City of Chattanooga
Waste Resources Division
Consent Decree Program
Program Management

Transmittal

Date:	10-10-2014	**From:**	Mike Marino, P.E.
Attention:	Mary Helms	**Project:**	Consent Decree Program Management
Firm Name:	Chattanooga Public Library	**Project No.:**	C6A02301
Copies to:	CD Public Website	**File:**	

The following document is attached under a separate cover for submittal to the Public Document Repository.

1. Emergency Response Plan

Enclosures/Attachments

- ☐ Letter
- ☐ Contract Documents
- ☐ Sketch
- ☐ Modification Drawings
- ☐ Other
- ☐ Sample
- ☐ Clarification Drawings
- ☐ Print
- ☐ Shop Drawings

Action Requested

- ☐ Resubmit
- ☐ For Your Review
- ☐ Information Only
- ☐ Your Information and File
- ☐ Please Comment
- ☐ Other
- ☐ For Your Approval
- ☐ Reply ASAP
- ☐ For Your Signature

4510 Turntable Road, Suite 110, Chattanooga, Tennessee 37421 USA1.423.894.4175 Fax 1.423.779.3075

JACOBS

City of Chattanooga

Mayor Andy Berke

October 8, 2014

VIA HAND DELIVERY

Ms. Corinne Hill
Library Director
Chattanooga-Hamilton County Public Library
1001 Broad Street
Chattanooga, TN 37402

Subject: ***United States of America et. al. v. City of Chattanooga, No. 1:12-cv-00245***
Consent Decree Public Document Repository
Emergency Response Plan (ERP)

Dear Ms. Hill:

On behalf of the City of Chattanooga, Tennessee ("City"), and in accordance with the consent decree entered by the United States District Court for the Eastern District of Tennessee (Southern Division), on April 24, 2013, in the case styled the *United States of America et. al. v. City of Chattanooga, No. 1:12-cv-00245* ("Consent Decree"), we are providing the Chattanooga-Hamilton County Public Library with the Emergency Response Plan ("ERP) for submission to the City's Public Document Repository ("PDR"). The purpose of the ERP is to formalize operations for the wastewater collection and transmission system ("WCTS"), wastewater pump stations, and combined sewer overflow treatment facilities ("CSOTFs") during routine and catastrophic emergencies.

We are providing a copy of the ERP to the PDR for public review and comment, prior to final submission of the ERP to the EPA and the State of Tennessee. Thus, we ask that you make this document available to the public for review for thirty (30) days. The public can provide comments to the City by sending comments to the following address:

City of Chattanooga: Waste Resources Divisions
RE: Consent Decree Public Comments
c/o Jacobs Engineering Group
4510 Turntable Road, Suite 110
Chattanooga, TN 37421

An electronic copy of this document is also available for review and comment on the City's Consent Decree website at the following location:

http://www.chattanooga.gov/public-works/waste-resources/consent-decree/44-public-works/1050-consent-decree-document-repository

We look forward to receiving comments from the public on this important document.

Sincerely,

Alice L. Cannella, P.E.
Director, Waste Resources Division

Enclosure

cc: Donald L. Norris, Administrator, Public Works, City of Chattanooga
Mike Marino, PE, Jacobs
Adam Sowatzka, King & Spalding

Emergency Response Plan

Prepared for

United States Environmental Protection Agency and Tennessee Department of Environment and Conservation

City of Chattanooga
Waste Resources Division
Consent Decree Program
Case No. 1:12-cv-00245

Prepared by

CH2M HILL

Submitted by

Jacobs Engineering Group Inc.
Consent Decree Program Manager

Chattanooga, Tennessee

October 10, 2014

Table of Contents

Appendices

Tables

Figures

Acronyms

AAR/IP	After Action Report/Improvement Plan
AP	Action Plan
AWWA	American Water Works Association
ASCE	American Society of Chemical Engineers
BEOP	Basic Emergency Operations Plan
CBR	chemical, biological, and radiological
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CIKR	Critical Infrastructure and Key Resources
City	City of Chattanooga, Tennessee
CMOM	Capacity Management, Operations, and Maintenance
CPR	cardiopulmonary resuscitation
CSO	combined sewer overflow
CSOTF	combined sewer overflow treatment facilities
DAT	Damage Assessment Team
DHS	Department of Homeland Security
DPW	Department of Public Works
EAL	Emergency Action Level
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EMI	Emergency Management Institute
EPCRA	Emergency Planning and Community Right To Know Act
ERP	Emergency Response Plan
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
FOUO	For Official Use Only
GAEPD	Georgia Department of Natural Resources - Environmental Protection Division
HazMat	hazardous materials
HAZWOPER	Hazardous Waste Operations and Emergency Response [29 CFR 1910.120]
HCEMA	Hamilton County Emergency Management Agency
HSEEP	Homeland Security Exercise and Evaluation Program
I&I	Inflow and Infiltration
IAP	Incident Action Plan
IC	Incident Commander
ICS	Incident Command System
IMT	Incident Management Team
IOR	Initial Overflow Report
IRPS	Influent Relief Pump Station
ISS	Interceptor Sewer System

JIC	Joint Information Center
LEL	lower explosive limit
LEPC	Local Emergency Planning Committee
LNO	Liaison Officer
LSC	Logistics Section Chief
MBWWTP	Moccasin Bend Wastewater Treatment Plant
MGD	million gallons per day
MSDS	Material Safety Data Sheet
NACWA	National Association of Clean Water Agencies
NIMS	National Incident Management System
NPDES	National Pollution Discharge Elimination System
NRC	National Response Center
NRF	National Response Framework
OSC	Operations Section Chief
PIO	Public Information Officer
PPE	personal protective equipment
RQ	reportable quantity
SCADA	Supervisory Control and Data Acquisition
SDS	Safety Data Sheet under Globally Harmonized System (formerly called MSDS)
SEOC	State Emergency Operations Center
SERC	State Emergency Response Commission
SOP	Standard Operating Procedure
SORP	Sanitary Sewer Overflow Response Plan
SSO	sanitary sewer overflow
TCWN	Tennessee Clean Water Network
TDEC	Tennessee Department of Environment and Conservation
TEMA	Tennessee Emergency Management Agency
TnWARN	Tennessee Water/Wastewater Agency Response Network
UC	Unified Command
USEPA	U.S. Environmental Protection Agency
WCTS	Wastewater Collection and Transmission System
WEF	Water Environment Federation
WRD	Waste Resources Division
WWTP	Wastewater Treatment Plant

Definitions

Action Plans: Specific plans designed to be used during the response to a threat or incident. Action plans should be easy to use and contain simple instruction (along with checklists, flow charts, and procedures) to support staff in the field or decision officials during the management of a crisis.

Acute: Severe but of short duration. Acute health effects are those that occur immediately after exposure to hazardous chemicals.

Ambient: Ambient temperatures reflect the temperature of the surrounding air or water.

Capacity, Management, Operations, and Maintenance (CMOM): A flexible program of accepted industry practices to properly manage, operate, and maintain sanitary wastewater collection, transmission and treatment systems, investigate capacity-constrained areas of these systems, and respond to SSO events.

Combined Sewer Overflow (CSO): Any discharge from any discharge from the CSS from any outfall currently identified, or identified in the future, as a permitted combined sewer overflow outfall in any Chattanooga NPDES permit.

Consent Decree: United States of America and the State of Tennessee, *ex. rel*. Robert E. Cooper, in his representative capacity as the Attorney General and Reporter of Tennessee, Plaintiffs, v. the City of Chattanooga, Defendant. Consolidated with Tennessee Clean Water Network, Plaintiff, Case No. 1:10-CV-281 v. Collier/Lee City of Chattanooga, Defendant (signed April 24, 2013).

Containment: Includes all activities necessary to bring the scene of a hazardous materials incident to a point of stabilization, and to the greatest degree of safety possible.

Contamination: The process of transferring a hazardous material from its source to people, animals, the environment, or equipment, which may act as a carrier.

Decontamination: The physical or chemical process of reducing and preventing the spread of contamination from persons and equipment.

Disposal: The removal of waste material to a site or facility that is specifically designed and permitted to receive such wastes.

Department of Justice (DOJ): The United States Department of Justice and any of its successor departments or agencies.

Drill / Exercise: A simulated accident or release set up to test emergency response and coordination methods.

Emergency Operations Center (EOC): A pre-designated facility established by an agency or jurisdiction to coordinate the overall agency or jurisdictional response and support to an emergency. However, the EOC may be located at any location based on the disaster event.

Emergency Response: Emergency response is defined in CFR 1910.120(a)(3) as follows: Emergency response or responding to emergencies means a response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual-aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result in, an uncontrolled release of a hazardous substance. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area or by maintenance personnel are not considered emergency responses within the scope of this standard. Responses to releases of hazardous substances where there is not a potential

safety or health hazard (i.e., fire, explosion, or chemical exposure) are not considered emergency responses.

Emergency Response Plan (ERP): A document developed by the utility that described the actions that the utility staff would take in the event of a natural disaster, significant event, or terrorist activity.

Environmental Protection Agency (EPA): The United States Environmental Protection Agency and any of its successor departments or agencies.

Emergency Planning and Community Right to Know Act (EPCRA): An acronym for the Emergency Planning and Community Right to Know Act of 1996. This Act covers reporting requirements and the development of hazards, vulnerability, and risk analyses.

Evacuation: The physical relocation of people threatened by an incident.

Facility: Defined for Section 302 of EPCRA as all buildings, equipment, structures, and other stationary items that are located on a single site or contiguous sites owned or operated by the same person. This also includes motor vehicles, rolling stock, aircraft, and roadways.

Flash Point: The flash point of a liquid is the lowest temperature at which enough vapor is given off to form an ignitable mixture with air near the surface of the liquid.

Force Main: Any pipe that receives and conveys, under pressure, wastewater from the discharge side of a Pump Station. A Force Main is intended to convey wastewater under pressure.

Gravity Sewer Line or Gravity Sewer: A pipe that receives, contains and conveys wastewater not normally under pressure, but is intended to flow unassisted under the influence of gravity.

Hazardous Materials (HazMat): Substances, which are capable of causing substantial harm to people, property, and the environment when, mishandled or accidentally released. These include explosives, gases, flammable liquids, flammable solids, oxidizers and organic peroxides, poisonous and etiologic materials, radioactive materials, corrosive materials, and other regulated materials.

Hazardous Materials Response Team (HazMat): A specially trained group of personnel that are equipped to deal with spills or releases of hazardous materials.

Highly Hazardous Substances (HHS): Chemicals that have been identified by EPA on the basis of toxicity and have been listed under the Emergency Planning and Community Right to Know Act.

Hot Zone: The hot zone is the area that has the highest degree of hazard at an accidental release site. This zone is closest to the actual incident location and must be considered by first responders as extremely dangerous and possibly life threatening. Everything and everyone that is currently in or later enters the hot zone is considered to be contaminated. Everything and everyone that is contaminated must be decontaminated before leaving.

Immediately Dangerous to Life and Health (IDLH): IDLH means an atmospheric concentration of any toxic, corrosive, or asphyxiant substance that poses an immediate threat to life or would interfere with an individual's ability to escape from a dangerous atmosphere (29 CFR 1910.120).

Incident: A fire, release, or potential release of a hazardous material.

Incident Commander (IC): The on-scene, local, state, or federal official responsible for coordinating the hazardous material response action. The senior fire department officer that is on the scene will typically be the incident commander for a single jurisdiction hazardous materials incident involving multiple response agencies.

Incident Command System (ICS): A standardized on-scene emergency management concept specifically designed to allow users to adopt an integrated organization structure equal to the complexity and demands of small scale or large-scale incidents, without being hindered by jurisdictional boundaries.

Interceptor Sewer System (ISS): The ISS collects and transports untreated sewage to a treatment plant and consists of wastewater pump stations, combined sewer overflow treatment facilities, storm stations, gravity and force main sewer lines, combined sewers, and manholes. The ISS is operated and managed by the WRD and consists of the wastewater treatment plant and the WCTS.

Level of Concern (LOC): The airborne concentration of an extremely hazardous substance above which there may be serious irreversible health effects or death because of a single exposure for a relatively short period.

Local Emergency Planning Committee (LEPC): A committee appointed by the State Emergency Response Commission (SERC), as required by EPCRA, to formulate comprehensive emergency plans for its district.

Major Release: This is a release of a hazardous material where the atmospheric concentration meets or exceeds the IDLH threshold.

Material Safety Data Sheet (MSDS) or called Safety Data Sheet (SDS) per Globally Harmonized System: Provided by manufacturers and blenders of chemicals; contains information about chemical composition, physical and chemical properties, health and safety hazards, emergency response and waste disposal of the material as per 29 CFR 1910.120.

Minor Release: This is a release of a hazardous material where the atmospheric concentration is below the IDLH threshold.

Personal Protective Equipment (PPE): Equipment designed to protect the wearer's skin, eyes, or other body parts from hazardous materials. These include liquid splash-protective clothing, vapor-protective clothing, and breathing apparatus.

Pump Station: Facilities owned or operated by Chattanooga that are comprised of pumps which lift wastewater to a higher hydraulic elevation, including all related electrical, mechanical, and structural systems necessary to the operation of that pump station; provided, however, this definition shall not include any residential grinder pumps.

Remedial Actions: Actions consistent with a permanent remedy, which are necessary to prevent or minimize the release of hazardous materials so that they do not spread or cause harm.

Reportable Quantity (RQ): The quantity of a hazardous substance that triggers reporting under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). If a substance is released or spilled in a quantity that exceeds its RQ, the release or spill must be reported to the National Response Center (NRC), as well as to the SERC, and the community emergency coordinator for areas likely to be affected by the release or spill.

Sheltering in Place: The act of keeping people in an existing location without moving them (sheltering) if they are threatened by a release incident. This public protection option is appropriate when evacuation would cause people to be exposed to hazardous atmospheres. A crucial requirement involves "buttoning up" any openings in the shelter to minimize or stop the infiltration of the hazardous atmosphere. This includes the shutdown of air handling systems and air conditioners.

State Emergency Response Commission (SERC): Commission appointed by the State Governor according to the requirements of EPCRA, duties of the commission include designating emergency planning districts, appointing LEPC's, supervising and coordinating the activities of planning committees,

reviewing emergency plans, receiving chemical release notifications, and establishing procedures for receiving and processing requests from the public for information.

Sanitary Sewer Overflow (SSO): Any discharge of wastewater to waters of the United States or the State from Chattanooga's Sewer System through a point source not permitted in any NPDES permit, as well as any overflow, spill, or release of wastewater to public or private property from the Sewer System that may not have reached waters of the United States or the State, including all Building Backups.

Tennessee Clean Water Network (TCWN): TCWM shall mean the Tennessee Clean Water Network

Tennessee Department of Environment and Conservation (TDEC): The government agency responsible for safeguarding the health and safety of Tennessee citizens from environmental hazards; protecting and improving the quality of Tennessee's land, air and water; and managing the Tennessee State Parks system.

Tennessee Emergency Management Agency (TEMA): TEMA has plans in place to respond to any HazMat spill on highways, rivers, rails, or public property. TEMA routinely provides an area coordinator, who will usually also be a qualified HazMat technician or specialist, to assist or advise local jurisdictions with significant releases. TEMA will always support and back-up those responders with whatever resources or labor that they might request. If necessary, TEMA will either contract HazMat companies, request federal resources, and labor to assist in the response or both.

Threshold Planning Quantity (TPQ): A quantity designated for each chemical on the list of Extremely Hazardous Substance that triggers notification by facilities to the SERC that such facilities are subject to emergency planning under EPCRA.

Wastewater Collection and Transmission System (WCTS): The wastewater collection, retention, and transmission systems, including all pipes, Force Mains, Gravity Sewer Lines, lift stations, Pump Stations, manholes and appurtenances thereto, owned or operated by Chattanooga that are designed to collect and convey municipal sewage (domestic, commercial and industrial) to Chattanooga's WWTP or CSOTFs. The WCTS is comprised of the SSS and CSS.

Wastewater Treatment Plant (WWTP): Devices or systems used in the storage, treatment, recycling, and reclamation of municipal wastewater at the Moccasin Bend WWTP located at 455 Moccasin Bend Road, Chattanooga, TN 37405-4403.

Waste Resources Division (WRD): The City of Chattanooga, Tennessee, Department of Public Works (DPW), Waste Resources Division that oversees management of the WCTS.

Section 1.0
Introduction

1.1 Purpose

This Emergency Response Plan (ERP) was developed for the Interceptor Sewer System (ISS) owned and operated by the City of Chattanooga, Tennessee (City), Department of Public Works (DPW), Waste Resources Division (WRD). The purpose of this ERP is to formalize operations for the Wastewater Collection and Transmission System (WCTS), wastewater pump stations, and combined sewer overflow treatment facilities (CSOTFs) during routine and catastrophic emergencies. The plan was developed to comply with the United States Environmental Protection Agency (USEPA), Tennessee Department of Environment and Conservation (TDEC), and Tennessee Clean Water Network (TCWN) Consent Decree (CD) requirements and Capacity Management, Operations, and Maintenance (CMOM) guidance (refer to Section 1.3 below for details regarding the CD requirements). The CD is a multi-year program with the goal of significantly minimizing or eliminating sanitary sewer overflows (SSOs), combined sewer overflows (CSOs) and improving operation of the sewer system.

This ERP is being implemented within the City's CMOM program. The ERP establishes and maintains procedures to ensure effective response to accidents and emergencies that include flood, tornadoes, earthquakes, ice and snow, chemical spills, and widespread electrical failures. The ERP addresses areas of vulnerability and determines the effect of failures to operations, equipment, and public safety and health based upon such factors as topography, weather, sewer system size, and other site-specific factors.

The ISS ERP addresses emergency actions and operation procedures for the WCTS and references the existing ERP for Moccasin Bend Wastewater Treatment Plant (MBWWTP), as applicable. This ERP applies to the City's DPW WRD personnel and provides a description of how WRD personnel will respond to certain emergencies. Standard Operating Procedures (SOPs) and Action Plans (APs) are included, which provide guidelines for responding to specific events. The ISS ERP also establishes procedures and protocols for notifying the public and regulatory authorities of emergencies. A schedule for implementation is included in this ERP in Appendix A.

The DPW mission statement is to preserve and enhance the quality of the physical environment through prompt, cost-effective, and courteous delivery of services that protects the health, safety, and welfare of the citizens, and to maintain and improve the city's infrastructure.[1]

1.2 Goals

The goals of the ISS ERP are to document and understand the steps needed to complete the following:

- Maximize employee safety
- Minimize adverse impacts to public health and the environment
- Prepare and respond to natural disasters that effect the ISS
- Increase resiliency and restore functionality and service of the ISS rapidly after an emergency

[1] Chattanooga Department of Public Works. 2014. "Mission Statement, Public Works." http://www.chattanooga.gov/public-works#; January 15, 2014.

- Provide guidance in notifying the public and regulatory authorities
- Provide critical facility information needed by first responders and other outside agencies
- Provide a clear chain-of-command within WRD to ensure effective communication between WRD personnel and emergency response agencies during an emergency
- Operate in accordance with State and Federal permits

1.3 Consent Decree Requirements

Pursuant to the CD,[2] Section VI, Compliance Requirements; Subsection 20, CMOM Programs; Subsection (b) Emergency Response Plan; the ERP shall include the following elements (pages 27 and 28):

Consent Decree Requirement	Location by Section in the ERP
A schedule for full implementation of the program.	Appendix A, Schedule for Implementation
Emergencies that include situations such as floods, tornadoes, earthquakes or other natural events, serious chemical spills, and widespread electrical failure.	Appendix B, SOPs Section 8, APs and SOPs Appendix K, APs Appendix I, Evacuation and Shelter-in-Place Procedure
Areas of vulnerability and determine the effect of such a failure to operations, equipment, and public safety and health based upon such factors as topography, weather, sewer system size, and other site-specific factors.	Section 6, ERP Activation and Threat Characterization Appendix B, SOPs Appendix K, APs
The ERP shall have the following components for the Sewer System:	
• The WCTS component of the ERP shall establish SOPs for use in emergency operations, including identification of the actions staff should take in the event of emergency situations (specific to the type of emergency that could occur);	Section 8, APs and SOPs Appendix B, SOPs
• Criteria for initiating and ceasing emergency operations;	Section 7, Emergency Response, Recovery, and Termination Appendix B, SOPs
• Identification of appropriate repair equipment and sources thereof; and	Section 3, System Specific Information Appendix E, Equipment Lists
• Instructions on how to operate equipment and systems during an emergency when they are not functioning as intended but are not fully operable.	Appendix B, SOPs
The WWTP component of the ERP shall also establish SOPs for use in an emergency at the WWTP, including changes in process control.	Refer to MBWWTP ERP

[2] United States of America and the State of Tennessee, *ex. rel*. Robert E. Cooper, in his representative capacity as the Attorney General and Reporter of Tennessee, Plaintiffs, v. the City of Chattanooga, Defendant. Consolidated with Tennessee Clean Water Network, Plaintiff, Case No. 1:10-CV-281 v. Collier/Lee City of Chattanooga, Defendant (signed April 24, 2013).

Consent Decree Requirement	Location by Section in the ERP
The ERP shall have the following components for the Public Notification of Emergencies, established in coordination with public health authorities:	
• Criteria to be used as the basis for immediately notifying the public and other impacted entities, such as users with a downstream water intake, of an emergency caused by an SSO, Prohibited Bypass, or effluent limit violation;	Section 5, Crisis Communication Plan
• A list identifying, by name, phone number and pager number, all Chattanooga staff who are responsible for notifying the public;	Appendix G, WRD Internal Contact Information
• A list identifying, by name and phone number, all public contacts, including local media outlets, who must be contacted during an emergency;	Appendix H, External Aid Agencies Contact Information *The City PIO maintains Media Outlets.*
• A list identifying Chattanooga staff who are authorized to make public statements during emergencies; and	*Only the Mayor, the City PIO, and the Director are authorized to make public statements.*
• Pre-scripted news releases for various types of emergencies.	Appendix F, News Release Templates
The ERP shall have the following components for Notification of Regulatory Authorities, established in coordination with public health authorities:	
• Criteria to be used as the basis for immediately notifying regulatory authorities, TDEC, and the public health authorities of any emergency situation caused by an SSO, Prohibited Bypass, or effluent limit violation;	Section 5, Crisis Communication Plan
• A list identifying, by name, phone number and pager number, all Chattanooga staff who are responsible for notifying the regulatory authorities; and	Appendix G, WRD Internal Contact List
• A list identifying, by name and phone number, all officials who must be contacted.	Appendix H, External Contact List

1.4 ERP Organization

The ERP is organized into nine sections with tabs so that information is easy to find. Appendices are included with supplementary material such as phone contact lists, SOPs, and APs. Table 1.1 provides a brief summary of the content of each section.

TABLE 1.1
Report Organization

Section Number	Description
Section 1	Introduction: Describes the purpose, goals, CD Requirements, and overview of the organization of the ERP.
Section 2	General Emergency Response Planning Information: This section describes the agreements between WRD and other agencies relative to emergency planning and response.
Section 3	System Specific Information: This section describes provides certain background information that is specific to the ISS, such as a system map, and emergency equipment.

TABLE 1.1
Report Organization

Section Number	Description
Section 4	Concept of Operations: This section describes the incident command system and describes how WRD will adapt it to ensure that there is a clear of chain-of-command for interactions between WRD and outside response agencies, such as the City Fire Department.
Section 5	Crisis Communication Plan: This section provides procedures and policies for communicating information to the public and regulatory agencies during an emergency. Guidelines for communicating to the public through the media are provided.
Section 6	ERP Activation and Threat Characterization: This section explains how threats may be received, as well as what steps to take in order to activate the ERP.
Section 7	Emergency Response, Recovery, and Termination: This section explains the three phases of an emergency: response, recovery, and termination. General actions and guidance are provided for each phase. The guidance in this section should be used in conjunction with specific APs and SOPs.
Section 8	Action Plans and Standard Operating Procedures: This section presents a summary of incident specific APs and SOPs to respond to and recover from emergency events.
Section 9	Training and Exercises: This section describes WRD's training program for training personnel on this ERP.
Appendix A	Schedule for Implementation
Appendix B	Standard Operating Procedures
Appendix C	Incident Action Plan/ Unit Log and Incident Command System Forms
Appendix D	Incident Command System Position Guide
Appendix E	Equipment Lists
Appendix F	News Release Templates
Appendix G	Internal Contact List
Appendix H	External Contact List
Appendix I	Evacuation and Shelter-in-Place Procedure
Appendix J	Pump Station and CSOTF Information
Appendix K	Action Plans/Checklists
Appendix L	Incident Investigation Report

1.5 Document Control

The information contained in this ERP is sensitive in nature, but unclassified. This ERP is considered *For Official Use Only* (FOUO) and a statement describing the provisions of FOUO is provided in the front of this document. Distribution of the full version of this plan should be limited to essential personnel governed by a need-to-know basis.

In addition, general distribution of selected sections, APs, and SOPs may be issued to employees. Document control policies include limiting the distribution of the ISS ERP hardcopies to specific staff and

not distributing digital copies of the document. The ISS ERP documents are numbered and assigned to specific persons as defined in the Distribution Log in the front of this document.

1.6 Plan Updates

The ISS ERP is reviewed by the Director of WRD (and other appropriate personnel) annually. Based on this review, updates are prepared and issued. For instance, updates to specific sections are made to the ERP if there are changes in the staff contact list, and roles and responsibilities of those involved in response activities. Updates are also included whenever there is an operational change to the WCTS that affects ISS ERP content.

The Director of WRD must authorize and issue updates to the ISS ERP. When this ERP is updated, the reason for the update, the date the update is issued, and the name of the person that approved the revision will be provided in revision log included at the beginning of this document.

WRD will provide Hamilton County Emergency Management Agency (HCEMA) with a copy of the Final ERP Plan (once finalized in 2014/2015) and any future revisions as documented in the revision log.

1.7 Guidance Documents

Multiple Federal, State, local, industry, and other organizational resources exist to support wastewater facility emergency planning and response. Guidance, tools, resources, and references considered in development of this ERP include, but are not limited to, the following:

- *Emergency Response Plan Guidance for Wastewater Systems*, Water Environment Research Foundation (WERF), 2004
- National Incident Management System (NIMS) – Provides guidance and utilizes Incident Command System (ICS) standards and protocols to foster standardized response procedures across the United States. The ICS command and management structure provides the framework for WRD incident management response. Additional resources include:
  - National Incident Management System – http://www.fema.gov/national-incident-management-system
  - Federal Emergency Management Agency (FEMA) Plan, Prepare, and Mitigate – http://www.fema.gov/plan-prepare-mitigate
  - FEMA Response & Recovery – http://www.fema.gov/response-recovery
  - USEPA link – for damage assessments and resources http://water.epa.gov/infrastructure/watersecurity/funding/fedfunds/disaster.cfm
  - DHS Resources - http://www.dhs.gov/index.shtm
  - National Preparedness Guidelines (NPG) – https://www.dhs.gov/national-preparedness-guidelines
  - National Response Framework (NRF) – http://www.fema.gov/national-response-framework
  - National Infrastructure Protection Plan (NIPP) – https://www.dhs.gov/national-infrastructure-protection-plan
  - *United States Coast Guard Incident Management Handbook*, August 2006 – http://www.uscg.mil/hq/nsfweb/docs/FinalIMH18AUG2006.pdf

- Tennessee Water/Wastewater Agency Response Network (TnWARN), http://www.Tnwarn.org/index.htm
- Tennessee Emergency Management Agency (TEMA) http://www.Tema.state.ga.us/
- HCEMA http://www.hamiltontn.gov/emergencyservices/emergencymange.htm
- American Society of Chemical Engineers (ASCE), Water Environment Federation (WEF), American Water Works Association (AWWA) - *Guidelines for the Physical Security of Wastewater/Stormwater Utilities*, 2006
- ASCE/WEF/AWWA - *Interim Voluntary Security Guidance for Wastewater/Stormwater Utilities*, 2004
- National Association of Clean Water Agencies (NACWA), *Protecting Wastewater Infrastructure Assets, Managing Decontamination Wastewater: A Utility Planning Tool*, 2005
- Training and Exercises:
  - *Homeland Security Exercise and Evaluation Program*, Volume 1, FEMA, February 2007. https://hseep.dhs.gov/support/VolumeI.pdf
  - *NIMS Training Program*, Department of Homeland Security (DHS), September 2011. http://www.fema.gov/pdf/emergency/nims/nims_training_program.pdf
- USEPA, Association of Metropolitan Water Agencies (AMWA), American Public Works Association (APWA), AWWA, NACWA, National Association of Water Companies (NAWC), and WEF. *Effective Utility Management, a Primer for Water and Wastewater Utilities*. 2008 http://water.epa.gov/infrastructure/sustain/upload/2009_05_26_waterinfrastructures_tools_si_watereum_primerforeffectiveutilities.pdf

Section 2.0
General Emergency Response Plan Information

2.1 Introduction

This section of the WRD ISS ERP describes the agreements between the City DPW WRD and other agencies relative to emergency planning and response and the ISS ERP relationship with other plans.

2.2 Memorandum of Understanding

The City DPW has partnered with the City Fire Department to issue a document titled "Memorandum of Understanding for Emergency Response to Spills between the Chattanooga Fire Department and Chattanooga Public Works." This document describes the functions and responsibilities between the City Fire Department and the DPW when there is spill of hazardous material into the collection system that could threaten the health, safety, and environment of the City of Chattanooga, its citizens and properties. A copy of this document is included in Appendix B.

2.3 Mutual Aid Agreements

Mutual aid agreements are agreements between agencies, organizations, and jurisdictions that provide a mechanism to obtain emergency assistance quickly in the form of personnel, equipment, materials, and other associated services. The primary objective is to facilitate rapid, short-term deployment of emergency support prior to, during, and after an incident.

Typically, in the case of a wastewater utility, a mutual aid agreement would consist of an agreement between WRD and one or more neighboring utilities to share resources during an emergency. Currently, there are no formal written mutual aid agreements between WRD and other wastewater utilities.

The TnWARN mission is to support and promote statewide emergency preparedness, disaster response, and mutual assistance matters for public and private water and wastewater utilities. Currently, the City is not enrolled in a mutual aid assistance agreement with TnWARN. The website www.tnwarn.org provides its members with emergency planning, response, and recovery information prior to, during, and after an emergency. TnWARN is affiliated with the nationwide water/wastewater agency response network system, allowing mutual aid to be provided among utilities. TnWARN maintains an emergency equipment database that matches utility resources to a member's needs during an emergency. Members that have entered into the mutual assistance agreement may request mutual aid and assistance in the form of equipment (i.e. pumps and generators) and/or trained personnel. Member utilities will respond only if willing and able to assist, as it is not obligatory. The "requesting member" will reimburse the "responding member" for the use of resources based on FEMA standard schedule rates.

2.4 Relationship between ERP and Other Documents

During an emergency, there may be more than one set of guidelines to follow. Care must be taken to ensure that personnel are clear on which documents (guidelines, plans, or procedures) govern a particular situation. Table 2.1 lists the other documents that have been developed by WRD and DPW, and how they relate to the ISS ERP. Documents are located at identified office locations at MBWWTP, as well as at the

WRD Administration Building, MBWWTP, O&C Building, Sewer Maintenance, 455 Moccasin Bend Road, Chattanooga, TN 37405.

TABLE 2.1
Relationship of Other Plans to the ERP

Other Documents	Relationship to the ISS ERP	Document Location
MBWWTP ERP (September 2011)	Provides information for emergency response at MBWWTP.	MBWWTP, Director's Office Office of Occupational Safety Specialist
Sanitary Sewer Overflow Response Plan (SORP) (Draft 2013)	Provides information to response to SSOs and notification to regulatory agencies.	MBWWTP, System Engineer and Pump Stations/CSO Operations Supervisor's Office
Pump Station and CSOTF Operations and Maintenance Program (Draft 2014).	Provides detailed information on pump station operations.	MBWWTP, Pump Stations/CSO Operations Supervisor's Office
Alarm Sheets	Alarm Sheets provide detailed information on alarm specifications.	
Pump Station Inventory	Inventory Spreadsheets provide detailed information on Pump Station specifications.	
MBWWTP Evacuation / Shelter-in-Place Procedure	This procedure would be consulted by ISS staff in the event of a plant-wide evacuation or shelter in place.	ISS ERP Appendix I MBWWTP, Office of Occupational Safety Specialist
Waste Resources Division (WRD) *Employee Health and Safety Handbook* (1983)	The *Employee Health and Safety Handbook* should be consulted for: • Health and safety policy • Employee safety guidelines • Job site safety guidance • Tools, equipment, vehicle and traffic safety • Hazardous material right-to-know policy	MBWWTP, Office of Occupational Safety Specialist
Collection System Standard Operating Procedures (SOPs)	SOPs, relative to operation of the collection system, have been prepared by Division staff. These procedures address actions to be taken during emergency conditions.	Office of System Engineer
Safety Data Sheets (SDSs) or Material Safety Data Sheets (MSDSs)	SDS/MSDS for hazardous chemicals, if used in relation to the ISS operations and maintenance, should be consulted to obtain quick reference information on the properties, health hazards, fire hazards, and emergency spill procedures associated with each chemical.	Office of Occupational Safety Specialist - Master File MBWWTP Administration Office Each WRD Section maintains specific MSDS/SDSs for chemicals used in that area.

TABLE 2.1
Relationship of Other Plans to the ERP

Other Documents	Relationship to the ISS ERP	Document Location
SSO Monthly Spreadsheet Reports	Identifies and tracks the following: • Date • Time notified • Time crew responded • Time SSO stopped • Date SSO stopped • Time corrective action completed • Date corrective action completed • Street number • Approximate location and address • Approximate latitude and longitude • Source of SSO (manhole, pump station, main) • Destination of overflow • Estimated volume of SSO • Cause of SSO • Actions taken to stop SSO • Actions taken to prevent future SSOs	Office of System Engineer
CSO Monthly Spreadsheet Reports	Identifies and tracks location of discharge date, time, duration time, duration (hours), gallons discharged, rain fall totals, type of discharge (treated and or partially treated) and Permit Number.	Operations Supervisor of Pump Stations and CSOTFs
HCEMA *Basic Emergency Operations Plan* (BEOP) (2009)	This plan establishes a framework for development of a comprehensive emergency management program within and for Hamilton County and its various political subdivisions (Hamilton County BEOP, 2009). The DPW WRD is considered part of the Emergency Support Function (ESF) 3, (Infrastructure), Subfunction 3.4, Water and Wastewater Systems.	Electronic version on CD ROM with this ERP and maintained on the WRD SharePoint Site
HCEMA Natural Hazards Mitigation Plan 2012	This plan provides a comprehensive strategy to reduce the impacts of natural hazards in Hamilton County (Hamilton County Natural Hazards Mitigation Plan, draft).	Electronic version on CD ROM with this ERP and maintained on the WRD SharePoint Site

Section 3.0
System Specific Information

2.5 Overview of the System

This section provides background information on the ISS, including system specific information, an overview map, and a list of emergency equipment. The ISS is operated and managed by WRD and consists of the wastewater treatment plant (WWTP) and the WCTS. The ISS serves the City and surrounding metropolitan area of approximately 400,000 people, encompassing approximately 200 square miles. In addition to City service, the system serves several suburban areas and satellite systems. Figure 3.1 provides an overview of the ISS WCTS system.

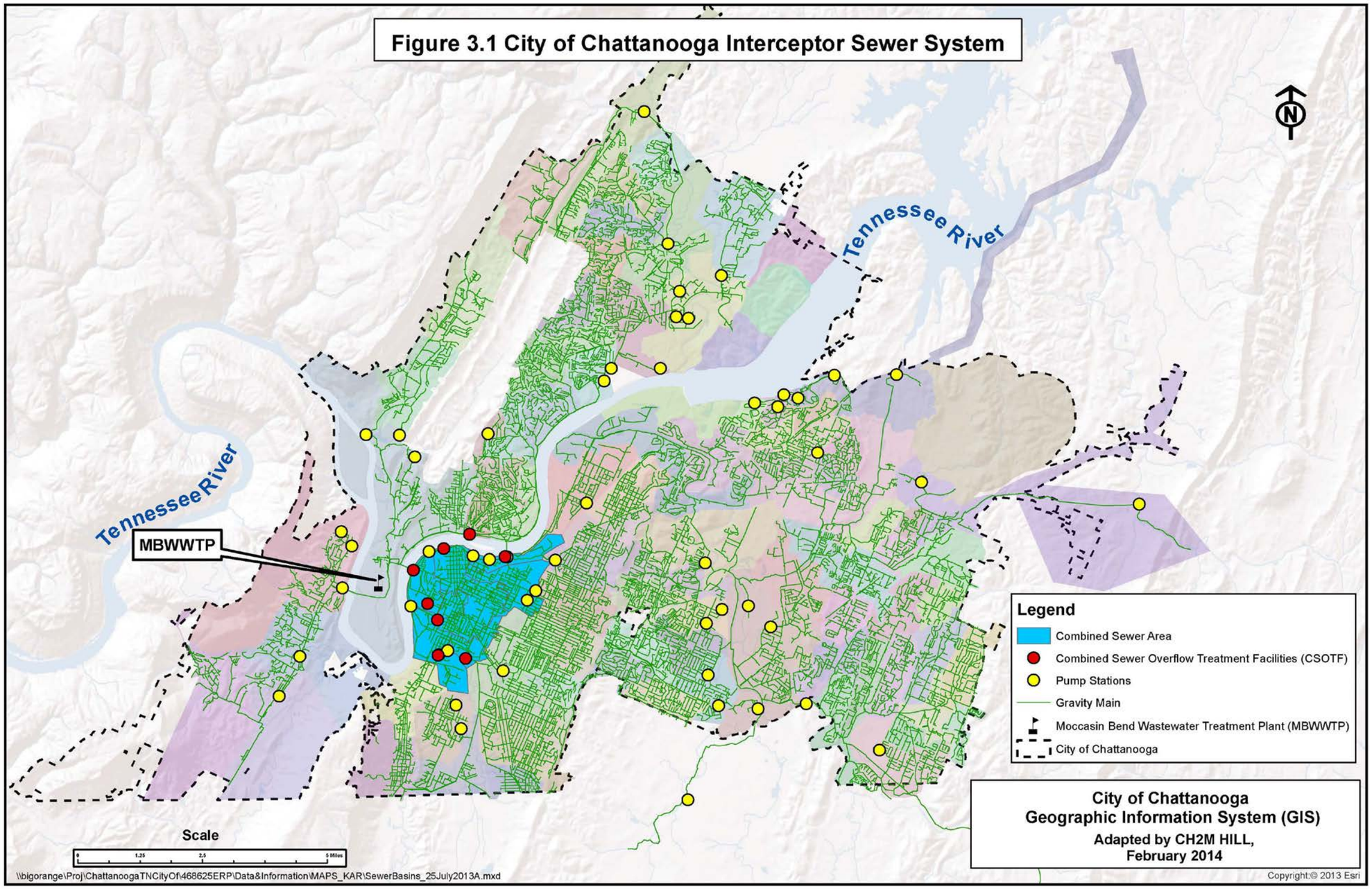
2.6 Description of the Wastewater Collection and Transmission System

As a regional wastewater utility, the City of Chattanooga, a Municipal Corporation, owns, operates, maintains, and manages a network of pipes, manholes, pump stations, force mains, Combined Sewer Overflow Treatment Facilities (CSOTFs), and associated appurtenances that transport wastewater from homes, businesses, and industries to the Moccasin Bend WWTP. All of this infrastructure is part of the Wastewater Collection and Transmission System (WCTS), as defined in the CD and herein. Property owners own the private service laterals from the served residential, commercial, and industrial structures to the public main line in the street or right-of-way, including the connection.

The City's WCTS currently serves approximately 170,000 people with approximately 61,000 customers within the City including 80 permitted industries. It also provides treatment for eight (8) regional or satellite users comprised of approximately 25,000 customers. The WCTS is composed of:

- 1,263 miles of gravity sewers (approximate), including 70 miles of combined sewers;
- 30,000 manholes (approximate);
- 70 pump stations;
- 53 miles of force main;
- Eight (8) CSOTFs;
- One (1) Combined Sewer Storage Facility;
- 192 (approximate) residential/grinder pumps; and
- One (1) Moccasin Bend WWTP

FIGURE 3.1
Overview of the City of Chattanooga ISS



Operations, Maintenance, and Management of the WCTS: The WRD has seven staff primarily responsible for the operations of CSOTFs, pump stations, and storm stations (including the Operations Supervisor; four Operator I positions; one Operator II; and one Operator 3). Operation and maintenance activities are organized by zones. Major pump stations are visited twice a week (or visited more often if there is a Supervisory Control and Data Acquisition [SCADA] alarm or SCADA reading that needs attention).

After hours, personnel are on-call on a rotating basis (based on weekly schedules). In addition, there are 8 to 10 mechanics and 8 to 10 electricians who are dedicated to the plant pumps and pump stations in the collection system.

Plant Maintenance personnel are responsible for maintenance activities at the WWTP and the remote wastewater pumping stations. Contractors perform electrical maintenance and are contracted as needed. WRD personnel implement a maintenance program that includes predictive, preventive, and corrective maintenance. A computerized maintenance management system (CMMS) (Cityworks® software program) is used for scheduling and documenting maintenance activities.

Pump Stations: There are 70 pump stations in the collection system, including 8 large pumping stations, 62 underground, wet well-mounted, submersible pumping stations, as well as several small custom dry well stations, and approximately 192 residential/grinder stations. Pump stations typically have two to three pumps that provide redundancy at the stations. Pump Stations have security and lighting in place. They are equipped with silent intrusion alarms and use a lock and key entry system. The facilities are monitored at the MBWWTP through a SCADA system (monitor only and no operational controls). In the event of a power loss, SCADA system alarms would notify staff monitoring the system in the MBWWTP Control Room. The SCADA system is equipped with a battery backup system located at the plant. The SCADA system is currently being upgraded and redesigned. In the event of high wet wells, personnel are required to visit facilities to operate the controls, because they cannot be operated remotely.

CSOTFs: Eight CSOTFs provide control of wastewater overflow of the ISS combined system. CSOTFs are equipped with large holding cells and control gates. CSOTFs provide primary treatment to influent water (during wet weather) through the settling of solids.

Influent relief pump stations have air scrubbers with carbon beds, control rooms, and main control panels. WRD staff sample and test effluent before discharging to the river. In some cases, when there is a high water level at the river, the sluice gate is closed at the regulator and flow is conveyed to the MBWWTP. A transducer instrument is used to indicate water levels. The regulators are equipped with a router and electrical system.

CSOTFs have security and lighting in place and are equipped with silent intrusion alarms and use a lock and key entry system. The facilities are monitored at the MBWWTP through the SCADA system (monitor only and no operational controls). In the event of a power loss, SCADA system alarms would notify staff monitoring the system in the MBWWTP Control Room.

Sewer Collection System: Routine maintenance of the collection system is necessary to ensure proper operation. The Sewer Maintenance section is primarily responsible for the proper operation of the system's collector lines and interceptors excluding the operation of the pump stations. Collection system maintenance crews clean, repair, and replace small diameter lines and use closed circuit television cameras (CCTV) to inspect lines as needed (for preventive as well as emergency basis).

The wastewater collection system is comprised of the following sections: Engineering, Sewer Maintenance, and Inflow and Infiltration (I&I). The Engineering Section provides engineering and

logistical support to I&I, sewer maintenance programs, and administration of sewer maintenance and rehabilitation contracts. The I&I section is responsible for the identification of I&I sources.

Generators and Backup Power: In the event of a power loss, CSOTFs and a limited number of the pump stations are equipped with fixed generators with automatic control. Stations without fixed generators are equipped with generator quick-connects for portable generators. The ISS has in place a *Pump Station and CSO Power Loss Procedure* (SOP PS-003) for pump stations and CSOTFs and a *Generator Set up and Delivery Procedure* (SOP PS-004) (both provided in Appendix B).

Contracted electricians conduct preventive maintenance on generators and operators conduct testing once a week. The Division maintains four portable generators (including one at Big Ridge, one at Eastgate, and two at Sewer Maintenance), which are considered adequate to manage emergency power needs within the ISS. Portable generators are available and can be moved and utilized readily between stations when needed in an emergency. The City supplies fuel for generators and vehicles. Appendix J provides a list of stations and generator configurations.

Pretreatment Program: The ISS maintains an effective Pretreatment Program to manage pollutants from 80 significant industrial users through discharge permits. Types of industries in the area include food manufacturing, specialty chemicals, pharmaceutical, metal finishing, centralized waste treatment, and metal molding.

The primary purpose of the Pretreatment Program is to sample, inspect, and regulate discharge of industrial waste into the sanitary sewer system and protect the operational performance of the WWTP and water quality of receiving waters. Industries must meet specific wastewater constituent limits in their discharge before the City issues a permit.

2.7 Emergency Spill Response and Emergency Spill Equipment

The City operates its Water Quality Program under the provisions of the State of Tennessee NPDES MS4 Permit Number TNS068063. Part II, Paragraph C.7.e of the permit requires the City to develop procedures to prevent, contain, and respond to spills.

