit water quality projects.

Through Resolution 2021-0050, the State Water Board also commits to expanding implementation of its Climate Change Resolution to address the disproportionate effects of extreme hydrologic conditions and sea-level rise on Black, Indigenous, and people of color communities, prioritizing:

- The right to safe, clean, affordable, and accessible drinking water and sanitation;
- Sustainable management and protection of local groundwater resources;
- Healthy watersheds; and
- Access to surface waterbodies that support subsistence fishing.

On June 7, 2022, the State Water Board adopted a Resolution, titled Authorizing the Executive Director or Designee to Enter into One or More Multi-Year Contracts Up to a Combined Sum of \$4,000,000 for a Statewide Wastewater Needs Assessment, supporting the equitable access to sanitation for all Californians and implementation of Resolutions 2016-0010 and 2021-0050.

This General Order supports the State Water Board priority in collecting a comprehensive set of data for California's wastewater systems, including sanitary sewer systems. Data reported per the requirements of this Order will be used with data from other Water Boards' programs, to further develop criteria and create a statewide risk

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framework to prioritize critical funding and infrastructure investments for California's most vulnerable populations, including disadvantaged or severely disadvantaged communities with inadequate or failing sanitation systems and threatened access to healthy drinking water supplies.

3.3.5. State Water Board Open Data Resolution

On July 10, 2018, the State Water Board adopted Resolution 2018-0032, titled Adopting Principles of Open Data as a Core Value and Directing Programs and Activities to Implement Strategic Actions to Improve Data Accessibility and Associated Innovation, directing regulatory programs to assure all monitoring and reporting requirements support the State Water Boards' Open Data Initiative.

3.3.6. State Water Board Response to Climate Change

On March 7, 2017, the State Water Board adopted Resolution 2017-0012, titled Comprehensive Response to Climate Change, requiring a proactive response to climate change in all California Water Board actions, with the intent to embed climate change consideration into all programs and activities.

3.4. California Environmental Quality Act

The adoption of this Order is an action to reissue general waste discharge requirements that is exempt from the California Environmental Quality Act (Public Resources Code section 21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment (Cal. Code Regs., Title 14, section 15308). In addition, the action to adopt this Order is exempt from CEQA pursuant to Cal. Code Regs., Title 14, section 15301, to the extent that it applies to existing sanitary sewer collection systems that constitute "existing facilities" as that term is used in sections 15301 and 15302, to the extent that it results in the repair or replacement of existing systems involving negligible or no expansion of capacity.

3.5. State Water Board Funding Assistance for Compliance with Water Board Water Quality Orders

The State Water Board, Division of Financial Assistance administers the implementation of the State Water Board financial assistance programs, per Board-adopted funding policies. Among other funding areas, the Division administers loan and grant funding for the planning and construction of wastewater and water recycling facilities per funding program-specific policies and guidelines. Applicants may apply for Clean Water State Revolving Fund low-interest loan, Small Community Wastewater grant funding assistance, and other funding available at the time of application, for some of the costs associated with complying with this General Order.

Funding applicants may obtain further information regarding current funding opportunities, and Division of Financial Assistance staff contact information at the following website: [Financial Assistance Funding - Grants and Loans | California State Water Resources Control Board](https://www.waterboards.ca.gov/water_issues/programs/grants_loans/).

(https://www.waterboards.ca.gov/water_issues/programs/grants_loans/)

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Section 13477.6 of the Water Code authorizes the Small Community Grant Fund. The Small Community Grant Fund allows the State Water Board to provide grant funding assistance to small, disadvantaged communities and small severely disadvantaged communities that may not otherwise be able to afford a loan or similar financing for projects to comply with requirements of this General Order. The State Water Board also considers loan forgiveness on a disadvantaged community-specific basis.

For disadvantaged communities' wastewater needs, the State Water Board places priority on the funding of projects that address:

- Public health;
- Violations of waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) permits;
- Providing sewer system service to existing septic tank owners; and
- High priority public health and water quality concerns identified by a Regional Water Board.

3.6. Notification to Interested Parties

On January 31, 2022, the State Water Board notified interested parties and persons of its intent to reissue Sanitary Sewer Systems General Order 2006-0003-DWQ by issuing a draft General Order for a 60-day public comment period. State Water Board staff conducted extensive stakeholder outreach and encouraged public participation in the adoption process for this General Order. On March 15, 2022, the State Water Board held a public meeting to hear and consider oral public comments. The State Water Board considered all public comments prior to adopting this General Order.

THEREFORE, IT IS HEREBY ORDERED, that pursuant to Water Code sections 13263, 13267, and 13383 this General Order supersedes Order 2006-0003-DWQ, Order WQ 2013-0058-EXEC, and any amendments made to these Orders thereafter, except for enforcement purposes and to meet the provisions contained in Division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, the Enrollee shall comply with the requirements in this Order.

4. PROHIBITIONS

4.1 Discharge of Sewage from a Sanitary Sewer System

Any discharge from a sanitary sewer system that has the potential to discharge to surface waters of the State is prohibited unless it is promptly cleaned up and reported as required in this General Order.

4.2 Discharge of Sewage to Waters of the State

Any discharge from a sanitary sewer system, discharged directly or indirectly through a drainage conveyance system or other route, to waters of the State is prohibited.

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4.3. Discharge of Sewage Creating a Nuisance

Any discharge from a sanitary sewer system that creates a nuisance or condition of pollution as defined in Water Code section 13050(m) is prohibited.

5. SPECIFICATIONS**5.1. Designation of a Legally Responsible Official**

The Enrollee shall designate a Legally Responsible Official that has authority to ensure the enrolled sanitary sewer system(s) complies with this Order, and is authorized to serve as a duly authorized representative. The Legally Responsible Official must have responsibility over management of the Enrollee's entire sanitary sewer system, and must be authorized to make managerial decisions that govern the operation of the sanitary sewer system, including having the explicit or implicit duty of making major capital improvement recommendations to ensure long-term environmental compliance. The Legally Responsible Official must have or have direct authority over individuals that:

- Possess a recognized degree or certificate related to operations and maintenance of sanitary sewer systems, and/or
- Have professional training and experience related to the management of sanitary sewer systems, demonstrated through extensive knowledge, training and experience.

For example, a sewer system superintendent or manager, an operations manager, a public utilities manager or director, or a district engineer may be designated as a Legally Responsible Official.

The Legally Responsible Official shall complete the electronic [CIWQS "User Registration" form](https://ciwqs.waterboards.ca.gov/ciwqs/newUser.jsp) (<https://ciwqs.waterboards.ca.gov/ciwqs/newUser.jsp>). A Legally Responsible Official that represents multiple enrolled systems shall complete the electronic CIWQS "User Registration" form for each system.

The Enrollee shall submit any change to its Legally Responsible Official, and/or change in contact information, to the State Water Board within 30 calendar days of the change by emailing ciwqs@waterboards.ca.gov and copying the appropriate Regional Water Board as provided in Attachment F (Regional Water Quality Control Board Contact Information) of this General Order.

5.2. Sewer System Management Plan Development and Implementation

To facilitate adequate local funding and management of its sanitary sewer system(s), the Enrollee shall develop and implement an updated Sewer System Management Plan. The scale and complexity of the Sewer System Management Plan, and specific elements of the Plan, must match the size, scale and complexity of the Enrollee's sanitary sewer system(s). The Sewer System Management Plan must address, at minimum, the required Plan elements in Attachment D (Sewer System Management Plan – Required Elements) of this General Order. To be effective, the Sewer System Management Plan must include procedures for the management, operation, and maintenance of the sanitary sewer system(s). The procedures must: (1) incorporate the

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prioritization of system repairs and maintenance to proactively prevent spills, and (2) address the implementation of current standard industry practices through available equipment, technologies, and strategies.

For an existing Enrollee under Order 2006-0003-DWQ that has certified its Continuation of Existing Regulatory Coverage, per section 2.1 (Requirements for Continuation of Existing Regulatory Coverage) of this General Order:

Within six (6) months of the Adoption Date of this General Order:

- The Legally Responsible Official shall upload the Enrollee's existing Sewer System Management Plan to the online CIWQS Sanitary Sewer System Database.

For a new Enrollee:

Within twelve (12) months of the Application for Enrollment approval date:

- The governing entity of the new Enrollee shall approve its Sewer System Management Plan; and
- The Legally Responsible Official shall certify and upload its Sewer System Management Plan to the online CIWQS Sanitary Sewer System Database.

5.3. Certification of Sewer System Management Plan and Plan Updates

The Legally Responsible Official shall certify and upload its Sewer System Management Plan and all subsequent updates to the online CIWQS Sanitary Sewer System Database.

5.4. Sewer System Management Plan Audits

The Enrollee shall conduct an internal audit of its Sewer System Management Plan, and implementation of its Plan, at a minimum frequency of once every three years. The audit must be conducted for the period after the end of the Enrollee's last required audit period. **Within six months after the end of the required 3-year audit period**, the Legally Responsible Official shall submit an audit report into the online CIWQS Sanitary Sewer System Database per the requirements in section 3.10 (Sewer System Management Plan Audit Reporting Requirements) of Attachment E1 of this General Order.

Audit reports submitted to the CIWQS Sanitary Sewer System Database will be viewable only to Water Boards staff.

The internal audit shall be appropriately scaled to the size of the system(s) and the number of spills. The Enrollee's sewer system operators must be involved in completing the audit. At minimum, the audit must:

- Evaluate the implementation and effectiveness of the Enrollee's Sewer System Management Plan in preventing spills;
- Evaluate the Enrollee's compliance with this General Order;
- Identify Sewer System Management Plan deficiencies in addressing ongoing spills and discharges to waters of the State; and

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- Identify necessary modifications to the Sewer System Management Plan to correct deficiencies.

The Enrollee shall submit a complete audit report that includes:

- Audit findings and recommended corrective actions;
- A statement that sewer system operators' input on the audit findings has been considered; and
- A proposed schedule for the Enrollee to address the identified deficiencies.

A new Enrollee of this General Order (that did not have a sanitary sewer system enrolled in the previous State Water Board Order 2006-0003-DWQ) shall conduct its first internal Sewer System Management Plan audit for the time period between the date of submittal of its certified Sewer System Management Plan and the third subsequent December 31st date. The audit report must be submitted into the online CIWQS Sanitary Sewer System Database **by July 1 of the following calendar year.**

See the following tables for clarification:

Initial Audit Period and Audit Due Date for New Enrollees

	Audit Period	Audit Due Date
New Enrollee	Certified Sewer System Management Plan Submittal Date through the third subsequent December 31 st date	July 1 st date after audit period
<i>Example</i>	<i>Certified Sewer System Management Plan Submittal Date of August 2, 2025 Audit Period of August 2, 2025 through December 31, 2027</i>	<i>July 1, 2028</i>

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Initial Audit Period for Transition from 2-Year Audit Required in Previous Order 2006-0003-DWQ to 3-Year Audit Required in this General Order

	Audit Period	Audit Due Date
An Enrollee previously regulated by Order 2006-003-DWQ	A 3-year period starting from the end of last required 2-year Audit Period	Within six months after end of 3-year Audit Period
<i>Example</i>	<i>Last required Audit Period start date of August 2, 2021; Audit Period of August 2, 2021 through August 1, 2024</i>	<i>February 1, 2025</i>

Three-Year Ongoing Audit Period

	Audit Period	Audit Due Date
Each Enrollee	A 3-year period starting from the end of last required Audit Period	Within six months after end of 3-year Audit Period

5.5. Six-Year Sewer System Management Plan Update

At a minimum, the Enrollee shall update its Sewer System Management Plan every six (6) years after the date of its last Plan Update due date. (For an Enrollee previously regulated by Order 2006-0003-DWQ, the six-year period shall commence on the due date identified in section 3.11 of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this Order. The Updated Sewer System Management Plan must include:

- Elements required in Attachment D (Sewer System Management Plan – Required Elements) of this Order;
- Summary of revisions included in the Plan update based on internal audit findings; and
- Other sewer system management-related changes.

The Enrollee's governing entity shall approve the updated Plan. The Legally Responsible Official shall upload and certify the approved updated Plan in the online CIWQS Sanitary Sewer System Database in accordance with section 3.11 (Sewer System Management Plan Reporting Requirements) of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order. During the time period in between Plan updates, the Enrollee shall continuously document changes to its Sewer System Management Plan in a change log attached to the Plan.

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5.6. System Resilience

The Enrollee shall include and implement system-specific procedures in its Sewer System Management Plan to proactively prioritize: (1) operation and maintenance, (2) condition assessments, and (3) repair and rehabilitation, to address ongoing system resilience, as specified in Attachment D (Sewer System Management Plan – Required Elements) of this General Order.

5.7. Allocation of Resources

The Enrollee shall:

- Establish and maintain a means to manage all necessary revenues and expenditures related to the sanitary sewer system; and
- Allocate the necessary resources to its sewer system management program for:
 - Compliance with this General Order,
 - Full implementation of its updated Sewer System Management Plan,
 - System operation, maintenance, and repair, and
 - Spill responses.

5.8. Designation of Data Submitters

The Legally Responsible Official may designate one or more individuals as a Data Submitter for reporting of spill data. The Legally Responsible Official shall authorize the designation of Data Submitter(s) through the online [CIWQS database](https://ciwqs.waterboards.ca.gov) (<https://ciwqs.waterboards.ca.gov>) prior to the individuals establishing a [CIWQS user account](https://ciwqs.waterboards.ca.gov/ciwqs/newUser.jsp) (<https://ciwqs.waterboards.ca.gov/ciwqs/newUser.jsp>) and entering spill data into the online CIWQS Sanitary Sewer System Database.

The Legally Responsible Official shall submit any change to its Data Submitter(s), and/or change in Data Submitter contact information, to the State Water Board within 30 calendar days of the change, by emailing ciwqs@waterboards.ca.gov and copying the appropriate Regional Water Board as provided in Attachment F (Regional Water Quality Control Board Contact Information) of this General Order.

5.9. Reporting Certification

The Legally Responsible Official shall electronically certify, on the Enrollee's behalf, all applications, reports, the Sewer System Management Plan(s) and corresponding updates, and other information submitted electronically into the online CIWQS Sanitary Sewer System Database, as follows:

"I certify under penalty of perjury under the laws of the State of California that the electronically submitted information was prepared under my direction or supervision. Based on my inquiry of the person(s) directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete, and complies with the Statewide Sanitary Sewer Systems General Order. I am aware that there are significant penalties for submitting false information."

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Hardcopy submittals to the State Water Board must be accompanied by the above certification statement.

5.10. System Capacity

The Enrollee shall maintain the system capacity necessary to convey: (1) base flows during dry weather conditions, and (2) wet weather peak flows consistent with designated local historic storms. Design storms must take into account system-specific stormwater contributions via inflow and infiltration, and location-specific depth of groundwater and storm frequencies. The Enrollee shall implement capital improvements to provide adequate hydraulic capacity to:

- Meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance element of its Sewer System Management Plan; and
- Prevent system capacity-related spills, and adverse impacts to the treatment efficiency of downstream wastewater treatment facilities.

5.11. System Performance Analysis

The Enrollee shall include a running 10-year system performance analysis in its Annual Report. The analysis must include two CIWQS-generated graphs presenting the following information:

Graph 1 – Total Spill Volume per Year:

X axis: A 10-year period which includes the current calendar year and the nine previous calendar years;

Y axis: The total spill volume, per Spill Category, for each calendar year.

Graph 2 – Total Number of Spills per Year:

X axis: A 10-year period which includes the current calendar year and the nine previous calendar years;

Y axis: The total number of spills, per Spill Category, for each calendar year.

The current calendar year is the calendar year covered in the Annual Report.

The Enrollee shall generate the graphs in CIWQS, using the existing data in the online CIWQS Sanitary Sewer System Database at the following graph generation link: (https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=sso_operation_report).

5.12. Spill Emergency Response Plan and Remedial Actions

For Existing Enrollees (with regulatory coverage under Order 2006-0003-DWQ):

Within six (6) months of the Adoption Date of this General Order, the Enrollee shall update and implement its Spill Emergency Response Plan, per Attachment D, section 6 (Spill Emergency Response Plan) of this General Order.

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For New Enrollees:

Within six (6) months of the Application for Enrollment approval date, the Enrollee shall develop and implement a Spill Emergency Response Plan, per Attachment D, section 6 (Spill Emergency Response Plan) of this General Order.

The Enrollee shall certify, in its Annual Report, that its Spill Emergency Response Plan is up to date.

The Spill Emergency Response Plan shall include measures to protect public health and the environment. The Enrollee shall respond to spills from its system(s) in a timely manner that minimizes water quality impacts and nuisance by:

- Immediately stopping the spill and preventing/minimizing a discharge to waters of the State;
- Intercepting sewage flows to prevent/minimize spill volume discharged into waters of the State;
- Thoroughly recovering, cleaning up and disposing of sewage and wash down water; and
- Cleaning publicly accessible areas while preventing toxic discharges to waters of the State.

5.13. Notification, Monitoring, Reporting and Recordkeeping Requirements

The Enrollee shall comply with notification, monitoring, reporting, and recordkeeping requirements in Attachment E1 of this General Order.

5.13.1. Spill Categories

Individual spill notification, monitoring and reporting must be in accordance with the following spill categories:

- **Category 1 Spill**

A Category 1 spill is a spill of any volume of sewage from or caused by a sanitary sewer system regulated under this General Order that results in a discharge to:

- A surface water, including a surface water body that contains no flow or volume of water; or
- A drainage conveyance system that discharges to surface waters when the sewage is not fully captured and returned to the sanitary sewer system or disposed of properly.

Any spill volume not recovered from a drainage conveyance system is considered a discharge to surface water, unless the drainage conveyance system discharges to a dedicated stormwater infiltration basin or facility.

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A spill from an Enrollee-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the Enrollee shall report all Category 1 spills per section 3.1 of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.

- **Category 2 Spill**

A Category 2 spill is a spill of 1,000 gallons or greater, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water.

A spill of 1,000 gallons or greater that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system, is a Category 2 spill.

- **Category 3 Spill**

A Category 3 spill is a spill of equal to or greater than 50 gallons and less than 1,000 gallons, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water.

A spill of equal to or greater than 50 gallons and less than 1,000 gallons, that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 3 spill.

- **Category 4 Spill**

A Category 4 spill is a spill of less than 50 gallons, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water.

A spill of less than 50 gallons that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 4 spill.

5.13.2. Annual Report

The Enrollee shall submit an Annual Report (previously termed as Collection System Questionnaire in Order 2006-0003-DWQ) as specified in section 3.9 (Annual Report) of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.

For new Enrollees: Within 30 days of obtaining a CIWQS account, a new Enrollee shall submit its initial Annual Report, as specified in section 3.9 (Annual Report) of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.

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5.14. Electronic Sanitary Sewer System Service Area Boundary Map

For continuing enrollees, starting on July 1, 2025, and no later than December 31, 2025:

For new enrollees – no earlier than July 1, 2025, or within 12 months of the Application for Enrollment approval date, whichever date is later:

The Legally Responsible Official shall submit, to the State Water Board, geospatial data detailing the locations of the Enrollee's sanitary sewer system service area boundary, per the required content and specifications in section 3.8 (Electronic Sanitary Sewer System Service Area Boundary Map) of Attachment E1 of this General Order, for each system identified by a WDID number.

An Enrollee of a disadvantaged community that may need assistance developing an electronic map to comply with this requirement, may contact State Water Board staff for assistance at SanitarySewer@waterboards.ca.gov.

5.15. Voluntary Reporting of Spills from Privately-Owned Sewer Laterals and/or Private Sanitary Sewer Systems

Within 24 hours of becoming aware of a spill (as described below) from a private sewer lateral or private sanitary sewer system that is not owned/operated by the Enrollee, the Enrollee is encouraged to report the following observations to the online CIWQS Sanitary Sewer System Database at the following link:

<https://ciwqs.waterboards.ca.gov>:

- A spill equal or greater than 1,000 gallons that discharges (or has a potential to discharge) to a water of the State, or a drainage conveyance system that discharges to waters of the State; **or**
- Any volume of sewage that discharges (or has a potential to discharge) to surface waters.

In the CIWQS module, the Enrollee is encouraged to identify:

- Time of observation;
- Description of general spill location (for example, street name and cross street names);
- Estimated volume of spill;
- If known, general description of spill destination (for example, flowing into drainage channel, flowing directly into a creek, etc.); and
- If known, name of private system owner/operator.

The CIWQS database will make the name and contact information of the entity voluntarily reporting a private spill, accessible to State and Regional Water Board staff only. The CIWQS database will only make information regarding the actual spill, accessible to the public.

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5.16. Voluntary Notification of Spills from Privately-Owned Laterals and/or Systems to the California Office of Emergency Services

Upon observing or acquiring knowledge of any of the following from a private sewer lateral or private sanitary sewer system that is not owned/operated by the Enrollee, the Enrollee is encouraged to notify the California Office of Emergency Services (as provided by Health and Safety Code section 5410 et. seq. and Water Code section 13271), or inform the responsible party that State law requires such notification to the Office of Emergency Services by any person that causes or allows a sewage discharge to waters of the State:

- A spill equal to 1,000 gallons or more that discharges (or has a potential to discharge) to waters of the State, or a drainage conveyance system that discharges to waters of the State; or
- A spill of any volume to surface waters.

5.17. Unintended Failure to Report

If an Enrollee becomes aware that they unintentionally failed to submit relevant facts in any report required in this General Order, the Enrollee shall promptly notify Regional Water Board and State Water Board staff. Regional Water Board contact information is included in Attachment F of this Order. State Water Board staff shall be contacted by email at SanitarySewer@waterboards.ca.gov for assistance in formally amending the corresponding report(s) in the online CIWQS Sanitary Sewer System Database.

5.18. Duty to Report to Water Boards

In accordance with Water Code section 13267 and/or section 13383, upon request by the State Water Board Executive Director (or designee) or a Regional Water Board Executive Officer (or designee), the Enrollee shall provide the requested information which the State or Regional Water Board deems necessary to determine compliance with this General Order.

5.19. Operation and Maintenance

To prevent discharges to the environment, the Enrollee shall maintain in good working order, and operate as designed, any facility or treatment and control system designed to contain sewage and convey it to a treatment plant.

6. PROVISIONS**6.1. Enforcement Provisions**

The following enforcement provisions are based on existing federal and state regulations, laws and policies, including the federal Clean Water Act, the state Water Code and the State Water Board Enforcement Policy.

6.1.1. Enforceability of Clean Water Act and Water Code Violations

Noncompliance with requirements of this General Order or discharging sewage without enrolling in this General Order constitutes a violation of the Water Code and a potential

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violation of the Clean Water Act and is grounds for an enforcement action by the State Water Board or the applicable Regional Water Board. Failure to comply with the notification, monitoring, inspection, entry, reporting, and recordkeeping requirements may subject the Enrollee to administrative civil liabilities of up to \$10,000 a day per violation pursuant to Water Code section 13385; up to \$1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement. Discharging waste not in compliance with the requirements of this General Order or the Clean Water Act may subject the Enrollee to administrative civil liabilities up to \$10,000 a day per violation and additional liability up to \$10 per gallon of discharge not cleaned up after the first 1,000 gallons of discharge; up to \$5,000 a day per violation pursuant to Water Code section 13350 or up to \$20 per gallon of waste discharged; or referral to the Attorney General for judicial civil enforcement.

6.1.2. Monetary Penalties

The Water Code provides the State and Regional Water Boards the authority to pursue formal enforcement actions, including imposing administrative liability and civil monetary penalties, for non-compliance with the requirements of this General Order and violations of the Clean Water Act.

6.1.3. Falsifying or Failure to Report

The Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this General Order, or falsifying any information provided in the technical or monitoring reports is subject to administrative liability and civil monetary penalties. Any person who knowingly fails or refuses to furnish technical or monitoring program reports or falsifies any information provided in reports required by this General Order is subject to criminal penalties.

6.1.4. Severability of General Order

The provisions of this General Order are severable; if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected thereby.

6.1.5. Indirect Discharges

In the event that a spill enters into a drainage conveyance system, the Enrollee shall take all feasible steps to prevent discharge of sewage into waters of the State by blocking or redirecting the flow in the drainage conveyance system, removing the sewage from the drainage conveyance system, and cleaning the system in a manner that does not inadvertently impact beneficial uses of the receiving water body.

6.1.6. Water Boards' Considerations for Discretionary Enforcement

Consistent with the State Water Board Enforcement Policy, when considering Water Code section 13327 factors, the State Water Board or a Regional Water Board may consider the Enrollee's efforts to contain, control, clean up, and mitigate spills. In assessing the factors, the State Water Board or the applicable Regional Water Board will consider:

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- The Enrollee's compliance with this General Order with a focus on compliance with reporting requirements;
- The Enrollee's provision of adequate funding to implement the requirements of this General Order;
- The Enrollee's compliance with providing a complete and updated Sewer System Management Plan;
- The Enrollee's compliance with implementing its Sewer System Management Plan;
- The overall effectiveness of the Enrollee's Sewer System Management Plan with respect to:
 - System management, operation, and maintenance,
 - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent spills (e.g. adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow, etc.),
 - Preventive maintenance (including cleaning, root grinding, and fats, oils, and grease control) and source control measures,
 - Implementation of backup equipment,
 - Inflow and infiltration prevention and control,
 - Appropriate sanitary sewer system capacity to prevent spills, and
 - The Enrollee's responsiveness to stop and mitigate the impact of the discharge;
- The Enrollee's compliance with identifying the cause of the spill;
- The Enrollee's use of available information and observations to accurately estimate the spill volume and identify the affected or potentially affected receiving waters;
- The Enrollee's thoroughness of cleaning up sewage in drainage conveyance systems after the spill(s);
- The Enrollee's use of water quality and biological monitoring and assessment to determine the short-term and long-term impacts to beneficial uses and the environment;
- The Enrollee's follow up actions to improve system performance;
- The Enrollee's implementation of feasible alternatives to prevent spills, such as:
 - Use of temporary storage or waste retention,
 - Reduction of system inflow and infiltration,
 - Collection and hauling of waste to a treatment facility,
 - Prevention of and/ or containment of spills due to a design storm event identified in the Enrollee's Sewer System Management Plan,

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- Implementation of available equipment, technologies, strategies, and recommended industry practices for maintaining and managing sewer systems to prevent spills, and contain and eliminate discharges to waters of the State; and
- The spill duration and factors beyond the reasonable control of the Enrollee causing the event.

6.1.7. Enforcement Discretion Based on Reporting Compliance

Consistent with the State Water Board Enforcement Policy, the State Water Board or a Regional Water Board may consider the Enrollee's efforts to comply with spill reporting requirements when determining compliance with Water Code section 13267 and section 13383. When assessing Water Code section 13227 factors, the State Water Board or the applicable Regional Water Board will consider:

- The Enrollee's diligence to comply with all reporting requirements in this General Order;
- The use of best available information for the Enrollee's reporting of spill start date and start time in which the release of sewage from the sanitary sewer system initiated;
- The Enrollee's reporting of spill end date, and end time to be the date and time in which the release of sewage from the sanitary sewer system was stopped;
- The Enrollee's diligence to accurately estimate and report spill volumes;
- The Enrollee's subsequent verification and/or updates to initial Draft Spill Reports in accordance with this General Order; and
- The Enrollee's timely certification of required spill reports.

Consistent with Water Code section 13267 and section 13383, the State Water Board or a Regional Water Board may require an Enrollee to report the results of a condition assessment of a specified portion of the Enrollee's sanitary sewer system.

6.2. Other Regional Water Board Orders

It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with federal and state regulations. This Order will not be interpreted or applied:

- In a manner inconsistent with the federal Clean Water Act;
- To authorize a spill or discharge that is illegal under either the Clean Water Act, the Water Code, and/or an applicable Basin Plan prohibition or water quality standard;
- To prohibit a Regional Water Board from issuing an individual National Pollutant Discharge Elimination System (NPDES) permit or individual waste discharge requirements superseding an Enrollee's regulatory coverage under this General Order for a sanitary sewer system authorized under the Clean Water Act or Water Code;

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- To supersede any more specific or more stringent waste discharge requirements or enforcement orders issued by a Regional Water Board; or
- To supersede any more specific or more stringent state or federal requirements in existing regulation, an administrative/judicial order, or Consent Decree.

6.3. Sewer System Management Plan Availability

The Enrollee's updated Sewer System Management Plan must be maintained for public inspection at the Enrollee's offices and facilities and must be available to the public through CIWQS and/or on the Enrollee's website, in accordance with section 3.8 (Sewer System Management Plan Reporting Requirements) of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.

6.4. Entry and Inspection**6.4.1. Entry and Availability of Information**

The Enrollee shall allow State and Regional Water Board staff, upon presentation of credentials and other documents as may be required by law, to:

- Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records are kept under the requirements of this General Order;
- Have access to and reproduce any records required to be maintained by this General Order;
- Inspect any facility and/or equipment (including monitoring and control equipment), practices, or operations required in this General Order; and
- Sample or monitor substances or parameters for assuring compliance with this General Order, or as otherwise authorized by the Water Code.

6.4.2. Pre-Inspection Questionnaire

The Enrollee shall provide pre-inspection information to State and Regional Water Board staff through the completion of a Pre-Inspection Questionnaire provided by Water Board staff.

ATTACHMENT A - DEFINITIONS

Annual Report

An Annual Report (previously termed as Collection System Questionnaire in Order 2006-0003-DWQ) is a mandatory report in which the Enrollee provides a calendar-year update of its efforts to prevent spills.

Basin Plan

A Basin Plan is a water quality control plan specific to a Regional Water Quality Control Board (Regional Water Board), that serves as regulations to: (1) define and designate beneficial uses of surface and groundwaters, (2) establish water quality objectives for protection of beneficial uses, and (3) provide implementation measures.

Beneficial Uses

The term “Beneficial Uses” is a Water Code term, defined as the uses of the waters of the State that may be protected against water quality degradation. Examples of beneficial uses include but are not limited to, municipal, domestic, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

California Integrated Water Quality System (CIWQS)

CIWQS is the statewide database that provides for mandatory electronic reporting as required in State and Regional Water Board-issued waste discharge requirements.

Data Submitter

A Data Submitter is an individual designated and authorized by the Enrollee’s Legally Responsible Official to enter spill data into the online CIWQS Sanitary Sewer System Database. A Data Submitter does not have the authority of a Legally Responsible Official to certify reporting entered into the online CIWQS Sanitary Sewer System Database.

Disadvantaged Community

A disadvantaged community is a community with a median household income of less than eighty percent (80%) of the statewide annual median household income.

For the purpose of this General Order, there is no differentiation between a small and large disadvantaged community.

Drainage Conveyance System

A drainage conveyance system is a publicly- or privately-owned separate storm sewer system, including but not limited to drainage canals, channels, pipelines, pump stations, detention basins, infiltration basins/facilities, or other facilities constructed to transport stormwater and non-stormwater flows.

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Enrollee

An Enrollee is a public, private, or other non-governmental entity that has obtained approval for regulatory coverage under this General Order, including:

- A state agency, municipality, special district, or other public entity that owns and/or operates one or more sanitary sewer systems:
 - greater than one (1) mile in length (each individual sanitary sewer system);
 - one mile or less in length where the State Water Resources Control Board or a Regional Water Quality Control Board requires regulatory coverage under this Order, or
- A federal agency, private company, or other non-governmental entity that owns and/or operates a sanitary sewer system of any size where the State Water Resources Control Board or a Regional Water Quality Control Board requires regulatory coverage under this Order in response to a history of spills, proximity to surface water, or other factors supporting regulatory coverage.

Environmentally Sensitive Area

An environmentally sensitive area is a designated agricultural and/or wildlife area identified to need special natural landscape protection due to its wildlife or historical value.

Exfiltration

Exfiltration is the underground exiting of sewage from a sanitary sewer system through cracks, offset or separated joints, or failed infrastructure due to corrosion or other factors.

Flood Control Channel

A flood control channel is a channel used to convey stormwater and non-stormwater flows through and from areas for flood management purposes.

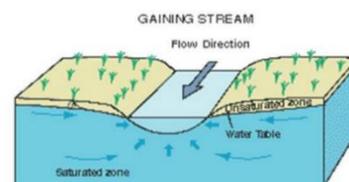
Governing Entity

A governing entity includes but is not limited to the following:

- A publicly elected governing board, council, or commission of a municipal agency;
- A Department or Division director of a federal or state agency that is not governed by a board;
- A governing board or commission of an organization or association; and
- A private system owner/manager that is not governed by a board.

Hydrologically Connected

Two waterbodies are hydrologically connected when one waterbody flows, or has the potential to flow, into the other waterbody. For the purpose of this General Order, groundwater is hydrologically connected to a surface water when the groundwater feeds into the surface water. (The surface waterbody in this example is termed a gaining stream as it gains flow from surrounding groundwater.)



Lateral (including Lower and Upper Lateral)

A lateral is an underground segment of smaller diameter pipe that transports sewage from a customer's building or property (residential, commercial, or industrial) to the Enrollee's main sewer line in a street or easement. Upper and lower lateral boundary definitions are subject to local jurisdictional codes and ordinances, or private system ownership.

A lower lateral is the portion of the lateral located between the sanitary sewer system main, and either the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations.

An upper lateral is the portion of the lateral from the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations, to the building or property.

Legally Responsible Official

A Legally Responsible Official is an official representative, designated by the Enrollee, with authority to sign and certify submitted information and documents required by this General Order.

Nuisance

For the purpose of this General Order, a nuisance, as defined in Water Code section 13050(m), is anything that meets all of the following requirements:

- Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property;
- Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and
- Occurs during, or as a result of, the treatment or disposal of wastes.

Private Sewer Lateral

A private sewer lateral is the privately-owned lateral that transports sewage from private property(ies) into a sanitary sewer system.

Private Sanitary Sewer System

A private sanitary sewer system is a sanitary sewer system of any size that is owned and/or operated by a private individual, company, corporation, or organization. A private sanitary sewer system may or may not connect into a publicly owned sanitary sewer system.

Potential to Discharge, Potential Discharge

Potential to Discharge, or Potential Discharge, means any exiting of sewage from a sanitary sewer system which can reasonably be expected to discharge into a water of the State based on the size of the sewage spill, proximity to a drainage conveyance system, and the nature of the surrounding environment.

Receiving Water

A receiving water is a water of the State that receives a discharge of waste.

Resilience

Resilience is the ability to recover from or adjust to adversity or change, and grow from disruptions. Resilience can be built through planning, preparing for, mitigating, and adapting to changing conditions.

Sanitary Sewer System

A sanitary sewer system is a system that is designed to convey sewage, including but not limited to, pipes, manholes, pump stations, siphons, wet wells, diversion structures and/or other pertinent infrastructure, upstream of a wastewater treatment plant headworks, including:

- Laterals owned and/or operated by the Enrollee;
- Satellite sewer systems; and/or
- Temporary conveyance and storage facilities, including but not limited to temporary piping, vaults, construction trenches, wet wells, impoundments, tanks and diversion structures.

For purpose of this Order, sanitary sewer systems include only systems owned and/or operated by the Enrollee.

Satellite Sewer System

A satellite sewer system is a portion of a sanitary sewer system owned or operated by a different owner than the owner of the downstream wastewater treatment facility ultimately treating the sewage.

Sewer System Management Plan

A sewer system management plan is a living document an Enrollee develops and implements to effectively manage its sanitary sewer system(s) in accordance with this General Order.

Sewage

Sewage, and its associated wastewater, is untreated or partially treated domestic, municipal, commercial and/or industrial waste (including sewage sludge), and any mixture of these wastes with inflow or infiltration of stormwater or groundwater, conveyed in a sanitary sewer system.

Spill

A spill is a discharge of sewage from any portion of a sanitary sewer system due to a sanitary sewer system overflow, operational failure, and/or infrastructure failure. Exfiltration of sewage is not considered to be a spill under this General Order if the exfiltrated sewage remains in the subsurface and does not reach a surface water of the State.

Training

Training is in-house or external education and guidance needed that provides the knowledge, skills, and abilities to comply with this General Order.

Wash Down Water

Wash down water is water used to clean a spill area.

Waste

Waste, as defined in Water Code section 13050(d), includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

Waste Discharge Identification Number (WDID)

A waste discharge identification number (WDID) identifies each individual sanitary sewer system enrolled under this General Order. A WDID number is assigned to each enrolled system upon an Enrollee's approved regulatory coverage.

Waters of the State

Waters of the State are surface waters or groundwater within boundaries of the state as defined in Water Code section 13050(e), in which the State and Regional Water Boards have authority to protect beneficial uses. Waters of the State include, but are not limited to, groundwater aquifers, surface waters, saline waters, natural washes and pools, wetlands, sloughs, and estuaries, regardless of flow or whether water exists during dry conditions. Waters of the State include waters of the United States.

Waters of the United States

Waters of the United States are surface waters or waterbodies that are subject to federal jurisdiction in accordance with the Clean Water Act.

Water Quality Objective

A water quality objective is the limit or maximum amount of pollutant, waste constituent or characteristic, or parameter level established in statewide water quality control plans and Regional Water Boards' Basin Plans, for the reasonable protection of beneficial uses of surface waters and groundwater and the prevention of nuisance.

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ATTACHMENT B – APPLICATION FOR ENROLLMENT**1. Enrollment Status:** (Mark only one item) New Enrollee New Enrollee with previous regulatory coverage under Order 2006-0003-DWQ
(that failed to certify continuation of coverage in CIWQS per Order 2022-XXXX-DWQ)
Existing WDID Number: _____**2. Applicant Information:**

Legally Responsible Official Submitting Application

First and Last Name: _____

Title: _____

Phone: _____

Email: _____

System Owner/Operator Name: _____

Mailing Address: _____

City, State, Zip: _____

County: _____

Sanitary Sewer System Name: _____

Regional Water Quality Control Board(s): _____

Signature and Date: _____

3. Applicant Type (Check one): City County State Federal Special District Government Combination Private Other Non-governmental Entity**4. Wastewater Treatment Plant Receiving Sanitary Sewer System Waste:**

Wastewater Treatment Plant Permittee: _____

WDID No.: _____

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5. Billing Information

Billing Address: _____

City, State, Zip: _____

Billing Contact Person and Title: _____

Phone and Email Address: _____

6. Application Fee:

The application fee, as required by Water Code section 13260, is based on the daily population served by the sanitary sewer system. See updated [Fee Schedule](https://www.waterboards.ca.gov/resources/fees/water_quality/).
(https://www.waterboards.ca.gov/resources/fees/water_quality/)

Check one of the following and enter fee amount:

 Population Served < 50,000 – Total Fee submitted: \$ _____ Population Served ≥ 50,000 – Total Fee submitted: \$ _____

Make the fee payment payable to the State Water Resources Control Board and mail the complete application package to:

State Water Resources Control Board, Accounting Office
P. O. Box 1888
Sacramento, CA 95812-1888

Attention: Statewide Sanitary Sewer System Program

7. Application Submittal Certification

I certify under penalty of perjury under the laws of the State of California that to the best of my knowledge and belief, the information in the submitted application package is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Print Name: _____

Title: _____

Signature: _____ Date: _____

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3. Regulatory Coverage Termination Certification

I certify under penalty of perjury under the laws of the State of California that to the best of my knowledge: 1) the sanitary sewer system I officially represent is not required to be regulated under the Statewide Waste Discharge Requirements for Sanitary Sewer Systems Order 2022-XXXX-DWQ, and 2) the information submitted in this Notice of Termination is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Additionally, I understand that the submittal of this Notice of Termination does not release sanitary sewer system agencies from liability for any violations of the Clean Water Act.

Print Name: _____

Title: _____

Signature: _____ Date: _____

For State Water Board Use Only

Approved for Termination

Denied and Returned to Enrollee

Deputy Director of Water Quality Signature: _____

Date: _____ Notice of Termination Effective Date: _____

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ATTACHMENT D – SEWER SYSTEM MANAGEMENT PLAN – REQUIRED ELEMENTS**Table of Contents**

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ATTACHMENT D – SEWER SYSTEM MANAGEMENT PLAN – REQUIRED ELEMENTS

A Sewer System Management Plan (Plan) is a living planning document that documents ongoing local sewer system management program activities, procedures, and decision-making – at the scale necessary to address the size and complexity of the subject sanitary sewer system(s). This Plan may incorporate other programs and other plans by reference, to address short-term and long-term system resilience through:

- Proactive planning and decision-making;
- Local government ordinances;
- Updated operations and maintenance activities and procedures;
- Implementation of capital improvements;
- Sufficient local budget to support staff resources, contractors, equipment, and training; and
- Updated training of staff and contractors.

The Enrollee’s development, update, and implementation of a Sewer System Management Plan addressing the requirements of this Attachment is an enforceable component of this General Order. As specified in Provision 6.1 (Enforcement Provisions) of this General Order, consistent with the Water Code and the State Water Board Enforcement Policy, the State Water Board or a Regional Water Board may consider the Enrollee’s efforts in implementing an effective Sewer System Management Plan to prevent, contain, control, and mitigate spills when considering Water Code section 13327 factors to determine necessary enforcement of this General Order.

This Attachment includes the following required elements that the Enrollee shall address in its Plan and subsequent updates. The Enrollee shall identify any requirement in this Attachment that is not applicable to the Enrollee’s sewer system and shall explain in its Plan why the requirement is not applicable.

1. SEWER SYSTEM MANAGEMENT PLAN GOAL AND INTRODUCTION

The goal of the Sewer System Management Plan (Plan) is to provide a plan and schedule to: (1) properly manage, operate, and maintain all parts of the Enrollee’s sanitary sewer system(s), (2) reduce and prevent spills, and (3) contain and mitigate spills that do occur.

The Plan must include a narrative Introduction section that discusses the following items:

1.1. Regulatory Context

The Plan Introduction section must provide a general description of the local sewer system management program and discuss Plan implementation and updates.

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1.2. Sewer System Management Plan Update Schedule

The Plan Introduction section must include a schedule for the Enrollee to update the Plan, including the schedule for conducting internal audits. The schedule must include milestones for incorporation of activities addressing prevention of sewer spills.

1.3. Sewer System Asset Overview

The Plan Introduction section must provide a description of the Enrollee-owned assets and service area, including but not limited to:

- Location, including county(ies);
- Service area boundary;
- Population and community served;
- System size, including total length in miles, length of gravity mainlines, length of pressurized (force) mains, and number of pump stations and siphons;
- Structures diverting stormwater to the sewer system;
- Data management systems;
- Sewer system ownership and operation responsibilities between Enrollee and private entities for upper and lower sewer laterals;
- Estimated number or percent of residential, commercial, and industrial service connections; and
- Unique service boundary conditions and challenge(s).

Additionally, the Plan Introduction section must provide reference to the Enrollee's up-to-date map of its sanitary sewer system, as required in section 4.1 (Updated Map of Sanitary Sewer System) of this Attachment.

2. ORGANIZATION

The Plan must identify organizational staffing responsible and integral for implementing the local Sewer System Management Plan through an organization chart or similar narrative documentation that includes:

- The name of the Legally Responsible Official as required in section 5.1 (Designation of a Legally Responsible Official) of this General Order;
- The position titles, telephone numbers, and email addresses for management, administrative, and maintenance positions responsible for implementing specific Sewer System Management Plan elements;
- Organizational lines of authority; and
- Chain of communication for reporting spills from receipt of complaint or other information, including the person responsible for reporting spills to the State and Regional Water Boards and other agencies, as applicable. (For example, county

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health officer, county environmental health agency, and State Office of Emergency Services.)

3. LEGAL AUTHORITY

The Plan must include copies or an electronic link to the Enrollee's current sewer system use ordinances, service agreements and/or other legally binding procedures to demonstrate the Enrollee possesses the necessary legal authority to:

- Prevent illicit discharges into its sanitary sewer system from inflow and infiltration (I&I); unauthorized stormwater; chemical dumping; unauthorized debris; roots; fats, oils, and grease; and trash, including rags and other debris that may cause blockages;
- Collaborate with storm sewer agencies to coordinate emergency spill responses, ensure access to storm sewer systems during spill events, and prevent unintentional cross connections of sanitary sewer infrastructure to storm sewer infrastructure;
- Require that sewer system components and connections be properly designed and constructed;
- Ensure access for maintenance, inspection, and/or repairs for portions of the service lateral owned and/or operated by the Enrollee;
- Enforce any violation of its sewer ordinances, service agreements, or other legally binding procedures; and
- Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable.

4. OPERATION AND MAINTENANCE PROGRAM

The Plan must include the items listed below that are appropriate and applicable to the Enrollee's system.

4.1. Updated Map of Sanitary Sewer System

An up-to-date map(s) of the sanitary sewer system, and procedures for maintaining and providing State and Regional Water Board staff access to the map(s). The map(s) must show gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities within the sewer system service area boundaries.

4.2. Preventive Operation and Maintenance Activities

A scheduling system and a data collection system for preventive operation and maintenance activities conducted by staff and contractors.

The scheduling system must include:

- Inspection and maintenance activities;

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- Higher-frequency inspections and maintenance of known problem areas, including areas with tree root problems;
- Regular visual and closed-circuit television (CCTV) inspections of manholes and sewer pipes.

The data collection system must document data from system inspection and maintenance activities, including system areas/components prone to root-intrusion potentially resulting in system backup and/or failure.

4.3. Training

In-house and external training provided on a regular basis for sanitary sewer system operations and maintenance staff and contractors. The training must cover:

- The requirements of this General Order;
- The Enrollee's Spill Emergency Response Plan procedures and practice drills;
- Skilled estimation of spill volume for field operators; and
- Electronic CIWQS reporting procedures for staff submitting data.

4.4. Equipment Inventory

An inventory of sewer system equipment, including the identification of critical replacement and spare parts.

5. DESIGN AND PERFORMANCE PROVISIONS

The Plan must include the following items as appropriate and applicable to the Enrollee's system:

5.1. Updated Design Criteria and Construction Standards and Specifications

Updated design criteria, and construction standards and specifications, for the construction, installation, repair, and rehabilitation of existing and proposed system infrastructure components, including but not limited to pipelines, pump stations, and other system appurtenances. If existing design criteria and construction standards are deficient to address the necessary component-specific hydraulic capacity as specified in section 8 (System Evaluation, Capacity Assurance and Capital Improvements) of this Attachment, the procedures must include component-specific evaluation of the design criteria.

5.2. Procedures and Standards

Procedures, and standards for the inspection and testing of newly constructed, newly installed, repaired, and rehabilitated system pipelines, pumps, and other equipment and appurtenances.

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6. SPILL EMERGENCY RESPONSE PLAN

The Plan must include an up to date Spill Emergency Response Plan to ensure prompt detection and response to spills to reduce spill volumes and collect information for prevention of future spills. The Spill Emergency Response Plan must include procedures to:

- Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a spill in a timely manner;
- Notify other potentially affected entities (for example, health agencies, water suppliers, etc.) of spills that potentially affect public health or reach waters of the State;
- Comply with the notification, monitoring and reporting requirements of this General Order, State law and regulations, and applicable Regional Water Board Orders;
- Ensure that appropriate staff and contractors implement the Spill Emergency Response Plan and are appropriately trained;
- Address emergency system operations, traffic control and other necessary response activities;
- Contain a spill and prevent/minimize discharge to waters of the State or any drainage conveyance system;
- Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State;
- Remove sewage from the drainage conveyance system;
- Clean the spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving waters;
- Implement technologies, practices, equipment, and interagency coordination to expedite spill containment and recovery;
- Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a spill event;
- Conduct post-spill assessments of spill response activities;
- Document and report spill events as required in this General Order; and
- Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed.

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7. SEWER PIPE BLOCKAGE CONTROL PROGRAM

The Sewer System Management Plan must include procedures for the evaluation of the Enrollee's service area to determine whether a sewer pipe blockage control program is needed to control fats, oils, grease, rags and debris. If the Enrollee determines that a program is not needed, the Enrollee shall provide justification in its Plan for why a program is not needed.

The procedures must include, at minimum:

- An implementation plan and schedule for a public education and outreach program that promotes proper disposal of pipe-blocking substances;
- A plan and schedule for the disposal of pipe-blocking substances generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of substances generated within a sanitary sewer system service area;
- The legal authority to prohibit discharges to the system and identify measures to prevent spills and blockages;
- Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, best management practices requirements, recordkeeping and reporting requirements;
- Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the fats, oils, and grease ordinance;
- An identification of sanitary sewer system sections subject to fats, oils, and grease blockages and establishment of a cleaning schedule for each section; and
- Implementation of source control measures for all sources of fats, oils, and grease reaching the sanitary sewer system for each section identified above.

8. SYSTEM EVALUATION, CAPACITY ASSURANCE AND CAPITAL IMPROVEMENTS

The Plan must include procedures and activities for:

- Routine evaluation and assessment of system conditions;
- Capacity assessment and design criteria;
- Prioritization of corrective actions; and
- A capital improvement plan.

8.1 System Evaluation and Condition Assessment

The Plan must include procedures to:

- Evaluate the sanitary sewer system assets utilizing the best practices and technologies available;

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- Identify and justify the amount (percentage) of its system for its condition to be assessed each year;
- Prioritize the condition assessment of system areas that:
 - Hold a high level of environmental consequences if vulnerable to collapse, failure, blockage, capacity issues, or other system deficiencies;
 - Are located in or within the vicinity of surface waters, steep terrain, high groundwater elevations, and environmentally sensitive areas;
 - Are within the vicinity of a receiving water with a bacterial-related impairment on the most current Clean Water Act section 303(d) List;
- Assess the system conditions using visual observations, video surveillance and/or other comparable system inspection methods;
- Utilize observations/evidence of system conditions that may contribute to exiting of sewage from the system which can reasonably be expected to discharge into a water of the State;
- Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities; and
- Identify system assets vulnerable to direct and indirect impacts of climate change, including but not limited to: sea level rise; flooding and/or erosion due to increased storm volumes, frequency, and/or intensity; wildfires; and increased power disruptions.

8.2. Capacity Assessment and Design Criteria

The Plan must include procedures to identify system components that are experiencing or contributing to spills caused by hydraulic deficiency and/or limited capacity, including procedures to identify the appropriate hydraulic capacity of key system elements for:

- Dry-weather peak flow conditions that cause or contributes to spill events;
- The appropriate design storm(s) or wet weather events that causes or contributes to spill events;
- The capacity of key system components; and
- Identify the major sources that contribute to the peak flows associated with sewer spills.

The capacity assessment must consider:

- Data from existing system condition assessments, system inspections, system audits, spill history, and other available information;
- Capacity of flood-prone systems subject to increased infiltration and inflow, under normal local and regional storm conditions;

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- Capacity of systems subject to increased infiltration and inflow due to larger and/or higher-intensity storm events as a result of climate change;
- Increases of erosive forces in canyons and streams near underground and above-ground system components due to larger and/or higher-intensity storm events;
- Capacity of major system elements to accommodate dry weather peak flow conditions, and updated design storm and wet weather events; and
- Necessary redundancy in pumping and storage capacities.

8.3. Prioritization of Corrective Action

The findings of the condition assessments and capacity assessments must be used to prioritize corrective actions. Prioritization must consider the severity of the consequences of potential spills.

8.4. Capital Improvement Plan

The capital improvement plan must include the following items:

- Project schedules including completion dates for all portions of the capital improvement program;
- Internal and external project funding sources for each project; and
- Joint coordination between operation and maintenance staff, and engineering staff/consultants during planning, design, and construction of capital improvement projects; and Interagency coordination with other impacted utility agencies.

9. MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS

The Plan must include an Adaptive Management section that addresses Plan-implementation effectiveness and the steps for necessary Plan improvement, including:

- Maintaining relevant information, including audit findings, to establish and prioritize appropriate Plan activities;
- Monitoring the implementation and measuring the effectiveness of each Plan Element;
- Assessing the success of the preventive operation and maintenance activities;
- Updating Plan procedures and activities, as appropriate, based on results of monitoring and performance evaluations; and
- Identifying and illustrating spill trends, including spill frequency, locations and estimated volumes.

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10. INTERNAL AUDITS

The Plan shall include internal audit procedures, appropriate to the size and performance of the system, for the Enrollee to comply with section 5.4 (Sewer System Management Plan Audits) of this General Order.

11. COMMUNICATION PROGRAM

The Plan must include procedures for the Enrollee to communicate with:

- The public for:
 - Spills and discharges resulting in closures of public areas, or that enter a source of drinking water, and
 - The development, implementation, and update of its Plan, including opportunities for public input to Plan implementation and updates.
- Owners/operators of systems that connect into the Enrollee's system, including satellite systems, for:
 - System operation, maintenance, and capital improvement-related activities.

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**ATTACHMENT E1 – NOTIFICATION, MONITORING, REPORTING AND
RECORDKEEPING REQUIREMENTS**

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ATTACHMENT E1– NOTIFICATION, MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

The Notification Requirements (section 1), Spill-specific Monitoring Requirements (section 2), Reporting Requirements (section 3) and Recordkeeping Requirements (section 4) in this Attachment are pursuant to Water Code section 13267 and section 13383, and are an enforceable component of this General Order. For the purpose of this General Order, the term:

- Notification means the notifying of appropriate parties of a spill event or other activity.
- Spill-specific Monitoring means the gathering of information and data for a specific spill event to be reported or kept as records.
- Reporting means the reporting of information and data into the online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database.
- Recordkeeping means the maintaining of information and data in an official records storage system.

Failure to comply with the notification, monitoring, reporting and recordkeeping requirements in this General Order may subject the Enrollee to civil liabilities of up to \$10,000 a day per violation pursuant to Water Code section 13385; up to \$1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement.

Water Code section 13193 et seq. requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Resources Control Board (State Water Board) to collect sanitary sewer spill information for each spill event and make this information available to the public. Sanitary sewer spill information for each spill event includes but is not limited to: Enrollee contact information for each spill event, spill cause, estimated spill volume and factors used for estimation, location, date, time, duration, amount discharged to waters of the State, response and corrective action(s) taken.

1. NOTIFICATION REQUIREMENTS**1.1. Notification of Spills of 1,000 Gallons or Greater to the California Office of Emergency Services**

Per Water Code section 13271, for a spill that discharges in or on any waters of the State, or discharges or is deposited where it is, or probably will be, discharged in or on any waters of the State, the Enrollee shall notify the California Office of Emergency Services and obtain a California Office of Emergency Services Control Number as soon as possible **but no later than two (2) hours** after:

- The Enrollee has knowledge of the spill; and
- Notification can be provided without substantially impeding cleanup or other emergency measures.

The notification requirements in this section apply to individual spills of 1,000 gallons or greater, from an Enrollee-owned and/or operated laterals, to a water of the State.

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1.2. Spill Notification Information

The Enrollee shall provide the following spill information to the California Office of Emergency Services before receiving a Control Number, as applicable:

- Name and phone number of the person notifying the California Office of Emergency Services;
- Estimated spill volume (gallons);
- Estimated spill rate from the system (gallons per minute);
- Estimated discharge rate (gallons per minute) directly into waters of the State or indirectly into a drainage conveyance system;
- Spill incident description:
 - Brief narrative of the spill event, and
 - Spill incident location (address, city, and zip code) and closest cross streets and/or landmarks;
- Name and phone number of contact person on-scene;
- Date and time the Enrollee was informed of the spill event;
- Name of sanitary sewer system causing the spill;
- Spill cause or suspected cause (if known);
- Amount of spill contained;
- Name of receiving water body receiving or potentially receiving discharge; and
- Description of water body impact and/ or potential impact to beneficial uses.

1.3. Notification of Spill Report Updates

Following the initial notification to the California Office of Emergency Services and until such time that the Enrollee certifies the spill report in the online CIWQS Sanitary Sewer System Database, the Enrollee shall provide updates to the California Office of Emergency Services regarding substantial changes to:

- Estimated spill volume (increase or decrease in gallons initially estimated);
- Estimated discharge volume discharged directly into waters of the State or indirectly into a drainage conveyance system (increase or decrease in gallons initially estimated); and
- Additional impact(s) to the receiving water(s) and beneficial uses.

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2. SPILL-SPECIFIC MONITORING REQUIREMENTS**2.1 Spill Location and Spread**

The Enrollee shall visually assess the spill location(s) and spread using photography, global positioning system (GPS), and other best available tools. The Enrollee shall document the critical spill locations, including:

- Photography and GPS coordinates for:
 - The system location where spill originated.
For multiple appearance points of a single spill event, the points closest to the spill origin.
- Photography for:
 - Drainage conveyance system entry locations,
 - The location(s) of discharge into surface waters, as applicable,
 - Extent of spill spread, and
 - The location(s) of clean up.

2.2 Spill Volume Estimation

To assess the approximate spill magnitude and spread, the Enrollee shall estimate the total spill volume using updated volume estimation techniques, calculations, and documentation for electronic reporting. The Enrollee shall update its notification and reporting of estimated spill volume (which includes spill volume recovered) as further information is gathered during and after a spill event.

2.3. Receiving Water Monitoring**2.3.1. Receiving Water Visual Observations**

Through visual observations and use of best available spill volume-estimating techniques and field calculation techniques, the Enrollee shall gather and document the following information for spills discharging to surface waters:

- Estimated spill travel time to the receiving water;
- For spills entering a drainage conveyance system, estimated spill travel time from the point of entry into the drainage conveyance system to the point of discharge into the receiving water;
- Estimated spill volume entering the receiving water; and
- Photography of:
 - Waterbody bank erosion,
 - Floating matter,
 - Water surface sheen (potentially from oil and grease),

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- Discoloration of receiving water, and
- Impact to the receiving water.

2.3.2. Receiving Water – Water Quality Sampling and Analysis

For sewage spills in which an estimated 50,000 gallons or greater are discharged into a surface water, the Enrollee shall conduct the following water quality sampling no later than **18 hours** after the Enrollee's knowledge of a potential discharge to a surface water:

- Collect one water sample, each day of the duration of the spill, at:
 - The DCS-001 location as described in section 2.3.4 (Receiving Water Sampling Locations) of this Attachment, if sewage discharges to a surface water via a drainage conveyance system; and/or
 - Each of the three receiving water sampling locations in section 2.3.4 (Receiving Water Sampling Locations) of this Attachment;

If the receiving water has no flow during the duration of the spill, the Enrollee must report "No Sampling Due To No Flow" for its receiving water sampling locations.

The Enrollee shall analyze the collected receiving water samples for the following constituents per section 2.3.3 (Water Quality Analysis Specifications) of this Attachment:

- Ammonia, and
- Appropriate bacterial indicator(s) per the applicable Basin Plan water quality objectives, including one or more of the following, unless directed otherwise by the Regional Water Board:
 - Total Coliform Bacteria
 - Fecal Coliform Bacteria
 - *E-coli*
 - Enterococcus

Dependent on the receiving water(s), sampling of bacterial indicators shall be sufficient to determine post-spill (after the spill) compliance with the water quality objectives and bacterial standards of the California Ocean Plan or the California Inland Surface Water Enclosed Bays, and Estuaries Plan, including the frequency and/or number of post-spill receiving water samples as may be specified in the applicable plans.

The Enrollee shall collect and analyze additional samples as required by the applicable Regional Water Board Executive Officer or designee.

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2.3.3. Water Quality Analysis Specifications

Spill monitoring must be representative of the monitored activity (40 Code of Federal Regulations section 122.41(j)(1)).