Water Quality Program personnel serve as "subject matter experts" in areas of environmental risk and hazard, provide the Chattanooga Fire Department Incident Commander (IC) with information needed to contain and confine spilled materials, and coordinate efforts for site remediation. Major objectives of the Water Quality Program include responding to spill incidents in a reasonable period when contacted (within 30 minutes to an hour) and coordinating with departments, agencies, and contractors to eliminate or minimize the impact of spilled material to the environment.

Designated first responders in the Water Quality Program spill response program have completed Hazardous Waste Operations and Emergency Response (HAZWOPER) training at the Hazardous Materials Specialist level in accordance with 29 Code of Federal Regulations (CFR) 1910.120 and maintain 8 hours of HAZWOPER refresher training annually.

Emergency Equipment: The ISS maintains an inventory list of equipment and spare parts available during routine activities and during an emergency (as provided in Appendix E). Staff inspect equipment inventory routinely. Currently, equipment is not resource-typed per NIMS guidelines, but will be considered for resource-typing in the future. An equipment warehouse is located at the MBWWTP and a current inventory for equipment and spare parts is provided in Appendix E.

The ISS maintains four Vacon trucks. In addition, a contractor is in place with Vacon trucks available as requested by the ISS.

WRD uses various pump rental companies for rentals in an emergency. Pump motors are contracted out for repair. Pump stations typically are equipped with two to three pumps, allowing for redundancy and backup pumping capacity. The warehouse maintains a spare 5 horsepower pump.

The Tiftonia 1 pump station has temporary bypass pumps installed. The Tiftonia 1, Big Ridge #1, and the Pineville Station (a critical redundant station) have permanent bypass pumps. In the event of a loss of a pump, there is quick access to a bypass pump to avoid overflows. WRD can also contract bypass pumping installation in an emergency.

Emergency Communications Equipment: ISS personnel communicate using two-way radios and one pager. Radios have channels and bandwidths dedicated to ISS communication. In addition, an emergency channel is available to ISS staff to communicate with City and County emergency management personnel, including police, fire, and rescue personnel. Supervisors and managers communicate with field staff using radios. The City is reviewing the need for upgraded cellular and radio communications within the ISS. Each pump station and CSOTF is equipped with an emergency system that allows operators to notify MBWWTP staff (via push button alarm) through SCADA system in the event of an emergency.

Section 4.0
Concept of Operations

3.1 Introduction

Managing emergency response operations, especially those involving multiple jurisdictions, can be challenging. Effective incident management requires a command structure that facilitates cooperation between various divisions and departments within the City, as well as outside agencies, the private sector, and citizens. NIMS (www.fema.gov/nims/) provides a consistent nationwide template to enable all government, private sector, and non-governmental organizations to work together during domestic incidents. NIMS utilizes ICS principles to support emergency response operations and to provide common management principles among jurisdictions and disciplines.

The ICS fosters effective coordination among responders at the scene of an emergency, which is a critical success factor in recovery following a major incident. The ICS and Unified Command (UC) are widely used to support successful response operations. The ICS/UC is an efficient and scalable on-site tool to manage incidents involving multiple agencies. Use of ICS/UC concepts allows the utility to coordinate with local, state, and federal government responders and facilitates a clear chain of command between the utility and other emergency responders. In a UC structure, the concept of Unity of Command allows utility staff to take direction from the utility IC who is part of UC. The City relies on emergency first responders (e.g., fire department) to initiate the ICS.

This section summarizes direction and control of emergency response operations within WRD and defines the WRD Incident Management Team (IMT).

3.2 Emergency Action Levels

Emergencies may include routine incidents, such as overflowing manholes, line breaks, electrical failure, pump station outages, and equipment failures. Catastrophic emergencies may include floods, tornadoes, earthquakes, snow and ice, and other natural events. In addition, man-made disasters include chemical spills and widespread long-term electrical failure. Table 4.1 provides Emergency Action Levels (EALs) and associated actions of the IMT.

TABLE 4.1
Emergency Action Levels

Emergency Action Levels	Example	Incident Management Team Action	Guidance Criteria
Low Level Emergency	• Pipe break • Pump failure	• Managed by ISS personnel in accordance with SOPs	No external threat or impact; Problem resolved in timely manner
Medium Level Emergency	• SSO • CSO • Large main break • Large force main break • Loss of power to pump station • Major pump station failure • Sewer system collapse causing backups • Extreme weather impact forecasted at 2 days	• Managed by ISS personnel in accordance with SOPs • Notify the TDEC as required for compliance with regulatory requirements and permit • Notification of Public Health, as needed	Potential threat to health, property, or the environment
High Level Emergency	• Long-term and wide-spread loss of power (including backup power) to pump stations • Explosive atmosphere or explosion in sewer • Potential impact to downstream water intake from contaminant upstream • Injuries/fatalities occurred due to an incident • Extreme weather impact forecasted to hit in 12 to 24 hours (including probable maximum flood) • Unauthorized entry at a pump station or CSOTF that will require police investigation	• Activate WRD IMT (Activate the ICS and WRD IC) • WRD Director to Executive Group with other directors • Activate the WRD Emergency Operations Center (EOC) • Send WRD Representative to the County EOC • Activate the ERP • Contact and coordinate with local response agencies • Notification of Public Health, as needed • Notification of TDEC, as required for compliance with regulatory requirements and permit • Notification of Downstream Users, as needed • Local Agency Notification (i.e. Police to investigate unauthorized entry)	Immediate or widespread threat to health, property, or the environment Requires the assistance of first responders and outside agencies and resources WRD becomes a support function under the ICS and UC as dictated by the incident (i.e. Fire Department assumes command and control in a hazardous materials incident)

These guidelines are suggested criteria to use when determining the EAL. Initially, it may be difficult to determine the EAL because of a lack of information and rapidly changing conditions. Subsequent EALs may be increased or decreased as the emergency progresses and more information becomes available.

3.3 Direction and Control

The purpose of this section is to identify ISS staff members who would be actively involved in emergency response and recovery and to identify roles and responsibilities during an emergency involving the ISS.

This section also identifies external departments and/or agencies that may provide assistance during an emergency.

3.3.1 Incident Command

In the ICS, the organizational structure includes an IC who leads the Command General Staff (Officers and Section Chiefs). The ICS is effective as it assigns a single person to be in charge and accountable for actions taken at the incident site. The IC is responsible for all aspects of the response.

Command staff members include the City Public Information Officer (PIO), Safety Officer, and Liaison Officer (LNO). The City PIO oversees development of messages to the public and manages press inquiries. The WRD Occupational Safety Specialist (who fills the role in the command staff as the Safety Officer) monitors conditions and adjusts safety procedures as needed to protect responders in the field. The LNO (filled by the WRD Deputy Director) serves as the interface between WRD and external agencies. Below the command staff, general staff members include the Operations, Planning, Logistics, and Finance and Administration Section Chiefs. Figure 4-1 provides the WRD IMT that follows the ICS organizational structure.

Based on City policy, the City Fire Department and the Hamilton County Ambulance Service will respond to chemical emergencies. The first emergency responder from these outside agencies will serve as the IC. If a security issue is discovered, WRD will contact the local police department and provide the dispatcher relevant information (who, what, when, where, why). WRD employees should wait for law enforcement assistance.

In general, the ISS employee who first discovers a problem should notify the Plant Manager as quickly as possible. The Plant Manager will serve as the initial IC and coordinate response activities until other members of the IMT arrive (see below for a description of roles and responsibilities for each member of the IMT).

IC requirements for initial response may include:

- Directing staff and persons who may be affected by the emergency to evacuate, shelter-in-place, or take other protective actions.
- Requesting emergency assistance from local emergency response agencies (fire, police, and medical).
- Notifying staff and regulatory agencies in accordance with SOPs.

If local emergency response agencies are called to perform rescue, fire, chemical release, and security assistance, then IC responsibilities must be turned over to the lead fire or law enforcement official upon his or her arrival. The ISS IC, in UC with other emergency response agencies, provides assistance and resources, by as described below.

3.3.2 ISS Incident Management Team

The ISS's IMT consists of ISS personnel assigned to perform specific duties and responsibilities as defined by the IMT position. The responsibilities associated with each position described below are compatible with the ICS. Appendix D, Incident Command System Position Guides, provides position-specific checklists for command and general staff positions per NIMS guidance.

Based on the nature of the incident and the resources available, a person may take on more than one IMT role. IMT support may also be obtained from other agencies. In the event ISS staff members are unavailable to respond to an emergency, alternate staff assume responsibility. The IC should consider

other positions on the IMT for staffing, as needed. Specific training in emergency response is recommended for primary and alternate team members.

Figure 4.1 depicts the organizational alignment of the ISS IMT. The Executive Group, shown in the IC in Figure 4.1, will serve as the WRD interface and provide strategic guidance to the IC to support development of incident objectives.

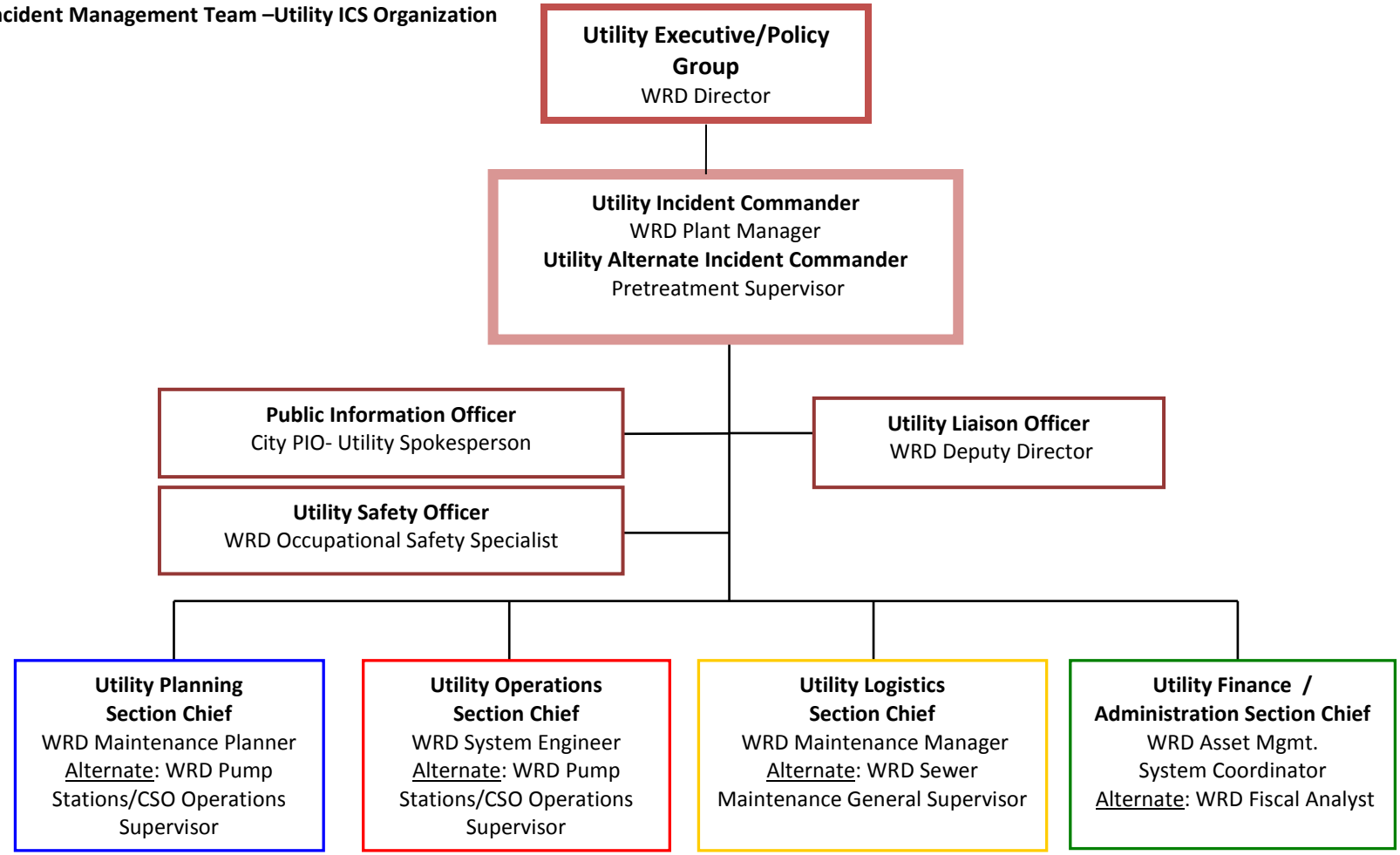
Roles for each IMT member are designated in Figure 4.1. In addition, position-specific guides, provided in Appendix D, are to be used as operational tools for each of the IMT positions during response operations. These forms are based on NIMS guidance; they would likely be used only during a "High Emergency Action Level."

3.3.2.1 Incident Commander (WRD Plant Manager)

The IC is responsible for the overall management of the emergency and oversees collection, evaluation, and dissemination of information about the incident to other members of the ISS IMT. Depending on the nature and extent of the emergency, the IC may activate additional units and/or technical specialists. The IC is responsible for control of the emergency incident. They will serve as IC unless an outside, non-ISS agency has jurisdiction over the incident. Responsibilities associated with this position may include, but are not limited to the following:

- Activate the WRD IMT.
- Assess the emergency situation.
- Develop objectives and strategies in coordination with the WRD IMT.
- Establish frequency of reports and briefings.
- Approve the Incident Action Plan (IAP).
- Brief the Executive Group.
- Coordinate with the Operations Section Chief (OSC) on status of response actions and support.
- Consult with the OSC on need to activate the ISS Emergency Operations Center (EOC). Activate, staff, and manage the ISS EOC.
- Work with the Logistics Section Chief (LSC) to formulate and release information to the City PIO about the incident to elected officials, the news media, and the public.
- Coordinate with LNO to ensure that all regulatory agencies affected by the emergency have been notified.
- Arrange for photographic or video documentation of response and recovery operations if warranted. Coordinate the compilation of the incident information and obtain or develop incident maps.
- Periodically check progress on assigned tasks and, if necessary, revise strategic goals and IAP.
- Review and approve status reports and damage assessments for ISS property, facilities, and infrastructure.
- Determine with OSC the requirements for termination of the emergency condition and approve incident termination.
- Appoint a Recovery Manager. Refer to Section 7 for Recovery Manager Responsibilities.

FIGURE 4.1
WRD ISS Incident Management Team –Utility ICS Organization



Note: The Fire Department or Law Enforcement agency would assume the IC position upon their arrival and take command and control of a rescue, hazardous material incident, or security issue at the WWTP or within the ISS. In a UC scenario, where multiple agencies are involved, the Utility IC supports the UC and is the subject matter expert (if ICS trained).

- Document all significant actions and information on the Unit Log and complete appropriate IAP Forms (Appendix C).
- Develop an After-Action Report/Improvement Plan (AAR/IP) based on the response operations and use the findings to critique and update the ISS ERP as necessary.
- Refer to the position-specific guide in Appendix D.

3.3.2.2 Liaison Officer (WRD Deputy Director)

The LNO serves as the point-of-contact between the IC and outside entities (governmental, non-governmental, and private). Responsibilities associated with this position may include, but are not limited to the following:

- Obtain briefings from IC regarding status of incident.
- As needed, ensure coordination between ISS IMT and outside agency Incident Command/UC, Hamilton County Emergency Management Team, and other regulatory agencies.
- If the ISS EOC is activated, ensure that the Hamilton County EOC is aware of the location and status of the ISS EOC.
- Coordinate with the LSC to establish contact with agencies and organizations that may provide mutual aid, other types of emergency assistance, and staging areas.
- Document all significant actions and information on the Unit Log and complete appropriate IAP Forms in Appendix C.
- Refer to the position-specific guide in Appendix D.

3.3.2.3 Public Information Officer (City PIO)

The City PIO is responsible for formulation and release of information about the incident to the news media and the public. Depending on the nature and extent of the incident, ISS staff may assist the City PIO. The City PIO should work closely with the IC. Responsibilities of the City PIO may include, but are not limited to the following:

- Serve as ISS spokesperson, if directed by the Director of WRD.
- Coordinate the preparation and release of news information to the media and public regarding service interruption, impacts to the public, and actions taken by ISS to restore services.
- Establish location of information center for the news media and the public.
- Obtain approval for release of information from the IC and Director of WRD.
- When possible and appropriate, record using audio or video all interviews and copy all news releases. Contact news media to correct erroneous or misleading information the media is providing to the public.
- If applicable, coordinate information releases with staff from other impacted jurisdictions. Ensure that information provided to the public is consistent across jurisdiction boundaries. As necessary, establish a Joint Information Center (JIC) with PIOs from other jurisdictions and agencies to support consistent message development.
- Coordinate with the media on periodic updates regarding response status.
- Coordinate response to customer telephone calls.

- Establish updated telephone greeting for customers, as required.
- Establish updated website information for the public, as required.
- Coordinate personnel notifications:
  - Notify and update ISS personnel with emergency information.
  - Respond to communications from ISS staff.
- Document all significant actions and information on the Unit Log and complete appropriate IAP Forms in Appendix C.
- Refer to the position-specific guide in Appendix D.

3.3.2.4 Safety Officer (WRD Occupational Safety Specialist)

The Safety Officer is responsible for monitoring and assessing hazardous and unsafe situations and developing measures for assuring personnel safety. Depending upon the nature and extent of the emergency, the Safety Officer may activate additional staff from other disciplines, and/or specialized technical support. Responsibilities associated with this position may include, but are not limited to the following:

- Obtain briefing from the IC.
- Prepare safety briefing.
- Identify hazardous situations associated with the incident, and ensure that adequate levels of protective equipment are available and are being properly used.
- Notify the appropriate response organizations of any hazardous or unsafe situations associated with the incident scene.
- Identify potentially unsafe acts, and ensure implementation of corrective actions.
- Review proposed emergency response actions for safety. If an action is or may be unsafe, assist in identifying protective measures or alternative options.
- If applicable, ensure adequate sanitation and safety in food and beverage preparation.
- Track accidents and/or injuries to response personnel. Develop and implement recommendations for preventative and corrective actions.
- Investigate any accidents that occur within the incident area. Ensure that the scene is preserved for investigation and that the accident is properly documented.
- Document all significant actions and information on the Unit Log and complete appropriate IAP Forms in Appendix C.
- Refer to the position-specific guide in Appendix D.

3.3.2.5 Logistics Section Chief (WRD Maintenance Manager), (Alternate - WRD Sewer Maintenance General Supervisor)

The LSC is primarily responsible for providing facilities, services, and materials in support of the incident. In addition, the LSC is responsible for all aspects of contracting outside services and purchasing materials as needed to respond to or recover from an emergency. Responsibilities of the LSC may include, but are not limited to the following:

- Coordinate with the Finance Section Chief regarding purchasing guidelines and processing purchase orders for emergency supplies and equipment.
- Ensure completion of incident documentation for internal evaluation, insurance processing, and legal records.
- Establish and maintain a system for requesting and releasing additional resources.
- Evaluate the adequacy of the current communications system. Address any problems identified during the evaluation and develop a communication plan.
- Maintain and update the list of emergency service providers and suppliers.
- Monitor any medical care needs and appoint a Medical Unit Leader as necessary.
  - Determine status of any employees under medical treatment and report status to the IC.
  - Monitor status of employees, arrange for follow-up medical care, and support to family members for those injured during the incident.
- Document all significant actions and information on the Unit Log and complete appropriate IAP Forms Appendix C
- Refer to the position-specific guide in Appendix D.

3.3.2.6 Operations Section Chief (WRD System Engineer), (Alternate – WRD Pump Stations/CSO Operations Supervisor)

Responsibilities of the OSC may include, but are not limited to the following:

- Coordinate actions of the initial emergency incident responders and IC.
- Ensure evacuation occurs and account for employees if necessary.
- Interface directly with the responding IC and provide technical assistance and status information of the incident.
- Ensure hazards have been analyzed and appropriate response organizations notified. Coordinate with Safety Officer.
- Communicate with appropriate ISS operational staff.
- Communicate status of actions on-scene to the IC.
- Perform situation assessment and, if warranted, advise IC on activation of the ISS EOC.
- Develop priorities for response, incident mitigation, and return to service of key operating systems.
- Assign personnel to support the on-scene response team.
- Advise IC on the need for engineering services to design and reconstruct systems.
- Advise IC on the need for external SCADA system support.
- Update the IC of decisions on-scene affecting the continuation of ISS operations.
- Direct the Alternate OSC in the recovery of key systems.
- Serve as or designate a document control manager.

- Document all significant actions and information on the Unit Log and complete appropriate IAP Forms in Appendix C.
- Refer to the position-specific guide in Appendix D.

3.3.2.7 Planning Section Chief (WRD Maintenance Planner), (Alternate – WRD Pump Stations/CSO Operations Supervisor)

The Planning Section Chief is primarily responsible for collecting, evaluating, and disseminating information about the incident affecting the ISS to other members of the ISS IMT. The Planning Section Chief is also responsible for tracking resources (personnel, equipment, tools, etc.) that may be necessary for emergency response. The Planning Section Chief is also responsible for developing the IAP and implementing the Planning P (Section 4.2). Depending upon the nature and extent of the emergency, the Planning Section Chief may activate additional units or technical specialists. Responsibilities associated with this position may include, but are not limited to the following:

- Obtain briefing from the IC.
- Assign and contact ISS personnel to provide planning-related support in accordance with the overall strategy established by the IC.
- Establish and maintain resource-tracking system.
- Compile and display incident status summary information. Also, obtain or develop incident maps.
- Form and deploy damage assessment teams (DATs) to inspect facilities. Complete damage assessment status reports and obtain approval from the IC.
- Establish a system for collecting weather data, if necessary.
- Ensure the appropriate outside agencies have been notified.
- Ensure coordination among the ISS IMT.
- Ensure that Planning Section staff observes the established level of operational security.
- Document all significant actions and information on the Unit Log and complete appropriate IAP Forms in Appendix C.
- Compile all records associated with an emergency incident and arrange for record storage in accordance with standard procedures.
- Refer to the position-specific guide in Appendix D.

3.3.2.8 Finance and Administration Section Chief (Asset Management System Coordinator), (Alternate – WRD Fiscal Analyst)

The Finance and Administration Section Chief is primarily responsible for all financial aspects of the incident affecting the ISS. Responsibilities include maintaining an audit trail, billing, paying invoices, and documenting labor, materials, and services used during the incident. The Finance and Administration Section Chief is also responsible for preparing documentation for cost reimbursement. Responsibilities associated with this position may include, but are not limited to the following:

- Obtain briefing from the IC.
- Establish and/or confirm emergency purchasing guidelines.

- Meet with assisting and cooperating agencies to determine any cost-share agreements or financial obligations, as required. Request copies of all active response-related agreements.
- Initiate, maintain, and ensure completeness of documentation needed to support claims for emergency funds, including auditing and documenting labor, equipment, materials, and services.
- Initiate, maintain, and ensure completeness of documentation needed to support claims for injury and property damage.
- Document all significant actions and information on the Unit Log and complete appropriate IAP Forms in Appendix C.
- Refer to the position-specific guide in Appendix D.

3.3.3 Unified Command

A UC structure is a process used in multi-agency or multi-jurisdiction incidents to bring together the ICs of all major response organizations under the leadership of an overall IC. The UC structure can be expanded to suit any size emergency.

Under the UC, the ISS IC may be asked to serve in UC with ICs from other jurisdictions such as law enforcement, fire, and public health. ICs serving in UC may also represent different geographical jurisdictions. The UC is used when multiple agencies have a stake in emergency response operations.

The UC serves to establish a common set of objectives and strategy for an incident without the loss of agency/jurisdictional authority, responsibility, or accountability. As stated previously, the ISS staff would take direction from their IC from within the UC structure in the unity of command structure.

3.4 Emergency Response Operations

3.4.1 Initial Operations

WRD personnel fulfilling roles and responsibilities identified above will accomplish initial emergency response operations. Depending on the nature and extent of the emergency, ISS personnel may be located at the incident scene, the ISS EOC, or the Hamilton County EOC.

Roles and responsibilities are identified in Section 4 for each ISS IMT position; however, staffing levels will depend on the nature and extent of the emergency. For example, the ISS IC may be solely responsible for managing incidents that occur within a building, are localized to a small area, and do not involve offsite emergency response agencies. Other emergencies may involve non-ISS IMT members and activation of the ISS EOC. Large-scale emergency incidents, including fire, explosion, hurricanes, tornadoes, and terrorist attack, may involve all ISS IMT members and multiple offsite emergency response agencies. In these cases, ISS will provide technical support and resources to a non-ISS IC or the UC.

In large-scale incidents, resourcing is very important in emergency response and recovery. As set forth in the NRF, resource requests and support should be coordinated at the local level first, followed by state-level resources, and, once state resources are exhausted, by federal resources. The full range of resource availability is characterized as follows:

1. ISS resources are utilized to support response.
2. As resources are exhausted, ISS can utilize mutual aid agreements and other City DPW resources, as described in Section 2, to support response if internal resources are exhausted.
3. ISS can request resources from the HCEMA as needed.

The HCEMA can provide resources to support response operations and can utilize county-to-county mutual aid. The State of Tennessee can also utilize state-to-state mutual aid agreements via the State EOC (SEOC) as well as request federal support through FEMA.

3.4.2 Sustained Operations

If the severity of an emergency incident requires sustained operations, the ISS IC will determine the staff needed to maintain operations and continue emergency response. Off-duty staff may be called in as needed to ensure that appropriate staffing levels are maintained for the duration of the emergency. To ensure the continuity of the ISS IMT, at least two alternates should be identified for each key position. Primary and alternate IMT members should be fully trained in emergency response procedures.

To support sustained operations, the ICS emphasizes orderly and systematic planning using an IAP. The IAP is the central tool for planning during emergency response operations. The IAP is prepared by the Planning Section Chief with input from appropriate sections and units of the ISS IMT. It should be written at the outset of the response and revised continually throughout the response. A copy of ICS Forms will, when compiled, become the IAP (as provided in Appendix C). These forms can also be found at http://training.fema.gov/EMIWeb/is/ICSResource/icsforms.htm.

Incidents vary in their kind, complexity, size, and requirements for detailed and written plans. In an initial response for an incident that is readily controlled, a written plan may not be necessary. Larger, more complex incidents require an IAP to coordinate activities. The level of detail required in an IAP will vary according to the size and complexity of the response.

The IAP must be accurate and completely transmit information generated during the planning process. The IAP must be prepared and distributed prior to shift changes. An IAP must be prepared for each operational period or shift. A planning process has been developed as part of the ICS to facilitate development of an IAP in an orderly and systematic manner. This section explains the planning process required to develop an IAP. Following the planning steps allows expedited development of an IAP.

IAP development involves four major phases:

1. Set Incident Objectives

The IC, in concert with the OSC, sets objectives. The IC establishes the general strategy to be used and states major policy, legal, or fiscal constraints in accomplishing the objectives.

After discussion, the incident goals and objectives are written on ICS Form-202 (Appendix C) and delivered to the OSC, Planning Section Chief, the City PIO, and the LNO to communicate the strategy.

The Planning Section Chief then prepares for the tactics meeting.

Guidelines for the IC on Setting Goals and Objectives

The IC sets goals and objectives. Three important guidelines include:

1. Goals and objectives must be clearly stated and measurable to track progress.
2. Goals and objectives must be attainable given the people, equipment, and supplies available during the operational period (shift).
3. Goals and objectives must be broad and flexible enough for the OSC to achieve them the best way possible under variable conditions.

2. Tactics Meeting

The IMT members review the IAP. The Planning Section Chief schedules and conducts the tactics meeting. The OSC directs how resources will be deployed to meet response objectives. Tactics must be specific and within the boundaries set by the IC's general control objectives (strategies). Following the tactics meeting, the OSC completes the Operational Planning Worksheet (ICS Form-215, Appendix C).

At this time, the OSC may consider the need for any alternative or back-up tactics and note these on the Incident Objectives Form (ICS Form-202, Appendix C) and Division/Group Assignment List (ICS Form-204, Appendix C).

3. The Planning Meeting

Prepare for the Planning Meeting

- Establish operational planning period (or operations shifts) with the IC.
- Determine planning meeting participants with the IC.
- Establish and post the location and time for the planning meeting.
- Ensure that planning maps and forms, are available:
  - Use large sketch maps or charts for planning and briefing.
  - Display the Planning Matrix (ICS Form-215, Appendix C).

Conduct the Planning Meeting

The Planning Section Chief is responsible for conducting the planning meeting and ensuring that the flow of information is brief and to the point.

The Planning Section Chief should provide a briefing on the current situation and resource status. Information for this briefing may come from any or all of the following sources:

- Initial response IC
- Incident Briefing Form (ICS Form-201, Appendix C)
- Field observations
- Operations reporting
- Resource and situation reports

- Specify resources needed by Divisions-Groups:
  - The OSC, after specifying tactics for each division or group, and in conjunction with the Planning Section Chief, determines resource needs by group to accomplish work assignments. Resource needs will be recorded on the Planning Matrix.
- Specify operations facilities and reporting facilities:
  - The OSC, in conjunction with the LSC and the Planning Section Chief, will specify any facility locations needed to accomplish the work assignments. These will normally be staging areas, shelters, and others.
- Place resource and personnel orders:
  - Using the Planning Matrix (ICS Form-215, Appendix C), it will be possible to determine how many of the resources required for the next operational period are already available at the incident or in route.
  - Match resource and personnel needs with those resources available for the operational period, the resources that must be ordered can be determined. With this new assessment, new

resource orders can be put together and shown to the ISS IC for his/her approval, and then ordered through normal dispatch channels by the Logistics Section.

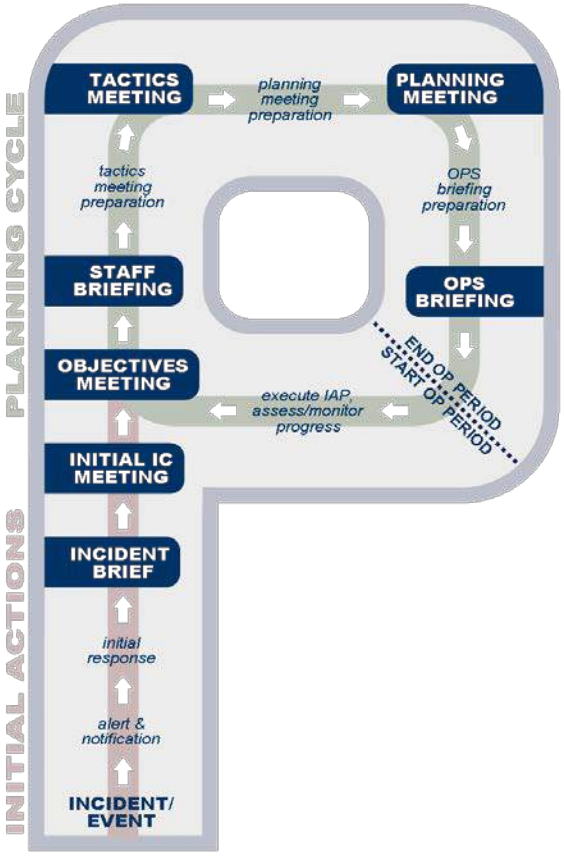
- Make sure that a system of confirming resource orders and their estimated time of arrival are established with logistics to complete the Division-Group Assignment Lists.

- Consider Communications, Medical, Safety, and Transportation Plan requirements:
  - The IAP will normally consist of the following (provided in Appendix C):
    - Incident Objectives (ICS Form-202)
    - Division/Group Assignment List (ICS Form-204)
    - Organizational Assignment List (ICS Form-203)
    - Incident Map
    - Communications Plan (ICS Form-205)
    - Medical Plan (ICS Form-206)
    - Transportation Plan
    - Safety Message (ICS Form-208)
    - Environmental Plan, if appropriate
  - The Planning Section Chief must determine the need for these attachments to any written IAP and ensure that the appropriate staff prepares them.

4. Finalize, Approve, and Implement IAP

- The Planning Section Chief is responsible for seeing that the IAP is complete and accurate. The following sequence of steps to accomplish this are as follows:
  - Set a time when IAP attachments are required to be completed.
  - Obtain plan attachments and review for completeness and approvals.
  - Obtain ISS IC approval of complete plan package.
  - Prepare for operations shift briefing.
- This is a period of time in which the Planning Section Chief and staff finish last minute matters and prepare for the operations shift briefing:
  - Determine the number of IAPs required.
  - Arrange for Documentation Unit to reproduce plan.
  - Review IAP to ensure it is up-to-date and complete prior to the operation briefing and distribution of IAP.
- Select operations shift briefing location:
  - Find a space large enough to accommodate personnel.
  - Select quiet place.
  - Set up display map.

FIGURE 4.2
Planning P



- Attend the operation shift briefing:
  - Hand out the IAP to all pertinent personnel.
  - Provide a brief on the incident as of current time and reference map.
  - Current weather report is read and explained.
  - The Planning Section Chief may finalize the briefing with any missing data and ask/answer questions.
- Finalize operational plans and prepare agency specific reports:
  - Document any changes to the IAP made during the briefing.
  - Revise Incident Status Summary (ICS Form-209) and prepare agency specific forms and reports.
  - Set up procedure to debrief operational personnel.
  - Revise resource status board to show current shift status.
  - Submit all forms, reports, plans, and miscellaneous written information to Documentation Unit for filing.

To support the phases of the IAP development, the Planning P (*U.S. Coast Guard Incident Management Handbook*) shown in Figure 4.2 provides a visual representation of the Operational Planning Cycle. The Operational Planning Cycle is repeated for each Operational Period (or shift) of an incident and results in the IAP for that Operational Period.

As depicted in the Planning P, the Operational Period is divided into 11 distinct times, characterized by briefings, meetings, and working periods:

1. Incident Brief
2. Initial IC Meeting
3. Objectives Meeting
4. Staff Briefing
5. Preparing for the Tactics Meeting
6. Tactics Meeting
7. Preparing for the Planning Meeting
8. Planning Meeting
9. IAP Preparation and Approval
10. Operational Briefing
11. Execute Plan and Assess Progress

Each of these periods, including schedules, meeting descriptions, assignments, and other important information are characterized in ICS Position Guides provided in Appendix D.

3.5 Resourcing and Mutual Aid Agreements

As an emergency escalates, resources are available outside of the ISS through mutual aid from county, state, federal agencies, and TnWARN, as needed and available. If available, internal and mutual aid resources should be used initially. As resources are exhausted, external support will be requested and provided through the HCEMA.

WRD maintains good relationships with other utilities. In the event of an emergency where resources need to be shared, WRD will loan or receive equipment from other utilities.

Before an emergency occurs, mutual aid agreements should be established with nearby emergency suppliers, county and private labs, and other agencies that can assist during an emergency. Agreements should be documented in contact lists with information regarding the type of resources available pursuant to the agreement.

Section 5.0
Crisis Communications Plan

4.1 Introduction and Purpose

During a crisis, clear and timely communication can save lives, property, and credibility. This Crisis Communications Plan outlines the roles, responsibilities, and steps for effective communication during a crisis.

The purposes of this Crisis Communications Plan are to:

- Identify the Crisis Communications Team and define the roles and responsibilities of each team member.
- Outline clear direction for notification of various stakeholders during a crisis.
- Provide tools and key messages to use during a crisis to facilitate timely and accurate communication.

4.2 Crisis Communications Team

The Crisis Communications Team is responsible for notifying and providing information to various stakeholders during the response and recovery phases of an emergency event.

The Crisis Communication Team for the City's ISS consists of the following personnel:

- City PIO
- Administrator of Public Works
- Director of WRD

4.2.1 City Public Information Officer

During emergencies, the City PIO is the primary person that communicates with the public. The City PIO is responsible for the preparation and release of information to the news media regarding service interruption, impacts to the public, and actions taken by the utility to restore service. Coordination with other agency representatives regarding public notifications for restricted wastewater services may also be required.

External emergency response agencies will manage large emergencies. In these situations, the City PIO is responsible for providing utility-specific information to the external agency PIOs.

Any or all media or public inquiries and/or contacts requesting information relative to the WRD's internal and/or external operations are to be forwarded to the City PIO. Appendix H provides further details on notification of external agencies. No other personnel are authorized to respond to media inquiries.

4.2.2 Administrator of Public Works

During an emergency that is managed primarily by the DPW (and/or the WRD), the Administrator of Public Works acts as a deputy to the City's PIO relative to interacting with the local news media, including issuing press releases and providing information during press briefings and conferences. During an emergency that is managed by external agencies, the Administrator of Public Works will provide support and utility-specific information to the external agencies' PIO.

4.2.3 Director of WRD

The Director of WRD will assist the Administrator of Public Works in communications during an emergency.

4.2.4 Crisis Communications Tools

The City PIO uses various tools for disseminating information to internal and external audiences, including:

- Recorded messages played while callers are on hold
- Press releases, press conferences or briefings, and one-on-one calls to reporters
- City web site
- Local radio station interview
- 311 Call Center
- HCEMA

4.2.5 Key Messages

Basic information regarding utility operations is collected in advance to facilitate rapid communication during an emergency event. Templates for more common types of emergencies, such as force main breaks, have been prepared in advance. Appendix F contains templates for a sewer force main break, discharge of untreated sewage, and a known contaminant entering the collection system.

Several key messages have been developed. These include messages that apply to the entire utility and community, regardless of the crisis. Themes or messages that might be appropriate for use during a crisis include:

- An explanation and/or apology (if appropriate) to the impacted parties
- A statement of responsibility for the event (if appropriate) or responsibility for follow-up after an event and a commitment to mitigate the impacts stemming from the event as soon as possible
- A commitment stating that the goal of the utility is that such a crisis never occurs again in the future

These themes can be crafted in advance, but modified as needed when an actual crisis arises. It is important that these themes be discussed and endorsed by the entire Crisis Communications Team before an actual emergency.

4.3 Internal Notification

When an emergency occurs, the initial person to discover the emergency should take appropriate action for personal safety and then notify their supervisor. If the event is determined to be an EAL - High Level Emergency, the IMT member would notify the IC, who will be in charge of coordinating all internal or external notifications to individuals or agencies. Appendix G provides the WRD IMT Contact List. This section identifies the various stakeholder groups that would be notified during crises and the procedures for such notifications.

4.3.1 Employees /Family Notification

The WRD Director is responsible for notification of families of ISS employees if a medical or other life-threatening emergency occurs. Communication protocols are in place and only persons from the Crisis Communication Team may contact relatives of ISS personnel.

4.3.2 Onsite Vendors, Contractors, and Visitors

Onsite vendors, contractors, and visitors are included in protective or preventive actions, including sheltering-in-place and evacuation. The supervisor or senior staff are responsible for vendors, contractors, and visitors at stations and CSOTFs and maintain that responsibility during the emergency. In the event of an injury to a visitor or vendor, the supervisor will contact the appropriate company or sponsor organization. That organization is responsible for all subsequent notifications.

4.4 External and Public Notification of Emergencies

Outside agencies will be notified based on the EAL and based on the criteria established in Appendix H. Notifications are made verbally through the E911 system through standard telephone communications. Notifications should not be unduly delayed or withheld due to lack of information.

4.4.1 Public Notification

In accordance with the CD requirements, the following components for public notification of emergencies have been established in coordination with public health authorities, as applicable, and are described as follows:

1) Criteria: The ISS has established criteria that will be used as the basis for immediately notifying the public and other impacted entities, including users with a downstream water intake, of an emergency caused by an SSO, prohibited bypasses, or effluent limit violations. The criteria is described below and summarized in Appendix H.
2) Internal Contact List: An Internal Contact List that identifies names and phone numbers for WRD staff who are responsible for conducting external and public notification is provided in Appendix G.
3) External Contact List: An External Contact List identifying names and phone numbers of public agencies that must be contacted during an emergency is provided in Appendix H.
4) Authorized Staff for Public Statements: Only the City PIO is authorized to make public statements during emergencies. The City PIO maintains a list of local media outlets who must be contacted during an emergency.
5) Pre-scripted News Releases: Sample City PIO Pre-scripted news releases for various types of emergencies are provided in Appendix F.

4.4.2 Notification of Regulatory Agencies

In accordance with the CD requirements, the following components for notifying regulatory authorities have been established in coordination with public health authorities, as applicable, and are described as follows:

1) Criteria: The ISS has established criteria that will be used as the basis for immediately notifying regulatory authorizes, TDEC, and public health authorities of any emergency situation caused by an SSO, prohibited bypass, or effluent limit violations. The criteria is described below and summarized in Appendix H.
2) Internal Contact List: An Internal Contact List that identifies names and phone numbers for WRD staff who are responsible for notifying regulatory authorities is provided in Appendix G.
3) External Contact List: A list identifying, by name and phone number, all officials who must be contacted is provided in Appendix H.

4.4.3 Notification of Fire Department and Law Enforcement

Initial responders or personnel that discover an emergency are responsible for evaluating the emergency and requesting assistance from local emergency response agencies, as needed. Assistance is available through the City's 911 Call Center and includes firefighting, hazardous materials response, law enforcement, and medical support.

In the event that a hazardous material has entered the sewer system or an explosive atmosphere is present in the ISS, the Fire Department would be notified immediately and assume command and control. Security issues at the stations would initiate notification of the Police Department, who would assume control of the investigation.

A *Memorandum of Understanding for Emergency Response to Spills* between the Chattanooga Fire Department and DPW has been developed to address chemical spills in the collection system. In the event of a spill into the system, the Operations Supervisor of Pump Stations and CSOTFs would initially investigate and notify the Plant Manager, who would in turn notify the Fire Department.

The following information is to be provided to the outside response agencies regarding the incident:

- Facility name, address, location, and telephone number
- Name of person reporting the incident
- Date, time, and type of incident
- Is it a threat or actual event?
- Have water supply systems been interrupted or shutdown?
- Have wastewater systems been impacted or has there been a sewage spill?
- Is a water outage eminent?
- Toxic / hazardous material that was released or involved
- Quantity (if known) of hazardous material that was released
- During a hazardous material release that requires evacuation, identify the location where WRD staff will meet the Fire Department

4.4.4 Notification of Public Health

The Hamilton County Public Health Department would be notified if an illness or public health issue were associated with the City's WCTS (in an emergency) (Appendix H).

4.4.5 Notification of State Regulatory Agencies of SSOs and CSOs

The following subsections provide information on protocols for notification of TDEC or Georgia Environmental Protection Division (GAEPD) of an SSO or CSO.

4.4.5.1 Collection System or Pump Station SSOs

When a SSO occurs, the ISS staff would perform the appropriate notification procedures as specified in its NPDES permit. The WRD ISS initial responder forwards the SSO Report to the System Engineer or the Plant Control Room Operator immediately after the SSO occurrence.

<u>Types of Notification of SSO Events:</u>

- Immediate Notification - the System Engineer or the Plant Control Room Operator sends TDEC an electronic Initial Overflow Report (within 24 hours of a continued SSO) through email. The ISS is also available to reply to any requests for additional information by TDEC. Refer to Appendix H for contact information (email address) and summary of criteria for notification.

- Secondary Notification - The System Engineer sends TDEC an electronic Final Overflow Report within 5 days of a confirmed SSO through email. The ISS will also be available to reply to any requests for additional information by TDEC.
- Spills that occur in the State of Georgia would be reported to GAEPD per details summarized in Appendix H.

Reporting Information

The collection of necessary information by responding professionals is crucial to providing accurate reporting. To facilitate accurate record keeping and notification procedures, the ISS first responder will collect the following information, complete the SSO Report, and forward the report to the System Engineer as soon as possible after the SSO occurrence or by the end of the workday:

- Date and estimated time of the occurrence
- Location and street address of SSO (include ISS manhole number if available)
- A statement detailing cause of SSO and failed system component
- A statement detailing ISS response activities
- Name of ISS responders
- Duration of SSO event
- Name of receiving water and path, if applicable
- Photos of SSO - digital photographs will be taken when possible at the confirmed SSO to assist in discharge estimation. Situations that may affect the ability to photograph the SSO include time of day, location, and equipment availability.

4.4.5.2 CSOTF Overflows

A monthly discharge monitoring report (DMR) is provided to TDEC for every CSOTF overflow, per their respective NPDES permit. The Director of WRD provides this information by direct mail to Enforcement Compliance in Nashville, Tennessee.

4.4.6 Notification of Downstream Users

Depending on the severity of an SSO, CSO, or chemical spill that affects a downstream user, the Plant Manager in coordination with the Hamilton County Public Health Department, would notify a downstream user. Criteria used to determine when a downstream user is notified include conditions evaluated such as river conditions, SSO volume, CSO volume, and chemical spill volume and type (Appendix H).

Public and Local News Media: the City PIO will be responsible for notifying the public through contact with local television stations, radio stations, and print media. Press conferences, web postings, and other methods will be used as applicable to provide emergency information and frequent updates.

4.4.7 County and State EMAs

The IC from the City's Fire Department and /or the HCEMA will manage large-scale emergencies that require resources from County, State, and Federal agencies. The IC is responsible for notification of County, State and Federal Agencies (Appendix H).

The Hamilton County EMA will be notified by the Fire Department if the emergency requires elevated assistance. The Hamilton County EMA conducts planning for disaster preparedness. Command and control during response and recovery phases of disasters and large scale emergencies is maintained in the Emergency Operations Center.