Sufficiently Sensitive Methods

Sample analysis must be conducted according to sufficiently sensitive test methods approved under 40 Code of Federal Regulations Part 136 for the sample analysis of pollutants. For the purposes of this General Order, a method is sufficiently sensitive when the minimum level of the analytical method approved under 40 Code of Federal Regulations Part 136 is at or below the receiving water pollutant criteria.

Environmental Laboratory Accreditation Program-Accredited Laboratories

The analysis of water quality samples required per this General Order must be performed by a laboratory that has accreditation pursuant to Article 3 (commencing with section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code. (Water Code section 13176(a).) The State Water Board accredits laboratories through its Environmental Laboratory Accreditation Program (ELAP).

2.3.4. Receiving Water Sampling Locations

The Enrollee shall collect receiving water samples at the following locations.

Sampling of Flow in Drainage Conveyance System (DCS) Prior to Discharge

Sampling Location	Sampling Location Description
DCS-001	A point in a drainage conveyance system before the drainage conveyance system flow discharges into a receiving water.

Receiving Surface Water Sampling (RSW)¹

Sampling Location	Sampling Location Description
RSW-001 Point of Discharge	A point in the receiving water where sewage initially enters the receiving water.
RSW-001U: Upstream of Point of Discharge	A point in the receiving water, upstream of the point of sewage discharge, to capture ambient conditions absent of sewage discharge impacts.

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Sampling Location	Sampling Location Description
RSW-001D: Downstream of Point of Discharge	A point in the receiving water, downstream of the point of sewage discharge, where the spill material is fully mixed with the receiving water.

¹ The Enrollee must use its best professional judgment to determine the upstream and downstream distances based on receiving water flow, accessibility to upstream/downstream waterbody banks, and size of visible sewage plume.

2.4. Safety and Access Exceptions

If the Enrollee encounters access restrictions or unsafe conditions that prevents its compliance with spill response requirements or monitoring requirements in this General Order, the Enrollee shall provide documentation of access restrictions and/or safety hazards in the corresponding required report.

3. REPORTING REQUIREMENTS

All reporting required in this General Order must be submitted electronically to the online [CIWQS Sanitary Sewer System Database](https://ciwqs.waterboards.ca.gov) (<https://ciwqs.waterboards.ca.gov>), unless specified otherwise in this General Order. Electronic reporting may solely be conducted by a Legally Responsible Official or Data Submitter(s) previously designated by the Legally Responsible Official, as required in section 5.8 (Designation of Data Submitters) of this General Order.

The Enrollee shall report any information that is protected by the Homeland Security Act, by email to SanitarySewer@waterboards.ca.gov, with a brief explanation of the protection provided by the Homeland Security Act for the subject report to be protected from unauthorized disclosure and/or public access, and for official Water Board regulatory purposes only.

3.1. Reporting Requirements for Individual Category 1 Spill Reporting

3.1.1. Draft Spill Report for Category 1 Spills

Within three (3) business days of the Enrollee's knowledge of a Category 1 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;

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5. Estimated spill start date and time;
6. Date and time the Enrollee notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;
 - If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
 - Description of the drainage conveyance system transporting the spill;
 - Photographs of the drainage conveyance system entry location(s);
 - Estimated spill volume fully recovered from the drainage conveyance system;
 - Estimated spill volume remaining within the drainage conveyance system;
11. Description and photographs of all discharge point(s) into the surface water;
12. Estimated spill volume that discharged to surface waters; and
13. Estimated total spill volume recovered.

3.1.2. Certified Spill Report for Category 1 Spills

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for Category 1 spills, to the online CIWQS Sanitary Sewer System Database. Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section 3.1.1 (Draft Spill Report for Category 1 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
 - The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;

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4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, lateral, pump station, etc.);
6. Description of the pipe material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion;
14. Name and type of receiving water body(s);
15. Description of the water body(s), including but not limited to:
 - Observed impacts on aquatic life,
 - Public closure, restricted public access, temporary restricted use, and/or posted health warnings due to spill,
 - Responsible entity for closing/restricting use of water body, and
 - Number of days closed/restricted as a result of the spill.
16. Whether or not the spill was located within 1,000 feet of a municipal surface water intake; and
17. If water quality samples were collected, identify sample locations and the parameters the water quality samples were analyzed for. If no samples were taken, Not Applicable shall be selected.

3.1.3. Spill Technical Report for Individual Category 1 Spill in which 50,000 Gallons or Greater Discharged into a Surface Water

For any spill in which 50,000 gallons or greater discharged into a surface water, **within 45 calendar days** of the spill end date, the Enrollee shall submit a Spill Technical Report to the online CIWQS Sanitary Sewer System Database. The Spill Technical Report, at minimum, must include the following information:

1. Spill causes and circumstances, including at minimum:
 - Complete and detailed explanation of how and when the spill was discovered;

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- Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions;
 - Diagram showing the spill failure point, appearance point(s), the spill flow path, and ultimate destinations;
 - Detailed description of the methodology employed, and available data used to calculate the discharge volume and, if applicable, the recovered spill volume;
 - Detailed description of the spill cause(s);
 - Description of the pipe material, and estimated age of the pipe material, at the failure location;
 - Description of the impact of the spill;
 - Copy of original field crew records used to document the spill; and
 - Historical maintenance records for the failure location.
2. Enrollee's response to the spill:
- Chronological narrative description of all actions taken by the Enrollee to terminate the spill;
 - Explanation of how the Sewer System Management Plan Spill Emergency Response Plan was implemented to respond to and mitigate the spill; and
 - Final corrective action(s) completed and a schedule for planned corrective actions, including:
 - Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable,
 - Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences, and
 - Necessary modifications to the Emergency Spill Response Plan to incorporate lessons learned in responding to and mitigating the spill.
3. Water Quality Monitoring, including at minimum:
- Description of all water quality sampling activities conducted;
 - List of pollutant and parameters monitored, sampled and analyzed; as required in section 2.3 (Receiving Water Monitoring) of this Attachment;
 - Laboratory results, including laboratory reports;
 - Detailed location map illustrating all water quality sampling points; and
 - Other regulatory agencies receiving sample results (if applicable).
4. Evaluation of spill impact(s), including a description of short-term and long-term impact(s) to beneficial uses of the surface water.

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3.1.4. Amended Certified Spill Reports for Individual Category 1 Spills

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After **90 calendar days**, the Enrollee shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

3.2. Reporting Requirements for Individual Category 2 Spill Reporting**3.2.1. Draft Spill Report for Category 2 Spills**

Within three (3) business days of the Enrollee's knowledge of a Category 2 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the Enrollee notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;

If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;

8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
 - Description of the drainage conveyance system transporting the spill;
 - Photographs of the drainage conveyance system entry location(s);
 - Estimated spill volume fully recovered from the drainage conveyance system;
 - Estimated spill volume remaining within the drainage conveyance system;

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- Estimated spill volume discharged to a groundwater infiltration basin or facility, if applicable; and

11. Estimated total spill volume recovered.

3.2.2. Certified Spill Report for Category 2 Spills

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for the Category 2 spill, to the online [CIWQS Sanitary Sewer System Database](https://ciwqs.waterboards.ca.gov) (<https://ciwqs.waterboards.ca.gov>). Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section 3.2.1 (Draft Spill Report for Category 2 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
 - The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, pump station, etc.);
6. Description of the pipe/infrastructure material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion; and

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14. Whether or not the spill was located within 1,000 feet of a municipal surface water intake.

3.2.3. Amended Certified Spill Reports for Individual Category 2 Spills

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After **90 calendar days**, the Enrollee shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

3.3. Monthly Certified Spill Reporting for Category 3 Spills

The Enrollee shall report and certify all Category 3 spills to the online CIWQS Sanitary Sewer System Database within 30 calendar days after the end of the month in which the spills occurred. (For example, all Category 3 spills occurring in the month of February shall be reported and certified by March 30th). After the Legally Responsible Official certifies the spills, the online CIWQS Sanitary Sewer System Database will issue a spill event identification number for each spill.

The monthly reporting of all Category 3 spills must include the following items for each spill:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Description, photographs, and GPS coordinates where the spill originated:
 - If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
7. Estimated total spill volume exiting the system;
8. Description and photographs of the extent of the spill and spill boundaries;
9. Did the spill reach a drainage conveyance system? If Yes:
 - Description of the drainage conveyance system transporting the spill;
 - Photographs of the drainage conveyance system entry locations(s);
 - Estimated spill volume fully recovered from the drainage conveyance system; and

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- Estimated spill volume discharged to a groundwater infiltration basis or facility, if applicable.
10. Estimated total spill volume recovered;
 11. Description of the spill event destination(s), including GPS coordinates, if available, that represent the full spread and reaches of the spill;
 12. Spill end date and time;
 13. Description of how the spill volume estimations were calculated, including, at minimum:
 - The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;
 14. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
 15. System failure location (for example, main, pump station, etc.);
 16. Description of the pipe/infrastructure material, and estimated age of the pipe/infrastructure material, at the failure location;
 17. Description of the impact of the spill;
 18. Whether or not the spill was associated with a storm event;
 19. Description of spill response activities including description of immediate spill containment and cleanup efforts;
 20. Description of spill corrective actions, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of the major milestones for those steps; including, at minimum:
 - Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable, and
 - Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences at the same spill event location, including:
 - Adjusted schedule/method of preventive maintenance,
 - Planned rehabilitation or replacement of sanitary sewer asset,
 - Inspected, repaired asset(s), or replaced defective asset(s),
 - Capital improvements,
 - Documentation verifying immediately implemented system modifications and operating/maintenance modifications,
 - Description of spill response activities,

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- Spill response completion date, and
- Ongoing investigation efforts, and expected completion date of investigation to determine the full cause of spill;

21. Detailed narrative of investigation and investigation findings of cause of spill.

3.4. Monthly Certified Spill Reporting for Category 4 Spills

The Enrollee shall report and certify the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, within 30 calendar days after the end of the month in which the spills occurred.

3.5. Amended Certified Spill Reports for Category 3 Spills

Within 90 calendar days of the certified Spill Report due date, the Enrollee may update or add additional information to a certified Spill Report by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After 90 calendar days, the Legally Responsible Official shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a certified Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the 90-day timeframe for amending the certified Spill Report, as provided above.

3.6. Annual Certified Spill Reporting of Category 4 and/or Lateral Spills

For all Category 4 spills and spills from its owned and/or operated laterals that are caused by a failure or blockage in the lateral and that do not discharge to a surface water, the Enrollee shall:

- Maintain records per section 4.4. of this Attachment;
 - The Enrollee shall provide records upon request by State Water Board or Regional Water Board staff.
- Annually upload and certify a report, in an appropriate digital format, of all recordkeeping of spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occurred.

A spill from an Enrollee-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the Enrollee shall report all Category 1 spills per section 3.1 of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.

3.7. Monthly Certification of “No-Spills” or “Category 4 Spills” and/or “Non-Category 1 Lateral Spills”

If either (1) no spills occur during a calendar month or (2) only Category 4, and/or Enrollee-owned and/or operated lateral spills (that do not discharge to a surface water) occur during a calendar month, the Enrollee shall certify, within 30 calendar days after

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the end of each calendar month, either a “No-Spill” certification statement, or a “Category 4 Spills” and/or “Non-Category 1 Lateral Spills” certification statement, in the online CIWQS Sanitary Sewer System Database, certifying that there were either no spills, or Category 4 and/or Non-Category 1 Lateral Spills that will be reported annually (per section 3.6 of this Attachment) for the designated month.

If a spill starts in one calendar month and ends in a subsequent calendar month, and the Enrollee has no further spills of any category, in the subsequent calendar month, the Enrollee shall certify “no-spills” for the subsequent calendar month.

If the Enrollee has no spills from its systems during a calendar month, but the Enrollee voluntarily reported a spill from a private lateral or a private system, the Enrollee shall certify “no-spills” for that calendar month.

If the Enrollee has spills from its owned and/or operated laterals during a calendar month, the Enrollee shall not certify “no spills” for that calendar month.

3.8. **Electronic Sanitary Sewer System Service Area Boundary Map**

The Legally Responsible Official shall submit, to the State Water Board, an up-to-date electronic spatial map of its sewer system service area boundaries. The map must be in accordance with section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of this General Order and the specification provided on the statewide Sanitary Sewer Systems program website. The map must include the location of wastewater treatment facility(ies) that treats the sewer system waste, if in the same sewer service boundary.

By the Effective Date of this General Order, specifications for the electronic sanitary sewer service area boundary map format will be provided on the statewide Sanitary Sewer Systems Order program website.

3.9. **Annual Report (Previously termed as Collection System Questionnaire in General Order 2006-0003-DWQ)**

A new Enrollee shall complete and submit its first certified Annual Report into the online CIWQS Sanitary Sewer System Database, **within 30 days of obtaining a CIWQS account**; Subsequent Annual Reports are due by April 1 of each year.

All enrollees shall update their previous year’s Annual Report, **by April 1 of each year after the Effective Date of this General Order**, for each calendar year (January 1 through December 31).

The Annual Report must be entered directly into the online CIWQS Sanitary Sewer System Database. The Enrollee’s Legally Responsible Official shall certify the Annual Report as instructed in CIWQS;

The Annual Report must address, and update as applicable, the following items:

- Population served;

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- Updated sewer system service area boundary map, if service area boundary has changed from original map submitted per section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of this General Order;
- Number of system operation and maintenance staff:
 - Entry level (less than two years of experience),
 - Journey level (greater than two years of experience),
 - Supervisory level, and
 - Managerial level;
- Number of operation and maintenance staff certified as a certified collection system operator by the California Water Environmental Association (CWEA), with:
 - Corresponding number of certified collection system operator grade levels (Grade I, II, III, IV, and V);
- System information:
 - Miles of system gravity and force mains,
 - Number of upper and lower service laterals connected to system,
 - Estimated number of upper and lower laterals owned and/or operated by the Enrollee,
 - Portion of laterals that is Enrollee's responsibility,
 - Average age the major components of system infrastructure,
 - Number and age of pump stations, and
 - Estimated total miles of the system pipeline not accessible for maintenance;
- Name and location of the treatment plant(s) receiving sanitary sewer system's waste;
- Name of satellite sewer system tributaries;
- Number of system's gravity sewer above or underground crossings of water bodies throughout system;
- Number of force main (pressurized pipe) above or underground crossings of water bodies throughout system;
- Number of siphons used to convey waste throughout the sewer system;
- Miles of sewer system cleaned;
- Miles of sewer system video inspected, or comparable (i.e., video closed-circuit television or alternative inspection methods);
- System Performance Evaluation as specified in section 5.11 (System Performance Analysis) of this General Order;
- Major spill causes (for example, root intrusion, grease deposition);

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- System infrastructure failure points (for example, main, pump station, lateral, etc.);
- Ongoing spill investigations; and
- Actions taken to address system deficiencies.

3.10. Sewer System Management Plan Audit Reporting Requirements

The Enrollee shall submit its Sewer System Management Plan Audit and other pertinent audit information, in accordance with section 5.4 (Sewer System Management Plan Audits) of this General Order, to the online CIWQS Sanitary Sewer System Database **by six (6) months after the end of the 3-year audit period.**

If a Sewer System Management Plan Audit is not conducted as required: the Enrollee shall:

- Update the online CIWQS Sanitary Sewer System Database and select the justification for not conducting the Audit; and
- Notify its corresponding Regional Water Board (see Attachment F (Regional Water Quality Control Board Contact Information)) of the justification for the lapsed requirements.

The Enrollee's reporting of a justification for not conducting a timely Audit does not justify non-compliance with this General Order. The Enrollee shall:

- Submit the late Audit as required in this General Order; and
- Comply with subsequent Audit requirements and due dates corresponding with the original audit cycle.

3.11. Sewer System Management Plan Reporting Requirements

For an Existing Enrollee previously regulated by Order 2006-0003-DWQ: **Within every six (6) years after the required due date of its last Plan Update**, the Legally Responsible Official shall upload and certify a local governing entity-approved Sewer System Management Plan Update to the online CIWQS Sanitary Sewer System Database. If the electronic document format or size capacity prevents the electronic upload of the Plan, the Legally Responsible Official shall report an electronic link to its updated Sewer System Management Plan posted on its own website.

Order 2006-0003-DWQ required each enrollee to develop its initial Sewer System Management Plan per the following schedule, with required Plan updates at a frequency of 5-years thereafter:

Systems serving populations: Greater than 100,000: May 2, 2009

Between 100,000 and 10,000: August 2, 2009

Between 10,000 and 2,500: May 2, 2010

Less than 2,500: August 2, 2010

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This Order carries forth the previously-required Plan Update schedule per Order 2006-0003-DWQ. Per the six-year Plan Update frequency required in this Order, the Enrollee shall upload and certify its first Plan Update, to the online CIWQS Sanitary Sewer System Database by the following due dates, with subsequent Plan Updates at the frequency of six years thereafter:

Systems serving populations: Greater than 100,000: May 2, 2025

Between 100,000 and 10,000: August 2, 2025

Between 10,000 and 2,500: May 2, 2026

Less than 2,500: August 2, 2026

For a New Enrollee: **Within twelve (12) months of its Application for Enrollment Approval date**, the Legally Responsible Official of a new Enrollee shall upload and certify a local governing entity-approved Sewer System Management Plan to the online CIWQS Sanitary Sewer System Database. If electronic document format or size capacity prevents the electronic upload of the Plan, the Legally Responsible Official shall report an electronic link to its Sewer System Management Plan posted on its own website. The due date for subsequent 6-year Plan updates, is six (6) years from the submittal due date of the new Enrollee's first Sewer System Management Plan.

4. RECORDKEEPING REQUIREMENTS

The Enrollee shall maintain records to document compliance with the provisions of this General Order, and previous General Order 2006-0003-DWQ as applicable, for each sanitary sewer system owned, including any required records generated by an Enrollee's contractor(s).

4.1. Recordkeeping Time Period

The Enrollee shall maintain records of documents required in this Attachment, including records collected for compliance with this General Order, and records collected in accordance with previous General Order 2006-0003-DWQ, for five (5) years.

4.2. Availability of Documents

The Enrollee shall make the records required in this General Order readily available, either electronic or hard copies, for review by Water Board staff during onsite inspections or through an information request.

4.3. Spill Reports

The Enrollee shall maintain records for each of the following spill-related events and activities:

- Spill event complaint, including but not limited to records documenting how the Enrollee responded to notifications of spills. Each complaint record must, at a minimum, include the following information:
 - Date, time, and method of notification,

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- Date and time the complainant first noticed the spill, if available,
- Narrative description of the complaint, including any information the caller provided regarding whether the spill has reached surface waters or a drainage conveyance system, if available,
- Complainant's contact information, if available, and
- Final resolution of the complaint;
- Records documenting the steps and/or remedial action(s) undertaken by the Enrollee, using all available information, to comply with this General Order, and previous General Order 2006-0003-DWQ as applicable;
- Records documenting how estimate(s) of volume(s) and, if applicable, volume(s) of spill recovered were calculated;
- All California Office of Emergency Services notification records, as applicable; and
- Records, in accordance with the Monitoring Requirements in this Attachment.

4.4. Recordkeeping of Category 4 Spills and Non-Category 1 Lateral Spills

An Enrollee must maintain the following records for each individual Category 4 spill and for each individual non-Category 1 Enrollee-owned and/or operated lateral spill, and report in accordance to section 3.6 (Annual Certified Spill Reporting of Category 4 and/or Lateral Spills) of this Attachment.

Recordkeeping of Individual Category 4 Spill Information:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Description and GPS coordinates for the system location where the spill originated;
4. Did the spill reach a drainage conveyance system? If Yes:
 - Description of drainage conveyance system location,
 - Estimated spill volume fully recovered within the drainage conveyance system, and
 - Estimated spill volume remaining within the drainage conveyance system;
5. Estimated total spill volume exiting the sanitary sewer system;
6. Spill date and start time;
7. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
8. System failure location (for example, main, pump station, etc.);
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of how the volume estimation was calculated, including, at minimum:

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- The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
- The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;

11. Description of implemented system modifications and operating/maintenance modifications.

Recordkeeping of Individual Lateral Spill Information:

1. Date and time the Enrollee was notified of, or self-discovered, the spill;
2. Location of individual spill;
3. Estimated individual spill volume;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.); and
5. Description of how the volume estimations were calculated.

Total Annual Spill Information:

1. Estimated total annual spill volume;
2. Description of spill corrective actions, including at minimum:
 - Local regulatory enforcement action taken against the sewer lateral owner in response to a spill, as applicable, and
 - System operation, maintenance and program modifications implemented to prevent repeated spill occurrences at the same spill location.

4.5. Sewer System Telemetry Records

The Enrollee shall maintain the following sewer system telemetry records if used to document compliance with this General Order, and previous General Order 2006-0003-DWQ as applicable, including spill volume estimates:

- Supervisory control and data acquisition (SCADA) system(s);
- Alarm system(s);
- Flow monitoring device(s) or other instrument(s) used to estimate sewage flow rates, and/or volumes;
- Computerized maintenance management system records; and
- Asset management-related records.

4.6. Sewer System Management Plan Implementation Records

The Enrollee shall maintain records documenting the Enrollee's implementation of its Sewer System Management Plan, including documents supporting its Sewer System Management Plan audits, corrections, modifications, and updates to the Sewer System Management Plan.

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4.7. Audit Records

The Enrollee shall maintain, at minimum, the following records pertaining to its Sewer System Management Plan audits, and other internal audits:

- Completed audit documents and findings;
- Name and contact information of staff and/or consultants that conducted or involved in the audit; and
- Follow-up actions based on audit findings.

4.8. Equipment Records

The Enrollee shall maintain a log of all owned and leased sewer system cleaning, operational, maintenance, construction, and rehabilitation equipment.

4.9. Work Orders

The Enrollee shall maintain record of work orders for operations and maintenance projects.

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ATTACHMENT E2 – SUMMARY OF NOTIFICATION, MONITORING AND REPORTING REQUIREMENTS

This Attachment provides a summary of notification, monitoring and reporting requirements, by spill category, and for Enrollee-owned and/or operated laterals as required in Attachment E1 of this General Order, for quick reference purposes only.

Table E2-1**Spill Category 1: Spills to Surface Waters**

Spill Requirement	Due	Method
Notification	<p>Within two (2) hours of the Enrollee's knowledge of a Category 1 spill of 1,000 gallons or greater, discharging or threatening to discharge to surface waters:</p> <p>Notify the California Office of Emergency Services and obtain a notification control number.</p>	<p>California Office of Emergency Services at: (800) 852-7550</p> <p>(Section 1 of Attachment E1)</p>
Monitoring	<ul style="list-style-type: none"> • Conduct spill-specific monitoring; • Conduct water quality sampling of the receiving water within 18 hours of initial knowledge of spill of 50,000 gallons or greater to surface waters. 	<p>(Section 2 of Attachment E1)</p>
Reporting	<ul style="list-style-type: none"> • Submit Draft Spill Report within three (3) business days of the Enrollee's knowledge of the spill; • Submit Certified Spill Report within 15 calendar days of the spill end date; • Submit Technical Report within 45 calendar days after the spill end date for a Category 1 spill in which 50,000 gallons or greater discharged to surface waters; and • Submit Amended Spill Report within 90 calendar days after the spill end date. 	<p>(Section 3.1 of Attachment E1)</p>

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Table E2-2

Spill Category 2: Spills of 1,000 Gallons or Greater That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	<p>Within two (2) hours of the Enrollee's knowledge of a Category 2 spill of 1,000 gallons or greater, discharging or threatening to discharge to waters of the State:</p> <p>Notify California Office of Emergency Services and obtain a notification control number.</p>	<p>California Office of Emergency Services at: (800) 852-7550</p> <p>(Section 1 of Attachment E1)</p>
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> • Submit Draft Spill Report within three (3) business days of the Enrollee's knowledge of the spill; • Submit Certified Spill Report within 15 calendar days of the spill end date; and • Submit Amended Spill Report within 90 calendar days after the spill end date. 	(Section 3.2 of Attachment E1)

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Table E2-3**Spill Category 3: Spills of Equal or Greater than 50 Gallons and Less than 1,000 Gallons That Does Not Discharge to Surface Waters**

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> Submit monthly Certified Spill Report to the online CIWQS Sanitary Sewer System Database within 30 calendar days after the end of the month in which the spills occur; and Submit Amended Spill Reports within 90 calendar days after the Certified Spill Report due date. 	(Section 3.3 and 3.5 of Attachment E1)

Table E2-4**Spill Category 4: Spills Less Than 50 Gallons That Do Not Discharge to Surface Waters**

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> If, during any calendar month, Category 4 spills occur, certify monthly, the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills into the online CIWQS Sanitary Sewer System Database, within 30 days after the end of the calendar month in which the spills occurred. Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. 	(Section 3.4, 3.6, 3.7 and 4.4 of Attachment E1)

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Table E2-5**Enrollee Owned and/or Operated Lateral Spills That Do Not Discharge to Surface Waters**

Spill Requirements	Due	Method
Notification	<p>Within two (2) hours of the Enrollee's knowledge of a spill of 1,000 gallons or greater, from an enrollee-owned and/or operated lateral, discharging or threatening to discharge to waters of the State:</p> <p>Notify California Office of Emergency Services and obtain a notification control number.</p> <p>Not applicable to a spill of less than 1,000 gallons.</p>	<p>California Office of Emergency Services at: (800) 852-7550</p> <p>(Section 1 of Attachment E1)</p>
Monitoring	Conduct visual monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> • Upload and certify a report, in an acceptable digital format, of all lateral spills (that do not discharge to a surface water) to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. • Report a lateral spill of any volume that discharges to a surface water as a Category 1 spill. 	(Sections 3.6, 3.7 and 4.4 of Attachment E1)

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ATTACHMENT F – REGIONAL WATER QUALITY CONTROL BOARD CONTACT INFORMATION

This Attachment provides a map, list of counties, and contact information to assist the Enrollee in identifying the corresponding Regional Water Quality Control Board office, for all Regional Water Board notification requirements in this General Order.

**Region 1 -- North Coast Regional Water Quality Control Board:**

Del Norte, Glenn, Humboldt, Lake, Marin, Mendocino, Modoc, Siskiyou, Sonoma, and Trinity counties.

RB1SpillReporting@waterboards.ca.gov or (707) 576-2220

Region 2 -- San Francisco Bay Regional Water Quality Control Board:

Alameda, Contra Costa, San Francisco, Santa Clara (Northern most part of Morgan Hill), San Mateo, Marin, Sonoma, Napa, Solano counties.

RB2SpillReports@waterboards.ca.gov or (510) 622-2369

Region 3 -- Central Coast Regional Water Quality Control Board:

Santa Clara (most of Morgan Hill), San Mateo (Southern portion), Santa Cruz, San Benito, Monterey, Kern (small portions), San Luis Obispo, Santa Barbara, Ventura (Northern portion) counties.

CentralCoast@waterboards.ca.gov or (805) 549-3147

Region 4 -- Los Angeles Regional Water Quality Control Board:

Los Angeles, Ventura counties (small portions of Kern and Santa Barbara counties).

rb4-ssswdr@waterboards.ca.gov or (213) 576-6600

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Region 5 -- Central Valley Regional Water Quality Control Board:

Rancho Cordova (Sacramento) Office: Colusa, Lake, Sutter, Yuba, Sierra, Nevada, Placer, Yolo, Napa, (North East), Solano (West), Sacramento, El Dorado, Amador, Calaveras, San Joaquin, Contra Costa (East), Stanislaus, Tuolumne counties.

RB5sSpillReporting@waterboards.ca.gov or (916) 464-3291

Fresno Office: Fresno, Kern, Kings, Madera, Mariposa, Merced, and Tulare counties, and small portions of San Benito and San Luis Obispo counties.

RB5fSpillReporting@waterboards.ca.gov or (559) 445-5116

Redding Office: Butte, Glen, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Tehama counties.

RB5rSpillReporting@waterboards.ca.gov or (530) 224-4845

Region 6 -- Lahontan Regional Water Quality Control Board:

Lake Tahoe Office: Alpine, Modoc (East), Lassen (East side and Eagle Lake), Sierra, Nevada, Placer, El Dorado counties.

RB6sSpillReporting@waterboards.ca.gov or (530) 542-5400

Victorville Office: Mono, Inyo, Kern (East), San Bernardino, Los Angeles (North East corner) counties.

RB6vSpillReporting@waterboards.ca.gov or (760) 241-6583

Region 7 -- Colorado River Basin Regional Water Quality Control Board:

Imperial county and portions of San Bernardino, Riverside, San Diego counties.

RB7SpillReporting@waterboards.ca.gov or (760) 346-7491

Region 8 -- Santa Ana Regional Water Quality Control Board:

Orange, Riverside, San Bernardino counties.

RB8SpillReporting@waterboards.ca.gov or (951) 782-4130

Region 9 -- San Diego Regional Water Quality Control Board:

San Diego county and portions of Orange and Riverside counties.

RB9Spill_Report@waterboards.ca.gov or (619) 516-1990

End of Order 2022-0103-DWQ

Appendix 3

MUD Organizational Charts

Appendix 4

City of Stockton Sanitary Sewer Overflow Emergency Response Plan



CITY OF STOCKTON

MUNICIPAL UTILITIES • 2500 Navy Drive • Stockton, CA 95206 • 209-937-8700
www.stocktongov.com

Stockton Regional Wastewater System Emergency Response Plan

Revised May 17, 2023

Supersedes March 20, 2012

Approved and Issued By: _____

Mel Lytle
MUD Director

Controlled Copy Distribution:

1. C. Mel Lytle, Ph.D., Director of Municipal Utilities Department (MUD)
2. VACANT, Assistant Director of Municipal Utilities, MUD
3. Deedee Antypas, Deputy Director of Wastewater Operations, MUD
4. Mitchell Maidrand, Deputy Director of Water Operations, MUD
5. Jeff Marasovich, Deputy Director of Collections & Maintenance, MUD
6. VACANT, Regulatory Compliance Officer, MUD
7. Ernesto Prendez, Safety Compliance Specialist, MUD
8. David Button, Chief Water Systems Operator, MUD
9. Jose Alatorre, Maintenance Supervisor, MUD
10. Eric Johnson, Senior Plant Maintenance Supervisor, MUD
11. Plant Operators, Tertiary Plant Control Room
12. Plant Operators, Main Plant Control Room
13. Frank Motzkus, Chief Plant Operator, Wastewater, MUD
14. Jerry Tamura, Laboratory Supervisor, MUD
15. Paul Ferroni, Safety Manager, MUD

Controlled Copy No.: _____

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Emergency Contact Information

Wastewater Information

Company: City of Stockton, MUD

Service Areas Covered: Stockton Regional Wastewater Control Facility (RWCF)

Physical Location: 2500 Navy Drive, Stockton CA 95206

Communications Information: Phone: 209/937-8763

City of Stockton, MUD Key Personnel	Name	Work Phone	Home Phone	Cell Phone
Director of Municipal Utilities	C. Mel Lytle, Ph.D.	209/937-8729	209/832-4591	209/612-3147
Assistant Director of Municipal Utilities	Vacant			
Deputy Director/Wastewater Operations	Deedee Antypas	209/937-7425		209/598-5556
Deputy Director/Collections	Jeff Marasovich	209/937-7113		209/484-8532
Deputy Director/Water Operations	Mitchell Maidrand	209/937-7353		916/698-0293
Chief Plant Operator, WW	Frank Motzkus	209/937-8736		530/386-6525
Sr. Plant Operator	On Duty	209/937-8745		209/244-2131
Plant Maintenance Supervisor	Jose Alatorre	209/937-5422		209/645-9290
Collections Supervisor	Chris Devore	209/937-8725		298/298-8367
Collections Supervisor	Jason Freeman	209/937-5647		209/479-0713
Collections Supervisor	Thomas Zanutto	209/937-5067		209/470-7145
Collections Standby				209/993-2243
Service Truck Phone				209/639-5360 209/993-5708
Senior Plant Maintenance Supervisor	Eric Johnson	209/937-8788		209/639-8513
Sr. Pump Station Maintenance Mechanic	Ken Valentine		209/937-8765	209/598-3397
Maintenance Standby				209/993-6238
Chief Water Systems Operator	David Button	209/937-7135		909/964-5121
Technical Services Supervisor	Richard Stiffler	209/937-8740	209/477-7399	209/993-3274
Safety Compliance Specialist	Ernesto Prendez	209/937-8746		209/582-6160
Director of Public Works	Jodi Almassy	209/937-8430		209/639-3220
City of Stockton Dispatch		209/937-8341	After hours: 209/464-4650	

Regulatory Contacts

Federal, State, and Local Agency Assistance

Agency	Address	Phone
NATIONAL RESPONSE CENTER Must be contacted within 15 minutes of event		800/424-8802
Agricultural Commissioner	1868 E. Hazelton Avenue 17620 E. Hwy 120 from Stockton	209/953-6000 209/468-5542
Animal and Plant Health Inspection	5635 Stratford Circle	844/820-2234
CA Dept. of Public Health, Drinking Water Division	Water quality, unsafe water alerts, boil water orders	209/948-3816
Coast Guard	Marine Safety	510/437-3099
Conservation	USDA Stockton Service Center USGS Nat'l. Water Info. Center	209/472-7127 916/381-0207
Conservation	USDA Stockton Service Center USGS National Water Information Center	209/337-2124
County-to-County Statewide Mutual Aid Agreement	(through County OES)	209/468-3939
Department of Agriculture USDA Service Center		202/720-2791
Department of Interior	Inspector General Washington, DC	800/424-5081 202/208-3100
Disasters and Emergencies	USGS National Earthquake Center	510/627-7172
Environmental Health	304 E. Weber Avenue	209/468-3420
FBI—Sacramento Field Office	Terrorist Threat Response	916/746-7000
San Joaquin County Office of Emergency Services	City of Stockton	209/953-6200
State of California Office of Emergency Services	State of California	916/894-5209 (24hr)
Public Health Services	Information - Administration Health Officer Public Health	209/468-3400 209/468-2411 209/468-3460
Public Utilities Commission	San Francisco, CA	800/649-7570
Public Works Flood Control	Administration—Engineering Channel Maintenance Flood Zone Inquiries Nights-Weekends-Holidays	209/468-3000 209/468-9698 209/468-3057 209/468-3074
Regional Water Quality Control Board	Rancho Cordova, CA	916/464-4623

Agency	Address	Phone
San Joaquin County Environmental Health Department	Hazardous Material Contamination	209/468-3420
San Joaquin County Health Officer	Biological contamination	209/468-3400
State of California/Federal Mutual Aid Reserves	(through State Warning Point)	800/752-7550
Stockton East Water District	Water production and delivery	209/948-0333
City of Stockton Municipal Utilities Department	City of Stockton	209/937-8700

Emergency Planning Partners

Agency	Responsibility
California Emergency Management Agency (CalEMA) 916/845-8911, 916/845-8910	Lead State agency for emergency response
San Joaquin County, OES 209/468-3962	Intermediate level of State emergency response Primary mutual aid coordinator Operates County (Operational Area) Emergency Operations Center (EOC)
City of Stockton, OES 209/937-8439	Coordinates response of City departments / resources
City of Stockton, Fire Department 209/464-4648	12 Fire stations, 12 Engine companies, Fire Boat 3 Truck companies Hazardous Materials Unit Water and Dive Rescue Team Heavy and Confined Space Rescue
City of Stockton, Police Department 911, 209/937-7911	Local law enforcement
San Joaquin County, Sheriff's Department 911, 209/468-4310	Local law enforcement/mutual aid coordinator
San Joaquin County, Public Health Department 209/468-3420	Local public health agency
California Regional Water Quality Control Board, Central Valley Region 916/464-3291	Agency responsible for discharge permits
Department of Public Health, Stockton, CA 209/468-3400	State agency responsible for public health issues
Stockton, Inc., Wastewater Utility 209/937-8722	Wastewater Collections, Treatment and Drinking Water Provider
Pacific, Gas, and Electric (PG&E) 800/743-5000	Electric power supplier

Mutual Aid Resources

Organization/Contact Number	Resource
City of Stockton, Public Works Department 209/937-8411	Equipment, materials, personnel
City of Stockton, Fire Department 209/937-8801	Equipment, materials, personnel, safety equipment
Stockton, Inc. Wastewater and Water Provider 209/937-8763	Equipment, materials, personnel, safety equipment
City of Stockton, Office of Emergency Services (OES) 209/937-8746	City of Stockton 2003 Multi Hazard Functional Emergency Operations Plan (EOP) Agreements with Cities and other organizations, including utility equipment, materials, and personnel.
County to County State-wide Mutual Aid Agreement through the County OES 209/468-3969 209/468-3962	Joint response for counties and cities if incident is over widespread area – equipment and other response resources are available to the Region (San Joaquin County is located in Mutual Aid Region IV). Agreements include PG&E, telephone, HAZMAT Teams, and other County and City resources
California Mutual Aid Laboratory Network (CAMAL Net) activate through California Department of Public Health Services (CDPH) District Engineer 209/948-3881	Laboratory resources
Plan Bulldozer activated through the Associated General Contractors of America and the State Warning Point 800/852-7550	Construction equipment and crews
State of California and Federal Mutual Aid Resources through State Warning Point 800/852-7550	State coordinates Regional, State, and Federal mutual aid (State-wide agreement for mutual resources including utility equipment, materials, and personnel).

Regional Medical Facilities

City	Hospital	Address	Telephone
Stockton	St. Joseph's Hospital	1800 N. California	209/943-2000
French Camp	San Joaquin General	500 W. Hospital Road	209/468-6000
Stockton	Dameron Hospital	525 W. Arcadia	209/944-5550
Manteca	Doctors Hospital	1205 E. North Street	209/823-3111
Lodi	Lodi Memorial	975 S. Fairmont	209/334-3411

Area Hospital with a Trauma and Burn Center

City	Hospital	Address	Telephone
Sacramento	UC Davis Medical Center	2315 Stockton Blvd.	916/734-2011

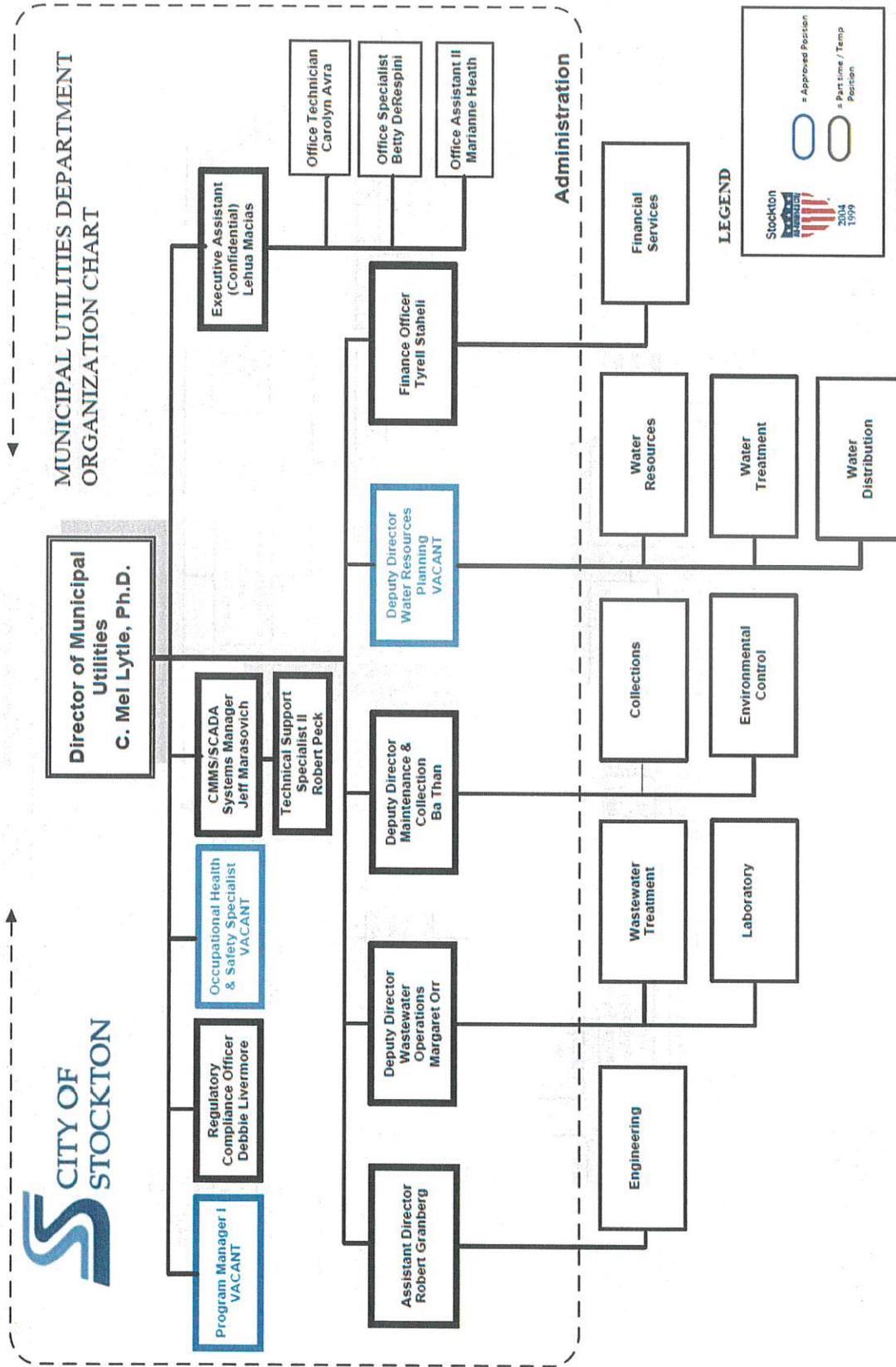
Emergency Response Assistance

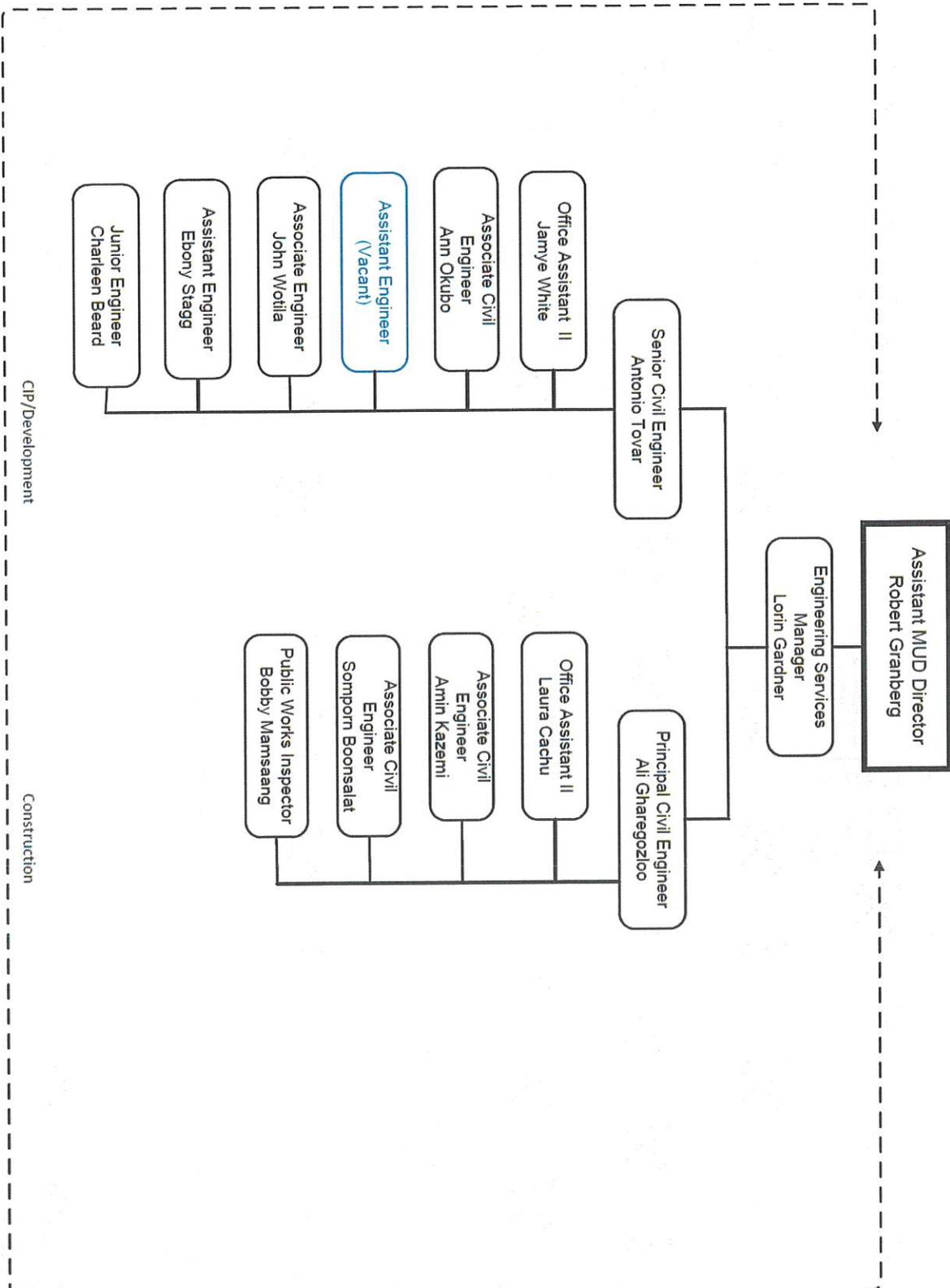
Agency	Address / Area of Responsibility	Phone
Ambulance:	Ambulance Service	911
Burlington Northern Santa Fe Rail Service		800/289-2673
CA Environmental Hotline		800/253-2687
Chemical Spill Notification (HAZMAT)	CHEMTREC	800/424-9300
County Sheriff:	San Joaquin County	800/244-0009 911 (emergency)
Dept. of Public Health	Bhupinder Sahota	209/948-3881
Emergency Operations Center—Wastewater Operations	2516 Navy Drive Stockton, CA 95206	209/937-8763
Fire	Stockton Fire Department	209/464-4646 209/937-8411 911 (emergency)
Hill Brothers Chemical	Aqueous Ammonia	800/322-4119
Hospital ER Room:	St. Joseph's Hospital	209/943-200
Kemira	Ferric Chloride	941-533-5990
Linde/Union Carbide	Oxygen (gas):	800/822-4357
Meyer Control	SCADA support	707/974-9219
JCI Jones	Chlorine (90-ton)	eadamsom@jcichem.com
Poison Control Center:		800/876-4766
Police	Stockton Police Department	209/937-7911 911 (emergency)
Port of Stockton Police		209/946-0246
Sierra Chemical	Contact: Dennis Moore Sulfur Dioxide, Sodium Bisulfite, Sodium Hydroxide	800/777-8965
Spill Response	Toxic chemical and oil	800/253-2687
Siemens	Hydrogen Peroxide	800/566-1568 vickyh@snfhc.com
Univar Polydyne	Polymer Sodium Hydroxide	888/810-4787

CalChem	Polymer	209/525-3932
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Agency	Address / Area of Responsibility	Phone
Synagro	Biosolids Hauling	650/349-6780 510/772-2547
Sonitrol	Security	800/219-7462
Utilities:	Gas and Electric: PG&E: Telephone: AT&T	800/743-5002 800/750-2355

Organization Charts





CIP/Development

Construction

Engineering

January 2014

Introduction

The Emergency Response Plan (ERP) provides the City of Stockton Municipal Utilities Department (MUD) with standardized response and recovery actions to be taken during an emergency relating to the City of Stockton's wastewater facilities.

This plan details the wastewater system, critical system components, reporting procedures, notification requirements, response procedures, security, and an Incident Command System (ICS) in alignment with the Standardized Emergency Management System (SEMS).

The priorities of the ERP are to:

1. Protect human life;
2. Protect the environment;
3. Protect property; and
4. Maintenance of essential wastewater system operations.

The goals and objectives of this ERP are to document and understand the steps needed to accomplish the following tasks:

- Activate an emergency authority and ensure effective communication between all those involved in an emergency;
- Provide wastewater system information for first responders and other outside agencies;
- Supply an orderly and efficient transition from normal to emergency operations and back to normal operations;
- Provide emergency public information and local area assistance when required;
- Minimize impact and loss to customers and negative impacts on health, safety, and the environment;
- Restore wastewater service, minimize wastewater system damage and ensure continuity of operations.

MUD's ERP for wastewater is intended to supplement and support existing standard operating procedures, existing City of Stockton emergency response plans and procedures, and organizational goals and mission statements.

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4	Deputy Director	Water		
5	Deputy Director	Maintenance & Collections		
6	Regulatory Compliance Officer	Administration		
7	Safety Compliance Specialist	Administration		
8	Water Systems Superintendent	Water		
9	Maintenance Supervisor	Maintenance		
10	Senior Plant Supervisor	Maintenance & Collections		
11	Tertiary Plant Control Room	Wastewater		
12	Main Plant Control Room	Wastewater		
13	Chief Plant Operator	Wastewater		
14	Laboratory Supervisor	Wastewater		

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Section 1

Purpose

This section of the Emergency Response Plan (ERP) presents the City of Stockton's wastewater treatment and collection systems strategy for response to emergencies caused by natural disasters or other unfavorable conditions. The ERP specifies procedures that are to be followed in the event of an emergency involving hazardous chemical release, fire, natural disasters, terrorist, bomb threats, or other malevolent acts.

Although this plan provides a framework for emergency response, it does not identify and discuss every potential situation or problem that may occur during every possible emergency. Rather, it serves as the basis for more specific planning and checklists or Standard Operating Procedures (SOP's) to be developed by the people most likely to be required to respond to a given situation.

A situation may develop which requires immediate action in order to prevent serious danger to life, environment or property. In most cases, those who are on-site when they encounter the situation will make such time-sensitive decisions. Actions which could have a significant effect on other portions of the collections system, or which are considered major, should only be taken if they are absolutely necessary in the judgment of the personnel involved.

The purpose of the ERP is to identify potential emergency scenarios, provide for a timely and effective response action, and minimize injuries, facility damage, and disruptions of service, i.e., lessen the impact to the community. The ERP provides MUD with standardized response and recovery actions to be taken during an emergency relating to the City of Stockton collections system facilities. Specific Action Plans (AP) are included in this ERP (see Appendix B), and should be used when responding to specific events and incidents.

The onsite Emergency Operations Center (EOC) is located in the Main Plant Operations Control Room. For large-scale emergencies, the County Office of Emergency Services (OES) will be utilized.

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Section 2

Mutual Aid Agreements

The City of Stockton, as part of the State of California's Mutual Aid System, has established emergency planning partnerships with other parties who have agreed to assist the utility in an emergency event. A list of these agencies and a brief description of their emergency responsibilities (Emergency Planning Partners) for both water and wastewater utilities is provided on [page iv](#).

Mutual aid agreements and shared resources are available in the event of an emergency depending on the type and magnitude of the incident. City and County mutual aid resources are activated upon corresponding Emergency Operations Center (EOC) activation; State resources are available upon declaration of a disaster area by the Governor. Federal resources are available in the event of a Presidential declaration of disaster. Information concerning these resources and agreements may be obtained by the representative response-planning agency at each level (City OES, CalEMA, and the National Response Center). Mutual Aid Resources and contact numbers available to the water, wastewater and stormwater utilities, depending on the type of emergency are included on [page iii](#). In addition, the "Multi-agency Response Guidance for Emergency Drinking Water Procurement and Distribution" is produced by the Governor's Office of Emergency Services and is included on [page iv](#).

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Section 3

Wastewater System Description

Approximately 923 miles of sanitary sewer mains and 23 pumping stations connect customers of the City of Stockton with the wastewater treatment facilities. MUD serves a population of 291,141 (2006 census) customers through over 73,000 connections. The Stockton Regional Wastewater Control Facility (RWCF) is located on the San Joaquin River in Southwest Stockton. Treatment processes include pretreatment, primary, secondary, and tertiary. The facility is designed to treat a flow of 55 million gallons per day (MGD). Operating 24 hours a day, the average daily flow is 33 MGD.

General Owner/Operator Information

NPDES Permit Wastewater:	No. CA0079138	
NPDES Permit Stormwater:	No. CAS 083470	
System Owner/Operator	City of Stockton Department of Municipal Utilities 425 N. El Dorado Street Stockton, CA 95202-1997	
Treatment Facility	Stockton Regional Wastewater Control Facility (RWCF) 2500 Navy Drive Stockton, CA 95206	
Number of Service Connections/Population Served	73,000 service connections	291,141 population
Miles of Sanitary Mains/Number of Pumping Stations	923 Miles Sanitary mains	23 Pump Stations
Type of Treatment Provided	Primary, Secondary, and Tertiary	
Treatment Capacity	55 MGD Primary and Secondary	55 MGD Tertiary
Treatment Plant Discharge	San Joaquin River	
Miles of Storm System	620 miles of storm line	77 Storm Stations

Wastewater Treatment Plant Information

The Plant Flow Diagram is on page 11, followed by specific building layouts on page 17 and 19, and a topograph map on page 13.

Headworks

Influent flow enters the Headworks through an influent collection structure, which distributes it into four (4) screening channels. Each channel contains a mechanically cleaned bar screen. Following screening, the flow is distributed to six (6) grit removal channels. The influent raw sewage continues to flow through the Headworks into six (6) Parshall flumes. Following the Parshall flumes, sewage flows through four (4) channels that convey it to the influent pump station wet well. Sewage is then pumped to the primary influent distribution structure.

Primary Treatment

The primary treatment process consists of eight (8) primary sedimentation tanks. All the tanks (with the exception of #5 and #6) use chain-and-flight scraper mechanisms to convey settled solids to the end of each tank. Tanks #5 and #6 use circular scraper mechanisms to convey solids to a center hopper. Primary scum is collected from the surfaces of the tanks and pumped to the primary scum thickener located near the digester facility. After thickening, scum is pumped directly into the digesters. Eight (8) primary sludge pumps are used to transfer primary solids to the gravity thickeners or anaerobic digesters. Two (2) pumps are provided for each pair of sedimentation tanks. One (1) pump is used to pump solids from both tanks while the other pump provides standby capacity. Gravity settled solids are then pumped to the anaerobic digester.

The Enhanced Primary Treatment (EPT) system consists of two (2) chemical dosing processes. The first process injects ferric chloride solution into the influent wastewater stream, prior to the bar screens, using one (1) of two (2) available 4.4 gpm capacity, positive displacement pumps. The ferric chloride solution (typically 25-40%) is contained in two (2), 10,000-gallon capacity storage containers, which are located within a concrete, secondary containment structure. The containers are located directly adjacent to the north side of the primary sedimentation basins.

Eyewash/shower stations are located both within the ferric chloride containment structure and outside the containment structure, in case of chemical contact.

Secondary Treatment

Three biotowers provide secondary treatment. Flow is pumped from the biotower pump station and distributed using motorized arms. Effluent flows by gravity to the recycle pump station and effluent channel. Treated flow either returns to the biotowers through the recycle channel and pumps or continues flowing by gravity through the effluent channel to the secondary sedimentation tanks. Four (4) circular sedimentation tanks are used to separate secondary effluent from solids in biotower effluent. Secondary effluent pumping is provided by two (2) pump stations that convey flow to the pond system. The secondary sedimentation tanks are each configured with a single progressing cavity

sludge pump that conveys underflow to the gravity belt. Thickened sludge is pumped to the anaerobic digester.

The RWCF uses three (3) facultative ponds with a total surface area of approximately 450 acres with an average depth of six (6) feet. Treatment processes occurring in facultative ponds vary seasonally and include nitrification, denitrification, ammonia removal, and microbial decomposition/ stabilization of organic material (biochemical oxygen demand [BOD] reduction), heavy metals removal due to large surface area created by algae blooms. In addition to the wastewater quality benefits, the ponds provide significant storage capacity for equalizing flow and mass loading on the tertiary treatment plant. Wastewater levels will be drawn down in the ponds during the summer and fall to provide additional storage during winter storm events. The ponds are designed such that Ponds 1, 2, and 3 can be operated in series or in parallel. Pond 4 operates as a constructed wetlands that provide additional treatment.

The Tertiary Raw Wastewater Pump Station includes four (4) vertical turbine pumps that deliver pond effluent to two nitrifying biotowers where the effluent goes to the raw water channel, where it is pumped to the dissolved air flotation system and filter systems. The flotation system includes four (4) circular dissolved air flotation (DAF) thickeners and ancillary equipment that are designed to remove algae from pond effluent prior to filtration.

A polymer addition system is used to provide coagulant aid to the tertiary treatment processes. The polymer system includes two bulk storage tanks that can be filled from trucks, transfer pumps, a two-batch day tank, and circulation pumps. The circulation pumps are used in a pressurized loop that allows injection at the DAF tanks. The polymer dose is set manually at each DAFT.

The tertiary treatment plant includes six (6) deep-bed, dual-media filters. The filters have a conventional design that uses sand and anthracite filtration media. The Filtered Wastewater Pump Station includes three (3) vertical turbine centrifugal pumps that convey filtered wastewater to the chlorine contact channel. The filters have a backwash system that uses filtered wastewater that is pumped from the chlorine contact basin to clean the filters. Backwash is conveyed to a backwash pond where solids can settle and be removed periodically by dredging. Backwash wastewater is pumped from the pond to the facultative ponds. An air scouring system is used to assist the backwash operation.

~~A curved, trapezoidal channel is used to provide chlorine contact time for disinfection. Chlorine solution is injected at the head end of the channel, and sulfur dioxide solution is injected at the tail end to remove chlorine residual. Disinfected and dechlorinated flow is conveyed through a siphon to the San Joaquin River. The chlorine delivery and storage system consists of a rail spur that can accommodate two (2) 90-ton railcars used to store bulk liquid chlorine. Liquid chlorine is piped to evaporators installed in an adjacent building. After evaporation, chlorine gas is conveyed in piping to the filtered wastewater pump station. There it is mixed with wastewater in injectors to produce chlorine solution, which is injected into the chlorine contact basin.~~ REMOVED

Anhydrous ammonia (19%) is pumped from a 4,500 storage tank to the inlet of the filtered water pump station. When pumped to the chlorine contact basin, a reaction

happens with chlorine to form chloramines, which is an optional form of disinfection. From time-to-time, the plant has some residual ammonia in the wastewater and the operator will not use the anhydrous ammonia as a source, but the naturally occurring ammonia.

The sulfur dioxide storage system consists of a horizontal steel tank housed inside a containment structure. Liquid sulfur dioxide is piped to evaporators installed in an adjacent building. After evaporation, sulfonators convey gas to injectors where gas is mixed with water to make a sulfur dioxide solution, which is injected into the chlorine contact channel to reduce residual chlorine.

Solids Handling

The RWCF has two (2) circular gravity thickeners, which are used to thicken primary sludge. Primary sludge is pumped into a flow-splitting structure where flow is evenly divided between the two (2) thickeners. Ferrous chloride is injected to bind hydrogen sulfide and enhance solids capture and thickening. Overflow from the thickeners is routed to a recycled pump station that conveys the flow back to the primary treatment system. Thickened sludge is pumped to the digester complex.