The County EMA will notify TEMA. TEMA's mission is to coordinate emergency management response and recovery to reduce loss of life and property in the State of Tennessee. TEMA provides assistance by reaching out for mutual aid from other departments or agencies of the state, from local jurisdictions, from other states and from the federal government. TEMA manages the flow of materiel and special teams and services to the incident commander.

4.4.8 National Response Center Release Notification

In accordance with 40 CFR 302, the National Response Center (NRC) must be immediately notified for reporting all oil and hazardous material discharges into the environment in the United States and its territories. The Administrator of Public Works is responsible for completing this notification (Appendix H).

4.4.9 State Emergency Response Commission and Local Emergency Planning Committee Release Notifications

In accordance with 40 CFR 355, the State Emergency Response Commission (SERC) and the Local Emergency Planning Committee (LEPC) must be notified of the release of a reportable quantity (RQ) of hazardous chemical. The Administrator of Public Works is responsible for completing these notifications (Appendix H).

The document titled "Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act" lists chemicals and associated RQs that this reporting requirement applies. A copy of this document is available at the following website: http://yosemite.epa.gov/oswer/lol.nsf/homepage.

Section 6.0
ERP Activation and Threat Characterization

5.1 Introduction

This section provides guidelines for ERP activation and characterizes threats to the WRD ISS. In addition, ways in which staff may learn about a threat, the threat decision process, and critical area vulnerability to threats are discussed below.

5.2 ERP Activation

5.2.1 Threat Warning

A "threat warning" is the initial occurrence or discovery that triggers an evaluation of whether or not to activate the ISS ERP. A description of the possible threat warnings that the ISS may encounter is provided below. If any of these conditions are met, then the Director of WRD (or their designee), will issue a Threat Warning.

Security Breach. Physical securing breaches caused by relaxed operations, such as unsecured doors or criminal acts such as trespassing, are probably the most common threat warnings.

Witness Account. Employees or neighbors may see suspicious activity, such as trespassing, breaking and entering, and other types of tampering, that they report to local law enforcement or to Dispatch.

Notification by Perpetrator. A threat may be made directly to the personnel, either verbally or in writing. Historical incidents would indicate that verbal threats made over the phone are more likely than written threats.

Notification by Law Enforcement. Personnel may receive notification about a threat directly from law enforcement. Such a threat could be a result of a report of suspicious activity or gathered by law enforcement intelligence.

Notification by News Media. A threat to damage or contaminate the ISS might be delivered to the news media, or the media may discover a threat. Such threats should be immediately reported to the police, who would immediately contact the City ISS.

Unusual Sewage Characteristics. All unusual changes in wastewater characteristics (such as appearance, odor, oil sheen, visible emissions, and lower explosive limit [LEL] alarms) should be reported and investigated. Field staff and/or customers are normally the first to encounter any unusual characteristics. Threat warnings are evaluated in the context of typical activity and previous experiences for the wastewater system in order to avoid false alarms.

5.2.2 Threat Decision Process

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

Stage 1, Possible: Is the threat possible? If the wastewater system is faced with a threat, it should first evaluate the available information to determine if the threat is possible (i.e., could something have

actually happened based on the warning and staff's knowledge of the facility?). If the threat is possible, some precautionary response actions are implemented.

Stage 2, Credible: Is the threat credible? There must be information or evidence to corroborate the threat in order for it to be considered credible. For example, the information source may be highly credible, operations staff may be reporting encounters with suspect wastewater, or there may be alarms or monitoring results that are unusual. At this stage, portions of the ISS ERP may be activated, such as initiating internal and external notifications, sampling and analysis, or considering isolation of part of the system. At this point, staff members are not sure if a major event has occurred, but they are preparing to respond should the threat actually lead to a major event.

Stage 3, Confirmed: Has the major event been confirmed? Confirmation implies that definitive evidence and information has been collected to establish that the event has occurred. Some threats are obviously confirmed, such as structural damage to the wastewater assets in which case Stages 1 and 2 are omitted. Upon confirmation of the major event, the ISS ERP should be fully implemented. The ISS ERP contains APs (Section 8) that address specific major events. APs are implemented immediately when a major event is confirmed.

Table 6.1 below identifies actions that should be taken by the ISS staff during each of the three stages, as well as when to activate the ISS ERP. The Administrator of DPW and the Director of WRD jointly share responsibility for the threat decision process and implementation the ISS ERP.

TABLE 6.1
Three Stages of the Threat Decision Process

Decision Process Stage	Actions Taken	ERP Activation Level
Stage 1 **Possible Threat**	Evaluate available information Determine if threat is possible (Could something have actually happened?)	Implement precautionary response actions
Stage 2 **Credible Threat**	Determine that threat is credible by establishing corroborating information Highly credible source Staff reports of unusual wastewater Unusual alarms or monitoring results	Activate portions of ERP Initiate internal and external notifications Consider isolation of portion(s) of the system Initiate sampling and analysis Consider partial or full activation of the ISS EOC
Stage 3 **Confirmed Major Event**	Confirm threat by verifying definitive evidence and information that establishes the major event Perform sampling and analysis	Fully implement ISS ERP Immediately initiate appropriate APs Fully activate the ISS EOC

In determining whether to activate the ISS ERP, the Administrator of DPW and the Director of WRD also consider what is going on in the rest of the community regarding threat levels or any large-scale events that may affect the ISS. Examples of events that may necessitate partial or full activation of the ISS ERP include the following:

- Overturned gasoline truck
- Plane crash
- Lower explosive limit (LEL) alarm or through gas detection equipment at pump stations, CSOTFs, or in a manhole

- Notification from the Federal Bureau of Investigation (FBI) that there is a known threat that may occur
- Operations/operators see suspicious activity on site
- Change in local or national threat levels

5.2.3 Facility Access

The ISS Operations are staged out of the MBWWTP facility, which is secured by a perimeter fence and security cameras. There is one gate used for entry into the facility site. The gate is open during normal business hours on Monday through Friday; the gate is closed at all other times. Personnel are screened for entry during non-business hours. Personnel are required to wear identification badges to enter the facility and in an emergency response operation, law enforcement would recognize these badges for entry to and from a secured zone.

5.2.3.1 Stage 2 Credible Threat

When a Stage 2 Credible Threat occurs, the Director of WRD (or their designee) shall order the following depending on the nature of the threat:

- Access to the ISS facilities is limited to ISS personnel and emergency personnel, e.g., police department only.
- ISS personnel are contacted by radio or cell phone and directed to remain in place.

5.2.3.2 Stage 3 Confirmed Major Event

When a Stage 3 Confirmed Major Event occurs, the Director of WRD (or their designee) orders the following depending on the nature of the threat:

- Access to the MBWWTP is limited to ISS personnel and emergency personnel, e.g., police department only.
- Offsite MBWWTP personnel are contacted by radio or cell phone and directed to remain offsite.

5.2.4 Emergency Operations Centers

5.2.4.1 ISS Emergency Operations Center

An EOC is a pre-designated facility that can act as a command center to coordinate WRD's overall response and support to an emergency. ISS staff will use the control room at the MBWWTP or the conference room at the Administration Building as the WRD EOC.

During an emergency, the EOC and its personnel will perform specific activities as follows:

- Establish an EOC Director to manage the emergency response.
- Set priorities and develop/execute APs.
- Coordinate and support all field-level incident activities within the ISS service area.
- Gather, process, and report information within the ISS service area and to other involved agencies regarding the magnitude and potential impact of the event on the community, as well as information on specific damages and planned response and recovery actions.
- Coordinate with local government, operational areas, or regional EOCs, as appropriate.
- Request resources from internal and external sources.

- Provide food, water and other emergency supplies for wastewater systems operators who are not able to leave their posts during an emergency.

The EOC Director will be either the Director of WRD (or their designee) as warranted by the situation.

Conditions under which the WRD EOC will be activated are unique for each emergency. As part of the WRD's emergency response training program, staff members should be made aware of the different types of events that would trigger activation of the EOC, including activation by an agency outside of the ISS. The IC will establish procedures regarding whom will staff the EOC, how staff will be notified to report to the EOC, how long individual shifts will be, who will be allowed to access the EOC, and the level of security that will be assigned to the EOC during an emergency.

5.2.4.2 County and State Government EOCs

Many state and local governments have an Emergency Operations Plan (EOP), or a similar emergency management program, which is implemented any time a major incident occurs within their jurisdiction. The EOP includes response activities such as initial damage assessment, emergency and short-term medical care, and the return of vital life-support systems (water, shelter, etc.) to minimum standards.

When a local government agency receives information about a potential emergency or disaster, it will conduct an initial assessment, determine the need to alert others, and set in motion the appropriate actions to reduce risk and potential impacts. Emergency response activities will be conducted as described in agency policies, procedures, and instructions. The activities may involve activating the HCEMA EOC or TEMA SEOC for coordination and support.

In the event that the HCEMA EOC or TEMA SEOC is activated, the Director of WRD and other wastewater system staff may be called upon to staff the HCEMA EOC and/or TEMA SEOC as agency representatives. Depending on the nature of the emergency, the Director of WRD may choose to activate the WRD EOC and provide staff for the HCEMA EOC/TEMA SEOC at the same time. Additionally, if an emergency originates within the ISS, or ISS staff members are the first to discover the situation, the Director of WRD may make a recommendation to activate the HCEMA/TEMA EOC to assist ISS staff with the response and provide additional resources.

The HCEMA Basic Emergency Operations Plan (BEOP, 2009) designates municipal water and wastewater systems as Emergency Support Function (ESF) 3, Subfunction 3.4. WRD's responsibilities as an ESF 3 are listed in the BEOP under ESF 3, Infrastructure, Subfunction 3.4, Water and Wastewater Systems. The DPW WRD, as requested, is responsible for providing an Emergency Services Coordinator to the HCEMA EOC in an emergency.

HCEMA EOC Locations

Primary EOC

The primary EOC is located in the 9-1-1 Communications Center at 3300A Amnicola Highway, Chattanooga, Tennessee.

Alternate EOC

The alternate EOC is located in the basement of the county jail at 601 Walnut Street, across from the county courthouse.

TEMA SEOC Location

3041 Sidco Drive
Nashville, TN 37204

5.3 Threat Characterization

5.3.1 Threats to the Interceptor Sewer System

Threats to a wastewater system are broadly classified into natural and man-made or malevolent threats. Man-made threats include physical destruction, bio-terrorism, chemical contamination, and cyber attack. Wastewater infrastructure, while possible targets of purposeful attack, also serves as a conduit for access to other targets. Large gravity sanitary and combined sewers are accessible through manholes and inlets and provide a means of undetected passage under streets to attack both "soft" and "hardened" targets. Large and small pipes can also be made into weapons through the introduction of highly flammable substances such as gasoline through a manhole or through building and residential drains and clean-outs. Explosions in the sewer can cause collapse of roads, sidewalks, and adjacent structures and cause injury and death in the vicinity.

The threat from terrorism that could potentially have an impact on collection system is important to consider. Any toxic substance added to the sewer system would need to be in high concentrations or large volumes to have an impact to the system. In the event of an attack on the ISS by terrorists or others, personnel would immediately call 911 for assistance.

In addition, purposeful contamination of wastewater treatment or conveyance systems can lead to widespread and long-term environmental damage and severe public health impacts. Remote and unattended wastewater pump stations have increased vulnerability. A SCADA system is in place to monitor pump station and CSOTF parameters. The SCADA system uses a Motorola system with no access to the internet. The system is not set up for control of stations, only monitoring; therefore, it is highly unlikely that a cyber attack could occur or cause damage or an overflow[3]

Threat evaluation steps would be undertaken to determine if a threat to the wastewater system is credible. Strengthening the system and enhanced security are crucial in reducing risk.

Types of malevolent threats that may affect WRD ISS wastewater assets include:

- Vandalism
- Theft (including manhole cover theft)
- Arson
- Detonating or hiding an improvised explosive device (IED) in manholes, pump stations, and inlets
- Introduction of chemical, biological, and radiological (CBR) into the collection system
- Introduction of a flammable liquid into the sewer system
- Opening valves or turning off pumps to cause overflows and discharges
- Assault with or without a weapon
- Using sewer for transporting flammable substances or an IED with intent to destroy other property
- Release of toxic substance
- Using large diameter pipe as a tunnel for personnel access

Natural threats: According to the HCEMA *Natural Hazards Mitigation Plan*[4], "a review of past natural disasters in Hamilton County, and across the State of Tennessee highlights thirteen hazards as

[3] (Diversified Integration, Inc., July 2013)
[4] Hamilton County, Tennessee, Natural Hazards Mitigation Plan, Chattanooga, TN, Final Approved Plan 2012.

presenting a significant potential risk to the communities of Hamilton County. These hazards include flood, winter storms, thunderstorms and associated hail, lightning, tornado, and high wind, as well as landslide and erosion, earthquake, drought, and wildfire."

Significant natural threats identified for the WRD ISS include flooding from heavy rain; tornadoes (includes high winds); severe weather such as thunderstorms, lightning, and ice and snowstorms; and earthquakes. These events may cause structural damage to facilities and interrupt processes that may result in environmental damage and public health concerns, such as sewer overflows.

Unintentional threats that may affect system assets include vehicular collisions, train derailments, industrial accidents, and contractors working on adjacent utility lines. Contractor activities are the most common unintentional threat.

5.3.2 Critical Area Vulnerability to Threats

Critical areas identified for the ISS include the CSOTFs, collection system, and pump stations. Appendix B provides a list of CSOTFs and pump stations (contained within the Pump Station and Power Loss SOP).

Significant hazards that the system is vulnerable to include the following:

- Floods – The ISS system is located on or near the Tennessee River. Extreme rainfall events occur in this region. Planning for a maximum probable flood in the area is of high importance in coordination with HCEMA.
- Widespread electrical failure – Ice storms, tornadoes, earthquakes, high wind, and floods can occur in this region resulting in widespread electrical failure.
- Tornadoes – The ISS system has been affected by tornadoes in the past, and could be in the future.
- Earthquakes - A significant fault line runs near the ISS system.
- Chemical Spills – ISS has 80 Significant Industrial Users and chemical spills can enter the collection system from other sources.

Potential impacts to operations, equipment, and public health and safety are described in response SOPs for each of the potential hazards listed above (Appendix C).

There is no known history of malevolent or terrorist threats to the City's ISS system. A history of natural hazards is provided in the HCEMA *Natural Hazards Mitigation Plan* which analyzes hazards for the area and discusses mitigation planning for potential disasters.

In 2013, Burns and McDonnell Engineering Company, Inc. (Kansas City, Missouri) conducted an assessment and produced a report entitled *Vulnerability Assessment and Development of Wastewater Infrastructure Enhancements for Sewer System and Waste Resources Division Sites*. This report was prepared for the City of Chattanooga to analyze the vulnerabilities to pump station security. The information contained in this report is considered confidential and will be utilized in its hardening of facilities to threats.

In 2011, Brown and Caldwell prepared a Draft Technical Memorandum dated March 2011, entitled *Equipment Maintenance and Reliability Improvement Program*, Subject: Equipment *Criticality/Risk ranking – Combined Sewer Overflow Treatment Facilities* (Project No. 139445.150). This Memorandum was prepared for the City of Chattanooga to determine equipment criticality for CSOTF assets. An assessment was conducted through analysis of likelihood, consequence of failure, and ranking of asset and equipment criticality. This information is then used to mitigate risk, enhance redundancy of assets, and improve response to asset failure.

Section 7.0
Emergency Response, Recovery and Termination

6.1 Introduction

There are three different phases to an emergency response to an incident. These phases are: 1) response, 2) recovery, and 3) termination. The following sections provide general guidelines (relative to the response, recovery, and termination phases) that can be applied to most, if not all emergencies. APs that describe the response to a specific threat are contained in Section 8 of this document.

6.2 Personnel Safety

Protecting the health and safety of ISS personnel as well as the surrounding community is a key priority during normal operations and during an emergency response.

Safety incidents include those related to confined spaces, excavation and trenching, scaffolding, ladders, vehicle usage, falls, chemical handling, machinery operation, electrical safety, and others. Responses to these incidents are addressed in the *Employee Health and Safety Handbook*.

A "First Report of Occupational Injury/Illness/Hazard" Form is required to be completed for such incidents within 24 hours after the occurrence. This form is maintained at the MBWWTP Administration Office or can be obtained through the Supervisor or Manager. The report is signed by the employee's supervisor and forwarded to the Occupational Safety Specialist for follow-up action. This report is also reviewed and signed by the Director as soon as practical.

The *Employee Health and Safety Handbook* provides City policy and guidelines for a variety of personnel safety issues, including the following:

- Health and Safety Policy
- Employee safety
- Facility and job site safety
- Tools and equipment safety
- Vehicles and traffic safety
- Hazardous materials safety

The ISS maintains personal protective equipment (PPE) for safely handling chemicals. The location and use of this PPE is described in the *Employee Health and Safety Handbook*.

First aid procedures are provided in the *Employee Health and Safety Handbook*.

6.2.1.1 Evacuation / Shelter-in-Place

The Evacuation/Shelter-in-Place Procedure is provided in Appendix I.

6.2.1.2 Safety Data Sheets

A Safety Data Sheet (SDS), under the Global Harmonized System (formerly called a Material Safety Data Sheet [MSDS]) identifies hazards and chemical properties of a particular substance. In addition, it provides workers and emergency personnel with procedures for handling a substance in a safe manner, and includes information such as physical data (melting point, boiling point, flash point, etc.), toxicity,

health effects, first aid, reactivity, storage, disposal, protective equipment, and spill-handling procedures.

6.3 Response Phase

Response is the actual provision of emergency services during a crisis. These activities are intended to reduce injuries, ensure employee safety, minimize facility damage, and facilitate recovery. Response activities include warning, isolating and controlling the problem, assessing damage, establishing temporary service, and other similar operations.

6.4 Initial Response

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

The following information is to be provided to the outside response agencies regarding the incident:

- Facility name, address, location, and telephone number
- Name of person reporting the incident
- Date, time, and type of incident
- Is it a threat or actual event?
- Have water supply systems been interrupted or shutdown?
- Have wastewater systems been affected or has there been a sewage spill?
- Is a water outage eminent?
- Toxic / hazardous material that was released or involved
- Quantity (if known) of hazardous material that was released
- During a hazardous material release that requires evacuation, identify the location where WRD staff will rendezvous with the Fire Department

The individual that discovered the incident will report to their supervisor. The supervisor and employee that discovered the incident will notify the Director of WRD of the incident, as soon as practical. Additionally, the supervisor and employee that discovered the incident will remain in a safe location in the vicinity to meet and assist medical, fire, police, and other first responders.

6.5 Damage Assessment

Damage assessment is used to determine the extent of damage, estimate repair or replacement costs, and identify the resources needed to return the damaged system to full operation. This assessment is accomplished during the emergency response phase of the event, before the recovery phase is implemented.

The Director of WRD is the individual who is responsible for establishing and managing the DATs. Each DAT will be composed of three to four personnel such as an operation or maintenance supervisor, electrician, engineer, and procurement specialist. Team composition may vary depending upon the nature and extent of the emergency.

DATs will be deployed to affected sites to perform site surveys. The DAT will first conduct a safety inspection to ensure the site remains a safe working environment. Once determined safe, the damage assessment can begin.

Damage assessment procedures follow the guidelines established for system operability checks and determination of operability/serviceability. At a minimum, the DAT completes the following activities:

- Conduct an initial analysis of the extent of damage to the system or station.
- Estimate the repairs to restore the system or asset; the estimate will consider supplies, equipment, rental of specialized equipment (for example, cranes), and additional staffing needs.
- Provide this estimate to the procurement representative to prepare a cost estimate to conduct repairs.

6.6 Recovery Phase

The recovery phase occurs after emergency response actions are complete. Recovery is intended to return the affected asset or area to normal operations. The recovery phase is 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.

Proper documentation for FEMA is critical for reimbursement; therefore, the City has established clear guidelines and procedures for purchasing, procurement, and invoicing.

6.7 Recovery Organization

During emergency response operations, the Director of WRD will 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 is a senior operations representative familiar with the systems that may be affected by the emergency. The Recovery Manager has the responsibility and authority to coordinate recovery planning and 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 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 distribution
- Release repaired facilities and equipment for normal use
- Replace, or authorize the replacement of, materials and supplied used in the emergency
- Document all recovery activities

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

- Technical advisors to the Recovery Manager, which may include external resources such as industrial hygienists or fire protection specialists

- ISS personnel with the technical expertise to direct post-incident assessment activities and to analyze the results. Maintenance, operations, and engineering staff would be expected to fill these positions.

The City PIO will address inquiries or concerns from employees, the public, the news media, and outside agencies. The City PIO should be prepared to provide information regarding the results of the incident investigation, the extent of onsite and offsite impacts, and the status of recovery operations. The City PIO conducts all media releases and other public communications (Section 5).

6.8 Prepare Recovery Plan

The purpose of the Recovery Plan is to define the steps required to restore the system to normal operations. The initial outline of the Recovery Plan is developed during the emergency response phase. However, the plan is not implemented until the emergency response phase is concluded and the Director of WRD approves the plan. Recovery planning must also be coordinated with the appropriate external regulatory and response agencies. The plan will describe the recovery management team, plan of action, and proposed completion schedule for restoring services.

6.9 Implement Recovery Plan

Once the emergency response phase is concluded, the Recovery Plan can be implemented. The following are examples of activities that might be executed by the recovery team:

- Install warning signs and barriers.
- Begin repairs activities, including preparing designs and bids for contractor's services.
- Execute agreements with vendors for equipment, materials, and services.
- Remove and dispose of debris.
- Collect cost account information needed for insurance claims and for submittal of a request for Emergency Disaster Funds.
- Obtain inspections and/or certifications that may be required before facilities can be returned to service.
- If necessary, initiate the incident investigation procedure described in this section below.

6.10 Termination Phase

The Recovery Manager will officially terminate the recovery phase when normal operations are resumed at all facilities affected by the emergency. Upon terminating the recovery phase, personnel perform the following activities:

- Debrief staff and document lessons learned. Update training programs, the ISS ERP, and SOPs, as needed, based upon "lessons learned" during the emergency response and recovery phases of the event.
- Identify operational changes that have occurred because of repair, restoration, or incident investigation.
- Document the recovery phase and compile applicable records for permanent storage.

6.11 Incident Investigation

The purpose of the incident investigation is to identify the underlying causes of an incident and to implement corrective actions that would prevent the incident from reoccurring. This process can also be used to investigate chemical incidents and other incidents affect the ISS. The following steps describe the incident investigation process.

6.11.1 Initiate Investigation

After an incident, ISS will initiate an incident investigation, if applicable. Once the fire department or other applicable authority notifies the Administrator of Public Works that it is safe for ISS personnel to return to a facility or asset, the Director of WRD will initiate the investigation within 48 hours.

6.11.2 Investigation Team

The Director of WRD (or their designee) establishes an incident investigation team to investigate the incident. In addition, contract employees are included as part of the incident investigation team whenever the incident involves the work of the contractor. Other individuals with appropriate knowledge may participate, if required, to investigate an incident (e.g., other employees, engineer, equipment supplier, vendor, or consultant).

6.11.3 Survey the Scene

The incident investigation team will first consult with the emergency responders to determine if the incident has been stabilized and verify that any remaining danger has been alleviated. Once the emergency responders assess the scene for danger and determine that the incident has been safely mitigated, the incident investigation team will survey the scene and determine the following:

- Who was injured?
- What caused the accident?
- What property was damaged?
- What systems or operations were affected?
- What mitigation actions were completed and when?

6.11.4 Secure the Scene

The incident investigation team will secure the incident scene in order to preserve evidence. Any items (e.g., damaged equipment and spill samples) that might help to explain what happened should be left untouched.

6.11.5 Investigation Report

During the initial survey of the scene, the incident investigation team will fill in pertinent information on the *Incident Investigation Report Form*. This form, along with instructions for completing selected sections, is contained in Appendix L. The report consists of the following sections:

- Report cover
- Witness identification
- Witness account
- Witness certification
- Incident description
- Safety recommendations
- Conclusions
- Investigation team certification
- Additional instructions

6.11.6 Witness Identification

The incident investigation team identifies witnesses to the incident. Each witness is asked not to discuss the accident with anyone until the incident investigation team interviews him or her. The identity of all witnesses is recorded on the *Incident Investigation Report Report* (Appendix L).

6.11.7 Collect Witness Accounts

Each witness is asked to prepare a written account of what she or he experienced immediately. Witnesses should use copies of Section 3 of the *Incident Investigation Report* Form to prepare an account of their experience.

6.11.8 Collect and Preserve Evidence

Coordinate with and defer to police and/or fire investigators before collecting evidence. Disturbing the scene of a police or fire investigation may be a criminal offense. The incident investigation team will photograph and / or videotape the area based upon the nature of the incident and the requirements of outside investigation agencies. For example, this includes the hazardous material release initiation point and the entire affected area. The date and time must be noted on all photographs.

The incident investigation team collects evidence that may have contributed to the cause of the accident and that may be subject to change (e.g., dust, etc.) and document where the evidence was found. Then they record (e.g., photograph and take notes) relative locations of people, parts, and materials (i.e., note the positions of valves, switches, and any controls). If appropriate, the incident investigation team verifies fire-extinguishing equipment to see if it has been activated. Finally, they collect any written documents that may aid the investigation, such as written instructions, container labels, operator logs, and training records.

6.11.9 Interview Witnesses

The incident investigation team records statements from operators, persons near the accident, witnesses, and emergency response personnel. Questions may relate to the events leading up to the accident including time of day, weather conditions, what happened, why it happened, and any suggestive corrective actions that should be taken to prevent reoccurrence. The date and time of all interviews must be recorded in interview notes.

6.11.10 Incident Analysis

After completing initial interviews, the incident investigation team reviews and analyzes all evidence to determine the root causes of the incident. During this incident analysis phase of the investigation, the team should have sufficient information to complete Section 5 of the *Incident Investigation Report* Form.

6.11.11 Evaluate and Resolve Safety Recommendations

Following the incident analysis phase (and completion of Section 5 of the *Incident Investigation Report* Form), the incident investigation team should summarize safety recommendations resulting from the investigation. The Director of WRD then assigns safety recommendations to the appropriate staff (e.g., operations, maintenance, or engineering personnel) for prompt follow-up.

Safety recommendations often require additional evaluation to determine if they are technically and economically feasible; therefore, list the target evaluation date, resolution, and resolution date for each recommendation. Section 6 of the *Incident Investigation Report* Form will be used to track assignments and resolutions. It is the responsibility of the Director of WRD to ensure that all safety recommendations are properly resolved and documented in the incident investigation report. Whenever a safety recommendation is not implemented, a written explanation of its exclusion is documented. The incident

investigation report is not considered complete until all safety recommendations are resolved and documented.

6.11.12 Certify Report

After documenting the resolution to safety recommendations, the incident investigation will be considered complete. Following completion of the incident investigation, the incident investigation team will sign the incident investigation report certification (Section 8 of the *Incident Investigation Report* Form), certifying that they have reviewed and agree with the conclusions of the incident investigation report.

6.12 Management and Record Keeping

The Director of WRD has overall responsibility for implementing this procedure and documenting incident investigations.

The Supervisor advises employees of any actions or new operating instructions that may affect them as soon as they are to be implemented. The Supervisor reviews the overall incident investigation results and safety recommendations with all affected operations and maintenance personnel. In addition, incident investigation findings are communicated to contract employees if relevant to their job tasks. ISS and contract personnel that were informed of investigation results must sign and date an attendance sheet supplied by the Supervisor for documentation purposes.

The Director of WRD retains all certified incident investigation reports and attendance sheets for those informed of investigation results.

Each incident involving a chemical that is regulated under 40 CFR 68 must be added to the ISS 5-year accident history if it resulted in deaths, injuries, or significant property damage on-site, or known off-site deaths, injuries, evacuations, sheltering-in-place, property damage, or environmental damage. Refer to the document titled *City of Chattanooga Process Safety Management and Risk Management Plan for Chlorine* for more information on this requirement.

Section 8.0
Action Plans and Standard Operating Procedures

7.1 Introduction

Action Plans and SOPs are the specific set of actions and procedures that the ISS staff uses. APs are implemented to address specific vulnerabilities or high-risk threat scenarios identified by ISS staff. The APs provide a specific response steps to a given incident and are based on the emergency response steps and guidelines that are described in this ERP.

An AP is an accessible (i.e., "rip and run") document that can be detached and taken to the field by the Director of WRD, their designee, or any other emergency responder. An AP includes the following basic information:

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

SOPs describe the preparation, response, and recover protocols for an event that is foreseen to occur. This mainly applies to natural events that are forecast or have a high likelihood to occur.

Personnel should be familiar with the following APs as potential response actions to man-made threats and/or natural disasters:

- Action Plan 04 – Sheltering-In-Place
- Action Plan 05 – Evacuation

7.2 Man-Made Threats

Table 8.1 lists the APs that have been developed by the City which are related to man-made threats. These APs are contained in Appendix K. In addition, checklists relevant to collection system emergencies are provided in Appendix K.

TABLE 8.1
Action Plans and Checklist for Man-Made Threats

AP No.	Event/Threat
AP01	Bomb Threat
AP02	Chemical Release
AP03	Fire / Explosion
AP06	Toxic Substance Detected in Wastewater
AP07	Explosive Substance Detected in Wastewater
AP08	Terrorist Attack or Civil Unrest
AP09	Unauthorized Entry
AP10	Chemical Spills in the Collection System
AP11	Chlorine Release

TABLE 8.1
Action Plans and Checklist for Man-Made Threats

AP No.	Event/Threat
CK01	Destruction/Failure of any part of the Wastewater System
CK02	Explosive Substance Detected in Wastewater
CK03	Toxic Substance Detected in Wastewater

7.3 Natural Disasters

Table 8.2 lists the APs and SOPs that ISS has developed which are related to natural disasters. The APs are provided in Appendix K and SOPs are provided in Appendix B.

TABLE 8.2
Action Plans and Standard Operating Procedures for Natural Disasters

AP or SOP Number	Event/Threat
AP12	Severe Weather
AP13	Flood
SOP ISS 001	Flood Preparation, Response, and Recovery
SOP ISS 002	Snow and Ice Preparation, Response, and Recovery
SOP ISS 003	Tornado Preparation, Response, and Recovery
SOP ISS 004	Earthquake Preparation, Response, and Recovery
SOP ISS 005	Widespread Electrical Outage Preparation, Response, and Recovery

7.4 Significant Events

Table 8.3 lists the APs that the City developed which are related to significant events. These APs are also contained in Appendix K.

TABLE 8.3
Action Plans for Significant Events

AP No.	Event/Threat
AP14	Medical Emergency
AP15	Industrial Emergencies Creating the Potential for Contaminated Discharges to the Collection System
AP16	Contaminated Debris in the Collection System
AP18	Electrical Power Outages or Disruptions
AP19	Natural Gas Outage or Disruption
AP20	Potable Water Outages or Disruption

7.4.1 SSOs and CSOs

The City maintains a *Sanitary Sewer Overflow Response Plan* (SORP, 2013). The purpose of the plan and procedure is to ensure prompt and appropriate response to SSOs or CSOs and to minimize adverse public health and environmental impacts.

Notification and reporting procedures for local, state, and federal agencies and investigative procedures for SSOs or CSOs are provided in the SORP (2013). The SORP provides a strategy for ISS to mobilize labor, materials, tools, and equipment to correct or repair and mitigate any condition that may cause or contribute to the following:

- An unpermitted discharge (i.e., to surface waters)
- SSOs that are successfully contained and present no threat to jurisdictional waters of the U.S.

CSO procedures and response activities are detailed in specific SOPs. CSOs are overflows from combined sewers that have received primary treatment, partial treatment, or no treatment.

ISS tracks monthly SSO and CSO data information in Microsoft Excel.

7.4.2 Chemical Spills in the Collection System

A *Memorandum of Understanding for Emergency Response to Spills* between the Chattanooga Fire Department and DPW has been developed to address chemical spills in the collection system. In the event of a spill into the system, the Operations Supervisor of Pump Stations and CSOTFs would investigate and notify the Plant Manager. This would allow the plant to divert flow to the equalization basins or take other prescribed actions.

7.4.3 Chemical, Biological, and Radioactive Decontamination Water

Managers and supervisors should be aware of the impacts associated with decontamination wastewater containing CBR substances. Decontamination wastewater is defined as wastewater generated because of decontamination activities performed after a terrorist attack with CBR substances. Local, state, and federal agencies manage the response to a CRB attack; they have extensive training and are equipped with protective and specialized equipment. During an incident, ISS managers and supervisors should work closely with on-site lead agencies, while protecting employees and utility assets.

It is important to note that if a CBR incident produces decontamination wastewater, there is the potential for contaminated wastewater to enter WCTS. The impact on the WCTS will depend on a variety of factors. These factors include the properties and characteristics of the substances, the location of the release, the dispersal method, the type of decontamination activities, and the dilution factor. In addition, consider the effect on the treatment process, biosolids, air emission, and pass through into the environment. The fate and transport of various CBR substances is the subject of ongoing research. The uncertainty associated with potential effects make it difficult to prepare for such incidents.

The detection, analysis, and disposing of wastewater that may have been contaminated by CBR should be handled by the hazardous materials (HazMat) team and not by ISS employees. Only after emergency responders give the “All Clear” should ISS allow personnel to resume normal operations. HazMat responders can also provide direction on what PPE wastewater personnel should wear by to perform critical tasks.

7.4.4 Industrial Emergencies Creating the Potential for Contaminated Discharges to the WCTS

The *Memorandum of Understanding for Emergency Response to Spills* between the Chattanooga Fire Department and DPW has been developed to address contaminated discharges to the collection system from industrial or other emergencies.

The ISS Pretreatment Section monitors and tracks industrial discharge. The ISS issues permits that detail the requirements for restaurants and Industry. The ISS maintains SOPs for sampling and inspections. In

addition, they follow a written Enforcement Response Plan for non-compliance issues. The ISS notifies the State of violations per regulatory requirements (24-hour notification and 5-day written follow up).

In the event of an industrial discharge exceedance into a pump station, the supervisor investigates the incident. ISS can request an industry to reduce flow in the event of high flow volumes into the MBWWTP or during flooding emergencies. Several major industries in the CSO area affect flow.

7.4.5 Contaminated Debris in the WCTS

Contaminated debris in the WCTS can be carried to the MBWWTP during times of high flow or by being dislodged during sewer line cleaning or other work. Caution must be taken at all times prior to cleaning sewer lines, particularly in the combined sewer area and in the older, industrial sections of the collection system. Testing of debris in the laboratory is done prior to sewer line cleaning. Collection System SOP Number COL-308 addresses this issue (maintained at the Sewer Maintenance General Supervisor's office).

7.4.6 Severe Weather Events

Severe weather can cause potential harm to ISS operations and include thunderstorms, tornadoes, tropical storms, high rainfall, flooding, and snow and ice storms. If there is no immediate danger to personnel, employees carefully monitor the pump stations and CSOTFs. If lightning is occurring in the vicinity, employees are instructed to remain inside buildings and protected areas.

Severe weather events may result in ISS management ordering system-wide evacuation or shelter-in-place. Staff report to the MBWWTP, if safe to do so, and follow the Evacuation/Shelter-In-Place Procedure (Appendix I). During severe weather events, instructions from the HCEMA are followed.

Appendix B provides SOPs for use in emergency operations, such as flooding, ice and snow, earthquake, and tornado. In addition, the APs in Appendix K provide staff with guidelines to follow in an actual emergency.

7.4.7 Fires at Stations, CSOTFs, and within the WCTS

Any fire at ISS facilities would result in immediate evacuation of all personnel from the area of the fire and notification of the Chattanooga Fire Department through the 911 call center. The City Fire Department handles all fires. Fire extinguishers are inspected, tested, and maintained under the direction of the Occupational Safety Specialist at all applicable facilities.

7.4.8 Electrical Power Outages or Disruptions

ISS has conducted a power study of its critical pump stations and copies of these studies are provided in Appendix J. In addition, a SOP for widespread power outage is provided in Appendix B.

Upon loss of station power, personnel immediately call the Electric Power Board dispatcher and/or Customer Representative for ISS. Contact between ISS personnel and the Electric Power Board regarding the power outage status is maintained until power is restored.

At the MBWWTP, alarms at the pump stations and CSOTFs are monitored through the SCADA system at the MBWWTP Operations and Control Building. This building has a back-up generator that maintains the SCADA system in the event of a widespread power loss. In the event of a power outage, critical stations would be manned overnight, depending on the risk.

Section 9.0
Training and Exercises

8.1 Introduction

FIGURE 9.1
Preparedness Cycle

The NIMS defines the preparedness cycle as planning, training, equipping, exercising, evaluating, and taking corrective action to mitigate preparedness issues. In order to ensure the smooth and expedient implementation of the ISS ERP during an incident, it is imperative that a comprehensive training and exercise program be instituted to develop competencies and to maintain awareness among all assignees of their responsibilities under the ISS ERP. Developing and maintaining competency in the ISS ERP facilitates safe and effective ERP implementation and an improved response posture.

To ensure that this ERP can be implemented successfully, it must be tested periodically to identify areas for improvement and to maintain staff's familiarity with ISS ERP content. The Administrator of Public Works and the Director of WRD is responsible for training and exercises relating to this ERP.

Testing the ISS ERP will minimize flaws and mistakes that might not otherwise become known until an actual emergency. Testing this ERP, with the participation of outside agencies or organizations that will be involved in a crisis, is advised. Such agencies or organizations might include the following:

- City Police Department
- City Fire Department
- HCEMA

8.2 Training

This section summarizes the types of training that is provided to ISS employees who may be involved in an emergency. Training methods may include lectures, discussions, slide or videotape presentations, computer demonstrations, and/or guest speakers. The OSC is responsible for coordinating, recording, and arranging training of staff for response to emergencies. ISS personnel will not respond to life threatening incidents that require specialized fire fighting and/or hazardous materials training. The City Fire Department would respond to these types of incidents.

8.2.1 Employee Awareness Training

ISS employees receive general emergency response training as part of their initial orientation to this ERP. The training includes an overview of NIMS and ICS, protective actions (evacuation and sheltering-in-place), accountability, and notification procedures. In addition, each employee should be familiar with the locations of PPE and the designated assembly areas after an evacuation.

8.2.2 Hazardous Waste Operations and Emergency Response

Hazardous Waste Operations and Emergency Response (HAZWOPER) training is conducted in accordance with 29 CFR 1910.120. This training is required for personnel who respond to hazardous material incidents. ISS currently does not have HAZWOPER trained personnel. It is the City's policy that

WRD personnel would call 911 and the City Fire Department and a HazMat Team will respond to hazardous material incidents.

8.2.3 Fire Extinguisher

Fire extinguisher training is recommended under 29 CFR 1910.120 and the National Fire Protections Association (NFPA) 101, Life Safety Code, for all employees in occupied facilities where a potential for fire exists. Approved booklets, internet training, or similar information may be substituted for formal classroom training. Fire extinguisher training is included as part of the annual employee awareness training.

8.2.4 Cardiopulmonary Resuscitation/First Aid

As many employees as possible should receive cardiopulmonary resuscitation (CPR) and first aid training so that they will be adequately prepared to respond to medical emergencies. The local American Red Cross chapter, local fire departments, and hospitals frequently offer courses in CPR and first aid. Annual re-certification is typically recommended, although the exact requirements may vary with the training course.

8.2.5 Incident Command System Training

The USEPA recommends a core curriculum of ICS training for utilities and other support agencies. ICS training is offered through FEMA's Emergency Management Institute (EMI) including a variety of online independent study courses and classroom training as outlined in the document *National Incident Management System Training Program,* DHS, September 2011 (http://www.fema.gov/pdf/emergency/nims/nims_training_program.pdf). Recommended NIMS/ICS curriculum is provided below:

Training for staff involved in emergency response:

- ICS-100.PW: Introduction to Incident Command System for Public Works is designed for federal disaster workers, public works, and law enforcement and public health personnel. It describes the history, features, principles of ICS, and the relationship of ICS to NIMS. This course is offered online.
- IS-700: National Incident Management Systems, an Introduction explains the principles and structure of the NIMS, discusses ICS as a response model for NIMS and the applicability of NIMS in wider-scope, multi-jurisdictional incidents. This course is offered online.

Additional Training for the Director of WRD; Deputy Director of WRD supervisors; key ISS staff, and City PIO:

- ICS-200: ICS for Single Resources and Initial Action Incidents enables supervisory personnel to operate efficiently within an ICS, and explains roles and responsibilities, and ICS protocols. This course is offered online.
- IS-800: A NRF, an Introduction describes how the federal government will work with state, local, and tribal entities in responding to national emergencies. This course is offered online.
- IS-821: Critical Infrastructure and Key Resources (CIKR) Support Annex describes the relationship between the NRF and CIKR prevention, protection, and response and recovery. The course defines the role of the Infrastructure Liaison in supporting coordination with the CIKR sectors and all levels of partners. In addition, the course identifies the processes defined in the NRF for ensuring that CIKR considerations are integrated into incident response efforts. This course is offered online.

- FEMA ICS-300: Intermediate ICS for Expanding Incidents describes how the NIMS command and management components support management of expanding incidents and development of an IAP for a simulated incident. This is a classroom course approximately 18 hours in duration.
- FEMA ICS-400: Advanced ICS describes how major incidents engender special management challenges, describes the circumstances in which an area command is established, and describes the circumstances in which multiagency coordination systems are established. This is a classroom course approximately 14 hours in duration.

NIMS/ICS courses are available online through FEMA or training can be obtained from TEMA:

TEMA East Region Office
803 North Concord
Knoxville, Tennessee 37919
Phone: (865) 594-5650

Training materials on the ICS are available from Fire Protection Publications (FPP), which can be contacted at the following:

Fire Protection Publications
Headquarters for the International Fire Service Training Association
930 N. Willis
Stillwater, Oklahoma 74078
Sales & Customer Service Contact: (800) 654-4055
Website: http://imis-ext.osufpp.org/

8.3 Emergency Exercises

8.3.1 Homeland Security Exercise and Evaluation Program

Successful implementation of the ISS ERP is achieved through discussion-based and operations-based exercises as described in this section. Training and exercises allow staff members to face hypothetical situations that are outside of normal daily operations. To meet challenges associated with emergency response and business continuity, effective training and exercise programs provide helpful forums for integrating response procedures with external partners.

The Homeland Security Exercise and Evaluation Program (HSEEP), administered by the DHS (https://hseep.dhs.gov/pages/1001_HSEEP7.aspx), provides a nationally recognized and systematic methodology to conduct training and exercises to support emergency preparedness. HSEEP includes consistent terminology that all exercise planners can use regardless of the nature and composition of their sponsoring agency or organization.

HSEEP also provides tools to help exercise managers plan, conduct, and evaluate exercises to improve overall preparedness. HSEEP reflects lessons learned and best practices of existing exercise programs and can be adapted to a variety of scenarios and incidents (e.g., natural disasters, terrorism, and technological disasters).

Seven types or levels of exercises are utilized per the HSEEP guidelines to test this plan and to provide experience to City staff. These exercises are divided into two types, discussion-based exercises and operations-based exercises.

Discussion-based exercises - Discussion-based exercises familiarize participants with current plans, policies, agreements, and procedures, or may be used to develop new plans, policies, agreements, and procedures.

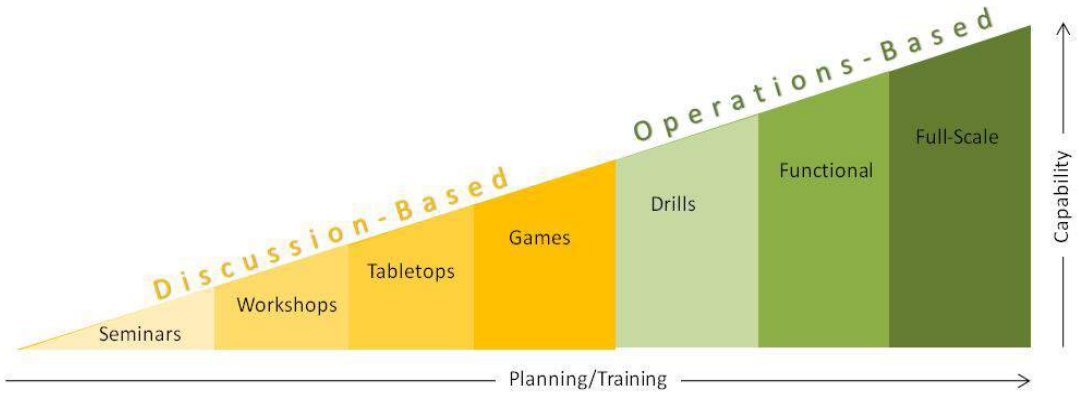
- Seminar
- Workshop
- Tabletop Exercise
- Game

Operations-based exercises - Operation-based exercises validate plans, policies, agreements, and procedures; clarify roles and responsibilities; and identify resource gaps in an operational environment.

- Drill
- Functional Exercise
- Full-Scale Exercise

HSEEP uses a building block approach to ensure that exercise participants' progress at a logical pace. Figure 9.2 indicates the building block approach, including both discussion-based and operations-based exercises. Each level builds on the proceeding levels in realism, exercise play, stress, number of participants and agencies involved, time, and cost. The types of exercises are explained briefly below.