The Gravity Belt Thickener (GBT) system consists of two (2), three-meter units used to thicken secondary sludge by using a cationic emulsion polymer dosing system. The polymer is supplied in 280-gallon totes (typically, two (2) in number) that are further contained in a concrete, secondary containment structure. The GBT facility is a covered facility located on the northwest side of the Dewatering Building. There are emergency eyewash/shower facilities at the GBT in case of contact with sludge or polymer.

The anaerobic sludge digestion system consists of three (3) million gallon digesters. High-rate pump mixing is provided by centrifugal pumps. Sludge is removed from the bottom of the digester using progressing-cavity pumps or through overflow boxes at the top of the digesters. Sludge is heated in spiral heat exchangers using hot water from the cogeneration system. Digester gas is routed to a low-pressure gas storage tank.

The cogeneration complex includes three (3) 1,050-kW engine generators designed to operate on digester gas or natural gas (the system is not designed for using mixed gas). The system is operated to minimize the electricity consumption from the utility feed and to provide heat to the anaerobic digestion system. Excess heat can be rejected to the atmosphere using air-cooled radiators. In addition to the gas-driven engines, a diesel-driven 1,750-kW generator is available to provide standby power.

A sludge lagoon provides emergency flow equalization. Stored solids will be removed from the lagoon by a contractor. Once the sludge has been treated for pathogens in the digester, it is called biosolids.

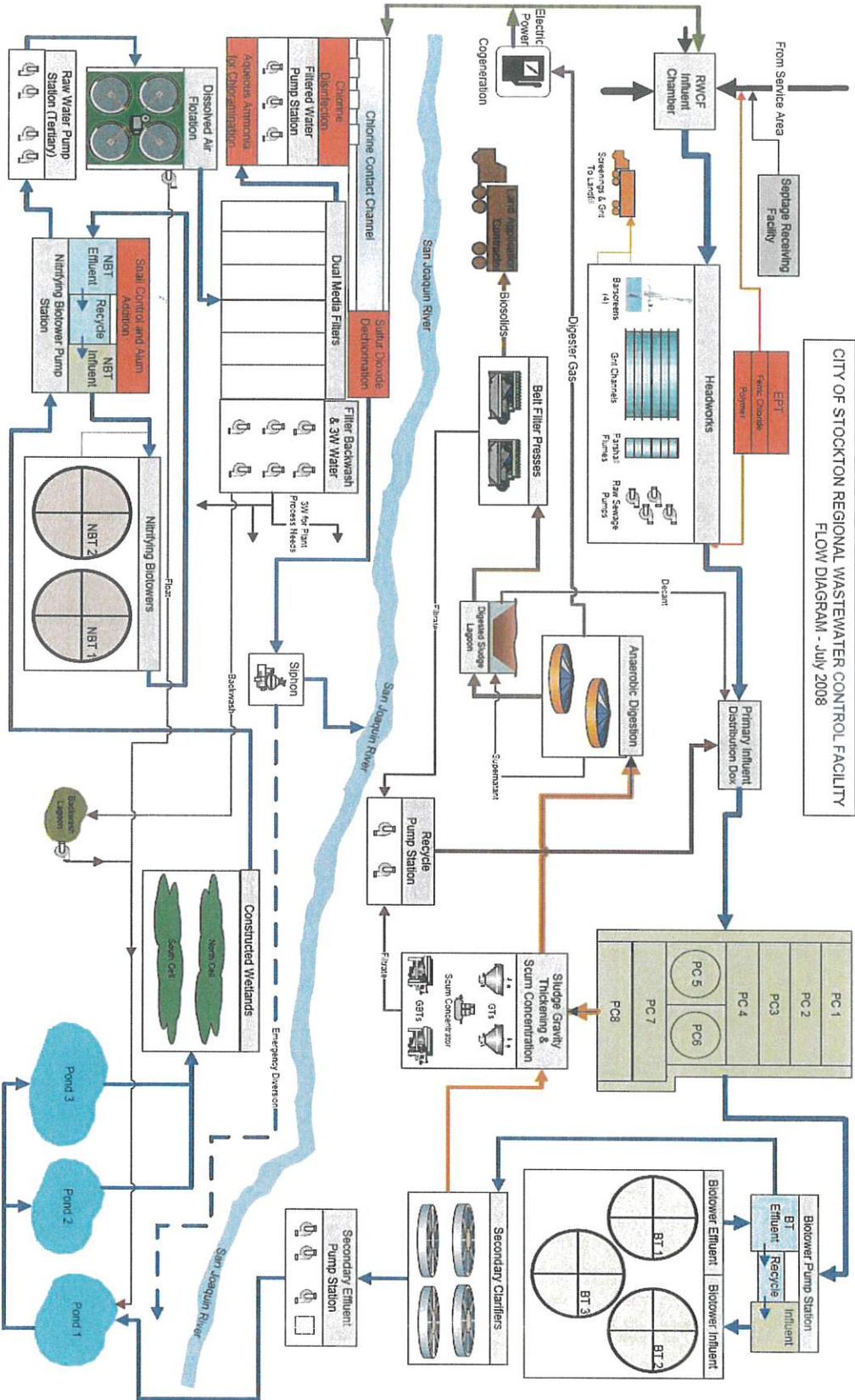
Biosolids from the active digesters 4 and 5 is routed to digester c, which is utilized as a holding tank. Operators pump from digester C to holding tanks at the press building where two (2), 2-meter filter presses are used to dewater solids from the digesters. Solids are conditioned with polymer solution prior to dewatering. Dewatered cake is pumped to a truck loading station using positive-displacement pumps. Filtrate is

conveyed to the Recycle Pump Station. Dewatered cake is conveyed to a flat concrete slab with a push wall. The cake is loaded into trucks using a front-end loader. The cake, which meets Class B standards, is hauled offsite for reuse or farm fields as a soil amendment and rich source of nitrogen and phosphorus.

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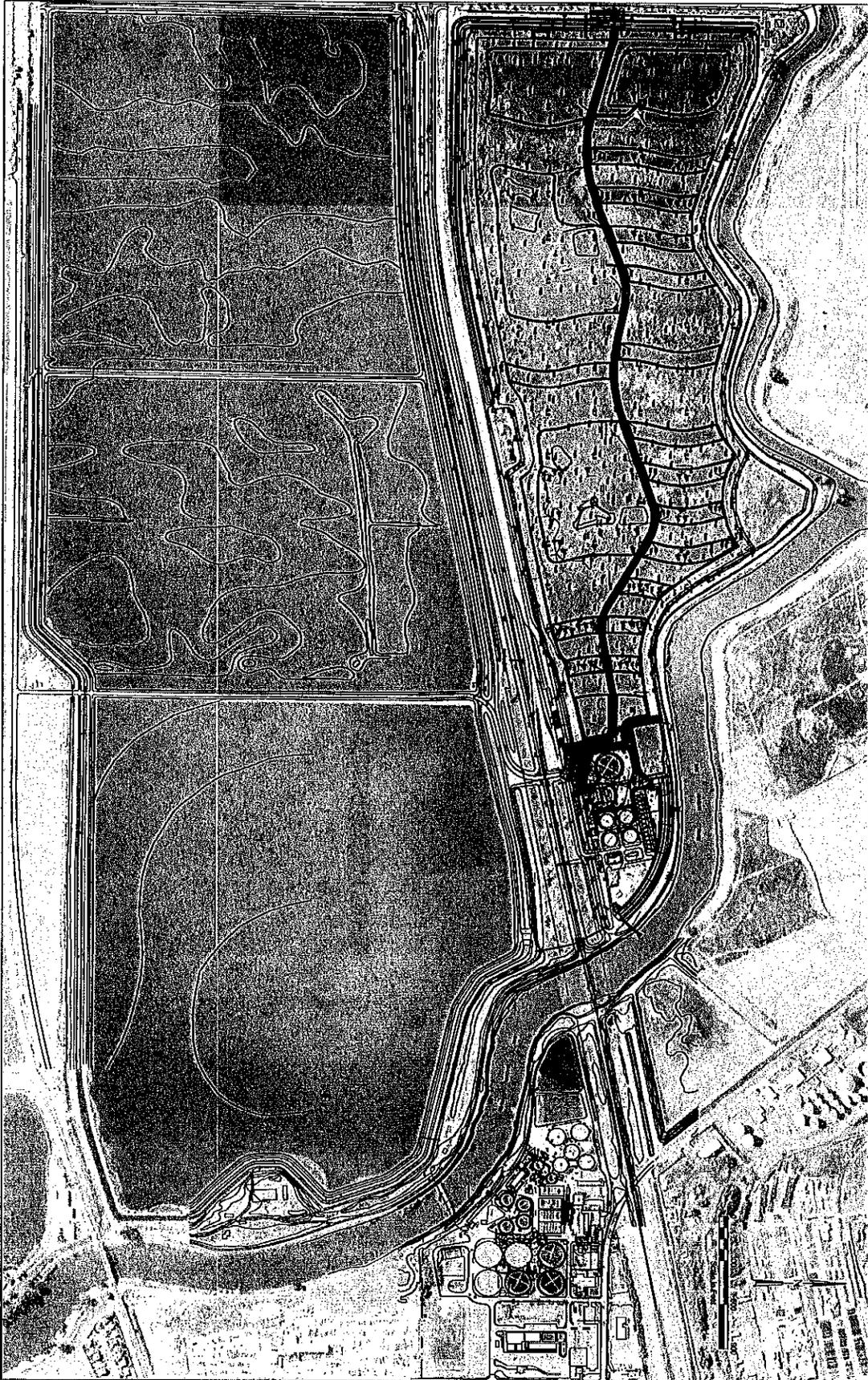
Facility and System Maps

Plant Flow Diagram



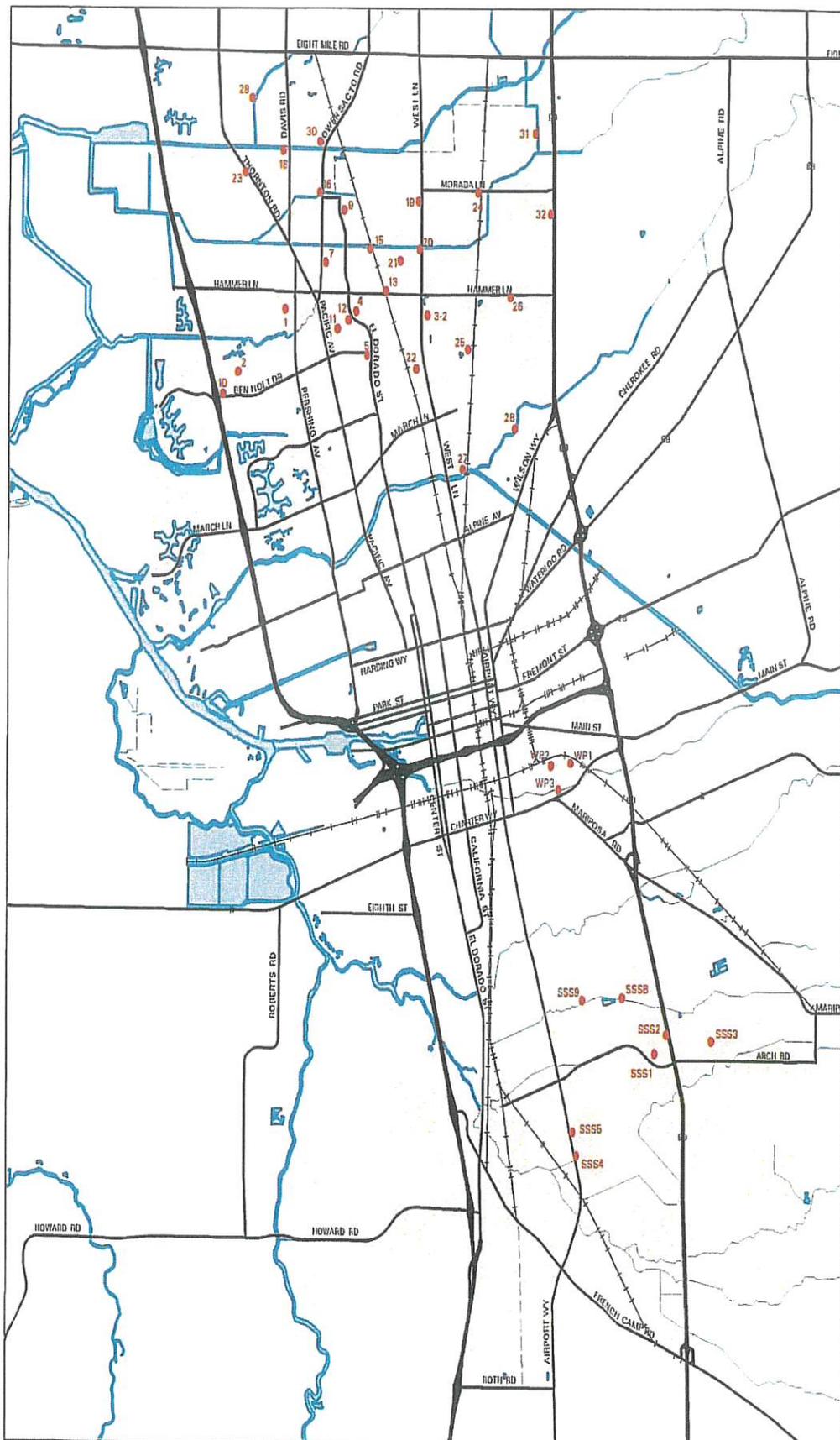
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Topographic Map of Plant

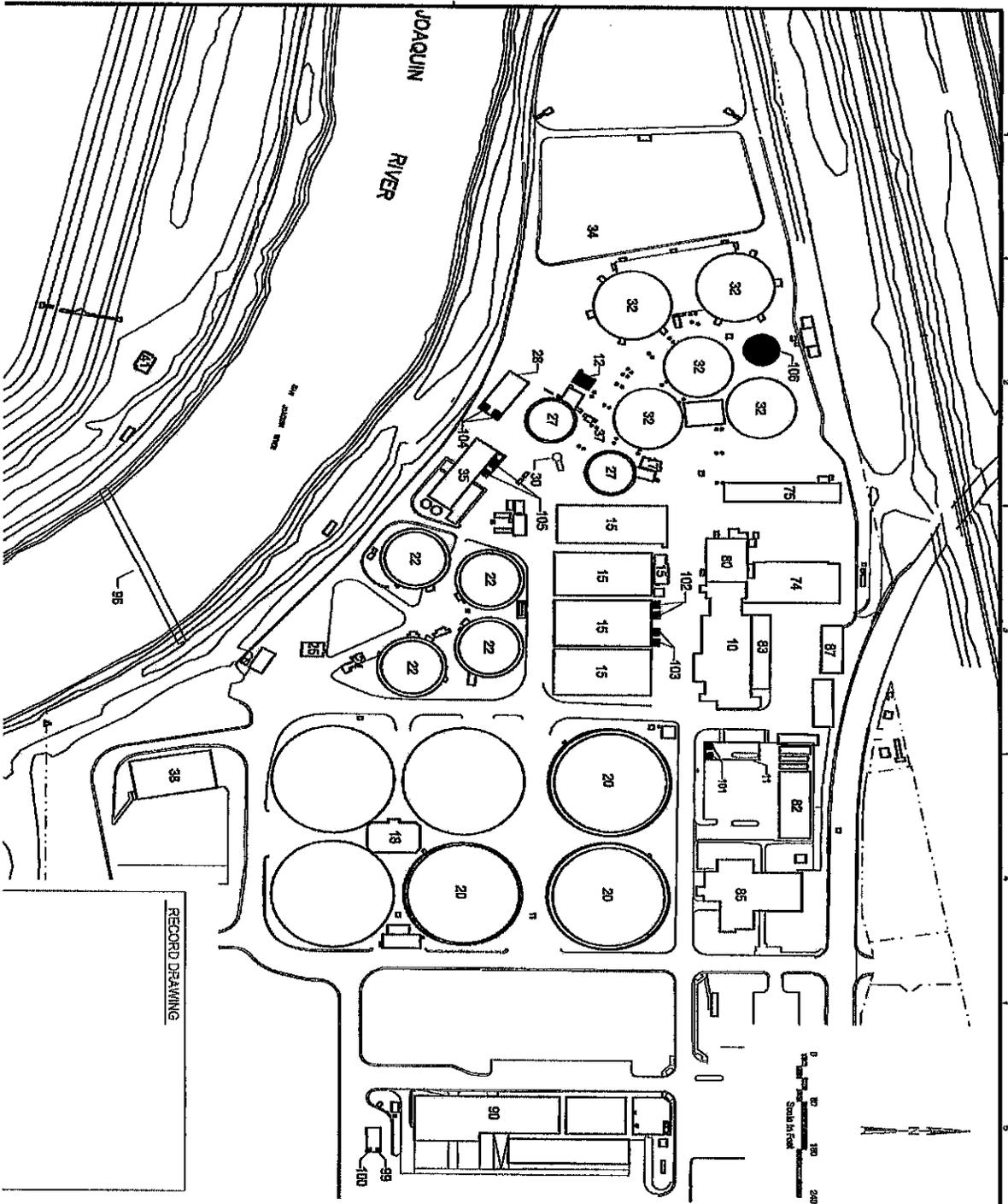


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Stockton Service Area Map - Water Wells



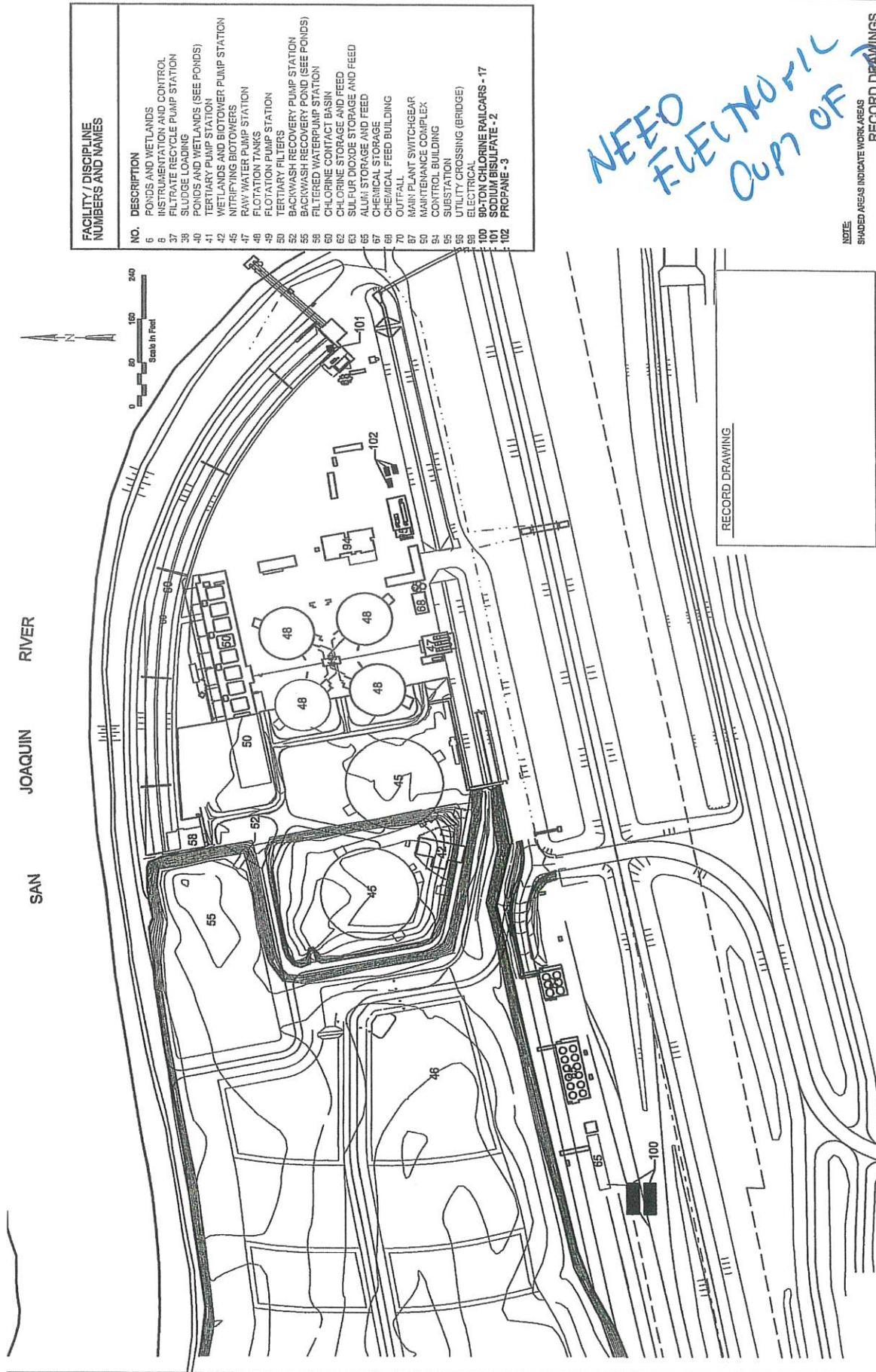
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NO.	DESCRIPTION	FACILITY / DISCIPLINE NUMBERS AND NAMES
10	HEADWORKS	
11	HEADWORKS ODOUR CONTROL	
12	FERRIC CHLORIDE STORAGE AND FEED	
15	PRIMARY SEDIMENTATION	
18	SHOTOWER PUMP STATION	
20	SHOTOWERS	
22	SECONDARY SEDIMENTATION	
24	SECONDARY EFFLUENT P.S. NO. 1	
25	SECONDARY EFFLUENT P.S. NO. 2	
27	GRAVITY THICKENERS	
28	GRAVITY BELT THICKENER STRUCTURE	
30	THICKENING RECYCLE PUMP STATION	
32	AEROBIC DIESTERS	
34	SLUDGE LAGOON	
35	SLUDGE DEWATERING BUILDING	
37	FILTRATE RECYCLE PUMP STATION	
38	SLUDGE LOADING	
74	COGENERATION BUILDING	
75	AUXILIARY COGENERATION BUILDING	
80	OPERATIONS BUILDING	
82	TECHNICAL SERVICES	
83	ENGINEERING OFFICE BUILDING	
87	ADMINISTRATION BUILDING	
89	MAIN PLANT SWITCHGEAR	
90	MAINTENANCE COMPLEX	
92	CONTROL BUILDING	
94	SUBSTATION	
95	UTILITY CROSSING (BRIDGE)	
98	ELECTRICAL	
99	GASOLINE STORAGE TANK - 2	
100	DRESS STORAGE TANK - 2	
101	POLYMER STORAGE TANK - 4	
102	CLARIFIER POLYMER WES-200 - 15	
103	FERRIC POLYMER - 2	
104	EMULSION POLYMER WES-200 - 15	
105	MANURE POLYMER - 15	
106	DIESELS GAS STORAGE - 2	

NOTE:
SHADDED AREAS INDICATE WORK AREAS

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NO.	DESCRIPTION
6	PONDS AND WETLANDS
7	INSTRUMENTATION AND CONTROL
27	SLUDGE RECYCLE PUMP STATION
30	SLUDGE LOADING
40	PONDS AND WETLANDS (SEE PONDS)
41	TERTIARY PUMP STATION
42	WETLANDS AND BIOTOWER PUMP STATION
45	WETLANDS AND BIOTOWER PUMP STATION
47	WETLANDS AND BIOTOWER PUMP STATION
48	WETLANDS AND BIOTOWER PUMP STATION
49	WETLANDS AND BIOTOWER PUMP STATION
50	WETLANDS AND BIOTOWER PUMP STATION
52	WETLANDS AND BIOTOWER PUMP STATION
55	WETLANDS AND BIOTOWER PUMP STATION
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63	WETLANDS AND BIOTOWER PUMP STATION
64	WETLANDS AND BIOTOWER PUMP STATION
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100	80-TON CHLORINE RAILCARS - 17
101	SODIUM BISULFATE - 2
102	PROPANE - 3

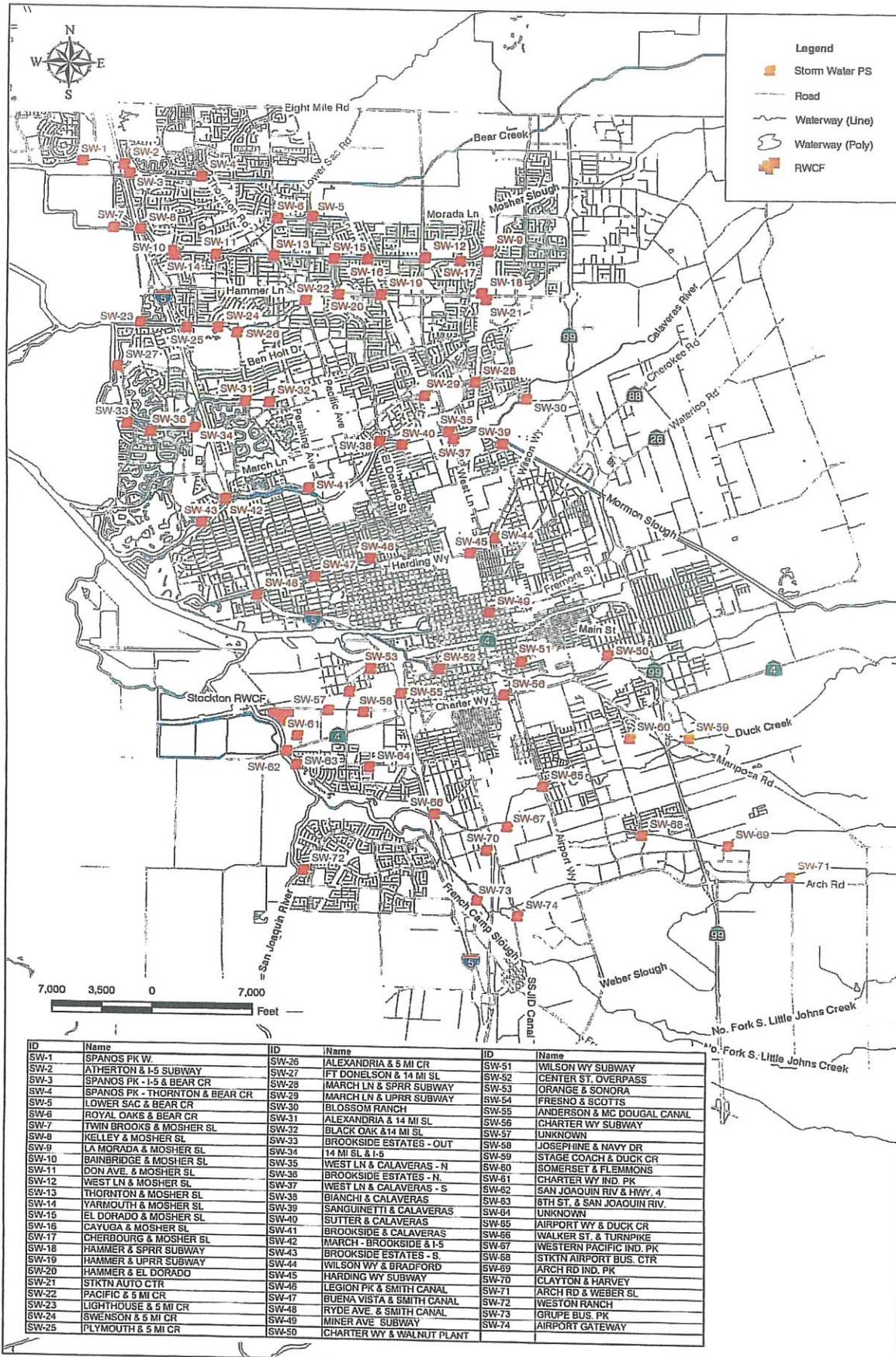
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NOTE: SHADED AREAS INDICATE WORK AREAS
RECORD DRAWINGS

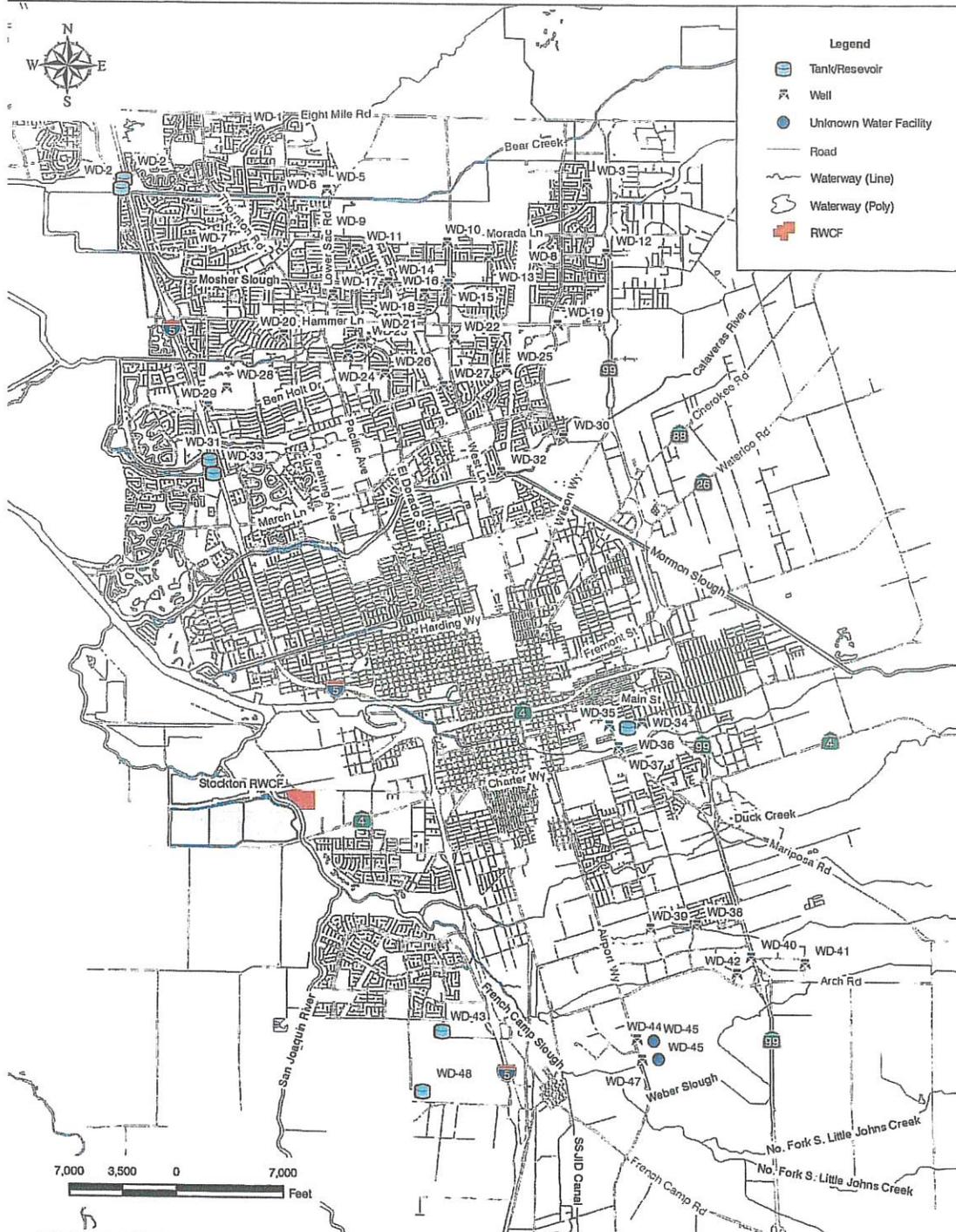
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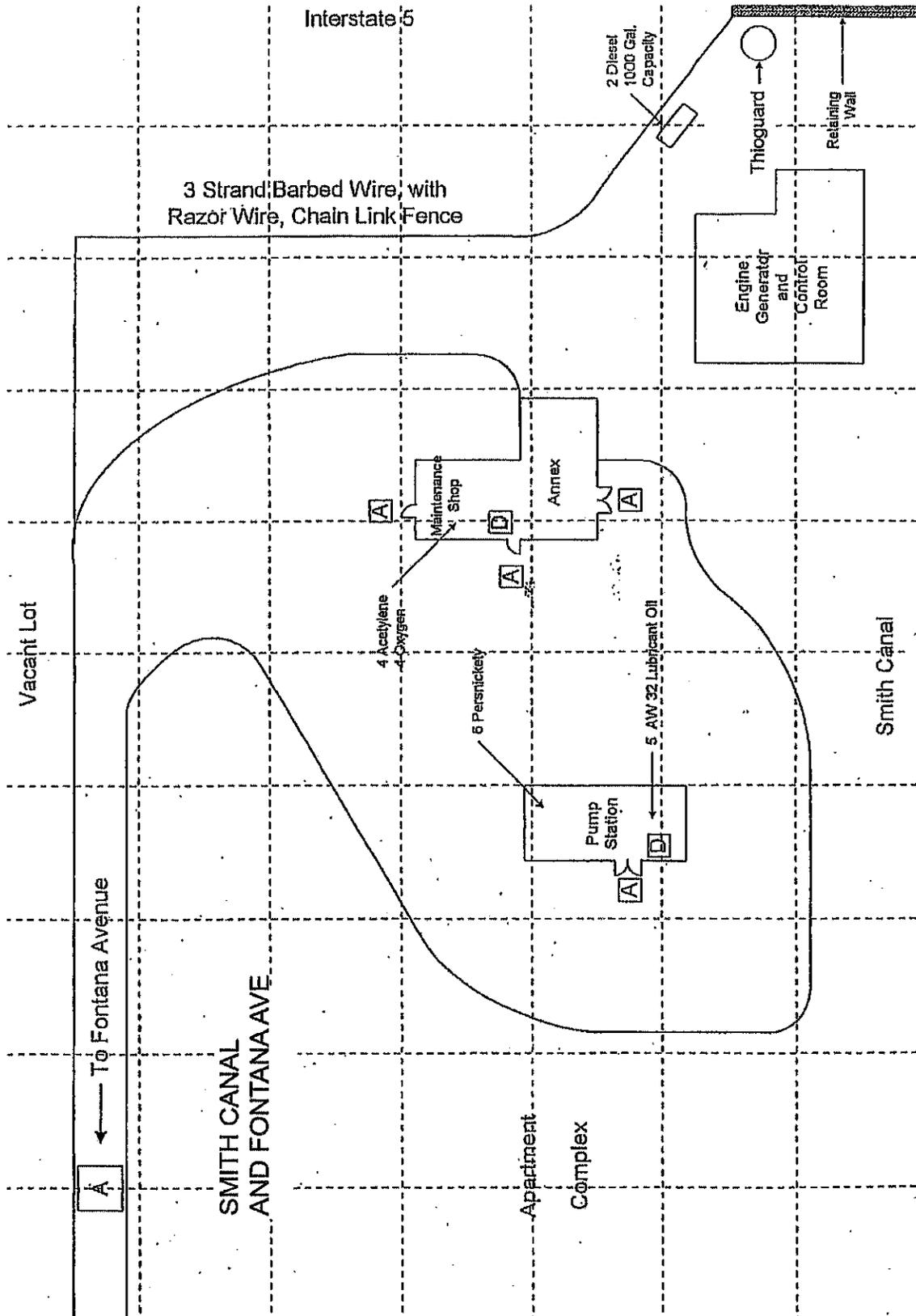


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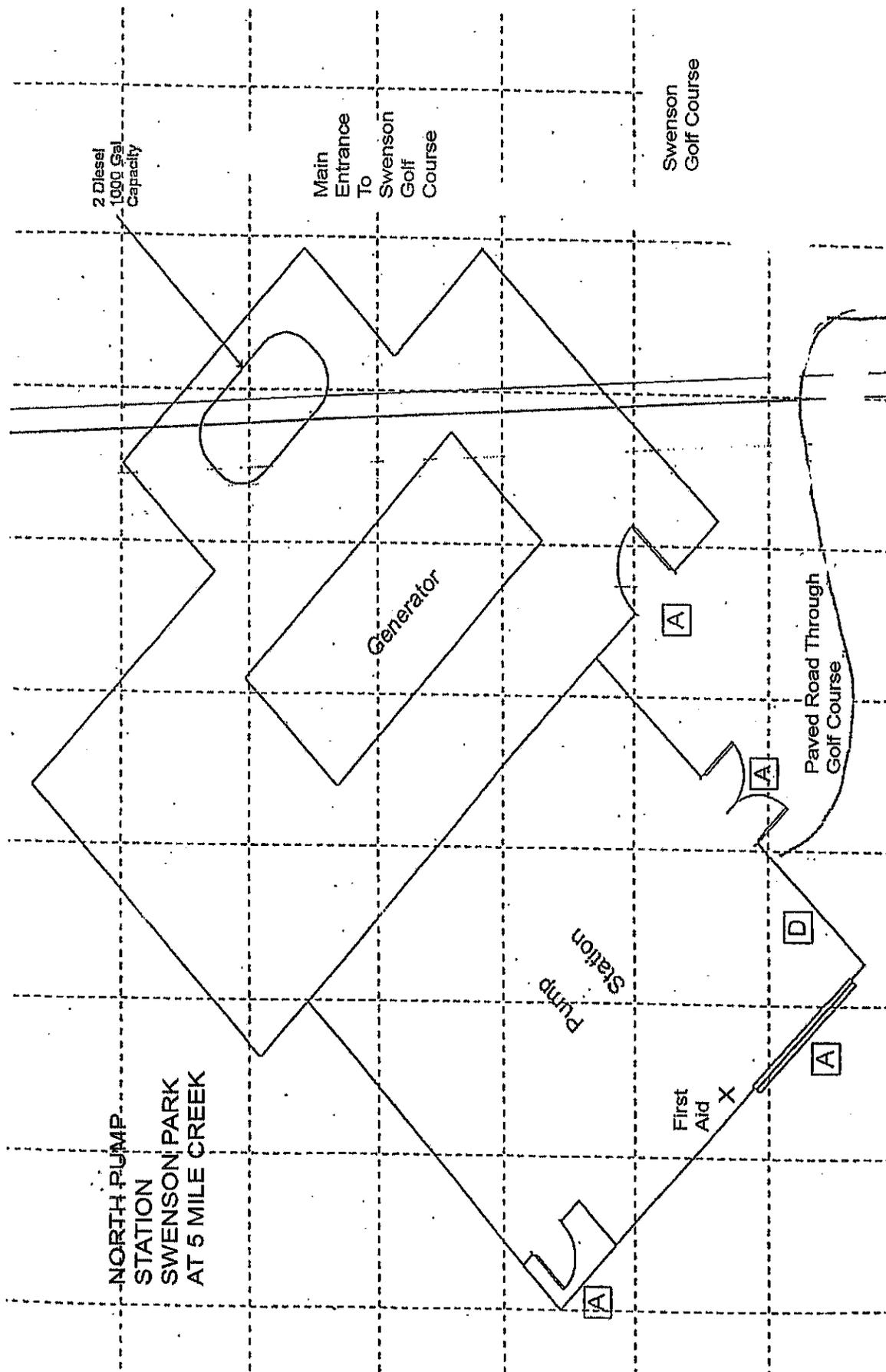


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WD-2	NW RES. SITE	WD-18	WELL #13	WD-34	WELL WP1
WD-3	WELL #31	WD-19	WELL #26	WD-35	WELL WP2
WD-4	NW RES. SITE	WD-20	WELL #1	WD-36	WELL WP1 TANK
WD-5	WELL #30	WD-21	WELL #4	WD-37	WELL WP3
WD-6	WELL #18	WD-22	WELL #3-2	WD-38	WELL SSS8
WD-7	WELL #23	WD-23	WELL #12	WD-39	WELL SSS9
WD-8	WELL #24	WD-24	WELL #11	WD-40	WELL SSS2
WD-9	WELL #16	WD-25	WELL #25	WD-41	WELL SSS3
WD-10	WELL #19	WD-26	WELL #5	WD-42	WELL SSS1
WD-11	WELL #9	WD-27	WELL #22	WD-43	WESTON RANCH RES. SITE
WD-12	WELL #32	WD-28	WELL #2	WD-44	WELL SSS5
WD-13	WELL #17	WD-29	WELL #10	WD-45	UNKNOWN
WD-14	WELL #15	WD-30	WELL #28	WD-46	UNKNOWN
WD-15	WELL #20	WD-31	14 MI. SL. RES. SITE N.	WD-47	WELL SSS4
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Section 4

Critical System Components

As part of the Vulnerability Analysis (VA) completed for the City of Stockton, select assets and/or system components were identified as critical to wastewater operations in terms of their impact on personnel safety, facility and equipment damage, process loss, environmental impact, and community impact. Generally, these are classified as “single points of failure,” indicating loss of the single asset would mean significant community impact or complete loss of the capacity of the treatment plant to treat incoming wastewater.

Critical Components

Critical System Component	Function
Main Plant Electrical Switchgear	All electrical power, including power generated by the cogeneration facility, is connected through the switchgear for distribution to the plant.
Influent Junction Box	All wastewater entering the treatment plant is directed to the junction box before entering the Headworks. There are no options for bypass of this structure.
Influent Pumps (Raw Sewage Pumps)	The influent wastewater is pumped from the entry level elevation to the primary treatment structures.
Primary Influent Discharge Structure	This structure directs the incoming wastewater to the first phase of treatment. Once the wastewater passes this stage, there are multiple paths and potential bypasses.
Chlorine Railcars	Chlorine gas is delivered to the plant in 90-ton railcars. Release of 90 tons of chlorine gas could potentially cause serious consequences for the City of Stockton and the 25-mile surrounding area (750,000 people).
SO ₂ Storage Tank	Sulfur dioxide is delivered to the plant by truck. Release of 66,086 lbs could potentially cause serious consequences for the City of Stockton and the 23-mile surrounding area (669,000 people).
Ammonia (19%) Solution	Anhydrous ammonia is a 19% solution delivered to the plant by truck. If the contents of the storage tank were released in a worse-case scenario, 24,350 pounds could cause consequence for a 1.2 mile radius, affecting approximately 890 people.
Smith Canal Sanitary Pump Station	The potential of a sewage spill would be high if Smith Canal (the largest of the system's pump stations) were unable to pump wastewater for an extended period.
Sanitary Trunk Lines	Emergency by-pass pumping would have to be done if a major trunk line is destroyed or fails.
Storm Water Pump Station	Should a pump station go down during a major storm event, there would be severe generalized flooding in the outfall Area.

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Section 5

Reporting Procedures

Introduction

The series of activities triggered by the discovery of possible emergency response incidents can be divided into three phases: (1) discovery, (2) assessment, and (3) response.

Discovery of Reportable Incident

When discovering an unusual incident, the first priority of the observing personnel is to determine whether the situation is immediately life threatening. If any circumstance poses an immediate danger to human health or safety, call 911 and then contact the appropriate agencies and utilities (page iv).

If the situation is not immediately life threatening, the discovering personnel should notify the Director of MUD or their designee.

Assessment of Reportable Incident

The Director of MUD or their on-duty designee will investigate the incident, evaluate the severity of the situation, and determine if the situation constitutes an emergency or reportable incident. The Director of MUD or their designee will communicate with management, direct the response of emergency support teams, and maintain communication with the Local Command Center (LCC) or Emergency Operations Center (EOC). A flowchart will also help with phone numbers and contact positions rather than names.

In the event of a potential emergency response incident at a field location, field personnel will immediately notify the Chief Plant Operator (CPO) or, if activated, notify the EOC. The Director of MUD or their designee will then proceed to make arrangements to contact management and, as necessary, available emergency responders.

Following evaluation of the situation, the Director of MUD or their designee will decide whether or not the situation is to be declared a reportable incident, and will discuss any findings with management. If appropriate, the Director of MUD or their designee will assume the role of Incident Commander (IC), activate this contingency plan, establish a plant EOC, and designate a safety officer.

Response

See Section 7, Response Procedures, and Section 9, Response Phase.

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Section 6

Notification Requirements

Appropriate and timely communication is vital to effective emergency response. When an emergency occurs, it is easy for panic and confusion to lead to a chaotic response effort, so it is imperative for the wastewater/stormwater systems to have previously established communication procedures in place. It is also crucial for the wastewater/stormwater systems to practice their communication and notification procedures on a regular basis to ensure that the procedures are actually effective during a real emergency.

An effective communication plan is more than just a telephone directory of employees and external contacts. Planning communications involves developing a notification hierarchy for reporting threat warnings and other critical information to appropriate individuals at each stage of the response. Notification plans should include wastewater/stormwater system staff and personnel, external wastewater/stormwater system entities, the public and media as appropriate. In general, communications and notifications should proceed along the chain of command. The number of people notified will increase as the incident expands and decrease as it contracts towards its conclusion. Depending on the nature of the situation, some of these notifications should be made immediately, while other notifications are not made until a later time, or not at all. The exact persons notified should be left to the discretion of the Incident Commander (IC) with interaction from the Public Information Officer (PIO), and the methods of notification should be planned in advance. Local requirements may influence the required communications and notifications at the various stages of an incident. In summary, it is important for wastewater/stormwater system response personnel to understand who has the responsibility and authority to make the appropriate contacts to outside agencies and what the procedures are for communications and notifications. The Regulatory Compliance Officer and the Deputy Director will work with the Chief Plant Operator and Laboratory Supervisor on notifications to regulatory agencies. Plant staff must contact personnel through the chain of command immediately in an emergency.

As part of the wastewater/stormwater system's ERP, internal and external notification lists should be maintained that contain the names of all appropriate entities to be contacted, including their names, titles, addresses, all applicable landline and cellular phone numbers, and pager numbers. These lists should be updated on a frequent basis as necessary. A critical wastewater/stormwater customer list is provided in at the start of this document.

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Response Procedures

Emergency Response Protocols

Emergency Response Levels

The Department of Homeland Security (DHS) discontinued the use of colors to indicate threat levels in 2011. Please go to: <http://www.dhs.gov/files/programs/ntas.shtm> for additional information.

At this time, MUD is testing social media such as Facebook, Twitter, and Email to convey threat levels to staff and the public.

The following Response Levels are determined by each situation and dictate the level of internal and external response activation.

1. **Normal Operations**

Minor emergencies, such as pipe breaks and valve failures that occur within wastewater systems on a routine basis, are conducted under normal operations. This includes localized events that affect few customers such as a sanitary overflow, pipe break, malfunctioning valve, or brief power loss. Utilities plan for minor emergencies and typically have staff and materials available to correct them. Required resources do not extend beyond the water utility and an “emergency response” is not warranted. If resolved quickly, minor emergencies will not become major emergencies.

2. **Elevated Condition**

Situations where a major emergency may be forthcoming; the Director of Municipal Utilities may declare an alert condition. This triggers the assembly of key decision makers and operational personnel to assess and monitor the situation. Events that might warrant an elevated condition would include a heightened Department of Homeland Security (DHS) threat level or approaching severe weather/wet weather storm response.

3. **Imminent Condition**

Situation where disruption is imminent or has occurred and full system resources, augmented by external resources (fire, police, public health), are required for appropriate response. The Director of Municipal Utilities should declare an emergency condition and the full response plan would be implemented and EOC activated.

OR

A declaration of a state of emergency is appropriate for the most serious scenario, usually involving the community-at-large. Typically, the Governor is authorized to declare a state of emergency, and this response level implies that the broadest resources available will be applied to the problem.

General Emergency Response Procedures

Actions

The following pre-disaster and post-disaster procedures are to be adhered to for the appropriate emergency response level.

1. **Pre-Disaster:** In addition to normal operating staff, one (1) supervisor and the on-call person will be stationed at the plant during any imminent pre-disaster period. Additional staff and supervisor will be on standby to be called in by the Director of MUD as needed. Other actions to be taken include:
 - a. Fuel and check all vehicles, pumps, and generators
 - b. Secure all windows and doors
 - c. Coordinate available vehicles for assignment
 - d. Pump down all outlying wet wells to ensure holding capabilities

2. **Post-Disaster:** All Supervisors and support personnel will report to the main plant immediately. The Chief Plant Operator should be notified if travel conditions are unsafe. Staging will be as follows:
 - a. Emergency Operations Center (EOC) may be activated by the Director of MUD. Direction and control of work assignments will be exercised from this point. All damage reports will be forwarded to the EOC for appropriate action to be taken.
 - b. In the event of a long-term emergency, rotating shifts will be established.

Section 8

Security

Threat Levels

Project Background

Protection of public health and the environment at municipal wastewater treatment facilities in the United States takes a multiple-barrier approach. These barriers often include protection of collection systems, treatment by advanced processes, maintenance of a disinfecting treatment and chemical process, and transfer of effluent. Collectively, these measures have been very effective in protecting the public health and environment. Wastewater systems have been identified as potential targets primarily based on the need for public treatment capacity and the potential use of chemicals that are normally stored at a treatment facility.

Public Law 107-188 (June 12, 2002), *Public Health Security and Bioterrorism Response Act of 2002* (the Act) required community wastewater systems to conduct a Vulnerability Assessment (VA) under the authority of the Environmental Protection Agency (EPA). Similarly, City of Stockton Municipal Utilities Department (MUD) requested that CH2M HILL complete a comprehensive VA that supports their mission of providing effective wastewater treatment for the citizens of Stockton, California.

Project Objectives

The comprehensive VA provides a systematic approach to evaluate the current systems and processes that are critical to the mission and operation of a wastewater utility. In addition, the process provides concrete steps to minimize risk.

The objectives of the VA are to provide information to improve:

- Public health and safety
- Environmental protection
- Protection of facilities from vandalism
- Measures to minimize the impact from a terrorist attack
- Measures to minimize insider threat
- Security of the workplace for employees
- Protection of computer access and data
- Security at critical assets and facilities

Project Methodology

The VA was performed using general procedures identified in the *Risk Assessment Methodology for Wastewater Utilities* (developed by Sandia National Laboratories [Sandia]) and the American Water Works Association Research Foundation

[AWWA RF], AWWA Research Foundation, 2001) adapted for assessment of wastewater utilities. The Risk Assessment Methodology for Wastewater Utilities (RAM-WSM) methodology is a performance-based approach that focuses on evaluating the effectiveness of the system as opposed to a checklist approach that ensures that specific measures are in place. The benefit of using the RAM-WSM is that it is a systematic method for providing due diligence for conducting a vulnerability and security assessment. Not all facilities can be evaluated to the same level of detail. The RAM-WSM provides methodologies to prioritize these facilities. Data collection and assessment was also supplemented using the Association of Metropolitan Sewerage Agencies (AMSA) checklists and methodology for wastewater utilities.

The following facilities/assets were evaluated as part of this assessment:

- Sanitary Pump Stations (23)
- Smith Canal Sanitary Pump Station
- Storm Water Pump Stations (77)
- Stockton Regional Wastewater Control Facility (RWCF) Main Plant
- Stockton RWCF Tertiary Facility
- Supervisory Control and Data Acquisition (SCADA)
- Warehouses/Stores

The CH2M HILL Security Team identified the wastewater system's mission-critical assets. After identifying these assets, the Security Team evaluated the current effectiveness of the physical protection system (PPS) and procedural measures for these assets. Then, based on the current effectiveness of the PPS, the Security Team developed the risk potentials for undesirable events, such as a malevolent attack by terrorists, vandals, computer hackers, insiders, and other identifiable groups on the wastewater facilities and collection systems.

The Security Team used the results of the assessment to develop recommendations to improve the effectiveness of the PPSs, and, if necessary, to modify the wastewater facilities and/or operations. By implementing these recommendations, Stockton MUD can help reduce risks to its wastewater/stormwater system(s). While these recommendations will provide a plan that improves the security of the Stockton MUD sanitary and stormwater systems, the Security Team does not guarantee protection of all MUD facilities from malevolent acts.

Critical Asset Identification

The critical facility characterization and fault tree analysis were conducted following the RAM-WSM methodology. Fault trees are logic diagrams that begin with a single undesirable outcome. The diagrams are then used to determine a chain of events required to produce the outcome. Fault tree development for Stockton MUD was based on a review of facility drawings, asset inspections, and discussions with utility personnel.

Current Effectiveness of Physical Protection System

Following the guidelines in the RAM-WSM process, the Security Team measured the effectiveness of the security system in place at the time of the assessment (November 2004). Effectiveness of the present security system was measured against the design basis threat (DBT), developed during the course of the assessment, and including a terrorist threat, an extremist threat, a threat from vandals, a cyber-threat, and an insider threat.

Based on the results presented, the consensus was that the present PPS for Stockton MUD critical facilities was “low” (L), except for the protection for the effectiveness of the Smith Canal Sanitary Pump Station which was rated “medium” (M) from the outsider threat and “low” (L) from the insider threat.

Recommendations

Recommendations based on the comprehensive VA performed for Stockton MUD are provided to support this risk reduction evaluation. Risk to several areas may be reduced significantly if Stockton MUD implements the recommended upgrades to the existing physical protection systems. These recommendations are based on current best management practices and have qualitatively been shown to improve the security of assets. However, the Security Team could not guarantee that the implementation of these upgrades would improve security at a level required to stop every possible threat or malevolent act.

The risk reduction evaluation is based on changes to the System Effectiveness or Consequence value in the risk equation. The implementation of a recommendation will positively impact one (1) or both of these inputs to the risk equation. These recommendations, based on industry practices, are expected to reduce the overall asset risk values when applied to the facility-specific high-risk assets.

Recommendations identified to represent three (3) identifiable areas in the operation include:

- **Operational:** Provide mitigation and response planning across the system operations.
- **Physical:** Provide increased security presence or an increase in the efficiency of the detection, delay, response cycle for PPS. If both the operational (which would reduce the overall consequence value) and the physical recommendations are implemented, the overall risk value could be reduced even lower.
- **Structural or System:** Generally overlap operational and physical protection recommendations; provide improvements surrounding the wastewater treatment operations.

Determination of reduced risk values was based on a reduction in the risk due to improved Physical Protection Systems (PPS) system effectiveness, reduced Asset Consequence, or a combination of these parameters. While the RAM-WSM approach focuses on the reduction of risk for critical assets defined as “high” it is inherent in the process that other facilities and components will benefit from the procedural

recommendations that are implemented. The Security Team identified the top four (4) vulnerabilities as follows:

- Tertiary Plant chlorine railcars
- Main Plant switchgear
- Main Plant influent channel
- Lack of entry control at both the main and tertiary plant

Recommendations to the PPS are more recognizable when evaluated against the cost of implementation. Operational recommendations can require low to significant financial investment to derive and implement. While these recommendations are not readily measurable, they offer a long-term benefit of increasing employee/personnel awareness and safety through standard practices. Operational recommendations are often comparable to the current safety procedures that personnel follow. Adoption of operational or procedural recommendations would be expected to reduce the risk value for facility-critical assets.

Incident Command System (ICS)

Overview

The foundation of the Company's emergency response plan is the Emergency Operations Center (EOC), which is operated through an Incident Command System ((ICS)(See Appendix F). This Emergency Response Plan is used as a tool for the Incident Commander and team members to guide their actions towards the continuance of proper service or the restoration of service. The Incident Commander approach relies upon pre-incident planning, checklists, and periodic drills and training to foster the utilization of any and all resources towards the continuance of proper service.

Initial Actions and Crisis Management

This section presents instructions for initial actions to be taken once an emergency situation is identified.

General

Every emergency situation follows these three general stages in sequence:

- **Initiation:** The event initially causing the emergency condition, for example, a power outage, flood, earthquake, fire, or equipment failure causing damage to system components or operation.
- **Propagation:** The progress of events resulting in the maximum extent of undesired consequences affecting the employees, the public or the environment.
- **Termination:** The slowing and eventual cessation of the emergency condition.

Under all emergency situations, response is organized into these five basic activities:

- **Recognition:** The identification of the severity of the emergency and its potential impact to essential water works components.
- **Evaluation:** The assessment of the necessary personnel, resources and activities needed to respond to the emergency situation.
- **Control:** The physical preventive or corrective work, which mitigates the emergency.
- **Communication:** The notification of those needed to respond to the emergency and those impacted by its effects.
- **Recovery:** Whatever is needed to be accomplished to bring the facility back to normal operating conditions.

Initial Response and Damage Assessment

Company employees, during a disaster or emergency are to report to their daily job location after assuring that their families are secure. When the Emergency Response Plan is activated, the Emergency Operations Center conducts status reporting. As needed, the Incident Commander may assign staff to respond to the scene of a major event in order to provide ongoing liaison and status reporting between the City and external agencies responding on scene.

Event Management

Event management refers to Leadership Team (LT) level management of a large-scale, fast-moving crisis exhibiting the following general characteristics:

- The need for wide coordination and cooperation with a variety of offsite responders including company officials, local law enforcement, public health care officials, medical treatment facilities, and possibly fire departments.
- The need for rapid notification of public officials so that public health and the environment can be protected as much as possible.
- The need for rapid mobilization of company and site resources to help contain the effects of the event(s).
- The strong likelihood of adverse media coverage.
- Event management arrangements for an emergency situation are described in the following sections.

Cooperation with City of Stockton and County EOC

San Joaquin County maintains a comprehensive emergency response plan, which is implemented when a major emergency occurs within its jurisdiction. The City of Stockton has an emergency response plan entitled the Multi-Hazard Functional Emergency Operations Plan (2013) and Action Checklists.

In the event of a potential emergency or disaster, the City and County will conduct an initial assessment, determine the need to alert other agencies and personnel, and set in motion the appropriate actions to reduce risk and potential impacts. Emergency response activities will be conducted in accordance with policies and procedures and may involve activating the City and County EOCs for coordination and support.

In the event that the City or County EOC is activated, Depending on the emergency scenario, the Director of MUD may choose to activate its EOC. Additionally, if an emergency originates within the water system, the Director may recommend the activation of the City/County EOC to assist MUD with the response activities and provide additional resources.

Activating the Regional Wastewater Facility EOC

The following list represents events that would potentially activate the MUD EOC. Activation may occur in the event of:

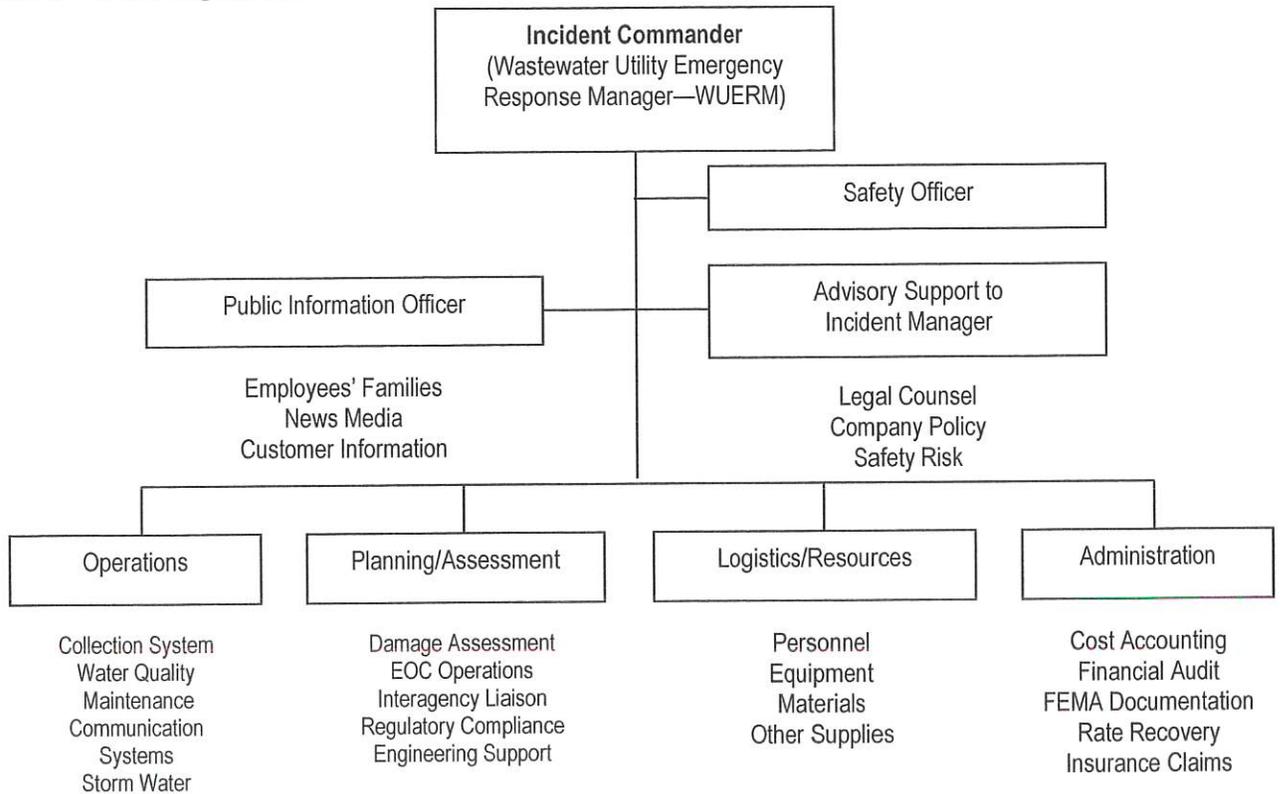
- An incident, which may affect the health and safety of employees or the public. This would include chemical spills or releases on MUD properties or from local industries that may affect field employees.
- Significant multiple incidents (natural or man-made) occurring at the same time that may affect MUD's ability to serve its customers.
- An incident that could lead to significant potential loss of property. Fires at MUD facilities or second alarm fire calls, floods, earthquakes, or terrorist/criminal acts fall within this category. A single emergency concerns more than MUD employees and equipment, such as fire departments.
- The event has a potential long resolution time (more than one (1) shift).
- Multiple departments are needed to resolve the problem.
- National Security Alert Level of an Emergency Condition or in a State of Emergency requires mandatory activation of the EOC.

Authority to Activate EOC

Who Initiates Call to Activate

- Departmental Supervisors (during normal work hours) or
- Anyone in field or office who finds conditions met
- On-Call Supervisor (after hours)

Figure 1 - SEMS Organization Chart for Stockton Wastewater System



Section	Primary	Alternate
Incident Commander	Director of Municipal Utilities	Director of Wastewater Operations
Operations	Deputy Director of Wastewater Operations	Chief Plant Operator
Planning/Assessment	Assistant Director of MUD	Principle Engineer
Logistics/Resources	Deputy Director of Collections	Collections Senior Supervisor
Administration	Chief Financial Officer	Assistant Controller
Command staff	Primary	Alternate
Public Information Officer	City of Stockton Assistant City Manager	City of Stockton Assistant City Manager
Advisory Support	Legal/VPs	Legal/VPs
Safety Officer	Safety Compliance Specialist	MUD Operational Risk Manager
Regulatory Compliance Officer	RCO	MUD Operational Risk Manager

Response Phase

Response is the actual provision of emergency services during a crisis. These activities are intended to reduce injuries, minimize facility damage, and facilitate recovery. Response activities include warning, isolating and controlling the problem, establishing temporary service, and other operations. General emergency response phase measures are supplemented by scenario-specific Action Plans (APs) in Appendix B.

Initial Response

When a situation occurs that is judged an emergency of suspicious nature, the person who first notices the situation should determine whether an immediate response by police, fire, or emergency medical services is necessary. If so, the individual should immediately call 911 to report the incident.

Next, the incident should be reported to a supervisor. General information that should be obtained by MUD employees in the event of an emergency includes the following:

- What has happened?
- What can be done about it?
- What is needed?
- Does the situation call for activation of the wastewater utility EOC by the Director of Municipal Utilities and/or reported through the 911 call center?
- What is the status of the MUD personnel, equipment, vehicles, communications capabilities, facilities, and other resources?

The employee/supervisor who first noticed the incident should take the following actions:

- Ensure personal and personnel safety first
- Notify the Chief Plant Operator, Deputy Director, or Director of MUD as soon as possible
- Remain in a safe location nearby to meet and assist medical, fire, and police personnel and other first responders, as necessary.

The City of Stockton has an emergency response plan entitled the Multi Hazard Functional EOP (2013) with corresponding Action Checklists. This EOP identifies the City emergency management organization and departmental roles and responsibilities. An Action Plan for the Municipal Utilities Department (MUD) Director is provided in the Plan. MUD Director and staff will provide support to the City of Stockton in an emergency.

Emergency Response Procedures and Protocols

Damage Assessment Procedures and Protocols

A damage assessment determines the extent of damage, estimates repair or replacement costs, and identifies the resources needed to return the damaged system to full operation. The damage assessment is accomplished during the emergency response phase of the event, before the recovery phase is implemented.

The Assistant Director of Municipal Utilities is responsible for establishing a Damage Assessment Team (DAT). DATs are typically led by an operations or maintenance supervisor, with representatives from engineering and procurement. Team composition may vary depending upon the nature and extent of the emergency. Damage assessment procedures should follow the guidelines established for system operability checks and determination of operability/serviceability. At a minimum, the DAT should complete the following activities:

- Conduct an initial analysis of the extent of damage to the system or facility
- Estimate the repairs required to restore the system or facility (the estimate should consider supplies, equipment, rental of specialized equipment, and additional staffing needs)
- Provide this estimate to the procurement representative for a cost estimate to conduct repairs.

Recovery Phase

The recovery phase occurs after emergency response actions are complete. Recovery, which is intended to return the affected facility or area to normal operations, is both a short-term and a long-term process. Short-term operations seek to restore wastewater service to the community. Long-term recovery focuses on restoring the system to its normal or an improved state. The recovery period is also an opportune time to institute mitigation measures, particularly those related to the recent emergency. Examples of recovery actions include completing repairs, replacing heavily damaged equipment, and reviewing emergency response actions.

The types of activities that could be conducted during the recovery phase include damage assessment, environmental consequence assessment, long-term protective action determinations, facility and/or environmental restoration, and dissemination of information.

Recovery Planning

During emergency response operations, the Director of Municipal Utilities should appoint a Recovery Manager. The Recovery Manager is responsible for selecting a recovery team and developing a recovery strategy prior to emergency termination. The Recovery Manager should be a senior operations representative familiar with the systems that may be affected by the emergency. He/she should have the responsibility and authority to coordinate recovery planning; authorize recovery activities; protect the

health and safety of workers and the public; and initiate, change, or recommend protective actions. Additional responsibilities include:

- Facilitate the transition from emergency to recovery operations
- Develop, implement, and maintain the Recovery Plan
- Coordinate all vendor and contractor activities that occur onsite
- Ensure that the appropriate safety inspections have been completed
- Coordinate the completion of emergency repairs and schedule permanent repairs
- Notify key agencies of emergency repair status and the scheduled completion of system repairs
- Complete permanent repair and/or replacement of system facilities
- Review press releases prior to submission to the Information Officer (IO)
- Release repaired facilities and equipment for normal use
- Replace or authorize the replacement of materials and supplies used in the emergency
- Document all recovery activities

The Recovery Manager determines the expertise and selects the personnel necessary for the recovery organization. In general, the composition of the recovery organization, which is based on the nature and extent of the emergency, includes the following:

- Technical advice to the Recovery Manager, which may include external experts such as industrial hygienists or fire protection specialists
- MUD personnel direction of post-incident assessment activities and analysis of results (maintenance, operations, and engineering staff would be expected to fill these positions)
- Director of Municipal Utilities responds to inquiries or concerns from employees, including results of incident investigations, the extent of onsite and offsite impacts, and the status of recovery operations

Recovery Activities

Following are examples of activities that might be directed by the Recovery Manager and executed by the recovery team after an incident or emergency:

- Notify all appropriate regulatory agencies that recovery phase is underway
- Install warning signs, barriers, and shielding as needed
- Take measures to protect workers and the public from hazardous exposures
- Complete detailed evaluations of all affected wastewater system facilities and determine priorities for permanent repair, reconstruction, or replacement at existing or new locations
- Begin repair activities design and make bids for contractor services

- Make necessary repairs to the system and un-tag repaired facilities and equipment
- Restore all telecommunications, data processing, and similar services to full operation
- Complete assessment of losses and costs for repair and replacement, determine approximate reimbursements from insurance and other sources of financial assistance, and discuss with the Financial Administrator how residual costs will be financed
- Define needs for additional staff, initiate recruitment process, and adopt temporary emergency employment policies as necessary
- Execute agreements with vendors to meet service and supply needs
- Address needs for handling and disposing of any hazardous waste generated during recovery activities
- Control discharges as a result of recovery activities within regulatory and environmental compliance levels
- Reevaluate need for maintaining the emergency management organization, consider returning to the normal organizational structure, roles, and responsibilities when feasible
- Collect cost accounting information gathered during the emergency and prepare request for Emergency Disaster Funds to MUD
- Debrief staff to enhance response and recovery efforts in the future by identifying lessons learned, developing action plans and follow-up mechanisms, and providing employee assistance program, if needed
- Prepare After-Action Reports, as required

Recovery Plan Development

The purpose of the Recovery Plan is to define the steps required to restore the system to normal operations. The initial outline of the Plan is developed during the emergency response phase. The Plan is not implemented until the emergency response phase is concluded and the Director of Municipal Utilities and/or appropriate authorities have approved the Plan. Recovery planning must also be coordinated with the appropriate external regulatory and response agencies.

The Plan should discuss the recovery management team, the plan of action, and the completion of the recovery phase. The plan of action should include procedures for incident assessment and investigation, recovery planning and scheduling, and restoration.

Termination and Review Phase

The termination and review phase is the process of closing out the event and ensuring all recordkeeping and photographs are well documented. This will facilitate reimbursement of costs incurred. In addition, a lessons-learned workshop is strongly recommended to ensure positive and negative actions are discussed and documented for future activities.

The Recovery Manager and the Director of Municipal Utilities will officially terminate the recovery phase when normal operations are resumed at all facilities affected by the emergency, including the following actions:

- Initiate permanent reconstruction of damaged wastewater facilities and systems
- Obtain inspections and/or certifications that may be required before facilities can be returned to service
- Restore wastewater systems operations and services to full pre-event levels
- Determine how emergency equipment and consumable materials should be replenished, decontaminated, repaired, or replaced
- Identify operational changes that have occurred as a result of repair, restoration, or incident investigation
- Document the recovery phase, and compile applicable records for permanent storage
- Maintain and submit important information, including accurate financial records of expenses associated with an emergency event for possible reimbursement
- Continue to maintain liaison as needed with external agencies
- Update training programs, MUD Wastewater ERP, and SOPs, as needed, based upon lessons learned during the emergency response and recovery phases of the event

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Section 10

Planning, Development, Maintenance, Training

The most well written emergency response plan is useless unless the people who must follow its provisions in an emergency are thoroughly familiar with their roles and responsibilities, and have practiced the actions required of them together with the other response team members. Also, the plan must be kept up to date and improved over time. This section describes the Stockton Wastewater ERP outline for training, drills, and documentation.

Emergency Response and Operations Training

Emergency response plans have the potential for failure due to lack of training and practice. Training provides the necessary means for everyone involved to acquire skills to implement their role during an emergency. Training on the ERP also may determine what works to ensure that revisions to the plan are made accordingly. This section of the ERP identifies the types of drills, exercises, and training that are conducted for MUD employees and describes training activities for the Wastewater Utility. (See Appendix B for Action Plans related to specific threat scenarios)

MUD employees receive awareness and safety training in their orientation class and updates are conducted for all employees. In addition, internal drills are conducted and exercises are coordinated with the City and fire department. A current roster of training records is maintained by the Health and Safety Specialist and Human Resources Manager.

MUD employees that are assigned to the Tertiary facility are provided an orientation class on the hazards of chemicals used, system operations, and Standard Operating Procedures (SOP). In addition, through on-the-job training, all employees are instructed and evaluated for proficiency and safety. Most collections, maintenance, and operations personnel are trained in the use of Self-Contained Breathing Apparatus (SCBA); some of the operations personnel are trained in the use of the chlorine repair "C" kits.

For the operators, training on chlorine safety and emergency response is conducted initially when hired and annually thereafter. This includes classroom training topics such as: characteristics and safe handling practices of chlorine and sulfur dioxide; procedures for reporting a chlorine release are detailed; and, SOPs for chlorine and sulfur dioxide response are also reviewed and practiced. In addition, employees are instructed on the Risk Management Plan/Process Safety Management Plan (RMP/PSMP) plans for important information on chlorine and sulfur dioxide.

Tailgate safety meetings are required to be conducted every week and include chemical handling safety and other topics. Some MUD personnel are trained in Cardio Pulmonary Resuscitation (CPR) and First Aid. In addition, those employees who are required to use SCBA as part of their regular job duties are fit tested annually for the proper respirator and trained in its use. Company personnel are encouraged to receive 40-hour Hazardous Waste Operator (HAZWOPER) training, first responder training, and emergency response training. Any wastewater system personnel who may respond to

emergencies should receive initial and refresher training classes on the Wastewater Utility ERP. This training is typically conducted annually or initially to all new employees. When changes are made to an emergency response procedure, this change is incorporated into the overall training program to ensure that all staff is made aware of the change.

Types of Training

The Wastewater Utility ERP training program consists of one (1) or more of the formats described below.

Orientation Sessions: include basic information and explanation of the ERP and action plan procedures. Written tests are used to ensure some level of comprehension by the attendees.

Tabletop Workshop: Develops scenarios that describe potential problems and provide certain information necessary to address the problems. Employees are presented with a fabricated major event and verbally respond to a series of questions to evaluate whether their responses match what is written in the ERP.

Functional Exercises: Use functional exercised designed to simulate a major event. A team of simulators is trained to develop a realistic situation. The simulation team sends information to personnel assigned to carry out the ERP procedures by using a series of pre-scripted messages. Both the simulators and personnel responding to the simulation focus on carrying out the procedures to test the validity of the ERP.

Full-Scale Drills: Emergency response personnel and equipment are actually mobilized and moved to a scene. A problem is presented to the response personnel, who respond to the scene as directed by the ERP.

For Functional Exercises and Full Scale Drills, MUD may invite outside agencies, such as first responders and other affected entities, to participate. The process would begin with a joint meeting between all of the participating parties to refine the details and schedule the exercise or drills. During the exercise, all the participating parties would provide observers to monitor the implementation of the ERP and the ability of the organizations to work together. After the exercise, a second joint meeting would be held to give the observers an opportunity to provide feedback regarding the effectiveness of the ERP, the success of each organization in contributing to the team, and the overall performance of the emergency response.

Program and Document Management

Program Administration

The Director of MUD is responsible for keeping this ERP current, enforcing its provisions, and coordinating emergency response planning with company and external entities. The Director of Municipal Utilities initiates a review of this Plan annually.

The Director of Municipal Utilities is responsible for interviewing incident participants (both company and off-site responders), preparing After-Action Reports, holding a post-incident critique session, following up on any committed actions resulting from critiques, and preparing and submitting incident follow-up reports to local, state, and federal agencies as required.

Action Tracking Procedure

Track actions affecting the Emergency Response Plan resulting from After-Action Reports, Tabletop and area-wide emergency response exercises, periodic plan reviews, employee suggestions, and any other source, until completed. The Director of Municipal Utilities maintains the attached Action Tracking Report form and updates it semi-annually.

The Action Tracking Report is in multi-column format.

Action Tracking Report Information Description

Ref. No.:	A unique number assigned to an action or group of actions presented in a single document or from a single source, such as an After-Action Report.
Source:	The document or source containing the text of the recommendations or where the recommendations originated.
Responsible Individual:	The person responsible to coordinate the activities associated with the recommendations. The activities involve deciding on the specific action to be taken based on a detailed review of the issues, and ensuring that the action is completed.
Evaluation Due Date:	The date by which the Responsible Individual is scheduled to complete the initial evaluation and determine the specific action to be taken.
Action Proposed:	The specific action to be taken to address the recommendation. The specific action should be to implement the recommendation as stated, to implement something similar to the recommendation that achieves the same result, or to decide not to implement the recommendation. If the action proposed is to implement something significantly different than the stated recommendation or to not implement the recommendation at all, then a clear and complete justification should be stated or referenced.
Action Due Date:	The date by which the Action Proposed is scheduled to be completed.
Current Status:	Self-explanatory. This column should contain the date of closure after closure occurs.
Closure Cert. By:	The individual certifying completion of the action.

Controlled Copy Distribution

Emergency Response Plan Controlled Copies and all revisions thereto are to be issued by the holder of the Master Copy by initialing and dating the **Controlled Copy Issuance Log** below. The receipt of each Controlled Copy and revision is to be acknowledged by the holder's signature on the Revision Record Page. Keep the original signed Revision Record Pages in each Controlled Copy issued, and file a copy of each signed Revision Record Page in this section of the Master Copy.

Controlled Copy Issuance Log

Copy No.	Issued To		Issued By	
	Name	Department	Initials	Date
1 (Master)				
2				

Periodic Required Activities Checklist

Activity Title/Reference	Frequency	Date		Date	
		Scheduled	Completed	Scheduled	Completed
Action Tracking Report Update	Semi-Annual				
Tabletop emergency response workshop	Annual				
Emergency Response Plan review and update	Annual				
Refresher training on Incident Commander and emergency operations	Annual				
EOC equipment and supplies inventory check	Annual				
EOC Functional Exercise	Every 2 years				

Action Tracking Report

Date of Report: _____ Reported By: _____

Ref No.	Source	Responsible Individual	Evaluation Due Date	Action Proposed	Action Due Date	Current Status	Closure Cert. By
1.							
2.							
3.							
4.							
5.							

Note: The Supervisor updates this report at least semi-annually. Record each update by using this form as a template and reprinting it with updated information.

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Appendix A

Glossary of Terms

TERM	GLOSSARY DEFINITION
Action Plan	Plan prepared in an Emergency Operations Center (EOC), unified command center, or field command post, containing the emergency response objectives of a specific Standardized Emergency Management System (SEMS) level reflecting overall priorities and supporting activities for a designated period. The plan is shared with supporting agencies.
Agency	Division of government that has a specific function or a non-governmental organization (e.g., private contractor, business, etc.) that offers a particular kind of assistance. In the incident command system, agencies are defined as jurisdictional (having statutory responsibility for incident mitigation) or assisting and/or cooperating (providing resources and/or assistance).
Agency Representative	Individual assigned to an incident from an assisting or cooperating agency that has been delegated authority to make decisions on matters affecting that agency's participation at the incident.
American Red Cross	A federally chartered volunteer agency that provides disaster relief to individuals and families. Major responsibilities include providing lodging, food, clothing, and registration and inquiry service.
AMSA	Association of Metropolitan Sewerage Agencies
ANSI	American National Standard Institute
APs	Action Plans
ASDWA	Association of State Drinking Water Administrators
Assisting Agency	Agency directly contributing tactical or service resources to another agency.
AWWA	American Water Works Association
AWWA RF	American Water Works Association Research Foundation
BCP	Business Continuity Plan

TERM	GLOSSARY DEFINITION
Bioterrorism Act	Public Health Security and Bioterrorism Preparedness and Response Act of 2002
BOD	Biochemical Oxygen Demand
CalARP	California Accidental Release Prevention
Cal EMA	Part of the Governor's office, the primary State agency responsible for the coordination and administration of statewide operations to support emergency mitigation, preparedness, response, and recovery activities within California.
CAMAL Net	California Mutual Aid Laboratory Network
Care and Shelter	A function that provides food, clothing, and housing needs for people on a mass care basis.
CCR	California Code of Regulations
CDC	Centers for Disease Control and Prevention
CDPH	California Department of Public Health
CFR	Code of Federal Regulations
Chain of Command	Series of management positions in order of authority.
Checklist	A list of actions taken by an element of the emergency organization in response to a particular event or situation.
CHEM TREC	(CHEMical TRansportation Emergency Center) is dedicated to assisting emergency responders deal with incidents involving hazardous materials. 24-hour HAZMAT Communications Center Hot line: 1-800/262-8200.
Collection System	Sanitary and stormwater gravity, pump stations and force mains that convey the sanitary to a treatment facility and stormwater to the local waterways.
Confirmatory Stage	The third stage of the threat evaluation process from the point at which the threat is deemed "credible" through the determination that a <i>contamination incident</i> either has or has not occurred.

TERM	GLOSSARY DEFINITION
Confirmed	In the context of the <i>threat evaluation</i> process, a wastewater contamination incident is “confirmed” if the information collected over the course of the threat evaluation provides definitive evidence that the wastewater has been contaminated.
Contamination	Deposits of radioactive or other toxic materials that occur on the surfaces of structures, areas, objects, people's bodies, flora, and fauna.
Contamination Site	Location where a contaminant is known or suspected to have been introduced into a wastewater system. For example, a distribution system storage tank where a security breach has occurred may be designated as a suspected contamination site. The contamination site will likely be designated as an <i>investigation site</i> for the purpose of <i>site characterization</i> .
Contingency Plan	A sub or supporting plan that deals with one (1) specific type of emergency, its probable effect on the jurisdiction, and the actions necessary to offset these effects.
Cooperating Agency	Agency supplying assistance, other than direct tactical or support functions, or resources to the incident control effort (e.g., Red Cross, telephone companies).
Coordination	Process of systematically analyzing a situation, developing relevant information, and informing the appropriate command authority of viable alternatives for selection of the most effective combination of available resources to meet specific objectives. The coordination process (which can be either intra- or inter-agency) does not involve dispatch actions. However, personnel responsible for coordination may perform command or dispatch functions within the limits established by specific agency delegations, procedures, legal authority, etc.
CPR	Cardio Pulmonary Resuscitation
Credible	In the context of the <i>threat evaluation</i> process, a wastewater contamination threat is characterized as “credible” if information collected during the threat evaluation process corroborates information from the <i>threat warning</i> .
Credible Stage	The second stage of the threat management process from the point at which the threat is deemed “possible” through the determination as to whether or not the threat is “credible”.

TERM	GLOSSARY DEFINITION
DAFT	Dissolved Air Flotation Thickener
DAT	Damage Assessment Team
dBA	Decibels A-scale
Decontamination/Contamination Control	<p><i>Radioactive Materials:</i> The reduction or removal of radioactive material from a structure, area, person or object. A surface may be treated, washed down, or swept to remove the contamination. Contamination can also be controlled by isolating the area or object contaminated and letting the material stand. <i>Other Hazardous Materials:</i> Decontamination consists of removing contaminants or changing their chemical nature to innocuous substances. Contamination control is facilitated by containment such as diking.</p>
DHS	Department of Homeland Security
Disaster Service Worker	Any person registered with a disaster council or State OES to provide disaster service without pay. Disaster service workers include public employees, registered volunteers, and persons pressed into service during an emergency by persons authorized to command such services.
DOT	Department of Transportation
DPC	Distributed Process Controllers
DPH	Department of Public Health
Drinking Water Primacy Agency	<p><i>Agency</i> that has primary enforcement responsibility for national drinking water regulations, namely, the Safe Drinking Water Act as amended. Drinking water primacy for a particular state may reside in one (1) of a variety of agencies, such as health departments, environmental quality departments, etc. The drinking water primacy agency is typically the State Health Agency or the State Environmental Agency. The drinking water primacy agency may also play the role of <i>technical assistance provider</i> to drinking water utilities.</p>
DTSC	Department of Toxic Substance Control

TERM	GLOSSARY DEFINITION
Emergency (Federal definition—see also Local Emergency and State of Emergency)	Any hurricane, tornado, storm, flood, high-water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, drought, fire, explosion, or other catastrophe in any part of the United States which requires federal emergency assistance to supplement State and local efforts to save lives and protect public health and safety or to avert or lessen the threat of a major disaster.
Emergency Management	The provision of overall operational control or coordination of emergency operations at each level of the California Emergency Organization, whether by the actual direction of field forces or by the coordination of joint efforts of governmental and private agencies.
Emergency Operations	Those actions taken during the emergency period to protect life and property, care for the people affected, and temporarily restore essential community services.
Emergency Operations Center (EOC)	<p>A centralized location from which emergency operations can be directed and coordinated.</p> <p>Primary EOC: RWCF Main Plant Control Room, 2500 Navy Drive, Stockton, CA 95206</p> <p>Alternate EOC: City Hall, 425 N. El Dorado Street, Stockton, CA 95202</p>
Emergency Plans	Documents that describe principles, policies and methods to be applied in carrying out emergency operations and rendering mutual aid during emergencies, including such elements as continuity of government, emergency functions of government agencies, mobilization of resources, and public information.
Emergency Response Plan	Document that describes the actions that a wastewater utility would take in response to various emergencies, disasters, and other unexpected incidents.
EMS	Emergency Medical Service
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ERAP	Emergency Response Action Plan

TERM	GLOSSARY DEFINITION
ERP	Emergency Response Plan
Event	Planned, non-emergency activity (e.g., parades, concerts, sporting events).
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
Field Command Post	An on-scene operations (police, fire, medical) location for assembly of necessary staff and equipment. A field command post may be established, if appropriate, at or near the scene of the emergency by the responding supervisor or officer focusing initial efforts directly on control of the emergency. The field supervisor at the command post will identify resources needed at the scene and communicate these needs to the Emergency Operations Center (EOC).
Field Treatment Site	Site designated by emergency officials for the congregation, triage, austere medical treatment, holding, and evacuation of casualties following a major disaster.
Hazardous Material	A substance or combination of substances that, because of quantity, concentration, physical, chemical, radiological, explosive, or infectious characteristics, poses a substantial present or potential danger to humans or the environment. Generally, such materials are classed as explosives and blasting agents, flammable and nonflammable gases, combustible liquids, flammable liquids and solids, oxidizers, poisons, disease-causing agents, radioactive materials, corrosive materials, and other materials including hazardous wastes.
Hazardous Material Incident	Any release of a material (during its manufacture, use, storage, or transportation) that is capable of posing a risk to health, safety, and property. Areas at risk include facilities that produce, process, transport, or store hazardous material, as well as all sites that treat, store, and dispose of hazardous material.
HAZMAT	Hazardous Material Response Team
HAZWOPER	Hazardous Waste Operator
HHS	Health and Human Services

TERM	GLOSSARY DEFINITION
HSAS	Homeland Security Advisory System
Immediate Operational Response	Action taken in response to a “possible” contamination threat in an attempt to minimize the potential for exposure to the potentially contaminated wastewater. Immediate operational response actions will generally have a negligible impact on consumers.
Incident	Confirmed occurrence that requires response actions to prevent or minimize loss of life or damage to property and/or natural resources. A wastewater contamination incident occurs when the presence of a harmful contaminant has been confirmed.
Incident Command System	Standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure appropriate for the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.
Incident Commander	Individual responsible for the management of all incident operations.
Incident Objectives	Statements of guidance and direction necessary for the selection of appropriate strategy(ies), and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives.
Investigation Site	Location where site characterization activities are performed. If a suspected <i>contamination site</i> has been identified, it will likely be designated as a primary investigation site. Additional or secondary investigation sites may also be identified due to the potential spread of a contaminant.
Isolate	To valve off a section of water main to make repairs.
Jurisdiction	Range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographic (e.g., city, county, State, or Federal boundary lines) or functional (e.g., police department, health department).

TERM	GLOSSARY DEFINITION
LCC	Local Command Center
LEPC	Local Emergency Planning Commission
LO	Liaison Officer
Local Emergency (State definition)	The duly proclaimed existence of conditions of disaster or of extreme peril to the safety of persons and property within the territorial limits of a county, city and county, or city, caused by such conditions as air pollution, fire, flood, storm, epidemic, riot, earthquake or other conditions which are, or are likely to be, beyond the control of the services, personnel, equipment, and facilities of a political subdivision and require the combined forces of other political subdivisions to combat.
LPoC	Laboratory Point of Contact
LRN	Laboratory Response Network
Major Disaster (Federal) -- see also Emergency	Any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, drought, fire, explosion, or other catastrophe which, in the determination of the President, causes damage of sufficient severity and magnitude to warrant major disaster assistance under the Federal Disaster Relief Act.
Media	All means of providing information and instructions to the public, including radio, television, and newspapers.
Mg/L	Milligram per Liter
Mitigation	Pre-event planning and other actions, which lessen the effects of potential disasters.
MSDS	Material Safety Data Sheets
MUD	Municipal Utilities Department (Department of Municipal Utilities)
Multi-Jurisdiction Incident	Incident requiring action from multiple agencies that have a statutory responsibility for incident mitigation. In Incident Commander, these incidents will be managed under Unified Command.

TERM	GLOSSARY DEFINITION
Mutual Aid	A statewide system, developed under the authority of the California Emergency Services Act, designed to ensure that adequate resources, facilities, and other support are provided to jurisdictions whenever their own resources prove to be inadequate to cope with a given situation.
National Interagency Incident Management System	Program developed by the National Wildfire Coordinating Group consisting of five (5) major subsystems which collectively provide a total systems approach to all-risk incident management. The subsystems are the Incident Command System, Training, Qualifications and Certification, Supporting Technologies, and Publications Management.
National Warning System	The federal portion of the civil defense warning system, used to disseminate warning and other emergency information from the warning centers or regions to warning points in each state.
NIMS	National Incident Management System
NIOSH	National Institute for Occupational Safety and Health
NIPC	National Infrastructure Protection Center
NOAA	National Oceanic & Atmospheric Administration (US)
Notification	Process of communicating information to interested parties.
NRC	National Response Center
NRR	Noise Reduction Ranking
NRWA	National Rural Water Association
OES	Office of Emergency Services
Operational Area	An intermediate level of the State emergency services organization, consisting of a county and all political subdivisions within the county.
Opportunity Contaminant	Contaminants that might be readily available in a particular area, even though they may not be highly toxic or infectious or easily dispersed and stable in wastewater.
OSHA	Occupational Safety and Health Administration

TERM	GLOSSARY DEFINITION
PG&E	Pacific, Gas, and Electric
PIDS	Primary Influent Discharge Structure
PIO	Public Information Officer
Plan	As used by OES, an emergency management document that describes the broad, overall jurisdictional response to potential extraordinary emergencies or disasters.
PLC	Programmable Logic Controller
POL	Petroleum, Oil, And Lubricant
Possible	In the context of the <i>threat evaluation</i> process, a wastewater contamination threat is characterized as “possible” if the circumstances of the <i>threat warning</i> appear to have provided an opportunity for contamination.
Possible Stage	The first stage of the threat management process from the point at which the <i>threat warning</i> is received through the determination as to whether or not the threat is “possible”.
POTW	Publicly Owned Treatment Works
PPE	Personal Protective Equipment
PSMP	Process Safety Management Plan
Public Information Officer	Individual responsible for interfacing with the public and media or with other agencies requiring information directly from the incident. Under the Incident Commander, there is only one (1) Public Information Officer per incident.
Quality Assurance	Integrated system of management activities involving planning, implementation, documentation, assessment, reporting, and quality improvement, to ensure that a process, item, or service is of the type and quality needed and expected by the client.
Quality Control	Overall system of technical activities that measures the attributes and performance of a process, item, or service against defined standards to verify that they meet the stated requirements established by the client; operational techniques and activities that are used to fulfill requirements for quality.

TERM	GLOSSARY DEFINITION
RAM-W SM	Risk Assessment Methodology for Wastewater Utilities
RCO	Regulatory Compliance Officer provides interagency regulatory environmental support. Plays a vital role in organization returning to compliance during post emergency efforts.
Recovery Manager	The Recovery Manager is responsible for selecting a recovery team and developing a recovery strategy prior to emergency termination.
Response Guidelines	Manual designed to be used during the response to a wastewater contamination threat. Response Guidelines should be easy to use and contain forms, flowcharts, and simple instructions to support staff in the field or decision officials in the <i>Emergency Operations Center</i> during management of a crisis.
RMP	Risk Management Plan
Robert T. Stafford Disaster Relief and Emergency Assistance Act P.L. 93-288 as amended	Gives the President broad powers to supplement the efforts and available resources of state and local governments in carrying out their responsibilities to alleviate suffering and damage resulting from declared emergencies or disasters.
RQ	Reportable Quantity
RWCF	Regional Wastewater Control Facility
Safety Officer	Safety Officers are trained in emergency response and play a vital role in the plant safety structure and in building evacuations.
SCADA	Supervisory Control and Data Acquisition
SCBA	Self-Contained Breathing Apparatus
Search	Systematic investigation of an area or premises to locate persons trapped, injured, immobilized or missing.
Secure Area	Locked space, such as a cabinet or vault, with access restricted to authorized personnel.

TERM	GLOSSARY DEFINITION
SEMS	The Standardized Emergency Management System (SEMS) is the group of principles developed for coordinating state and local emergency response in California. SEMS provides for a multiple level emergency response organization and is intended to structure and facilitate the flow of emergency information and resources within and between the organizational levels: the field response, local government, operational areas, regions and the state management level.
Site Characterization	Process of collecting information from an <i>investigation site</i> in order to support the evaluation of a wastewater contamination threat. Site characterization activities include the site investigation, <i>field safety screening</i> , <i>rapid field testing</i> of the wastewater, and sample collection.
SJVAPC	San Joaquin Valley Air Pollution Control District
SOP	Standard Operating Procedure
SPCC Plan	Spill Prevention, Control, and Countermeasures Plan
SSO	Sanitary Sewer Overflow
SSORP	Sanitary Sewer Overflow Response Plan
Standard Operating Procedures	A set of instructions having the force of a directive, covering those features of operations that lend themselves to a definite or standardized procedure. Standard operating procedures support an annex by indicating in detail how a particular task will be carried out.
State Emergency Plan	The State of California Emergency Plan, as approved by the Governor, which serves as the basis for statewide emergency planning and response.

TERM	GLOSSARY DEFINITION
State of Emergency	<p>(1) According to Section 8558 (b) of the Emergency Service Act, a State of Emergency means: "Other duly proclaimed existence of conditions of disaster or of extreme peril or the safety of persons and property within the State caused by such conditions as air pollution, fire, flood, storm, epidemic, riot, drought, sudden and severe energy shortage, plant or animal infection or disease, the Governor's warning of an earthquake or volcanic prediction, or an earthquake, or other conditions, other than conditions resulting from a labor controversy or conditions causing a 'state of war emergency,' which conditions, by reason of their magnitude are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single county, city and county, or city, and require the combined forces of a mutual aid region or regions to combat or with respect to regulated energy utilities, a sudden and severe energy shortage requires extraordinary measures beyond the authority vested in the California Public Utilities Commission."</p> <p>(2) The "condition which exists immediately, with or without a proclamation thereof by the Governor, whenever this State or nation is attacked by an enemy of the United States, or upon the receipt by the state of a warning from the federal government indicating that such an enemy attack is probable or imminent."</p>
Technical Assistance Provider	<p>Any organization or individual that provides assistance to wastewater utilities in meeting their mission to provide an adequate and safe treatment of wastewater for their customers. The <i>wastewater primacy agency</i> may serve as a technical assistance provider.</p>
Threat	<p>Indication that a harmful <i>incident</i>, such as contamination of wastewater, may have occurred. The threat may be direct, such as a verbal or written threat, or circumstantial, such as a security breach or unusual wastewater quality.</p>
Threat Evaluation	<p>Part of the threat management process in which all available and relevant information about the threat is evaluated to determine if the threat is "possible" or "credible", or if a contamination <i>incident</i> has been "confirmed". This is an iterative process in which the threat evaluation is revised as additional information becomes available. The conclusions from the threat evaluation are considered when making <i>response decisions</i>.</p>

TERM	GLOSSARY DEFINITION
Threat Management	Process of evaluating a contamination threat and making decisions about appropriate response actions. The threat management process includes the parallel activities of the <i>threat evaluation</i> and making <i>response decisions</i> . The threat management process is considered in three (3) stages: “possible”, “credible”, and “confirmatory”. The severity of the threat and the magnitude of the response decisions escalate as a threat progresses through these stages.
Threat Warning	Unusual occurrence, observation, or discovery that indicates a potential contamination incident and initiates actions to address this concern.
TSS	Total Suspended Solids
U.S. EPA	United States Environmental Protection Agency
U.S.A.	Underground Service Alert. This is the one call center that all contractors are required to call prior to digging a trench. Utility companies are all members of the one call center and the one call center alerts all utilities that someone is going to dig; the utility has two (2) days to mark utility lines that may be affected.
UERM	Utility Emergency Response Manager
Unified Command	Unified team effort which allows all agencies with responsibility for the incident, either geographic or functional, to manage an incident by establishing a common set of incident objectives and strategies. This is accomplished without losing or abdicating agency authority, responsibility, or accountability.
Unity of Command	Concept by which each person within an organization reports to only one (1) designated person.
UOCM	Utility Emergency Operations Center Manager
USAMRID	U.S. Army Medical Research Institute of Infectious Diseases
Volunteers	Individuals who make themselves available for assignment during an emergency who are not paid for the work they do.

TERM	GLOSSARY DEFINITION
Vulnerability Assessment or VA	Systematic process for evaluating the susceptibility of critical facilities to potential threats and identifying corrective actions that can reduce or mitigate the risk of serious consequences associated with these threats.
Wastewater Contamination Incident	Situation in which a contaminant has been successfully introduced into the system. A wastewater contamination incident may or may not be preceded by a wastewater contamination threat.
Wastewater Contamination Threat	Situation in which the introduction of a contaminant into wastewater is threatened, claimed, or suggested by evidence. Compare <i>wastewater contamination threat</i> with <i>wastewater contamination incident</i> . Note that threatening wastewater may be a crime under the Safe Drinking Water Act as amended by the Bioterrorism Act.
Water Contamination Incident	Situation in which a contaminant has been successfully introduced into the system. A water contamination incident may or may not be preceded by a water contamination threat.
Water Contamination Threat	Situation in which the introduction of a contaminant into the water system is threatened, claimed, or suggested by evidence. Compare <i>water contamination threat</i> with <i>water contamination incident</i> . Note that threatening a water system may be a crime under the Safe Drinking Water Act as amended by the Bioterrorism Act.
Water ISAC	Water Information and Security Analysis Center

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Appendix B

Emergency Scenarios

Action Plans

An Action Plan (AP) is the set of actions that will be used to address specific vulnerabilities or high-risk threat scenarios identified in the Wastewater System VA and to provide a specific response to a given incident. Typically, APs complement actions already initiated in an ERP.

An AP is an accessible, “rip and run,” document that can be detached and taken to the field by the Director of MUD or any other emergency responder. An AP typically includes the following information:

- Special notification requirements
- Special response steps to be taken upon ERP activation
- Recovery actions to bring the City of Stockton’s wastewater system back into operation
- Remediation actions aimed at long-term restoration of the MUD Utility operations

Initial Response and Response Action Plans

EMERGENCY RESPONSE ACTION PLAN (ERAP) INITIAL DISCOVERY AND RESPONSE ACTION City of Stockton Municipal Utilities Department

Assess the Situation—Recognize Threat:

- a) What type of event has occurred (natural disaster, terrorist event);
- b) Who is involved (outsiders, vandals, terrorists);
- c) What is the outcome (pipe break, contamination, or flooding);
- d) What areas are impacted; and
- e) Who should be notified to respond?

Initial Response—Take Action—Remember, Safety First:

If the event warrants Police/Fire Department activation and the threat is imminent,
Immediately Call 911 and Notify your Supervisor:

Response—Refer to the following Action Plans:

No.	Action Plan Title (Appendix B)	Page
1	Bomb Threat	B-3
2	Chemical/Hazardous Material Release	B-7
3	Flooding, Dam and Levee Failure	B-15
4	Destruction/Failure/contamination of any Part of the Wastewater System	B-21
5	Evacuation	B-25
6	Fire/Explosion	B-33
7	Medical Emergency	B-41
8	Power Failure	B-43
9	SCADA Attack – Electronic Failure	B-49
10	SCADA Attack/Physical	B-51
11	Severe Weather/Natural Disasters	B-53
12	Sheltering-in-Place	B-59
13	Terrorist/Hostile Attack	B-61
14	Threat and Identification of Contamination to the Wastewater System	B-65
15	Unauthorized Entry	B-69
16	Workplace Violence	B-71

Action Plan No. 1

Bomb Threat		
Do not use cellular telephones or portable radios during a bomb threat. Use of these communication devices may cause a possible transmission detonation of an explosive device.		
✓	Line No.	Task
	1	Review to Section 8, Security .
	2	If bomb threat is received by telephone, do not hang up the phone even after the conversation is over.
	3	Record details of telephone bomb threat with checklist on backside of this sheet.
	4	Call (or ask someone else to call) 911 and report the emergency.
	5	Based on the threat, determine if the building or facility should be evacuated. If yes:
		a) Evacuate the building or facility in accordance with the instructions in Action Plan #6.
		b) Account for all personnel and visitors in the designated assembly area.
		c) Notify the Incident Commander.
		d) Instruct employees not to disturb any suspicious items and not to use cellular telephones or portable radios.
	5	Based on the threat, determine if the building or facility should be evacuated. If yes:
		a) Evacuate the building or facility in accordance with the instructions in Action Plan #6.
		b) Account for all personnel and visitors in the designated assembly area.
		c) Notify the Incident Commander.
		d) Instruct employees not to disturb any suspicious items and not to use cellular telephones or portable radios.
	6	If suspicious items are found and/or the threat does appear to be credible:
		a) Report suspicious items or credible threat to local law enforcement officials.
		b) Provide technical support and resources to local emergency response agencies, as requested.
	7	If bomb explodes, follow other applicable emergency response action plans.
	8	If no suspicious items are found and the threat does not appear to be credible, coordinate building or facility re-entry, as directed.
	9	Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event.

Bomb Threat Checklist

Time and date received _____

How received (phone, mail, etc.) _____

If bomb threat is received by mail or in person, **do not handle letter, envelope, or package. Immediately dial 911.**

If threat is by telephone, record exact words of the caller _____

Questions to ask:

1. When is the bomb going to explode? _____
2. Where is bomb located? _____
3. What kind of bomb is it? _____
4. What does it look like? _____
5. Why did you place the bomb? _____
6. Where are you calling from? _____

Description of caller's voice:

<input type="checkbox"/> Male	<input type="checkbox"/> Old	<input type="checkbox"/> Nervous	<input type="checkbox"/> Laughing
<input type="checkbox"/> Female	<input type="checkbox"/> Middle Age	<input type="checkbox"/> Excited	<input type="checkbox"/> Speech Impediment
<input type="checkbox"/> Young	<input type="checkbox"/> Accent	<input type="checkbox"/> Intoxicated	<input type="checkbox"/> Other _____ _____

Is voice familiar? _____ If so, who does it sound like? _____

Background noise? _____

Time caller hung up _____

Remarks:

Action Plan No. 1 Log

Date/Time: _____	Signature: _____
Comments	

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Action Plan No. 2

Chemical / Hazardous Material Release		
Chemicals may be released into the ambient environment because of an accident during normal operations, storage, or delivery. These chemicals may also be released as an intentional act of sabotage or terrorism. Follow hazard-specific SOPs (Standard Operating Procedures) as appropriate, such as in the event of a chlorine release. In addition, consult appropriate sections of the RMP/PSMP and MSDS (Material Safety Data Sheet).		
✓	Line No.	Task
	1	Investigate alarm or potential leak/spill to determine if a chemical release has occurred.
	2	a) See attached Notification flowcharts, if applicable.
		b) If attached Notification flowcharts are not applicable, follow tasks below
	3	Call 911 to report the alarm or potential leak/spill.
	4	Announce the release to nearby employees and direct other personnel to remain clear of the affected area.
	5	Evacuate, or shelter in place, if needed.
	6	Don applicable PPE prior to response or investigation.
	7	If possible, direct trained personnel to stop additional releases from occurring (e.g., closing valve to stop flow to leaking pipe or tank, apply fire suppression) while using appropriate PPE.
	8	Follow other applicable emergency response action plans based on hazard-specific information (i.e., evacuate if explosion potential; block storm drains if spill is outside; use booms on waterways where spill has entered).
	9	Notify the Incident Commander of the incident, response actions, and status.
	10	Determine if the release can be cleaned up by trained MUD staff with internal resources. If so:
		a) Ensure that the cleanup is performed safely and that the source of the release is repaired or replaced.
		b) Ensure that contaminated material from cleanup operations is properly characterized and disposed.
	11	If the nature and extent of the release exceed internal response capabilities, request assistance from the Fire Department.
	12	Provide support and technical resources to the Fire Department, as needed.
	13	If required, implement appropriate cleanup and disposal protocols based on hazard-specific information.
	14	Report all releases to waterways to the appropriate federal, state, and local agencies.
	15	If required, report the release to the appropriate federal, state, and local agencies.
	16	If chemical release appears to be the result of an intentional act, provide support to the police department and other law enforcement agencies (preserve evidence, interview witnesses, etc.).
	17	Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event.

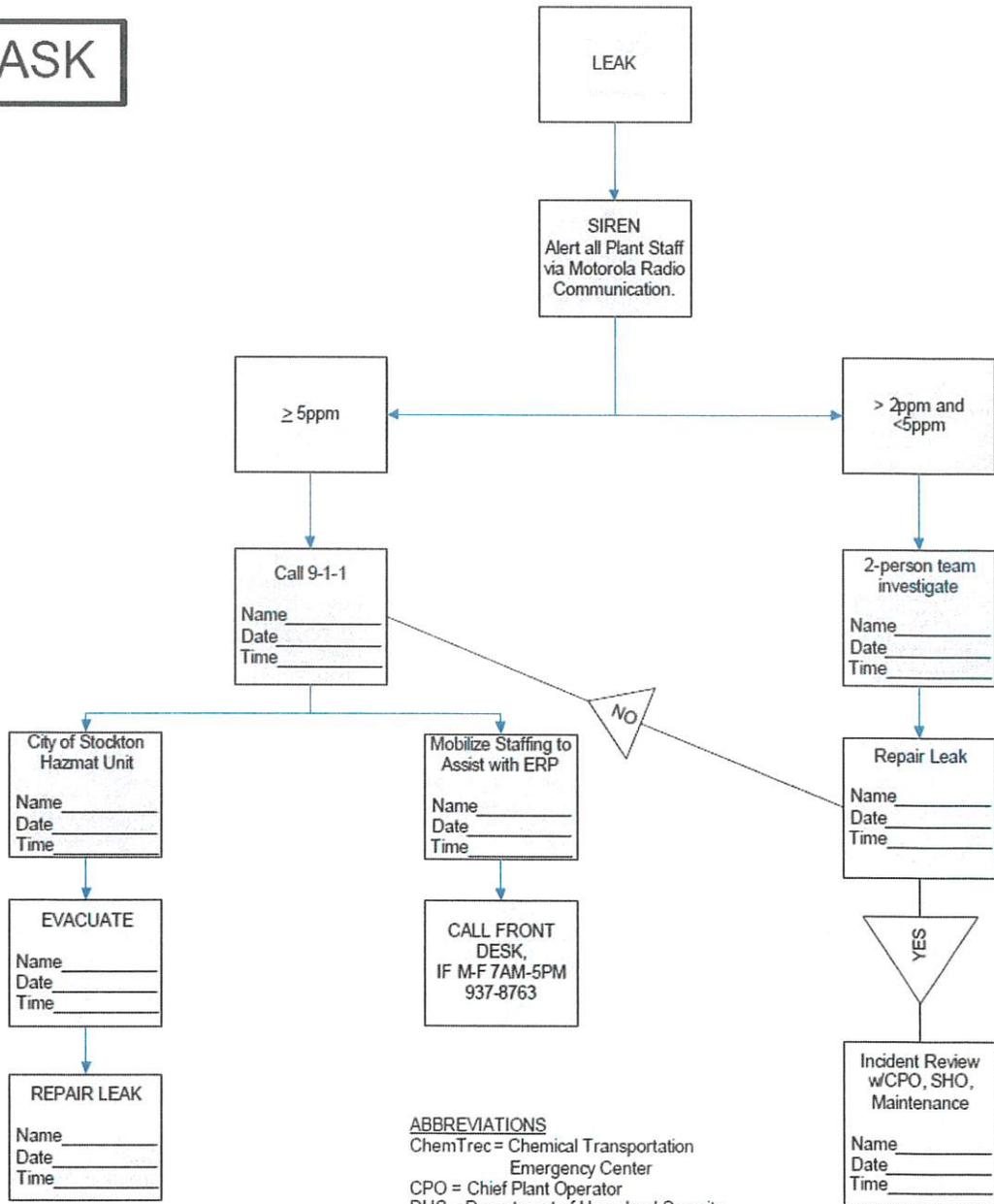
NOTE: See MSDS binders in each building.

Action Plan No. 2 Log

Date/Time: _____	Signature: _____
Comments	

Chlorine Release at Railcar

TASK

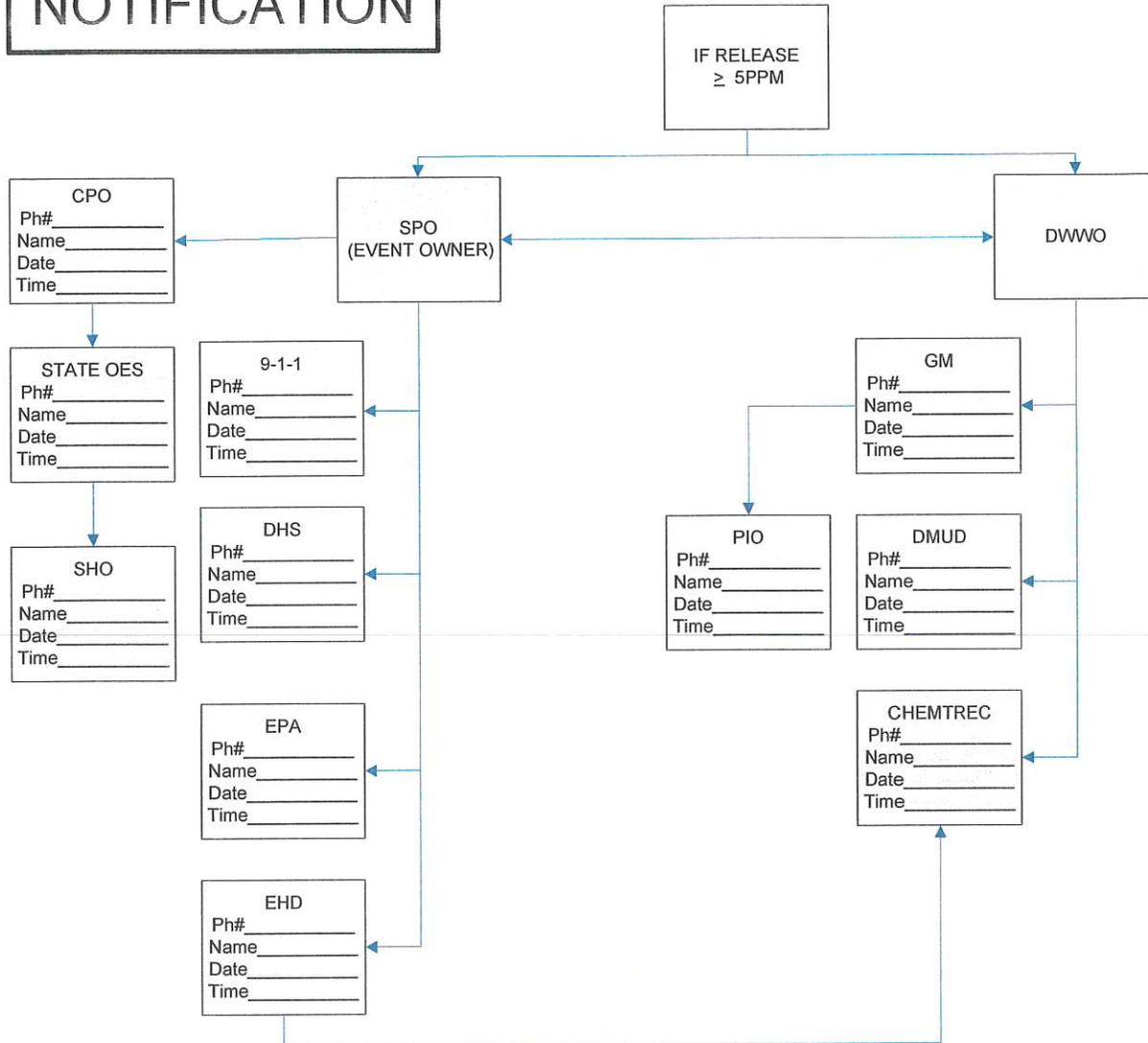


ABBREVIATIONS

- ChemTrec = Chemical Transportation Emergency Center
- CPO = Chief Plant Operator
- DHS = Department of Homeland Security
- DMUD = Director Municipal Utilities Dept.
- DWWO = Director Wastewater Operations
- EPA = Environmental Protection Agency
- EHD = Environmental Health Dept.
- ERP = Emergency Response Plan
- GM = General Manager
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Chlorine Release at Railcar

NOTIFICATION

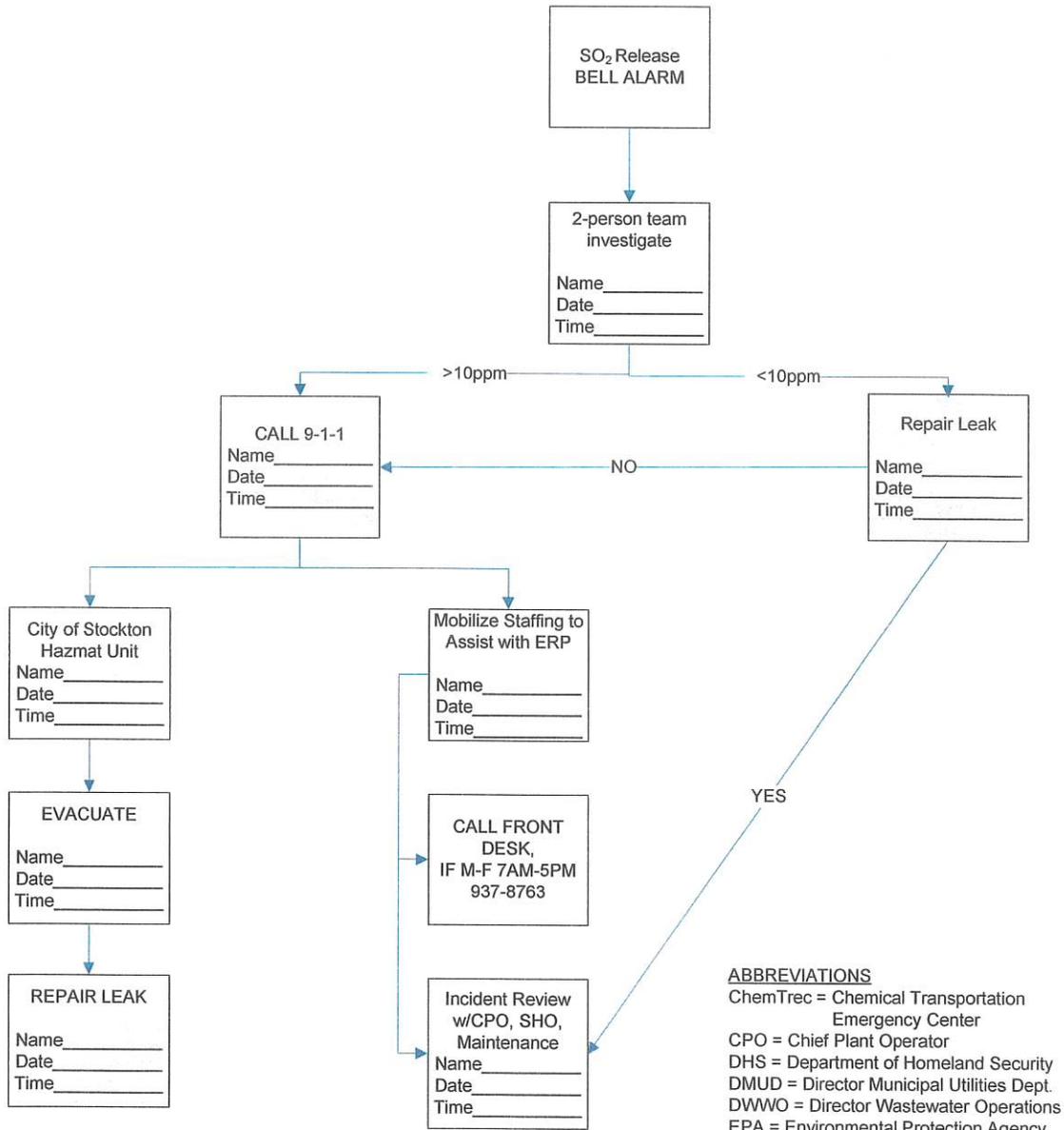


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Sulfur Dioxide (SO₂) Leak

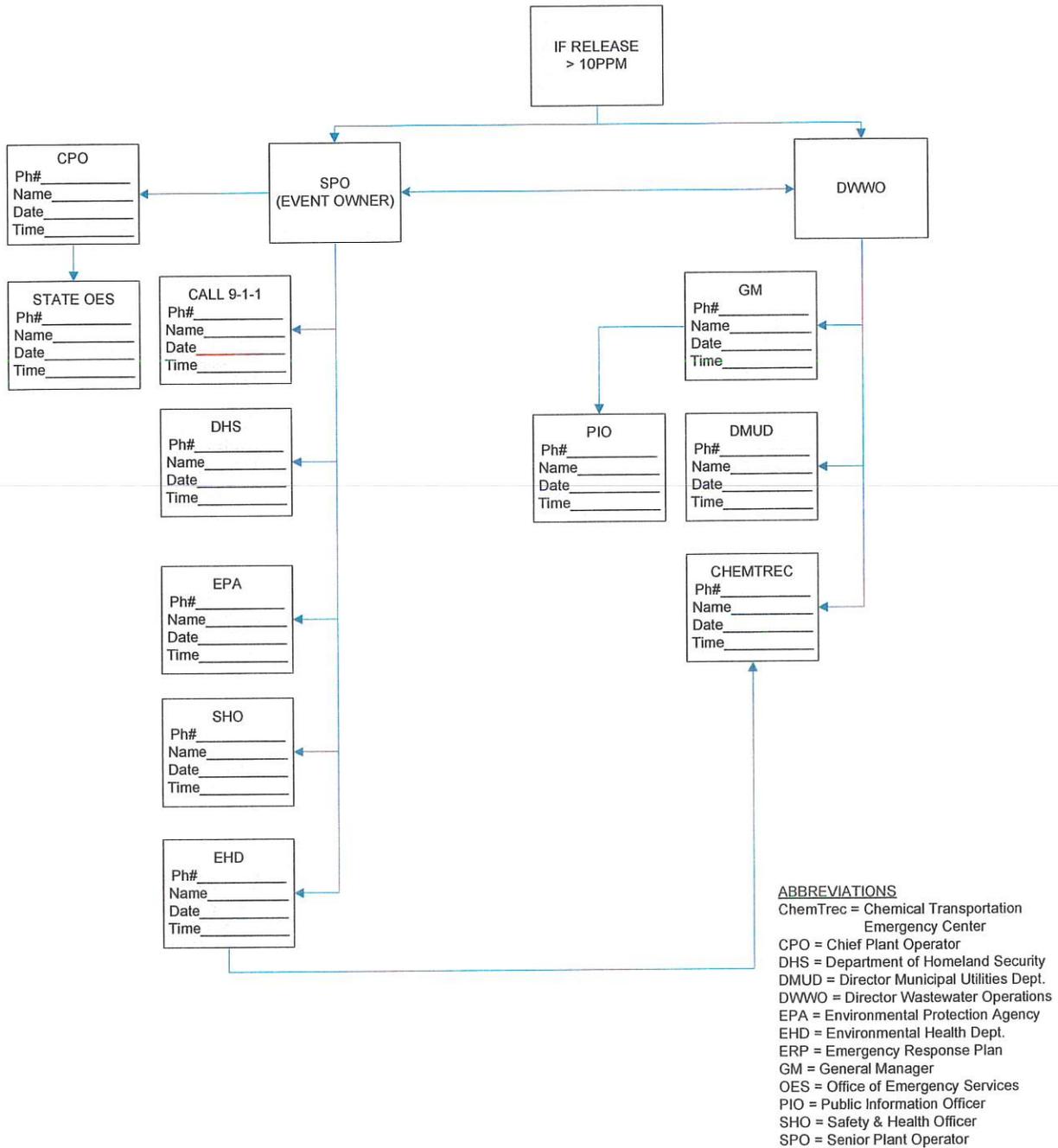
TASK



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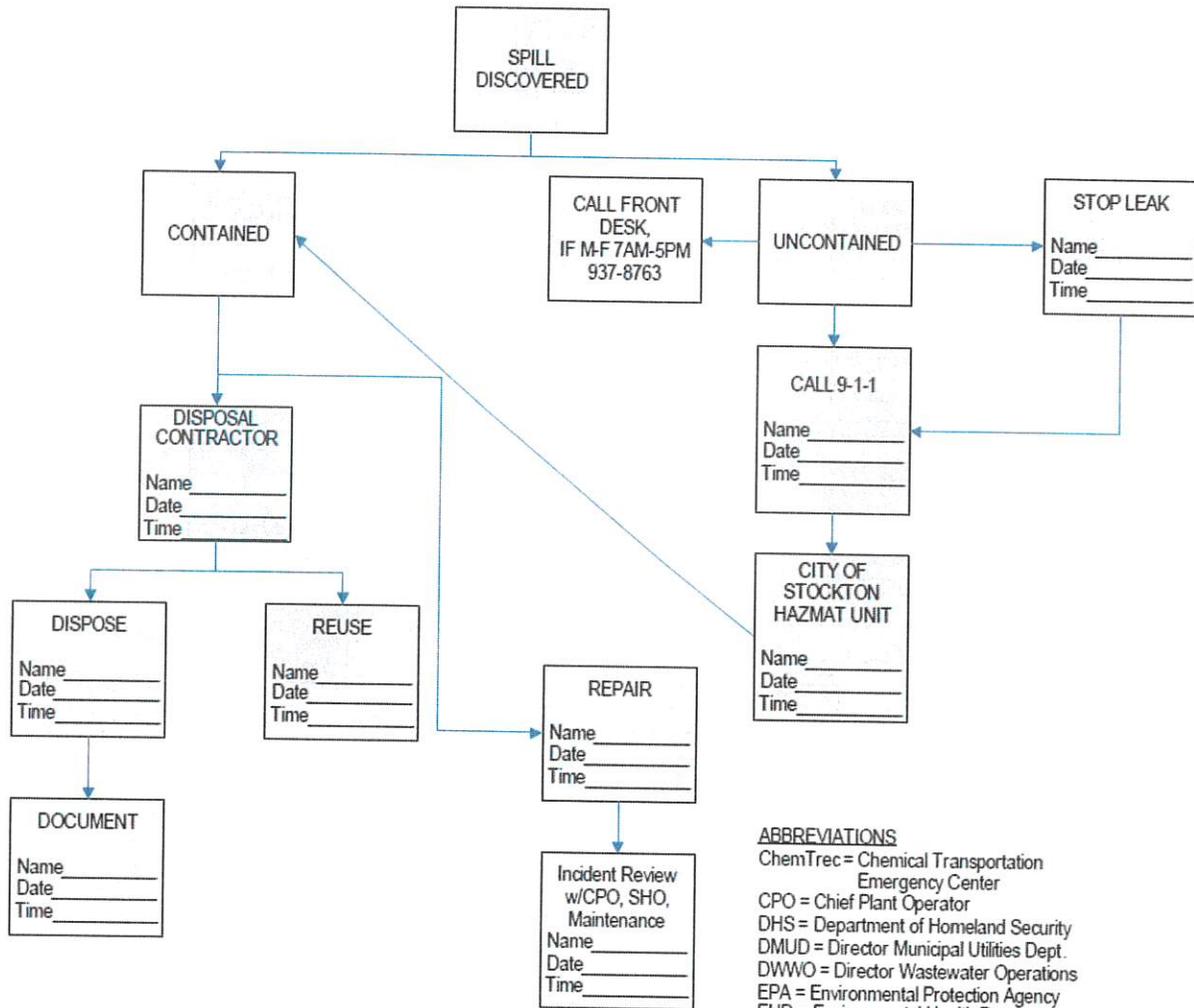
NOTIFICATION