FIGURE 9.2
HSEEP Building Block Approach



Discussion-based exercises include the following: Discussion-based exercises are normally used as a starting point in the building block approach to the cycle, mix, and range of exercises.

- **Seminars:** This is an overview or introduction exercise. It is usually presented in an informal discussion in a group setting, and is low-stress. Its purpose is to familiarize participants with roles, plans, procedures, or equipment, through lecture, discussion, or brainstorming.
- **Workshops:** Although similar to seminars, workshops differ in two important aspects: participant interaction is increased, and the focus is on achieving or building a product (such as a plan or a policy).
- **Tabletops:** This simulates an emergency in an informal, stress-free environment. It is designed to elicit constructive discussions as participants examine and try to problem solve based on existing emergency operation plans. Typically, a tabletop exercise will take 2 to 4 months to plan and will last 2 to 4 hours.
- **Games:** A game is a simulation of operations that often involves two or more teams, usually in a competitive environment, using rules, data, and procedures designed to depict an actual or assumed real-life situation. The goal is to explore decision-making processes and the consequences of those decisions.

It is recommended that discussion-based exercises be conducted at least once every 2 to 4 years for the ISS. The ISS should decide what personnel should participate in the exercise. At a minimum, the participants should be management-level staff including the Director of Public Works, Director of WRD, City PIO, and operations and maintenance staff. Invitations to other City departments (i.e., police and fire departments) and outside response agencies are encouraged.

Operations-based exercises represent the next iteration of the exercise cycle. They are used to validate the plans, policies, agreements, and procedures solidified in discussion-based exercises. They can clarify roles and responsibilities, identify gaps in resources needed to implement plans and procedures, and improve individual and team performance. Operation-based exercises include the following (HSEEP, Volume 1, FEMA, February 2007, https://hseep.dhs.gov/support/VolumeI.pdf):

- **Drills:** This is a coordinated, supervised activity normally used to test a single specific operation or function in a single agency. In addition, drills are used to provide training with new equipment, to develop new policies/procedures, or to practice and maintain current skills, such as practicing SOPs, calling telephone lists, or donning of PPE.
- **Functional:** This is a fully simulated interactive exercise. It tests the capacity of a community to respond to a simulated disaster, testing one or more functions of the agency or community's emergency operations plan. It is a coordinated response to an emergency in a time-pressured, realistic simulation. Scenario examples include testing of communications, public information, or mass dispensing of supplies. A functional exercise may take between 2 and 6 months to plan and will last between 4 and 16 hours.
- **Full-scale:** This is an exercise to simulate as close to a real incident as possible. This field exercise is designed to evaluate the operational capacity of the agency or community response system in a highly stressful environment simulating actual response conditions. It involves mobilization of equipment, personnel, and resources. Ideally, the full-scale exercise should test and evaluate most functions of the emergency response plan. The scenario could be the same scenario as used in the Tabletop or Functional Exercises. Planning for a full-scale exercise may take 4 to 12 months because of its complexity and logistics and is typically 8 to 16 hours in duration.

It is recommended that a drill type exercise be conducted once every 2 to 4 years for the ISS. Drills should include key ISS staff.

It is also recommended that a functional or full-scale type exercise be conducted once every 5 to 10 years. The functional and full-scale exercise should include all key ISS staff, WRD ISS IMT members, local emergency response agencies, HCEMA, and other emergency response and regulatory agencies, as appropriate.

Members of the ISS should also consider participating in periodic drills and exercises sponsored by HCEMA. This would increase their knowledge of each response organization's capabilities and enhance communications, ultimately facilitating emergency response.

In accordance with HSEEP, following completion of an evaluated exercise, developing an AAR/IP is recommended to identify actions items to be addressed as part of the lessons-learned component. The AAR/IP may include recommended modifications to plans, procedures, equipment, training, and other factors, which will improve WRD's response posture and capabilities.

Some exercises, such as seminars, workshops, or games, are not evaluated but rather serve as teaching environments to present policies and procedures and to provide a method of testing knowledge. Tabletop Exercises, drills, functional exercises, and full-scale exercises are evaluated exercises for which an AAR/IP will be developed.

8.4 Training and Exercise Schedule and Documentation

Table 9.1 describes the recommended participants and frequency for emergency response training and exercises.

TABLE 9.1
Recommended Emergency Response Plan Training and Exercises

Training	Participants	Frequency
ICS-100.PW: Introduction to Incident Command System for Public Works	Key ISS staff	Initial and updates every 3 to 5 years
IS-700: National Incident Management Systems, an Introduction	Key ISS staff	Initial and updates every 3 to 5 years
ICS-200: ICS for Single Resources and Initial Action Incidents	Director of WRD; Deputy Director of WRD; ISS Supervisors; and City PIO	Initial and updates every 3 to 5 years
IS-800: A NRF, an Introduction	Director of WRD; Deputy Director of WRD; ISS Supervisors; and City PIO	Initial and updates every 3 to 5 years
IS-821: CIKR Support Annex	Director of WRD; Deputy Director of WRD; ISS Supervisors; and City PIO	Initial and updates every 3 to 5 years
FEMA ICS-300: Intermediate ICS for Expanding Incidents	Director of WRD; Deputy Director of WRD; ISS Supervisors; and City PIO	Initial and updates every 3 to 5 years
FEMA ICS-400: Advanced ICS	ISS IMT Command and General Staff; this includes the IC, LNO, PIO, Safety Officer and the four section chiefs: Operations, Planning, Logistics and Finance and Administration	Initial and updates every 3 to 5 years
Fire Extinguisher	Designated ISS staff	Annually
CPR/First Aid	Designated ISS staff	Every 2 years
Tabletop Exercises (Discussion-based exercise)	Key ISS staff and IMT members	Every 2 to 4 years for the ISS
Drills (Operations-based exercise)	Key ISS staff	Every 2 to 4 years for the ISS
Functional or Full-Scale Exercises (Operations-based exercise)	Key ISS staff and IMT members, HCEMA, and other emergency response and regulatory agencies	Every 5 to 10 years for the ISS

Drills may be used to supplement employee awareness training, tabletop exercises, and functional exercises. Therefore, participants and training frequency may vary. Actual emergency response incidents can also provide documentation of drills and exercises.

8.5 Additional Training Resources

In addition to the training resources described above, FEMA's EMI offers a self-paced independent study program for people who have emergency management responsibilities and the public. The courses are offered free-of-charge. The primary audience for the independent study program is "national" emergency response and recovery personnel. FEMA's independent study program offers courses in the following subject areas:

- Incident Management
- Operational Planning

- Disaster Logistics
- Emergency Communications
- Service to Disaster Victims
- Continuity Programs
- Public Disaster Communications
- Integrated Preparedness
- Hazard Mitigation

More information on the training can be obtained from the EMI website: http://training.fema.gov/.

8.6 Documentation

Training activities should be documented and kept on file according to standard ISS procedures. Training documentation should include class rosters, course notes or syllabus, exams, evaluation checklists, and copies of certificates. The Occupational Safety Specialist is responsible for documenting all training and documentation should be maintained with dates of training and employee as completed.

Exercise documentation should include a list of participating personnel along with a written description of the deficiencies found during conduct of the exercise. ISS personnel should correct any deficiency found and issue revisions to the ISS ERP as appropriate.

Appendix A
Schedule for Implementation

Emergency Response Plan
Schedule for Implementation

ERP Element	Anticipated Date of Implementation
WRD Final ERP adoption	Final USEPA approval of ISS ERP
Review of ERP and update of SOPs	Annual
Training of ISS Staff in ERP and overview in NIMS and ICS	Initial Training: Conducted June 30 and July 1, 2014 of All Key ISS Staff Annual Refresher Training: September 2015, 2016 etc.
Baseline NIMS and ICS Concepts ICS-100.PWB: Introduction to Incident Command System for Public Works IS-700: Introduction to NIMS	September 2015 Key ISS Staff
ICS-200: ICS for Single Resources and Initial Action Incidents IS-800: A NRF, an Introduction IS-821: CIKR Support Annex FEMA ICS-300: Intermediate ICS for Expanding Incidents FEMA ICS-400: Advanced ICS	September 2016 Key ISS Staff
Exercises: Schedule to be determined based on the following recommendations (per discussion in Section 9):	
It is recommended that discussion-based exercises be conducted at least once every 2 to 4 years for the ISS (i.e. seminar, workshop, tabletop, or games)	Prepare and conduct a discussion-based exercise in 2016, 2018, etc.
It is recommended that a drill type exercise be conducted once every 2 to 4 years for the ISS.	Prepare and conduct a drill in 2017, 2019, etc.
It is recommended that a functional or full-scale type exercise be conducted once every 5 to 10 years for the ISS.	Prepare and conduct a functional or full-scale exercise in 2020, 2025 or 2030, etc.

Sign-In Sheets from Training

Occupational Safety Specialist will retain ERP training records in their office

Appendix B
Standard Operating Procedures

- Memorandum of Understanding for Emergency Response to Spills between Chattanooga Fire Department and Chattanooga Public Works
- SOP – Generator Set Up and Delivery
- SOP – Pump Station and CSO Power Loss
- SOP – WRD Flood Preparation, Response, and Recovery
- SOP – WRD Snow and Ice Preparation, Response, and Recovery
- SOP – WRD Tornado Preparation, Response, and Recovery
- SOP – WRD Earthquake Preparation, Response, and Recovery
- SOP – WRD Widespread Electrical Outage Preparation, Response, and Recovery

Rick Tate

Memorandum Of Understanding

For EMERGENCY RESPONSE TO SPILLS

Between
Chattanooga Fire Department (CFD)
And
Chattanooga Public Works
Water Quality Program (WQP)/Engineering Division
Waste Resources Division (WRD)/Interceptor Sewer System (ISS)
City Wide Services (CWS) Emergency/CWS Division

August 2010

Introduction

In 1996, the City of Chattanooga was issued National Pollutant Discharge Elimination System (NPDES) Permit Number TNS068063 authorizing the discharge of stormwater runoff in accordance to the permit. As a requirement of the permit, the City of Chattanooga is required to set forth in written form the categories (sizes, materials, etc.) of spills for which the City itself will function as lead respondent. Also, the City shall describe the different functions and financial responsibilities among the City Departments in case of spill.

This Memorandum of Understanding documents the roles and responsibilities of the Chattanooga Fire Department, Water Quality Program (WQP)/Engineering Division, Waste Resources Division (WRD)/Interceptor Sewer System (ISS) and City Wide Services (CWS) Division- Emergency Response personnel in responding to spills.

Responsibilities of the Parties

Chattanooga Fire Department

1. The Chattanooga Fire Department (CFD) will be the lead respondent to all spills involving threats to the health, safety and environment to Chattanooga, its citizens and properties including all hazardous materials releases. The highest-ranking CFD official on-scene will be in charge of the incident. Additional agencies will report to the on-scene commander when arriving on scene.
2. The CFD has the discretion to determine whether or not its personnel can adequately handle a spill or if other agencies or private response companies are needed to properly contain, cleanup and dispose of the spilled material. In cases where a responsible party is unable or unwilling to establish containment, CFD will expend the minimum amount of effort necessary to establish containment until appropriate cleanup and disposal avenues can be established.
3. The responsible party shall be responsible for clean-up costs.
4. When warranted, the CFD will notify the Hamilton County Emergency Services Department for additional aid or required notifications such as to TEMA, TDOT or other outside agencies.
5. The CFD will take responsibility for the proper disposal of unlabeled "mystery" drums found inside the City limits provided that no responsible party can be found.
6. CFD will contact WQP when a spill or potential fire materials has entered or potentially could enter Chattanooga's stormwater infrastructure or downstream receiving waters. CFD will contact the WRD/ISS when a spill or industrial fire discharge has entered or potentially could enter Chattanooga's sanitary sewer infrastructure.
7. CFD will contact the CWS Emergency crews when:

a. CWS crews and equipment are required to abate threats to the health, safety and environment to Chattanooga, its citizens and properties provided that no responsible party can be located or other personnel cannot respond quickly enough to abate the problem.
b. A CWS vehicle is responsible for the release of the spilled material.

8. CFD will provide one parking space for an emergency response vehicle for the primary WQP responder (phone number 423-595-4694) at the fire station nearest the responder's home during off-duty hours.

Water Quality Program/Engineering Division

1. Water Quality Program (WQP) staff will respond to incident scenes involving threats or potential threats to the Chattanooga's stormwater infrastructure or downstream receiving waters at the request of CFD.
2. WQP will provide recommendations and guidance including cleanup levels in threats to water quality regarding spill release.
3. WQP will provide guidance as to the direction of travel of materials spilled into the stormwater infrastructure and the location of potential containment locations downstream. WQP will provide CFD either electronic or paper maps of the stormwater infrastructure when required.
4. WQP will work with CFD and the WRD/ISS to determine discharge location, potential threats and direction of travel for materials released into the Combined Sewer Area of Chattanooga.
5. WQP will interact with additional environmental and regulatory agencies to provide accurate information to CFD when dealing with spilled materials, their threats to the aquatic environment and levels of cleanup.
6. WQP will provide assistance on spills/releases to all other city departments at their request.
8. WQP will have a minimum of 2 responder trained to the OSHA operations level on-call 24hrs/day, 7-days/week to respond to CFD's requests. WQP personnel can be reached 24-hrs/day, 7-days a week by phone at (423) 595-4694 (primary) or (423) *421-4585*(secondary). Personnel can also be reached by dialing (423) 643-5877 during normal business hours.
9. WQP will keep records regarding releases for reporting to TDEC as required by the City MS4 permit.
10. WQP will follow-up with industries where releases have occurred to provide guidance to property owners in methods to preventing future releases.
11. Where prudent, WQP will take enforcement action against the responsible party for spill release and recover compliance and enforcement cost from the responsible party.
12. WQP will promote and publicize spill reporting through its stormwater public awareness and involvement program and its industrial inspection and monitoring program.

3

12. WQP will stage an emergency response vehicle for the primary respondent (423-595-4694) at the fire station nearest the respondent's home for use during off-duty hours.

City Wide Services Emergency Crews/CWS Division

1. At the request of CFD, City Wide Services (CWS) Emergency Crews will respond to incident scenes involving threats or potential threats to the Chattanooga's stormwater infrastructure or downstream receiving waters.
2. CWS personnel can be reached 24-hrs/day, 7-days a week by dialing (423) 421-5176 or (423) 421-5154 (Jerry Mauldin).
3. CWS will supply the crews, materials and equipment requested by CFD.
4. CWS will take responsibility for cleanup and disposal of materials spilled by City Wide Services vehicles. CWS may use Water Quality Funds for clean-up efforts.
5. CWS will contact the CFD for assistance in containment of spills that constitute an immediate threat to the health, safety and environment to Chattanooga, its citizens and properties.
6. CWS personnel will not enter into a hazardous environment without adequate training and appropriate PPE.
7. CWS will notify WQP via phone, email, fax or in writing of spills that have or may entered into the stormwater infrastructure or downstream receiving waters. Notification shall include date, location, amount, type of material spilled and cleanup methods utilized to remove spilled materials from stormwater drainage infrastructure.

Waste Resources Division/Interceptor Sewer System

1. Waste Resources Division (WRD)/Interceptor Sewer System (ISS) will respond to incident scenes involving threats or potential threats to the ISS and its sanitary sewer lines at the request of CFD.
2. WRD/ISS personnel can be reached 24-hrs/day, 7-days a week by dialing (423) 757-5026.
3. WRD/ISS will take all actions necessary to protect the viability of the wastewater treatment plant including the diversion of the released materials into equalization basins in case of accidental release into the sanitary sewer system.
4. WRD/ISS will provide guidance as to the direction of travel of materials spilled into the sanitary sewer system and the location of potential containment locations downstream.
5. WRD/ISS will work with CFD and WQP to determine discharge location, potential threats and direction of travel for materials released into the area of Chattanooga served by the combined sewer system.
6. WRD/ISS will take responsibility for the cleanup and disposal of materials spilled by WRD/ISS vehicles.
7. WRD/ISS will follow up with industries where releases have occurred from those industries to provide guidance to these industries to prevent future releases.

8. Where prudent, WRD/ISS will take enforcement action against the responsible party for spill release and recover clean-up and treatment expenses from the responsible party.
9. WRD/ISS will promote and publicize spill reporting through its public awareness and involvement program and its industrial inspection and monitoring program.

Additions, Modifications and Terminations

This agreement can be modified at anytime due to a change in responsibilities of any participating party. Any changes to the roles and responsibilities of any participating party must be made in writing and executed by the other participating parties.

Execution by the Parties

Randy Parker
Chief, Chattanooga Fire Department — Date

William C. Payne, P.E.
City Engineer, Engineering Division — 10-15-10 Date

James Templeton
Director, City Wide Services Division — 10-20-10 Date

Jerry Stewart, P.E.
Director, Waste Resources Division — 10-22-10 Date

Donald L. Norris
Deputy Administrator
Public Works Department — Date

5

CITY OF CHATTANOOGA – WASTE RESOURCES DIVISION
Moccasin Bend Wastewater Treatment Plant

Pump Station Operations

Title: **Generator Set Up and Delivery**

SOP Number	Revision Number	Approval Signature	Effective Date	Date of Last Review
PS-004	01		04/10/08	04/10/08

Scope: Covers emergency and non-emergency delivery and set up of portable generators.

Purpose: To maintain pump operations during power failures and scheduled maintenance.

Responsibility: Chief Pump Station Operator, Electrician, Control Room Operator, and Liquids Operations Supervisor

Frequency: As needed

Emergency Control Room: 757-5026 Ext.3318

Contacts: Jimmy Spence: 423-421-4491
Bill Newell 423-421-4491

EPB Electrical Power: 648-3563

General Information: Currently, three portable generators on hand are capable of operating pump stations. They are stored inside the industrial monitoring building. There are two trucks that are designated to pull the generators, W6665 and W6664. The generators shall require two people for set up. All pumps station operators shall be trained in the hauling and start up of generators. The operators shall assist the electrician in onsite set up. If a pumps station operator is not available then a mechanic can be used to haul the generator and assist the electrician as long as he has had training on pulling the generator. The keys for both trucks, Industrial Monitoring building, and the individual fuel keys are in the Operations and Control Building.

Procedure: When a station has a loss of power, the Liquids Operations Supervisor or the Pump Station Chief Operator shall be notified. They shall decide if a generator is needed based on station capacity; location in the collection system, EPB expected repair time, generator availability, and other various factors.

If it is decided to set up a generator, the following steps should be taken.

1. The Electrical Supervisor shall be notified that an electrician shall be needed to assist in generator set up. If the Electrical Supervisor is unavailable, then the electrician on-call shall be notified.
2. The Pump Station Chief Operator shall be notified that he or she is needed to deliver a generator to the site. If the Pump Station Chief Operator is unavailable then the computer room operator shall call a pump station operator.
3. The person pulling the generator should determine which generator to use by looking on the inside of the generator control panel door. There is a list posted at this location that shows what station that particular generator will run. If additions or changes are made that affect this list, the Electrical Supervisor shall notify the Pump Station Chief Operator in writing and the Pump Station Chief Operator shall update the list. This list is also posted in the computer room.
4. The generator shall be tested to ensure that it will run before it is pulled to the site. The electrician shall assist with a run test if the person pulling the generator is not familiar with the generator controls.
5. The generator shall be inspected before being pulled to the site to insure that it is full of fuel, tires are properly inflated, trailer lights are working, and that there are no other obvious defects.
6. Once the generator is onsite, the person pulling the generator shall assist the electrician in set up of the generator.
7. The Pump Station Chief Operator or a relief operator shall remain onsite until normal power is restored, the generator is setup to run in an automatic mode, or approval from the Liquids Operations Supervisor to leave the generator unattended has been received.
8. When normal power is restored, the person pulling the generator with assistance from the Electrician shall disconnect and return the generator to the Industrial Monitoring building. The generator shall be filled with fuel before parking it. Care shall be taken that it is parked in a manner so that nothing can be placed in front of the generator that would hinder the next deployment. All keys shall be returned to the Operations and Control Building.
9. If the generator needs to be refueled onsite, Fleet Maintenance shall be notified at 757-5162 before 1:00 pm if possible.

CITY OF CHATTANOOGA – WASTE RESOURCES DIVISION
Moccasin Bend Wastewater Treatment Plant

Pump Station Operations

Title: **Pump Station and CSO Power Loss**

SOP Number	Revision Number	Approval Signature	Effective Date	Date of Last Review
PS-003	01		08/01/08	08/01/08

Scope: Covers emergency Pump Station and CSO operations during a power loss.

Purpose: To establish an emergency response plan for each Pump Station and CSO and identify what shall be used at each site to restore pumping capabilities.

Responsibility: Chief Pump Station Operator, Electrician, Control Room Operator, Liquids Operations Supervisor, and I&I Supervisor

Frequency: As needed

Emergency Control Room: 423-757-5026 Ext.3318

Contacts: Jimmy Spence: 423-421-4491
EPB Electric Power: 648-3563

General Information: A preventive maintenance work order shall be generated annually to test the Pump Station Emergency Response Plan. Generators shall be hauled to stations with plugs to test the station under load. Each stations power fail alarm will be checked at this time as well. In the event of a loss of power at a Pump Station or CSO, it will be necessary to provide an alternative power source to continue pump operations and open and close valves as needed. This shall be accomplished with the use of portable generators, onsite generators, vacon trucks, and a switchable secondary feed supplied by the EPB also to be verified annually.

Procedure: When a station has a loss of power, the Liquids Operations Supervisor or the Pump Station Chief Operator shall be notified. They shall decide what action should be taken to restore pumping capabilities to prevent an overflow. The following is a list of all sites and the current plan for each site to restore pumping capability.

STATION	SOURCE	GENERATOR
19TH ST.	EPB SECONDARY FEED	
23RD ST.	EPB SECONDARY FEED	
26TH ST.	VACCON/PORTABLE GENERATOR WITH FLYING LEADS	W6866
AIRPORT	PORTABLE GENERATOR	W6686
AIRPORT2	PORTABLE GENERATOR	W6685/W6687
ALTON PARK	PORTABLE GENERATOR	W6686
ALTAMONT	PORTABLE GENERATOR	W6685/W6687
ARBOR CRK	VACCON/PORTABLE GENERATOR WITH FLYING LEADS	W6686
BATTERY PL	PORTABLE GENERATOR	W6686
BIG RIDGE 1	PORTABLE GENERATOR	W6685/W6687
BIG RIDGE 2	PORTABLE GENERATOR	W6685/W6687
BIG RIDGE 3	PORTABLE GENERATOR	W6685/W6687
BIG RIDGE 4	PORTABLE GENERATOR	W6686
BIG RIDGE 5	PORTABLE GENERATOR	W6685/W6687
BIG RIDGE 6	ONSITE GENERATOR	
BIG RIDGE 7	PORTABLE GENERATOR	W6686
BIG RIDGE 8	PORTABLE GENERATOR	W6686
BIG RIDGE 9	PORTABLE GENERATOR	W6686
BIG RIDGE 10	PORTABLE GERNERATOR	W6686
BIG RIDGE 11	PORTABLE GENERATOR	W6685/W6687
BIG RIDGE 12	PORTABLE GENERATOR	W6685/W6687
BIG RIDGE 13	PORTABLE GENERATOR	W6686
BIG RIDGE 14	PORTABLE GENERATOR	W6685/W6687
BOY SCOUT	PORTABLE GENERATOR WITH FLYING LEADS	W6685/W6687
BRAIN GOLF	PORTABLE GENERATOR	W6686
BRAIN MANOR	VACCON/PORTABLE GENERATOR WITH FLYING LEADS	W6686
CITICO	EPB SECONDARY FEED	
COLLEGEDALE	ONSITE GENERATOR	
DAVIDSON PLACE	PORTABLE GENERATOR	W6685/W6687
DUP IND PKWY	PORTABLE GENERATOR	W6685/W6687
EARL LANE SS	PORTABLE GENERATOR	W6685/W6687
EAST BRAIN	PORTABLE GENERATOR WITH FLYING LEADS	W6685/W6687

STATION	SOURCE	GENERATOR
EASTGATE	PORTABLE GENERATOR	W6686
EASTGATE 2	PORTABLE GENERATOR	W6685/W6687
ENTERPRISE	PORTABLE GENERATOR	W6685/W6687
FAGAN ST.	VACCON/PORTABLE GENERATOR WITH FLYING LEADS	W6686
FRIAR BR	EPB SECONDARY FEED	
HERITAGE GREEN	PORTABLE GENERATOR	W6686
HIGHLAND PK	PORTABLE GENERATOR	W6685/W6687
HIX NO.1	PORTABLE GENERATOR WITH FLYING LEADS	W6685/W6687
HIX. NO.2	PORTABLE GENERATOR WITH FLYING LEADS	W6685/W6687
HIX. NO.3	PORTABLE GENERATOR	W6685/W6687
KOMATSU	VACCON/PORTABLE GENERATOR WITH FLYING LEADS	W6686
LAKE VISTA	VACCON/PORTABLE GENERATOR WITH FLYING LEADS	W6685/W6687
LATTA ST.	PORTABLE GENERATOR WITH FLYING LEADS	W6685/W6687
MAN PATT	PORTABLE GENERATOR	W6686
MEAD. TR.	VACCON/PORTABLE GENERATOR WITH FLYING LEADS	W6686
MT CREEK	GENERATOR TO BE INSTALLED IN 2008	
MUR HILL 1	PORTABLE GENERATOR	W6685/W6687
MUR HILL 2	PORTABLE GENERATOR	W6685/W6687
MUR HILL 3	PORTABLE GENERATOR	W6685/W6687
MUR HILL 4	PORTABLE GENERATOR	W6685/W6687
MUR HILL 5	PORTABLE GENERATOR	W6685/W6687
NORTH TER	PORTABLE GENERATOR	W6685/W6687
ORC. KNOB SS	EPB SECONDARY FEED	
ORCH KNOB WW	EPB SECONDARY FEED	
PINE. RD.	VACCON/PORTABLE GENERATOR WITH FLYING LEADS	W6686
RINGGOLD	ONSITE GENERATOR	
RIVER PARK 1	VACCON/PORTABLE GENERATOR WITH FLYING LEADS	W6686
RIVER PARK 2	VACCON/PORTABLE GENERATOR WITH FLYING LEADS	W6686
SOUTH CHICK	EPB SECONDARY FEED	
SPRING CREEK	ONSITE GENERATOR	
STORM STATION 1	EPB SECONDARY FEED PLAN	
STORM STATION 2	PORTABLE GENERATOR	W6685/W6687

STATION	SOURCE	GENERATOR
STORM STATION 3	PORTABLE GENERATOR	W6685/W6687
TIFTONIA 1	PORTABLE GENERATOR	W6685/W6687
TIFTONIA 2	PORTABLE GENERATOR	W6685/W6687
TIFTONIA 3	PORTABLE GENERATOR	W6685/W6687
TIFTONIA 4	PORTABLE GENERATOR	W6685/W6687
TIFTONIA 5	PORTABLE GENERATOR	W6685/W6687
VAAP	PORTABLE GENERATOR	W6685/W6687
WARNER PARK SS.	PORTABLE GENERATOR	W6685/W6687
WARNER PARK SS.	PORTABLE GENERATOR	W6685/W6687
WEST CHICK.	ONSITE GENERATOR	
WILLOW BEND	VACCON/PORTABLE GENERATOR WITH FLYING LEADS	W6686
19TH ST CSO	ONSITE GENERATOR	
CARTER ST CSO	ONSITE GENERATOR	
CENTRAL CSO	ONSITER GENERATOR	
CITICO CSO	EPB SECONDARY FEED	
MLK CSO	ONSITE GENERATOR	
ROSS LNDG CSO	OPERATE CSO MANUALLY	
TREMONT CSO	OPERATE CSO MANUALLY	
WILLIAMS ST CSO	ONSITE GENERATOR	
SIDNEY ST REG	OPERATE REGULATOR MANUALLY	

SWITCHABLE EPB SECONDARY FEED SUPPLY

Friar's Branch Pump Station

3 Phase underground service tap to EPB owned 750 KVA transformer #R 5POO1
Radial circuit from pole #R 5 042 located at corner of Dogwood Dr. and Juandale Dr, 0.5 mile W of site
EPB preferred source - McCarty substation (MCC), 1.3 miles SW of site
EPB preferred feeder - MCC 201
EPB secondary source - Eastdale substation (EDA) feeder 201, switch located 1.5 miles SW of site
Ultimate sources - MCC: TVA Chickamauga substation (CHI), EDA: TVA Ridgedale substation (RID)

South Chickamauga Pump Station

3 Phase underground service tap to EPB owned 1500 KVA transformer #N 2P017 Radial circuit from pole #N 1 032 located on North Hawthorne St., 0.3 mile E of site
EPB preferred source - Hawthorne substation (HAW), 1 mile SE of site
EPB preferred feeder - HAW 207
EPB secondary source - HAW feeder 215, switch located 0.5 mile SE of site
Ultimate sources - HAW: TVA Chickamauga substation

Dupont Pump Station
Three Phase overhead service tap from EPB owned 3-25 KVA transformer bank on pole #F 4 727 Pole located on loop circuit at the corner of Elm St. and Memphis St.
EPB preferred source - Fairfax substation (FAI), 1.5 miles W of site
EPB preferred feeder - FAI 201
EPB secondary source - FAI feeder 202, switch located at site
Ultimate sources - FAI: TVA Moccasin Bend substation (MOC) through EPB Valdeau (VAL) substation

Citico Pump Station
Three Phase underground service tap to EPB owned 2500 KVA transformer #M 2P046 Radial circuit from pole #M 2506 located on Riverside Drive, 0.12 mile S of site
EPB preferred source - Riverside substation (RIV), .12 mile SW of site
EPB preferred feeder - RIV 209
EPB secondary source - alternate feeders in RIV substation or Tenth St. substation (TEN) feeder 203, switch located 0.3 mile E of site
Ultimate sources - RIV: TVA Moccasin Bend substation (MOC), TEN: TVA Ridgedale substation (RID)

23rd St. Pump Station
Three Phase underground service tap to EPB owned 750 KVA transformer #M 8POO8 Radial circuit from pole #M 8003 located at corner of 25th St. and Alton Park Blvd., 0.5 mile W of site
EPB preferred source - Sidney St. substation (SID), 1 mile W of site
EPB preferred feeder - SID 201
EPB secondary source - alternate feeders in SID substation or Long St. substation (LON) feeder 206, switch located .7 mile S of site
Ultimate source - SID & LON: TVA Moccasin Bend substation (MOC)

19th St. Pump Station
Three Phase underground service tap to EPB owned 300 KVA transformer #M 5P039 Radial circuit from pole #M 1 513 located at corner of 19th St. and Riverfront Pky., 0.3 mile E of site
EPB preferred source - College Hill substation (COL), .7 mile NE of site **EPB**

Orchard Knob Pump Station
277/480V – 3 Phase underground service tap to EPB owned 225 transformer # N8P003
Located at 808 Holtzclaw Ave. N
EPB Preferred Source – Riverside substation (RIV) located 1.1 mile W of site
EPB Preferred Feeder – RIV 209
EPB Secondary Source – alternate feeds in RIV substation or TEN 203, switch located 0.6 mile W of site
Ultimate Source – TVA Moccasin Bend substation (MOC)

Brainerd Levee Pump Station
46kV – 3 Phase Overhead Transmission circuit at Pole # S3404 located just east of Chickamauga Creek between Moore Rd and Lee Highway
EPB Preferred Source – TPS – TVA Pump Station 1
EPB Secondary Source – Midland Pike

WASTE RESOURCES DIVISION
STANDARD OPERATING PROCEDURE

Title: **ISS FLOOD PREPARATION, RESPONSE, AND RECOVERY**

SOP Number	Revision Number	Approval Signature	Effective Date	Date of Last Review
ISS 001	01		2/1/2014	2/1/2014

1.0 PURPOSE AND GOALS

The following procedure applies to preparation, response, and recovery for flooding in the City of Chattanooga (City) that affects the Interceptor Sewer System (ISS). Goals include:

- To minimize property damage and personal injury because of a flood event.
- To ensure emergency repairs are completed in a timely and efficient manner, while minimizing disruption in service to the customer.
- To acquire information on failures or deficiencies of the combined and sanitary sewer system.

2.0 TECHNICAL OVERVIEW

Flooding is often associated with extreme rainfall events and elevated stream flows in drainage basins. Flooding often affects the sewer system by increasing sewage flows through infiltration and inflow. This can cause hydraulic overload. In the event of a flood, the system may be subjected to loss of power and communications as well as disruption of transportation to facilities.

3.0 REFERENCES

- Procedures for notification of an overflow caused by a flood refer to the SSORP and the *Sanitary Sewer Overflow (SSO) Reporting Procedures* (7-05)
- Procedures for *Pump Station and CSO Power Loss* (SOP Number PS-003)
- WRD ISS ERP
- *Employee Health and Safety Handbook* (1983)
- Safety Rules and PPE
- Traffic Control Procedures

4.0 ROLES AND RESPONSIBILITIES

Manager

- Contacts Meteorological Services for updates of the situation, request technical cause of event and a forecast regarding possible intensification.

- Approves requests for extra staff and equipment.
- Activates the ISS Emergency Response Plan as required.
- Appoints a staff member to facilitate follow up activities.
- Works with WRD Incident Command Team to complete Incident Action Plan (IAP) Forms.

Supervisor

- Complies with all safety rules and regulations.
- Deploys staff and/or responds to flooded WRD facilities.
- Communicates the condition at the flooded locations.
- Requests extra staff and equipment be mobilized.
- Determines appropriate access by personnel to flooded WRD facilities.
- Performs site remediation activities.

Crew Member(s)

- Complies with all safety rules and regulations.
- Performs remediation activities as directed.

Dispatch Personnel

- Contacts the Manager if flooding is reported.
- Calls in extra dispatch staff if required.
- Dispatches staff as required or requested by the Manager or Supervisor.

Staff Member Appointed to Facilitate Follow up Activities

- Ensures all complaints, claims and paper work are collected.
- Investigates the causes of flooding for each complaint and claim if required.
- Compiles and organizes the data gathered during the storm event.
- Completes required paper work.
- Prepares a summary table of claims, complaints, and other relevant data.
- Completes damage estimates.
- Collects required FEMA data.
- Takes pictures of sites impacted.
- Forwards and/or files all information appropriately.
- Reviews the overall response to the storm event.
- Determines if all emergency needs were met.
- Identifies and requests resources that may be required to respond better to the future storm events.
- Updates this response procedure accordingly.

5.0 PREPARATION

- Plant Operations Supervisor PS & CSOTF monitors weather, flood prediction; flood crest impact preparation.
- Plant Operations Supervisor PS & CSOTF directs pre-flood preparation activities such as moving critical equipment above flood stage, sand bag placement in specific areas, etc.
- Check and charge radios.
- Assure equipment and vehicles are full of fuel.
- Identify where staff will be positioned during severe rain/flood event.
- Identify procedures for operating equipment in the event of a flood impact.

6.0 RESPONSE

- In the event of a power loss – refer to power loss SOP. Refer to the ISS ERP Action Plan 12 – Severe Weather and Action Plan 13 - Flood
- In the event of loss of SCADA due to flooding impacts – dispatch crews to observe critical pump stations and CSOTFs, when safe to do so.
- Public Notification Procedures: Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.
- Notification of Regulatory Agencies: Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.
- Notification of downstream users of SSOs and/or CSOs - Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.
- If flooding occurs, operation personnel should follow these basic rules:
  - In the event of severe flooding, Activate the ISS ERP and Notify the Incident Commander
  - Never enter a flooded area alone.
  - Begin dewatering flooded areas using portable pumps as soon as possible.
  - Assess damages, document, and photograph as needed for insurance purposes.
  - Begin making repairs.
- As flow returns to normal levels: Before restart, identify safety precautions before turning motors on (never turn on if submerged in water), identify electrical hazards in stations.
  - Inspect all equipment for clogging and mechanical or electrical failure when returning it to regular service. Watch the operation of all equipment for several minutes to make sure it is operating properly.
  - Return equipment and flow patterns to normal status.
  - Drain and clean the areas.
  - Notify Operations and Control before bringing equipment back online.

7.0 POST RESPONSE AND RECOVERY

- Assess damage to flooded areas and develop a Recovery Plan as identified in the ISS ERP.

WASTE RESOURCES DIVISION
STANDARD OPERATING PROCEDURE

Title: **ISS SNOW AND ICE PREPARATION, RESPONSE, AND RECOVERY**

SOP Number	Revision Number	Approval Signature	Effective Date	Date of Last Review
ISS 002	01		2/1/2014	2/1/2014

1.0 PURPOSE AND GOALS

The following procedure applies to preparation, response, and recovery for snow and ice storms in the City of Chattanooga (City) that impact the Interceptor Sewer System (ISS). Goals include:

- To minimize property damage and personal injury because of a snow or ice event.
- To ensure emergency repairs are completed in a timely and efficient manner, while minimizing disruption in service to the customer.
- To coordinate with the Public Works Division to ensure roads and areas near the ISS facilities are given priority for clearing and deicing.

2.0 TECHNICAL OVERVIEW

Snow and Ice storms often affect the sewer system by affecting electrical service to the stations. In addition, disruption of transportation for staff to and from the stations may be impacted. Further, equipment located outside and uncovered may be affected by snow and ice.

Each snow and ice storm has variable conditions such as wind, extreme temperatures, duration, timing, and accumulation. Therefore, different factors will affect the preparation and response activities.

3.0 REFERENCES

- Procedures for notification of an overflow caused by an ice /or snow storm refer to the SSORP and the *Sanitary Sewer Overflow (SSO) Reporting Procedures* (7-05)
- Procedures for *Pump Station and CSO Power Loss* (SOP Number PS-003)
- WRD ISS ERP
- *Employee Health and Safety Handbook* (1983)
- **Safety Rules and Person Protective Equipment (PPE)**

4.0 ROLES AND RESPONSIBILITIES

Manager

- Monitors National Weather Service reports to keep apprised of the situation and forecast regarding possible intensification.
- Approves requests for extra staff and equipment.
- Activates the ISS Emergency Response Plan, as required.
- Appoints a staff member to facilitate follow up activities.
- Works with WRD Incident Command Team to complete Incident Action Plan (IAP) Forms

Supervisor

- Complies with all safety rules and regulations.
- Deploys staff and/or responds to storm impacted areas.
- Communicates the condition at the impacted locations.
- Requests extra staff and equipment be mobilized.
- Performs site remediation activities.

Crew Member

- Complies with all safety rules and regulations.
- Works unsupervised if required.
- Requests the closure of roadways.
- Performs remediation activities as directed.

Dispatch Personnel

- Contacts the Manager if impacted stations are reported.
- Calls in extra dispatch staff if required.
- Dispatches staff as required or requested by the Manager or Supervisor.

Staff Member Appointed to Facilitate Follow up Activities

- Ensures all complaints, claims and paper work are collected.
- Compiles and organizes the data gathered during the storm event.
- Completes required paper work.
- Prepares a summary table of claims, complaints, and other relevant data.
- Forwards and/or files all information appropriately.
- Reviews the overall response to the storm event.
- Determines if all emergency needs had been met.
- Identifies and requests resources that may be required to respond better to future storm events.
- Updates this response procedure accordingly.

5.0 PREPARATION

- Identify storm warnings and associated operations and procedures to be undertaken during these levels. Continue storm monitoring and prediction.

- Contact the DPW to ensure priority is given to those roads that need to be cleared, salted, and sanded to reach key stations.
- Identify bridges, steep hills, and curves where freezing conditions can make these areas dangerous. Work with Public Works to apply anti-icing agents/chemicals as preventive measures for key stations.
- Ensure staff members have adequate equipment to clear equipment areas located outside and not covered, and access to stations.
- Check and charge radios.
- Assure equipment and vehicles are full of fuel.
- Ensure generators are ready, 4-wheel drive trucks are available, and plan to pick up critical employees that can't make it in.
- Identify where staff will be positioned during severe snow and/or ice storm events.

6.0 RESPONSE

- Notify who (employees) should come in and who should come in late.
- Main roads are normally given priority for snow clearing and ice removal. If specific stations are impacted and the roads are not accessible or too dangerous to drive on, contact the DPW to ensure priority is given to those roads that need to be cleared, salted, or sanded.
- Identify procedures for operating equipment in the event of a power outage.
- Identify safety precautions for electrical hazards and other hazards.
- In the event of a power loss – refer to power loss SOP.
- Refer to the ISS ERP Action Plan 12 – Severe Weather
- In the event of loss of SCADA due to flooding impacts – dispatch crews to observe critical pump stations and CSOTFs, when safe to do so.
- Public Notification Procedures: Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.
- Notification of Regulatory Agencies: Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.
- Notification of downstream users of SSOs and/or CSOs - Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.
- If a significant snow and/or ice storm occurs, operation personnel should follow these basic rules:
    - Activate the ISS ERP and Notify the Incident Commander, as required
    - Assess damages.
    - Begin making repairs.

- Staff should:
  - Inspect all equipment for mechanical or electrical failure when returning it to regular service. Watch the operation of all equipment for several minutes to make sure it is operation properly.
  - Return equipment to normal status.
  - Clean any debris, i.e. tree limbs.

7.0 POST RESPONSE AND RECOVERY

- Assess damage and report to Supervisor. Document and take pictures as needed for insurance purposes.
- Develop a Recovery Plan as identified in the ISS ERP.
- Determine which stations are without power and work with Electric Power Company to have power restored to key stations as top priority
- Refer to Power Outage SOP to ensure stations have back-up power in a timely fashion.
- Identify safety precautions when turning motors on; identify electrical hazards in stations.

WASTE RESOURCES DIVISION
STANDARD OPERATING PROCEDURE

Title: **ISS TORNADO PREPARATION, RESPONSE, AND RECOVERY**

SOP Number	Revision Number	Approval Signature	Effective Date	Date of Last Review
ISS 003	01		2/1/2014	2/1/2014

1.0 PURPOSE AND GOALS

The following procedure applies to preparation, response, and recovery for tornados in the City of Chattanooga (City) that impact the Interceptor Sewer System (ISS). Goals include:

- To minimize property damage and personal injury because of a tornado event.
- To ensure emergency repairs are completed in a timely and efficient manner, while minimizing disruption in service to the customer.
- To acquire information on failures and deficiencies of the ISS system.

2.0 TECHNICAL OVERVIEW

Although tornadoes can occur in any month of the year, the months with the highest incidents of occurrence are March through June. The destruction incurred by a direct hit of a tornado is devastating. Tornadoes are particularly dangerous because of the lack of advance warning and the extreme high winds that accompany them.

A **tornado watch** is usually issued over local radio and television newscasts whenever conditions in the area may be conducive to tornado development. A **tornado warning** is issued when a funnel cloud has been sighted. However, tornadoes may develop so quickly that there is little or no time to take any precautions against them.

If a tornado has been sighted in the vicinity, the following guidelines should be followed:

- **Do Not Attempt to Leave the Area!** The path of a tornado is very unpredictable; it is extremely hazardous to try to outrun one.
- Seek shelter immediately.
- If outside or in an automobile, look for a ditch or depressed area in the ground and lie down in it. Do not remain standing or in a car. Also, stay away from signs or trees that may blow over.
- If time permits, secure loose objects in and around the ISS facilities.

If an ISS facility receives a direct hit from a tornado, most of the damage will probably be to roof structures, walkways, stairs, and other attached structures. Concrete structures are not likely to be damaged. Windblown objects striking exposed equipment can incur additional damage.

Tornado Scale:

EF Class	3-second gust (mph)
EF 0	65 to 85
EF 1	86 to 110
EF 2	111 to 135
EF 3	136 to 165
EF 4	166 to 200
EF 5	>200

3.0 REFERENCES

- MBWWTP Shelter in Place or Evacuation Procedures in ISS ERP
- Procedures for notification of an overflow caused by a flood refer to the SSORP and the *Sanitary Sewer Overflow (SSO) Reporting Procedures* (7-05)
- Procedures for *Pump Station and CSO Power Loss* (SOP Number PS-003)
- WRD ISS ERP
- *Employee Health and Safety Handbook (1983)*
- Safety Rules and PPE
- Traffic Control Procedures

4.0 ROLES AND RESPONSIBILITIES

Manager

- Contacts Meteorological Services to inform them of the situation, requests technical cause of event and a forecast regarding possible intensification.
- Approves requests for extra staff and equipment.
- Activates the ISS Emergency Response Plan, as required
- Appoints a staff member to facilitate follow up activities.
- Works with WRD Incident Command Team to complete Incident Action Plan (IAP) Forms

Supervisor

- Complies with all safety rules and regulations.
- Deploys staff and/or responds to tornado areas.
- Communicates the condition at the impacted locations.
- Requests extra staff and equipment be mobilized.
- Performs site remediation activities.

Crew Members

- Complies with all safety rules and regulations.
- Works unsupervised if required.
- Performs remediation activities as directed.

Dispatch Personnel

- Contacts the Manager if impacts from tornado are reported.

- Calls in extra dispatch staff if required.
- Dispatches staff as required or requested by the Manager or Supervisor.