Aqueous Ammonia (19%) Spill

TASK

NOTE: Storage tank with 4,500 gallons capacity.
Secondary containment is provided by a double-walled chemical duty tank



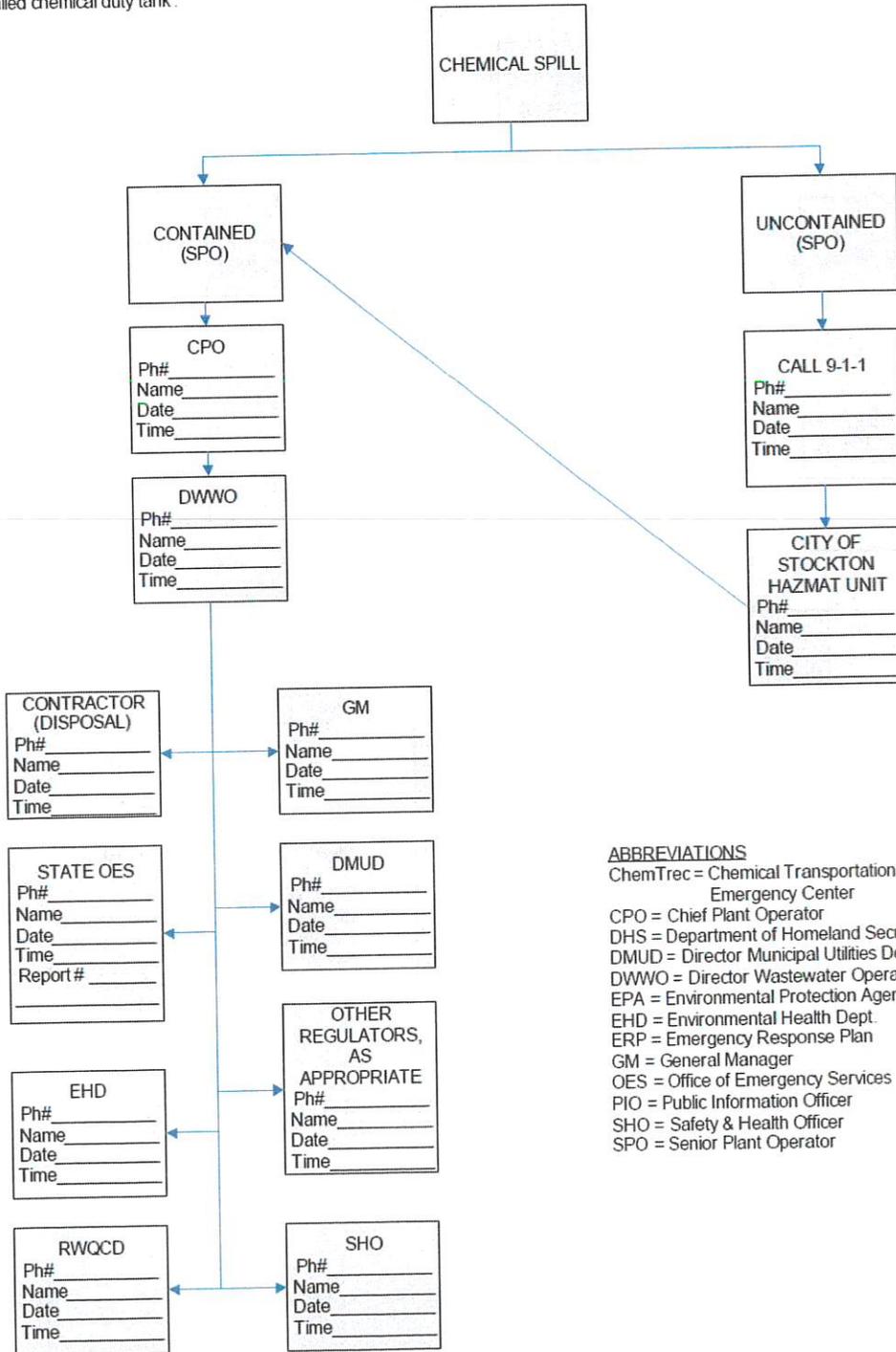
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Action Plan No. 3

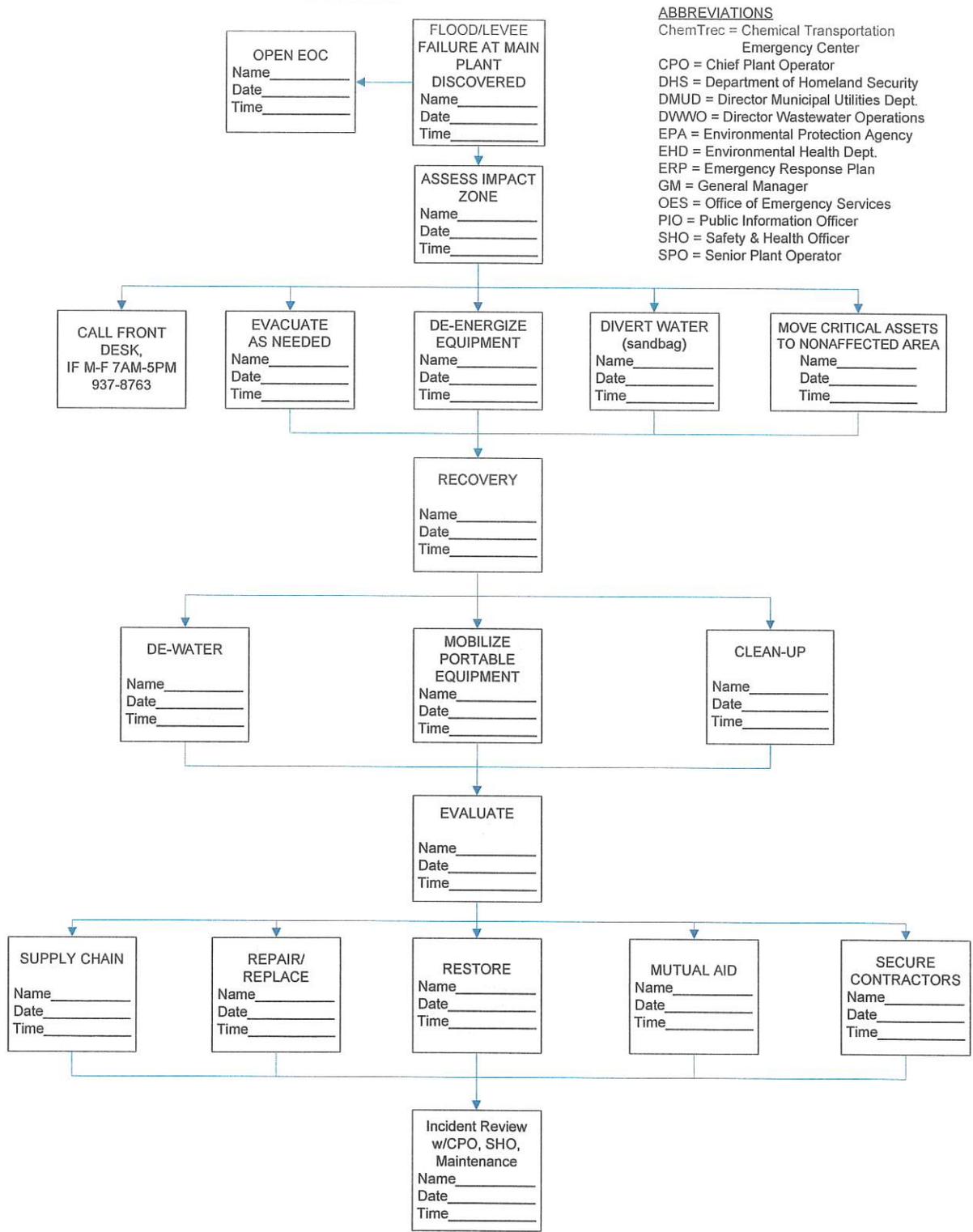
Flooding / Dam or Levee Failure		
<p>A dam or levee failure can cause loss of life, damage to property, and displacement of persons in the inundation path. Damage to electric facilities can render pumping stations inoperable, and flooded wet wells and gravity sewers could expose the general population to raw sewage. Demand on emergency services such as fire, police, and emergency health care will be high, and response times for additional incidents will be increased. Employees living in the expected inundation areas will be adversely affected and their ability to perform assigned duties will be impacted.</p>		
✓	Line No.	Task
	1	Notify Incident Commander and Director of Wastewater Operations that flooding is imminent.
	2	MUD facilities located in the expected inundation areas should be prepared to be shutdown if necessary.
	3	Electric transmission lines may become unstable if utility pole foundations are flooded. MUD should prepare for extended loss of electric power at some facilities.
	4	Shut off power and de-energize circuits.
	5	Shut off all electric motors in area and de-energize circuits.
	6	Move all portable equipment to upper floor of building.
	7	Using reasonable judgment, move all hand tools, wrenches, etc., to upper floor of building.
	8	Shut off natural gas if applicable.
	9	Have electrical company crew standby to disconnect power to pump building. Begin sandbagging to a height of two (2) feet.
	10	When floodwaters recede, begin emptying lower floor area of water and debris.
	11	Employ other relevant action plans as needed.
	12	Inspect all electrical panels that were subjected to flood waters for integrity of circuits, dry out all panels before energizing.
	13	Place pump units back in operation.
	14	Check all equipment for proper operation.
	15	Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event.
	16	The San Joaquin County OES has prepared an evacuation plan in the event of a dam or levee failure. The Director of Wastewater Operations will ensure that MUD is aware of the plan and prepared to respond.
	17	Major roadways and railways may be shut down. Vendors and suppliers of critical resources should be contacted and alternate delivery methods implemented.

Action Plan No. 3 Log

Date/Time: _____	Signature: _____
Comments	

TASK

Flood/Levee Failure – Main Plant

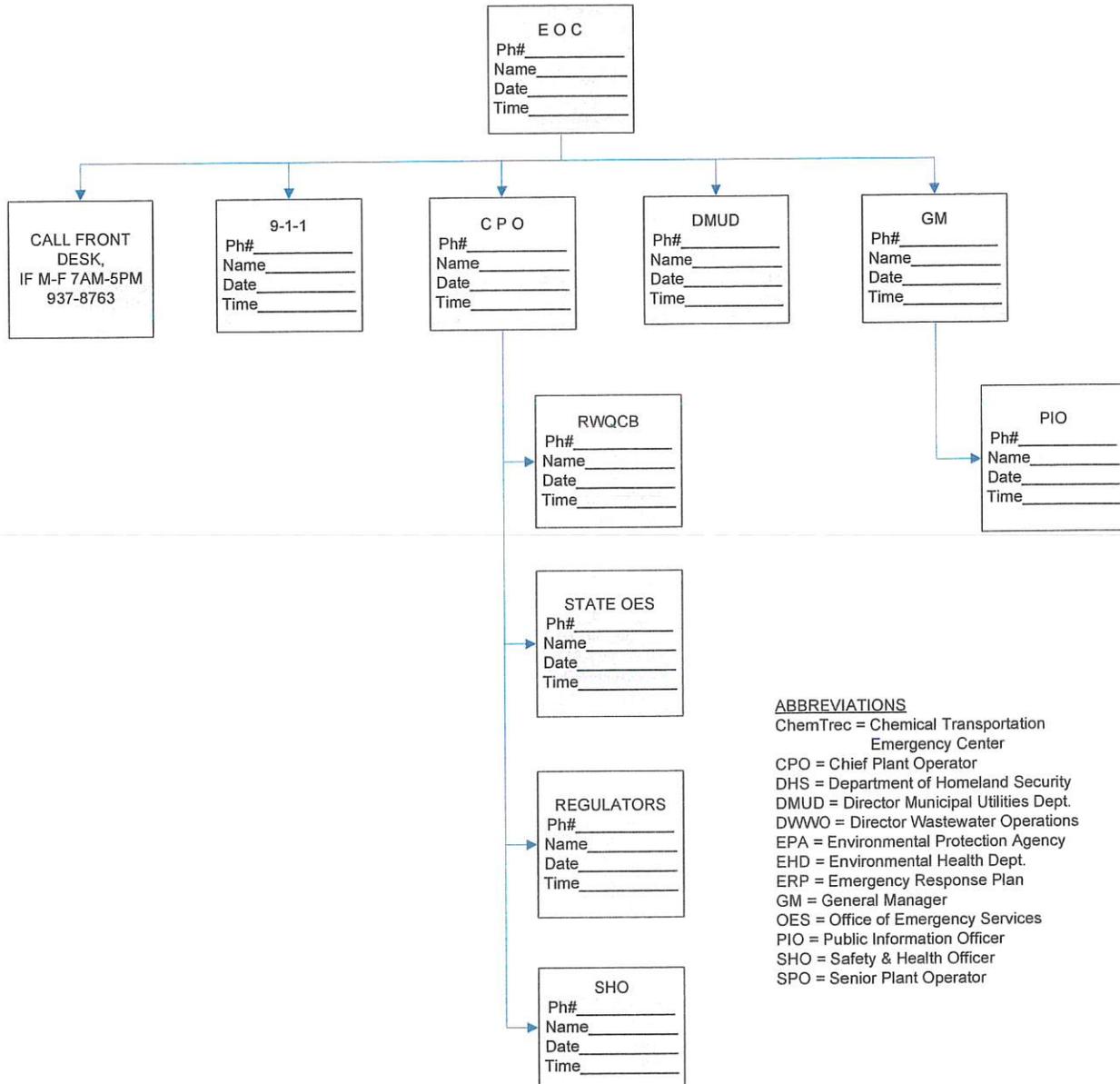


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NOTIFICATION

Flood/Levee Failure - Main Plant



ABBREVIATIONS

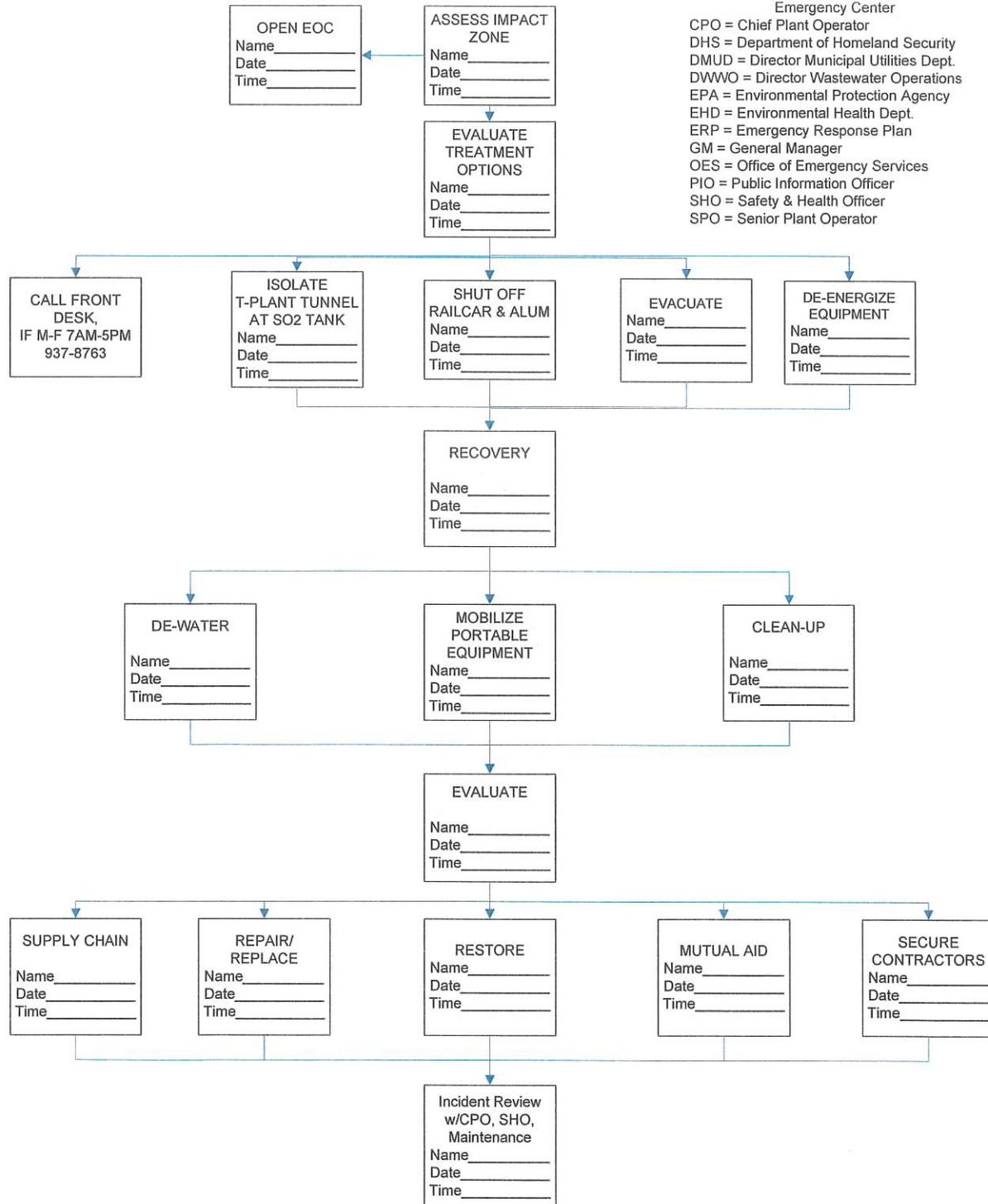
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TASK

Flood/Levee Failure – Tertiary Plant

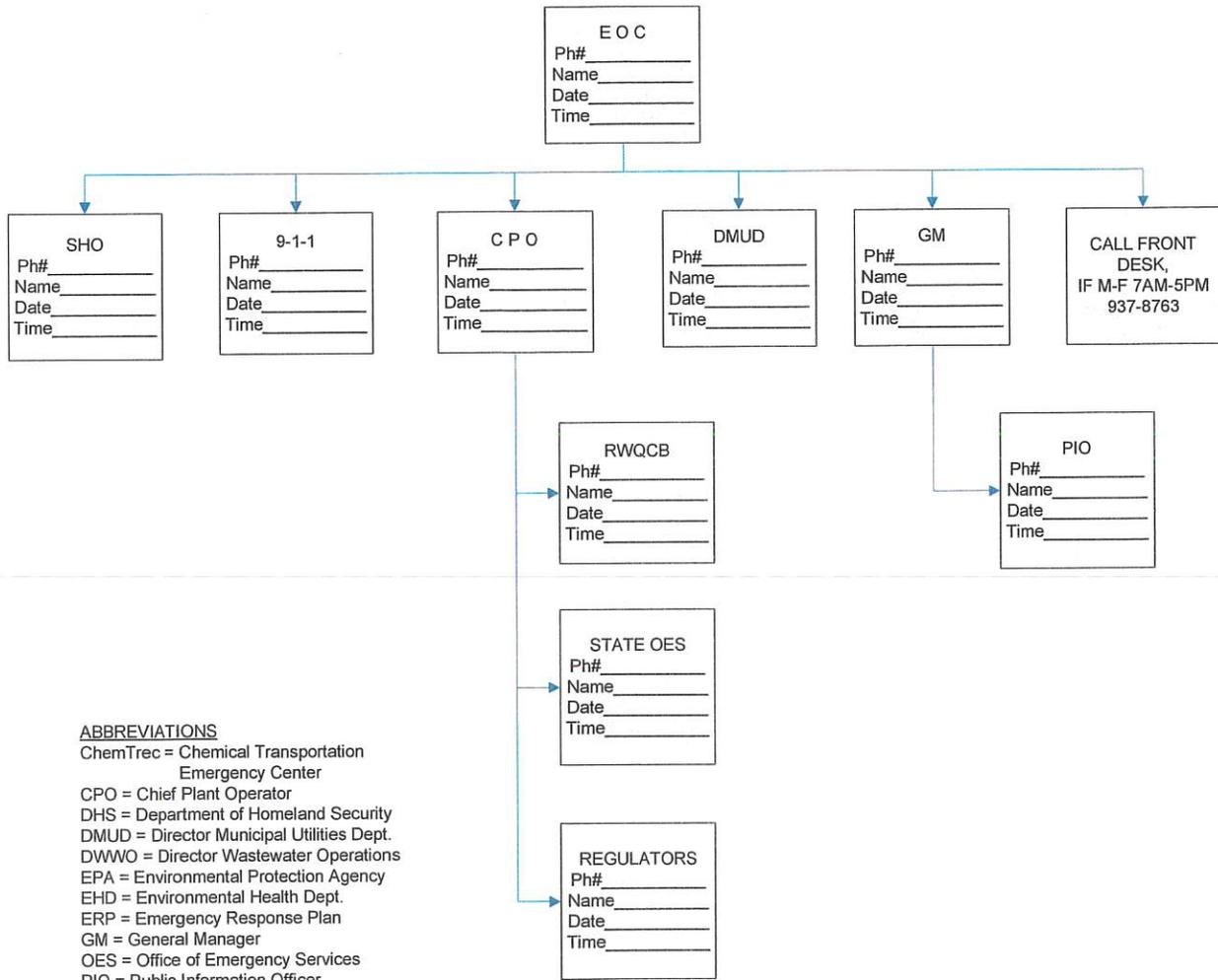
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NOTIFICATION

Flood/Levee Failure - Tertiary Plant



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Action Plan No. 4

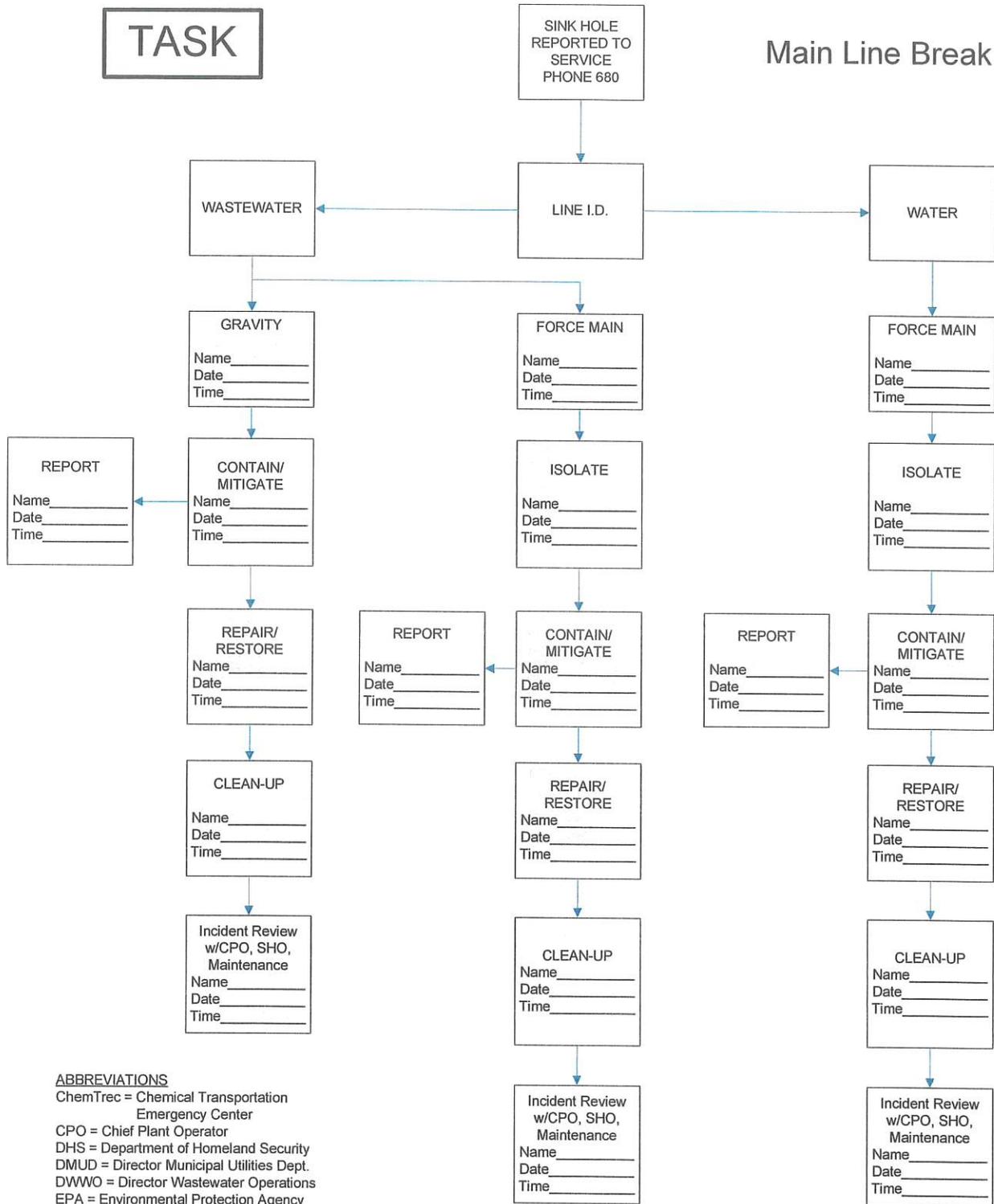
Destruction/Failure of Any Part of the Wastewater System		
Routine pipeline failure/breaks will be handled in accordance with applicable SOPs and manuals. Procedures in this AP provide additional guidance for non-routine failures that may require response from multiple MUD staff and/or external agencies.		
✓	Line No.	Task
	1	If local emergency response assistance is required, call 911.
	2	Notify the Incident Commander and provide periodic status updates, as requested.
	3	Decide whether, when, and how to notify customers and the news media.
	4	Assemble team of operations, maintenance, engineering, and other MUD staff (as needed) to assess damage and identify possible solutions.
	5	If the damage appears to be the result of an intentional act, treat the site as a crime scene. Consult with the police department, Homeland Security, and other law enforcement agencies to ensure that evidence is preserved. Increase security measures at the facility and related facilities to discourage further attack.
	6	Notify local emergency responders about potentially hazardous materials that may be present at the site.
	7	Determine the impact of the destruction/failure on the ability of the wastewater system to serve public needs.
	8	Based on the extent of the damage, consider alternative (interim) treatment and/or conveyance schemes.
	9	Develop and implement recovery plan.
	10	Notify customers when system is returned to service.
	11	Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event.

Action Plan No. 4 Log

Date/Time: _____	Signature: _____
Comments	

TASK

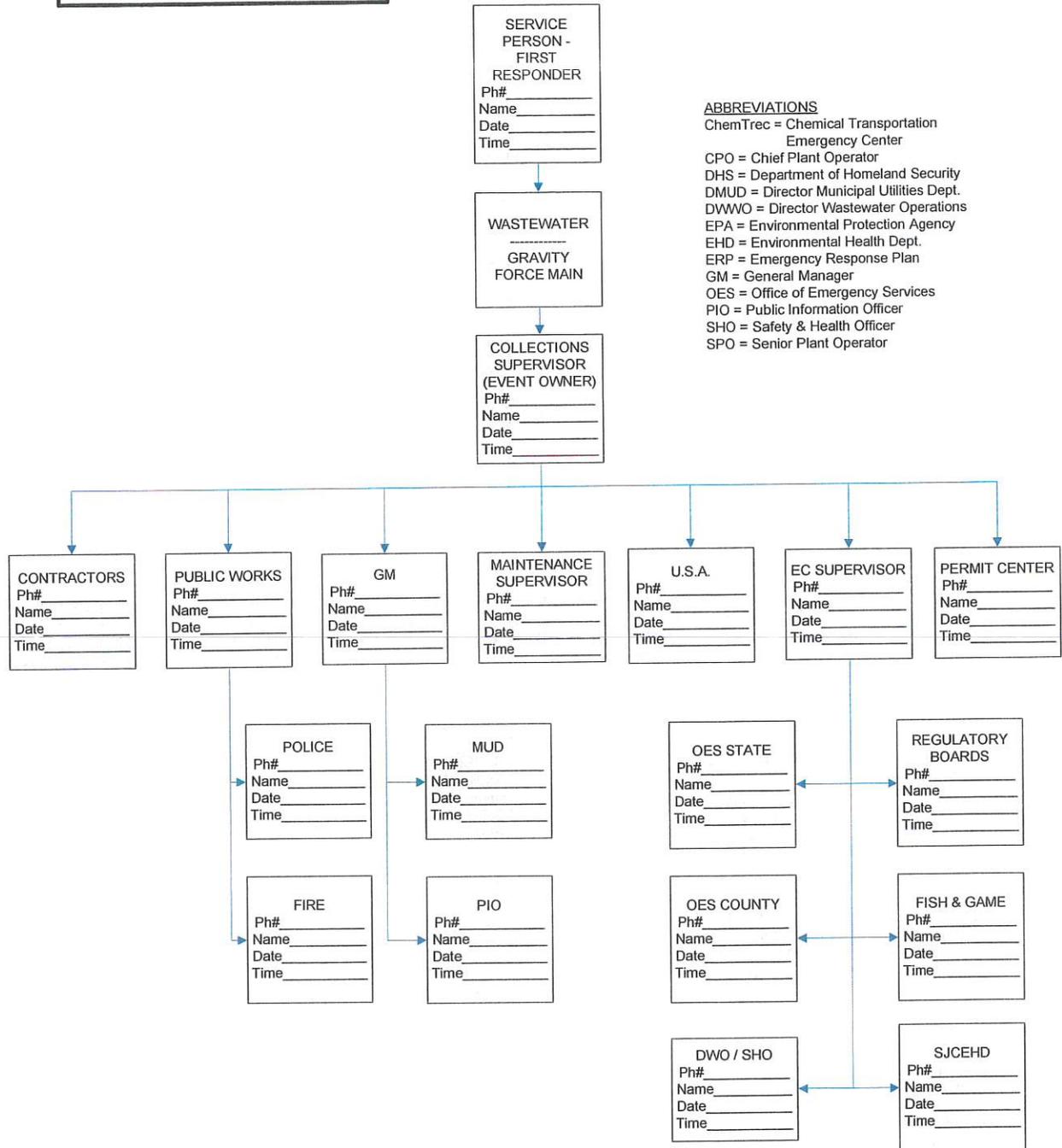
Main Line Break



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NOTIFICATION

Main Line Break



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Action Plan No. 5

Evacuation		
Evacuation of buildings or facilities may be required during certain types of emergencies, including fire/explosion, bomb threat, and chemical release.		
✓	Line No.	Task
	1	Assess the situation to determine if evacuation is appropriate. If evacuation is necessary, then:
		a) Determine if designated personnel need to remain in the building for any reason (for example, equipment shutdown). Who?
		b) Make an announcement directing all occupants to evacuate the building. Follow established evacuation procedures.
		c) If incident is a bomb threat, include instructions not to disturb suspicious items and not to use cellular telephones or portable radios.
	2	Meet at the primary, predetermined assembly area, unless this would place people in further danger. If so, then proceed to the secondary assembly area.
	3	Ensure that local emergency responders (911) have been notified of the incident and that they are directed to the appropriate area upon arrival.
	4	Ensure that personnel and visitor accountability is complete within 30 minutes of evacuation.
		a) Take a headcount to ensure all personnel who were at the site can be accounted for.
		b) Document the headcount.
		c) If anyone is not accounted for, notify the Incident Commander.
	5	Direct personnel to an alternate assembly area if the designated assembly area becomes unsafe because of other dangers associated with the emergency.
	6	Do not attempt to reenter the building without the approval of the Incident Commander.
	7	Facilitate witness interviews, brief the local emergency response agency's Incident Commander, and provide technical support and resources to response agencies.
	8	Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event.

Check box when an item was completed or, if an item was not applicable, place N/A in the box. Comments section and signature block located on the next page.

The tasks listed above are general guidelines for responding to each type of emergency; specific response actions may vary depending upon the nature and extent of the emergency event.

Action Plan No. 5 Log

Date/Time: _____	Signature: _____
Comments	

GENERAL EVACUATION PROCEDURES

1. Building occupants will be notified of the evacuation by the sound of the building fire alarm, by verbal instruction from incident coordinator, or by self-evident hazardous conditions.
2. All employees and visitors must leave the building immediately if the fire alarm is activated, or if directed to do so by Incident Coordinator.
3. All employees will guide and assist the evacuation to the extent possible.
4. All occupants should exit the building through the nearest safe exit or exit stairwell. Elevators should never be used in an emergency evacuation.
5. Emergency exits are located in all MUD buildings. Stairwells are located in the following areas: Operations/Co-Gen building, Sludge Control Center, Digesters, Secondary, Sludge Filtration, Primaries, Bio-towers, Headworks, T-plant and DAFTs.
6. If the nearest exit or exit stairwell is obstructed by smoke, fires, or other hazards, proceed to an alternate exit.
7. During stairwell evacuation, remove high heels and hold on to the handrail. Allow enough room for others to enter the flow of traffic in the stairwell.
8. All occupants should move to the **evacuation assembly point**. If wind direction does not allow this to be safely used the alternate place must then be used. (See site map for positions).
9. Incident Coordinator should ensure that proper assistance has been summoned if necessary by calling the Local Fire Department, 911.
10. Incident Coordinator will be responsible for keeping a running log of events including actions, names of staff and times. This will be done on the log sheets provided.
11. Incident Coordinator will ensure that all occupants are accounted for and record attendance on the sheet provided. Whistles/ air horns may be used to attract people's attention.

12. Incident Coordinator will ensure that access is granted to emergency services whilst preventing non-essential personnel from entering the site. A member of staff may have to be posted at the gate if appropriate. In the case of the RWCF Main Plant, the reception desk must be informed at extension 8763 (or 937-8763).
13. The Incident Coordinator will act as the main liaison between the City of Stockton, emergency services and MUD.

It is their duty to inform arriving emergency personnel of pertinent information about the emergency including

- Nature and location of emergency
- Location of pressurized containers,
- Location and type of hazardous or flammable substances,
- Unaccounted for personnel
- Any other hazards.

14. Ensures building occupants do not reenter the building until cleared by emergency personnel.
15. The Incident Coordinator will not relinquish their position unless passed to the next level in the chain of command or the incident is brought to a close at which point they will hand over all pertinent documentation and the Incident Coordinator vest.

Injured Personnel

It is the responsibility of the incident coordinator to ensure that all injured personnel receive the prompt first aid by qualified staff or members of the emergency services. Injured personnel will not be permitted to take part any in recovery procedures unless given authorization to do so from an appropriately qualified person.

Media Policy

Employees will not be permitted to speak with representatives of the media. When appropriate, this will be done by an appointed representative of the City of Stockton.

Firefighting

Small fires, such as waste paper bins, may be tackled using fire extinguishers provided by personnel that have been trained to use them. This should be done in teams of no less than two (2) people, tag teaming as fire extinguishers are emptied. ALL FIRES shall be reported to the emergency services in case the incident escalates.

PROCEDURE FOR COMMUNICATING EVACUATION OF THE RWCF OR SHELTER-IN-PLACE

Some emergencies at the Stockton Regional Water Control Facility (RWCF) may require a general evacuation of the facility, or a “shelter-in-place” order, for everyone on the site at the time of the emergency. Individual, normally staffed buildings within the facility are equipped with an evacuation kit and audible alarm to notify building occupants of an emergency and/or evacuation. As there is no facility-wide intercom or public address system, it will be necessary to follow a telephone facility notification procedure to notify personnel in each building of the need to evacuate.

If the Incident Coordinator gives the order to evacuate or to shelter in place:

1. The order to evacuate (or shelter-in-place) should be passed to a receptionist at extension 8763 (or 209-937-8763). The following information should be provided:
 - Name of the responsible person giving the order (Incident Coordinator)
 - Nature of the emergency (fire, chemical leak, etc.)
 - Location of the emergency (be as specific as possible)
 - Action to be taken (evacuate the facility or shelter-in-place)
 - A clear order to activate this facility notification procedure
 - Emergency vehicles expected to be coming through the gate
2. The receptionist taking the call and the 2nd receptionist will make every effort to notify someone in each building and/or work group (see notification table below), so that they may activate the evacuation procedures for that building and/or work group. If necessary, the receptionists should also evacuate to the assembly area and continue the notification procedure using this written guide via cell phone.
3. Up to three (3) contact names and numbers have been provided for each area. The objective of the notification procedure is to notify one (1) contact in each location, using the second and third contacts as alternates. Notification of contacts throughout the facility should be done as quickly as possible, so if none of the three (3) contacts can be reached in a given area, move to the subsequent contact groups. Call the desk phone first as it is quicker and if they do not answer they may not be in the building anyway. Go on to the next person – if none of the three (3) answers, try to reach them on their cell phones. After notifying one (1) person in each area, resume attempts for those not previously reached. Be prepared to report any group or building not notified to the Incident Coordinator.

4. Use the following table as a guide. Attempt to notify one (1) person at each building location or work group. Inform each the nature of the emergency, location of the emergency, and provide a clear instruction to evacuate the facility or to shelter in place.

Building Location / Work Group Contact Name	Extension	Cell #	Check when Notified
<i>City of Stockton MUD (for subsequent notification of MUD personnel)</i>			
1. MUD Director	8729	612-3147	
2. MUD Assistant Director	8779	401-0439	
3. Deputy Director of Operations	5125	707-843-1326	
<i>City of Stockton Engineering Office</i>			
1. Senior Civil Engineer	8790	988-2570	
2. Principal Civil Engineer	8787	608-7533	
<i>City of Stockton Delta Project Office</i>			
1. Deputy Director, Water Resources Planning	8779	401-0439	
2. Water Systems Superintendent	7135	609-7411	
<i>MUD Admin Building / Laboratory</i>			
1. Executive Assistant to the Director	8758	938-8577	
2. Laboratory Supervisor	8786	VACANT	
<i>Collections/Maintenance Building</i>			
1. Collections Senior Supervisor-Line Maintenance	5645	993-5612	
2. Collections Senior Supervisor-Repair & Contracts	5647	639-6350	
3. Collections Senior Supervisor-Pump Station Maintenance	8788	639-8513	
<i>Operations Control Room – Main Plant</i>			
1. Operator	8724	401-5900	
<i>Operations Control Room – Tertiary Plant</i>			
1. Senior Operator	8745	993-6212	
<i>Co-generation Facility</i>			
1. Sr. Plant Maintenance Mechanic-Vacant	8735		
<i>Co-generation and Maintenance facility (west of co-gen building)</i>			
1. Electrical Technician	8732	993-5576	

5. After all notifications have been made, report results to the Incident Coordinator and urgently tell the Incident Coordinator of any of the above groups or buildings with which you were unable to make contact.
6. Each Supervisor should know whether they have people working in places such as down in the headworks or out on the dredge and should try to make contact by cell phone. If that does not work, consult the Incident Coordinator about whether to send out searchers.
7. This procedure supplements, but does not take the place of, existing emergency procedures. For existing procedures or details, consult one (1) of the following documents in the Safety system:
 - GENERAL EVACUATION PROCEDURES
 - FIRE EMERGENCY PROCEDURES
 - SHELTERING IN PLACE PROCEDURES

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Action Plan No. 6

Fire/Explosion		
If the situation involves a small isolated fire and it is safe to do so, use a fire extinguisher to extinguish the fire and report the incident to the immediate supervisor. If not, follow the steps outlined below.		
✓	Line No.	Task
	1	When smoke or flames are visible, the fire alarm sounds, or an explosion occurs, call 911 to report the emergency.
	2	Direct personnel to:
		a) Begin evacuating the building through the nearest exit.
		b) Report to the designated assembly area, which should be upwind of the affected area.
	3	Follow established evacuation procedures.
	4	Assist injured personnel, administer first aid; transport injured to nearest medical facility.
	5	Ensure that local emergency response personnel are directed to the emergency area. Keep them informed of casualty and building conditions.
	6	Account for all personnel and visitors at the designated assembly area.
	7	Direct personnel to an alternate assembly area if the designated assembly area becomes unsafe because of other dangers associated with the emergency.
	8	Move vehicles to safe location.
	9	Follow other applicable emergency response action plans (medical emergency, chemical release, etc.).
	10	Notify the Incident Commander of the emergency event, response actions, and status.
	11	Provide technical support and resources to local emergency response personnel, as requested.
	12	If fire/explosion appears to be the result of an intentional act, provide support to the Police Department, Homeland Security, and other law enforcement agencies (preserve evidence, interview witnesses, etc.).
	13	Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event.

Fire/Wildfires***Onsite***

- Report wild and grass fires to Supervisor and Director of Municipal Utilities.
- If the fire occurs on or near the facility site, contact the fire department, contain and extinguish the fire using plant water and/or fire extinguishers.
- Move vehicles in parking lot to a safe location(s).
- If the fire spreads to surrounding property, off the facility site, notify the Fire Department.
- If power to the facility is disrupted, start emergency generator, if applicable.
- Transfer power from the emergency generator to plant circuits.
- When power is restored, transfer power back to the main circuits.
- Place plant equipment back in operation.
- Administer first aid to injured personnel.
- Evacuate injured personnel to the nearest Trauma Center/Hospital.

Offsite

- Report off-site that may endanger the facility to your Supervisor and Director of Municipal Utilities.
- Move vehicles in parking lot to a safe location(s).
- If power to the facility is disrupted, start emergency generator, if applicable.
- Transfer power from the emergency generator to plant circuits, if applicable.
- Contact the power company and determine the duration of the outage, if applicable.
- Standby with firefighting equipment to protect facility equipment and buildings.
- When power is restored, transfer power back to the main circuits.
- Place plant equipment back in operation.
- Shut off emergency generator.
- Administer first aid to injured personnel.
- Evacuate injured personnel to the nearest Trauma Center/Hospital.

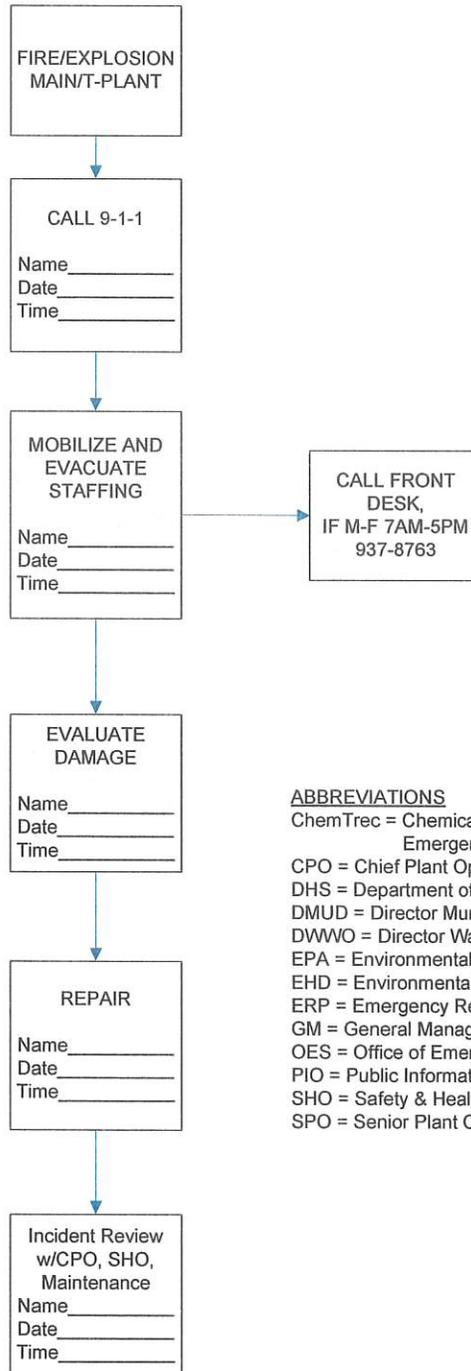
Action Plan No. 6 Log

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Comments	

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Fire/Explosion at Main or T-Plant

TASK



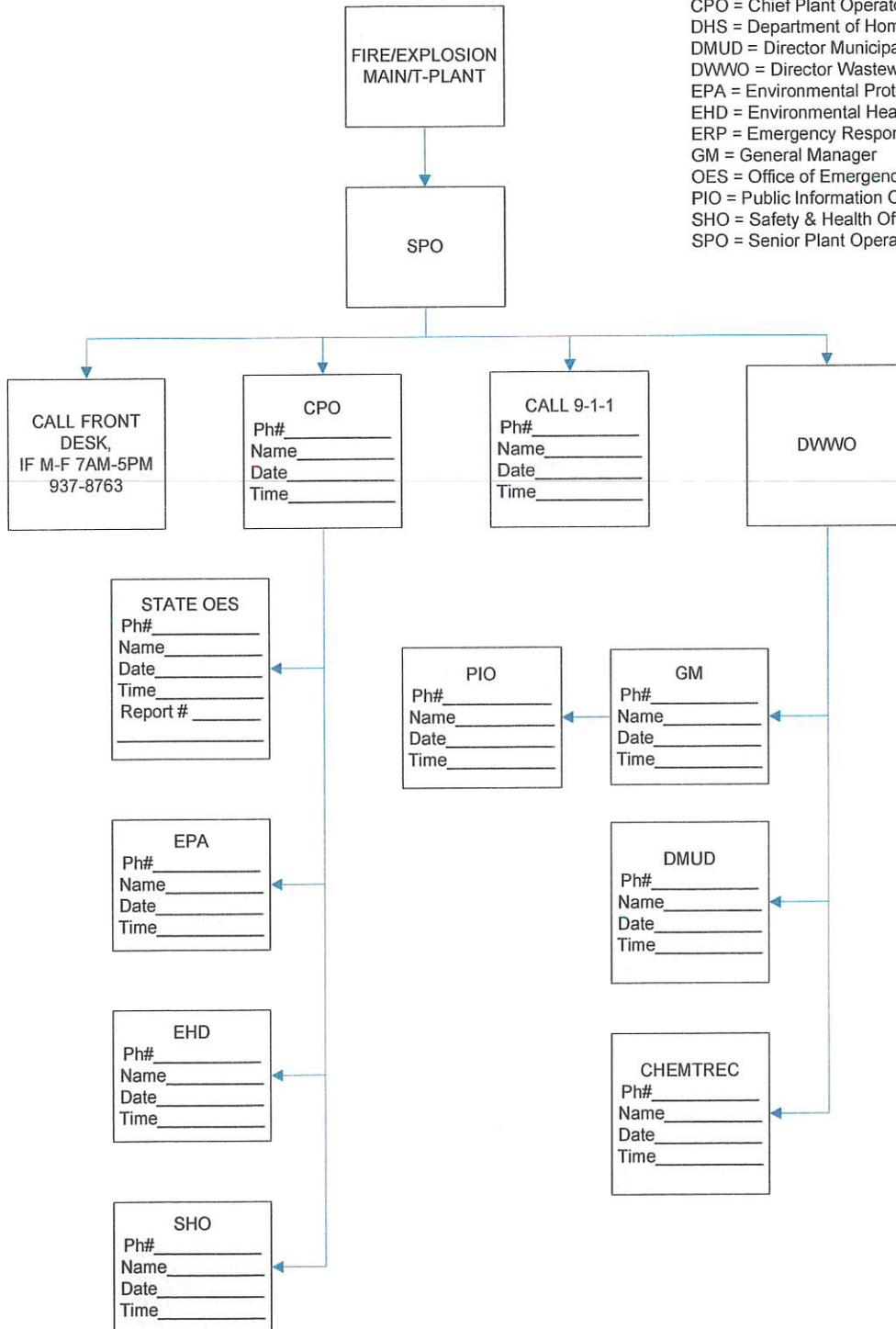
- ABBREVIATIONS**
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Fire/Explosion at Main or T-Plant

NOTIFICATION

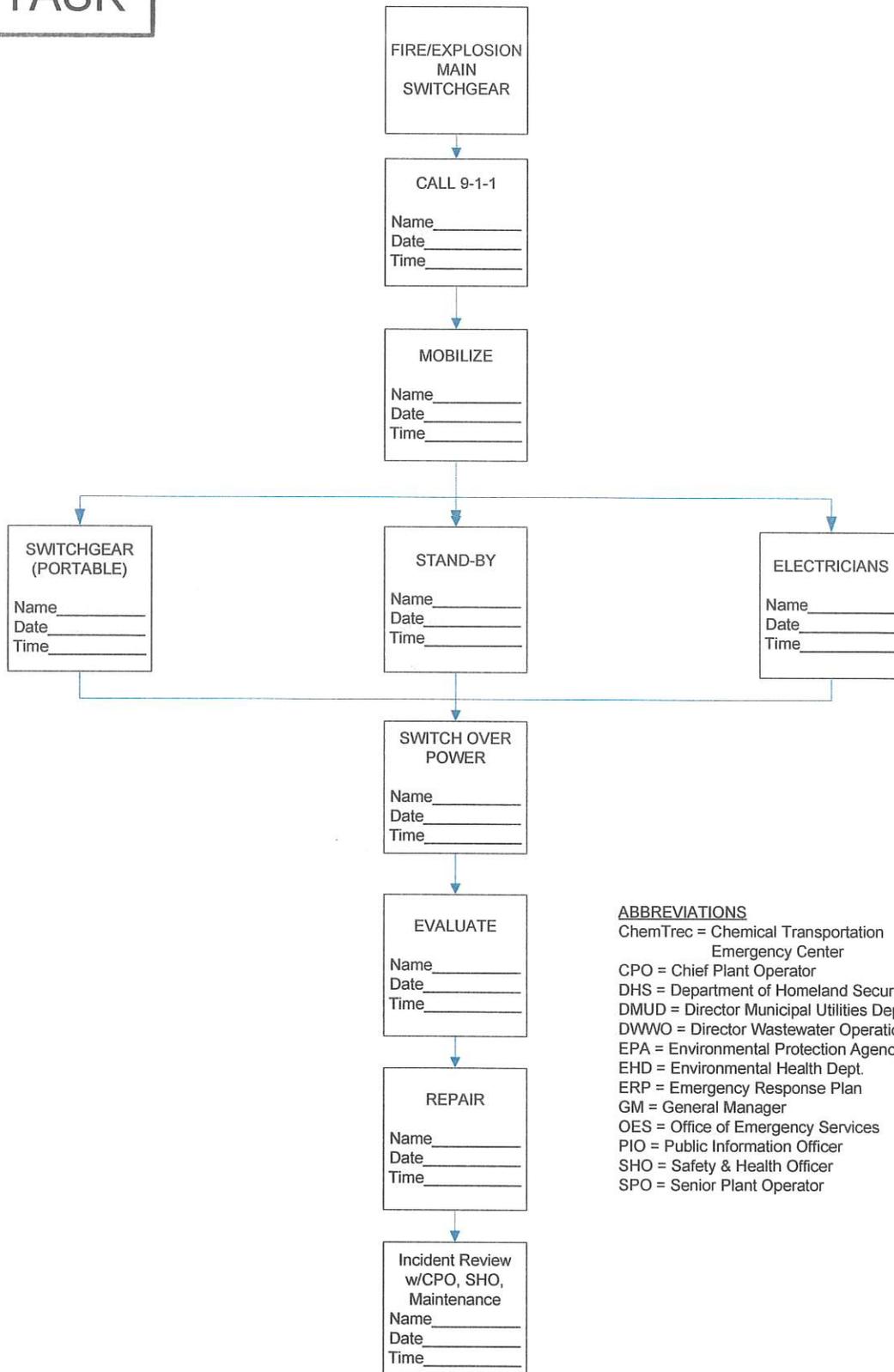
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Fire/Explosion at Main Switchgear

TASK

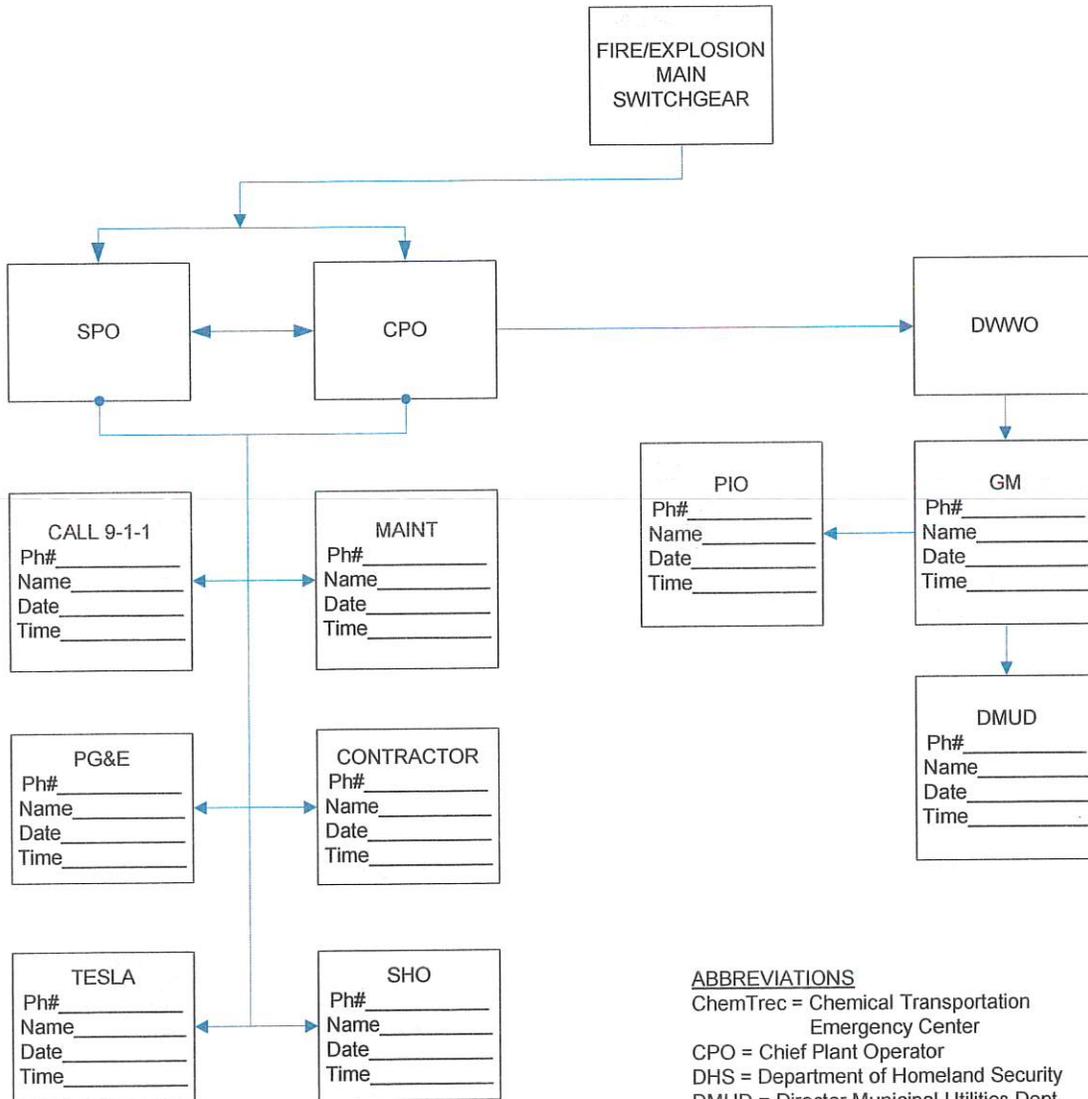


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NOTIFICATION

Fire/Explosion at Main Switchgear



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Action Plan No. 7

Medical Emergency		
Do not move an unconscious injured person unless a more serious injury may occur, such as being left in the path of an advancing fire.		
✓	Line No.	Task
	1	Check the scene for safety before providing emergency assistance.
		a) Consider conditions (traffic, spilled chemicals, downed power lines, etc.) that may affect the safety of potential responders and others at the scene.
		b) Remove, shut down, or minimize any hazards that you can safely control.
	2	Call 911 to report the illness/injury.
	3	If available, ensure the following information is relayed to the 911 Call Center:
		a) Name of individual reporting
		b) Type of emergency
		c) Number of people needing medical care
		d) Whether first aid/CPR is being provided
		e) Gender, age, and medical history of patient(s)
		f) Symptoms of patient(s)
		g) Location (room, floor, building) of patient(s)
		h) Hazards that may be encountered.
	4	Ensure that trained staff members provide First Aid/CPR until emergency response personnel arrive.
	5	Arrange for someone to meet emergency response personnel at the facility entrance and escort them to the patient's location.
	6	Assist local emergency responders, as requested.
	7	Coordinate notification of the employee's family or emergency contact with the employee's supervisor and the Human Resources Department.
	8	If injury appears to be the result of an intentional act, provide support to the Police Department and other law enforcement agencies (preserve evidence, interview witnesses, etc.).
	9	In the event of injury or death, notify the City's Legal Department.
	10	Maintain documentation and forward to the Health & Safety Officer and Human Resources Manager at the conclusion of the emergency event.