Staff Member Appointed to Facilitate Follow up Activities

- Ensures all complaints, claims and paper work are collected.
- Investigates the causes of each complaint and claim if required.
- Compiles and organizes the data gathered during the storm event.
- Completes required paper work.
- Prepares a summary table of claims, complaints, and other relevant data.
- Forwards and/or files all information appropriately.
- Reviews the overall response to the storm event.
- Determines if all emergency needs had been met.
- Identifies and requests resources that may be required to respond better to future storm events.
- Updates this response procedure accordingly.

5.0 PREPARATION

- Identify equipment, location, and preparation activities such as moving critical equipment indoors, etc.
- Check and charge radios.
- Assure equipment and vehicles are full of fuel.
- Identify storm and tornado shelters located in the area of the station staff are located at and evacuate persons to these areas. (Shelters are designated at the MBWWTP)
- The Fire and Emergency Medical Services are responsible for the following duties during a Tornado Response.
    - Search and Rescue Activities
    - Medical Triage, Treatment and Transport
    - Control of Hazardous Situations
    - Fire Control and Property Conservation

WHEN TORNADO STORMS ARE APPROACHING:

All Department personnel should take cover and prepare as per Tornado Safety information, to insure the safety of all emergency personnel. Notify personnel via radio of approaching tornado.

Remember these storms include:

- Destructive Force Winds
- Large Hail
- Deadly Lightning
- Flying Debris

Take all precautions necessary to protect department personnel and equipment during this phase, and above all do not respond while a Tornado is on the ground.

6.0 RESPONSE

- In the event of a power loss – refer to power loss SOP.
- Identify safety precautions for electrical hazards and other hazards.
- Refer to the ISS ERP Action Plan 12 – Severe Weather
- In the event of loss of SCADA due to tornado impacts – dispatch crews to observe critical pump stations and CSOTFs, when safe to do so.
- Public Notification Procedures: Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.
- Notification of Regulatory Agencies: Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.
- Notification of downstream users of SSOs and/or CSOs - Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.

Example of other information to include: Following the Tornado event, when emergency response is required, the following **unsafe conditions may be present** while responding:

- Downed energized power-lines
- Trees, automobiles, buildings and debris may be blocking the street or roadway
- High water or flooded areas
- Escaping hazardous chemicals, liquids, or gases
- Injured people or animals lying in the street or adjacent easements

When responding, all personnel will follow the following rules:

- Life before Property
- Stabilize existing situations found during a response
- Advise the Manager when resources are low.
- Report all hazardous conditions to the Manager.

7.0 POST RESPONSE AND RECOVERY

- Conduct roll call and account for missing personnel.
- “All Clear” should be issued by Supervisor or identified “Person in charge”.
- Identify safety precautions when turning motors on (never turn on if submerged in water); identify electrical hazards in stations.
- Develop a Recovery Plan as identified in the ISS ERP.
- Additionally, equipment should be checked immediately for impact
- Assess damages, document, and photograph as needed for insurance purposes.
- Begin making repairs as instructed by the WRD Incident Command Team.

WASTE RESOURCES DIVISION
STANDARD OPERATING PROCEDURE

Title: **ISS EARTHQUAKE PREPARATION, RESPONSE, AND RECOVERY**

SOP Number	Revision Number	Approval Signature	Effective Date	Date of Last Review
ISS 004	01		2/1/2014	2/1/2014

1.0 PURPOSE AND GOALS

The following procedure applies to preparation, response, and recovery for earthquakes in the City of Chattanooga (City) that impact the Interceptor Sewer System (ISS). Goals include:

- To minimize property damage and personal injury because of an earthquake.
- To ensure emergency repairs are completed in a timely and efficient manner, while minimizing disruption in service to the customer.
- To acquire information on failures and deficiencies of the ISS system.

2.0 TECHNICAL OVERVIEW

Earthquakes can occur at any time during the year. Destruction incurred by an earthquake may be significant depending on the earthquake magnitude and distance from the epicenter. According to the Hamilton County Emergency Management Agency (HCEMA) Natural Hazard Mitigation Plan (2005), "Historic records for earthquake events are very limited in comparison to the geologic time scale. Hamilton County is in the East Tennessee Seismic Zone, the second most active seismic zone east of the Rocky Mountains. On April 29, 2003, a 4.9 magnitude earthquake with an epicenter located in Fort Payne, Alabama was felt in Hamilton County. There is a small but potentially serious risk from earthquake events." In addition, the HCEMA Natural Hazard Mitigation Plant states "earthquakes are common in the East Tennessee Seismic Zone, but rarely noticeable. A major earthquake could result in significant loss of property and life."

"The greatest danger from earthquakes comes from structural failures, disruption of utilities, and falling objects. Secondary effects include fires and dam failures. In 1993, a fault zone was identified in East Tennessee running roughly parallel to Interstate 75 between Chattanooga and Bristol."

In the event of an earthquake, the following guidelines should be followed:

- If caught inside a building, stand with your back against a strong indoor wall or get under a sturdy desk, table, or doorframe. Stay near the center of the building, away from glass doors and windows. STAY UNTIL THE SHAKING STOPS ENTIRELY.
- If outside during the earthquake, run to an open space away from trees, buildings, and electric lines.
- If in a moving vehicle, stop and stay inside.

- Do not re-enter damaged buildings until building inspectors have deemed them safe by for re-entry.
- After the earthquake, check yourself and those around you for injuries. Be prepared for aftershocks.

3.0 REFERENCES

- HCEMA Natural Hazard Mitigation Plan (2012)
- Procedures for notification of an overflow impact refer to the SSORP and the *Sanitary Sewer Overflow (SSO) Reporting Procedures* (7-05)
- Procedures for *Pump Station and CSO Power Loss* (SOP Number PS-003)
- WRD ISS ERP
- *Employee Health and Safety Handbook* (1983)
- Traffic Control Procedures

4.0 ROLES AND RESPONSIBILITIES

Manager
- Approves requests for extra staff and equipment.
- Activates the ISS Emergency Response Plan, as required
- Appoints a staff member to facilitate follow up activities.
- Works with WRD Incident Command Team to complete Incident Action Plan (IAP) Forms

Supervisor
- Complies with all safety rules and regulations.
- Deploys staff and/or responds to potential earthquake damage areas.
- Communicates the condition at the impacted locations.
- Requests extra staff and equipment be mobilized.

Crew Members
- Complies with all safety rules and regulations.
- Works unsupervised if required.

Dispatch Personnel
- Contacts the Manager if impacts from an earthquake are reported.
- Calls in extra dispatch staff if required.
- Dispatches staff as required or requested by the Manager or Supervisor.

Staff Member Appointed to Facilitate Follow up Activities
- Ensures all complaints, claims and paper work are collected.
- Investigates the causes of each complaint and claim if required.
- Compiles and organizes the data gathered after the earthquake event.
- Completes required paper work.
- Prepares a summary table of claims, complaints, and other relevant data.
- Forwards and/or files all information appropriately.

- Reviews the overall response to the earthquake event.
- Determines if all emergency needs had been met.
- Identifies and requests resources that may be required to respond better to future earthquake events.
- Updates this response procedure accordingly.

5.0 PREPARATION

- Identify facilities that can be used as shelters.
- The Fire and Emergency Medical Services are responsible for the following duties during an EARTHQUAKE RESPONSE.
    - Search and Rescue Activities
    - Medical Triage, Treatment and Transport
    - Control of Hazardous Situations
    - Fire Control and Property Conservation

6.0 RESPONSE

- In the event of a power loss – refer to power loss SOP.
- Identify safety precautions for electrical hazards and other hazards.
- In the event of loss of SCADA due to earthquake impacts – dispatch crews to observe critical pump stations and CSOTFs, when safe to do so.
- Public Notification Procedures: Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.
- Notification of Regulatory Agencies: Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.

Notification of downstream users of SSOs and/or CSOs - Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.

Example of other information to include: Following the earthquake event, when emergency response is required, the following **unsafe conditions may be present** while responding:

- Downed energized power-lines
- Trees, Automobiles, Buildings and Debris may be blocking the street or roadway
- Fires
- Escaping Hazardous Chemicals, Liquids or Gases
- Injured People or Animals lying in the street or adjacent easements

When responding, all personnel will follow the following rules:

- Life before Property
- Stabilize existing situations found during a response
- Advise the Manager when resources are low.
- Report all hazardous conditions to the Manager.

7.0 POST RESPONSE AND RECOVERY

- Identify safety precautions when turning motors on (never turn on if submerged in water); identify electrical hazards in stations.
- Develop a Recovery Plan as identified in the ISS ERP.
- Additionally, equipment should be checked immediately for any debris that may have impacted the equipment
- Assess damages, document, and photograph as needed for insurance purposes.
- Begin making repairs as instructed by the WRD Incident Command Team.

WASTE RESOURCES DIVISION
STANDARD OPERATING PROCEDURE

Title: **ISS WIDESPREAD ELECTRICAL OUTAGE PREPARATION, RESPONSE, AND RECOVERY**

SOP Number	Revision Number	Approval Signature	Effective Date	Date of Last Review
ISS 005	01		2/1/2014	2/1/2014

1.0 PURPOSE AND GOALS

The following procedure applies to preparation, response, and recovery from widespread electrical outage in the City of Chattanooga (City) that affects the Interceptor Sewer System (ISS). Goals include:

- To minimize property damage and personal injury because of an electrical outage.
- To ensure emergency electrical repairs are completed in a timely and efficient manner, while minimizing disruption in service to the customer.
- To acquire information on failures and deficiencies of the ISS system due to power outage.

2.0 TECHNICAL OVERVIEW

Widespread electrical outages may occur from severe weather events, earthquakes, power blackouts, etc. For the ISS system, power outages could affect CSOTFs and Pump Stations; emergency back-up power to these locations will be critical to maintaining the functions of the ISS.

3.0 REFERENCES

- Procedures for notification of an overflow caused by a widespread power event refer to the SSORP and the *Sanitary Sewer Overflow (SSO) Reporting Procedures* (7-05)
- Procedures for *Pump Station and CSO Power Loss* (SOP Number PS-003)
- Power Outage Studies for larger Stations
- Generator Set Up and Delivery SOP PS-004.
- WRD ISS ERP
- *Employee Health and Safety Handbook* (1993)
- Safety Rules and PPE

4.0 ROLES AND RESPONSIBILITIES

Manager

- Approves requests for extra staff and equipment.
- Activates the ISS Emergency Response Plan, as required.
- Appoints a staff member to facilitate follow up activities.

- Works with WRD Incident Command Team to complete Incident Action Plan (IAP) Forms, as needed depending on the scope of the emergency.
- Determines the cause of the outage in coordination with EPB Electric Power.

Supervisor
- Complies with all safety rules and regulations.
- Deploys staff and/or responds to stations.
- Communicates the condition at the impacted locations.
- Requests extra staff and equipment be mobilized.

Crew Members
- Complies with all safety rules and regulations.
- Works unsupervised if required.

Dispatch Personnel
- Contacts the Manager if impacts are reported.
- Calls in extra dispatch staff if required.
- Dispatches staff as required or requested by the Manager or Supervisor.

Staff Member Appointed to Facilitate Follow up Activities
- Ensures all complaints, claims and paper work are collected.
- Investigates the causes of each complaint and claim if required.
- Compiles and organizes the data gathered during the power outage event.
- Completes required paper work.
- Prepares a summary table of claims, complaints, and other relevant data.
- Forwards and/or files all information appropriately.
- Reviews the overall response to the event.
- Determines if all emergency needs had been met.
- Identifies and requests resources that may be required to respond better to future storm events.
- Updates this procedure accordingly and documents lessons learned.

5.0 PREPARATION

- Monitor severe weather advisories and associated operations / procedures to be undertaken to prepare for power outages, i.e. ensure adequate fuel is on hand; test the generators. Refer to existing Preventive Maintenance Procedure for generators.
- Refer to existing procedures for operating equipment in the event of a widespread power outage (i.e. identify portable generator location, size, frequency of diesel fuel needs, etc.)
- Check and charge radios, if power is available where necessary.
- Assure equipment and vehicles are full of fuel.

6.0 RESPONSE

The type and severity of the outage will affect the response methods in this procedure.

- Identify procedures for operating equipment in the event of a widespread power loss at applicable locations (i.e. provide back-up power and regular refueling intervals)
- Dispatch pumping station crew to the pumping station immediately. The crew should bring the auxiliary generator for that specific station as a backup.
- Identify safety precautions for electrical hazards and other hazards.
- Operations and Control will request the assistance of the power company in restoring power to the station if necessary. Determine the estimated time of arrival of the power company crew and then notify the pumping station operators.
- Pumping station operators should check the overhead power lines for fuses that might have blown or down power lines as they approach the pumping station. If the operators notice a blown fuse or down power line, identify the pole number(s), and notify Operations and Control to relay to the power company the location and the pole number(s). See Attached Station Location List.
- Lock out and tag out (LOTO) the main line, disconnect (if applicable).
- Go through procedures for starting the generator to supply power to the station.
- Obtain the services of a qualified generator repair facility to address the dedicated generator failure, if necessary.
- Once fully repaired, disconnect the portable generator and reconnect the dedicated unit. Operate the dedicated unit through several pump cycles. Check unit for regular exercise.
- Refer to the ISS ERP Action Plan 18 – Electrical Power Outages or Disruptions
- In the event of loss of SCADA due to power loss – dispatch crews to observe critical pump stations and CSOTFs, if safe to do so.
- Public Notification Procedures: Refer to the Crisis Communication Plan contained in the ISS ERP and the SSORP.
- Notification of Regulatory Agencies: Refer to the Crisis Communication Plan contained in the ISS ERP and the SSORP.
- Notification of downstream users of SSOs and/or CSOs - Refer reader to the Crisis Communication Plan contained in the ISS ERP and the SSORP.

7.0 POST RESPONSE AND RECOVERY

- Identify safety precautions when turning motors on (never turn on if submerged in water); identify electrical hazards in stations.
- Demobilization of temporary power source, if applicable.

STATION LOCATION INFORMATION

		Pole #	Meter #	Account #
MAJOR STATIONS				
19TH ST.	1000 West 19th St	M5P039	219726	260-0542.000
23RD ST.	299 Poss Dr Chatt,TN	M8990	231417	285-0911.000
CITICO	929 Riverside Dr Chatt, TN	M2853	246491	157-0413.000
COLLEGEDALE	5161 Ooltewah Ringgold Rd	0W4303	260733	183-0444.001
FRIAR BRANCH	3910 Juandale Trail Chatt,TN	R5P001	304672	248-0298.000
MT CREEK	115 Baylor School Rd Chatt,TN	B8273	291832	44-0810.000
ORCH KNOB WW	808 North Holtzclaw Chatt,TN	N8P03	652027	150-0629.000
SOUTH CHICK	4020 North Hawthorne Chatt,TN	N2P01M	257096	155-0778.000
TOTAL=8 STATIONS				
SMALL/MEDIUM STATIONS				
26TH ST.	2600 Carr St Chatt,TN	M8551T	149392	284-0020.000
AIRPORT #1	965 Airport Rd	X4P039	246581	222-2270.000
AIRPORT #2	850 Jubilee Dr Chatt,TN	R9191	286295	222-2122.000
ALTON PARK	3390 Hughes Ave Chatt,TN	L1686	283539	316-1638.001
ALTAMONT	2406 Highpoint Dr Chatt,TN	H3534	225395	147-0850.000
ARBOR CK.	2543 Arbor Creek Way Hixson TN	D8337	182595	126-0736.000
BATTERY PLACE	501 Battery Place Chatt,TN	M2054	160445	281-0062.000
BIG RIDGE 1	4790 Gann Store Rd Hixson,TN	D3096	231478	128-0874.000
BIG RIDGE 10	4029 Breakwater Dr Hixson,TN	D3P127	547441	122-1080.000
BIG RIDGE 11	5733 Lake Resort Terrace Hixson,TN	F3075	219768	123-1329.000
BIG RIDGE 12	5840 Lake Resort Ter Hix,TN	F5034	248776	123-1320.000
BIG RIDGE 13	4100 Lake Shore Ln Hixson,TN	FSP030	225832	123-1321.000
BIG RIDGE 14	1965 Hix Marina Rd Hixson,TN	C9149T	248817	124-1322.000
BIG RIDGE 2	4600 Gann Store Rd Hixsn,TN	D3477	212157	127-0996.000
BIG RIDGE 3	4714 Privateer Hixson,TN	D31028	248703	127-1019.000
BIG RIDGE 4	4736 Privateer Hixson,TN	D3P128	153956	127-1045.000
BIG RIDGE 5	4802 Woodland Cir Hixson,TN	D31026	248891	122-1008.000
BIG RIDGE 6	1908 Wisteria Dr Hixson,TN	D31030	248712	124-1008.000
BIG RIDGE 7	2224 Rambler Lane Hixson,TN	D3397	154515	124-1028.000

STATION LOCATION INFORMATION

BIG RIDGE 8	2226A Wisteria Dr Hixson TN	D3649	135519	124-1027.000
BIG RIDGE 9	6402A Lake Shadows Cir Hix,TN	D3845T	250850	122-1079.000
BOY SCOUT	811 Boyscout Rd Hixson,TN	C2933	510797	81-0810.000
BRAIN GOLF	5203 Old Mission Rd Chatt, TN	S3174	302938	223-0765.000
BRAIN. MAN.	4608 Rickey Dr Chatt,TN	R9165	136523	221-0002.000
DAVIDSON PLACE	1075 Dodie Dr Chatt,TN	23604	305775	198-1994.001
DUPONT IND PK	4520 Pinnacle Hixson,TN	F4738	261125	148-0803.000
DUPONT PKW PS	1610 Elm St Hixson,TN	F4727	261226	148-0777.000
EAST BRAINERD	3 Frawley Rd East Ridge,TN	Y2255	256664	254-0288.000
EASTGATE #1	6215 Brainerd Rd Chatt,TN	S6P015	510147	220-1094.000
EASTGATE #2	6045 Cornelison Rd Chatt,TN	Y4P042	298681	220-1069.001
ENTERPRISE	7141 Discovery Dr Chatt, TN	W2P010	253773	210-2008.000
FAGAN ST.	3816 Fagan St Chatt,TN	P3515	246985	316-0347.000
HERITAGE GREEN	653 Calloway Court Chatt,TN	Z3P236	272073	198-1715.000
HIGHLAND PK	2331 S Holtzclaw Chatt,TN	7347	510053	264-0791.000
HIXSON NO.1	4677 Adams Rd Hixson,TN	D8302	286171	142-0224.000
HIXSON NO.2	5401 Old Hixson Pike Rd Hixson,TN	D4401	260858	141-0311.000
HIXSON NO.3	5234Cassandra Smith Rd Hix,TN	D3963	248580	142-0240.000
KOMATSU	400 Runyan Dr Chatt,TN	G5299	212297	44-0828.000
LAKE VISTA	4537PeckingPaugh Dr Chatt,TN	Q36D5	266541	169-0023.000
LATTA ST.	1424 Latta St Chatt,TN	N6297	225386	157-0012.000
MANKAR PATTON	100 Douglas St. Chatt, TN	M2799	243502	NOT BILLED TO MBWWT
MEAD. TR.	4905 Meadow Trace Ln Hix,TN	DHP052	208710	142-0615.000
MURRY HILLS 1	4550 Webb Rd Chatt,TN	JR6104T	248787	167-0800.000
MURRY HILLS 2	4951 Bal Harbor Chatt TN	Q2673T	230856	167-0808.000
MURRY HILLS 3	4924 Bal Harbor Chatt,TN	Q2P028	225878	168-0767.000
MURRY HILLS 4	3707 Kings Rd Chatt, TN	Q2745	225793	167-0807.000
MURRY HILLS 5	3820 Kings Rd Chatt,TN	Q2747	225851	168-0766.000
PINE. RD.	1138 Pineville Rd Chatt,TN	G8307	134430	44-0694.000
RINGGOLD	75 Chrition Rd Ringgold,GA	411005525	93112567	36659103
RIVER PARK 1	4301 Amnicola Hwy. Chatt, Tn	N1249	221341	NOT BILLED TO MBWWT
RIVER PARK 2	4301 Amnicola Hwy. Chatt, Tn	N1138	221745	NOT BILLED TO MBWWT

STATION LOCATION INFORMATION

SPRING CREEK	250 Vero Beach North,GA	3004086	64595914		36659102
SUMMIT #1	4238 Old Woodland Dr Chatt, TN	Z9612	246491		NOT BILLED TO MBWWT
SUMMIT #2	4238 Old Woodland Dr Chatt, TN				NOT BILLED TO MBWWT
TIFTONIA 1	1006 Brown Ferry Rd Chatt,TN	18253	231391		318-0149.000
TIFTONIA 2	141 Brown Ferry Rd Chatt,TN	J4466	225387		310-0089.000
TIFTONIA 3	248 Aster Ave Chatt,TN	J7188	230866		312-0077.000
TIFTONIA 4	1305 Brown Ferry Rd Chatt,TN	12141	232179		318-0890.000
TIFTONIA 5	1339 Burgess Rd Chatt,TN	12143	248777		318-0896.000
VAAP	5480 Highway 58 Chatt,TN	JR51091	248831		166-1092.000
WEST CHICKAMAUGA	241 Lillian Dr Fort Oglethorpe, GA	3010226	28187187		NOT BILLED TO MBWWT
WILLLOW BEND	1646 Eucalyptus Dr Chatt,TN	R9030	160309		221-0010.000
TOTAL= 62					
STORM STATIONS					
EARL LANE SS	800 Lower Mill Rd Hixson,TN	D1201	225888		NOT BILLED TO MBWWT
NORTH TER	312 Howell St. Chatt,TN	S9140T	248704		NOT BILLED TO MBWWT
ORC. KNOB SS	808 North Holtzclaw Chatt,TN	1830	656960		NOT BILLED TO MBWWT
STORM STATION 1	5847 Brainerd Rd	53404	248623		NOT BILLED TO MBWWT
STORM STATION 2	5700 Cornelison Rd Chatt, TN	Y4163	254188		NOT BILLED TO MBWWT
STORM STATION 3	5502 Miller Dr. Chatt, TN	S6871	266573		NOT BILLED TO MBWWT
VALLEY BROOK	109 Valley Brook Circle Hixson,TN	C9272T	568543		NOT BILLED TO MBWWT
WARNER PARK SS#1	1254 E 3rd St Chatt,TN	03P024	300554		285-1585.001
WARNER PARK SS#2	1254 E 3rd St Chatt,TN	O1561	510052		285-1538.000
TOTAL= 9					
CSOTF					
19TH ST. CSO	1504 Riverfront Pky Chatt,TN	M5622	246804		260-0633.000
CARTER ST. CSO	West 20th 500 block	M5P038	256964		263-0878.000
CENTRAL AV. CSO	2700 Market St Chatt, TN	M8P010	260845		284-0990.000
CITICO CSO	201 Riverside Pky Chatt,TN	M2853	Digital		BILLED ON PUMP STATIO
MLK CSO	1015 Riverfront Pky Chatt,TN	31913	510188		260-0679.000

STATION LOCATION INFORMATION

ROSS LNDG CSO	201 Riverfront Pky Chatt, TN	M3579	225764	260-0337.000
WARNER PK CSO	1254 E. 3rd St. Chatt, TN	03541X6	Digital	NOT BILLED TO MBWWT
WILLIAMS ST. CSO	2705 Williams Street	M8466	230130	284-0979.000
TREMONT CSO	20 Tremont Street Chatt, Tn	H9P012	256864	46-1106.000
TOTAL= 9				
OTHER SITES				
17TH ST. Water Tower	28 W. Main St Chatt, TN	M6P045	272971	MBWWTP
CARTER ST. REG.	2701 Chestnut St Chatt, TN	M7263	138457	313-0901.000
DADE COUNTY	23 Belk Rd. Dade Cty, GA	424490	7271493	NOT BILLED TO MBWWT
DUPONT METERING	4500 N. Access Rd Chatt, TN	F4671	186225	148-0796.000
ENGLE STADIUM	506 Oneal St Chatt, TN	O1130	577037	283-1267.001
LOOKOUT MOUNTAIN	1413 Wood Nymph Trail	K7010	230231	NOT BILLED TO MBWWT
SIDNEY ST REG.	2801 Sidney Street	M8639	253860	313-0902.000
WALKER VAL. METERING	5700 Tennessee Ave, Chatt, TN	L4193	286301	NOT BILLED TO MBWWT
TOTAL=8				
TOTAL ALL SITES= 96				

Appendix C
Incident Action Plans

Unit Log

INCIDENT NAME:		DATE/TIME PREPARED:
Unit Name:	**Unit Leader:**	**Operational Period:**

Personnel Assigned		
Name	**ICS Position**	**City Department**

TIME	MAJOR EVENTS

PREPARED BY (Name and Position):		Page 1 of 2
APPROVED BY (Name and Position):		

TIME	MAJOR EVENTS

PREPARED BY (Name and Position):		Page 2 of 2
APPROVED BY (Name and Position):		

Incident Action Plan Forms

1. Incident Name	2. Operational Period to be covered by IAP (Date/Time)				IAP COVER SHEET
	From:		To:		

3. Approved by Incident Commander(s):

ORGANIZATION	NAME

INCIDENT ACTION PLAN

The items checked below are included in this Incident Action Plan:
Note: List all applicable ICS Forms used for the specific incident below and check boxes

- ☐ ICS 202 (Response Objectives)
- ☐ ICS 203 (Organization List) – OR – ICS 207 (Organization Chart)
- ☐ ICS 204 (Assignment Lists)
  One Copy each of any ICS 204-CG attachments:
- ☐ ICS 205 (Communications Plan)
- ☐ ICS 206 (Medical Plan)
- ☐ ICS 208 (Site Safety Plan) or Note SSP Location: _____
- ☒ Map/Chart
- ☒ Weather Forecast

Other Attachments

- ☒ Location Maps
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

4. Prepared by:		Date/Time	

INCIDENT BRIEFING (ICS 201)

1. Incident Name:	2. Incident Number:	3. Date/Time Initiated: Date: Date Time: HHMM

4. Map/Sketch (include sketch, showing the total area of operations, the incident site/area, impacted and threatened areas, overflight results, trajectories, impacted shorelines, or other graphics depicting situational status and resource assignment)**:**

5. Situation Summary and Health and Safety Briefing (for briefings or transfer of command)**:** Recognize potential incident Health and Safety Hazards and develop necessary measures (remove hazard, provide personal protective equipment, warn people of the hazard) to protect responders from those hazards.

6. Prepared by: Name: Position/Title: Signature: _____

ICS 201, Page 1 Date/Time: Date

INCIDENT BRIEFING (ICS 201)

1. Incident Name:	2. Incident Number:	3. Date/Time Initiated: Date: Date Time: HHMM

7. Current and Planned Objectives:

8. Current and Planned Actions, Strategies, and Tactics:

Time:	Actions:
HHMM	
HHMM	
HHMM	
HHMM	
HHMM	
HHMM	
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HHMM	
HHMM	
HHMM	

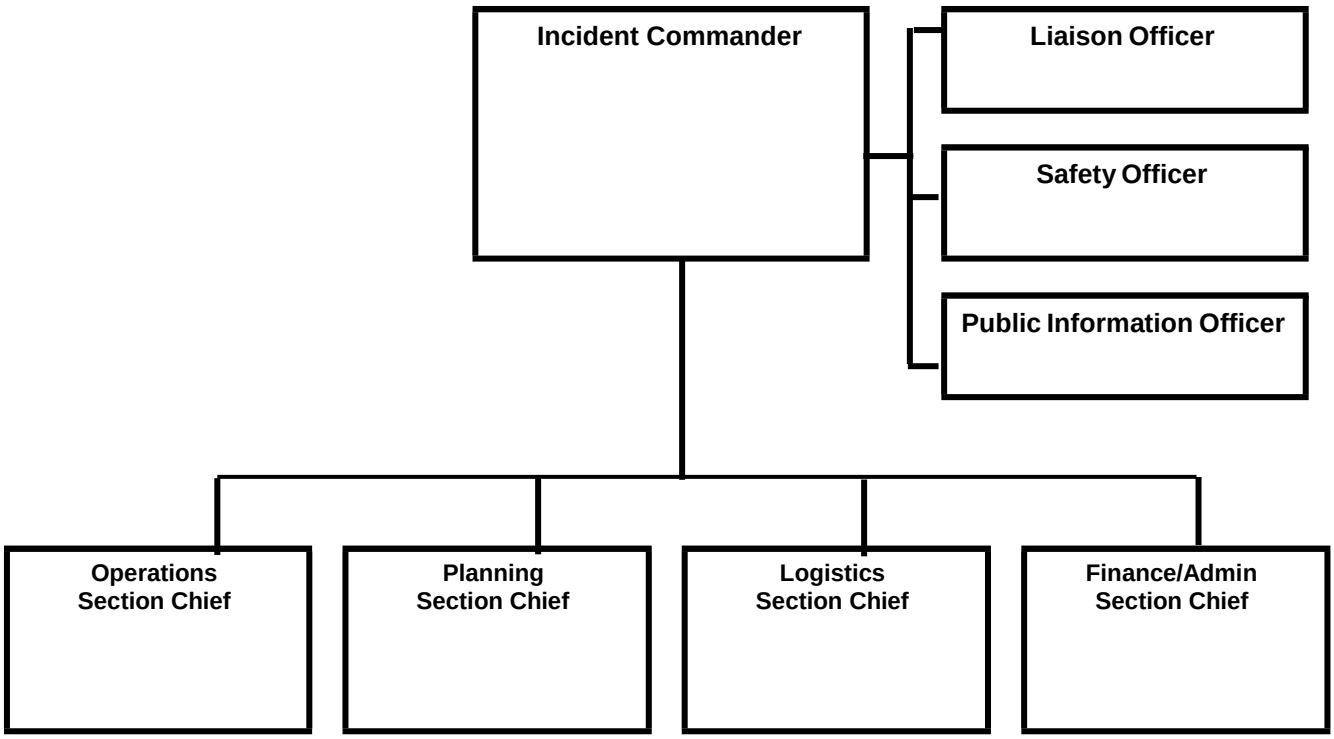
6. Prepared by: Name: Position/Title: Signature: _____

ICS 201, Page 2 Date/Time: Date

INCIDENT BRIEFING (ICS 201)

1. Incident Name:	2. Incident Number:	3. Date/Time Initiated: Date: Date Time: HHMM

9. Current Organization (fill in additional organization as appropriate)**:**



6. Prepared by: Name:	Position/Title:	Signature:
ICS 201, Page 3	Date/Time: Date	

INCIDENT BRIEFING (ICS 201)

1. Incident Name:	2. Incident Number:	3. Date/Time Initiated: Date: DateTime: HHMM

10. Resource Summary:

Resource	Resource Identifier	Date/Time Ordered	ETA	Arrived	Notes (location/assignment/status)
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	
				☐	

6. Prepared by: Name: Position/Title: Signature: _____

ICS 201, Page 4 Date/Time: Date

ICS 201
Incident Briefing

Purpose. The Incident Briefing (ICS 201) provides the Incident Commander (and the Command and General Staffs) with basic information regarding the incident situation and the resources allocated to the incident. In addition to a briefing document, the ICS 201 also serves as an initial action worksheet. It serves as a permanent record of the initial response to the incident.

Preparation. The briefing form is prepared by the Incident Commander for presentation to the incoming Incident Commander along with a more detailed oral briefing.

Distribution. Ideally, the ICS 201 is duplicated and distributed before the initial briefing of the Command and General Staffs or other responders as appropriate. The "Map/Sketch" and "Current and Planned Actions, Strategies, and Tactics" sections (pages 1–2) of the briefing form are given to the Situation Unit, while the "Current Organization" and "Resource Summary" sections (pages 3–4) are given to the Resources Unit.

Notes:

- The ICS 201 can serve as part of the initial Incident Action Plan (IAP).
- If additional pages are needed for any form page, use a blank ICS 201 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Incident Number**	Enter the number assigned to the incident.
3	**Date/Time Initiated** • Date, Time	Enter date initiated (month/day/year) and time initiated (using the 24-hour clock).
4	**Map/Sketch** (include sketch, showing the total area of operations, the incident site/area, impacted and threatened areas, overflight results, trajectories, impacted shorelines, or other graphics depicting situational status and resource assignment)	Show perimeter and other graphics depicting situational status, resource assignments, incident facilities, and other special information on a map/sketch or with attached maps. Utilize commonly accepted ICS map symbology. If specific geospatial reference points are needed about the incident's location or area outside the ICS organization at the incident, that information should be submitted on the Incident Status Summary (ICS 209). North should be at the top of page unless noted otherwise.
5	**Situation Summary and Health and Safety Briefing (**for briefings or transfer of command): Recognize potential incident Health and Safety Hazards and develop necessary measures (remove hazard, provide personal protective equipment, warn people of the hazard) to protect responders from those hazards.	Self-explanatory.
6	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position/title, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).
7	**Current and Planned Objectives**	Enter the objectives used on the incident and note any specific problem areas.

Block Number	Block Title	Instructions
8	**Current and Planned Actions, Strategies, and Tactics** • Time • Actions	Enter the current and planned actions, strategies, and tactics and time they may or did occur to attain the objectives. If additional pages are needed, use a blank sheet or another ICS 201 (Page 2), and adjust page numbers accordingly.
9	**Current Organization** (fill in additional organization as appropriate) • Incident Commander(s) • Liaison Officer • Safety Officer • Public Information Officer • Planning Section Chief • Operations Section Chief • Finance/Administration Section Chief • Logistics Section Chief	• Enter on the organization chart the names of the individuals assigned to each position. • Modify the chart as necessary, and add any lines/spaces needed for Command Staff Assistants, Agency Representatives, and the organization of each of the General Staff Sections. • If Unified Command is being used, split the Incident Commander box. • Indicate agency for each of the Incident Commanders listed if Unified Command is being used.
10	**Resource Summary**	Enter the following information about the resources allocated to the incident. If additional pages are needed, use a blank sheet or another ICS 201 (Page 4), and adjust page numbers accordingly.
	• Resource	Enter the number and appropriate category, kind, or type of resource ordered.
	• Resource Identifier	Enter the relevant agency designator and/or resource designator (if any).
	• Date/Time Ordered	Enter the date (month/day/year) and time (24-hour clock) the resource was ordered.
	• ETA	Enter the estimated time of arrival (ETA) to the incident (use 24-hour clock).
	• Arrived	Enter an “X” or a checkmark upon arrival to the incident.
	• Notes (location/ assignment/status)	Enter notes such as the assigned location of the resource and/or the actual assignment and status.

INCIDENT OBJECTIVES (ICS 202)

1. Incident Name:	2. Operational Period:	Date From: Date	Date To: Date
		Time From: HHMM	Time To: HHMM

3. Objective(s)://////////

4. Operational Period Command Emphasis:

General Situational Awareness

5. Site Safety Plan Required? Yes ☐ No ☐

Approved Site Safety Plan(s) Located at: _____

6. Incident Action Plan (the items checked below are included in this Incident Action Plan)**:**

☐ ICS 203	☐ ICS 207	Other Attachments:
☐ ICS 204	☐ ICS 208	☐ _____
☐ ICS 205	☐ Map/Chart	☐ _____
☐ ICS 205A	☐ Weather Forecast/Tides/Currents	☐ _____
☐ ICS 206		☐ _____

7. Prepared by: Name: Position/Title: Signature: _____

8. Approved by Incident Commander: Name: Signature: _____

ICS 202	IAP Page	Date/Time: Date

ICS 202
Incident Objectives

Purpose. The Incident Objectives (ICS 202) describes the basic incident strategy, incident objectives, command emphasis/priorities, and safety considerations for use during the next operational period.

– **Preparation.** The ICS 202 is completed by the Planning Section following each Command and General Staff meeting conducted to prepare the Incident Action Plan (IAP). In case of a Unified Command, one Incident Commander (IC) may approve the ICS 202. If additional IC signatures are used, attach a blank page.

Distribution. The ICS 202 may be reproduced with the IAP and may be part of the IAP and given to all supervisory personnel at the Section, Branch, Division/Group, and Unit levels. All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 202 is part of the IAP and can be used as the opening or cover page.
- If additional pages are needed, use a blank ICS 202 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident. If needed, an incident number can be added.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Objective(s)**	Enter clear, concise statements of the objectives for managing the response. Ideally, these objectives will be listed in priority order. These objectives are for the incident response for this operational period as well as for the duration of the incident. Include alternative and/or specific tactical objectives as applicable. Objectives should follow the SMART model or a similar approach: **S**pecific – Is the wording precise and unambiguous? **M**easurable – How will achievements be measured? **A**ction-oriented – Is an action verb used to describe expected accomplishments? **R**ealistic – Is the outcome achievable with given available resources? **T**ime-sensitive – What is the timeframe?
4	**Operational Period Command Emphasis**	Enter command emphasis for the operational period, which may include tactical priorities or a general weather forecast for the operational period. It may be a sequence of events or order of events to address. This is not a narrative on the objectives, but a discussion about where to place emphasis if there are needs to prioritize based on the Incident Commander's or Unified Command's direction. Examples: Be aware of falling debris, secondary explosions, etc.
	General Situational Awareness	General situational awareness may include a weather forecast, incident conditions, and/or a general safety message. If a safety message is included here, it should be reviewed by the Safety Officer to ensure it is in alignment with the Safety Message/Plan (ICS 208).
5	**Site Safety Plan Required?** Yes ☐ No ☐	Safety Officer should check whether or not a site safety plan is required for this incident.
	Approved Site Safety Plan(s) Located At	Enter the location of the approved Site Safety Plan(s).

Block Number	Block Title	Instructions
6	**Incident Action Plan** (the items checked below are included in this Incident Action Plan): ☐ ICS 203 ☐ ICS 204 ☐ ICS 205 ☐ ICS 205A ☐ ICS 206 ☐ ICS 207 ☐ ICS 208 ☐ Map/Chart ☐ Weather Forecast/ Tides/Currents Other Attachments:	Check appropriate forms and list other relevant documents that are included in the IAP. ☐ ICS 203 – Organization Assignment List ☐ ICS 204 – Assignment List ☐ ICS 205 – Incident Radio Communications Plan ☐ ICS 205A – Communications List ☐ ICS 206 – Medical Plan ☐ ICS 207 – Incident Organization Chart ☐ ICS 208 – Safety Message/Plan
7	**Prepared by** • Name • Position/Title • Signature	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).
8	**Approved by Incident Commander** • Name • Signature • Date/Time	In the case of a Unified Command, one IC may approve the ICS 202. If additional IC signatures are used, attach a blank page.

ORGANIZATION ASSIGNMENT LIST (ICS 203)

1. Incident Name:	2. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM

3. Incident Commander(s) and Command Staff:	
IC/UCs	
Deputy	
Safety Officer	
Public Info. Officer	
Liaison Officer	

4. Agency/Organization Representatives:	
Agency/Organization	Name

5. Planning Section:	
Chief	
Deputy	
Resources Unit	
Situation Unit	
Documentation Unit	
Demobilization Unit	
Technical Specialists	

6. Logistics Section:	
Chief	
Deputy	
Support Branch	
Director	
Supply Unit	
Facilities Unit	
Ground Support Unit	
Service Branch	
Director	
Communications Unit	
Medical Unit	
Food Unit	

7. Operations Section:		
Chief		
Deputy		
Staging Area		
Branch		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Branch		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Branch		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Air Operations Branch		
Air Ops Branch Dir.		

8. Finance/Administration Section:	
Chief	
Deputy	
Time Unit	
Procurement Unit	
Comp/Claims Unit	
Cost Unit	

9. Prepared by: Name:	Position/Title:	Signature: _____
ICS 203	**IAP Page**	Date/Time: Date

ICS 203
Organization Assignment List

Purpose. The Organization Assignment List (ICS 203) provides ICS personnel with information on the units that are currently activated and the names of personnel staffing each position/unit. It is used to complete the Incident Organization Chart (ICS 207) which is posted on the Incident Command Post display. An actual organization will be incident or event-specific. **Not all positions need to be filled.** Some blocks may contain more than one name. The size of the organization is dependent on the magnitude of the incident, and can be expanded or contracted as necessary.

Preparation. The Resources Unit prepares and maintains this list under the direction of the Planning Section Chief. Complete only the blocks for the positions that are being used for the incident. If a trainee is assigned to a position, indicate this with a "T" in parentheses behind the name (e.g., "A. Smith (T)").

Distribution. The ICS 203 is duplicated and attached to the Incident Objectives (ICS 202) and given to all recipients as part of the Incident Action Plan (IAP). All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 203 serves as part of the IAP.
- If needed, more than one name can be put in each block by inserting a slash.
- If additional pages are needed, use a blank ICS 203 and repaginate as needed.
- ICS allows for organizational flexibility, so the Intelligence/Investigations Function can be embedded in several different places within the organizational structure.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Incident Commander(s) and Command Staff** • IC/UCs • Deputy • Safety Officer • Public Information Officer • Liaison Officer	Enter the names of the Incident Commander(s) and Command Staff. Label Assistants to Command Staff as such (for example, "Assistant Safety Officer"). For all individuals, use at least the first initial and last name. For Unified Command, also include agency names.
4	**Agency/Organization Representatives** • Agency/Organization • Name	Enter the agency/organization names and the names of their representatives. For all individuals, use at least the first initial and last name.
5	**Planning Section** • Chief • Deputy • Resources Unit • Situation Unit • Documentation Unit • Demobilization Unit • Technical Specialists	Enter the name of the Planning Section Chief, Deputy, and Unit Leaders after each position title. List Technical Specialists with an indication of specialty. If there is a shift change during the specified operational period, list both names, separated by a slash. For all individuals, use at least the first initial and last name.

Block Number	Block Title	Instructions
6	**Logistics Section** • Chief • Deputy **Support Branch** • Director • Supply Unit • Facilities Unit • Ground Support Unit **Service Branch** • Director • Communications Unit • Medical Unit • Food Unit	Enter the name of the Logistics Section Chief, Deputy, Branch Directors, and Unit Leaders after each position title. If there is a shift change during the specified operational period, list both names, separated by a slash. For all individuals, use at least the first initial and last name.
7	**Operations Section** • Chief • Deputy • Staging Area **Branch** • Branch Director • Deputy • Division/Group **Air Operations Branch** • Air Operations Branch Director	Enter the name of the Operations Section Chief, Deputy, Branch Director(s), Deputies, and personnel staffing each of the listed positions. For Divisions/Groups, enter the Division/Group identifier in the left column and the individual's name in the right column. Branches and Divisions/Groups may be named for functionality or by geography. For Divisions/Groups, indicate Division/Group Supervisor. Use an additional page if more than three Branches are activated. If there is a shift change during the specified operational period, list both names, separated by a slash. For all individuals, use at least the first initial and last name.
8	**Finance/Administration Section** • Chief • Deputy • Time Unit • Procurement Unit • Compensation/Claims Unit • Cost Unit	Enter the name of the Finance/Administration Section Chief, Deputy, and Unit Leaders after each position title. If there is a shift change during the specified operational period, list both names, separated by a slash. For all individuals, use at least the first initial and last name.
9	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

ASSIGNMENT LIST (ICS 204)

1. Incident Name:	2. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM	3. Branch: Division: Group: Staging Area:

4. Operations Personnel:

	Name	Contact Number(s)
Operations Section Chief:		XXX-XXX-XXXX
Branch Director:		XXX-XXX-XXXX
Division/Group Supervisor:		XXX-XXX-XXXX

5. Resources Assigned:

Resource Identifier	Leader	# of Persons	Contact (e.g., phone, pager, radio frequency, etc.)	Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information

6. Work Assignments:

7. Special Instructions:

8. Communications (radio and/or phone contact numbers needed for this assignment)**:**

Name	/Function	Primary Contact: indicate cell, pager, or radio (frequency/system/channel)
	/	
	/	
	/	
	/	

9. Prepared by: Name: Position/Title: Signature: _____

ICS 204	IAP Page	Date/Time: Date

ICS 204
Assignment List

Purpose. The Assignment List(s) (ICS 204) informs Division and Group supervisors of incident assignments. Once the Command and General Staffs agree to the assignments, the assignment information is given to the appropriate Divisions and Groups.

Preparation. The ICS 204 is normally prepared by the Resources Unit, using guidance from the Incident Objectives (ICS 202), Operational Planning Worksheet (ICS 215), and the Operations Section Chief. It must be approved by the Incident Commander, but may be reviewed and initialed by the Planning Section Chief and Operations Section Chief as well.

Distribution. The ICS 204 is duplicated and attached to the ICS 202 and given to all recipients as part of the Incident Action Plan (IAP). In some cases, assignments may be communicated via radio/telephone/fax. All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 204 details assignments at Division and Group levels and is part of the IAP.
- Multiple pages/copies can be used if needed.
- If additional pages are needed, use a blank ICS 204 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Branch** **Division** **Group** **Staging Area**	This block is for use in a large IAP for reference only. Write the alphanumeric abbreviation for the Branch, Division, Group, and Staging Area (e.g., “Branch 1,” “Division D,” “Group 1A”) in large letters for easy referencing.
4	**Operations Personnel** • Name, Contact Number(s) – Operations Section Chief – Branch Director – Division/Group Supervisor	Enter the name and contact numbers of the Operations Section Chief, applicable Branch Director(s), and Division/Group Supervisor(s).
5	**Resources Assigned**	Enter the following information about the resources assigned to the Division or Group for this period:
	• Resource Identifier	The identifier is a unique way to identify a resource (e.g., ENG-13, IA-SCC-413). If the resource has been ordered but no identification has been received, use TBD (to be determined).
	• Leader	Enter resource leader’s name.
	• # of Persons	Enter total number of persons for the resource assigned, including the leader.
	• Contact (e.g., phone, pager, radio frequency, etc.)	Enter primary means of contacting the leader or contact person (e.g., radio, phone, pager, etc.). Be sure to include the area code when listing a phone number.
	• Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information	Provide special notes or directions specific to this resource. If required, add notes to indicate: (1) specific location/time where the resource should report or be dropped off/picked up; (2) special equipment and supplies that will be used or needed; (3) whether or not the resource received briefings; (4) transportation needs; or (5) other information.

Block Number	Block Title	Instructions
6	**Work Assignments**	Provide a statement of the tactical objectives to be achieved within the operational period by personnel assigned to this Division or Group.
7	**Special Instructions**	Enter a statement noting any safety problems, specific precautions to be exercised, dropoff or pickup points, or other important information.
8	**Communications** (radio and/or phone contact numbers needed for this assignment) • Name/Function • Primary Contact: indicate cell, pager, or radio (frequency/system/channel)	Enter specific communications information (including emergency numbers) for this Branch/Division/Group. If radios are being used, enter function (command, tactical, support, etc.), frequency, system, and channel from the Incident Radio Communications Plan (ICS 205). Phone and pager numbers should include the area code and any satellite phone specifics. In light of potential IAP distribution, use sensitivity when including cell phone number. Add a secondary contact (phone number or radio) if needed.
9	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

COMMUNICATIONS LIST (ICS 205A)

1. Incident Name:	2. Operational Period:	Date From: Date	Date To: Date
		Time From: HHMM	Time To: HHMM

3. Basic Local Communications Information:

Incident Assigned Position	Name (Alphabetized)	Method(s) of Contact (phone, pager, cell, etc.)

4. Prepared by: Name: Position/Title: Signature: _____

ICS 205A	IAP Page	Date/Time: Date

ICS 205A
Communications List

Purpose. The Communications List (ICS 205A) records methods of contact for incident personnel. While the Incident Radio Communications Plan (ICS 205) is used to provide information on all radio frequencies down to the Division/Group level, the ICS 205A indicates all methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.), and functions as an incident directory.

Preparation. The ICS 205A can be filled out during check-in and is maintained and distributed by Communications Unit personnel. This form should be updated each operational period.

Distribution. The ICS 205A is distributed within the ICS organization by the Communications Unit, and posted as necessary. All completed original forms must be given to the Documentation Unit. If this form contains sensitive information such as cell phone numbers, it should be clearly marked in the header that it contains sensitive information and is not for public release.

Notes:

- The ICS 205A is an optional part of the Incident Action Plan (IAP).
- This optional form is used in conjunction with the ICS 205.
- If additional pages are needed, use a blank ICS 205A and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Basic Local Communications Information**	Enter the communications methods assigned and used for personnel by their assigned ICS position.
	• Incident Assigned Position	Enter the ICS organizational assignment.
	• Name	Enter the name of the assigned person.
	• Method(s) of Contact (phone, pager, cell, etc.)	For each assignment, enter the radio frequency and contact number(s) to include area code, etc. If applicable, include the vehicle license or ID number assigned to the vehicle for the incident (e.g., HAZMAT 1, etc.).
4	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205)

1. Incident Name:	2. Date/Time Prepared: Date: Date Time: HHMM	3. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM

4. Basic Radio Channel Use:

Zone Grp.	Ch #	Function	Channel Name/Trunked Radio System Talkgroup	Assignment	RX Freq N or W	RX Tone/NAC	TX Freq N or W	TX Tone/NAC	Mode (A, D, or M)	Remarks

5. Special Instructions:

6. Prepared by (Communications Unit Leader)**:** Name: Signature: _____

ICS 205	IAP Page	Date/Time: Date

ICS 205
Incident Radio Communications Plan

Purpose. The Incident Radio Communications Plan (ICS 205) provides information on all radio frequency or trunked radio system talkgroup assignments for each operational period. The plan is a summary of information obtained about available radio frequencies or talkgroups and the assignments of those resources by the Communications Unit Leader for use by incident responders. Information from the Incident Radio Communications Plan on frequency or talkgroup assignments is normally placed on the Assignment List (ICS 204).

Preparation. The ICS 205 is prepared by the Communications Unit Leader and given to the Planning Section Chief for inclusion in the Incident Action Plan.

Distribution. The ICS 205 is duplicated and attached to the Incident Objectives (ICS 202) and given to all recipients as part of the Incident Action Plan (IAP). All completed original forms must be given to the Documentation Unit. Information from the ICS 205 is placed on Assignment Lists.

Notes:

- The ICS 205 is used to provide, in one location, information on all radio frequency assignments down to the Division/Group level for each operational period.
- The ICS 205 serves as part of the IAP.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Date/Time Prepared**	Enter date prepared (month/day/year) and time prepared (using the 24-hour clock).
3	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
4	**Basic Radio Channel Use**	Enter the following information about radio channel use:
	Zone Group	
	Channel Number	Use at the Communications Unit Leader's discretion. Channel Number (Ch #) may equate to the channel number for incident radios that are programmed or cloned for a specific Communications Plan, or it may be used just as a reference line number on the ICS 205 document.
	Function	Enter the Net function each channel or talkgroup will be used for (Command, Tactical, Ground-to-Air, Air-to-Air, Support, Dispatch).
	Channel Name/Trunked Radio System Talkgroup	Enter the nomenclature or commonly used name for the channel or talk group such as the National Interoperability Channels which follow DHS frequency Field Operations Guide (FOG).
	Assignment	Enter the name of the ICS Branch/Division/Group/Section to which this channel/talkgroup will be assigned.
	RX (Receive) Frequency (N or W)	Enter the Receive Frequency (RX Freq) as the mobile or portable subscriber would be programmed using xxx.xxxx out to four decimal places, followed by an "N" designating narrowband or a "W" designating wideband emissions. The name of the specific trunked radio system with which the talkgroup is associated may be entered across all fields on the ICS 205 normally used for conventional channel programming information.
	RX Tone/NAC	Enter the Receive Continuous Tone Coded Squelch System (CTCSS) subaudible tone (RX Tone) or Network Access Code (RX NAC) for the receive frequency as the mobile or portable subscriber would be programmed.

Block Number	Block Title	Instructions
4 (continued)	TX (Transmit) Frequency (N or W)	Enter the Transmit Frequency (TX Freq) as the mobile or portable subscriber would be programmed using xxx.xxxx out to four decimal places, followed by an "N" designating narrowband or a "W" designating wideband emissions.
	TX Tone/NAC	Enter the Transmit Continuous Tone Coded Squelch System (CTCSS) subaudible tone (TX Tone) or Network Access Code (TX NAC) for the transmit frequency as the mobile or portable subscriber would be programmed.
	Mode (A, D, or M)	Enter "A" for analog operation, "D" for digital operation, or "M" for mixed mode operation.
	Remarks	Enter miscellaneous information concerning repeater locations, information concerning patched channels or talkgroups using links or gateways, etc.
5	**Special Instructions**	Enter any special instructions (e.g., using cross-band repeaters, secure-voice, encoders, private line (PL) tones, etc.) or other emergency communications needs). If needed, also include any special instructions for handling an incident within an incident.
6	**Prepared by** (Communications Unit Leader) • Name • Signature • Date/Time	Enter the name and signature of the person preparing the form, typically the Communications Unit Leader. Enter date (month/day/year) and time prepared (24-hour clock).

MEDICAL PLAN (ICS 206)

1. Incident Name:	2. Operational Period:	Date From: Date	Date To: Date
		Time From: HHMM	Time To: HHMM

3. Medical Aid Stations:

Name	Location	Contact Number(s)/Frequency	Paramedics on Site?
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No

4. Transportation (indicate air or ground)**:**

Ambulance Service	Location	Contact Number(s)/Frequency	Level of Service
			☐ ALS ☐ BLS
			☐ ALS ☐ BLS
			☐ ALS ☐ BLS
			☐ ALS ☐ BLS

5. Hospitals:

Hospital Name	Address, Latitude & Longitude if Helipad	Contact Number(s)/ Frequency	Travel Time		Trauma Center	Burn Center	Helipad
			Air	Ground			
					☐ Yes Level: ____	☐ Yes ☐ No	☐ Yes ☐ No
					☐Yes Level: ____	☐ Yes ☐ No	☐ Yes ☐ No
					☐ Yes Level: ____	☐ Yes ☐ No	☐ Yes ☐ No
					☐ Yes Level: ____	☐ Yes ☐ No	☐ Yes ☐ No
					☐ Yes Level:	☐ Yes ☐ No	☐ Yes ☐ No

6. Special Medical Emergency Procedures:

☐ Check box if aviation assets are utilized for rescue. If assets are used, coordinate with Air Operations.

7. Prepared by (Medical Unit Leader)**:** Name: Signature: _____

8. Approved by (Safety Officer)**:** Name: Signature: _____

ICS 206	IAP Page	Date/Time: Date

ICS 206
Medical Plan

Purpose. The Medical Plan (ICS 206) provides information on incident medical aid stations, transportation services, hospitals, and medical emergency procedures.

Preparation. The ICS 206 is prepared by the Medical Unit Leader and reviewed by the Safety Officer to ensure ICS coordination. If aviation assets are utilized for rescue, coordinate with Air Operations.

Distribution. The ICS 206 is duplicated and attached to the Incident Objectives (ICS 202) and given to all recipients as part of the Incident Action Plan (IAP). Information from the plan pertaining to incident medical aid stations and medical emergency procedures may be noted on the Assignment List (ICS 204). All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 206 serves as part of the IAP.
- This form can include multiple pages.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Medical Aid Stations**	Enter the following information on the incident medical aid station(s):
	• Name	Enter name of the medical aid station.
	• Location	Enter the location of the medical aid station (e.g., Staging Area, Camp Ground).
	• Contact Number(s)/Frequency	Enter the contact number(s) and frequency for the medical aid station(s).
	• Paramedics on Site? ☐ Yes ☐ No	Indicate (yes or no) if paramedics are at the site indicated.
4	**Transportation** (indicate air or ground)	Enter the following information for ambulance services available to the incident:
	• Ambulance Service	Enter name of ambulance service.
	• Location	Enter the location of the ambulance service.
	• Contact Number(s)/Frequency	Enter the contact number(s) and frequency for the ambulance service.
	• Level of Service ☐ ALS ☐ BLS	Indicate the level of service available for each ambulance, either ALS (Advanced Life Support) or BLS (Basic Life Support).

Block Number	Block Title	Instructions
5	**Hospitals**	Enter the following information for hospital(s) that could serve this incident:
	• Hospital Name	Enter hospital name and identify any predesignated medivac aircraft by name a frequency.
	• Address, Latitude & Longitude if Helipad	Enter the physical address of the hospital and the latitude and longitude if the hospital has a helipad.
	• Contact Number(s)/ Frequency	Enter the contact number(s) and/or communications frequency(s) for the hospital.

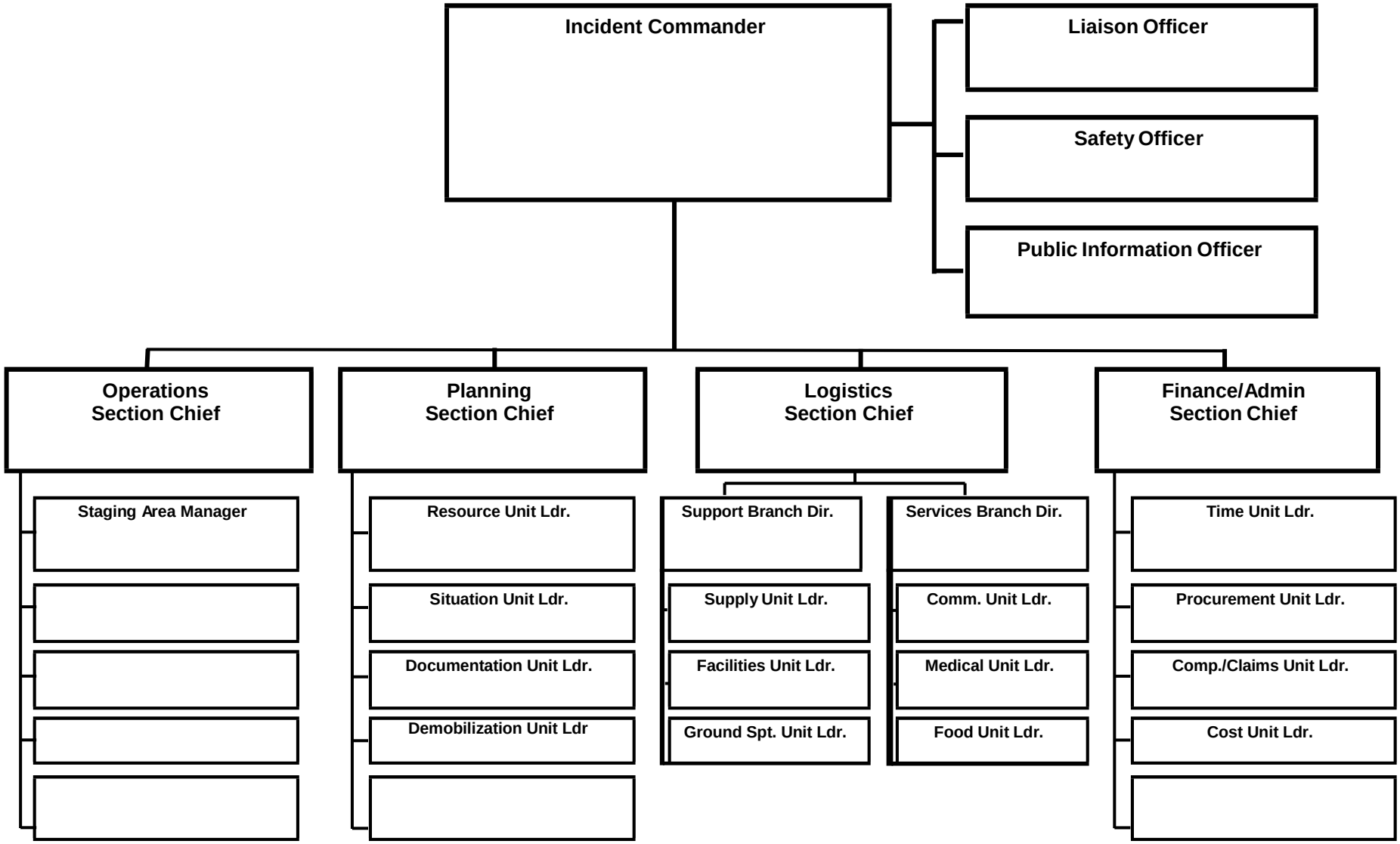
	• Travel Time
	  • Air
	  • Ground
		Enter the travel time by air and ground from the incident to the hospital.

	• Trauma Center ☐ Yes Level:_____	Indicate yes and the trauma level if the hospital has a trauma center.
	• Burn Center ☐ Yes ☐ No	Indicate (yes or no) if the hospital has a burn center.
	• Helipad ☐ Yes ☐ No	Indicate (yes or no) if the hospital has a helipad. Latitude and Longitude data format need to compliment Medical Evacuation Helicopters and Medical Air Resources
6	**Special Medical Emergency Procedures**	Note any special emergency instructions for use by incident personnel, including (1) who should be contacted, (2) how should they be contacted; and (3) who manages an incident within an incident due to a rescue, accident, etc. Include procedures for how to report medical emergencies.
	☐ Check box if aviation assets are utilized for rescue. If assets are used, coordinate with Air Operations.	Self explanatory. Incident assigned aviation assets should be included in ICS 220.
7	**Prepared by** (Medical Unit Leader) • Name • Signature	Enter the name and signature of the person preparing the form, typically the Medical Unit Leader. Enter date (month/day/year) and time prepared (24-hour clock).
8	**Approved by** (Safety Officer) • Name • Signature • Date/Time	Enter the name of the person who approved the plan, typically the Safety Officer. Enter date (month/day/year) and time reviewed (24-hour clock).

INCIDENT ORGANIZATION CHART (ICS 207)

1. Incident Name:	2. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM

3. Organization Chart



ICS 207	IAP Page	4. Prepared by: Name:	Position/Title:	Signature:	Date/Time:

ICS 207
Incident Organization Chart

Purpose. The Incident Organization Chart (ICS 207) provides a **visual wall chart** depicting the ICS organization position assignments for the incident. The ICS 207 is used to indicate what ICS organizational elements are currently activated and the names of personnel staffing each element. An actual organization will be event-specific. The size of the organization is dependent on the specifics and magnitude of the incident and is scalable and flexible. Personnel responsible for managing organizational positions are listed in each box as appropriate.

Preparation. The ICS 207 is prepared by the Resources Unit Leader and reviewed by the Incident Commander. Complete only the blocks where positions have been activated, and add additional blocks as needed, especially for Agency Representatives and all Operations Section organizational elements. For detailed information about positions, consult the NIMS ICS Field Operations Guide. The ICS 207 is intended to be used as a wall-size chart and printed on a plotter for better visibility. A chart is completed for each operational period, and updated when organizational changes occur.

Distribution. The ICS 207 is intended to be **wall mounted** at Incident Command Posts and other incident locations as needed, and is not intended to be part of the Incident Action Plan (IAP). All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 207 is intended to be **wall mounted** (printed on a plotter). Document size can be modified based on individual needs.
- Also available as 8½ x 14 (legal size) chart.
- ICS allows for organizational flexibility, so the Intelligence/Investigative Function can be embedded in several different places within the organizational structure.
- Use additional pages if more than three branches are activated. Additional pages can be added based on individual need (such as to distinguish more Division/Groups and Branches as they are activated).

Block Number	Block Title	Instructions
1	**Incident Name**	Print the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Organization Chart**	• Complete the incident organization chart. • For all individuals, use at least the first initial and last name. • List agency where it is appropriate, such as for Unified Commanders. • If there is a shift change during the specified operational period, list both names, separated by a slash.
4	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

SAFETY MESSAGE/PLAN (ICS 208)

1. Incident Name:	2. Operational Period:	Date From: Date	Date To: Date
		Time From: HHMM	Time To: HHMM

3. Safety Message/Expanded Safety Message, Safety Plan, Site Safety Plan:

4. Site Safety Plan Required? Yes ☐ No ☐
Approved Site Safety Plan(s) Located At:

5. Prepared by: Name:	Position/Title:	Signature:
ICS 208 | **IAP Page**	Date/Time: Date	

ICS 208
Safety Message/Plan

Purpose. The Safety Message/Plan (ICS 208) expands on the Safety Message and Site Safety Plan.

Preparation. The ICS 208 is an optional form that may be included and completed by the Safety Officer for the Incident Action Plan (IAP).

Distribution. The ICS 208, if developed, will be reproduced with the IAP and given to all recipients as part of the IAP. All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 208 may serve (optionally) as part of the IAP.
- Use additional copies for continuation sheets as needed, and indicate pagination as used.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Safety Message/Expanded Safety Message, Safety Plan, Site Safety Plan**	Enter clear, concise statements for safety message(s), priorities, and key command emphasis/decisions/directions. Enter information such as known safety hazards and specific precautions to be observed during this operational period. If needed, additional safety message(s) should be referenced and attached.
4	**Site Safety Plan Required?** Yes ☐ No ☐	Check whether or not a site safety plan is required for this incident.
	Approved Site Safety Plan(s) Located At	Enter where the approved Site Safety Plan(s) is located.
5	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

INCIDENT STATUS SUMMARY (ICS 209)

*1. Incident Name:			2. Incident Number:	
*3. Report Version (check one box on left): ☐ Initial Rpt # ☐ Update (if used): ☐ Final	*4. Incident Commander(s) & Agency or Organization:		5. Incident Management Organization:	*6. Incident Start Date/Time: Date: Time: Time Zone:
7. Current Incident Size or Area Involved (use unit label – e.g., "sq mi," "city block"):	8. Percent (%) Contained Completed	*9. Incident Definition:	10. Incident Complexity Level:	*11. For Time Period: From Date/Time: To Date/Time:

Approval & Routing Information

*12. Prepared By: Print Name: ICS Position: Date/Time Prepared:	*13. Date/Time Submitted Time Zone:
*14. Approved By: Print Name: ICS Position: Signature:	*15. Primary Location, Organization, or Agency Sent To:

Incident Location Information

*16. State:	*17. County/Parish/Borough:	*18. City:
19. Unit or Other:	*20. Incident Jurisdiction:	21. Incident Location Ownership (if different than jurisdiction):
22. Longitude (indicate format): Latitude (indicate format):	23. US National Grid Reference:	24. Legal Description (township, section, range):
*25. Short Location or Area Description (list all affected areas or a reference point):		26. UTM Coordinates:
27. Note any electronic geospatial data included or attached (indicate data format, content, and collection time information and labels):		

Incident Summary

*28. Significant Events for the Time Period Reported (summarize significant progress made, evacuations, incident growth, etc.):				
29. Primary Materials or Hazards Involved (hazardous chemicals, fuel types, infectious agents, radiation, etc.):				
30. Damage Assessment Information (summarize damage and/or restriction of use or availability to residential or commercial property, natural resources, critical infrastructure and key resources, etc.):	A. Structural Summary	B. # Threatened (72 hrs)	C. # Damaged	D. # Destroyed
	E. Single Residences			
	F. Nonresidential Commercial Property			
	Other Minor Structures			
	Other			

ICS 209, Page 1 of	* Required when applicable.

INCIDENT STATUS SUMMARY (ICS 209)

***1. Incident Name:** **2. Incident Number:**

Additional Incident Decision Support Information

***31. Public Status Summary:**	A. # This Reporting Period	B. Total # to Date	***32. Responder Status Summary:**	A. # This Reporting Period	B. Total # to Date
C. Indicate Number of Civilians (Public) Below:			*C. Indicate Number of Responders Below:*		
D. Fatalities			D. Fatalities		
E. With Injuries/Illness			E. With Injuries/Illness		
F. Trapped/In Need of Rescue			F. Trapped/In Need of Rescue		
G. Missing *(note if estimated)*			G. Missing		
H. Evacuated *(note if estimated)*			H. Sheltering in Place		
I. Sheltering in Place *(note if estimated)*			I. Have Received Immunizations		
J. In Temporary Shelters *(note if est.)*			J. Require Immunizations		
K. Have Received Mass Immunizations			K. In Quarantine		
L. Require Immunizations *(note if est.)*					
M. In Quarantine					
N. Total # Civilians (Public) Affected:			*N. Total # Responders Affected:*		

33. Life, Safety, and Health Status/Threat Remarks:

35. Weather Concerns (synopsis of current and predicted weather; discuss related factors that may cause concern):

***34. Life, Safety, and Health Threat Management:**	A. Check if Active
A. No Likely Threat	☐
B. Potential Future Threat	☐
C. Mass Notifications in Progress	☐
D. Mass Notifications Completed	☐
E. No Evacuation(s) Imminent	☐
F. Planning for Evacuation	☐
G. Planning for Shelter-in-Place	☐
H. Evacuation(s) in Progress	☐
I. Shelter-in-Place in Progress	☐
J. Repopulation in Progress	☐
K. Mass Immunization in Progress	☐
L. Mass Immunization Complete	☐
M. Quarantine in Progress	☐
N. Area Restriction in Effect	☐
	☐
	☐
	☐
	☐

36. Projected Incident Activity, Potential, Movement, Escalation, or Spread and influencing factors during the next operational period and in 12-, 24-, 48-, and 72-hour timeframes:

12 hours:

24 hours:

48 hours:

72 hours:

Anticipated after 72 hours:

37. Strategic Objectives (define planned end-state for incident)**:**

ICS 209, Page 2 of ** Required when applicable.*

INCIDENT STATUS SUMMARY (ICS 209)

***1. Incident Name:**	**2. Incident Number:**

Additional Incident Decision Support Information *(continued)*

38. Current Incident Threat Summary and Risk Information in 12-, 24-, 48-, and 72-hour timeframes and beyond. Summarize primary incident threats to life, property, communities and community stability, residences, health care facilities, other critical infrastructure and key resources, commercial facilities, natural and environmental resources, cultural resources, and continuity of operations and/or business. Identify corresponding incident-related potential economic or cascading impacts.

12 hours:

24 hours:

48 hours:

72 hours:

Anticipated after 72 hours:

39. Critical Resource Needs in 12-, 24-, 48-, and 72-hour timeframes and beyond to meet critical incident objectives. List resource category, kind, and/or type, and amount needed, in priority order:

12 hours:

24 hours:

48 hours:

72 hours:

Anticipated after 72 hours:

40. Strategic Discussion: Explain the relation of overall strategy, constraints, and current available information to:

1) critical resource needs identified above,
2) the Incident Action Plan and management objectives and targets,
3) anticipated results.

Explain major problems and concerns such as operational challenges, incident management problems, and social, political, economic, or environmental concerns or impacts.

41. Planned Actions for Next Operational Period:

42. Projected Final Incident Size/Area (use unit label – e.g., "sq mi")**:**

43. Anticipated Incident Management Completion Date:

44. Projected Significant Resource Demobilization Start Date:

45. Estimated Incident Costs to Date:

46. Projected Final Incident Cost Estimate:

47. Remarks (or continuation of any blocks above – list block number in notation)**:**

ICS 209, Page 3 of	** Required when applicable.*

INCIDENT STATUS SUMMARY (ICS 209)

1. Incident Name:	2. Incident Number:

Incident Resource Commitment Summary

48. Agency or Organization:	**49. Resources** (summarize resources by category, kind, and/or type; show # of resources on top ½ of box, show # of personnel associated with resource on bottom ½ of box)**:**															**50. Additional Personnel** not assigned to a resource**:**	**51. Total Personnel** (includes those associated with resources – e.g., aircraft or engines – *and* individual overhead)**:**
52. Total Resources																	

53. Additional Cooperating and Assisting Organizations Not Listed Above:

ICS 209
Incident Status Summary

Purpose. The ICS 209 is used for reporting information on significant incidents. It is not intended for every incident, as most incidents are of short duration and do not require scarce resources, significant mutual aid, or additional support and attention. The ICS 209 contains basic information elements needed to support decision-making at all levels above the incident to support the incident. Decision makers may include the agency having jurisdiction, but also all multiagency coordination system (MACS) elements and parties, such as cooperating and assisting agencies/organizations, dispatch centers, emergency operations centers, administrators, elected officials, and local, tribal, county, State, and Federal agencies. Once ICS 209 information has been submitted from the incident, decision makers and others at all incident support and coordination points may transmit and share the information (based on its sensitivity and appropriateness) for access and use at local, regional, State, and national levels as it is needed to facilitate support.

Accurate and timely completion of the ICS 209 is necessary to identify appropriate resource needs, determine allocation of limited resources when multiple incidents occur, and secure additional capability when there are limited resources due to constraints of time, distance, or other factors. The information included on the ICS 209 influences the priority of the incident, and thus its share of available resources and incident support.

The ICS 209 is designed to provide a "snapshot in time" to effectively move incident decision support information where it is needed. It should contain the most accurate and up-to-date information available at the time it is prepared. However, readers of the ICS 209 may have access to more up-to-date or real-time information in reference to certain information elements on the ICS 209. Coordination among communications and information management elements within ICS and among MACS should delineate authoritative sources for more up-to-date and/or real-time information when ICS 209 information becomes outdated in a quickly evolving incident.

Reporting Requirements. The ICS 209 is intended to be used when an incident reaches a certain threshold where it becomes significant enough to merit special attention, require additional resource support needs, or cause media attention, increased public safety threat, etc. Agencies or organizations may set reporting requirements and, therefore, ICS 209s should be completed according to each jurisdiction or discipline's policies, mobilization guide, or preparedness plans. It is recommended that consistent ICS 209 reporting parameters be adopted and used by jurisdictions or disciplines for consistency over time, documentation, efficiency, trend monitoring, incident tracking, etc.

For example, an agency or MAC (Multiagency Coordination) Group may require the submission of an initial ICS 209 when a new incident has reached a certain predesignated level of significance, such as when a given number of resources are committed to the incident, when a new incident is not completed within a certain timeframe, or when impacts/threats to life and safety reach a given level.

Typically, ICS 209 forms are completed either once daily or for each operational period – in addition to the initial submission. Jurisdictional or organizational guidance may indicate frequency of ICS 209 submission for particular definitions of incidents or for all incidents. This specific guidance may help determine submission timelines when operational periods are extremely short (e.g., 2 hours) and it is not necessary to submit new ICS 209 forms for all operational periods.

Any plans or guidelines should also indicate parameters for when it is appropriate to stop submitting ICS 209s for an incident, based upon incident activity and support levels.

Preparation. When an Incident Management Organization (such as an Incident Management Team) is in place, the Situation Unit Leader or Planning Section Chief prepares the ICS 209 at the incident. On other incidents, the ICS 209 may be completed by a dispatcher in the local communications center, or by another staff person or manager. This form should be completed at the incident or at the closest level to the incident.

The ICS 209 should be completed with the best possible, currently available, and verifiable information at the time it is completed and signed.

This form is designed to serve incidents impacting specific geographic areas that can easily be defined. It also has the flexibility for use on ubiquitous events, or those events that cover extremely large areas and that may involve many jurisdictions and ICS organizations. For these incidents, it will be useful to clarify on the form exactly which portion of the larger incident the ICS 209 is meant to address. For example, a particular ICS 209 submitted during a statewide outbreak of mumps may be relevant only to mumps-related activities in Story County, Iowa. This can be indicated in both the incident name, Block 1, and in the Incident Location Information section in Blocks 16–26.

While most of the "Incident Location Information" in Blocks 16–26 is optional, the more information that can be submitted, the better. Submission of multiple location indicators increases accuracy, improves interoperability, and increases information sharing between disparate systems. Preparers should be certain to follow accepted protocols or standards when entering location information, and clearly label all location information. As with other ICS 209 data, geospatial information may be widely shared and utilized, so accuracy is essential.

If electronic data is submitted with the ICS 209, do not attach or send extremely large data files. Incident geospatial data that is distributed with the ICS 209 should be in simple incident geospatial basics, such as the incident perimeter, point of origin, etc. Data file sizes should be small enough to be easily transmitted through dial-up connections or other limited communications capabilities when ICS 209 information is transmitted electronically. Any attached data should be clearly labeled as to format content and collection time, and should follow existing naming conventions and standards.

Distribution. ICS 209 information is meant to be completed at the level as close to the incident as possible, preferably at the incident. Once the ICS 209 has been submitted outside the incident to a dispatch center or MACS element, it may subsequently be transmitted to various incident supports and coordination entities based on the support needs and the decisions made within the MACS in which the incident occurs.

Coordination with public information system elements and investigative/intelligence information organizations at the incident and within MACS is essential to protect information security and to ensure optimal information sharing and coordination. There may be times in which particular ICS 209s contain sensitive information that should not be released to the public (such as information regarding active investigations, fatalities, etc.). When this occurs, the ICS 209 (or relevant sections of it) should be labeled appropriately, and care should be taken in distributing the information within MACS.

All completed and signed original ICS 209 forms MUST be given to the incident's Documentation Unit and/or maintained as part of the official incident record.

Notes:

- To promote flexibility, only a limited number of ICS 209 blocks are typically required, and most of those are required only when applicable.
- Most fields are optional, to allow responders to use the form as best fits their needs and protocols for information collection.
- For the purposes of the ICS 209, responders are those personnel who are assigned to an incident or who are a part of the response community as defined by NIMS. This may include critical infrastructure owners and operators, nongovernmental and nonprofit organizational personnel, and contract employees (such as caterers), depending on local/jurisdictional/disciplinepractices.
- For additional flexibility only pages 1–3 are numbered, for two reasons:
  - Possible submission of additional pages for the Remarks Section (Block 47), and
  - Possible submission of additional copies of the fourth/last page (the "Incident Resource Commitment Summary") to provide a more detailed resource summary.

Block Number	Block Title	Instructions
*1	**Incident Name**	**REQUIRED BLOCK.** • Enter the full name assigned to the incident. • Check spelling of the full incident name. • For an incident that is a Complex, use the word "Complex" at the end of the incident name. • If the name changes, explain comments in Remarks, Block 47. • Do not use the same incident name for different incidents in the same calendar year.

Block Number	Block Title	Instructions
2	**Incident Number**	• Enter the appropriate number based on current guidance. The incident number may vary by jurisdiction and discipline. • Examples include: o A computer-aided dispatch (CAD) number. o An accounting number. o A county number. o A disaster declaration number. o A combination of the State, unit/agency ID, and a dispatch system number. o A mission number. o Any other unique number assigned to the incident and derived by means other than those above. • Make sure the number entered is correct. • Do not use the same incident number for two different incidents in the same calendar year. • Incident numbers associated with host jurisdictions or agencies and incident numbers assigned by agencies represented in Unified Command should be listed, or indicated in Remarks, Block 47.
***3**	**Report Version** (check one box on left)	**REQUIRED BLOCK.** • This indicates the current version of the ICS 209 form being submitted. • If only one ICS 209 will be submitted, check BOTH "Initial" and "Final" (or check only "Final").
	☐ Initial	Check "Initial" if this is the first ICS 209 for this incident.
	☐ Update	Check "Update" if this is a subsequent report for the same incident. These can be submitted at various time intervals (see "Reporting Requirements" above).
	☐ Final	• Check "Final" if this is the last ICS 209 to be submitted for this incident (usually when the incident requires only minor support that can be supplied by the organization having jurisdiction). • Incidents may also be marked as "Final" if they become part of a new Complex (when this occurs, it can be indicated in Remarks, Block 47).
	Report # (if used)	Use this optional field if your agency or organization requires the tracking of ICS 209 report numbers. Agencies may also track the ICS 209 by the date/time submitted.
***4**	**Incident Commander(s) & Agency or Organization**	**REQUIRED BLOCK.** • Enter both the first and last name of the Incident Commander. • If the incident is under a Unified Command, list all Incident Commanders by first initial and last name separated by a comma, including their organization. For example: L. Burnett – Minneapolis FD, R. Domanski – Minneapolis PD, C. Taylor – St. Paul PD, Y. Martin – St. Paul FD, S. McIntyre – U.S. Army Corps, J. Hartl – NTSB
5	**Incident Management Organization**	Indicate the incident management organization for the incident, which may be a Type 1, 2, or 3 Incident Management Team (IMT), a Unified Command, a Unified Command with an IMT, etc. This block should not be completed unless a recognized incident management organization is assigned to the incident.

Block Number	Block Title	Instructions
*6	**Incident Start Date/Time**	**REQUIRED.** This is always the start date and time of the incident (not the report date and time or operational period).
	Date	Enter the start date (month/day/year).
	Time	Enter the start time (using the 24-hour clock).
	Time Zone	Enter the time zone of the incident (e.g., EDT, PST).
7	**Current Incident Size or Area Involved** (use unit label – e.g., "sq mi," "city block")	• Enter the appropriate incident descriptive size or area involved (acres, number of buildings, square miles, hectares, square kilometers, etc.). • Enter the total area involved for incident Complexes in this block, and list each sub-incident and size in Remarks (Block 47). • Indicate that the size is an estimate, if a more specific figure is not available. • Incident size may be a population figure rather than a geographic figure, depending on the incident definition and objectives. • If the incident involves more than one jurisdiction or mixed ownership, agencies/organizations may require listing a size breakdown by organization, or including this information in Remarks (Block 47). • The incident may be one part of a much larger event (refer to introductory instructions under "Preparation). Incident size/area depends on the area actively managed within the incident objectives and incident operations, and may also be defined by a delegation of authority or letter of expectation outlining management bounds.
8	**Percent (%) Contained or Completed** (circle one)	• Enter the percent that this incident is completed or contained (e.g., 50%), with a % label. • For example, a spill may be 65% contained, or flood response objectives may be 50% met.
*9	**Incident Definition**	**REQUIRED BLOCK.** Enter a general definition of the incident in this block. This may be a general incident category or kind description, such as "tornado," "wildfire," "bridge collapse," "civil unrest," "parade," "vehicle fire," "mass casualty," etc.
10	**Incident Complexity Level**	Identify the incident complexity level as determined by Unified/Incident Commanders, if available or used.
*11	**For Time Period**	**REQUIRED BLOCK.** • Enter the time interval for which the form applies. This period should include all of the time since the last ICS 209 was submitted, or if it is the initial ICS 209, it should cover the time lapsed since the incident started. • The time period may include one or more operational periods, based on agency/organizational reporting requirements.
	From Date/Time	• Enter the start date (month/day/year). • Enter the start time (using the 24-hour clock).
	To Date/Time	• Enter the end date (month/day/year). • Enter the end time (using the 24-hour clock).

Block Number	Block Title	Instructions
APPROVAL & ROUTING INFORMATION		
***12**	**Prepared By**	**REQUIRED BLOCK.** When an incident management organization is in place, this would be the Situation Unit Leader or Planning Section Chief at the incident. On other incidents, it could be a dispatcher in the local emergency communications center, or another staff person or manager.
	Print Name	Print the name of the person preparing the form.
	ICS Position	The ICS title of the person preparing the form (e.g., "Situation Unit Leader").
	Date/Time Prepared	Enter the date (month/day/year) and time (using the 24-hour clock) the form was prepared. Enter the time zone if appropriate.
***13**	**Date/Time Submitted**	**REQUIRED.** Enter the submission date (month/day/year) and time (using the 24-hour clock).
	Time Zone	Enter the time zone from which the ICS 209 was submitted (e.g., EDT, PST).
***14**	**Approved By**	**REQUIRED.** When an incident management organization is in place, this would be the Planning Section Chief or Incident Commander at the incident. On other incidents, it could be the jurisdiction's dispatch center manager, organizational administrator, or other manager.
	Print Name	Print the name of the person approving the form.
	ICS Position	The position of the person signing the ICS 209 should be entered (e.g., "Incident Commander").
	Signature	Signature of the person approving the ICS 209, typically the Incident Commander. The original signed ICS 209 should be maintained with other incident documents.
***15**	**Primary Location, Organization, or Agency Sent To**	**REQUIRED BLOCK.** Enter the appropriate primary location or office the ICS 209 was sent to apart from the incident. This most likely is the entity or office that ordered the incident management organization that is managing the incident. This may be a dispatch center or a MACS element such as an emergency operations center. If a dispatch center or other emergency center prepared the ICS 209 for the incident, indicate where it was submitted initially.
INCIDENT LOCATION INFORMATION		
• Much of the "Incident Location Information" in Blocks 16–26 is optional, but completing as many fields as possible increases accuracy, and improves interoperability and information sharing between disparate systems. • As with all ICS 209 information, accuracy is essential because the information may be widely distributed and used in a variety of systems. Location and/or geospatial data may be used for maps, reports, and analysis by multiple parties outside the incident. • Be certain to follow accepted protocols, conventions, or standards where appropriate when submitting location information, and clearly label all location information. • Incident location information is usually based on the point of origin of the incident, and the majority of the area where the incident jurisdiction is.		
***16**	**State**	**REQUIRED BLOCK WHEN APPLICABLE.** • Enter the State where the incident originated. • If other States or jurisdictions are involved, enter them in Block 25 or Block 44.

Block Number	Block Title	Instructions
*17	**County / Parish / Borough**	**REQUIRED BLOCK WHEN APPLICABLE.** • Enter the county, parish, or borough where the incident originated. • If other counties or jurisdictions are involved, enter them in Block 25 or Block 47.
*18	**City**	**REQUIRED BLOCK WHEN APPLICABLE.** • Enter the city where the incident originated. • If other cities or jurisdictions are involved, enter them in Block 25 or Block 47.
19	**Unit or Other**	Enter the unit, sub-unit, unit identification (ID) number or code (if used), or other information about where the incident originated. This may be a local identifier that indicates primary incident jurisdiction or responsibility (e.g., police, fire, public works, etc.) or another type of organization. Enter specifics in Block 25.
*20	**Incident Jurisdiction**	**REQUIRED BLOCK WHEN APPLICABLE.** Enter the jurisdiction where the incident originated (the entry may be general, such as Federal, city, or State, or may specifically identify agency names such as Warren County, U.S. Coast Guard, Panama City, NYPD).
21	**Incident Location Ownership** (if different than jurisdiction)	• When relevant, indicate the ownership of the area where the incident originated, especially if it is different than the agency having jurisdiction. • This may include situations where jurisdictions contract for emergency services, or where it is relevant to include ownership by private entities, such as a large industrial site.
22	**22. Longitude** (indicate format)**:** **Latitude** (indicate format)**:**	• Enter the longitude and latitude where the incident originated, if available and normally used by the authority having jurisdiction for the incident. • Clearly label the data, as longitude and latitude can be derived from various sources. For example, if degrees, minutes, and seconds are used, label as “33 degrees, 45 minutes, 01 seconds.”
23	**US National Grid Reference**	• Enter the US National Grid (USNG) reference where the incident originated, if available and commonly used by the agencies/jurisdictions with primary responsibility for the incident. • Clearly label the data.
24	**Legal Description** (township, section, range)	• Enter the legal description where the incident originated, if available and commonly used by the agencies/jurisdictions with primary responsibility for the incident. • Clearly label the data (e.g., N 1/2 SE 1/4, SW 1/4, S24, T32N, R18E).
*25	**Short Location or Area Description** (list all affected areas or a reference point)	**REQUIRED BLOCK.** • List all affected areas as described in instructions for Blocks 16–24 above, OR summarize a general location, OR list a reference point for the incident (e.g., “the southern third of Florida,” “in ocean 20 miles west of Catalina Island, CA,” or “within a 5 mile radius of Walden, CO”). • This information is important for readers unfamiliar with the area (or with other location identification systems) to be able to quickly identify the general location of the incident on a map. • Other location information may also be listed here if needed or relevant for incident support (e.g., base meridian).
26	**UTM Coordinates**	Indicate Universal Transverse Mercator reference coordinates if used by the discipline or jurisdiction.

Block Number	Block Title	Instructions
27	**Note any electronic geospatial data included or attached** (indicate data format, content, and collection time information and labels)	• Indicate whether and how geospatial data is included or attached. • Utilize common and open geospatial data standards. • WARNING: Do not attach or send extremely large data files with the ICS 209. Incident geospatial data that is distributed with the ICS 209 should be simple incident geospatial basics, such as the incident perimeter, origin, etc. Data file sizes should be small enough to be easily transmitted through dial-up connections or other limited communications capabilities when ICS 209 information is transmitted electronically. • NOTE: Clearly indicate data content. For example, data may be about an incident perimeter (such as a shape file), the incident origin (a point), a point and radius (such as an evacuation zone), or a line or lines (such as a pipeline). • NOTE: Indicate the data format (e.g., .shp, .kml, .kmz, or .gml file) and any relevant information about projection, etc. • NOTE: Include a hyperlink or other access information if incident map data is posted online or on an FTP (file transfer protocol) site to facilitate downloading and minimize information requests. • NOTE: Include a point of contact for getting geospatial incident information, if included in the ICS 209 or available and supporting the incident.
INCIDENT SUMMARY		
***28**	**Significant Events for the Time Period Reported** (summarize significant progress made, evacuations, incident growth, etc.)	**REQUIRED BLOCK.** • Describe significant events that occurred during the period being reported in Block 6. Examples include: o Road closures. o Evacuations. o Progress made and accomplishments. o Incident command transitions. o Repopulation of formerly evacuated areas and specifics. o Containment. • Refer to other blocks in the ICS 209 when relevant for additional information (e.g., “Details on evacuations may be found in Block 33”), or in Remarks, Block 47. • Be specific and detailed in reference to events. For example, references to road closures should include road number and duration of closure (or include further detail in Block 33). Use specific metrics if needed, such as the number of people or animals evacuated, or the amount of a material spilled and/or recovered. • This block may be used for a single-paragraph synopsis of overall incident status.
29	**Primary Materials or Hazards Involved** (hazardous chemicals, fuel types, infectious agents, radiation, etc.)	• When relevant, enter the appropriate primary materials, fuels, or other hazards involved in the incident that are leaking, burning, infecting, or otherwise influencing the incident. • Examples include hazardous chemicals, wildland fuel models, biohazards, explosive materials, oil, gas, structural collapse, avalanche activity, criminal activity, etc.
	Other	Enter any miscellaneous issues which impacted Critical Infrastructure and Key Resources.