Action Plan No. 7 Log

Date/Time: _____	Signature: _____
Comments	

Action Plan No. 8

Power Failure		
In case of power failure, emergency generators at the plant will provide sufficient power for emergency lighting and plant controls. The general guidelines below are intended to supplement SOPs for power failure at the plant.		
✓	Line No.	Task
	1	Start an Event Log.
	2	Activate/check status of emergency power supply.
	3	Assign someone to monitor the status of the emergency power supply during the incident and report any problems to the Incident Commander. If the emergency generator fails to start in automatic status, initiate operation manually only after performing the following:
		a) Check the fuel delivery system.
		b) Check the starting air pressure.
		c) Check the Emergency Generator Engine for proper water and oil levels.
		d) Check the Emergency Generator Engine block heater.
	4	Once emergency power is established, reset and restart all affected plant equipment.
	5	Notify PG&E. Provide periodic status updates, as needed.
	6	Notify the Incident Commander.
	7	If power failure is due to local equipment failure, develop and implement recovery plan.
	8	If power failure appears to be the result of an intentional act:
		a) Notify the California State Warning Center (800/852-7550) within two (2) hours.
		b) Provide support to the Police Department and other law enforcement agencies.
		c) Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event.

Check box when an item was completed or, if an item was not applicable, place N/A in the box. Comments section and signature block located on the next page.

Action Plan No. 8 Log

Date/Time: _____	Signature: _____
Comments	

Power Failure

- Notify Supervisor and Director of Municipal Utilities.
- Contact PG&E (Pacific Gas and Electric) at 800/743-5002
- Determine duration of outage.
- When line power is restored, transfer power from line power to plant circuits.
- Turn off emergency generator(s).
- Check plant-wide equipment and process for normal operation.

This is a common treatment facility problem which can seriously affect process stability even with backup power generating equipment available. Many types of power interrupting circumstances can leave the plant crippled if action is not taken to minimize the effects.

Power surges may also adversely affect equipment operation and process control. The equipment may require repair, re-calibration, control system replacement, amperage checks, or re-wiring before bringing the plant back to normal operation.

Telephone service may be interrupted during power outages. A cellular telephone located in the Operators Control Room would provide continuous communications.

Response Strategy

1. **Communication.** Determine if the outage is local to the plant or regional and the estimated down time the utility expects. This will provide the operations staff some measure of the seriousness of the situation and organize procurement of additional diesel fuel for the generator or additional generating equipment.
2. **Process assessment.** Determine which processes are affected and perform changes in plant operation which minimizes the effect of the loss of power. All other equipment can be powered from an emergency generator; however the load should be minimized as much as possible and status of all equipment checked.
3. **Generating equipment.** Alternatively, generating equipment can be rented from vendors.

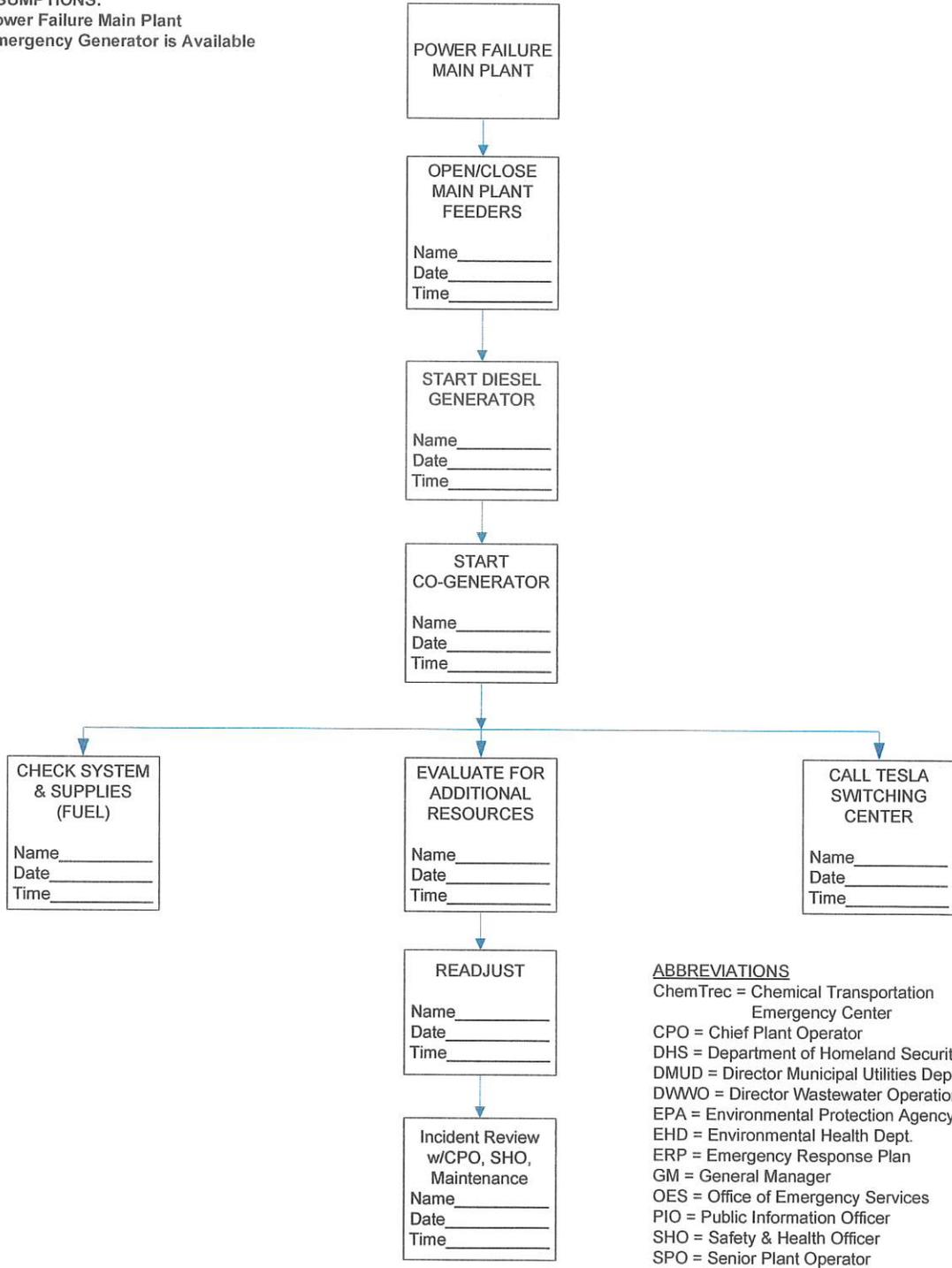
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Power Failure – Main Plant

TASK

ASSUMPTIONS:

- Power Failure Main Plant
- Emergency Generator is Available



ABBREVIATIONS

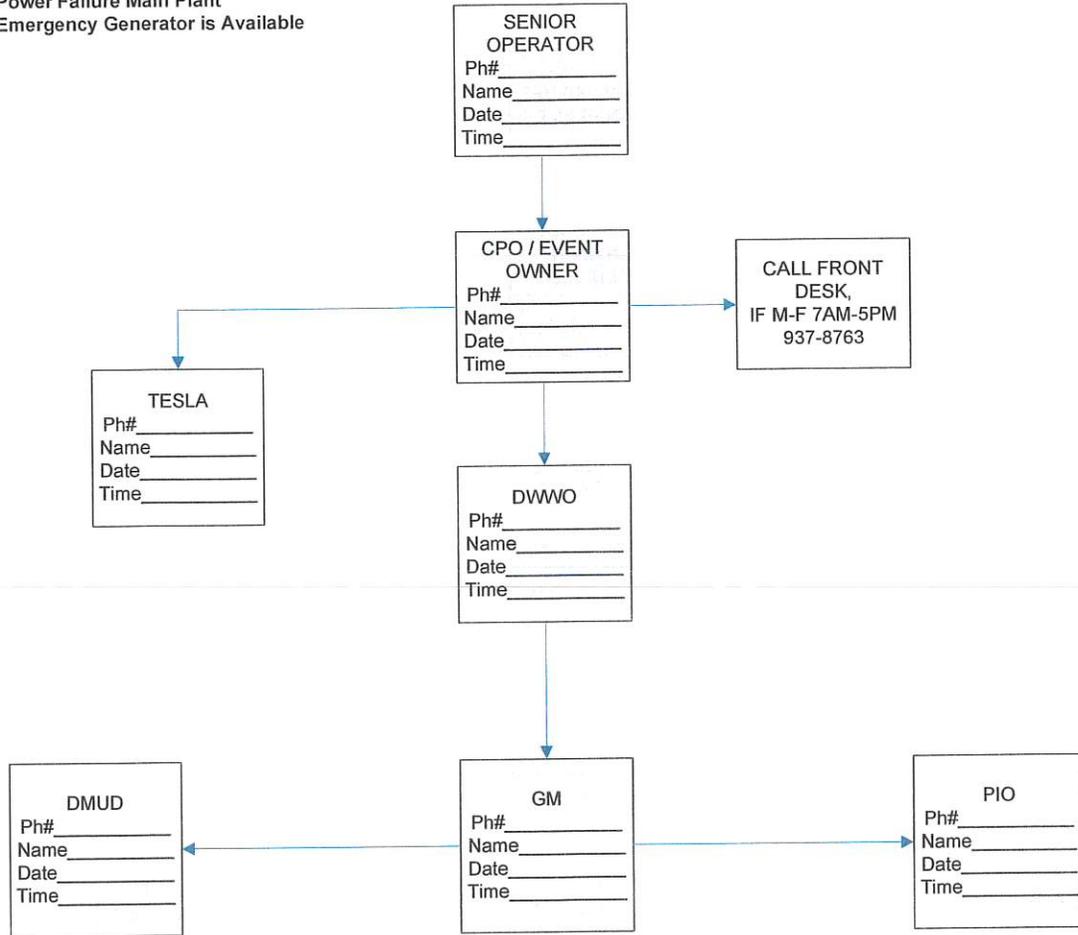
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Power Failure – Main Plant

NOTIFICATION

ASSUMPTIONS:

- Power Failure Main Plant
- Emergency Generator is Available



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Action Plan No. 9

SCADA Attack/Electronic Failure		
✓	Line No.	Task
	1	Place all affected or potentially affected wastewater treatment and conveyance equipment in LOCAL/ MANUAL and configure, as required, using last known good process values. Institute tight access control to local plant and equipment to avoid physical attack.
	2	Notify the Incident Commander.
	3	Notify federal, state, and local agencies, as applicable.
	4	Coordinate with the Police Department and other law enforcement agencies.
	5	Physically disconnect links of the affected and other potentially affected control systems from local business networks, Internet connections, and dial-up modem connections.
	6	Save all event logs, alarm logs, and historical data files to removable media and place in a secure location for later analysis.
	7	Save all SCADA application and database files to removable media and place in a secure location for later analysis.
	8	Remove SCADA servers from the control system for later analysis. If possible, do not interrupt the power supply to the servers.
	9	Install spare SCADA server, loaded with latest archived configuration files. Change all passwords. Do not restart SCADA application until Programmable Logic Controllers (PLC) or Distributed Process Controllers (DPC) have been reconfigured.
	10	Upload all affected or potentially affected PLC or DPC programs and configurations to removable media and place in a secure location for later analysis.
	11	Completely purge the memory from all affected or potentially affected PLC or DPCs, and download latest archived configuration and program (if unaffected by the attack).
	12	Save all configuration files from network switches, hubs, and servers to removable media.
	13	Completely purge the memory from all network switches, hubs, servers, and modems. Download latest archived configuration files. Change all passwords. Inspect and validate all archived routing tables.
	14	Restart reconfigured SCADA server application. Verify that the application is current. If not, install any service packs or updates installed since the last backup.
	15	Restart PLC or DPCs on a system-by-system basis, verifying proper operation. Return wastewater treatment and conveyance equipment to REMOTE/AUTOMATIC control on a system-by-system basis, verifying proper operation.
	16	Analyze all archived network device configuration files to determine the cyber-attack entry point and attack method. Reconfigure and enhance systems, as required, to prevent subsequent successful attacks.
	17	Reestablish links from the enhanced control system, as required, to local business networks, Internet connections, and dial-up modem connections.
	18	Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event. Notify required State and Federal agencies based on situation (intentional intrusion).

Action Plan No. 10 Log

Date/Time: _____	Signature: _____
Comments	

Action Plan No. 10

SCADA Attack/Physical		
✓	Line No.	Task
	1	Place all affected wastewater treatment and conveyance equipment in LOCAL/MANUAL and configure as required using last known good process values.
	2	Notify the Incident Commander.
	3	Notify federal, state, and local agencies, as applicable.
	4	Coordinate with the Police Department and other law enforcement agencies.
	5	Refer to vulnerability assessment ranking of the relative importance of the various facilities. Assign evaluation and repair teams and resources based on the relative importance of the affected installations.
	6	Physically examine and/or run electronic diagnostic tests of all affected, or potentially affected, systems to determine which components have been damaged.
	7	Obtain and install replacement components. Maintain records of all newly installed component model numbers, serial numbers, and source of supply. Restart, test, and certify repaired systems.
	8	Return certified systems to REMOTE/AUTOMATIC control mode of operation.
	9	Submit records of all newly installed components for restocking of spare supplies.
	10	Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event.

Check box when an item was completed or, if an item was not applicable, place N/A in the box. Comments section and signature block located on the next page.

Action Plan No. 10 Log

Date/Time: _____	Signature: _____
Comments	

Action Plan No. 11

Severe Weather/Natural Disasters		
Natural disasters include cold snap/wind, tornadoes, thunderstorms (and associated lightning), windstorms, flooding, storms and earthquakes.		
✓	Line No.	Task
	1	Monitor weather using a National Oceanic & Atmospheric Administration (US) (NOAA) radio, local news media, or Internet weather sites.
	2	During periods of icy or snowy weather, ensure the following actions are taken:
		a) Clear snow and ice from walkways and roads.
		b) Ensure emergency power supply is available.
		c) Prepare equipment and vehicles (fill fuel tanks, check oil and tire pressure, etc.)
		d) Consider releasing non-essential personnel from their duties until the weather improves.
		e) Arrange alternate transportation to work for essential personnel, if necessary.
	3	During a tornado, severe thunderstorm, or windstorm <i>watch</i> , ensure the following actions are taken:
		a) Move loose outdoor items into buildings, if possible.
		b) Allow employees to perform only essential outdoor activities.
		c) Instruct employees to move to permanent structures and prepare for sheltering.
		d) Listen to weather reports for further announcements and direction.
	4	During a tornado, severe thunderstorm, or windstorm <i>warning</i> , ensure the following actions are taken:
		a) Have personnel move to designated shelters, or to the interiors of buildings away from doors and windows.
		b) Direct personnel to get under desks, tables, or other sturdy objects (tornado warning only).
		c) Put crews on standby.
		d) Monitor weather reports to determine when personnel can return to their normal assignments.
		e) If a tornado, severe thunderstorm, or windstorm damages the facility, follow other applicable emergency response action plans.
		f) After the emergency is over, follow damage assessment and recovery procedures. Identify repairs needed immediately in order to ensure adequate service for public needs.
	5	During a flood <i>watch</i> , ensure the following actions are taken:
		a) Put crews on standby.
		b) Monitor water levels, as appropriate.
		c) Prepare to activate EOC, if necessary.
		d) Check inventory of equipment, chemicals, and supplies.
	6	During a flood <i>warning</i> , ensure the following actions are taken:
		a) If flooding affects the facility, notify the Incident Commander.
		b) Follow other applicable emergency response action plans and SOPs.

Severe Weather/Natural Disasters		
Natural disasters include cold snap/wind, tornadoes, thunderstorms (and associated lightning), windstorms, flooding, storms and earthquakes.		
✓	Line No.	Task
		c) Assess electrocution or grounding hazards in flooded or water-damaged areas, and secure those areas.
		d) Put crews on standby.
		e) Initiate Action Plan No. 4 (Dam and Levee Failures), if necessary.
	7	During an <i>earthquake</i> , ensure the following actions are taken:
		a) Direct all personnel to find immediate shelter.
		b) See earthquake response strategy on pages B12-5 & 6 for additional guidance.
		c) Shut off all natural gas, chlorine, and other supply lines.
		d) Inspect buildings and facilities for damage from the outside.
		e) Administer First Aid to injured personnel, if trained.
		f) Evacuate injured personnel to the nearest medical facility.
		g) Monitor the emergency communications for instructions.
		h) After the emergency is over (expect aftershocks), activate the wastewater utility EOC, and follow damage assessment and recovery procedures. Identify repairs needed immediately in order to ensure adequate service for public needs.
	8	During a <i>cold snap/wind</i> , ensure the following actions are taken:
		a) Establish communication with Incident Commander
		b) Inspect all wastewater facilities for damage or additional protective needs
		c) Install line heaters or cylinder blanket heaters on affected systems
		d) Initiate repairs as needed to return systems to normal operations
	9	Maintain documentation of events and damage for weather-related emergencies that affect employees or damage facilities and/or equipment. Forward this to the Incident Commander at the conclusion of the emergency event.

Check box when an item was completed or, if an item was not applicable, place N/A in the box. Comment section and signature block located on the next page.

Earthquakes—Response Strategy

1. **Damage assessment.** The first response is to determine the extent and nature of the earthquake by auditing utilities, piping, and processes. This audit will then allow the response to concentrate on the direction and actions required by on-site staff and outside agencies.

Normally, power outages will be the most evident problem with pipe and structural failures also needing immediate attention.

2. **Delegate responsibilities.** Additional staff and assistance for monitoring processes will be necessary for sampling, analysis, equipment repair, manual equipment and process operation, and communication.

Prioritized activities should be performed by in-house staff and outside agencies.

3. **Process monitoring and control.** Increased process sampling will be required to alert operations personnel of unusual conditions.

Alternative modes of operation may be required, for example, to bypass damaged structures or equipment which is not operational.

Bypassing flows within the process units, isolating processes, and changing modes of operation to decrease the effects of lost equipment and systems should be performed. Manual operation of equipment, loss of chemical feed pacing, wastewater quality analyzers and control systems may be expected.

Operational changes should be made to maintain solids inventories and viable micro-biological populations.

Recovery Response

The proper response after an emergency has reached a measure of safety for the personnel; a thorough plant check is in order.

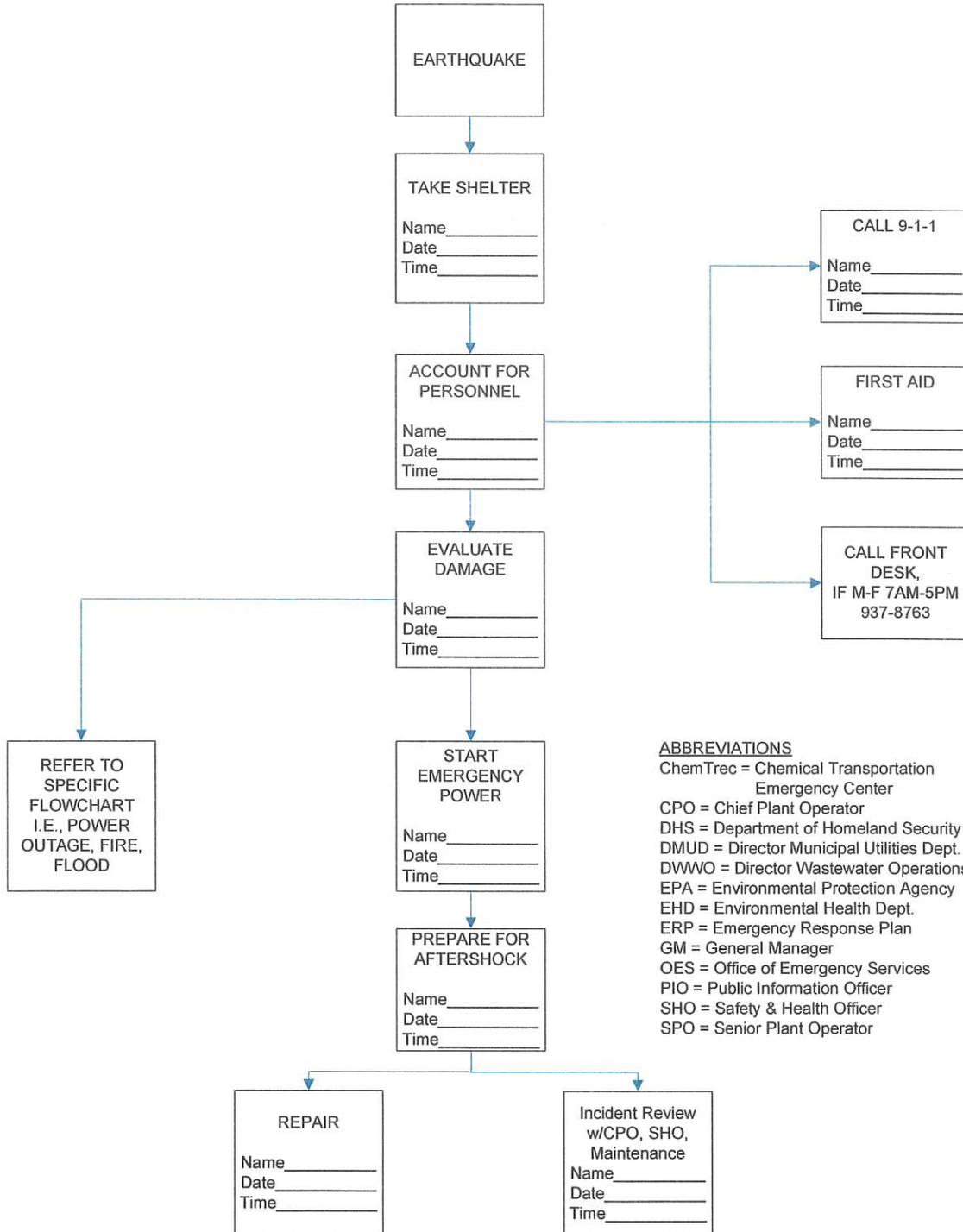
- Assess and record damage
- Report damage to Incident Commander
- Prepare list of supplies necessary for repairs

Action Plan No. 11 Log

Date/Time: _____	Signature: _____
Comments	

Earthquake

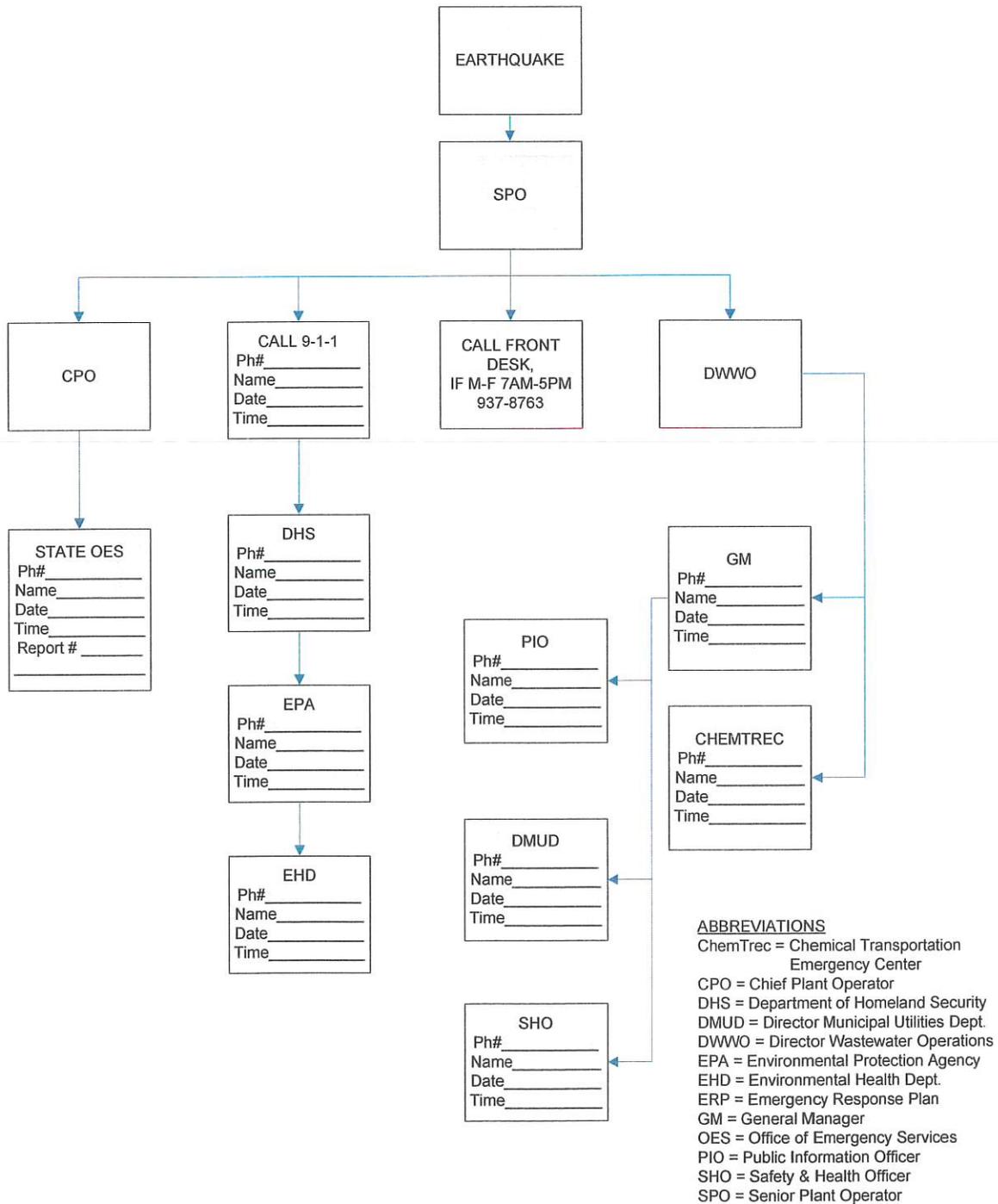
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Earthquake

NOTIFICATION



Action Plan No. 12

Sheltering-in-Place		
Sheltering-in-place may be required when it has been determined that it is safer to remain at a location than to evacuate. Types of emergencies that may involve sheltering-in-place include chemical release, severe weather, civil disorder, and terrorist attack.		
✓	Line No.	Task
	1	Notify personnel to shelter in the designated location, or as instructed.
	2	Ensure that all windows and doors are closed.
	3	Identify a single door for entry into the building, and post a door monitor.
	4	Do not allow personnel to leave the building unless approved by the Incident Commander.
	5	Maintain a list of all personnel in the building.
	6	Facilitate distribution of emergency supplies as applicable.
	7	Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event.

Check box when an item was completed or, if an item was not applicable, place N/A in the box. Comments section and signature block located on the next page.

The tasks listed above are general guidelines for responding to each type of emergency; specific response actions may vary depending upon the nature and extent of the emergency event.

Action Plan No. 12 Log

Date/Time: _____	Signature: _____
Comments	

Action Plan No. 13

Terrorist/Hostile Attack		
The primary responsibility of the UERM (Utility Emergency Response Manager) is to protect staff and other on-site personnel during such an event.		
✓	Line No.	Task
	1	Call 911 to report the emergency. Report any suspicious activity or person to your supervisor or Director.
	2	Comply with facility announcements and law enforcement instructions.
	3	Notify the supervising authority of the emergency event, response actions, and status.
	4	Provide technical support and resources to local emergency responders, as requested.
	5	During situations involving violence, such as gunfire etc.:
	6	Direct employees in the immediate area to hide under furniture and hold badges near their faces when approached by emergency responders.
	7	Direct employees outside the immediate area to stay indoors, lock doors, keep away from windows, and follow law enforcement instructions.
	8	Follow other applicable emergency response action plans.
	9	Restore building to normal operations when authorized by your supervising authority..
	10	Maintain documentation and forward to your supervising authority at the conclusion of the emergency event.

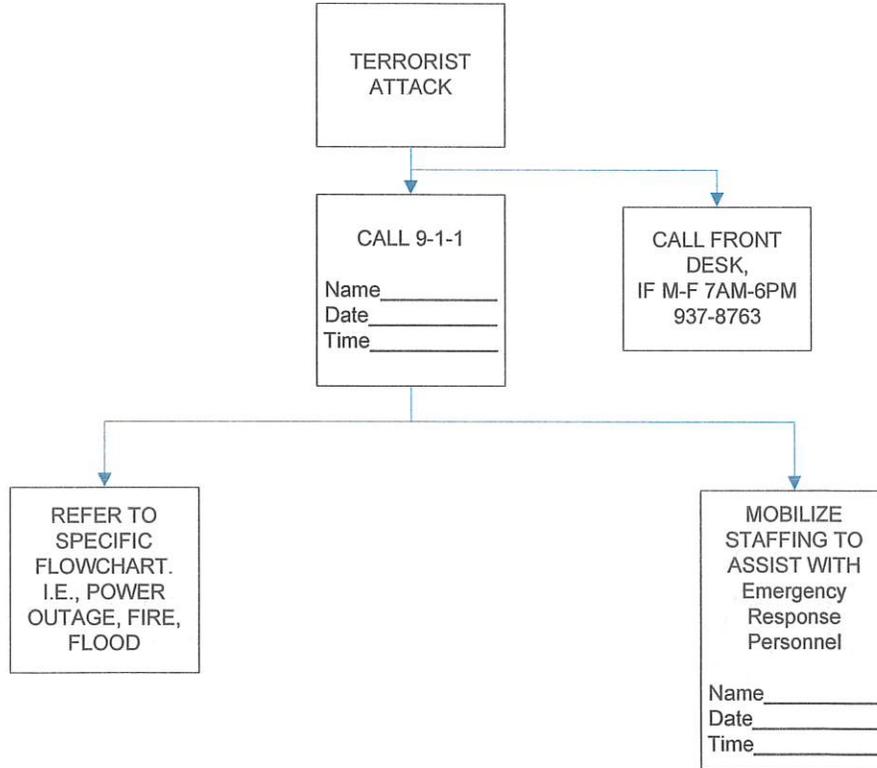
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Action Plan No. 13 Log

Date/Time: _____	Signature: _____
Comments	

TASK

Terrorist Attack

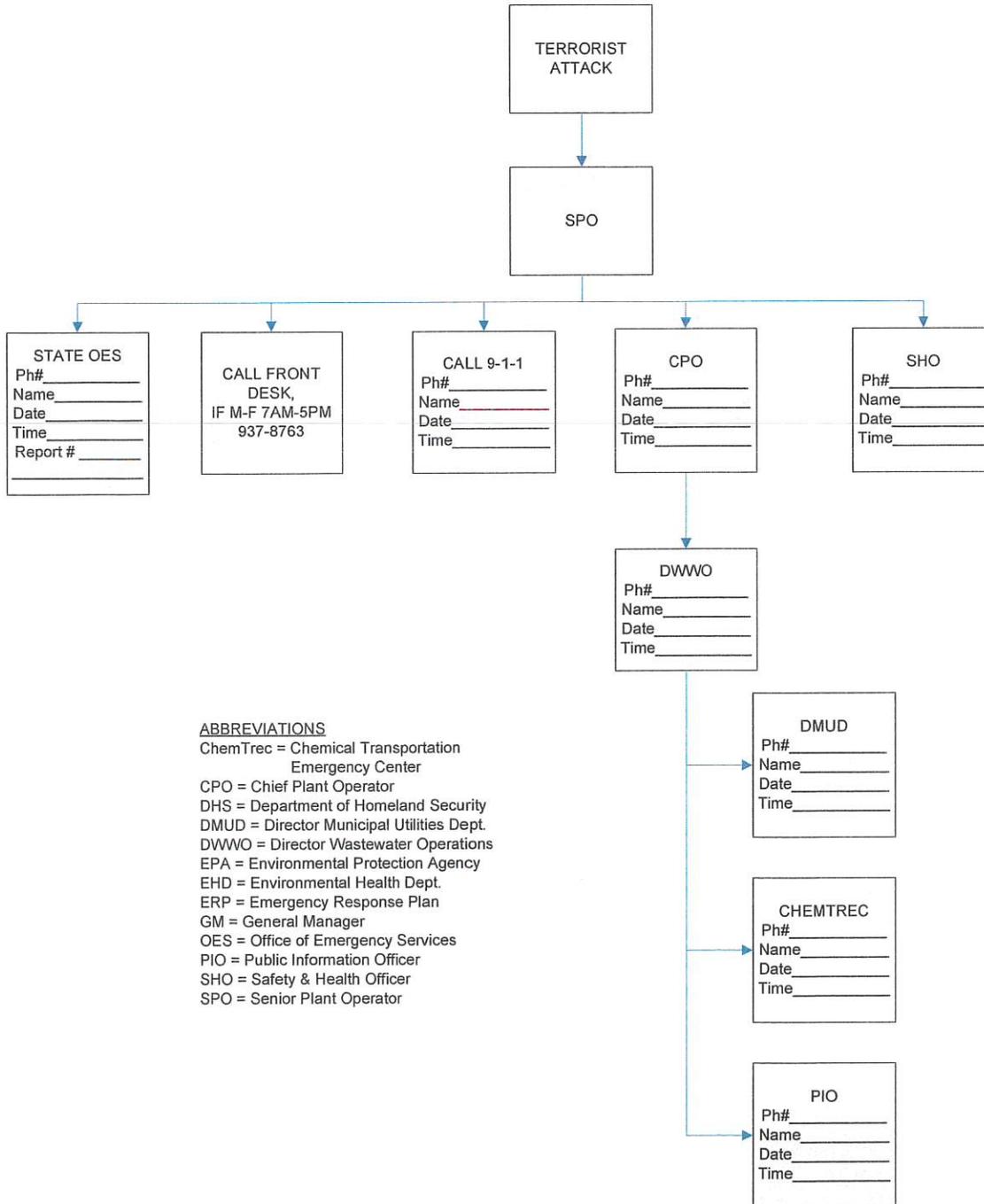


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Terrorist Attack

NOTIFICATION



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Action Plan No. 14

Threat and Identification of Contamination to the Wastewater System													
<p>Procedures for responding to the threat and confirmation of introduction of a contaminant into the wastewater system (at any point within the system) without identification of the contaminant. Both accidental and/or intentional contamination is applicable to this AP. If the substance is known, consult applicable Material Safety Data Sheets (MSDS) and any appropriate Standard Operating Policies (SOP) to augment this Action Plan (AP).</p>													
✓	Line No. Task												
	1 Incidents and scenarios under which emergency may evolve:												
	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">a) Security breach</td> <td style="width: 50%;">g) Notification by the news media</td> </tr> <tr> <td>b) Witness account</td> <td>h) Unusual water/effluent quality</td> </tr> <tr> <td>c) Notification by the perpetrator</td> <td>i) Consumer complaint</td> </tr> <tr> <td>d) Notification by law enforcement officials</td> <td>j) Notification by public health agencies</td> </tr> <tr> <td>e) Septage hauler waste</td> <td>k) Hazardous material spills</td> </tr> <tr> <td>f) Decontamination activities by responders</td> <td>l) Intentional/illicit dumping</td> </tr> </table>	a) Security breach	g) Notification by the news media	b) Witness account	h) Unusual water/effluent quality	c) Notification by the perpetrator	i) Consumer complaint	d) Notification by law enforcement officials	j) Notification by public health agencies	e) Septage hauler waste	k) Hazardous material spills	f) Decontamination activities by responders	l) Intentional/illicit dumping
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e) Septage hauler waste	k) Hazardous material spills												
f) Decontamination activities by responders	l) Intentional/illicit dumping												
	2 Notify the Incident Commander of the emergency event, response actions, and status.												
	3 Evaluate the scenario or material to determine if the threat is significant based on dilution, reactivity, environment, location, accessibility, and potential damage to treatment processes.												
	a) If the threat is possible, proceed to Line No. 4.												
	b) If the threat is not possible, proceed to Line No. 12.												
	4 Notify local emergency responders (911), San Joaquin County Office of Emergency Services, and the San Joaquin County Environmental Health Department.												
	5 Evaluate the spread of potential contamination and its impact on public health, and select the appropriate operational response. Responses may include containment/isolation, retention, and/or bypass of suspect water.												
	6 Determine if sampling of the wastewater collection system is necessary. If yes, proceed to Line No. 7. If not, proceed to Line No. 9.												
	7 Characterize the suspected contamination site. The characterization may include:												
	a) Determine sampling locations.												
	b) Designate sampling team members.												
	c) Conduct preliminary assessment of potential site hazards.												
	d) Search for physical evidence (discarded containers, evidence that a manhole has been opened, etc.)												
	e) Ensure potential ignition sources are eliminated (cigarettes, cell phones, engines, etc.)												
	f) Perform air sampling.												
	8 Collect wastewater samples for laboratory analysis.												
	9 Using the information collected during the threat evaluation and the site characterization, determine if the threat is credible.												

Threat and Identification of Contamination to the Wastewater System		
Procedures for responding to the threat and confirmation of introduction of a contaminant into the wastewater system (at any point within the system) without identification of the contaminant. Both accidental and/or intentional contamination is applicable to this AP. If the substance is known, consult applicable Material Safety Data Sheets (MSDS) and any appropriate Standard Operating Policies (SOP) to augment this Action Plan (AP).		
✓	Line No.	Task
		a) If the threat is credible, send samples for laboratory analysis, continue site characterization activities, and implement measures to protect public health.
		b) If the threat is not credible, proceed to Line No. 12.
	10	If contamination is not found, determine if the threat is still credible.
		a) If the threat is credible, revise sampling and analysis plans and collect additional samples.
		b) If the threat is not credible, proceed to Line No. 12.
		c) If threat is confirmed, proceed to Line No. 11.
	11	If contamination is found:
		a) Initiate operational response selected in Step No. 5. Consult applicable MSDSs or SOPs.
		b) Contact the San Joaquin County Office of Emergency Services for assistance in responding to the emergency.
		c) Decide whether, when, and how to notify customers and the news media. If applicable, contact the San Joaquin County Environmental Health Department regarding the issuance of public advisories.
		d) Isolate and contain contaminants, if possible.
	12	Close the investigation and return to normal operations.
	13	Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event.

Check box when an item was completed or, if an item was not applicable, place N/A in the box. Comment section and signature block located on the next page.

Action Plan No. 14 Log

Date/Time: _____	Signature: _____
Comments	

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Action Plan No. 15

Unauthorized Entry		
Unauthorized entry or criminal activity may occur at any facility. The criminal activity may range from vandalism to terrorist acts that result in major structural damage, chemical or fuel spills, or contaminants entering the waste stream.		
✓	Line No.	Task
	1	If unauthorized entry is observed, immediately call 911 and report the emergency.
	2	If possible, record a description of each intruder and the make, model, color, and license number of any vehicle involved. Do not put yourself in danger by confronting the intruder(s).
	3	Direct employees to check their immediate work areas for any suspicious items or damage.
	4	Instruct employees <i>not</i> to disturb any suspicious items.
	5	If applicable, evacuate the building or facility. Account for all personnel at the designated assembly area.
	6	Report any suspicious items to the local emergency response agency's Incident Commander.
	7	Provide technical support and resources to local emergency response agencies, as requested.
	8	Determine whether there are any impacts or potential impacts to the operation of wastewater conveyance, treatment, and/or discharge facilities. Report any such impacts to the Incident Commander.
	9	Follow other applicable emergency response action plans.
	10	Ensure that other federal, state, and local agencies have been notified, as applicable.
	11	Coordinate building reentry with the Incident Commander.
	12	Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event.

Check box when an item was completed or, if an item was not applicable, place N/A in the box. Comments section and signature block located on the next page.

The tasks listed above are general guidelines for responding to each type of emergency; specific response actions may vary depending upon the nature and extent of the emergency event.

Action Plan No. 15 Log

Date/Time: _____	Signature: _____
Comments	

Action Plan No. 16

Workplace Violence		
The primary responsibility of the Director of Wastewater Operations is to protect staff and other onsite personnel during such an event. Do not attempt to confront the perpetrator in the absence of law enforcement presence.		
✓	Line No.	Task
	1	Call 911 to report the emergency.
	2	Comply with facility announcements and law enforcement instructions.
	3	Notify the Incident Commander of the emergency event, response actions, and status.
	4	Provide technical support and resources to local emergency responders, as requested.
	5	During situations involving violence, such as gunfire and explosions:
		a) Direct employees in the immediate area to hide under furniture until approached by emergency responders.
		b) Direct employees outside the immediate area to stay indoors, lock doors, keep away from windows, and follow law enforcement instructions.
	6	Direct employees to report any suspicious activity or person to the Incident Commander.
	7	In the event of a hostage situation, do not attempt to negotiate or reason with the perpetrator.
	8	Follow other applicable emergency response action plans.
	9	Restore building to normal operations when authorized by the Incident Commander.
	10	Maintain documentation and forward to the Incident Commander at the conclusion of the emergency event.

Check box when an item was completed or, if an item was not applicable, place N/A in the box. Comments section and signature block located on the next page.

Action Plan No. 16 Log

Date/Time: _____	Signature: _____
Comments	

Appendix C

Sampling and Monitoring

For analysis of routine parameters such as wastewater quality, inorganic, and organic constituents, samples should be routed through the normal procedures in accordance with plant laboratory guidelines. The wastewater laboratory maintains a list of local laboratories and capabilities for sample analysis. The Laboratory Point of Contact (LPoC) should be consulted for all sample collection, preservation, transport, and documentation. The LPoC is also knowledgeable of pretreatment regulations, permits, and allowable constituent levels for waste stream analysis purposes. Sample Collection, Identification and Chain-of-Custody Form contains a sample chain-of-custody form and instructions for sample shipping and analysis. Please see the following table for MUD Wastewater Sampling and Monitoring Capabilities. Please see the following table for a summary of in-house sampling and monitoring capabilities for the wastewater system. See California Department of Public Health Recommended Emergency Sampling Kits. Please see sampling kit information at the end of this Appendix.

For non-routine analysis of potential contamination, the California Mutual Aid Laboratory Network (CAMAL Net) has been established to facilitate potential wastewater contamination sample analyses. Approval to access this mutual aid network in an emergency can be obtained from the CDPH District Engineer. The Laboratory Response Network (LRN) has also established a biological agent analysis classification system to rank laboratory sample processing and analysis capabilities (biosafety level). In California, few laboratories can conduct biological confirmation, transport, and limited analysis. Characterization of a biological agent can only be accomplished by the CDC and the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID). These laboratories (and other facilities that handle specialty analysis of chemical, biological, or radiological agents) can be identified and contacted through County and State Public Health Agencies.

In addition, the San Joaquin County OES and the San Joaquin County Public Health Department can assist with all wastewater sampling and monitoring activities during an actual or potential contamination event. MUD will provide technical support in advice to the local emergency management agency or HAZMAT team as needed throughout the incident. The LPoC will also assist in the interpretation and communication of monitoring or lab results and will consult directly with the Director of Wastewater Operations on significant findings.

The City and County OES are equipped with HAZMAT response teams and a mobile command unit. The HAZMAT team maintains equipment to detect and respond to chemical, biological, and radiological agents. Biological agents would also be identified in coordination with the County Public Health Department. Chemical agents would also require transport for analysis. Radiological agent detection can be conducted on-scene using mobile equipment.

MUD Wastewater Sampling and Monitoring Capabilities

Location	Current Sampling/Monitoring
Influent	Flow pH Alkalinity Dissolved Oxygen Ammonia cBOD Total Solids Dissolved Solids Total Suspended Solids Nitrates Nitrites Total Coliforms Fecal Coliforms Hardness
Effluent	Flow pH Total Suspended Solids (TSS) Chlorine residual Dissolved oxygen cBOD Ammonia Nitrates Nitrites Total Coliforms Fecal Coliforms Hardness
Other on-site sampling and analysis capabilities	LEL/PEL for explosives Chlorine air sampling Hydrogen sulfide air sampling

Instructions for Sample Collection, Identification, and Chain-of-Custody Form

It is critically important that samples taken in response to an intentional act against a wastewater system be taken in a systematic manner, whether from an epidemiological or evidentiary standpoint. Each sample collected should have a separate identifying number (Sample ID#) and the transfer of each sample should be documented. The Sample Collection, Identification and Chain-of-Custody Form provides a standardized format for annotating this information.

Sample Identification Number (Sample ID#)

Each sample should have separate identification number. A uniform system should be established for assigning sample identification numbers.

Sample Date/Time

Record the date and time that the sample was taken.

Sample Description

Describe the type of sample taken (wastewater, sludge, sediment basin, etc.)

Sample Location

As specifically as possible, record from where the sample was taken. This is so later samples can be taken (if necessary) from the exact same location.

Comments

Provide any additional comments that may assist in sample analysis (wastewater temperature, humidity, how sample was taken, what materials were used to take sample, etc.).

Sampler Identification

The person taking the sample should sign his/her name in the Signature block, annotate the date/time of signature in the Date/Time block, print the sampler's name in the Print block and annotate the sample ID number from the Sample ID# block at the top of the form.

Witness Identification

The person witnessing the taking of the sample should sign his/her name in the Signature block, annotate the date/time of signature in the Date/Time block, print the sampler's name in the Print block and annotate the location of where the sample was taken from the Sample Location block at the top of the form.

Chain-of-Custody Tracking

A record of control for all samples should be maintained. Each person who releases control of the sample should maintain a copy of who the sample was released to. Persons who receive samples should verify the sample identification number on the sample before signing for receipt of the sample. The original copy of the form, with original signatures should remain with each sample until final disposition.

The person releasing the sample should:

- Sign his/her name in the Signature block;
- Annotate the date/time of release in the Date/Time block; and
- Print the releaser's name in the Print block and annotate the sample ID number from the Sample ID# block at the top of the form.

The person receiving the sample should:

- Sign his/her name in the Signature block;
- Annotate the date/time of receipt in the Date/Time block; and
- Print the receiver's name in the Print block and annotate the location where the sample was received in the Location block.

Other Considerations (Photographs)

A photograph should be taken of each collected sample at the sample location, when possible. Ideally, the photograph should show the completed sample ID label and security seals in-place. Photographs should be annotated or dated-stamped with the date, time that the photo was taken, and direction of photograph (North, South, East, or West).

Sample Collection, Identification and Chain-of-Custody Form

Sample ID # (Place ID Label Here)		Sample Date/Time	
Sample Description		Sample Location	
Comments			
Sampler Signature	Date/Time	Witness Signature	Date/Time
Print	Sample ID	Print	Location
1. Released by: Signature	Date/Time	Received by: Signature	Date/Time
Print	Sample ID	Print	Location
2. Released by: Signature	Date/Time	Received by: Signature	Date/Time
Print	Sample ID	Print	Location
3. Released by: Signature	Date/Time	Received by: Signature	Date/Time
Print	Sample ID	Print	Location
4. Released by: Signature	Date/Time	Received by: Signature	Date/Time
Print	Sample ID	Print	Location

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California Department of Public Health Recommended Emergency Sampling Kits

Quantity Per Kit	Total Quantity Needed (50 Kits)	Size	Description	Supplier	Page No.	MFG Number	Catalog No.	Quantity to Order	Unit Price	Extended Price
3	150	1 L	Wheaton Glass 24/case	VWR	190	219820	16159-903	7	\$166.46	\$1,165.22
4	200	1 L	Amber Glass 12/case	VWR	176		15900-142	17	\$26.20	\$445.40
3	150	2 1/2 L	Amber Glass 6/case	VWR	179		15900-192	25	\$26.10	\$652.50
5	250	40 ml	Amber Glass Vials 72/case	VWR	175		15900-024	4	\$70.15	\$280.60
			125 ml (4 oz) Nalgene Polypropylene Wide Mouth Bottle 12/case							
2	100	125 ml	Plastic 64 oz Type F Natural	Fischer Scientific	191	2105-0004	02893A	9	\$19.74	\$177.66
3	150	1/2 Gal	Amber Glass w/septa 12/case	Mayfair Plastics				150	\$0.458	\$68.70
2	100	125 ml	Disposable Plastic Bac-t Bottle w/thiosulfate (Forest Biomedical)	VWR	176		15900-146	9	\$17.75	\$159.75
2	100	250 ml	Collapsible Carboy LDPE Cubitainers 12/case	Eagle Pitcher				100	\$1.50	\$150.00
2	100	10 L	Vinyl gloves (disposable) Large 1000/case	VWR	189		EP 160-2-5	9	\$58.74	\$528.66
4	200	pair		VWR	746		PH2D7852	1	\$177.41	\$177.41

Quantity Per Kit	Total Quantity Needed (50 Kits)	Size	Description	Supplier	Page No.	MFG Number	Catalog No.	Quantity to Order	Unit Price	Extended Price
2	100	each	Moldex Type N95 particulate respirator 20/pk	Fischer Scientific	1544	1501	19-003-245A	5	\$21.07	\$105.35
2	100	each	Disposable Lab Jacket "Kleen Guard" Size XL 15/case	Fischer Scientific	35	36544	17-981-41H	7	\$80.00	\$560.00
2	100	each	Bouton Softsides Goggle	Central Stores			45-132-12500	100	\$1.89	\$189.00
12	600	feet	50' Coil 3/8-in I.D. 1/2 -in O.D. Tygon Laboratory tubing R-3606	VWR	1807	AJCC0027	63010-122	4	\$73.05	\$292.20
2	100	each	Connector Clamps with thumbscrew 10/pack	Fischer Scientific	410		14-198A	10	\$14.18	\$141.80
1	50	each	Permanent Waterproof lab marker (10 pack)	VWR	1108		52877-310	5	\$20.07	\$100.35
10	500	9 x 18	Zip-lock LDPE Sample Bags Nalgene 250/case	VWR	55	6255-0918	56766-130	2	\$139.45	\$278.90
1	50	roll	Lab grade marker tape 1" (12/case)	VWR	926		36425-067	4	\$50.04	\$200.16
1	50	each	Biohazard Bags 12 x 24 (200/case)	VWR	52		11215-898	1	\$119.16	\$119.16
4	200	each	Antiseptic wipes (pads) 200/case	VWR	1945		21899-553	1	\$123.80	\$123.80

Quantity Per Kit	Total Quantity Needed (50 Kits)	Size	Description	Supplier	Page No.	MFG Number	Catalog No.	Quantity to Order	Unit Price	Extended Price
10	500	grams	Sodium Thiosulfate granules Mallinckrodt 500 grams	VWR	2320		MK809612	1	\$37.95	\$37.95
40	2000	each	Adhesive labels 500/roll	Stock				4	\$5.00	\$20.00
2	100	30.8 Qt	Collapsible Cooler (Igloo Softmate 48)	Igloo			Softmate 48	100	\$32.36	\$3,236.00
1	50	30 Gal	Plastic Storage Bin (Sterilite Ultra)	Sterilite Corp.		17454204	Ultra 30 Gal	54	\$11.49	\$620.46
									Total	\$9,831.03
								Price per Kit		\$196.62

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Appendix D

Threat Identification

Threat Levels and Protective Measures

Normal operations are based on the Federal threat levels designated by the Department of Homeland Security (DHS). Listed on the next page is the standard threat level system established by DHS and the corresponding actions and threat levels established by the City of Stockton, MUD.

National Terrorism Advisory System

“The National Terrorism Advisory System, or NTAS, replaces the color-coded Homeland Security Advisory System (HSAS). This new system will more effectively communicate information about terrorist threats by providing timely, detailed information to the public, government agencies, first responders, airports and other transportation hubs, and the private sector.

It recognizes that Americans all share responsibility for the nation’s security, and should always be aware of the heightened risk of terrorist attack in the United States and what they should do.

After reviewing the available information, the Secretary of Homeland Security will decide, in coordination with other Federal entities, whether an NTAS Alert should be issued. NTAS Alerts will only be issued when credible information is available.”

<http://www.dhs.gov/files/publications/ntas-public-guide.shtm>

This system provides a national framework for federal, state, and local governments, private industry, and the public to communicate the nature and degree of terrorist threats. The NTAS established two (2) threat conditions: Elevated threat or imminent threat.

“Using available information, the alerts will provide a concise summary of the potential threat, information about actions being taken to ensure public safety, and recommended steps that individuals, communities, businesses and governments can take to help prevent, mitigate or respond to the threat.

The NTAS Alerts will be based on the nature of the threat: in some cases, alerts will be sent directly to law enforcement or affected areas of the private sector, while in others, alerts will be issued more broadly to the American people through both official and media channels.

NTAS Alerts contain a **sunset provision** indicating a specific date when the alert expires - there will not be a constant NTAS Alert or blanket warning that there is an overarching threat. If threat information changes for an alert, the Secretary of Homeland

Security may announce an updated NTAS Alert. All changes, including the announcement that cancels an NTAS Alert, will be distributed the same way as the original alert.”

<http://www.dhs.gov/files/publications/ntas-public-guide.shtm>

Heightened threat conditions can be declared for the entire nation, or for a specific geographic area, functional, or industrial sector. Threat conditions characterize the risk of terrorist attack. “Protective Measures” are the steps that will be taken by government and the private sector to reduce vulnerabilities.

ERP Activation

The threat decision process begins once a threat warning is received. The threat decision process is considered in three (3) successive stages: possible, credible, and confirmed. As the situation escalates through these three (3) stages, the actions that might be considered also change. The following stages describe actions that might be considered and activation of the ERP:

Stage 1: Possible Threat

- Evaluate available information to determine whether the threat is possible.
- Refer to the Vulnerability Analysis to review findings and verify threat scenarios
- If the threat is possible, implement precautionary response actions

Stage 2: Credible Threat

- Highly credible sources
- Unusual alarms or reports of unusual influent
- Suspicious activity during perimeter checks
- Staff reports unusual monitoring results
- During this stage, MUD is preparing to respond and the UERM should activate portions of the ERP, including the following precautions:
 - Internal and external notifications
 - Increased sampling and analysis
 - Isolate part of the system

Stage 3: Confirmed Major Event

- Fully implement the ERP
- Immediately initiate the appropriate Action Plans (located in **Section 6**)
- Fully activate the MUD EOC
- What is occurring in the rest of the community should be considered. Examples of events that may necessitate partial or full activation of the ERP include the following:
 - Overturned fuel tanker truck
 - Plane crash

- Notification from the FBI that there is known threat that may occur
- Change in local or national threat levels.

Threat Levels and MUD Corresponding Protective Measures

Department of Homeland Security No Current alerts	MUD Protective Measures
DHS - No current alerts	Measure 1
	1. Reinforce awareness of responsibilities with employees.
	Measure 2
	1. Test security and emergency communications procedures and protocols.
	Measure 3
	1. Secure all buildings and storage areas not in regular use.
	2. Increased frequency of inspection and patrols within the facility including the interior of buildings and along the facility perimeter.
	Measure 4
	1. Check designated unmanned and remote sites at more frequent intervals for signs of unauthorized entry, suspicious packages, and unusual activities.
	Measure 5
	1. Reduce the number of access points for vehicles and personnel to manageable levels.
	2. All unknown visitors should be escorted while in these areas.
	3. Be alert to vehicles parked for an unusual length of time in or near the facility.
	Measure 6
	1. Inspect all mail and packages coming into a facility. Do not open suspicious packages. Review the USPS "Suspicious Mail Alert" and the "Bombs by Mail" publications with all personnel involved in receiving mail and packages.
	Measure 7
	1. Ensure the personnel with access to building plans and area evacuation plans will be available at all times.
	2. Personnel should be able to seal off an area immediately.
	3. The staff required to implement security plans will be on call and readily available.
	Measure 8
	1. Inform personnel of threat information as available.
	2. Implement procedures to provide periodic updates on security measures being implemented.
	Measure 9
	1. Review with facility employees the operations plans, personnel safety, security details, and logistics requirements

Department of Homeland Security No Current alerts	MUD Protective Measures
	that pertain to implementing increased security levels.
	Measure 10
	1. Direct all personnel at our facility to secure vehicles by locking them.
Department of Homeland Security Elevated Threat Level	MUD Protective Measures
DHS - High Condition Elevated risk of terrorist attacks	Measure 1
	1. Consider centralized parking.
	2. Move automobiles and other non-stationary items from facility perimeters and other sensitive buildings or areas.
	3. Identify areas where explosive devices could be hidden (dumpsters, etc.).
	Measure 2
	1. Close and lock gates and barriers except those needed for immediate entry and egress, inspect perimeter fences regularly.
	2. Ensure that other security systems are functioning and are available. Visitor Log, SCADA, etc.
	Measure 3
	1. Increase security manpower for additional surveillance, to act as a deterrent and prevent unauthorized access to secure areas to including parking areas and loading docks. Contact private security – access contract with the City of Stockton to provide two (2) security guards at Elevated Threat Level and above.
	Measure 4
	1. Reduce facility access points to the absolute minimum necessary for continued operation.
	2. Spot check the contents of vehicles at the access point.
	Measure 5
	1. Advise/Coordinate Security efforts with the City Police, Port Authority, and any National Guard or other appropriate armed forces organizations that the facility is at an Elevated threat level and advise the measures being employed.
	Measure 6
	1. PRIORITY ONE! Schedule more frequent visits to remote areas and other locations that are potentially impacted. Tertiary – Highest Impact Well Sites Sanitary/Storm stations
	Measure 7
	1. Increase the frequency of call-ins from remote locations. Employees should not work alone in remote areas.