Block Number	Block Title	Instructions
30	**Damage Assessment Information** (summarize damage and/or restriction of use or availability to residential or commercial property, natural resources, critical infrastructure and key resources, etc.)	• Include a short summary of damage or use/access restrictions/ limitations caused by the incident for the reporting period, and cumulatively. • Include if needed any information on the facility status, such as operational status, if it is evacuated, etc. when needed. • Include any critical infrastructure or key resources damaged/destroyed/ impacted by the incident, the kind of infrastructure, and the extent of damage and/or impact and any known cascading impacts. • Refer to more specific or detailed damage assessment forms and packages when they are used and/or relevant.
	A. Structural Summary	Complete this table as needed based on the definitions for 30B–F below. Note in table or in text block if numbers entered are estimates or are confirmed. Summaries may also include impact to Shoreline and Wildlife, etc.
	B. # Threatened (72 hrs)	Enter the number of structures potentially threatened by the incident within the next 72 hours, based on currently available information.
	C. # Damaged	Enter the number of structures damaged by the incident.
	D. # Destroyed	Enter the number of structures destroyed beyond repair by the incident.
	E. Single Residences	Enter the number of single dwellings/homes/units impacted in Columns 30B–D. Note any specifics in the text block if needed, such as type of residence (apartments, condominiums, single-family homes, etc.).
	F. Nonresidential Commercial Properties	Enter the number of buildings or units impacted in Columns 30B–D. This includes any primary structure used for nonresidential purposes, excluding Other Minor Structures (Block 30G). Note any specifics regarding building or unit types in the text block.
	Other Minor Structures	Enter any miscellaneous structures impacted in Columns 30B–D not covered in 30E–F above, including any minor structures such as booths, sheds, or outbuildings.
	Other	Enter any miscellaneous issues which impacted Critical Infrastructure and Key Resources.

Block Number	Block Title	Instructions
ADDITIONAL INCIDENT DECISION SUPPORT INFORMATION (PAGE 2)		
***31**	**Public Status Summary**	• This section is for summary information regarding incident-related injuries, illness, and fatalities for civilians (or members of the public); see 31C–N below. • Explain or describe the nature of any reported injuries, illness, or other activities in Life, Safety, and Health Status/Threat Remarks (Block 33). • Illnesses include those that may be caused through a biological event such as an epidemic or an exposure to toxic or radiological substances. • NOTE: *Do not estimate any fatality information*. • NOTE: Please use caution when reporting information in this section that may be on the periphery of the incident or change frequently. This information should be reported as accurately as possible as a snapshot in time, as much of the information is subject to frequent change. • NOTE: Do not complete this block if the incident covered by the ICS 209 is *not directly responsible* for these actions (such as evacuations, sheltering, immunizations, etc.) *even if they are related to the incident*. o Only the authority having jurisdiction should submit reports for these actions, to mitigate multiple/conflicting reports. o For example, if managing evacuation shelters is part of the incident operation itself, do include these numbers in Block 31J with any notes in Block 33. • NOTE: When providing an estimated value, denote in parenthesis: "est." **Handling Sensitive Information** • Release of information in this section should be carefully coordinated within the incident management organization to ensure synchronization with public information and investigative/intelligence actions. • Thoroughly review the "Distribution" section in the introductory ICS 209 instructions for details on handling sensitive information. Use caution when providing information in any situation involving fatalities, and verify that appropriate notifications have been made prior to release of this information. Electronic transmission of any ICS 209 may make information available to many people and networks at once. • Information regarding fatalities should be cleared with the Incident Commander and/or an organizational administrator prior to submission of the ICS 209.
	A. # This Reporting Period	Enter the total number of individuals impacted in each category for this reporting period (since the previous ICS 209 was submitted).
	B. Total # to Date	• Enter the total number of individuals impacted in each category for the entire duration of the incident. • This is a cumulative total number that should be adjusted each reporting period.
	C. Indicate Number of Civilians (Public) Below	• For lines 31D–M below, enter the number of civilians affected for each category. • Indicate if numbers are estimates, for those blocks where this is an option. • Civilians are those members of the public who are affected by the incident, but who are not included as part of the response effort through Unified Command partnerships and those organizations and agencies assisting and cooperating with response efforts.
	D. Fatalities	• Enter the number of *confirmed* civilian/public fatalities. • See information in introductory instructions ("Distribution") and in Block 31 instructions regarding sensitive handling of fatality information.

Block Number	Block Title	Instructions
	E. With Injuries/Illness	Enter the number of civilian/public injuries or illnesses directly related to the incident. Injury or illness is defined by the incident or jurisdiction(s).
***31** (continued)	F. Trapped/In Need of Rescue	Enter the number of civilians who are trapped or in need of rescue due to the incident.
	G. Missing (note if estimated)	Enter the number of civilians who are missing due to the incident. Indicate if an estimate is used.
	H. Evacuated (note if estimated)	Enter the number of civilians who are evacuated due to the incident. These are likely to be best estimates, but indicate if they are estimated.
	I. Sheltering-in-Place (note if estimated)	Enter the number of civilians who are sheltering in place due to the incident. Indicate if estimates are used.
	J. In Temporary Shelters (note if estimated)	Enter the number of civilians who are in temporary shelters as a direct result of the incident, noting if the number is an estimate.
	K. Have Received Mass Immunizations	Enter the number of civilians who have received mass immunizations due to the incident and/or as part of incident operations. Do not estimate.
	L. Require Mass Immunizations (note if estimated)	Enter the number of civilians who require mass immunizations due to the incident and/or as part of incident operations. Indicate if it is an estimate.
	M. In Quarantine	Enter the number of civilians who are in quarantine due to the incident and/or as part of incident operations. Do not estimate.
	N. Total # Civilians (Public) Affected	Enter sum totals for Columns 31A and 31B for Rows 31D–M.
***32**	**Responder Status Summary**	• This section is for summary information regarding incident-related injuries, illness, and fatalities for responders; see 32C–N. • Illnesses include those that may be related to a biological event such as an epidemic or an exposure to toxic or radiological substances directly in relation to the incident. • Explain or describe the nature of any reported injuries, illness, or other activities in Block 33. • NOTE: *Do not estimate any fatality information or responder status information.* • NOTE: Please use caution when reporting information in this section that may be on the periphery of the incident or change frequently. This information should be reported as accurately as possible as a snapshot in time, as much of the information is subject to frequent change. • NOTE: Do not complete this block if the incident covered by the ICS 209 is *not directly responsible* for these actions (such as evacuations, sheltering, immunizations, etc.) even if they are related to the incident. Only the authority having jurisdiction should submit reports for these actions, to mitigate multiple/conflicting reports. **Handling Sensitive Information** • Release of information in this section should be carefully coordinated within the incident management organization to ensure synchronization with public information and investigative/intelligence actions. • Thoroughly review the "Distribution" section in the introductory ICS 209 instructions for details on handling sensitive information. Use caution when providing information in any situation involving fatalities, and verify that appropriate notifications have been made prior to release of this information. Electronic transmission of any ICS 209 may make information available to many people and networks at once. • Information regarding fatalities should be cleared with the Incident Commander and/or an organizational administrator prior to submission of the ICS 209.

Block Number	Block Title	Instructions
***32** (continued)	A. # This Reporting Period	Enter the total number of responders impacted in each category for this reporting period (since the previous ICS 209 was submitted).
	B. Total # to Date	• Enter the total number of individuals impacted in each category for the *entire duration* of the incident. • This is a *cumulative* total number that should be adjusted each reporting period.
	C. Indicate Number of Responders Below	• For lines 32D–M below, enter the number of responders relevant for each category. • Responders are those personnel included as part of Unified Command partnerships and those organizations and agencies assisting and cooperating with response efforts.
	D. Fatalities	• Enter the number of *confirmed* responder fatalities. • See information in introductory instructions ("Distribution") and for Block 32 regarding sensitive handling of fatality information.
	E. With Injuries/Illness	• Enter the number of incident responders with serious injuries or illnesses due to the incident. • *For responders, serious injuries or illness are typically those in which the person is unable to continue to perform in his or her incident assignment,* but the authority having jurisdiction may have additional guidelines on reporting requirements in this area.
	F. Trapped/In Need Of Rescue	Enter the number of incident responders who are in trapped or in need of rescue due to the incident.
	G. Missing	Enter the number of incident responders who are missing due to incident conditions.
	H.	(BLANK; use however is appropriate.)
	I. Sheltering in Place	Enter the number of responders who are sheltering in place due to the incident. Once responders become the victims, this needs to be noted in Block 33 or Block 47 and handled accordingly.
	J.	(BLANK; use however is appropriate.)
	L. Require Immunizations	Enter the number of responders who require immunizations due to the incident and/or as part of incident operations.
	M. In Quarantine	Enter the number of responders who are in quarantine as a direct result of the incident and/or related to incident operations.
	N. Total # Responders Affected	Enter sum totals for Columns 32A and 32B for Rows 32D–M.
33	**Life, Safety, and Health Status/Threat Remarks**	• Enter any details needed for Blocks 31, 32, and 34. Enter any specific comments regarding illness, injuries, fatalities, and threat management for this incident, such as whether estimates were used for numbers given in Block 31. • This information should be reported as accurately as possible as a snapshot in time, as much of the information is subject to frequent change. • Evacuation information can be very sensitive to local residents and officials. Be accurate in the assessment. • Clearly note primary responsibility and contacts for any activities or information in Blocks 31, 32, and 34 that may be caused by the incident, but that are being managed and/or reported by other parties. • Provide additional explanation or information as relevant in Blocks 28, 36, 38, 40, 41, or in Remarks (Block 47).

Block Number	Block Title	Instructions
*34	**Life, Safety, and Health Threat Management**	Note any details in Life, Safety, and Health Status/Threat Remarks (Block 33), and provide additional explanation or information as relevant in Blocks 28, 36, 38, 40, 41, or in Remarks (Block 47). Additional pages may be necessary for notes.
	A. Check if Active	Check any applicable blocks in 34C–P based on currently available information regarding incident activity and potential.
	B. Notes	Note any specific details, or include in Block 33.
	C. No Likely Threat	Check if there is no likely threat to life, health, and safety.
	D. Potential Future Threat	Check if there is a potential future threat to life, health, and safety.
	E. Mass Notifications In Progress	• Check if there are any mass notifications in progress regarding emergency situations, evacuations, shelter in place, or other public safety advisories related to this incident. • These may include use of threat and alert systems such as the Emergency Alert System or a "reverse 911" system. • Please indicate the areas where mass notifications have been completed (e.g., "mass notifications to ZIP codes 50201, 50014, 50010, 50011," or "notified all residents within a 5-mile radius of Gatlinburg").
	F. Mass Notifications Completed	Check if actions referred to in Block 34E above have been completed.
	G. No Evacuation(s) Imminent	Check if evacuations are not anticipated in the near future based on current information.
	H. Planning for Evacuation	Check if evacuation planning is underway in relation to this incident.
	I. Planning for Shelter-in-Place	Check if planning is underway for shelter-in-place activities related to this incident.
	J. Evacuation(s) in Progress	Check if there are active evacuations in progress in relation to this incident.
	K. Shelter-In-Place in Progress	Check if there are active shelter-in-place actions in progress in relation to this incident.
	L. Repopulation in Progress	Check if there is an active repopulation in progress related to this incident.
	M. Mass Immunization in Progress	Check if there is an active mass immunization in progress related to this incident.
	N. Mass Immunization Complete	Check if a mass immunization effort has been completed in relation to this incident.
	O. Quarantine in Progress	Check if there is an active quarantine in progress related to this incident.
	P. Area Restriction in Effect	Check if there are any restrictions in effect, such as road or area closures, especially those noted in Block 28.
35	**Weather Concerns** (synopsis of current and predicted weather; discuss related factors that may cause concern)	• Complete a short synopsis/discussion on significant weather factors that could cause concerns for the incident when relevant. • Include current and/or predicted weather factors, and the timeframe for predictions. • Include relevant factors such as: o Wind speed (label units, such as mph). o Wind direction (clarify and label where wind is coming from and going to in plain language – e.g., "from NNW," "from E," or "from SW"). o Temperature (label units, such as F). o Relative humidity (label %). o Watches. o Warnings. o Tides. o Currents.

Block Number	Block Title	Instructions
36	**Projected Incident Activity, Potential, Movement, Escalation, or Spread** and influencing factors during the next operational period and in 12-, 24-, 48-, and 72-hour timeframes **12 hours** **24 hours** **48 hours** **72 hours** **Anticipated after 72 hours**	• Provide an estimate (when it is possible to do so) of the direction/scope in which the incident is expected to spread, migrate, or expand during the next indicated operational period, or other factors that may cause activity changes. • Discuss incident potential relative to values at risk, or values to be protected (such as human life), and the potential changes to those as the incident changes. • Include an estimate of the acreage or area that will likely be affected. • If known, provide the above information in 12-, 24-, 48- and 72-hour timeframes, and any activity anticipated after 72 hours.
37	**Strategic Objectives** (define planned end-state for incident)	Briefly discuss the desired outcome for the incident based on currently available information. Note any high-level objectives and any possible strategic benefits as well (especially for planned events).
38	**Current Incident Threat Summary and Risk Information in 12-, 24-, 48-, and 72-hour timeframes and beyond.** Summarize primary incident threats to life, property, communities and community stability, residences, health care facilities, other critical infrastructure and key resources, commercial facilities, natural and environmental resources, cultural resources, and continuity of operations and/or business. Identify corresponding incident-related potential economic or cascading impacts. **12 hours** **24 hours** **48 hours** **72 hours** **Anticipated after 72 hours**	Summarize major or significant threats due to incident activity based on currently available information. Include a breakdown of threats in terms of 12-, 24-, 48-, and 72-hour timeframes.

Block Number	Block Title	Instructions
39	**Critical Resource Needs** in 12-, 24-, 48-, and 72-hour timeframes and beyond to meet critical incident objectives. List resource category, kind, and/or type, and amount needed, in priority order: **12 hours** **24 hours** **48 hours** **72 hours** **Anticipated after 72 hours**	• List the specific critical resources and numbers needed, in order of priority. *Be specific as to the need.* • Use plain language and common terminology for resources, and indicate resource category, kind, and type (if available or known) to facilitate incident support. • If critical resources are listed in this block, there should be corresponding orders placed for them through appropriate resource ordering channels. • Provide critical resource needs in 12-, 24-, 48- and 72-hour increments. List the most critical resources needed for each timeframe, if needs have been identified for each timeframe. Listing critical resources by the time they are needed gives incident support personnel a "heads up" for short-range planning, and assists the ordering process to ensure these resources will be in place when they are needed. • More than one resource need may be listed for each timeframe. For example, a list could include: o 24 hrs: 3 Type 2 firefighting helicopters, 2 Type I Disaster Medical Assistance Teams o 48 hrs: Mobile Communications Unit (Law/Fire) o After 72 hrs: 1 Type 2 Incident Management Team • Documentation in the ICS 209 can help the incident obtain critical regional or national resources through outside support mechanisms including multiagency coordination systems and mutual aid. o Information provided in other blocks on the ICS 209 can help to support the need for resources, including Blocks 28, 29, 31–38, and 40–42. o Additional comments in the Remarks section (Block 47) can also help explain what the incident is requesting and why it is critical (for example, "Type 2 Incident Management Team is needed in three days to transition command when the current Type 2 Team times out"). • Do not use this block for noncritical resources.
40	**Strategic Discussion: Explain the relation of overall strategy, constraints, and current available information to:** 1) critical resource needs identified above, 2) the Incident Action Plan and management objectives and targets, 3) anticipated results. **Explain major problems and concerns such as operational challenges, incident management problems, and social, political, economic, or environmental concerns or impacts.**	• Wording should be consistent with Block 39 to justify critical resource needs, which should relate to planned actions in the Incident Action Plan. • Give a short assessment of the likelihood of meeting the incident management targets, given the current management strategy and currently known constraints. • Identify when the chosen management strategy will succeed given the current constraints. Adjust the anticipated incident management completion target in Block 43 as needed based on this discussion. • Explain major problems and concerns as indicated.

Block Number	Block Title	Instructions
41	**Planned Actions for Next Operational Period**	• Provide a short summary of actions planned for the next operational period. • Examples: o "The current Incident Management Team will transition out to a replacement IMT." o "Continue to review operational/ engineering plan to facilitate removal of the partially collapsed west bridge supports." o "Continue refining mapping of the recovery operations and damaged assets using GPS." o "Initiate removal of unauthorized food vendors."
42	**Projected Final Incident Size/Area** (use unit label – e.g., "sq mi")	• Enter an estimate of the total area likely to be involved or affected over the course of the incident. • Label the estimate of the total area or population involved, affected, or impacted with the relevant units such as acres, hectares, square miles, etc. • Note that total area involved may not be limited to geographic area (see previous discussions regarding incident definition, scope, operations, and objectives). Projected final size may involve a population rather than a geographic area.
43	**Anticipated Incident Management Completion Date**	• Enter the date (month/day/year) at which time it is expected that incident objectives will be met. This is often explained similar to incident containment or control, or the time at which the incident is expected to be closed or when significant incident support will be discontinued. • Avoid leaving this block blank if possible, as this is important information for managers.
44	**Projected Significant Resource Demobilization Start Date**	Enter the date (month/day/year) when initiation of significant resource demobilization is anticipated.
45	**Estimated Incident Costs to Date**	• Enter the estimated total incident costs to date for the entire incident based on currently available information. • Incident costs include estimates of all costs for the response, including all management and support activities per discipline, agency, or organizational guidance and policy. • This does not include damage assessment figures, as they are impacts from the incident and not response costs. • If costs decrease, explain in Remarks (Block 47). • If additional space is required, please add as an attachment.
46	**Projected Final Incident Cost Estimate**	• Enter an estimate of the total costs for the incident once all costs have been processed based on current spending and projected incident potential, per discipline, agency, or organizational guidance and policy. This is often an estimate of daily costs combined with incident potential information. • This does not include damage assessment figures, as they are impacts from the incident and not response costs. • If additional space is required, please add as an attachment.

Block Number	Block Title	Instructions
47	**Remarks** (or continuation of any blocks above – list block number in notation)	• Use this block to expand on information that has been entered in previous blocks, or to include other pertinent information that has not been previously addressed. • List the block number for any information continued from a previous block. • Additional information may include more detailed weather information, specifics on injuries or fatalities, threats to critical infrastructure or other resources, more detailed evacuation site locations and number of evacuated, information or details regarding incident cause, etc. • For Complexes that include multiple incidents, list all sub-incidents included in the Complex. • List jurisdictional or ownership breakdowns if needed when an incident is in more than one jurisdiction and/or ownership area. Breakdown may be: o By size (e.g., 35 acres in City of Gatlinburg, 250 acres in Great Smoky Mountains), and/or o By geography (e.g., incident area on the west side of the river is in jurisdiction of City of Minneapolis; area on east side of river is City of St. Paul jurisdiction; river is joint jurisdiction with USACE). • Explain any reasons for incident size reductions or adjustments (e.g., reduction in acreage due to more accurate mapping). • This section can also be used to list any additional information about the incident that may be needed by incident support mechanisms outside the incident itself. This may be basic information needed through multiagency coordination systems or public information systems (e.g., a public information phone number for the incident, or the incident Web site address). • Attach additional pages if it is necessary to include additional comments in the Remarks section.

INCIDENT RESOURCE COMMITMENT SUMMARY (PAGE 4)

- This last/fourth page of the ICS 209 can be copied and used if needed to accommodate additional resources, agencies, or organizations. Write the actual page number on the pages as they are used.
- Include only resources that have been assigned to the incident and that have arrived and/or been checked in to the incident. Do not include resources that have been ordered but have *not* yet arrived.

For summarizing:

- When there are large numbers of responders, it may be helpful to group agencies or organizations together. Use the approach that works best for the multiagency coordination system applicable to the incident. For example,
  - Group State, local, county, city, or Federal responders together under such headings, or
  - Group resources from one jurisdiction together and list only individual jurisdictions (e.g., list the public works, police, and fire department resources for a city under that city's name).
- On a large incident, it may also be helpful to group similar categories, kinds, or types of resources together for this summary.

Block Number	Block Title	Instructions
48	**Agency or Organization**	• List the agencies or organizations contributing resources to the incident as responders, through mutual aid agreements, etc. • List agencies or organizations using clear language so readers who may not be from the discipline or host jurisdiction can understand the information. • Agencies or organizations may be listed individually or in groups. • When resources are grouped together, individual agencies or organizations may be listed below in Block 53. • Indicate in the rows under Block 49 how many resources are assigned to the incident under each resource identified. o These can listed with the number of resources on the top of the box, and the number of personnel associated with the resources on the bottom half of the box. o For example: ▪ *Resource:* Type 2 Helicopters… 3/8 (indicates 3 aircraft, 8 personnel). ▪ *Resource:* Type 1 Decontamination Unit… 1/3 (indicates 1 unit, 3 personnel). • Indicate in the rows under Block 51 the total number of personnel assigned for each agency listed under Block 48, including both individual overhead and those associated with other resources such as fire engines, decontamination units, etc.
49	**Resources** (summarize resources by category, kind, and/or type; show # of resources on top ½ of box, show # of personnel associated with resource on bottom ½ of box)	• List resources using clear language when possible – so ICS 209 readers who may not be from the discipline or host jurisdiction can understand the information. o Examples: Type 1 Fire Engines, Type 4 Helicopters • Enter total numbers in columns for each resource by agency, organization, or grouping in the proper blocks. o These can listed with the number of resources on the top of the box, and the number of personnel associated with the resources on the bottom half of the box. o For example: ▪ *Resource:* Type 2 Helicopters… 3/8 (indicates 3 aircraft, 8 personnel). ▪ *Resource:* Type 1 Decontamination Unit… 1/3 (indicates 1 unit, 3 personnel). • NOTE: One option is to group similar resources together when it is sensible to do so for the summary. o For example, do not list every type of fire engine – rather, it may be advisable to list two generalized types of engines, such as “structure fire engines” and “wildland fire engines” in separate columns with totals for each. • NOTE: It is not advisable to list individual overhead personnel individually in the resource section, especially as this form is intended as a summary. These personnel should be included in the Total Personnel sums in Block 51.
50	**Additional Personnel** not assigned to a resource	List the number of *additional* individuals (or overhead) that are not assigned to a specific resource by agency or organization.
51	**Total Personnel** (includes those associated with resources – e.g., aircraft or engines – *and* individual overhead)	• Enter the total personnel for each agency, organization, or grouping in the Total Personnel column. • WARNING: Do not simply add the numbers across! • The number of Total Personnel for each row should include both: o The total number of personnel assigned to each of the resources listed in Block 49, and o The total number of additional individual overhead personnel from each agency, organization, or group listed in Block 50.

Block Number	Block Title	Instructions
52	**Total Resources**	Include the sum total of resources for each column, including the total for the column under Blocks 49, 50, and 51. This should include the total number of *resources* in Block 49, as personnel totals will be counted under Block 51.
53	**Additional Cooperating and Assisting Organizations Not Listed Above**	• List all agencies and organizations that are not directly involved in the incident, but are providing support. • Examples may include ambulance services, Red Cross, DHS, utility companies, etc. • Do not repeat any resources counted in Blocks 48–52, unless explanations are needed for groupings created under Block 48 (Agency or Organization).

RESOURCE STATUS CHANGE (ICS 210)

1. Incident Name:	**2. Operational Period:**	Date From: Date Time From: HHMM	Date To: Date Time To: HHMM

3. Resource Number	**4. New Status** (Available, Assigned, O/S)	**5. From** (Assignment and Status)**:**	**6. To** (Assignment and Status)**:**	**7. Time and Date of Change:**	

8. Comments:

9. Prepared by: Name: Position/Title: Signature: _____

ICS 210 Date/Time: Date

ICS 210
Resource Status Change

Purpose. The Resource Status Change (ICS 210) is used by the Incident Communications Center Manager to record status change information received on resources assigned to the incident. This information could be transmitted with a General Message (ICS 213). The form could also be used by Operations as a worksheet to track entry, etc.

Preparation. The ICS 210 is completed by radio/telephone operators who receive status change information from individual resources, Task Forces, Strike Teams, and Division/Group Supervisors. Status information could also be reported by Staging Area and Helibase Managers and fixed-wing facilities.

Distribution. The ICS 210 is maintained by the Communications Unit and copied to Resources Unit and filed by Documentation Unit.

Notes:

- The ICS 210 is essentially a message form that can be used to update Resource Status Cards or T-Cards (ICS 219) for incident-level resource management.
- If additional pages are needed, use a blank ICS 210 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Resource Number**	Enter the resource identification (ID) number (this may be a letter and number combination) assigned by either the sending unit or the incident.
4	**New Status** (Available, Assigned, Out of Service)	Indicate the current status of the resource: • Available – Indicates resource is available for incident use immediately. • Assigned – Indicates resource is checked in and assigned a work task on the incident. • Out of Service – Indicates resource is assigned to the incident but unable to respond for mechanical, rest, or personnel reasons. If space permits, indicate the estimated time of return (ETR). It may be useful to indicate the reason a resource is out of service (e.g., "O/S – Mech" (for mechanical issues), "O/S – Rest" (for off shift), or "O/S – Pers" (for personnel issues).
5	**From** (Assignment and Status)	Indicate the current location of the resource (where it came from) and the status. When more than one Division, Staging Area, or Camp is used, identify the specific location (e.g., Division A, Staging Area, Incident Command Post, Western Camp).
6	**To** (Assignment and Status)	Indicate the assigned incident location of the resource and status. When more than one Division, Staging Area, or Camp is used, identify the specific location.
7	**Time and Date of Change**	Enter the time and location of the status change (24-hour clock). Enter the date as well if relevant (e.g., out of service).
8	**Comments**	Enter any special information provided by the resource or dispatch center. This may include details about why a resource is out of service, or individual identifying designators (IDs) of Strike Teams and Task Forces.

9	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position/title, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

INCIDENT CHECK-IN LIST (ICS 211)

1. Incident Name:	2. Incident Number:	3. Check-In Location (complete all that apply):					4. Start Date/Time:
		☐ Base	☐ Staging Area	☐ ICP	☐ Helibase	☐ Other	Date: Date Time: HHMM

Check-In Information (use reverse of form for remarks or comments)

5. List single resource personnel (overhead) by agency and name, OR list resources by the following format:							6. Order Request #	7. Date/Time Check-In	8. Leader's Name	9. Total Number of Personnel	10. Incident Contact Information	11. Home Unit or Agency	12. Departure Point, Date and Time	13. Method of Travel	14. Incident Assignment	15. Other Qualifications	16. Data Provided to Resources Unit
State	Agency	Category	Kind	Type	Resource Name or Identifier	ST or TF											

ICS 211	17. Prepared by:	Name:	Position/Title:	Signature:_____	Date/Time:

ICS 211
Incident Check-In List

Purpose. Personnel and equipment arriving at the incident can check in at various incident locations. Check-in consists of reporting specific information, which is recorded on the Check-In List (ICS 211). The ICS 211 serves several purposes, as it: (1) records arrival times at the incident of all overhead personnel and equipment, (2) records the initial location of personnel and equipment to facilitate subsequent assignments, and (3) supports demobilization by recording the home base, method of travel, etc., for resources checked in.

Preparation. The ICS 211 is initiated at a number of incident locations including: Staging Areas, Base, and Incident Command Post (ICP). Preparation may be completed by: (1) overhead at these locations, who record the information and give it to the Resources Unit as soon as possible, (2) the Incident Communications Center Manager located in the Communications Center, who records the information and gives it to the Resources Unit as soon as possible, (3) a recorder from the Resources Unit during check-in to the ICP. As an option, the ICS 211 can be printed on colored paper to match the designated Resource Status Card (ICS 219) colors. The purpose of this is to aid the process of completing a large volume of ICS 219s. The ICS 219 colors are:

- 219-1: Header Card – Gray (used only as label cards for T-Card racks)
- 219-2: Crew/Team Card – Green
- 219-3: Engine Card – Rose
- 219-4: Helicopter Card – Blue
- 219-5: Personnel Card – White
- 219-6: Fixed-Wing Card – Orange
- 219-7: Equipment Card – Yellow
- 219-8: Miscellaneous Equipment/Task Force Card – Tan
- 219-10: Generic Card – Light Purple

Distribution. ICS 211s, which are completed by personnel at the various check-in locations, are provided to the Resources Unit, Demobilization Unit, and Finance/Administration Section. The Resources Unit maintains a master list of all equipment and personnel that have reported to the incident.

Notes:

- Also available as 8½ x 14 (legal size) or 11 x 17 chart.
- Use reverse side of form for remarks or comments.
- If additional pages are needed for any form page, use a blank ICS 211 and repaginate as needed.
- Contact information for sender and receiver can be added for communications purposes to confirm resource orders. Refer to 213RR example (Appendix B)

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Incident Number**	Enter the number assigned to the incident.
3	**Check-In Location** ☐ Base ☐ Staging Area ☐ ICP ☐ Helibase ☐ Other	Check appropriate box and enter the check-in location for the incident. Indicate specific information regarding the locations under each checkbox. ICP is for Incident Command Post. Other may include…
4	**Start Date/Time** • Date • Time	Enter the date (month/day/year) and time (using the 24-hour clock) that the form was started.

Block Number	Block Title	Instructions
	Check-In Information	Self explanatory.
5	**List single resource personnel (overhead) by agency and name, OR list resources by the following format**	Enter the following information for resources: OPTIONAL: Indicate if resource is a single resource versus part of Strike Team or Task Force. Fields can be left blank if not necessary.
	• State	Use this section to list the home State for the resource.
	• Agency	Use this section to list agency name (or designator), and individual names for all single resource personnel (e.g., ORC, ARL, NYPD).
	• Category	Use this section to list the resource category based on NIMS, discipline, or jurisdiction guidance.
	• Kind	Use this section to list the resource kind based on NIMS, discipline, or jurisdiction guidance.
	• Type	Use this section to list the resource type based on NIMS, discipline, or jurisdiction guidance.
	• Resource Name or Identifier	Use this section to enter the resource name or unique identifier. If it is a Strike Team or a Task Force, list the unique Strike Team or Task Force identifier (if used) on a single line with the component resources of the Strike Team or Task Force listed on the following lines. For example, for an Engine Strike Team with the call sign "XLT459" show "XLT459" in this box and then in the next five rows, list the unique identifier for the five engines assigned to the Strike Team.
	• ST or TF	Use ST or TF to indicate whether the resource is part of a Strike Team or Task Force. See above for additional instructions.
6	**Order Request #**	The order request number will be assigned by the agency dispatching resources or personnel to the incident. Use existing protocol as appropriate for the jurisdiction and/or discipline, since several incident numbers may be used for the same incident.
7	**Date/Time Check-In**	Enter date (month/day/year) and time of check-in (24-hour clock) to the incident.
8	**Leader's Name**	• For equipment, enter the operator's name. • Enter the Strike Team or Task Force leader's name. • Leave blank for single resource personnel (overhead).
9	**Total Number of Personnel**	Enter total number of personnel associated with the resource. Include leaders.
10	**Incident Contact Information**	Enter available contact information (e.g., radio frequency, cell phone number, etc.) for the incident.
11	**Home Unit or Agency**	Enter the home unit or agency to which the resource or individual is normally assigned (may not be departure location).
12	**Departure Point, Date and Time**	Enter the location from which the resource or individual departed for this incident. Enter the departure time using the 24-hour clock.
13	**Method of Travel**	Enter the means of travel the individual used to bring himself/herself to the incident (e.g., bus, truck, engine, personal vehicle, etc.).
14	**Incident Assignment**	Enter the incident assignment at time of dispatch.
15	**Other Qualifications**	Enter additional duties (ICS positions) pertinent to the incident that the resource/individual is qualified to perform. Note that resources should not be reassigned on the incident without going through the established ordering process. This data may be useful when resources are demobilized and remobilized for another incident.

Block Number	Block Title	Instructions
16	**Data Provided to Resources Unit**	Enter the date and time that the information pertaining to that entry was transmitted to the Resources Unit, and the initials of the person who transmitted the information.
17	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position/title, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

GENERAL MESSAGE (ICS 213)

1. Incident Name (Optional):		
2. To (Name and Position):		
3. From (Name and Position):		
4. Subject:	**5. Date:** Date	**6. Time** HHMM
7. Message:		
8. Approved by: Name:	Signature: _____	Position/Title:
9. Reply:		
10. Replied by: Name:	Position/Title:	Signature: _____
ICS 213	Date/Time: Date	

ICS 213
General Message

Purpose. The General Message (ICS 213) is used by the incident dispatchers to record incoming messages that cannot be orally transmitted to the intended recipients. The ICS 213 is also used by the Incident Command Post and other incident personnel to transmit messages (e.g., resource order, incident name change, other ICS coordination issues, etc.) to the Incident Communications Center for transmission via radio or telephone to the addressee. This form is used to send any message or notification to incident personnel that requires hard-copy delivery.

Preparation. The ICS 213 may be initiated by incident dispatchers and any other personnel on an incident.

Distribution. Upon completion, the ICS 213 may be delivered to the addressee and/or delivered to the Incident Communication Center for transmission.

Notes:

- The ICS 213 is a three-part form, typically using carbon paper. The sender will complete Part 1 of the form and send Parts 2 and 3 to the recipient. The recipient will complete Part 2 and return Part 3 to the sender.
- A copy of the ICS 213 should be sent to and maintained within the Documentation Unit.
- Contact information for the sender and receiver can be added for communications purposes to confirm resource orders. Refer to 213RR example (Appendix B)

Block Number	Block Title	Instructions
1	**Incident Name** (Optional)	Enter the name assigned to the incident. This block is optional.
2	**To** (Name and Position)	Enter the name and position the General Message is intended for. For all individuals, use at least the first initial and last name. For Unified Command, include agency names.
3	**From** (Name and Position)	Enter the name and position of the individual sending the General Message. For all individuals, use at least the first initial and last name. For Unified Command, include agency names.
4	**Subject**	Enter the subject of the message.
5	**Date**	Enter the date (month/day/year) of the message.
6	**Time**	Enter the time (using the 24-hour clock) of the message.
7	**Message**	Enter the content of the message. Try to be as concise as possible.
8	**Approved by** • Name • Signature • Position/Title	Enter the name, signature, and ICS position/title of the person approving the message.
9	**Reply**	The intended recipient will enter a reply to the message and return it to the originator.
10	**Replied by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position/title, and signature of the person replying to the message. Enter date (month/day/year) and time prepared (24-hour clock).

ACTIVITY LOG (ICS 214)

1. Incident Name:	2. Operational Period:	Date From: Date Time From: HHMM	Date To: Date Time To: HHMM
3. Name:	4. ICS Position:		5. Home Agency (and Unit):

6. Resources Assigned:

Name	ICS Position	Home Agency (and Unit)

7. Activity Log:

Date/Time	Notable Activities

8. Prepared by: Name: Position/Title: Signature: _____

ICS 214, Page 1 Date/Time: Date

ACTIVITY LOG (ICS 214)

1. Incident Name:	2. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM

7. Activity Log (continuation)**:**

Date/Time	Notable Activities

8. Prepared by: Name: Position/Title: Signature: _____

ICS 214, Page 2 Date/Time: Date

ICS 214
Activity Log

Purpose. The Activity Log (ICS 214) records details of notable activities at any ICS level, including single resources, equipment, Task Forces, etc. These logs provide basic incident activity documentation, and a reference for any after- action report.

Preparation. An ICS 214 can be initiated and maintained by personnel in various ICS positions as it is needed or appropriate. Personnel should document how relevant incident activities are occurring and progressing, or any notable events or communications.

Distribution. Completed ICS 214s are submitted to supervisors, who forward them to the Documentation Unit. All completed original forms must be given to the Documentation Unit, which maintains a file of all ICS 214s. It is recommended that individuals retain a copy for their own records.

Notes:

- The ICS 214 can be printed as a two-sided form.
- Use additional copies as continuation sheets as needed, and indicate pagination as used.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Name**	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4	**ICS Position**	Enter the name and ICS position of the individual in charge of the Unit.
5	**Home Agency** (and Unit)	Enter the home agency of the individual completing the ICS 214. Enter a unit designator if utilized by the jurisdiction or discipline.
6	**Resources Assigned**	Enter the following information for resources assigned:
	• Name	Use this section to enter the resource's name. For all individuals, use at least the first initial and last name. Cell phone number for the individual can be added as an option.
	• ICS Position	Use this section to enter the resource's ICS position (e.g., Finance Section Chief).
	• Home Agency (and Unit)	Use this section to enter the resource's home agency and/or unit (e.g., Des Moines Public Works Department, Water Management Unit).
7	**Activity Log** • Date/Time • Notable Activities	• Enter the time (24-hour clock) and briefly describe individual notable activities. Note the date as well if the operational period covers more than one day. • Activities described may include notable occurrences or events such as task assignments, task completions, injuries, difficulties encountered, etc. • This block can also be used to track personal work habits by adding columns such as "Action Required," "Delegated To," "Status," etc.
8	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position/title, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

INCIDENT ACTION PLAN SAFETY ANALYSIS (ICS 215A)

1. Incident Name:	2. Incident Number:
3. Date/Time Prepared: Date: Date Time: HHMM	4. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM

5. Incident Area	6. Hazards/Risks	7. Mitigations

8. Prepared by (Safety Officer)**:** Name: Signature: _____

Prepared by (Operations Section Chief)**:** Name: Signature: _____

ICS 215A Date/Time: Date

ICS 215A
Incident Action Plan Safety Analysis

Purpose. The purpose of the Incident Action Plan Safety Analysis (ICS 215A) is to aid the Safety Officer in completing an operational risk assessment to prioritize hazards, safety, and health issues, and to develop appropriate controls. This worksheet addresses communications challenges between planning and operations, and is best utilized in the planning phase and for Operations Section briefings.

Preparation. The ICS 215A is typically prepared by the Safety Officer during the incident action planning cycle. When the Operations Section Chief is preparing for the tactics meeting, the Safety Officer collaborates with the Operations Section Chief to complete the Incident Action Plan Safety Analysis. This worksheet is closely linked to the Operational Planning Worksheet (ICS 215). Incident areas or regions are listed along with associated hazards and risks. For those assignments involving risks and hazards, mitigations or controls should be developed to safeguard responders, and appropriate incident personnel should be briefed on the hazards, mitigations, and related measures. Use additional sheets as needed.

Distribution. When the safety analysis is completed, the form is distributed to the Resources Unit to help prepare the Operations Section briefing. All completed original forms must be given to the Documentation Unit.

Notes:

- This worksheet can be made into a wall mount, and can be part of the IAP.
- If additional pages are needed, use a blank ICS 215A and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Incident Number**	Enter the number assigned to the incident.
3	**Date/Time Prepared**	Enter date (month/day/year) and time (using the 24-hour clock) prepared.
4	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (24-hour clock) and end date and time for the operational period to which the form applies.
5	**Incident Area**	Enter the incident areas where personnel or resources are likely to encounter risks. This may be specified as a Branch, Division, or Group.
6	**Hazards/Risks**	List the types of hazards and/or risks likely to be encountered by personnel or resources at the incident area relevant to the work assignment.
7	**Mitigations**	List actions taken to reduce risk for each hazard indicated (e.g., specify personal protective equipment or use of a buddy system or escape routes).
8	**Prepared by** (Safety Officer and Operations Section Chief) • Name • Signature • Date/Time	Enter the name of both the Safety Officer and the Operations Section Chief, who should collaborate on form preparation. Enter date (month/day/year) and time (24-hour clock) reviewed.

OPERATIONAL PLANNING WORKSHEET (ICS 215)

1. Incident Name:	2. Operational Period: Date From: Date Time From: HHMM Date To: Date Time To: HHMM

3. Branch	4. Division, Group, or Other	5. Work Assignment & Special Instructions	6. Resources													7. Overhead Position(s)	8. Special Equipment & Supplies	9. Reporting Location	10. Requested Arrival Time
			Req.																
			Have																
			Need																
			Req.																
			Have																
			Need																
			Req.																
			Have																
			Need																
			Req.																
			Have																
			Need																
			Req.																
			Have																
			Need																
			Req.																
			Have																
			Need																
		11. Total Resources Required															14. Prepared by:		
		12. Total Resources Have on Hand															Name:		
		13. Total Resources Need To Order															Position/Title:		
ICS 215																	Signature:		
																	Date/Time: Date		

ICS 215
Operational Planning Worksheet

Purpose. The Operational Planning Worksheet (ICS 215) communicates the decisions made by the Operations Section Chief during the Tactics Meeting concerning resource assignments and needs for the next operational period. The ICS 215 is used by the Resources Unit to complete the Assignment Lists (ICS 204) and by the Logistics Section Chief for ordering resources for the incident.

Preparation. The ICS 215 is initiated by the Operations Section Chief and often involves logistics personnel, the Resources Unit, and the Safety Officer. The form is shared with the rest of the Command and General Staffs during the Planning Meeting. It may be useful in some disciplines or jurisdictions to prefill ICS 215 copies prior to incidents.

Distribution. When the Branch, Division, or Group work assignments and accompanying resource allocations are agreed upon, the form is distributed to the Resources Unit to assist in the preparation of the ICS 204. The Logistics Section will use a copy of this worksheet for preparing requests for resources required for the next operational period.

Notes:

- This worksheet can be made into a wall mount.
- Also available as 8½ x 14 (legal size) and 11 x 17 chart.
- If additional pages are needed, use a blank ICS 215 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Branch**	Enter the Branch of the work assignment for the resources.
4	**Division, Group, or Other**	Enter the Division, Group, or other location (e.g., Staging Area) of the work assignment for the resources.
5	**Work Assignment & Special**	Enter the specific work assignments given to each of the Divisions/Groups and any special instructions, as required.
6	**Resources**	Complete resource headings for category, kind, and type as appropriate for the incident. The use of a slash indicates a single resource in the upper portion of the slash and a Strike Team or Task Force in the bottom portion of the slash.
	• Required	Enter, for the appropriate resources, the number of resources by type (engine, squad car, Advanced Life Support ambulance, etc.) required to perform the work assignment.
	• Have	Enter, for the appropriate resources, the number of resources by type (engines, crew, etc.) available to perform the work assignment.
	• Need	Enter the number of resources needed by subtracting the number in the "Have" row from the number in the "Required" row.
7	**Overhead Position(s)**	List any supervisory and nonsupervisory ICS position(s) not directly assigned to a previously identified resource (e.g., Division/Group Supervisor, Assistant Safety Officer, Technical Specialist, etc.).
8	**Special Equipment & Supplies**	List special equipment and supplies, including aviation support, used or needed. This may be a useful place to monitor span of control.
9	**Reporting Location**	Enter the specific location where the resources are to report (Staging Area, location at incident, etc.).
10	**Requested Arrival Time**	Enter the time (24-hour clock) that resources are requested to arrive at the reporting location.

Block Number	Block Title	Instructions
11	**Total Resources Required**	Enter the total number of resources required by category/kind/type as preferred (e.g., engine, squad car, ALS ambulance, etc.). A slash can be used again to indicate total single resources in the upper portion of the slash and total Strike Teams/ Task Forces in the bottom portion of the slash.
12	**Total Resources Have on Hand**	Enter the total number of resources on hand that are assigned to the incident for incident use. A slash can be used again to indicate total single resources in the upper portion of the slash and total Strike Teams/Task Forces in the bottom portion of the slash.
13	**Total Resources Need To Order**	Enter the total number of resources needed. A slash can be used again to indicate total single resources in the upper portion of the slash and total Strike Teams/Task Forces in the bottom portion of the slash.
14	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

SUPPORT VEHICLE/EQUIPMENT INVENTORY (ICS 218)

1. Incident Name:	2. Incident Number:	3. Date/Time Prepared: Date: Date Time: HHMM	4. Vehicle/Equipment Category:

5. Vehicle/Equipment Information

Order Request Number	Incident ID No.	Vehicle or Equipment Classification	Vehicle or Equipment Make	Category/ Kind/Type, Capacity, or Size	Vehicle or Equipment Features	Agency or Owner	Operator Name or Contact	Vehicle License or ID No.	Incident Assignment	Incident Start Date and Time	Incident Release Date and Time

ICS 218	6. Prepared by: Name: Position/Title: Signature: _____

ICS 218
Support Vehicle/Equipment Inventory

Purpose. The Support Vehicle/Equipment Inventory (ICS 218) provides an inventory of all transportation and support vehicles and equipment assigned to the incident. The information is used by the Ground Support Unit to maintain a record of the types and locations of vehicles and equipment on the incident. The Resources Unit uses the information to initiate and maintain status/resource information.

Preparation. The ICS 218 is prepared by Ground Support Unit personnel at intervals specified by the Ground Support Unit Leader.

Distribution. Initial inventory information recorded on the form should be given to the Resources Unit. Subsequent changes to the status or location of transportation and support vehicles and equipment should be provided to the Resources Unit immediately.

Notes:

- If additional pages are needed, use a blank ICS 218 and repaginate as needed.
- Also available as 8½ x 14 (legal size) and 11 x 17 chart.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Incident Number**	Enter the number assigned to the incident.
3	**Date/Time Prepared**	Enter the date (month/day/year) and time (using the 24-hour clock) the form is prepared.
4	**Vehicle/Equipment Category**	Enter the specific vehicle or equipment category (e.g., buses, generators, dozers, pickups/sedans, rental cars, etc.). Use a separate sheet for each vehicle or equipment category.
5	**Vehicle/Equipment Information**	Record the following information:
	Order Request Number	Enter the order request number for the resource as used by the jurisdiction or discipline, or the relevant EMAC order request number.
	Incident Identification Number	Enter any special incident identification numbers or agency radio identifier assigned to the piece of equipment used only during the incident, if this system if used (e.g., "Decontamination Unit 2," or "Water Tender 14").
	Vehicle or Equipment Classification	Enter the specific vehicle or equipment classification (e.g., bus, backhoe, Type 2 engine, etc.) as relevant.
	Vehicle or Equipment Make	Enter the vehicle or equipment manufacturer name (e.g., "GMC," "International").
	Category/Kind/Type, Capacity, or Size	Enter the vehicle or equipment category/kind/type, capacity, or size (e.g., 30-person bus, 3/4-ton truck, 50 kW generator).
	Vehicle or Equipment Features	Indicate any vehicle or equipment features such as 2WD, 4WD, towing capability, number of axles, heavy-duty tires, high clearance, automatic vehicle locator (AVL), etc.
	Agency or Owner	Enter the name of the agency or owner of the vehicle or equipment.
	Operator Name or Contact	Enter the operator name and/or contact information (cell phone, radio frequency, etc.).
	Vehicle License or Identification Number	Enter the license plate number or another identification number (such as a serial or rig number) of the vehicle or equipment.
	Incident Assignment	Enter where the vehicle or equipment will be located at the incident and its function (use abbreviations per discipline or jurisdiction).