Department of Homeland Security No Current alerts	MUD Protective Measures
	Measure 8
	1. Identify the owner of all vehicles parked at key command.
	Measure 9
	1. Implement a procedure for positive identification of all personnel, allowing no exceptions.
	2. Evacuate all non-essential personnel.
	Measure 10
	1. Review procedures and make necessary preparations to activate Command Center(s) where applicable.
	2. Prepare to execute contingency procedures, such as moving to an alternate site or dispersing the workforce.
	Measure 11
	1. Keep all personnel responsible for implementing anti-terrorist plans on call.
Department of Homeland Security Imminent Threat Level	MUD Protective Measures Red
DHS - Severe Condition Severe risk of terrorist attack	<ol style="list-style-type: none"> 1. Lock-down of all facilities, Police are stationed at the gate. 2. Work with the Police Department to allow essential MUD employees to travel to facilities. Special emergency IDs should be implemented.

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Appendix E

Threat Identification Checklist

If your utility receives a threatening phone call, try to keep the caller on the line to obtain as much information as possible. Record as much information as possible, including:

What kind of threat is posed?

- A. Contamination: What kind of poison? _____
How much? _____
- B. Physical Damage: What kind of damage? _____
With what kind of device? _____

Where? _____
When? _____
Why? _____
By Whom? _____
What is your (caller's) name? _____
What is your (caller's) affiliation, if any? _____
What is your (caller's) address/phone#? _____
What is the exact wording of the threat? _____

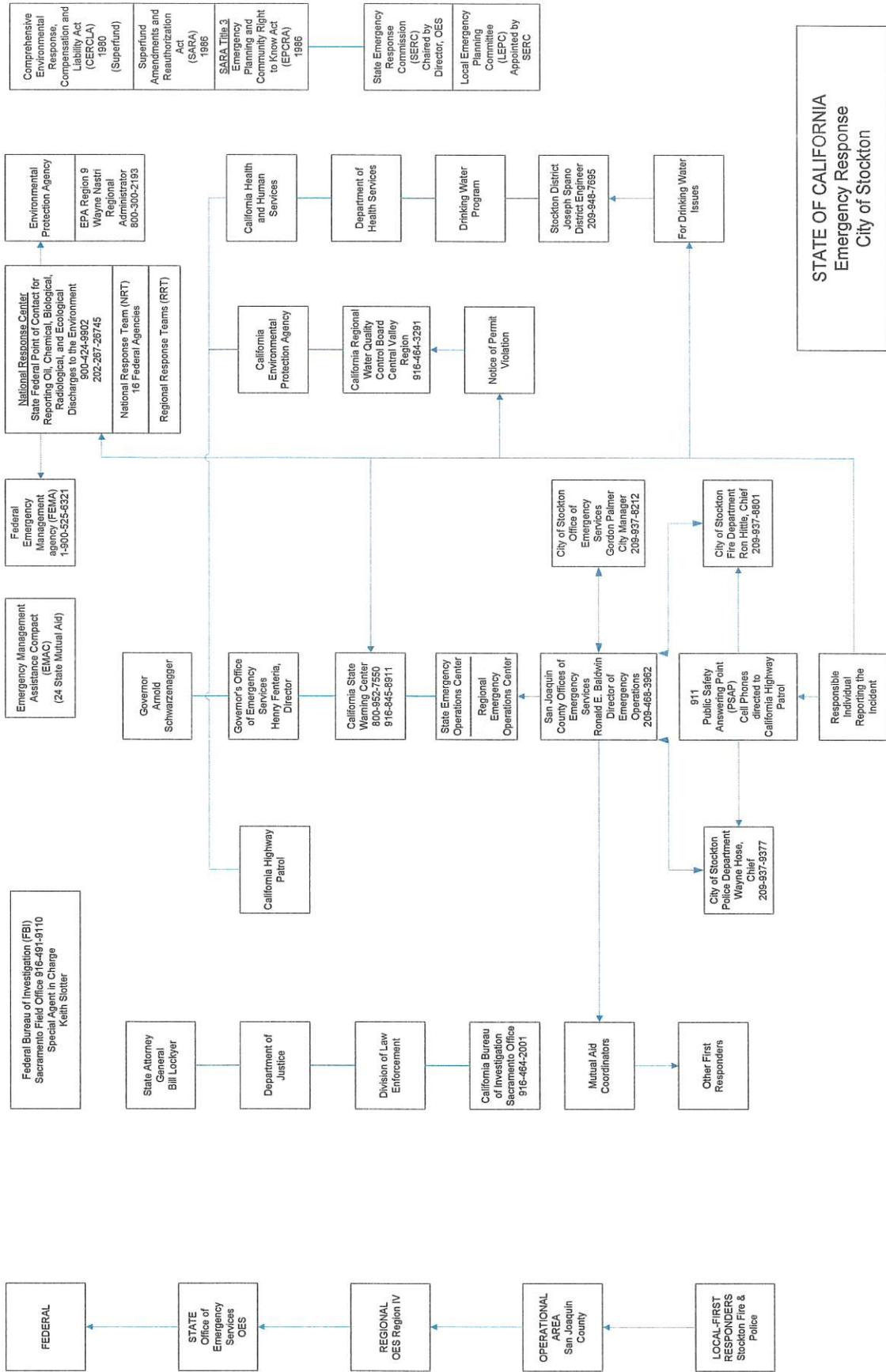
Is the caller male female well spoken illiterate foul
incoherent irrational

Is the caller's voice calm angry slow rapid soft loud
laughing crying normal slurred nasal clear
lisping stuttering deep high cracking excited
young old

Is the connection clear? (Could it have been a wireless or cell phone?) _____
Are there background noises? _____ Street noises – what kind? _____
Machinery – what type? _____
Voices – describe _____
Children – describe _____
Animals – What kind? _____
Motors – describe _____
Music – What kind? _____
Other _____
Name of person receiving call _____ Date _____ Time _____
Notify Utility Manager _____
Local FBI/Law Enforcement, Phone _____
Other _____

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Response Development as Specified Under SEMS



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Incident Command System

1. Incident Commander (Incident Commander)

a. Checklist:

Emergency Action Checklists Incident Commander

Date: _____

Name: _____

Time	Initials	Actions
_____	_____	Recognize an emergency situation and open the EOC.
_____	_____	Assign EOC positions as necessary. <ul style="list-style-type: none"> → Incident Commander (Incident Commander) → Planning Chief (PC) → Operations Chief (OC) → Logistics Chief (LC) → Finance Chief (FC) → Public Information Officer (PIO)
_____	_____	Direct available personnel to set up EOC.
_____	_____	Read this entire checklist and review hazard assessment.
_____	_____	Set up your work station. <ul style="list-style-type: none"> → Put on position badge → Begin an EOC Activity Log: <ul style="list-style-type: none"> ○ Messages received. ○ Action taken. ○ Requests filed. ○ Your time on duty.
_____	_____	Review with Operations & Planning Chiefs status of incident. <ul style="list-style-type: none"> → Incident Commander (Incident Commander) → Planning Chief (PC) → Operations Chief (OC) → Logistics Chief (LC) → Finance Chief (FC) → Public Information Officer (PIO)
_____	_____	Post priorities for incident response and review with Operations Chief.
_____	_____	Contact Division Manager and advise of situation.
_____	_____	Contact Health Department. Inform them that the EOC for MUD has been opened.

_____ _____ Contact Risk Management Department to advise of situation. If not available, speak with the Regional Operations Manager.

_____ _____ Give Policy guidance to PIO about media contacts. Should the Public be warned about wastewater quality?

_____ _____ Set time intervals for staff briefings.

Shift Change

_____ _____ Brief your shift relief on status of incident.

Recovery

_____ _____ Prepare a report on your activities during the disaster and submit to the Emergency Preparedness Team.

_____ _____ Submit emergency timekeeping records to Finance Chief (FC).

_____ _____ Participate in post-emergency briefing and critique sessions.

_____ _____ Complete all activity documentation and submit to the Emergency Preparedness Team.

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Shift Change Report

Name: _____	Emergency Operations Center Shift Change Report	Date: _____ Time: _____
Summary of Emergency Status:		
Personnel Working	Location	Personnel Unavailable
Action Plan:		
Action	Status	Miscellaneous Comments
Equipment:		
Available	Unavailable	

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Task Form

Date: _____		T.O. # _____	
Time: _____			
E.O.C. Contact: _____			
Supervisor in Charge: _____			
Reported By: _____		Date: _____	Time: _____
Personnel Assigned: _____ _____			
Contractors: _____ _____			
Date	Time	Status of Work	
Date Completed: _____		Time: _____	
Remarks: _____ _____ _____			
Materials Used: _____ _____ _____			
Equipment: _____ _____ _____			

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2. Planning Chief (PC)

a. Checklist:

**Emergency Action Checklists
Planning Chief**

Date: _____

Name: _____

Time	Initials	Actions
_____	_____	Read this entire checklist and review hazard assessment.
_____	_____	Set up your work station. → Put on position badge → Begin an EOC Activity Log: ○ Messages received. ○ Action taken. ○ Requests filed. ○ Your time on duty.
_____	_____	Gather initial information of incident.. → How big is the incident (areas affected)? → Are company personnel in area of incident? → What other agencies are responding? → Determine what communication sources are online → Are other utilities affected by incident?
_____	_____	Place pertinent information on status board and map. Set up on status board geographic areas of concern.
_____	_____	Brief Incident Commander and Operations Chief.
_____	_____	Develop with Operations Chief an action plan to: → Protect the lives of MUD and City of Stockton employees → Protect MUD and City of Stockton property → Restore or insure safe water to the customer
_____	_____	Place outline of action plan on board.
_____	_____	Continue to monitor company radio and update boards as status changes.
_____	_____	Make contact with responding agencies to gather more information. Inform Operations Chief of any tactical needs by those agencies.

Shift Change

_____ Brief your shift relief on status of incident.

Recovery

- _____ _____ Prepare a report on your activities during the disaster and submit to the Emergency Preparedness Team.
- _____ _____ Submit emergency timekeeping records to Finance Chief (FC).
- _____ _____ Participate in post-emergency briefing and critique sessions.
- _____ _____ Complete all activity documentation and submit to the Emergency Preparedness Team.

3. Operations Chief (OC)

a. Checklist:

**Emergency Action Checklists
Operations Chief**

Date: _____

Name: _____

Time	Initials	Actions
_____	_____	Read this entire checklist and review hazard assessment.
_____	_____	Set up your work station. → Put on position badge → Begin an EOC Activity Log: <ul style="list-style-type: none"> ○ Messages received. ○ Action taken. ○ Requests filed. ○ Your time on duty.
_____	_____	Review preliminary status of incident with Planning Chief and Incident Commander.
_____	_____	Based on priorities, make an action plan with Planning Chief.
_____	_____	Direct field personnel to reestablish communications network (if necessary).
_____	_____	Direct field personnel to do damage assessments.
_____	_____	Direct field personnel, based on the action plan, to repair damaged areas.
_____	_____	Initiate water sampling program (if necessary).
_____	_____	Establish reporting time intervals with field personnel.
_____	_____	Do Division employees need to work longer shifts? If so, inform Logistics Chief of potential sleeping and eating arrangements. Make schedule for shift work.
_____	_____	Continue to monitor status of system (tank level, water quality, pressures).
_____	_____	Direct engineering staff to examine all effected facilities for continued use. Any facilities not usable should be noted and reported to the Incident Commander. Advise other agencies as needed (e.g., Division of Dam Safety, Fish & Game, Fire Departments, etc.).

Shift Change

_____ Brief your shift relief on status of incident.

Recovery

_____ Prepare a report on your activities during the disaster and submit to the Emergency Preparedness Team.

_____ Submit emergency timekeeping records to Finance Chief (FC).

_____ Participate in post-emergency briefing and critique sessions.

_____ Complete all activity documentation and submit to the Emergency Preparedness Team.

Emergency 2-Way Radios To Public Works Departments

Channel	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	

Radio Codes for Police/Ambulance

Code	Description
1	Your Convenience
2	Urgent – No Red Light And Siren
3	Emergency – Use Red Light And Siren
4	No Further Assistance
5	Stakeout
6	Check For Wants
6M	Misdemeanor Want
6F	Felony Want
6AD	Felony Want – Armed And Dangerous
7	Mealtime
10	Bomb Threat
33	Emergency In Progress – Do Not Transmit
187	Murder
207	Kidnapping
211	Robbery
245	A.D.W.
261	Rape
288	L And L Conduct
314	Indecent Exposure
415	Disturbance
415F	Family Disturbance
417PC	Brandishing
459	Burglary
487	Grand Theft
488	Petty Theft
594	Vandalism
647	Vagrant
647A	Child Molest
777	Road Blockage
1000	Plane Crash
5150	Insane Person
10851	Stolen Vehicle
10852	Vehicle Tampering
20001	Felony Hit And Run
20002	Misdemeanor Hit And Run
22350	Vehicle Speeding
23152	Drunk Driver

Code	Description
23103	Reckless Driving
10-1	Receiving Poor
10-2	Receiving OK
10-3	Stop Transmitting
10-4	Message Received OK
10-5	Relay To:
10-6	Busy
10-7	Out Of Service At:
10-78	Out Of Service, Personal
10-70D	Off Duty
10-8	In Service
10-8X	In Service w/ Female, Mileage:
10-9	Repeat
10-10	Out Of Service At Home
10-12	Visitors Or Officials Present
10-13	Weather And Road Conditions
10-14	Escort
10-15	Have Prisoner In Custody
10-16	Pickup:
10-17	Security House Check
10-18	Change Channels
10-19	Return To/Enroute Station
10-20	Location
10-21	Phone Your Office, Or:
10-21R	Phone Communications Center
10-22	Cancel
10-23	Standby
10-28	Registration
10-29	Check For Stolen
10-32	Drowning
10-33	Alarm Sounding
10-34	Open Door
10-35	Open Window
10-36	Radio Clear?
10-39	Status Of:
10-40	Is...Available For Phone Call?
10-47	Ambulance Call Private
10-49	Proceed To:
10-50	Obtain A Report

Code	Description
10-51	Drunk
10-52	Resuscitator
10-54	Possible Dead Body
10-55	Coroner's Case
10-56	Suicide
10-56A	Attempted Suicide
10-57	Firearms Discharged
10-60	Unit In Vicinity
10-62	Meet The Citizen
10-65	Missing Person
10-66	Suspicious Person
10-70	Prowler
10-73	How Do You Receive
10-74	Information
10-76	Enroute
10-77	Traffic Stop
10-86	Any Traffic For:
10-87	Meet Officer
10-88	Officer/Operator On Duty
10-91	Stray Animal
10-91A	Vicious Animal
10-91C	Injured Animal
10-91D	Dead Animal
10-91F	Sick Animal
10-97	Arrived At The Scene
10-98	Finished With Last Assignment
11-24	Abandoned Vehicle
11-25	Traffic Hazard
11-48	Transportation
11-54	Suspicious Vehicle
11-79	Accident – Ambulance Enroute
11-80	Accident – Major Injury
11-81	Accident – Minor Injury
11-82	Accident – Property Damage
11-83	Accident – No Detail
11-85	Tow Truck
11-96	Leaving The Vehicle To Investigate An Auto (if not heard from within 5 minutes, dispatch cover—give license and location)
11-99	Officer Needs Help

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4. Logistics Chief (LC)

a. Checklist:

**Emergency Action Checklists
Logistics Chief**

Date: _____

Name: _____

Time	Initials	Actions
_____	_____	Read this entire checklist and review hazard assessment.
_____	_____	Set up the EOC.
_____	_____	Determine which communication systems are not working.
_____	_____	Set up your work station. <ul style="list-style-type: none"> → Put on position badge → Begin an EOC Activity Log: <ul style="list-style-type: none"> ○ Messages received. ○ Action taken. ○ Requests filed. ○ Your time on duty.
_____	_____	Begin call-in procedure of needed personnel. Record result of all calls.
_____	_____	Establish that radio is working on Channel 1.
_____	_____	Establish that radio is working on Channel 2.
_____	_____	Establish contact and log all radio vehicle locations and crews available.
_____	_____	Move block map to radio area.
_____	_____	Phone Planning Chief to inform of station's status and get briefing.
_____	_____	On EOC boards, list all personnel available.
_____	_____	On EOC boards, list all equipment available.
_____	_____	Establish a log of requested equipment and the status of those requests. Pursue acquiring any necessary supplies.
_____	_____	If Finance Chief is not present, begin Finance Chief's Checklist.
_____	_____	Secure key to food locker.

- _____ _____ Confer with Planning and Operations Chiefs as to potential supply, equipment, or contractor needs.
- _____ _____ Coordinate any serious injury or death notifications after informing the Incident Commander.
- _____ _____ Determine if stranded employees and off-shift workers need lodging. If yes, institute vouchers and notify supervisors to issue.

Shift Change

- _____ _____ Brief your shift relief on status of incident.

Recovery

- _____ _____ Prepare a report on your activities during the disaster and submit to the Emergency Preparedness Team.
- _____ _____ Submit emergency timekeeping records to Finance Chief (FC).
- _____ _____ Participate in post-emergency briefing and critique sessions.
- _____ _____ Complete all activity documentation and submit to the Emergency Preparedness Team.

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5. Finance Chief (FC)

a. Checklist:

**Emergency Action Checklists
Finance Chief**

Date: _____

Name: _____

Time	Initials	Actions
_____	_____	Read this entire checklist and review hazard assessment.
_____	_____	Set up your work station. → Put on position badge → Begin an EOC Activity Log: <ul style="list-style-type: none"> ○ Messages received. ○ Action taken. ○ Requests filed. ○ Your time on duty.
_____	_____	Establish maintenance task order. Post this number on the Incident Status Notes board.
_____	_____	Establish Claim Log and record all incoming claims.
_____	_____	Direct that petty cash be brought to the EOC.
_____	_____	Has petty cash been received in the EOC?
_____	_____	Record amount of petty cash received (\$_____).
_____	_____	Establish petty cash disbursement method.
Shift Change		
_____	_____	Brief your shift relief on status of incident.

Recovery

- _____ _____ Prepare a report on your activities during the disaster and submit to the Emergency Preparedness Team.
- _____ _____ Submit emergency timekeeping records to Finance Chief (FC).
- _____ _____ Participate in post-emergency briefing and critique sessions.
- _____ _____ Complete all activity documentation and submit to the Emergency Preparedness Team.

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6. Public Information Officer (PIO)

a. Checklist:

**Emergency Action Checklists
Public Information Officer**

Date: _____

Name: _____

Time	Initials	Actions
_____	_____	Read this entire checklist and review hazard assessment.
_____	_____	Set up your work station. <ul style="list-style-type: none"> → Put on position badge → Begin an EOC Activity Log: <ul style="list-style-type: none"> ○ Messages received. ○ Action taken. ○ Requests filed. ○ Your time on duty.
_____	_____	Attend all staff briefings. Report back to PIO Center any new developments.
_____	_____	Field all media calls that come to the EOC.
_____	_____	Keep Planning Chief (PC) informed as to the location and status of PIO team members. Their information should be tracked on emergency status board by the PC.
_____	_____	Post all news releases being sent out from the PIO Center on bulletin boards.
_____	_____	Inform Incident Commander of any vital information as reported by the media that will influence the situation as reported by the PIO Center.
Shift Change		
_____	_____	Brief your shift relief on status of incident.
Recovery		
_____	_____	Prepare a report on your activities during the disaster and submit to the Emergency Preparedness Team.
_____	_____	Submit emergency timekeeping records to Finance Chief (FC).
_____	_____	Participate in post-emergency briefing and critique sessions.
_____	_____	Complete all activity documentation and submit to the Emergency Preparedness Team.

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b. Forms:

**Emergency Public Information
Sample Radio Message No. 1
EVACUATION**

This is _____ with _____. A _____ has occurred in _____. For your safety, I am asking that you leave the _____ area as soon as possible. Be sure to take essential items (medicine, special foods, personal items, baby supplies, clothing, money and valuable papers) but **do not overload your vehicle**. Secure your home before you leave. Be sure to check on any neighbors who may need assistance. If you cannot stay with relatives or friends outside of the evacuation area, go to (one of) the Red Cross shelter(s) at _____. Pets **will not** be allowed in Red Cross shelters. If you cannot make arrangements for someone outside the evacuation area to take care of your pet, _____. Do not allow your pet to run loose. If you cannot make arrangements for your **large** animals, _____. If you have no means of transportation or if you are physically unable to evacuate on your own, ask a neighbor to assist you, or call _____. Otherwise, please do not use your telephone except to report an emergency.

I repeat, if you live in the _____ area, you are requested/required to evacuate for your own safety. Stay tuned to this station for more information and instructions. Thank you for your cooperation and your courtesy to others.

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**Emergency Public Information
Sample Radio Message No. 1
SHELTER-IN-PLACE**

This is _____ with _____. A _____ has occurred in _____. For your safety, please move immediately to your designated Shelter In Place area. This would most likely be an interior room in your home or building that does not have doors or windows to the outside. Be sure to take any essential items with you such as medicines, special foods, personal items, and baby supplies. A flashlight, battery powered radio, and cell phone is also useful to have with you. Use heavy plastic, such as garbage bags, and duct tape to seal all vents and cracks in the room. If plastic is not available, use towels or clothing to block and seal the room. Updates may be broadcast on this station or on your cell phone. To keep the lines open, please do not use your telephone except to report an emergency.

I repeat, if you live in the _____ area, you are requested/required to move immediately to a designated Shelter In Place location. Stay tuned to this station for more information and instructions. Thank you for your cooperation and your courtesy to others.

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**Emergency Public Information
Sample Radio Message No. 1**

Do Not Drink Your Tap Water

Date: _____

Due to the recent _____ emergency situation, the _____ Water System in conjunction with the California Department of Public Health, and/or _____ County Health Department, are advising residents of _____ to **not use the tap water for drinking until further notice** but to use bottled water for drinking and cooking purposes as a safety precaution. Boiling the water will **not** make the water safe.

Failure to follow this advisory could result in illness.

Emergency water treatment and quality testing are being conducted by _____ to resolve this water quality emergency problem. The _____ will notify residents as soon as the water is safe to drink.

For more information, call: _____

Water Utility contact: _____
(Name, title and phone number of utility representative)

California Department of Public Health: _____

Local Environmental Health Jurisdiction: _____

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**Emergency Public Information
Sample Radio Message No. 2**

This is _____ with _____. A _____ has occurred in _____. For your safety, I am asking that you leave the _____ area as soon as possible. Be sure to take essential items (medicine, special foods, personal items, baby supplies, clothing, money and valuable papers) but **do not overload your vehicle**. Secure your home before you leave. Be sure to check on any neighbors who may need assistance. If you cannot stay with relatives or friends outside of the evacuation area, go to (one of) the Red Cross shelter(s) at _____. Pets **will not** be allowed in Red Cross shelters. If you cannot make arrangements for someone outside the evacuation area to take care of your pet, _____. Do not allow your pet to run loose. If you cannot make arrangements for your **large** animals, _____. If you have no means of transportation or if you are physically unable to evacuate on your own, ask a neighbor to assist you, or call _____. Otherwise, please do not use your telephone except to report an emergency.

I repeat, if you live in the _____ area, you are requested/required to evacuate for your own safety. Stay tuned to this station for more information and instructions. Thank you for your cooperation and your courtesy to others.

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**Hazardous Material Incident
Low Hazard/Confined Spill Release – No General Evaluation
Sample Radio Message No. 3**

This is _____ with _____.

A small amount of _____, a hazardous substance, has been spilled/released at _____. Streets are blocked, traffic is restricted and authorities have asked residents in the immediate _____ block area to evacuate. Please avoid the area. The material is slightly/highly toxic to humans and can cause the following symptoms: _____.

If you think you may have come in contact with this material, you should _____ (give health instructions and hotline number, if available). For your safety, please avoid the area if at all possible. Alternate routes are _____ and traffic is being diverted. If you are now near the spill/release area, please follow directions of emergency response personnel. Cleanup crews are on the scene.

If you know of someone who is unable to understand, see or hear this message, please tell them about it.

Thank you for your cooperation.

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**Hazardous Material Incident
High hazard Spill/Release –General Evaluation
Requested/Mandatory**

This is _____ at the _____.

A large/small amount of _____, a highly hazardous substance, has been spilled/released at _____. Because of the potential health hazard, authorities are requesting/requiring all residents within ____ blocks/miles of the area to evacuate. If you are _____ (give evacuation zone boundaries), you and your family should/must leave as soon as possible/now. Go immediately to the home of a friend or relative outside the evacuation area or to _____ (indicate shelter). If you can drive a neighbor who has no transportation, please do so. If you need transportation, call _____.

Children attending the following schools: _____ (list) will be evacuated to _____. Do not drive to your child's school. Pick your child up from school authorities at the evacuation center. Listen to this station for instructions.

The material is highly toxic to humans and can cause the following symptoms: _____.

If you are experiencing any of these symptoms, seek help at a hospital outside the evacuation area, or at the evacuation center at _____.

To repeat, if you are in the area of _____ you should/must leave, for your own safety. Do not use your telephone unless you need emergency assistance.

If you know of someone who is unable to understand, see or hear this message, please tell them about it. Thank you for your cooperation.

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Cancellation of Unsafe Water Alert

On _____ (date) you were notified of the need to not use the water supply served to your home for drinking or cooking purposes.

The _____ Water System in conjunction with the California Department of Public Health and/or _____ Local Health Department, has determined that, through abatement of the health hazard followed by comprehensive testing of the water, **your tap water is safe to drink. It is no longer necessary to consume bottled water.**

For more information, call: _____

Water Utility contact: _____
(Name, title and phone number of utility representative)

California Department of Public Health: _____

Local Environmental Health Jurisdiction: _____

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Boil Water Order

Failure to follow this advisory could result in stomach or intestinal illness.

Due to the recent event (e.g., flood, fire, earthquake or other emergency situation), the California Department of Public Health in conjunction with the _____ County Health Department, and _____ Water System are advising residents of _____ to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution.

All tap water used for drinking or cooking should be boiled rapidly for at least 5 minutes. This is the preferred method to ensure that the water is safe to drink.

An alternative method to purification for residents that do not have gas or electricity available is to use fresh liquid household bleach (Clorox™, Purex™, etc.). To do so, add 8 drops (or ¼ teaspoon) of bleach per gallon of clear water or 10 drops (or ½ teaspoon) per gallon of cloudy water, mix thoroughly, and allow it to stand for 30 minutes before using.

A chlorine-like taste and odor will result from this purification procedure and is an indication that adequate disinfection has taken place.

Water purification tablets may also be used by following the manufacturers' instructions.

For more information, call: _____

Water Utility contact: _____
(Name, title and phone number of utility representative)

California Department of Public Health: _____

Local Environmental Health Jurisdiction: _____

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Cancellation of Boil Water Order

On _____ (date) you were notified of the need to boil/disinfect all tap water used for drinking or cooking purposes. The _____ Water System in conjunction with the California Department of Public Health, or Local Environmental Health Jurisdiction, has determined that, through abatement of the health hazard followed by comprehensive testing of the water, **your tap water is safe to drink. It is no longer necessary to boil your tap water or for you to consume bottled water.**

For more information, call: _____

Water Utility contact: _____
(Name, title and phone number of utility representative)

California Department of Public Health: _____

Local Environmental Health Jurisdiction: _____

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How to Purify Water for Drinking

If water is polluted, strain water through paper towels, paper coffee filters, or several layers of clean cloth into a container to remove any sediment or floating matter.

Water that is boiled vigorously for five (5) minutes will usually be safe from harmful bacterial contamination, adding one (1) additional minute for each 1,000 feet of altitude. (Boiling longer is safer, if you have the heat to spare.)

If boiling is not possible, strain the water as above and treat by adding ordinary liquid chlorine household bleach or Tincture of Iodine to one (1) quart of water: **Do not use granular forms of household bleach, they are poisonous!**

Liquid Chlorine 4 – 6% (common household laundry bleach)	Drops to be Added	
	Clean Water	Cloudy Water
Tincture of Iodine 2% (from medicine chest or first aid kit)	2/qt.	4/qt.
	8/gal.	16/gal.
Tincture of Iodine 2% (from medicine chest or first aid kit)	Clean Water	Cloudy Water
	3/qt.	6/qt.
	12/gal.	24/gal.

Purchase an eyedropper to add bleach or iodine. Keep it for this purpose only.

Mix thoroughly by stirring or shaking water in container. Let stand for 30 minutes. A slight chlorine odor should be detectable in the water. If not, repeat the dosage and let stand for an additional 15 minutes before using.

Liquid Chlorine bleach loses strength over time; rotate bleach to keep fresh. If bleach is a year old, the amount used should be doubled. Two-year-old bleach should **not** be used.

Water purification tablets are available in drug stores and sporting goods stores and are recommended for your first aid kit (four tablets will purify one (1) quart of water). Water purification tables have a shelf life of two (2) years and lose their effectiveness if allowed to get damp.

Purify only enough water at a time to last a maximum of 48 hours; this will minimize chances of recontamination.

How to Prepare and Store Purified Water

To keep drinking water safe from contamination, it should be stored in carefully cleaned, noncorrosive, tightly-covered containers.

Use gallon containers, preferably made of heavy opaque plastic with screw-on caps. Empty household bleach bottles are good if clearly labeled. Children should not identify bottles that normally contain a hazardous substance as a container for pure drinking water.

Plastic milk bottles are another alternative. They are difficult to wash clean and thus all water stored in them must first be treated with the appropriate amount of liquid chlorine bleach (see above). This will ensure that bacteria still in the bottle are destroyed.

First, sterilize the bottles like this:

1. Wash bottles with soapy water, then rinse thoroughly.
2. Run about three (3) quarts tap water into one (1) of the containers, and then add $\frac{3}{4}$ -cup bleach to the water. **Remember**, this is still the sterilization process, not the water that is fit for drinking.
3. Shake well, turning upside down a time or two (2) so that the stopper will be sterilized too.
4. Let stand for 2-3 minutes, and then pour the bleach water into the next container. You can use the same chlorinated water for several containers.

Second, fill bottle with purified water and tightly close with cap or stopper. Label preparation date and mark "Drinking Water – Purified."

Some stored water may develop a disagreeable appearance, taste, or odor – but these properties are not harmful. Inspect your water supply every six (6) months to see whether the containers have leaked or other undesirable conditions have developed. Replace the water if any conditions appear objectionable.

If stored water tastes flat after opening, it probably lacks air. To aerate, simply pour the water from one (1) container to another three (3) or four (4) times.

To increase the shelf life of water stored in translucent plastic bottles, group them in dark plastic trash bags to keep out light.

Notes: Polyethylene plastics (water, milk, and bleach bottles) are somewhat permeable to hydrocarbon vapors. Keep away from stored gasoline, kerosene, pesticides or similar substances.

Use of swimming pool water for drinking can cause diarrhea due to over-chlorination. Beneficial intestinal bacteria necessary for normal digestion is temporarily destroyed. Use only after other sources of pure water are exhausted, and purify before using.

Do not use water stored in vinyl plastic containers (such as waterbeds) for drinking. This plastic may release undesirable chemicals into the stored water.

For information on finding water outside your home, refer to one (1) of the many survival and camping handbooks.

Appendix F

Sanitary Sewer Overflow Response Plan

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SANITARY SEWER OVERFLOW RESPONSE PLAN



April 2011

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1.0 Objective

The City of Stockton's Sanitary Sewer Overflow Response Plan (SSORP) is designed to ensure that every report of a sanitary sewer overflow (sewage spill) is dispatched to the appropriate response personnel so that the effects of the overflow can be minimized with respect to its adverse impacts on public health, the environment, and property. The source of the SSO shall be stopped and the spill contained as soon as possible. Notification and reporting to governmental agencies, affected residents and property owners shall be done in an appropriate time frame. All state and local regulations shall be observed and implemented in response and remediation procedures.

2.0 Implementation

2.1 Pursuant to Water Code Section 13193, discharge of sewage from a sanitary sewer system at any point upstream of a sewage treatment plant shall be reported to the Regional Water Quality Control Board (RWQCB) as a sanitary sewer overflow (SSO). The following information describes the proper notification and reporting procedures, provides the appropriate forms and serves as a guide for responding to SSOs.

2.2 For the purposes of this Plan, surface waters are Waters of the United States as defined in 40 CFR 122.2 such as navigable waters, rivers, streams (including ephemeral streams), lakes, natural ponds, lagoons, estuaries, man-made canals, ditches, wet meadows, wetlands, marshes, sloughs and water courses.

2.3 Sanitary sewer overflows to storm drains tributary to Waters of the United States shall be reported as discharges to surface waters except where the SSO is contained within the storm drain system, and the spilled wastewater is fully recovered and cleaned up before reaching waters of the United States.

2.4 For the purposes of this Plan, receiving water bodies are surface waters receiving discharge from stormwater conveyance systems.

2.5 The supervisor or highest level staff person on-site is responsible for using sound judgment in efforts to stop and contain the SSO as soon as possible, initiate proper notifications in accordance with an approved communication plan, and implement safe and effective measures to remediate the spill.

2.6 MUD, the City's Contractor shall:

2.6.1 Ensure all SSOs are detected to the greatest extent possible;

2.6.2 Ensure notification is made to: (1) appropriate MUD and city personnel; (2) appropriate governmental agencies; and (3) persons, businesses and/or organizations that have reasonable potential to be exposed to pollutants associated with the SSO;

2.6.3 Ensure proper SSO response procedures are followed to minimize the volume of sewage reaching surface waters and the impact to water quality and beneficial uses by implementing remedial actions to: (1) control or limit the SSO volume discharged; (2)

terminate the SSO as rapidly as possible; (3) contain the spill as rapidly as possible; and (4) recover as much of the SSO as possible for proper disposal, including any wash down water;

2.6.4 Ensure that up-to-date copies of the Sanitary Sewer Overflow Response Plan (SSORP) are readily available to sewer system operation and maintenance personnel at all times;

2.6.5 Ensure SSO response personnel are properly trained in the use of the SSORP.

3.0 Reporting Procedures

3.1 If the sanitary sewer overflow event results in a discharge of 1,000 gallons or more in volume, or results in a discharge of any amount to surface waters, MUD shall:

3.1.1 Implement the Sanitary Sewer Overflow Response Plan described herein.

3.1.2 Report the SSO to the RWQCB by telephone, voice mail, or fax within 24 hours from the time that 1) MUD has knowledge of the SSO, and as soon as (2) notification is possible, and (3) notification can be provided without substantially impeding clean-up or other emergency measures.

3.1.3 The information reported to the RWQCB in the initial telephone or fax report shall include:

- Name and phone number of the person reporting the SSO
- Responsible sanitary sewer system agency
- Date and time of the SSO
- Estimated SSO volume
- Location of the discharge
- Name of the affected receiving water
- Whether the SSO is on-going at the time of the report

3.1.4 Report the SSO to appropriate governmental agencies, including the Office of Emergency Services (OES) in accordance with California Water Code Section 13271.

3.1.5 If necessary, follow-up reports may be submitted to address changes in information or new information not available at the time of the original report.

3.1.6 If the overflow results in a discharge to a receiving water body, a written Sanitary Sewer Overflow Report, (Attachment 1), is submitted to the RWQCB no later than five (5) working days following MUD's knowledge of the SSO event.

3.2 If the sanitary sewer overflow event results in a discharge less than 1,000 gallons in volume, and is not discharged to surface waters, MUD shall:

3.2.1 Implement the Sanitary Sewer Overflow Response Plan described herein.

3.2.2 Submit an SSO Summary Report with the monthly Discharge Monitoring Report to the RWQCB by the first day of the second month following the SSO event.

3.2.3 If necessary, follow-up reports may be submitted to address changes in information or new information not available at the time of the original report.

4.0 Notification Requirements

4.1 Sanitary Sewer Overflow resulting in discharge of any volume to receiving water body:

Organization/Agency	Telephone
Environmental Control Supervisor	209/937-8740, 209/993-3274
MUD Director	209/937-8729, 209/612-3147
California Regional Water Quality Control Board	916/464-4762
State Office of Emergency Services	800/852-7550
San Joaquin County Environmental Health Division	209/468-3420
California Department of Fish and Game	916/341-6957 M – F 8 – 4 Kathy Conway 916/445-0045 after hours

4.2 Sanitary Sewer Overflow resulting in discharge of less than 1,000 gallons to surface water only (not including receiving water bodies):

Organization/Agency	Telephone
Environmental Control Supervisor	209/937-8740, 209/993-3274
California Regional Water Quality Control Board	916/464-4762

4.3 Sanitary Sewer Overflow, 1,000 gallons or more, discharged to surface water (not including receiving water bodies) or above-grade only:

Organization/Agency	Telephone
Environmental Control Supervisor	209/937-8740, 209/993-3274
MUD Director	209/937-8729, 209/612-3147
California Regional Water Quality Control Board	916/464-4762
State Office of Emergency Services	800/852-7550
San Joaquin County Environmental Health Division (1)	209/468-3420

(1) As appropriate, for incidents affecting public health

4.4 Sanitary Sewer Overflow, less than 1000 gallons, discharged above-grade only (as appropriate for incidents affecting public health):

Organization/Agency	Telephone
Environmental Control Supervisor	209/937-8740, C: 209/993-3274
Collection System Supervisor	
Collection System Senior supervisor	
California Regional Water Quality Control Board	916/464-4762
State Office of Emergency Services	800/852-7550
San Joaquin County Environmental Health Division	209/468-3420

4.5 A sanitary sewer overflow notification log (Attachment 2) is completed whenever an overflow event results in:

- A discharge to a receiving water body;
- A discharge to surface water;
- A discharge greater than 1000 gallons;
- An incident affecting public health

5.0 Response Procedures

When a report of a possible SSO is received, it triggers an immediate response to identify and correct the problem. This section describes the general procedures employed by MUD to stop, contain, and clean up the impact of an overflow. MUD personnel shall perform the following SSO response procedures, as applicable. These procedures are summarized in Figure 1, Sanitary Sewer Overflow Response Flowchart. The SSO Response Procedures Checklist, (Attachment 3), is completed for all SSOs discharged to receiving water bodies.

5.1 Investigate and Assess the Situation. Following notification of a possible sanitary sewer overflow, a crew is dispatched to conduct an investigation. The initial response team is responsible for assessing the cause of the problem and determining the level of effort needed to correct the problem. If the overflow is confirmed, the supervisor or highest level staff person on-site shall record the relevant spill information on a sewer overflow incident report form (Attachment 4). Response personnel are dispatched to the site as appropriate based on the following criteria.

- Source of the SSO
- Volume of the SSO
- Severity of the SSO

5.2 The supervisor or highest level staff person on-site shall immediately notify appropriate MUD management personnel and SSO response personnel. SSO response personnel are MUD staff trained to respond to SSO situations. Personnel involved in clean-up activities must be trained and properly equipped with appropriate personal protective equipment (PPE). Appropriate PPE shall be determined by the site supervisor based on the hazard, weather conditions and clean-up procedures.

5.3 Once the proper methods of containment and remediation are determined, the person responding to the incident shall provide Environmental Control with the following information as soon as possible:

- Date and Time notification was received
- Exact location of the SSO
- Cause of the SSO
- Responsible party
- Estimated volume of SSO
- Exact location where spill was contained
- If not contained, or partially contained, exact location of receiving water body
- Clean up measures and time frame for completion
- Call-back number

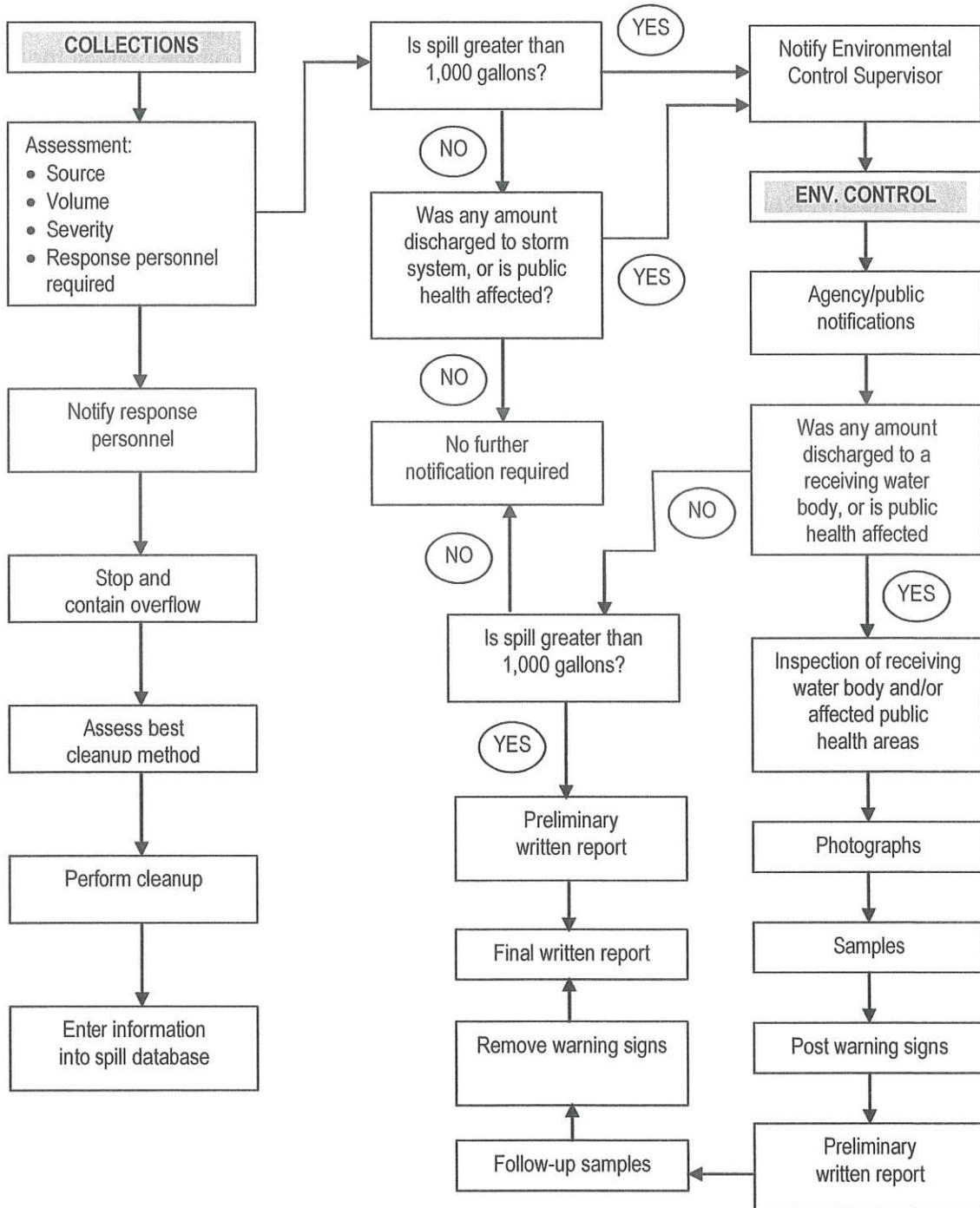
5.4 Stop and Contain Overflow. The supervisor or highest level staff person on-site shall be responsible for determining the most effective method to: (1) control or limit the SSO volume discharged; (2) terminate the SSO as rapidly as possible; and (3) contain the spill as rapidly as possible.

- If the overflow is caused by blockage in a lateral, the line is cleared using springs, rods or pumps.
- If the overflow is caused by blockage in a main line, a rodding truck or hydro-vactor truck crew is called to clear the line.
- If the overflow is caused by a line break in a gravity sewer, a collections field crew is called to repair the line.
- If the overflow is caused by a break in a force main, mechanical maintenance is called to shut off the sanitary pump station.

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Figure 1

Sanitary Sewer Overflow Response Flowchart



5.4.1 The purpose of containment is to minimize the area of impact until further action can be taken. Containment is site specific and includes methods such as damming and blocking the flow.

- Discharges are contained at the gutter using materials such as sandbags, dirt, berms, Visquene®, and sand.
- For discharges flowing to a catch basin, the catch basin lateral is plugged off.
- For flows reaching the main line, a plug or sandbag is used to plug off the main at the manhole.
- If contained at a pump station, mechanical maintenance is called to shut off the pump station. The overflow is pumped back to the collection system.

5.5 Clean-up and Remediation. The supervisor or highest level staff person on-site is responsible for determining the most effective clean-up method and remediation procedures. Actions may include, but not be limited to:

- Vacuum truck recovery of SSO and wash down water;
- Removal of sewage debris at the overflow site;
- Disinfection (where appropriate);
- Interception and rerouting of sewage around a sewer pipeline failure.

5.5.1 Cleanup procedures for small spills that have been contained in the street or gutter

- A ditch pump is used to suction the spill and discharge into the nearest sewer cleanout;
- Debris is swept up and placed in a bucket for disposal into the cleanout or is transported back to the treatment plant for disposal;
- Once the spill area has been cleaned, the area is disinfected with a chlorine solution (1/4 cup bleach to 1 gallon of water). No Chlorine is used in the catch basins.
- After disinfection, the area is rinsed with water and pumped to the sanitary sewer for disposal.

5.5.2 Cleanup procedures for large spills that have been contained in the street or gutter

- A vactor truck crew is called to vacuum up the spill.
- The area is hosed down with water, spraying towards the vacuum tube.
- Once the spill area has been cleaned, the area is disinfected with a chlorine solution (1/4 cup bleach to 1 gallon of water). Chlorine is not used to clean up the catch basins.
- After disinfection, the area is rinsed with water and pumped to the sanitary sewer for disposal.

5.5.3 Soil Remediation and Cleanup Procedures

- A vactor and/or rake is used to remove as much of the spill and debris as possible.
- A layer of garden lime is applied to the affected area.

5.5.4 Cleanup procedures for spills contained at the pump station

- The spilled material is pumped into the sanitary collection system
- The line is flushed with water and the wash water is pumped into the sanitary collection system
- No chlorine is used in the pump station cleanup.

5.5.5 The Supervisor or highest level staff person on-site shall determine when adequate remediation procedures have been completed.

5.6 Water Quality Assessment

5.6.1 If the overflow is discharged to a receiving water body, the impact of the spill on water quality is assessed by visual inspection for abnormal conditions such as effects on aquatic life, abnormal color, odors, etc.

5.6.2 A Receiving Water Inspection/Sampling Log (Attachment 5) is used to record the findings of the inspection.

5.6.3 The impact on water quality is also evaluated by collecting samples at the discharge location as well as at sites upstream and downstream of the spill.

- Samples are analyzed for biochemical oxygen demand (BOD), total and fecal coliform bacteria, and ammonia.

5.6.4 If storm conditions present an unsafe sampling environment, sampling may be omitted. In this case, the impact of the spill on receiving water shall be based on visual observations only.

5.6.5 Follow up samples are collected as soon as possible, typically 3-10 days after the overflow event, to determine whether the receiving water body at the discharge location remains contaminated with sewage. The decision for when to sample is site specific and is dependent on things such as tidal action and receiving water flow.

5.6.6 Any time a sample is collected, a Receiving Water/Field Sampling Log (Attachment 5) is completed to describe the sample location, and document the site and flow conditions at the time of sampling.

5.6.7 Photographs may be used to document the extent of the spill, including the discharge location, and any adverse effects to receiving water or surrounding areas.

5.7 Receiving Water Posting. For discharges that enter a receiving water body, public health warning signs shall be posted to protect the public from exposure to water contaminated with sewage.

5.7.1 Signs will be posted in the affected area at appropriate intervals on both sides of the banks, if possible, of the receiving water body. The locations of the sign placements will be indicated on the Receiving Water Inspection/Sampling Log (Attachment 5) to facilitate the removal of such signs at the appropriate time.

5.7.2 The signs will remain posted until the San Joaquin County Public Health Department or the Regional Water Quality Control Board authorizes their removal, or until receiving water sample results indicate that background levels have been attained.

6.0 Prevention

A variety of preventive measures can be employed to prevent SSOs from occurring, including visual inspection, scheduled preventive maintenance, monitoring, and public education. Maintenance programs include regular cleaning of sewer lines, connections and pumps, and foaming to remove tree roots.

6.1 Following containment and cleanup of an overflow, the causes of the discharge are evaluated to determine improvements to prevent future problems. Lines are cleaned and TV cameras are used to inspect the pipe. Necessary repairs are completed and maintenance schedules are adjusted as appropriate.

6.2 Enforcement program. City code requires installation of grease interceptors at businesses and establishments where any grease or objectionable materials may be discharged into a public or private sewage main or disposal system. Enforcement orders are issued to businesses that do not adequately maintain and/or clean the interceptors.

6.3 Training. All response personnel receive training to ensure awareness with the procedures contained in the SSORP. Periodic refresher sessions are conducted whenever the SSORP is updated or as necessary.

On-going Investigation/Actions:

Remediation Completion Date:

Schematics:

Samples:

Preventive Actions:

Implementation Schedule:

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

Respectfully submitted,

Director of Municipal Utilities Department, City of Stockton

cc: Chief of Stormwater Unit, Central Valley Regional Water Quality Control Board
Director, California Department of Fish and Game, Region 2, Rancho Cordova (if applicable)
Director, San Joaquin County Environmental Health Division (if applicable)
Regulatory Compliance Officer, City of Stockton, Municipal Utilities Department

Attachment 2
Notification Log

Sanitary Sewer Overflow resulting in discharge of any volume to receiving water body:

Date/Time/Contact	Organization/Agency	Telephone
	Environmental Control Supervisor	209/937-8740, 209/993-3274
	Collection System Supervisor	209/937/8725, 209/993-5612
	Sr. Collection System Supervisor	209/937-5425, 209/275-4498
	MUD- Deputy Director of Collections	209/937/8792, 925/522-1068
	Calif. Reg. Water Quality Control Board	916/464-4762
	State Office of Emergency Services	800/852-7550
	San Joaquin Co. Environmental Health Div.	209/468-3420
	California Dept. of Fish and Game	916/341-6957 M – F 8 – 4 Kathy Conway 916/445-0045 after hours

Sanitary Sewer Overflow resulting in discharge of less than 1,000 gallons to surface water only (not including receiving water bodies):

Date/Time/Contact	Organization/Agency	Telephone
	Environmental Control Supervisor	209/937-8740, 209/993-3274
	Calif. Reg. Water Quality Control Board	916/464-4762

Sanitary Sewer Overflow, 1,000 gallons or more, discharged to surface water (not including receiving water bodies) or above-grade only:

Date/Time/Contact	Organization/Agency	Telephone
	Environmental Control Supervisor	209/937-8740, C: 209/993-3274
	MUD- Deputy Director of Collections	209/937-8792, 925/522-1068
	Calif. Reg. Water Quality Control Board	916/464-4762
	State Office of Emergency Services	800/852-7550
	San Joaquin Co. Environmental Health Div. (1)	209/468-3420

(1) As appropriate for incidents affecting public health

Sanitary Sewer Overflow, less than 1,000 gallons, discharged above-grade only (as appropriate for incidents affecting public health):

Date/Time/Contact	Organization/Agency	Telephone
	Environmental Control Supervisor	209/937-8740, 209/993-3274
	Collections System Supervisor	209/937-8725, 209/993-5612
	Calif. Reg. Water Quality Control Board	916/464-4762
	State Office of Emergency Services	800/852-7550
	San Joaquin City Environmental Health Div.	209/468-3420

Attachment 3

SSO Response Procedures Checklist

Date	Performed by (*)	Action item	Comments
		Assessment/Investigation	
		Notify response Personnel	
		Stop and Contain Spill	
		Assess Best Cleanup Method & Begin Remediation Activities	
		Complete Incident Report	
		Agency Notifications—Complete SSO Notification Log	
		Inspect Receiving Water; Complete Receiving Water Inspection/Sampling Log	
		Photographs	
		Collect Samples; Complete Receiving Water Inspecting/Sampling Log	
		Post Warning Signs	
		Collect Follow Up Samples; Complete Receiving Water Inspection/Sampling Log	
		Remove Warning Signs	
		Final SSO Written Report	

EC: Environmental Control; C: Collections; M: Maintenance; COS: City of Stockton

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Attachment 4

Emergency Response Incident Report

Date Notification Received	Time Recv'd	Spill Duration	Entered System at
Call Received From	Telephone	Line Segment	
Report Prepared by	Phone No.		
Location of Spill (Address)			
Description of Incident			
Type of Incident	Emergency Level	Product	Containment Measures
Sewage release	Level 1 (low)	Raw sewage	Contained at Gutter
HazMat Release	Level 2 (Med)	Petroleum Products	Contained at catch basin
Other	Level 3 (High)	Chlorine	Contained at manhole
		Unknown	Contained at storm wet-well
		Other	Not contained
Cause			Contained on premises
Clean up Measures			Location of Containment
Absorption, sweep, pick up, deposit in sanitary m/h, sanitize, wash down			Cleanup completion date
Hydro-vactor removal, sanitize, wash down			Responsible Party
Pump from storm wet-well to sanitary m/h			Address
Clean up company			City
Informational packet mailed to responsible party			State
			Phone
			Zip
Comments			
Receiving Water Body			
Response Action			
Preventive Action			

Notify Env Control:
 Immediately: A) Any hazardous material; B) SSO over 1000 gal; C) Any SSO enters receiving water body; D) Any SSO caused by private party
 As soon as possible within 24 hours : Any spill entering catch basin

Attachment 5

Receiving Water Inspection/Sampling Log

Date _____ Time _____ Inspector _____

Spill Date _____

Spill Location _____

Receiving Water Location _____

Sewage Color None Light Moderate Heavy

Sewage Foam None Light Moderate Heavy

Sewage Solids None Light Moderate Heavy

Sewage Odor None Mild Moderate Severe

Aquatic Life No adverse impact observed

Impacted Describe _____

Photographs None Upstream Discharge Downstream

Warning Signs None

Upstream Locations _____

Discharge Locations _____

Downstream Locations _____

Samples None

Upstream Locations _____

Site and flow conditions _____

Discharge Locations _____

Site and flow conditions _____

Downstream Locations _____

Site and flow conditions _____

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Appendix G
After Action Reports and Notes

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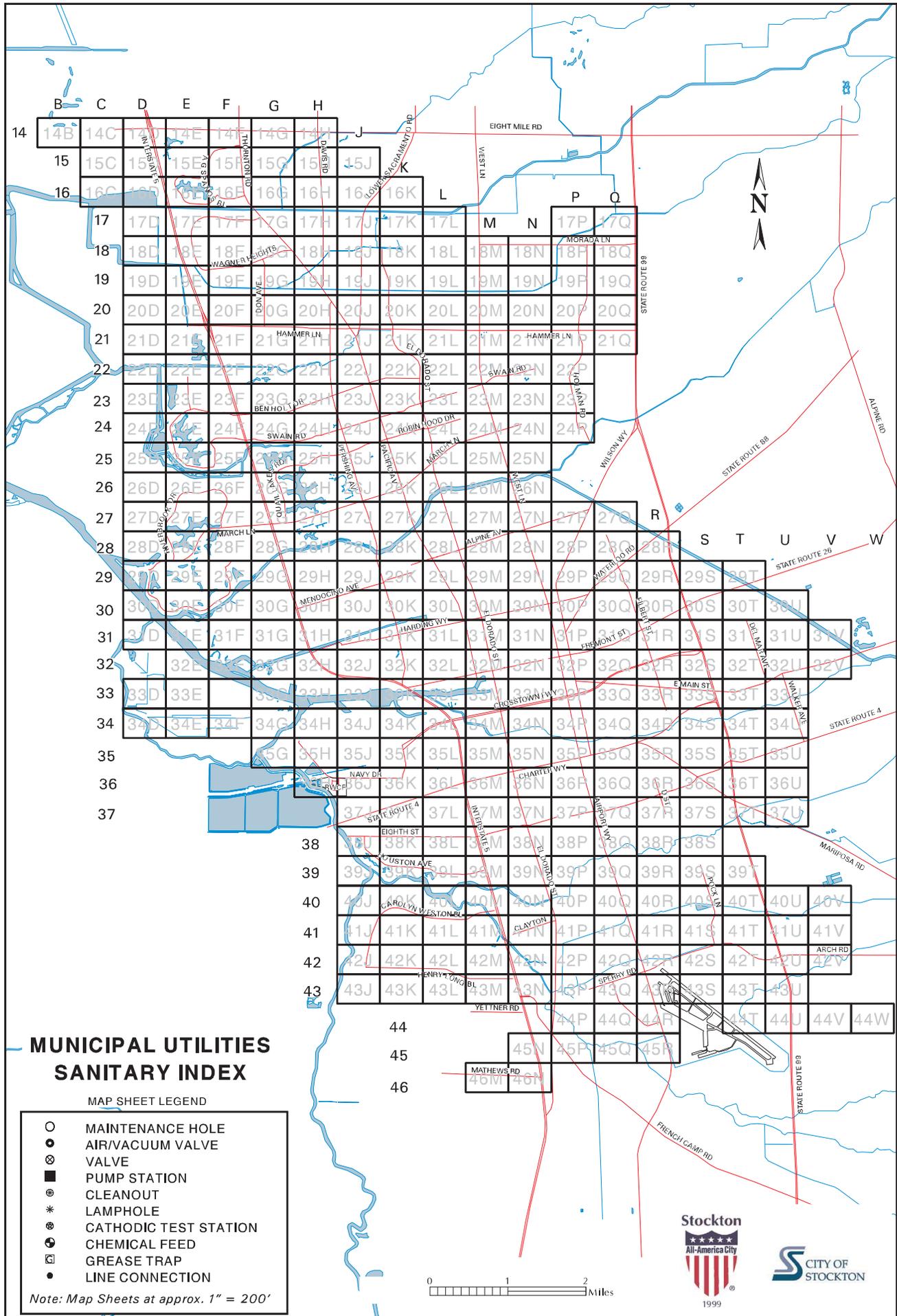
INSERT AFTER ACTION REPORTS HERE, ALONG WITH ANY NOTES

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Appendix 5

Map Book Sample

FOR CITY USE ONLY

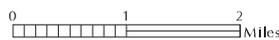


**MUNICIPAL UTILITIES
SANITARY INDEX**

MAP SHEET LEGEND

- MAINTENANCE HOLE
- ⊙ AIR/VACUUM VALVE
- ⊗ VALVE
- PUMP STATION
- ⊕ CLEANOUT
- * LAMPHOLE
- ⊙ CATHODIC TEST STATION
- ⊕ CHEMICAL FEED
- ⊠ GREASE TRAP
- LINE CONNECTION

Note: Map Sheets at approx. 1" = 200'



1999



Appendix 6

Cityworks Work Order

Work Order 38217

Cityworks

Vactor North - Vactor North Annual PM

Status : CLO

Priority: **04** Category: COLL COLSAN

Submit To: 696, Line Maint

Date: 3/2/2017 9:30:08AM

Initiated By: EDRINGTON, MIKE

Date: 3/2/2017 9:30:08AM

Requested By:

Supervisor: 696, Line Maint

Projected Start: 3/1/2018 1:05:00PM

Projected Finish: 3/15/2018 1:05:00PM

Closed By: FREEMAN, JASON T

Date: 3/22/2018 7:37:53AM

Completed By: ZARAGOZA, ZAC

Actual Start:

Actual Finish: 3/21/2018 10:41:00AM

Stage: ACTUAL

Expense Type: MAINT

Location:

Assets:

<u>Type</u>	<u>UId</u>	<u>Location</u>
SANITLINES_ARC	23H0630_23H0120	

Comments:

Instructions:

Easement, run east 646'

Work Order 72899

Cityworks

CCTV

Status : CLO

Priority: **04** Category: COLLCM

Submit To: TV2, CCTV

Date: 2/19/2018 11:06:20AM

Initiated By: PALACIO, ROBERT H

Date: 2/19/2018 11:06:20AM

Requested By:

Supervisor:

Projected Start: 2/19/2018 11:06:20AM

Projected Finish: 2/23/2018 3:14:29PM

Closed By: PALACIO, ROBERT H

Date: 2/23/2018 3:16:25PM

Completed By: PALACIO, ROBERT H

Actual Start:

Actual Finish: 2/23/2018 3:14:47PM

Stage: ACTUAL

Expense Type: MAINT

Location: 1. Commerce between Elm & Walnut St

Assets:

<u>Type</u>	<u>Uid</u>	<u>Location</u>
SANITLINES_ARC	30L1300_30M0690	
SANITLINES_ARC	30M0670_30M0690	
SANITLINES_ARC	30M0660_30M0670	

Comments:

QAQC- Leave on PM

Instructions:

Appendix 7

Training Record Sample



1-18-23

 General Training Roster
 Safety Tailgate Roster


Date

Topic(s):

THE RIGHT ATTITUDE TOWARD SAFETY

Trainer / Instructor:

LUKE HOFF

Duration:

Location: 2500 Navy Dr Stockton CA

I have received and understand the safety training that has been presented to me.

No	Print Name	Signature	Employee Number	Date of Hire
1	Alberts, Gino		28806	2/16/2021
2	Amen, Marcus		29722	10/18/2021
3	Aponte, Dominique		27900	1/16/2015
4	Benedict, Rex		26695	10/16/2006
5	Best, Ben		28407	11/16/2016
6	Celestine, Loren		27132	4/18/2011
7	Cholula, Sabas		29107	9/16/2019
8	Davis, Jacob		29603	11/16/2022
9	De Vore, Chris		27133	4/18/2011
10	Faatai, Solomon		29710	10/1/2021
11	Frausto, Oscar		28762	9/16/2019
12	Freeman, Jason		26207	1/2/2002
13	Geller, Calvin		28318	7/1/2016
14	Goss, Jeff		28152	1/19/2016
15	Harper, Don		28411	11/16/2016
16	Hinojosa, Robert		28068	11/16/2022
17	Hinsz, Tory		26240	7/1/1997
18	Hoff, Lucas		28956	12/17/2018
19	Juanitas, Joel		27034	1/4/2010
20	Juarez, Roy (Jr)		28195	3/1/2016
21	Kulberg, Derek		29709	10/1/2021
22	O'Toole, Thomas		28412	11/16/2016
23	Pablo, Ernie		28987	1/16/2019
24	Palacio, Robert		22918	8/1/1991
25	Porter, Joseph		27610	10/16/2013
26	Potter, Zachary		29607	6/1/2021
27	Rocha, Alex		29083	5/16/2019
28	Rodriguez, Peter		27442	12/17/2012
29	Serpa, Vince		23615	8/1/2003
30	Shahan, David		21370	5/16/2003
31	Sherman, Gordon		22411	11/16/2011
32	Thomas, Matt		27729	10/1/2021
33	Ung, Sean		26710	4/1/2007
34	Wetzel, Arland		27233	2/1/2012
35	Yang, Long		29576	4/16/2021
36	Zanutto, Tom		21131	5/3/1993
37	Zaragoza, Zac		27966	4/16/2015
38	Sauza, David			
39				

Appendix 8

Parts Inventory Sample

Appendix 9

Traffic Control Flagging Safety Program

CITY OF STOCKTON MUNICIPAL UTILITIES DEPARTMENT



TRAFFIC CONTROL AND FLAGGING SAFETY PROGRAM

3/29/2022

Revision / Author

MUD Safety Program Manager

Revision Date

3-29-2022

Reviewed

MUD Safety Committee Chair

Reviewed Date

April 6, 2022

Approved:

MUD Director

Effective Date

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APPENDICES

A – Component Parts of a Temporary Traffic Control Zone

B – Recommended Advanced Warning Sign Spacing/Stopping Site Distance as a function of speed.

C – Types of Tapers and Buffer Spaces

D – Taper Length Criteria for Temporary Traffic Control Zones

E – Annual Implementation Form

CITY OF STOCKTON MUNICIPAL UTILITIES DEPARTMENT**1.0 PURPOSE**

The purpose of the Traffic Control and Flagging Safety Program is to establish the City of Stockton's Municipal Utilities Department (MUD) policy and required procedures for traffic control and flagging operations.

This Program (1) establishes authority and scope, (2) defines Program specific terms, (3) establishes general requirements, (4) assigns specific responsibilities, (5) defines training requirements, (6) defines specific procedures pertaining to implementation of this Program, (7) establishes procedures for regular review / revisions to ensure this Program is kept current, and (8) defines recordkeeping requirements.

The ultimate objective of this program is to prepare employees to utilize traffic control and flagging work in a safe manner.

2.0 AUTHORITY

The following authority establishing documents for the Traffic Control and Flagging Safety Program:

- California Code of Regulations (CCR),
- Title 8, General Industry Safety Orders (GISO),
- 23 CFR 630 Subpart J,
- 8 CCR 1599,
- 8 CCR 3203,
- UC 21367,
- CAL/OSHA CSO 1598 and 1599,
- MUD Injury & Illness Protection Plan,
- Manual on Uniform Traffic Control Devices for Streets and Highways, and
- Vehicle Code 21367.

3.0 SCOPE

This Program applies to all MUD employees, including full-time, part-time, temporary, contract, seasonal, and intern employees who work with traffic control and flagging operations, performing MUD authorized work. The Program is intended to establish procedures for hazard identification / assessment and provide guidance for making informed decisions regarding exposure to hazards associated with traffic control and flagging operations.

Contractors, vendors, visitors and their sub-contractors or agents are required to adhere to their respective safety program procedures, which must be as stringent as this Program, whenever visiting or performing work on City property or on City-funded projects.

4.0 DEFINITIONS

Term	Definition
Activity Area	The section of the road where the work activity takes place.
ANSI	American National Standards Institute. A Privately funded organization that identifies industrial and public national consensus standards and oversees their development. Many of these standards relate to safe design and performance of equipment, and safe work practices and procedures.
Arrow Boards	A sign with a matrix of elements capable of either flashing or sequential displays.
Buffer Space	The area that separates road user flow from the workspace or unsafe area and might provide recovery space for an errant vehicle.
Channelizing Devices	Used to warn motorists of unusual conditions created by construction or maintenance activities in or near the traveled way, and to guide motorists safely past the work area. Channelizing Devices include cones, vertical panels, drums, barricades, and barriers.
DOT	Department of Transportation
Flagger Station	Location of flagger and must be located such that the traveling public has sufficient distance to stop at an intended stopping point before entering the workspace.
Foot Candle	Unit of illumination equal to that given by a source of one candela at a distance of one foot.
Intermediate Term Stationary	Work that occupies a location for more than one daylight period up to three days, or nighttime work lasting more than one hour.
Internal Traffic Control Plans (ITCP)	Addresses hazards inside the activity area workspace of a temporary traffic control zone.
ISEA	International Safety Equipment Association
Long Term Stationary	Work that occupies a location for more than three days.
Mobile Work	Work that moves intermittently or continuously.
MUTCD	Manual on Uniform Traffic Control Devices.

TRAFFIC CONTROL AND FLAGGING

Retroreflective	Of or relating to surface, material or device (retroreflector) that reflects light or other radiation back to its source.
Short Duration	Work that occupies a location up to 1 hour.
Short Term Stationary	Daylight work that occupies a location for more than one hour in a single daylight period.
Stop/Slow Paddle	<p>The Stop/Slow Paddle is the primary and preferred hand signaling device. It must have an octagonal shape on a rigid handle, paddles must be at least 8 inches high and should be fabricated from light, semi-rigid material. The background of the stop face must be red or fluorescent red with white letters and border. The background of the slow face must be orange or fluorescent orange with black letters and border. When used at night the Stop/Slow paddle must be retroreflective.</p> 
Temporary Traffic Control Plans (TTCP)	Are designed to assist road users by providing appropriate visual clues and guidance.
Termination Area	The section of the road where road users are returned to their normal driving path. The termination area extends from the downstream end of the work area to the last temporary traffic control device.
Traffic Control Plan (TCP)	The traffic control plan makes use of traffic control devices, standard signage and buffer and transition zones. There are two types of traffic control plans; temporary and internal.
Temporary Traffic Control (TTC)	The process of temporarily regulating, warning, and guiding road users and advising them to traverse a section of highway or street in the proper manner.
Transition Zone	The section of the road where road users are redirected out of their normal path.
Work Space/Work Zone	The portion of the road closed to road users and set aside for workers, equipment and materials.

5.0 GENERAL REQUIREMENTS (POLICY)

It is the policy of MUD to establish and maintain effective procedures designed to maintain a safe workplace. The specific procedures to be adhered to for implementation of the Traffic Control and Flagging Safety Program are detailed in Section 8.0 and include: (1) Training Requirements; (2) Traffic Control Plans; (3) Traffic Control Devices; (4) Flagging Operations; (5) Flagging Procedures; (6) Work Zone Best Practices; (7) Risks in the Roadway and (8) Administrative Requirements.

6.0 RESPONSIBILITIES

It is the general responsibility of all Department personnel to identify hazards within the workplace and take the necessary response action(s). More specific responsibilities, broken down by Departmental hierarchy, are as follows:

6.1 Director & Assistant Directors

- Ensure this Program is fully implemented.
- Ensure that adequate funding is made available for the successful implementation and continuation of this Program.
- Hold all personnel accountable for their responsibilities under this Program and implementing safe work practices within their daily work.

6.2 Deputy Directors & Managers

- Implement all other relevant responsibilities as identified in MUD's Injury & Illness Prevention Plan (IIPP).
- Assure that personnel who are assigned to Traffic Control and Flagging operations have the experience, knowledge, skills and abilities to perform the required activities effectively and safely.

6.3 Superintendents & Supervisors

- Ensure that each employee under their supervision understands Traffic Control and Flagging procedures as presented in this Program.
- Ensure employees comply with the procedures defined within this Program and enforce adherence to these procedures.
- Ensure employees are trained on the content of this Program.
- For any Supervisor involved in the contracting, hiring, or assigning of work to an outside contractor or agency that involves Traffic Control and Flagging, ensure they are familiar with and follow procedures within this Program.

6.4 MUD Safety Program Manager

- Assist with development and/or conducting training covering this Program for affected employees.
- Assist and provide technical support to Supervisors and employees in meeting their responsibilities identified in this Program.

- Conduct an annual review of this Program to evaluate its effectiveness.
- Revise the Program as necessary to meet changes in regulations or MUD specific procedures.
- Confirm that all employees involved in Traffic Control and Flagging operations have received the required training (Section 7.0).
- Confirm that all required MUD employees receive Traffic Control and Flagging Awareness training.
- Maintain attendance records for employees.

6.5 Traffic Control Personnel

The employees conducting Traffic Control and Flagging operations are responsible for all aspects of the specific Traffic Control and Flagging activity, including but not limited to:

- Completion of the Traffic Control and Flagging training course, or equivalent.
- Completion, submittal, and close out of a Traffic Control Plan (TCP).
- Reporting all accidents/injuries to the appropriate supervisor and MUD Safety Program Manager.

6.6 Traffic Control Flaggers

- Know and follow established traffic control and flagging safety program procedures.
- Attend Traffic Control and Flagging course or equivalent.
- Identify new Traffic Control and Flagging safety hazards as conditions/operations change and report them to their Supervisor or MUD Safety Program Manager.

7.0 Training

MUD employees who perform Traffic Control and Flagging will encounter unique hazards associated with their work in the streets. For this reason, all MUD employees will receive General Traffic Control and Flagging instruction at orientation level training. Employees who set up Traffic Control and Flagging operations will receive additional training specific to the hazards associated with Traffic Control and Flagging and the required procedures that must be followed during this work to minimize the identified hazards.

7.1 Traffic Control and Flagging Safety Orientation Level Training

All MUD employees will receive orientation level training on this Program during their New Employee Safety Orientation. This orientation level training will also be provided periodically thereafter (every 3 years) or whenever this Program has been revised to ensure MUD employees are aware of the program in the event that they are directed to perform work in Traffic Control and Flagging. The orientation training will provide a brief overview of the Traffic Control and Flagging Safety Program and will cover the following topics:

- Where a copy of the Traffic Control and Flagging Safety Program is located?
- Who is required to participate in the Traffic Control and Flagging Safety Program?

- What are the primary components of the Traffic Control and Flagging Safety Program?

7.2 Traffic Control and Flagging Training and Proficiency

1. All MUD employees who are assigned a work task that involves Traffic Control and Flagging are required to adhere to the procedures specified within this Section to maximize the effectiveness of this Program. The training and instruction is based on the Manual on Uniform Traffic Control Devices (MUTCD).
2. Flagger Training shall include:
 - Flagger Equipment which may be used.
 - Layout of the work zone and flagging station.
 - Methods to signal traffic to stop, proceed or slow down.
 - Methods of one-way traffic control.
 - Trainee demonstration of proper flagging methods and operations.
 - Emergency Vehicles traveling through the work zone.
 - Handling of Emergency Situations.
 - Methods of dealing with hostile drivers.
 - Flagging procedures when a single flagger is used.
3. Flaggers are responsible for public safety and for temporary traffic control. Flaggers should demonstrate the following abilities:
 - Receive and communicate specific instructions clearly, firmly, and courteously.
 - Move and maneuver quickly to avoid danger such as errant vehicles.
 - Control signaling devices, such as paddles, and flags, to provide clear and positive guidance to drivers approaching a temporary traffic control zone in frequently changing conditions.
 - Use proper flagging methods and operations.
 - Properly use the Stop/Slow Paddle and hand signals before being assigned as a flagger.
 - Understand the layout of the work zone and flagging station.
 - Understand and apply safe traffic control practices, sometimes in a stressful or emergency situation.
 - Hear, see, and recognize dangerous traffic situations and warn workers in sufficient time to avoid injury.

8.0 TRAFFIC CONTROL AND FLAGGING PROCEDURES

The following procedures provide employees with guidance in identifying hazards during MUD operations and the process by which hazards will be assessed and controlled. All MUD employees who are assigned a work task that involves Traffic Control and Flagging are required to adhere to the procedures specified within this Section to maximize the effectiveness of this Program.

8.1 Traffic Control Plans

1. The traffic control planning must be completed for all roadway construction, utility work, maintenance operations, and incident management, including minor maintenance and utility projects before occupying the TTC zone.
2. A TTC Plan, in detail appropriate to the complexity of the work project or incident shall be prepared and understood by all responsible parties before the site is occupied.
3. A trained person designated by the employer will conduct a basic hazard assessment for the work site and job classifications required in the activity area. This trained person should determine whether engineering, administrative or personal protection measures should be implemented.
4. Component Parts of a Traffic Control Zone include: See Appendix A.
 - Advanced Warning Area
 - Transition Area
 - Activity Area
 - Termination Area
5. Advanced Warning Signs is a three-step process. Drivers must be able to read, comprehend and react to the signage. See Appendix B.
6. Buffer Space: The area that separates road user flow from the workspace or unsafe area and might provide recovery space for an errant vehicle. Neither work activities or storage of equipment, vehicles or material should occur within the buffer space.
7. Traffic Space Taper Figure Appendix C.
8. Termination Area: The termination area is the section of the highway where road users are returned to their normal driving path. The termination area extends from the downstream end of the work area to the last TTC device such as an END ROAD WORK sign.

8.2 Traffic Control Devices

TRAFFIC CONTROL AND FLAGGING

1. **Arrow Board Standard:** The arrow board shall be located behind any channelizing devices used to transition traffic from the closed lane. The arrow board may only display the arrow directional panel when used on a merging taper.
2. **Taper Support:** Created by using a series of channelizing devices and or pavement marking to move traffic out of or into the normal path. Longer tapers are not necessarily better than shorter tapers because extended tapers tend to encourage sluggish operation and encourages drivers to delay necessary lane changes. See Appendix D
3. **Principals of Traffic Control Devices:** To be effective a traffic control device should meet 5 basic requirements:
 - Fulfill a need.
 - Command Attention.
 - Convey a clear, simple meaning.
 - Command Respect from road users.
 - Give adequate time for proper response.
4. **Sign Standard:** When work is suspended for short periods of time, TTC devices that are no longer appropriate should be removed or covered.
5. **High-Level Warning Devices:** Most commonly used in high density road user situations to warn road users of short-term operations. A high-level warning device shall consist of a minimum of two flags with or without a type B High intensity flashing warning light.
6. **Channelizing Device Support:** Used to warn road users of conditions created by work activities in or near the roadway and to guide road users. Channelizing devices include cones, tubular markers, channelized portable delineators, vertical panels drums, barricades, and longitudinal channelizing devices.
7. **Channelizing Device Cones:** Predominantly orange, made from a material that can be struck without causing damage to the impacting vehicle. Daytime and low speed, at least 18" in height. Freeways, night or high-speed highway 28" in height. May have retroreflective bands, stripes, or be equipped with lighting devices for maximum visibility.
8. **Barricade Standard:** Stripes on barricade rails shall be alternating orange and white retroreflective stripes sloping downward at an angle of 45 degrees in the direction road users are to pass.
9. **Work Duration Standard:**
 - Long Term Stationary is work that occupies a location for more than three days.
 - Intermediate Term Stationary is work that occupies a location for more than one daylight period up to three days or nighttime work lasting more than one hour.

- Short Term Stationary is daylight work that occupies a location for more than one hour.
- Short Duration is work that occupies a location for up to one hour.
- Mobile work is work that moves intermittently or continuously.
- Most maintenance and utility work operations are considered Short Term Stationary.
- Mobile operations shall have appropriate devices on the equipment or shall use a separate vehicle with appropriate warning devices.

8.3 Location and Visibility

Location and Visibility are important factors in flagging operations. Ensure that:

- Flagger Stations are at points of maximum visibility.
 - Flagger Stations are on the shoulder and opposite the active work area.
 - Flaggers are easily identified by traffic and are not confused with other workers in the area.
 - CA Flagger symbols and "Be Prepared to Stop" signs are covered completely, turned, or removed when flaggers are no longer needed.
 - All vehicles are parked away from the flagger station.
1. Flagger Stations: Must be located such that the traveling public has sufficient distance to stop at an intended stopping point before entering the workspace. Flagger Stations should be preceded by advance warning signs. Except in emergency situations, flagger stations must be illuminated during hours of darkness with a minimum 20-foot diameter illumination footprint (at least 10 foot candles in accordance with 8 CCR 1523), so the flagger is clearly visible to approaching traffic.
 2. The Flagger should stand on the shoulder next to the traffic being controlled. A flagger may only stand in the lane being used by moving traffic after traffic has stopped. The flagger should be stationed sufficiently in advance of workers to warn them, for example, with an audible warning device such as a horn or whistle, of approaching dangers from out-of-control vehicles.
 3. The flagger must be clearly visible to traffic at all times and must stand alone at the flagger station. Stay out of areas that are in shadows; do not blend with the background.
 4. Place personal items out of the way so they will not distract approaching traffic or obstruct your escape route. Keep the flagger station clean and organized, eliminating distractions such as chairs, books or personal radios. Do not lean, sit on or lie in a vehicle.
 5. High Visibility Safety Apparel: Flaggers must wear ANSI/ISEA 107-2004 or equivalent subsequent revision, class 3 apparel with a material color that is either fluorescent orange-red or fluorescent yellow-green, or a combination of the two as defined in the ANSI Standard. The reflective material must be

orange, yellow, white, silver, yellow-green or a fluorescent version of these colors and must be visible at a minimum distance of 100 feet. Flaggers must wear safety glasses and a white hard hat.

6. **Hand Signaling Devices:** Hand Signaling Devices such as Stop/Slow paddles or lights, and red flags are used to control the vehicles through the Temporary Traffic Control Zones (TTC) and must be visible to the first approaching driver at all times. The Stop/Slow paddle may be modified to improve visibility by incorporating red flashing lights on the stop face and yellow flashing lights on the slow face. The Stop/Slow paddle must be used with a rigid staff, tall enough that when the end of the staff is resting on the ground, the bottom of the paddle is a minimum of 6 feet above the pavement.
7. **Flags:** Flags must be only used in emergency situations, and only until a Stop/Slow paddle is available. Flags must be a minimum of 24 inches square, made of a good grade material and securely fastened to a staff that is approximately 36 inches long. The free edge of the flag should be weighted so the flag will hang vertically, even in heavy winds. Flags must be retroreflective when used at night.
8. **Advanced Warning Signs:** Each advance warning sign in each direction of travel must be equipped with at least 2 flags for a daytime closure. Each flag must be 16X16 inches and must be orange or florescent red orange. Flashing beacons must be placed at the locations indicate for lane closures during hours of darkness.
9. **Additional Equipment:** Additional flagger equipment includes channeling devices such as cones; a method of communication such as 2-way radios and other auditory warning devices as needed; drinking water and protective clothing in case of a change in weather.

8.4 Flagger Procedures

1. **Using the Slow/Stop Paddle:** The Stop/Slow paddle is the primary and preferred hand signaling device because it gives the public more positive guidance than red flags. The use of hand signals with red flags is limited to emergency situations only.
2. **To stop traffic:** Face traffic, aim the stop paddle face toward traffic in a stationary position, arm extended horizontally away from the body. Free arm must be held with the palm of the hand above shoulder level toward approaching traffic.
3. **To let traffic proceed:** Face traffic with the slow paddle face aimed toward traffic in a stationary position, arm extended horizontally away from the body. Flagger must motion with their free hand for traffic to proceed.
4. **To alert and slow traffic:** Face traffic with slow paddle face aimed toward traffic in a stationary position, arm extended horizontally away from the body. Flagger must motion up and down with their free hand, palm down.
5. **Each signal with the Stop/Slow paddle is three parts:** The message shown on the paddle, the flaggers gesture with the free hand and the position taken by the flagger.

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6. **Flagger Objectives:** To tell drivers what actions to take; to be understood by drivers; to take the guesswork out of the communication by using standard hand and paddle signals.
7. When a flagger is used only to slow traffic, use the slow side of the paddle and the work stop should be covered. The Stop/Slow paddle must always be held by the flagger, never placed in a traffic cone or on a barricade and never used from inside a vehicle.
8. **One lane, two-way traffic control:** One way traffic control is typically done by a single flagger at each end of the work zone. At spot locations lane closure where adequate site distance is available for the safe handling of traffic, one flagger may be appropriate.
9. **Single Flagger:** Stationed on the shoulder opposite the construction zone, or in a position where good visibility and traffic control can be maintained at all times. When a one lane, two -way temporary traffic control zone is short enough to allow a flagger to see from one end of the zone to the other and when traffic is normally light to avoid the possibility of opposing traffic arriving at the traffic control zone at the same time.
10. **Two Flaggers:** One should be designated as the flagging coordinator. They should be able to communicate with each other orally, electronically or with manual signals that cannot be mistaken for flagging signals.
11. **Additional Flaggers:** Control the flow of traffic at intermediate locations within the limits of a closure with reversible control; at intersections or driveways and other traffic meeting points. If there are high volume roadway intersections or driveways within the reversible traffic control construction zone, additional flaggers may be needed to control traffic entering the temporary traffic control zone from the roadway intersection.
12. **Advance Flagger:** Positioned in advance of the traffic control system and warn approaching traffic of road work ahead and potentially stopped traffic within the advance warning signs. Consider using an advance flagger where there is limited site distance to the work activity area or where long ques of traffic forms. Advance Flaggers are typically stationed at the end of the section of straight roadway to maximize visibility. Advance Flaggers are used only to slow traffic using the slow side of the paddle and the word stop must be covered.
13. **Urgent Situation:** Flaggers must know how to handle emergency flagging operations.
 - **Directing Emergency Vehicles:** When informed in advance of an approaching emergency vehicle, clear and unimpeded path for the vehicle by stopping traffic from all directions.
 - When no notice is given, first stop the emergency vehicle and then stop all traffic, including construction equipment, to provide a clear path for the emergency vehicle to pass.
 - When the type of work, such as blasting, or excavation makes the roadway impassable, advanced arrangements should be made with the local police agency that has jurisdiction over the roadway.

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14. **Traffic Control Violations:** Warn workers, either visually or with an audible warning device, when a driver has run the flagging station. Stop all vehicles entering the work area, but do not put yourself in an unsafe situation. Plan your exit route in case of emergency.
15. **Traffic Accidents:** Notify your supervisor and call for help. If accidents happen in waiting traffic, stay at your station and continue traffic control until you receive instructions from your supervisor or a law enforcement officer. Flaggers must communicate with each other before releasing or stopping traffic.
16. **Encountering Hostile Individuals:** Be courteous and professional. Do not argue with motorists, bicyclists or pedestrians. If a motorist fails to follow your directions and threatens the safety of the work area, note the vehicle license number and a description of the vehicle and driver. Report the information to your supervisor for the purpose of filing a police report.

8.5 Work Zone Best Practices

1. **Employers:** Conduct crew meetings and train all workers on work zone safety. Employers should also have a comprehensive, site specific safety plan and a temporary traffic control plan in place for the project site.
2. **Employees:** Should wear high visibility safety apparel. Be alert for construction vehicles, equipment, and traffic. Check your surroundings often for hazards. Know the plan for traffic control and keep a safe distance from traffic. Communicate with other workers. Stay behind the protective barriers and use additional safety apparel at night and during poor weather conditions.
3. **Equipment/Vehicle Operators:** Keep the windows and mirrors on your vehicle clean. Watch for workers on foot and know where they are located at all times. Remember the equipment blind spots and limited visual areas.
4. **Installing/Removing lane closures:** Install with the flow of traffic and uninstall against the flow of traffic.

8.6 Risks in the Roadway

1. **Workers in the roadway are at risk of injury from a variety of general traffic, vehicles passing or entering the work zone including:**
 - Drivers under the influence of alcohol or drugs and sleepy or impaired drivers.
 - Impatient, upset, or reckless drivers.
 - Drivers using cell phones or other inattentive drivers.
 - Law enforcement and emergency vehicles.
 - Disabled vehicles pulling in and parking, and or lost drivers looking for directions.
2. **Blind Spot Hazards:** A blind spot or blind area is the area around a vehicle or a piece of construction equipment that is not visible to the operator either by direct line of site or indirectly by use of internal or external mirrors.

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3. To Protect yourself when working near heavy equipment, do not cross directly in front or immediately behind large, heavy equipment where the operator sits high in the vehicle. Communicate to the operator before entering any area where heavy equipment or large trucks are operating. If you have to stand near parked equipment or trucks, stand in front of the operator side.

9.0 ANNUAL TRAFFIC CONTROL AND FLAGGING SAFETY PROGRAM REVIEW

The MUD Safety Program Manager or designee will conduct an annual review of the Traffic Control and Flagging Safety Program to assess the success of the program, as well as to identify any areas which could be improved. The review will be documented on the Annual Implementation form which is included as Appendix E to this Program.

This review will look at the following:

- 1) Evaluation of the equipment and the suitability of the equipment to the specific job tasks being performed or those envisioned to be performed.
- 2) Evaluation of adequacy of Traffic Control and Flagging personnel.
- 3) Evaluate the adequacy of the training programs.
- 4) Need for retraining or managers, supervisors, employees.
- 5) Employee feedback through interviews, walk-through observations, written surveys, and reevaluations.

10.0 RECORD KEEPING REQUIREMENTS

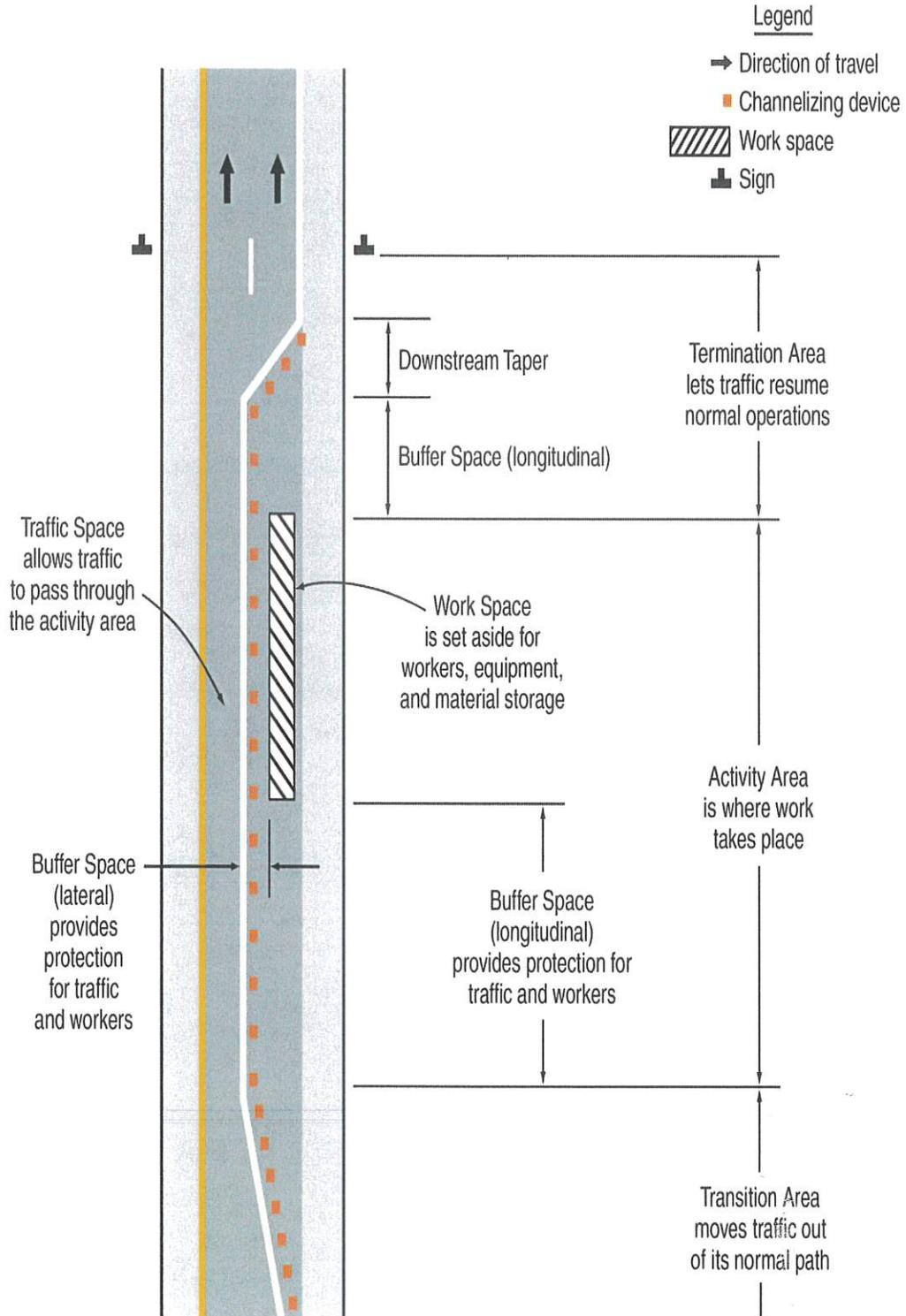
The following records/documents pertinent to the Traffic Control and Flagging Safety Program will be retained as required by Cal/OSHA and MUD Policy.

- Training Records
- Traffic Control Plans
- Accident Reporting

Consistent with the requirements of the MUD Injury Illness Prevention Program (IIPP), all accidents must be reported to the responsible MUD supervisor within 24 hours of the incident occurring. The accident must be documented using the MUD Supervisor's Investigation Report form, which is available in the MUD IIPP as well as the MUD Accident Investigation Program. MUD will maintain all accident reports for a minimum of 5 years.

APPENDIX A- MUTCD 2012 Revision

Figure 6C-1. Component Parts of a Temporary Traffic Control Zone



APPENDIX B-MUTCD 2012 Revision

Table 6C-1. Recommended Advance Warning Sign Minimum Spacing

Road Type	Distance Between Signs**		
	A	B	C
Urban (low speed)*	100 feet	100 feet	100 feet
Urban (high speed)*	350 feet	350 feet	350 feet
Rural	500 feet	500 feet	500 feet
Expressway / Freeway	1,000 feet	1,500 feet	2,640 feet

* Speed category to be determined by the highway agency

** The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

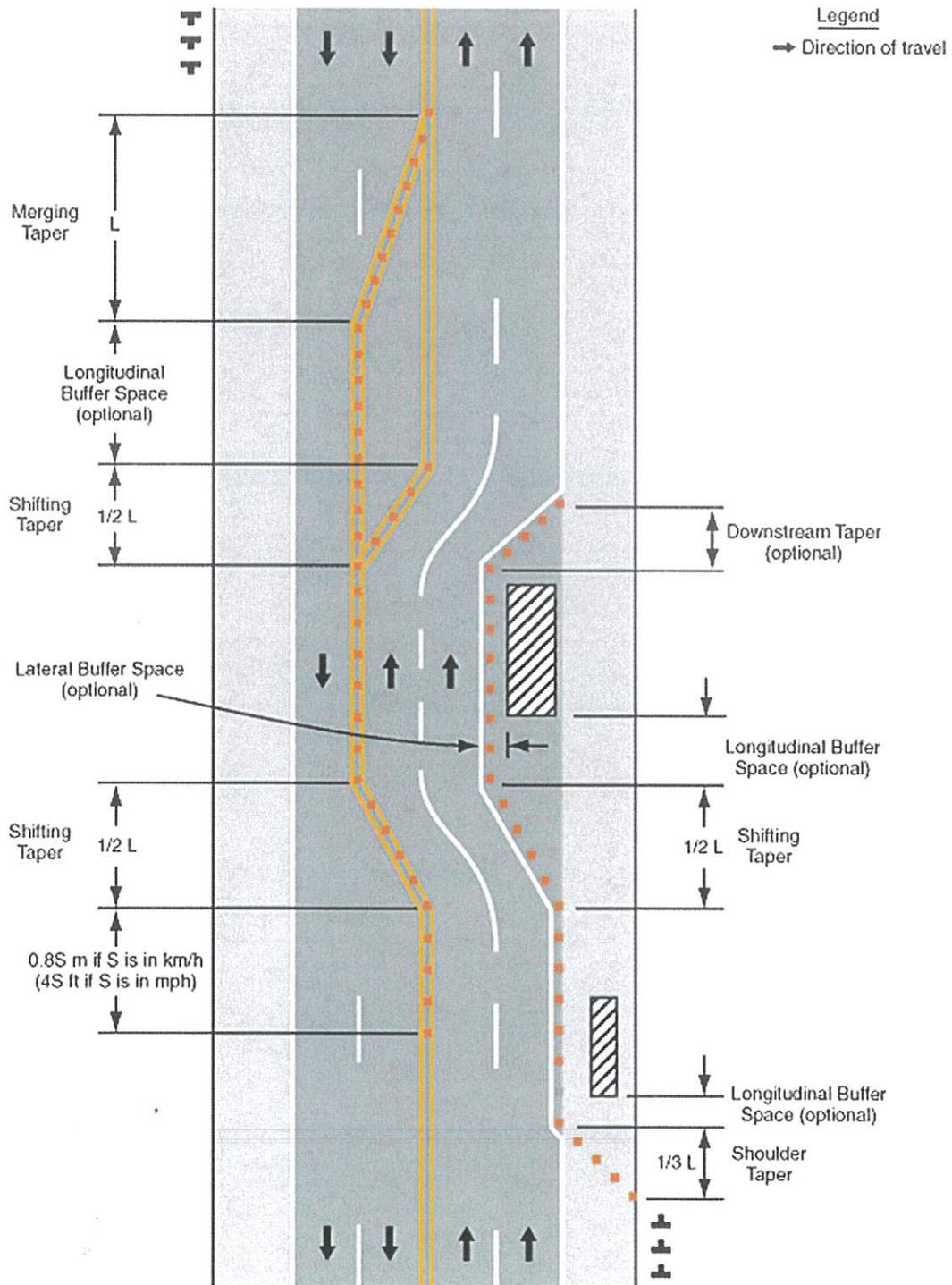
Table 6C-2. Stopping Sight Distance as a Function of Speed

Speed *	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet
60 mph	570 feet
65 mph	645 feet
70 mph	730 feet
75 mph	820 feet

* Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed

APPENDIX C-MUTCD 2012 Revision

Figure 6C-2. Types of Tapers and Buffer Spaces



APPENDIX D-MUTCD 2012 Revision

Table 6C-3. Taper Length Criteria for Temporary Traffic Control Zones

Type of Taper	Taper Length
Merging Taper	at least L
Shifting Taper	at least 0.5 L
Shoulder Taper	at least 0.33 L
One-Lane, Two-Way Traffic Taper	50 feet minimum, 100 feet maximum
Downstream Taper	50 feet minimum, 100 feet maximum

Note: Use Table 6C-4 to calculate L

Table 6C-4 Formulas for Determining Taper Length

Posted Speed Limit (mph)	Taper Length (L)				Remarks
	Width of Offset (Feet)				
	9	10	11	12	
≤ 25	95	105	115	125	L = S ² W/60
30	135	150	165	180	"
35	185	205	225	245	"
40	240	270	295	320	"
45	405	450	495	540	L = SW
50	450	500	550	600	"
55	495	550	605	660	"
60	540	600	660	720	"
65	585	650	715	780	"
70 <	630	700	770	840	"

Limited Access highway merging taper length (L) shall be 1000 feet regardless of the posted speed and SW=L is desired for the shifting taper length with ½L being the minimum.

APPENDIX E – Annual Implementation Form

This form certifies that review of the City of Stockton’s Traffic Control and Flagging Safety Program has been conducted. As part of the review, the following items were evaluated. Checked boxes indicate satisfactorily completed items.

- Review of Training Records (general & tailgate sessions) & ensure compliance.
- Review of Traffic Control and Flagging Inspections to ensure there are no un-resolved issues.
- Review of Temporary Traffic Control Plans
- Review of Program content.

Comments:

I certify I have reviewed the Traffic Control and Flagging Safety Program.

Employee Name

Employee Signature

Date

Appendix 10

FOG Control Action Plan



FATS, OILS, AND GREASE (FOG) CONTROL ACTION PLAN

Revised 2023

Program Background

The City of Stockton (City) has developed a comprehensive program to address sanitary sewer overflows associated with fats, oils, and grease (FOG). This FOG Control Action Plan (FCAP) outlines the elements of the City's FOG Control Program. The program consists of inspections, enforcement procedures, public education and public outreach to all Food Service Establishments (FSEs) in the City's regional sewer service area. The FOG Control Program is operated by the Pretreatment Section of the Municipal Utilities Department.

Program Elements

The following FOG Program elements are outlined below:

- Source Identification
- Legal Authority
- Inspections and Monitoring
- Enforcement
- Public Education and Outreach
- Budget and Staffing
- Effectiveness Measures

Source Identification

Discharges from FSEs are potential sources for grease related sanitary sewer blockages and overflows in the sewer collection system. FSEs include restaurants, retail markets, institutions, schools, licensed health care facilities, city owned facilities, flea markets and commissaries. Currently, there are more than 900 FSEs identified within the City's regional wastewater service area.

The following list includes a number of resources used by the City of Stockton for identifying new FSEs:

- San Joaquin County Public Health Department food vendor permit database
- City of Stockton business license database
- City of Stockton building permit database

FATS, OILS, AND GREASE (FOG) CONTROL ACTION PLAN

- Telephone listings
- Restaurant directories
- City of Stockton department directories
- Observations by City personnel through sampling, surveillance, inspections and site visits
- Referrals from other agencies
- Citizen reports
- Contact from potential restaurants
- Newspaper, trade journal, and business magazine articles

The San Joaquin County Public Health Department's food vendor permit database contains information on potentially all facilities in San Joaquin County which serve food items to the public. This is a comprehensive list that is updated on a regular basis. This list is utilized as the City's primary source for FSE identification. The additional resources listed above are used to identify additional FSEs within the City's sewer service area which are not included in the County's database.

Legal Authority

City of Stockton Municipal Code Chapter 13.40 (FOG Ordinance) provides legal authority for the City to implement the FOG Control Program. The ordinance prohibits discharges that cause or threaten to cause obstruction of flow in sewers, contains authority to require pretreatment prior to discharge to the sewer, contains authority to inspect dischargers and sample discharges, and provides for enforcement and penalties for non-compliance.

The FOG Ordinance is applicable to commercial and institutional generators of FOG discharges. Residential customers and industrial facilities are not regulated under this ordinance. The City will continue to use public outreach to educate customers and reduce FOG and pipe-blocking substances from residential discharges. Industrial facilities are regulated under the City's Industrial Pretreatment Program Ordinance (SMC Chapter 13.08).

Inspections and Monitoring

All FSEs are inspected on a regular basis to determine compliance with FOG Ordinance regulations and to provide public education and outreach.

The City has two full-time Environmental Control Officers, two full-time Senior Environmental Control Officers and one full-time Technical Services Supervisor to perform FOG duties as necessary.

Inspection procedures include:

- Determination of compliance with FOG Ordinance requirements.
- Determination of grease interceptor condition, operation and maintenance.
- Measurement of grease interceptor grease and solids content.

FATS, OILS, AND GREASE (FOG) CONTROL ACTION PLAN

- Evaluation of Kitchen Best Management Practices (BMPs).
- Review of all FOG control related records and documents.
- Distribution and discussion of educational and outreach materials.
- Review and evaluation of any prior FOG control deficiencies.
- Follow-up inspections at all FSEs with deficiencies are conducted within 30 days of the original inspection.
- Second follow-up inspections if the deficiency was not remedied by the time of the first re-inspection are performed within 15 days of the initial re-inspection. Continuing re-inspections are performed as necessary.
- Inspections of all FSEs suspected of causing or contributing to an SSO are performed within 5 working days of the occurrence of the SSO.
- All new or substantially remodeled FSEs are typically inspected within 90 days of start-up or remodel completion.

Enforcement

The City has implemented a FOG Enforcement Response Plan (ERP) to establish general responsibilities for enforcement of the FOG Ordinance. The ERP is an effective way to ensure that the City of Stockton takes fair, consistent and equitable enforcement actions against FSEs for violations of the FOG Ordinance. It is the intention of the Municipal Utilities Department to move quickly and responsibly in all enforcement actions.

Public Education and Outreach

Public education and outreach promoting proper handling and disposal of FOG and pipe-blocking substances is an ongoing effort throughout Stockton. The City has developed various communication methods to promote education and share information to the Stockton community, including:

- Implementation of a collaborative program with the Solid Waste Division of the Public Works Department to share information about water pollution prevention that includes the proper disposal of FOG, sediment, debris, and household items like “flushable” wipes, paper, cloth and plastic products during frequent recycling and e-waste events and in City produced materials and webpages such as: www.stocktonrecycles.com.
- Strong presence at various community events that includes a mini toilet that adds lighthearted humor to demonstrate the risks of improperly disposing of household items such as wipes and FOG.
- Distribution of FOG kits including a pot/pan scraper and lid to encourage the proper disposal of FOG for residential customers.
- The City website at www.stocktonca.gov/fog and social media accounts to disseminate FOG messages for residential and commercial customers, including

FATS, OILS, AND GREASE (FOG) CONTROL ACTION PLAN

the local Household Hazardous Waste Facility available to the community free of charge.

- Direct mail to water and wastewater customers providing information on the proper disposal of various items, including FOG.
- School presentations to local K-6 students.
- The City's FOG Inspection Program provides education and outreach materials to all FSEs. FOG inspectors discuss materials with FSE managers and owners and answer all questions.

Budget and Staffing

The FOG Program is a component of the City of Stockton Pretreatment Program. The Pretreatment Program is funded through the Municipal Utilities Department Enterprise Fund, which is funded by sewer service-related fees, including FOG inspection and re-inspection fees established by Council resolution.

The FOG Program presently supports a staff of approximately 2.0 full-time equivalent (FTE) employees:

- FOG Inspectors (Environmental Control Officers): 1.0 FTE
- Senior Environmental Control Officer: 0.50 FTE
- FOG Program Manager (Technical Services Supervisor): 0.25 FTE
- Clerical Support: 0.25 FTE

Effectiveness Measures

FCAP effectiveness is reviewed and analyzed on a regular basis. Effectiveness measures include:

FSE record of compliance with SMC regulations as determined by FOG inspection reports.

Evaluation of FOG caused SSOs from data obtained through video inspection (CCTV) of sanitary sewers.

Appendix 11

FOG Enforcement Response Plan



FATS, OILS, AND GREASE ENFORCEMENT RESPONSE PLAN

June 2010

Introduction

The purpose of this Fats, Oils and Grease (FOG) Enforcement Response Plan (ERP) is to establish general responsibilities for enforcement of Stockton Municipal Code Chapter 13.40 (FOG Ordinance). This ERP is a statement of policy by the City of Stockton. It is not a regulation, code or statute and the City has the authority to amend this policy at any time in order to more effectively implement the FOG Control Program. This plan has been developed for guidance and is not intended to create legal rights or obligations, or to limit the enforcement discretion of the Director of Municipal Utilities or the City of Stockton.

This ERP is an effective way to ensure that the City of Stockton takes fair, consistent and equitable enforcement actions against food service establishments (FSEs) for violations of the FOG Ordinance. It should be noted that, even with the ERP, judgment and flexibility will be needed at times in response to unusual instances of noncompliance. Some violations may require a response that deviates from the ERP depending on the particulars of the situation.

The enforcement philosophy of the City of Stockton is progressive, in that problems are addressed at the lowest level and with the least formality possible consistent with the specific violation. However, no enforcement procedure is contingent upon the completion of any "lesser" activity.

In general, enforcement actions against FSEs will be taken in accordance with this ERP, however, the enforcement actions listed here are not exclusive and the City of Stockton reserves the right to implement other enforcement responses available to it under the FOG Ordinance and California law, separately or in combination with these responses.

Enforcement Procedures

Generally, all violations identified by the City of Stockton are reviewed, evaluated, and addressed by the appropriate enforcement response. The majority of enforcement actions begin with issuance of an initial Notice of Violation. This notice describes the nature of the violation and informs the FSE that any additional violations may result in an escalated enforcement action. Once the FSE has been notified of a violation or has knowledge of a condition which is a violation, the FSE may be allowed a specified time period to correct the noncompliance before escalation of the enforcement process occurs. Emergency conditions require immediate correction of noncompliance.

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The identification of a violation of FOG requirements, regardless of the severity, will initiate the enforcement process. Discovery of a violation may occur as result of any number of activities which may include:

1. On-site inspections of FSEs by the City of Stockton;
2. Review of FSE records, reports, manifests, maintenance logs, etc;
3. Review of FSE implementation of Best Management Practices (BMPs);
4. Review of FSE sampling results;
5. Review of compliance schedule requirements;
6. Notification of a violation by FSE;
7. Spill and/or accidental discharge reports from FSE;
8. Investigation of sanitary sewer overflows, spills and illegal discharges;
9. Review of City of Stockton surveillance and/or sampling results;
10. Observations of field personnel;
11. Information provided by other agencies; and
12. Information provided by the public or private citizens.

Once violations are identified, it is the responsibility of City of Stockton to implement the appropriate enforcement response required in the ERP. In determining which enforcement measure(s) to use and the amount of any administrative penalties, the City may consider the following:

1. The degree and extent of the impact and/or harm to the sanitary sewer system, Publicly Owned Treatment Works (POTW), public or private property, and/or the natural resources of the State as a result of the violation;
2. The duration and magnitude of the violation;
3. The cost of repairing the damage to the sanitary sewer system, POTW, public or private property, and/or the natural resources of the State;
4. Whether the violation was committed negligently, grossly negligently, recklessly negligently, willfully or intentionally;
5. The amount of money saved, if any, by noncompliance, including the cost of continuing to discharge in noncompliance instead of stopping operations;

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6. Costs incurred by the FSE in correcting the problem and FSE cooperation and good faith effort to resolve noncompliance;
7. The prior record of the FSE in complying or failing to comply with the requirements of the FOG Ordinance, or other applicable laws or regulations;
8. The cost to the City (including legal fees, sampling and analytical costs, engineering and consulting fees, etc.) required, in the opinion of the City, to take necessary investigative and enforcement actions, determine the nature and extent of damage, repair any damage and prevent further damage;
9. The cost to the City for any civil penalties, fines, legal costs and/or other costs associated with any enforcement action or legal action taken against the City for violations caused by the FSE;
10. Violations resulting from vandalism or the action of third-party entities; and
11. Deficiencies or violations occurring as a result of circumstances beyond the FSE's control as determined by the Director of Municipal Utilities.

Enforcement Actions

Enforcement actions available to the City include the following:

1. Notice to Clean (NTC) – This is a formal written notice to the FSE that a clean-up is required to prevent an illicit discharge to the stormwater system or a FOG discharge to the sanitary sewer system. The order will require specified clean-up measures within a specified time frame to achieve compliance. The text of the order will include a statement that additional enforcement actions may be pursued if corrective actions are not achieved as required;
2. Correction Order (CO) – This is a formal written notice to the FSE that corrections are necessary to correct or prevent a violation of the FOG Ordinance. The order will require corrective actions within a specified time frame to achieve compliance. The text of the order will include a statement that additional enforcement actions may be pursued if corrective actions are not achieved as required;
3. Notice of Violation (NOV) – This is a formal written notice to the FSE that it has committed a violation of the local FOG ordinance. The NOV will require corrective actions within a specified time frame to achieve compliance. The text of the NOV will include a statement that additional enforcement actions may be pursued if corrective actions are not achieved as required;
4. Cease and Desist Order (C&D) – This is a formal written notice to the FSE issued for major violations of the FOG ordinance (e.g. large spills, gross negligence), or for violations that have a potential for significant impact to the environment, sanitary sewer system or POTW. The order will require the actions which are causing the violation to cease within a specified time frame to achieve compliance. The text of the order will include a statement that additional enforcement actions may be pursued if corrective actions are not achieved as required;

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5. Administrative Citation with Fine (ACF) – The City may issue an administrative citation with a fine in response to major violations, or when violations have not been brought into compliance after a Notice of Violation, or if the responsible party is a repeat offender, or if violations are intentional or a result of gross negligence. The text of the order will include a statement that additional enforcement actions may be pursued if corrective actions are not achieved as required.

As set forth in Chapter I of the Stockton Municipal Code fines are imposed per violation in the amount of two hundred dollars (\$200.00) for the first Administrative Citation and five hundred dollars (\$500.00) for each subsequent reinspection during which it is noted that the violation has not been corrected. Payment of the fine shall not excuse the failure to correct the violations nor shall it bar further enforcement action by the City;

6. Administrative Order (AO) – The City may issue an administrative order requiring an FSE to comply with requirements of the FOG Ordinance by undertaking and/or ceasing specified activities in a specified time frame. Administrative Orders may incorporate compliance time schedules, administrative civil penalties and/or suspension/termination of service;
7. Compliance Time Schedule (CTS) – The City may require an FSE to submit a compliance time schedule indicating corrective actions with milestone dates to achieve compliance. The City may accept, reject or require modifications to the schedule as necessary. The FSE shall adhere to the compliance schedule in accordance with the Administrative Order;
8. Civil Action (CA) – The City Attorney may pursue civil action against an FSE for failing to comply with requirements of the FOG Ordinance;
9. Civil Penalty (CP) – The City may issue an administrative civil penalty to an FSE who fails to comply with any provision of the FOG Ordinance. The City of Stockton Municipal Code authorizes penalties of up to one thousand dollars (\$1,000.00) per day per violation; and
10. Suspension of Service (SOS) or Termination of Service (TOS) – The City may suspend or terminate service to an FSE to prevent any actual or threatened discharge to the sanitary sewer system that may endanger the public health or environment, or cause damage to the sanitary sewer system or POTW. SOS or TSS may also be used as an escalating enforcement action when a noncompliant FSE fails to respond adequately to previous enforcement actions. SOS or TOS may be accomplished by physical severance of the FSE's connection to the collection system, suspending or terminating water service to the FSE, issuance of an Administrative Order which compels the FSE to immediately terminate its discharge, or a court ruling.

Appeals

Any FSE or property owner affected by a decision, action, or determination, including suspension, revocation, refusal or termination of wastewater service, cease and desist order, or imposition of civil penalties issued by the Director, or any other action of the Director in

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interpreting or implementing the provisions of the Stockton Municipal Code, may file with the Director a written request for reconsideration within ten (10) days of such decision, action, or determination, setting forth in detail the facts supporting the request for reconsideration. The Director shall provide a written decision regarding the request for reconsideration within thirty (30) days following the filing of the request for reconsideration. The Director shall serve the written decision upon the affected FSE and/or property owner by either personal service, facsimile, overnight courier or regular mail.

Any FSE or property owner aggrieved by the decision of the Director regarding a request for reconsideration specified above may appeal said decision and request an administrative hearing and decision in accordance with the procedures set forth in Title 1, Chapter 1.44, Section 1.44.070 of the Stockton Municipal Code by filing with the Director a written appeal within ten (10) days of such action setting forth in detail the facts supporting the appeal. The administrative hearing shall be conducted in accordance with procedures set out in Chapter 1.44 of the Stockton Municipal Code and the administrative order shall be final.

Staff Responsibilities

FOG Inspectors – Inspectors will be responsible for conducting compliance monitoring and FSE inspections. Inspectors will:

1. Provide outreach and educational assistance to FSEs;
2. Determine compliance with the FOG ordinance through on-site inspections;
3. Prepare inspection reports;
4. Identify instances of noncompliance;
5. Issue enforcement notices;
6. Prepare enforcement documents for issuance by the Director of Municipal Utilities;
7. Participate in enforcement meetings as deemed necessary by the Director of Municipal Utilities or City Attorney; and
8. Provide compliance assistance as appropriate.

FOG Program Manager – The FOG Program Manager will be responsible for ensuring fair and consistent implementation of FOG control requirements in compliance with the FOG Ordinance. The Manager will:

1. Review all violations;
2. Review all documents prepared by inspectors;
3. Recommend appropriate response(s) to violations;
4. Promptly notify the Director of Municipal Utilities of significant instances of noncompliance;
5. Conduct compliance meetings;
6. Develop and oversee compliance monitoring schedules;
7. Track enforcement compliance schedules;
8. Ensure consistency of the FOG control program;
9. Initiate administrative orders with compliance schedules;
10. Initiate suspensions or terminations of service;
11. Consult with City Attorney on all legal issues; and
12. Coordinate enforcement with other governmental agencies as appropriate.

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Director of Municipal Utilities – The Director of Municipal Utilities will be responsible for the appropriate application of enforcement standards to FOG Ordinance violations. The Director will:

1. Issue formal enforcement actions;
2. Conduct compliance meetings;
3. Consider appeals of enforcement actions; and
4. Approve suspensions and terminations of service.

City Attorney – The City Attorney's office will:

1. Provide legal assistance as necessary.

Enforcement Action Levels

Level	Enforcement Action
1	Notice to Clean (NTC) Correction Order (CO) Notice of Violation (NOV) Cease and Desist Order (C&D)
2	Administrative Citation with \$200 Fine (ACF)
3	Administrative Citation with \$500 Fine (ACF)
4	Administrative Order (AO) Compliance Time Schedule (CTS)
5	Civil Action (CA) Civil Penalty (CP)
6	Suspension of Service (SOS) Termination of Service (TOS)

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Enforcement Response Guide

SMC Sec.	Compliance Issue	Enforcement Action Levels		
		Initial inspection finds failure to comply, or: First violation in a twelve month period	First follow-up inspection finds failure to comply, or: Second violation in a twelve month period	Second or more follow-up inspections find failure to comply, or: Three or more violations in a twelve month period
13.40.040	FOG Discharge Limitation	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.050	Sanitary Sewer Overflow	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.060	Kitchen BMP Requirements	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.070	FOG Prohibitions	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.080	FOG Control Requirements	1 and 4 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.100	Grease Interceptor Requirements	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.120	Recordkeeping Requirements	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.130	Waiver of Interceptor Requirements	1 and 4 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.140	Facilities Monitoring and Right of Entry	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.150	Monitoring and Reporting Conditions	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.160	Inspections and Sampling Conditions	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.190	Falsifying Information / Tampering w/Process	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.200	Notification of Spill	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.210	Notification of Planned Changes	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.220	Harmful Discharge	1, 4 and 6 required. 2, 3, 5 if necessary.	1, 2, 4 and 6 required 3, 5 if necessary.	1, 3, 4 and 6 required 5 if necessary.
13.40.230	Failure to Comply with FOG Regulations	1, 4 and 6 required. 2, 3, 5 if necessary.	1, 2, 4 and 6 required 3, 5 if necessary.	1, 3, 4 and 6 required 5 if necessary.
13.40.240	Compliance Time Schedule	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.

FATS, OILS, AND GREASE ENFORCEMENT RESPONSE PLAN

Notes

The required enforcement action levels specified in the Enforcement Response Guide are the minimum enforcement responses and shall be administered as indicated unless specific findings are determined that would justify not taking such action.

The enforcement remedies specified in this document are not exclusive. The City may take all combination of actions specified in the Stockton Municipal Code against a noncompliant FSE, as well as any other enforcement remedies that the City may have available.

Enforcement responses may be escalated as needed and the City of Stockton is empowered to take more than one enforcement action against any non-compliant FSE.

The Director of Municipal Utilities reserves the right to assess the maximum penalty for any violation.

Violations that threaten health, property or environmental quality are considered emergencies and will receive immediate responses such as halting the discharge of the FSE.

Reimbursement costs are in addition to any administrative civil penalties assessed.

The FSE and property owner(s) shall be jointly and severally liable for compliance with all requirements of Stockton Municipal Code Chapter 13.40 (FOG Ordinance). All references in this Enforcement Response Plan to FSEs shall also include the property owner(s) as having joint and several liability.

Glossary of Acronyms

ACF	Administrative Citation with Fine
AO	Administrative Order
BMP	Best Management Practices
CA	Civil Action
C&D	Cease and Desist Order
CO	Correction Order
CP	Civil Penalty
CTS	Compliance Time Schedule
ERP	Enforcement Response Plan
FOG	Fats, Oils, and Grease
FSE	Food Service Establishment
NOV	Notice of Violation
NTC	Notice to Clean
POTW	Publicly Owned Treatment Works
SOS	Suspension of Service
SSO	Sanitary Sewer Overflow
TOS	Termination of Service

Appendix 12

GIS SSO Display Sample

Sanitary Sewer Overflows 2012 - 7/28/2014