Block Number	Block Title	Instructions
5 (continued)	Incident Start Date and Time	Indicate start date (month/day/year) and time (using the 24-hour clock) for driver or for equipment as may be relevant.
	Incident Release Date and Time	Enter the date (month/day/year) and time (using the 24-hour clock) the vehicle or equipment is released from the incident.
6	**Prepared by** • Name • Position/Title • Signature	Enter the name, ICS position/title, and signature of the person preparing the form.

DEMOBILIZATION CHECK-OUT (ICS 221)

1. Incident Name:	2. Incident Number:	
3. Planned Release Date/Time: Date: Date Time: HHMM	**4. Resource or Personnel Released:**	**5. Order Request Number:**

6. Resource or Personnel:

You and your resources are in the process of being released. Resources are not released until the checked boxes below have been signed off by the appropriate overhead and the Demobilization Unit Leader (or Planning Section representative).

LOGISTICS SECTION

	Unit/Manager	Remarks	Name	Signature
☐	Supply Unit			
☐	Communications Unit			
☐	Facilities Unit			
☐	Ground Support Unit			
☐	Security Manager			
☐				

FINANCE/ADMINISTRATION SECTION

	Unit/Leader	Remarks	Name	Signature
☐	Time Unit			
☐				
☐				

OTHER SECTION/STAFF

	Unit/Other	Remarks	Name	Signature
☐				
☐				

PLANNING SECTION

	Unit/Leader	Remarks	Name	Signature
☐				
☐	Documentation Leader			
☐	Demobilization Leader			

7. Remarks:

8. Travel Information:

Room Overnight: ☐ Yes ☐ No

Estimated Time of Departure:

Actual Release Date/Time:

Destination:

Estimated Time of Arrival:

Travel Method:

Contact Information While Traveling:

Manifest: ☐ Yes ☐ No

Area/Agency/Region Notified:

Number:

9. Reassignment Information: ☐ Yes ☐ No

Incident Name:

Incident Number:

Location:

Order Request Number:

10. Prepared by: Name: Position/Title: Signature:

ICS 221 Date/Time: Date

ICS 221
Demobilization Check-Out

Purpose. The Demobilization Check-Out (ICS 221) ensures that resources checking out of the incident have completed all appropriate incident business, and provides the Planning Section information on resources released from the incident. Demobilization is a planned process and this form assists with that planning.

Preparation. The ICS 221 is initiated by the Planning Section, or a Demobilization Unit Leader if designated. The Demobilization Unit Leader completes the top portion of the form and checks the appropriate boxes in Block 6 that may need attention after the Resources Unit Leader has given written notification that the resource is no longer needed. The individual resource will have the appropriate overhead personnel sign off on any checked box(es) in Block 6 prior to release from the incident.

Distribution. After completion, the ICS 221 is returned to the Demobilization Unit Leader or the Planning Section. All completed original forms must be given to the Documentation Unit. Personnel may request to retain a copy of the ICS 221.

Notes:

- Members are not released until form is complete when all of the items checked in Block 6 have been signed off.
- If additional pages are needed for any form page, use a blank ICS 221 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Incident Number**	Enter the number assigned to the incident.
3	**Planned Release Date/Time**	Enter the date (month/day/year) and time (using the 24-hour clock) of the planned release from the incident.
4	**Resource or Personnel Released**	Enter name of the individual or resource being released.
5	**Order Request Number**	Enter order request number (or agency demobilization number) of the individual or resource being released.
6	**Resource or Personnel** You and your resources are in the process of being released. Resources are not released until the checked boxes below have been signed off by the appropriate overhead and the Demobilization Unit Leader (or Planning Section representative). • Unit/Leader/Manager/Other • Remarks • Name • Signature	Resources are not released until the checked boxes below have been signed off by the appropriate overhead. Blank boxes are provided for any additional unit requirements as needed (e.g., Safety Officer, Agency Representative, etc.).
	Logistics Section ☐ Supply Unit ☐ Communications Unit ☐ Facilities Unit ☐ Ground Support Unit ☐ Security Manager	The Demobilization Unit Leader will enter an "X" in the box to the left of those Units requiring the resource to check out. Identified Unit Leaders or other overhead are to sign the appropriate line to indicate release.

Block Number	Block Title	Instructions
6 (continued)	**Finance/Administration Section** ☐ Time Unit	The Demobilization Unit Leader will enter an "X" in the box to the left of those Units requiring the resource to check out. Identified Unit Leaders or other overhead are to sign the appropriate line to indicate release.
	Other Section/Staff ☐	The Demobilization Unit Leader will enter an "X" in the box to the left of those Units requiring the resource to check out. Identified Unit Leaders or other overhead are to sign the appropriate line to indicate release.
	Planning Section ☐ Documentation Leader ☐ Demobilization Leader	The Demobilization Unit Leader will enter an "X" in the box to the left of those Units requiring the resource to check out. Identified Unit Leaders or other overhead are to sign the appropriate line to indicate release.
7	**Remarks**	Enter any additional information pertaining to demobilization or release (e.g., transportation needed, destination, etc.). This section may also be used to indicate if a performance rating has been completed as required by the discipline or jurisdiction.
8	**Travel Information**	Enter the following travel information:
	Room Overnight	Use this section to enter whether or not the resource or personnel will be staying in a hotel overnight prior to returning home base and/or unit.
	Estimated Time of Departure	Use this section to enter the resources or personnel's estimated time of departure (using the 24-hour clock).
	Actual Release Date/Time	Use this section to enter the resources or personnel's actual release date (month/day/year) and time (using the 24-hour clock).
	Destination	Use this section to enter the resource's or personnel's destination.
	Estimated Time of Arrival	Use this section to enter the resource's or personnel's estimated time of arrival (using the 24-hour clock) at the destination.
	Travel Method	Use this section to enter the resources or personnel's travel method (e.g., POV, air, etc.).
	Contact Information While Traveling	Use this section to enter the resource's or personnel's contact information while traveling (e.g., cell phone, radio frequency, etc.).
	Manifest ☐ Yes ☐ No Number	Use this section to enter whether or not the resource or personnel has a manifest. If they do, indicate the manifest number.
	Area/Agency/Region Notified	Use this section to enter the area, agency, and/or region that was notified of the resource's travel. List the name (first initial and last name) of the individual notified and the date (month/day/year) he or she was notified.
9	**Reassignment Information** ☐ Yes ☐ No	Enter whether or not the resource or personnel was reassigned to another incident. If the resource or personnel was reassigned, complete the section below.
	Incident Name	Use this section to enter the name of the new incident to which the resource was reassigned.
	Incident Number	Use this section to enter the number of the new incident to which the resource was reassigned.
	Location	Use this section to enter the location (city and State) of the new incident to which the resource was reassigned.
	Order Request Number	Use this section to enter the new order request number assigned to the resource or personnel.

Block Number	Block Title	Instructions
10	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (using the 24-hour clock).

Appendix D
Incident Command System Position Guides

- Incident Commander/Unified Command Position Guide
- Safety Officer Position Guide
- Liaison Officer Position Guide
- Public Information Officer Position Guide
- Operations Section Chief Position Guide
- Planning Section Chief Position Guide
- Logistics Section Chief Position Guide
- Finance and Administrative Section Chief Position Guide

Incident Commander/Unified Command Position Guide

Position Description

The Incident Commander/Unified Command is responsible to provide coherent strategic-level direction to support operational response and development of objectives to facilitate business continuity and return-to-service.

RESPONSE ACTIONS – INITIAL RESPONSE	✓
Activation of the ERP & ICS structure	❑
Assess the situation and/or obtain an incident briefing for from the prior Incident Commander	❑
Determine incident objectives and strategy (ICS 202) and establish immediate priorities	❑
Define provisional operational objectives & parameters	❑
Establish an Incident Command Post as needed	❑
Establish an appropriate organization and resources to manage the incident	❑
Ensure planning meetings are scheduled as required	❑
Approve and authorize implementation of an Incident Action Plan	❑
Ensure that adequate safety & personnel accountability measures are in place	❑
Coordinate activity for Command Staff	❑
Approve requests for additional resources or for release of resources	❑
Keep Commissioners informed of incident status as needed	❑
Authorize release of information to the news media	❑
Ensure that Incident Status Summary (ICS Form 209) is completed & disseminated	❑
Identify key resource & capability concerns	❑
Establish liaison with town/county/state emergency management as needed	❑
Initiate processes for tracking resources and cost accounting	❑
Notify any external response partners of necessary assistance	❑

RESPONSE ACTIONS - GENERAL TASKS	WHEN
Provide overall management of the incident.	
Participate in meetings as requested (refer to the PIO Planning “P” job aid).	As needed
Discuss field response information and prepare or update situational awareness as needed	As needed
Address financial, operational and other issues	As needed
Monitor and oversee response activities via situation reports, meetings, and briefings with the Planning Section, and ad hoc requests for information.	Throughout
Maintain liaison with external response partners as needed.	Throughout

RESPONSE ACTIONS – DEMOBILIZATION	✓
Ensure that the Demobilization Form (ICS-221) is prepared.	❑
Return to normal operations.	❑
Provide policy and strategic-level input to the after-action report/improvement planning process.	❑

Coordination with Others

COORDINATE WITH:	WHEN:	INCIDENT COMMANDER PROVIDES:	INCIDENT COMMANDER OBTAINS:
General Staff	As needed	Direction	Feedback
Command Staff	As needed	Direction	Feedback
Planning Section	As Needed	Direction/Guidance & Meeting/Briefing Facilitation	Situation Status & Action Planning
Boards of Commissioners	As needed	Situation updates	Feedback
Senior Leaders of External Entities	Routinely	Public outreach, resources, strategic-level ops coordination	Feedback & Guidance
PIO	Routinely	Guidance to develop and implement public messaging if needed	Feedback & Guidance

Incident Commander – Planning P[5]

ATTEND TACTICS MEETING
- Work with Command and General Staff to validate strategies and tactics for the next operational period.
- Provide guidance and clarification regarding objectives.

TACTICS MEETING PREPARATION
- Work with Operations and Planning Sections to develop strategy and tactics for the next operational period.
- Discuss/document strategies, tactics, and contingencies; ensure time to draft the IAP.

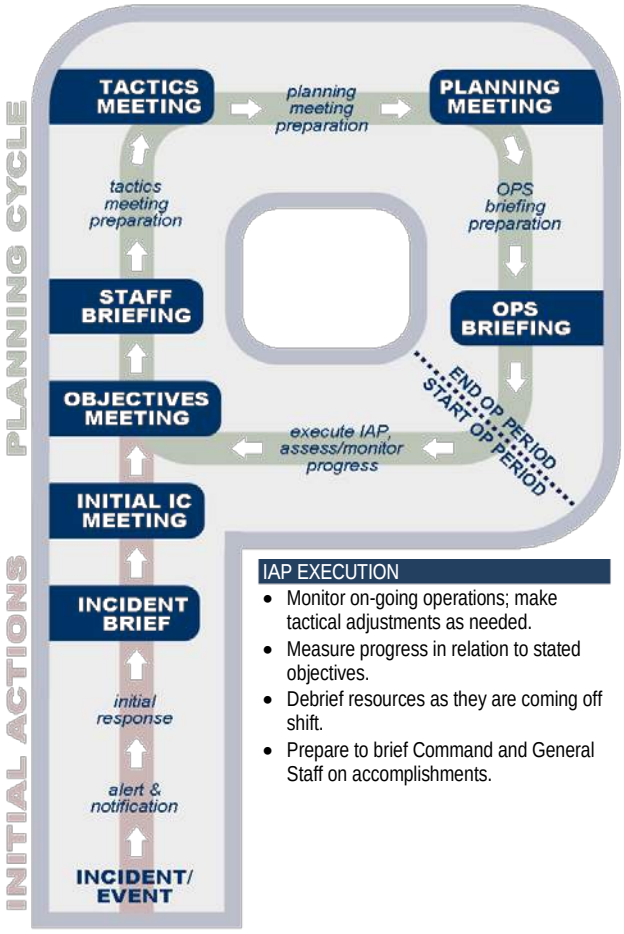
ATTEND STAFF BRIEFING
- Receive situation status briefing.
- Discuss established goals, operational period objectives, priorities, assignments, and progress.

ATTEND OBJECTIVES MEETING IF INVITED
- Objects identified/reviewed and prioritized for next operational period.

ATTEND INITIAL IC MEETING IF INVITED
- Response scope and priorities are established.
- Command/General Staff assigned.
- Cost-sharing procedures are agreed upon.
- Incident and support facilities are established.

ATTEND INCIDENT BRIEF
- Brief Command & General Staff on initial response activities
- Clarify issues and concerns
- Discuss planned operations and provide overall direction.

PLANNING MEETING PREPARATION
- Ensure a block of time is set aside for Command and General Staff to prepare for the Planning Meeting by updating charts, maps, resource estimates, Safety Plan, etc.



IAP EXECUTION
- Monitor on-going operations; make tactical adjustments as needed.
- Measure progress in relation to stated objectives.
- Debrief resources as they are coming off shift.
- Prepare to brief Command and General Staff on accomplishments.

INITIAL RESPONSE
- Report to the EOC.
- Meet with the Command and General Staff as they arrive.
- Manage initial response activities.
- Conduct Initial Assessment.
- Develop an initial plan of action.
- Prepare for the incident brief with Command and General Staff.

ATTEND PLANNING MEETING
- Meet with Command and General Staff.
- Review planned actions.
- Finalize information in the IAP.
- Obtain approval of the IAP from the Command and General Staff.

OPS BRIEFING PREPARATION
- Ensure that time is set aside to complete all IAP documentation.
- Ensure final approval of the IAP.
- Prepare duplicate IAPs for dissemination.

ATTEND OPS BRIEFING
- Provide operations briefing to all personnel for each response area.
- Ensure that Operations is afforded all necessary support to execute the IAP.
- Deploy next operating period resources.

[5] Adapted from the United States Coast Guard, Incident Management Handbook, August 2006.

Safety Officer Position Guide

Position Description

The Safety Officer's primary responsibility is to oversee worker health and safety for activities associated with any relevant response activities. While all field responders are responsible to operate safely, the Safety Officer monitors overarching hazards and changing conditions, such as weather, to modify safety practices as needed and to provide appropriate equipment.

Response Actions

RESPONSE ACTIONS – INITIAL RESPONSE	✓
Report to Emergency Operations or Incident Command Post.	❑
Commence actions to ensure responder/worker safety.	❑
Support the Incident Brief. Receive current situation status, resources, incident potential, and safety conditions and prepare initial Site Safety Plan (ICS-208).	❑

RESPONSE ACTIONS – SEQUENCE FOR EACH OPERATIONAL PERIOD	✓
Staff Briefing - Receive situation status briefing and discuss established overall goals, operational period objectives, priorities, assignments, etc. ❑ Prepare Incident Action Plan Safety Analysis (ICS 215a). ❑ Ensure that Medical Plan (ICS-206) is broadly communicated.	❑
Tactics Meeting – Develop response organization, operational assignments, and resources aligned with operational period objectives. Identify and resolve critical safety and security issues.	❑
Planning Meeting – Receive situation update, assist with approval/revision of plan, and obtain responsibilities/deadlines for open actions, tasks, and IAP assignments.	❑
Operations Briefing Preparation – Assist with Site Safety Plan and with IAP.	❑
Operations Briefing – Review IAP changes, receive Situation Briefing, and address safety and security issues.	❑
IAP Execution and Progress Assessment - Assist as needed.	❑

RESPONSE ACTIONS - GENERAL TASKS	WHEN
Ensure worker safety during all tasks associated with response activities.	Continually
Oversee contractor safety (if employed) and ensure compliance with WRD policies	Continually
Ensure all applicable Occupational Safety and Health Administration (OSHA) regulations are followed.	Continually
Ensure plans and policies are consistent across all sites and activities.	Continually
Ensure readiness of standby emergency and rescue equipment.	Continually
Ensure hazard communications materials are accessible and legible.	Continually
Ensure proper use and fit of PPE.	Routinely
Oversee personnel accountability systems.	Routinely
Monitor workers for exposure to safety or health hazardous conditions.	Routinely

RESPONSE ACTIONS - GENERAL TASKS	WHEN
Identify and correct occupational safety and health hazards.	As needed
Alter, suspend, evacuate, or terminate activities that may pose an imminent safety or health risk to workers.	As needed
Take action to mitigate/eliminate unsafe conditions, operations, hazards.	As needed
Make notifications to local fire, rescue, & emergency management resources.	As needed
Arrange for standby rescue teams.	As needed
Provide training and safety/health information.	As needed
Perform assessment of engineering controls and PPE.	As needed
Document safe and unsafe acts, corrective actions taken on the scene, accidents/ injuries, best practices, ways to improve safety/future incidents	As needed
Ensure prompt submittal of accident reports.	As needed
Review IAP for safety implications.	As needed
Exercise emergency authority to stop and prevent unsafe acts.	As needed
Prepare &/or maintain Site Safety and Health Plan (ICS-208)	As needed

RESPONSE ACTIONS – DEMOBILIZATION	✓
Assist in preparation of the Demobilization Form (ICS-221)	❑
Resume normal agency operations upon incident termination	❑
Participate in After Action Report/Improvement Plan development process	❑

Coordination with Others

COORDINATE W/OTHERS:	WHEN:	SAFETY OFFICER PROVIDES:	SAFETY OFFICER OBTAINS:
Incident Commander	Routinely	Health and Safety Guidance and Situation Updates	Feedback & Guidance
Operations Staff	Routinely	Health and Safety Guidance and Situation Updates	Feedback & Guidance
Command Staff	Routinely	Health and Safety Guidance and Situation Updates	Feedback & Guidance
Fire, rescue, & emergency management resources	As needed	Notifications	Feedback, Guidance & Response if needed

Safety Officer – Planning P[6]

ATTEND TACTICS MEETING
- Desired outcomes include response organization, operational assignments, and resources aligned with operational period objectives.
- Identify and resolve any critical safety issues.

TACTICS MEETING PREPARATION
NO PREP NECESSARY
- Incident Commander, Operations/Planning Sections prepare for Tactics Meeting.

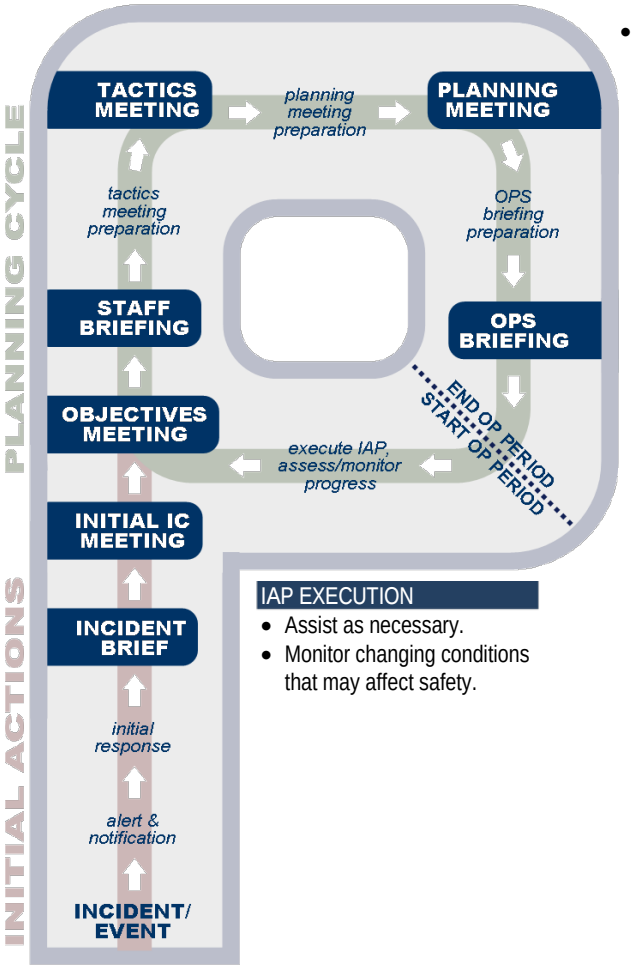
ATTEND STAFF BRIEFING
- Receive situation status briefing.
- Discuss established goals, operational period objectives, priorities, assignments, etc.
- Prepare ICS-203 and 204.

ATTEND OBJECTIVES MEETING IF INVITED
- Objects identified/reviewed and prioritized for next operational period.

ATTEND INITIAL IC MEETING IF INVITED
- Response scope and priorities are established.
- Command/General Staff assigned.
- Safety and security matters are addressed.

ATTEND INCIDENT BRIEF
- Receive current situation status, resource assignments, resources en-route/ordered, facilities established, incident potential, etc.

PLANNING MEETING PREPARATION
- No action necessary unless requested.



IAP EXECUTION
- Assist as necessary.
- Monitor changing conditions that may affect safety.

INITIAL RESPONSE
- Report to EOC as requested.

ATTEND PLANNING MEETING
- Receive situation update.
- Assist with approval/revision of plan.
- Obtain responsibilities and deadlines for open actions, tasks and IAP assignments.

OPS BRIEFING PREPARATION
- Assist with the Site Safety Plan(s) and IAP as necessary.

ATTEND OPS BRIEFING
- Review IAP changes.
- Receive Situation Briefing.
- Address safety and security issues.

[6] Adapted from the United States Coast Guard, Incident Management Handbook, August 2006.

Liaison Officer Position Guide

Position Description

The Liaison Officer (LNO) coordinates with external response partners and serves as the utilities' single point of contact for all entities (public, non-public, and private) not directly involved in response operations. The LNO is responsible for routing contacts from external organizations to the appropriate destination(s) within the utility.

Response Actions

RESPONSE ACTIONS – INITIAL RESPONSE	✓
Report to Emergency Operations or Incident Command Post.	❑
Report to Incident Commander when ready to commence operations.	❑
Obtain initial briefing.	❑
Augment staff as needed to address existing needs; delegate staff responsibilities as appropriate.	❑
Ensure all required supplies and equipment are in place.	❑
Notify Planning Section of resources activated including names and locations of assigned personnel.	❑

RESPONSE ACTIONS – GENERAL TASKS	WHEN
Participate in meetings as requested (refer to the PIO Planning "P" job aid).	As needed
Receive, assess, route, and address contacts/communications from cooperating and/or assisting entities not directly involved in response.	As needed
Advise the Incident Commander on matters concerning external coordination.	As needed
Prepare and maintain a Unit Log (ICS-214) and/or General Message (ICS-213) as needed.	As needed
Respond to Incident Commander's strategic and tactical direction as needed.	As needed
Appoint deputies to ensure 24/7 coordination with all pertinent external entities as needed.	As needed
Maintain situational awareness with the Incident Commander.	Routinely

RESPONSE ACTIONS – DEMOBILIZATION	✓
Assist in preparation of the Demobilization Form (ICS-221).	❑
Receive, assess, route, and address contacts/communications from cooperating and/or assisting entities not directly involved in response.	❑
Release staff according to Demobilization Plan at termination of incident or on an ad hoc basis.	❑
Return to normal responsibilities upon incident termination.	❑
Participate in After Action Report/Improvement Plan development process	❑

Coordination with Others

COORDINATE W/OTHERS:	WHEN:	LNO PROVIDES:	LNO OBTAINS:
Planning Section	Resources are in place	Notification of resources activated	Requests for resources
Operations Section(s)	As needed	Coordination support	Requests for resources
PIO	As needed	Message content	Outreach support
Incident Commander	Routinely	Situation updates	Situation status updates

Liaison Officer – Planning P[7]

ATTEND TACTICS MEETING
- Desired outcomes include response organization, operational assignments, and resources aligned with operational period objectives.

TACTICS MEETING PREPARATION

NO PREP NECESSARY
- Incident Commander, Operations/Planning Sections prepare for Tactics Meeting.

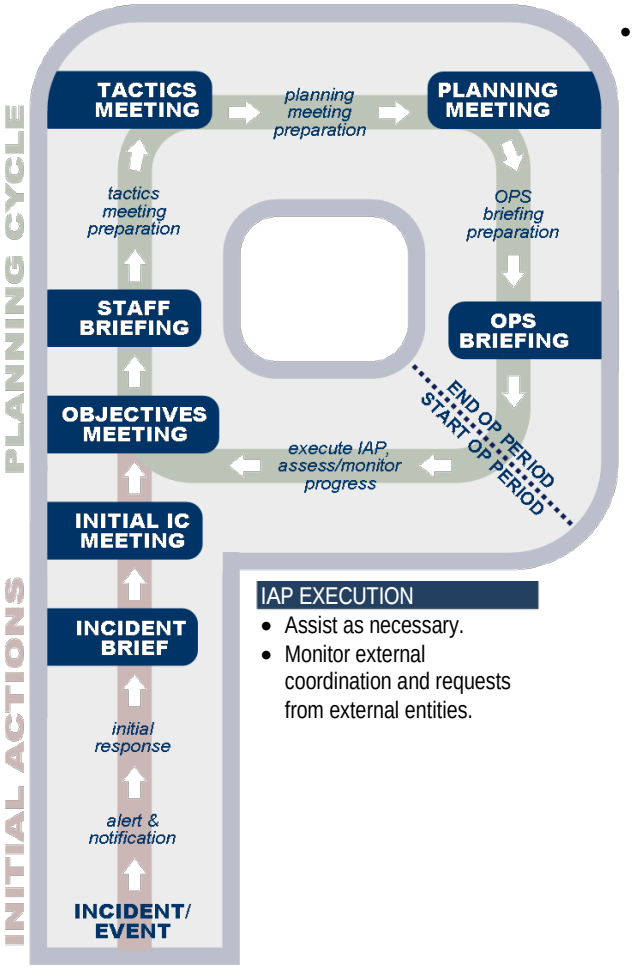
ATTEND STAFF BRIEFING
- Receive situation status briefing.
- Discuss established goals, operational period objectives, priorities, assignments, etc.

ATTEND OBJECTIVES MEETING IF INVITED
- Objects identified/reviewed and prioritized for next operational period.

ATTEND INITIAL IC MEETING IF INVITED
- Response scope and priorities are established.
- Command/General Staff assigned.
- Resource ordering procedures agreed upon.

ATTEND INCIDENT BRIEF
- Receive current situation status, resource assignments, resources en-route/ordered, facilities established, incident potential, etc.

PLANNING MEETING PREPARATION
- No action necessary unless requested.



IAP EXECUTION
- Assist as necessary.
- Monitor external coordination and requests from external entities.

INITIAL RESPONSE
- Report to EOC as requested.

ATTEND PLANNING MEETING
- Receive situation update.
- Assist with approval/revision of plan.
- Obtain responsibilities and deadlines for open actions, tasks and IAP assignments.

OPS BRIEFING PREPARATION
- Assist with IAP as necessary.

ATTEND OPS BRIEFING
- Review IAP changes.
- Receive Situation Briefing.
- Provide update of external coordination and jurisdictional issues.

[7] Adapted from the United States Coast Guard, Incident Management Handbook, August 2006.

Public Information Officer Position Guide

Position Description

The Public Information Officer (PIO) is responsible for generating and disseminating message content to the public during a contamination incident or event. If other local, county, or state agencies are activated to respond to an incident, the PIO may function independently and/or in conjunction with a Joint Information Center (JIC) with other agency PIOs. Public communication requirements may include providing routine situation updates, responding to media inquiries, monitoring media content, and research to support public communications.

Response Actions

RESPONSE ACTIONS – INITIAL RESPONSE	✓
Report to Emergency Operations or Incident Command Post.	❑
Define processes to address these possible assignments: 1) media relations and monitoring; 2) research and writing; and 3) public Inquiries.	❑
If activated and assigned, work in the JIC with other PIOs to develop appropriate public messaging and support message dissemination.	❑
Coordinate messaging with the Incident Commander.	❑

RESPONSE ACTIONS – GENERAL TASKS	WHEN
Participate in meetings as requested (refer to the PIO Planning "P" job aid).	As needed
Request briefings regarding situation status; collect and verify third-party information from news channels, weather reports, etc.	As needed
Provide situation updates to the Command and General Staff.	Routinely
Develop press releases, scripts, and other content for public consumption.	As needed
Assist in developing press releases as needed.	As needed
Address translation needs and communication with those with special needs.	As needed
Monitor the tone and content of news media coverage to suppress rumors and to identify and correct misinformation.	Ongoing
Coordinate water conservation campaign content as needed.	Ongoing
Maintain a Unit Log (ICS-214) and/or General Message (ICS-213) as needed	Routinely

RESPONSE ACTIONS – DEMOBILIZATION	✓
Assist in preparation of the Demobilization Form (ICS-221)	❑
Return to responsibilities upon incident termination.	❑
Participate in After Action Report/Improvement Plan development process.	❑

Coordination with Others

COORDINATE W/OTHERS:	WHEN:	PIO PROVIDES:	PIO OBTAINS:
Command and General Staff	As needed	Coordination Efforts	Coordination Efforts
JIC	As needed	Situation Updates	Message dissemination support; assistance with translating and communication with those with special needs
Incident Commander	As needed	Coordination of press release content	Coordination of press release content
Incident Commander and Operations	As needed	Information outlining what information may or may not be discussed with the media.	Information outlining what information may or may not be discussed with the media.

Public Information Officer – Planning P[8]

ATTEND TACTICS MEETING
- Desired outcomes include response organization, operational assignments, and resources aligned with operational period objectives.

TACTICS MEETING PREPARATION

NO PREP NECESSARY
- Incident Commander, Operations/Planning Sections prepare for Tactics Meeting.

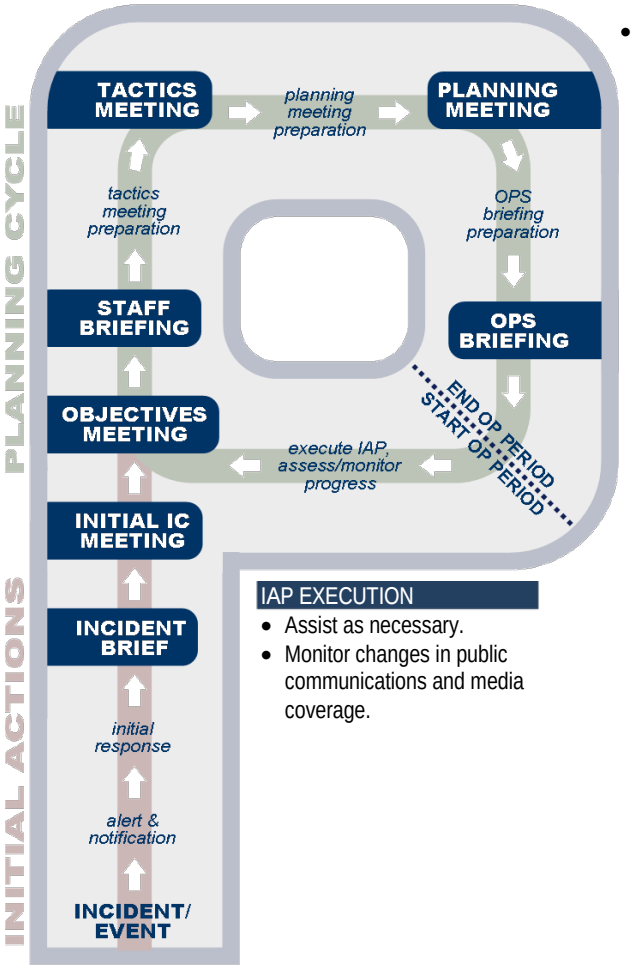
ATTEND STAFF BRIEFING
- Receive situation status briefing.
- Discuss established goals, operational period objectives, priorities, assignments, etc.

ATTEND OBJECTIVES MEETING IF INVITED
- Objects identified/reviewed and prioritized for next operational period.

ATTEND INITIAL IC MEETING IF INVITED
- Response scope and priorities are established.
- Command/General Staff assigned.
- Resource ordering procedures agreed upon.

ATTEND INCIDENT BRIEF
- Receive current situation status, resource assignments, resources en-route/ordered, facilities established, incident potential, etc.

PLANNING MEETING PREPARATION
- No action necessary unless requested.



IAP EXECUTION
- Assist as necessary.
- Monitor changes in public communications and media coverage.

INITIAL RESPONSE
- Report to EOC as requested.

ATTEND PLANNING MEETING
- Receive situation update.
- Assist with approval/revision of plan.
- Obtain responsibilities and deadlines for open actions, tasks and IAP assignments.

OPS BRIEFING PREPARATION
- Assist with IAP as necessary.

ATTEND OPS BRIEFING
- Review IAP changes.
- Receive Situation Briefing.
- Provide update of public communication and jurisdictional issues.

[8] Adapted from the United States Coast Guard, Incident Management Handbook, August 2006.

Operations Section Chief Position Guide

Position Description

The Operations Section Chief (OSC) is responsible for operational activities associated with the response needs specific to the incident or event. The OSC directs all field response activities and implements tactics to achieve incident objectives during each operational period.

Response Actions

RESPONSE ACTIONS – INITIAL RESPONSE	✓
Report to the EOC or ICP when ready to commence operations.	❑
Maintain situational awareness with Command and General Staff, particularly in relation to conditions and status of operations in the field.	❑
Receive briefing(s) from the Incident Commander (initially) and/or the prior shift OSC.	❑
Conduct detailed analyses of available alternatives and select preferred remediation actions in consultation with Command and General Staff.	❑

RESPONSE ACTIONS – GENERAL TASKS	WHEN
Participate in and assist with various meetings to support situational awareness, resourcing, and mitigation of safety issues. Refer to Planning "P" job aid for more detailed information.	As needed
Assign specific tasks to operational units.	As needed
Anticipate and resolve resource and logistical requirements.	As needed
Work with the Incident Commander and Planning Section to prepare the Operational Planning Worksheet (ICS-215) outlining work assignments and resources.	Each operational period
Ensure that operational units have a copy of the IAP.	As needed
Support the Incident Commander in development of operational plans, reports, etc.	As needed
Complete the Unit Log (ICS 214) as needed.	Staff Briefing
Perform internal and external notifications as needed.	As needed
Recruit runners/assistants.	As needed
Conduct investigations at fixed facilities to estimate damages and response needs.	On-going

	RESPONSE ACTIONS – DEMOBILIZATION	✓
1	Assist in preparation of the Demobilization Checklist (ICS-221)	❑
2	Return operations to normal upon incident termination.	❑
3	Participate in the After Action Report/Improvement Plan development process.	❑

Coordination with Others

COORDINATE W/OTHERS:	WHEN:	OPS PROVIDES:	OPS OBTAINS:
Incident Commander	Routinely	Situation updates	Support & Information
Incident Commander and Planning Section	Each operational period Tactics Meeting	Preparation of ICS-215	Preparation of ICS-215
Logistics Section	Routinely	Situation Updates	Strategic Direction

Operations Section Chief – Planning P[9]

ATTEND TACTICS MEETING
- Work with the Incident Commander to develop strategy and tactics for the next operational period.
- Provide guidance, clarification, and proposed objectives.

TACTICS MEETING PREPARATION
- Work with Planning Section for resource and status information.
- Discuss and document strategies, tactics, and contingencies.
- Ensure time to draft IAP.

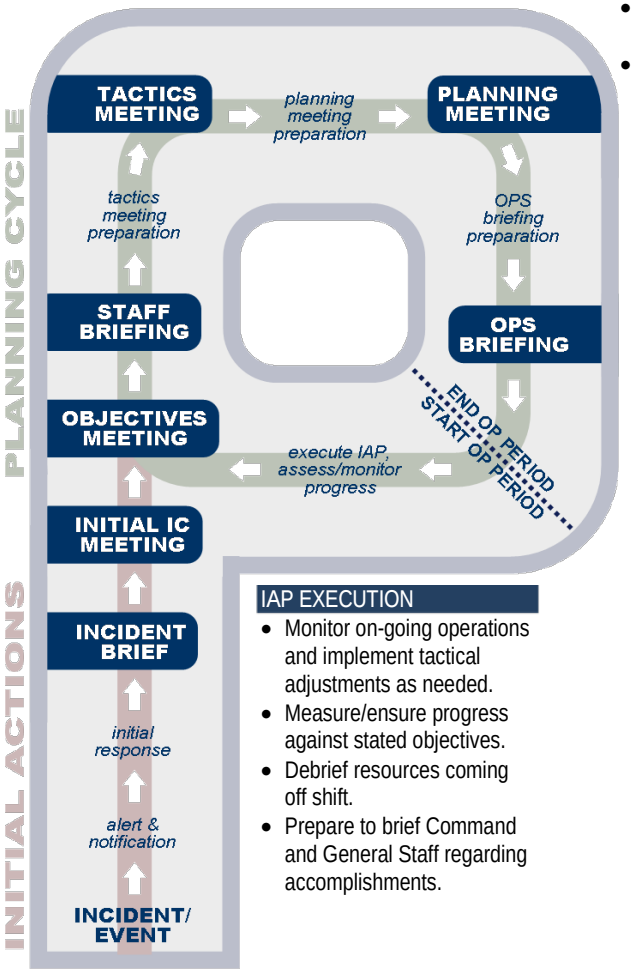
ATTEND STAFF BRIEFING
- Receive situation status briefing.
- Discuss established goals, operational period objectives, priorities, assignments, etc.

ATTEND OBJECTIVES MEETING IF INVITED
- Objects identified/reviewed and prioritized for next operational period.

ATTEND INITIAL IC MEETING IF INVITED
- Response scope and priorities are established.
- Command/General Staff assigned.
- Incident and support facilities are established.

ATTEND INCIDENT BRIEF
- Brief Command and General Staff on initial response activities.
- Clarify an issues and concerns.
- Discuss planned operations and direction.

PLANNING MEETING PREPARATION
- Ensure a block of time is set aside for Command and General Staff to prepare for the Planning Meeting (update charts, maps, Safety Plan, etc.).



IAP EXECUTION
- Monitor on-going operations and implement tactical adjustments as needed.
- Measure/ensure progress against stated objectives.
- Debrief resources coming off shift.
- Prepare to brief Command and General Staff regarding accomplishments.

INITIAL RESPONSE
- Report to the EOC.
- Meet with Command and General Staff.
- Conduct initial assessment.
- Manage initial response activities.
- Develop plan of action.
- Prepare for command briefing.

ATTEND PLANNING MEETING
- Meet with Command General Staff.
- Review planned actions.
- Finalize information to populate the IAP.
- Obtain approval for tactics in relation to planned actions.

OPS BRIEFING PREPARATION
- Ensure time is set aside to complete all documentation for inclusion in the IAP.
- Ensure Command and General Staff approves the IAP.
- Ensure duplicate IAPs are distributed.

ATTEND OPS BRIEFING
- Provide a briefing to Operations personnel for each response area.
- Ensure necessary operational support is in place.
- Deploy next operating period resources.

[9] Adapted from the United States Coast Guard, Incident Management Handbook, August 2006.

Planning Section Chief Position Guide

Position Description

The Planning Section Chief coordinates all planning activities including conducting meetings and assimilation of data to develop the IAP. Incident planning occurs on a cyclical pattern (as depicted in the Planning "P") and repeats during each operational period. The primary output of operational planning is the IAP. Planning information may also be disseminated via briefings, reports, maps and status boards, and other means.

Response Actions

RESPONSE ACTIONS – INITIAL RESPONSE	✓
Report to Emergency Operations or Incident Command Post.	
Receive an incident status briefing	❑
Activate Planning Section personnel as needed. Organize and brief subordinates. Develop a planning organization, assign work locations, and assign preliminary work tasks to personnel.	❑
Acquire work materials and ensure the workspace is ready for Planning Section operations.	❑
Incident Brief ❑ Facilitate the Incident Brief providing the current incident status. ❑ Assist the Incident Commander in preparing the Incident Briefing (ICS-201).	❑
Initial IC Meeting ❑ Set up the meeting room. ❑ Facilitate the Initial IC meeting. ❑ Provide a recorder to document the meeting.	❑

RESPONSE ACTIONS – SEQUENCE FOR EACH OPERATIONAL PERIOD	✓
Objectives Meeting ❑ Facilitate the Objectives Meeting. ❑ Provide a recorder to document decisions. ❑ Distribute and post decisions. ❑ Prepare Incident Objectives (ICS-202).	❑
Staff Briefing ❑ Facilitate the meeting. ❑ Provide a Situation Briefing. ❑ Receive work tasks and assignments. ❑ Resolve conflicts and clarify roles and responsibilities. ❑ Prepare ICS-203 and ICS-204 forms.	❑
Tactics Meeting Preparation ❑ Meet with Incident Commander to determine strategies, tactics, and resource requirements. ❑ Notify meeting participants of the scheduled meeting. ❑ Set up the meeting room.	❑

RESPONSE ACTIONS – SEQUENCE FOR EACH OPERATIONAL PERIOD	✓
Tactics Meeting ❑ Facilitate the meeting. ❑ Provide a Situation Briefing. ❑ Review proposed strategy, tactics, and resource requirements and identify resource shortfalls. ❑ Assure strategy and tactics comply with incident objectives. ❑ Mitigate logistics and safety issues (with assistance from the Safety Officer as needed). ❑ Prepare the Operational Planning Worksheet (ICS-215) in coordination with the Incident Commander and/or Operations Section.	❑
Planning Meeting Preparation ❑ Revised the ICS-215 form and make hard copies for attendees. ❑ Notify participants of meeting location and time. ❑ Set up the meeting room.	❑
Planning Meeting ❑ Facilitate the meeting. ❑ Provide a Situation Briefing. ❑ Confirm availability of resources. ❑ Verify support for proposed IAP. ❑ Document decisions and assigned actions.	❑
Operations Briefing Preparation ❑ Develop components of IAP. ❑ Review the completed IAP for correctness. ❑ Provide the IAP to Command Staff for review and approval. ❑ Make copies of the IAP for distribution.	❑
Operations Briefing ❑ Set up the briefing area. ❑ Facilitate the briefing and provide a Situation Briefing. ❑ Distribute copies of the IAP. ❑ Adjust IAP as necessary.	❑
IAP Execution and Progress Assessment ❑ Monitor progress regarding IAP implementation. ❑ Measure/ensure progress against stated objectives. ❑ Maintain situation and resource status. ❑ Debrief resources coming off shift. ❑ Maintain interaction with Incident Commander and other Command staff as necessary.	❑

RESPONSE ACTIONS – GENERAL TASKS	WHEN
Ensure general welfare and safety of Planning Section personnel.	Continually
Establish an ICS planning cycle and process.	Each Operational Period
Provide input to and review the Communications Plan (ICS-205), Medical Plan (ICS-206), and Traffic Plan.	Each operational period
Oversee preparation of the IAP.	Each operational period
Ensure that the Check-in List (ICS-211) and Unit Logs (ICS-214) are prepared.	As needed

RESPONSE ACTIONS – GENERAL TASKS	WHEN
Estimate service and support requirements for planned and expected operations.	As needed
Provide the Incident Commander with response objective recommendations for the upcoming operational period.	As needed

RESPONSE ACTIONS – DEMOBILIZATION	✓
Prepare the Demobilization Checkout (ICS-221) with input from Command & General Staff.	❑
Provide support as needed to coordinate information exchange to support accountability and cost recovery.	❑
Ensure ICS forms and operations records are completed and filed for future reference and inclusion in the After Action Report.	❑
Return to normal responsibilities upon incident termination.	❑
Participate in After Action Report/Improvement Plan development process.	❑

Coordination with Others

COORDINATE W/OTHERS:	WHEN:	PLANNING SECTION CHIEF PROVIDES:	PLANNING SECTION CHIEF OBTAINS:
Operations	As needed	Direct response characterization	Support
Operations and the Incident Commander	As needed	Evaluate risk reduction in immediate operational response actions; establish preliminary & final remediation goals	Guidance
Incident Commander	As needed	Response objective recommendations for the upcoming operational period	Guidance
Operations, Logistics, and Finance & Administration Sections	As needed		Operational information to develop common operating picture

Planning Section Chief – Planning P[10]

ATTEND TACTICS MEETING
- Facilitate Tactics Meeting.
- Provide Situation Briefing.
- Review proposed strategy, tactics & resource requirements.
- Identify resource shortfalls.
- Assure the strategy & tactics comply with incident objectives.

TACTICS MEETING PREPARATION
- Meet with Incident Commander to determine strategies, tactics & resource requirements.
- Notify meeting participants of scheduled meeting.
- Set up meeting room.

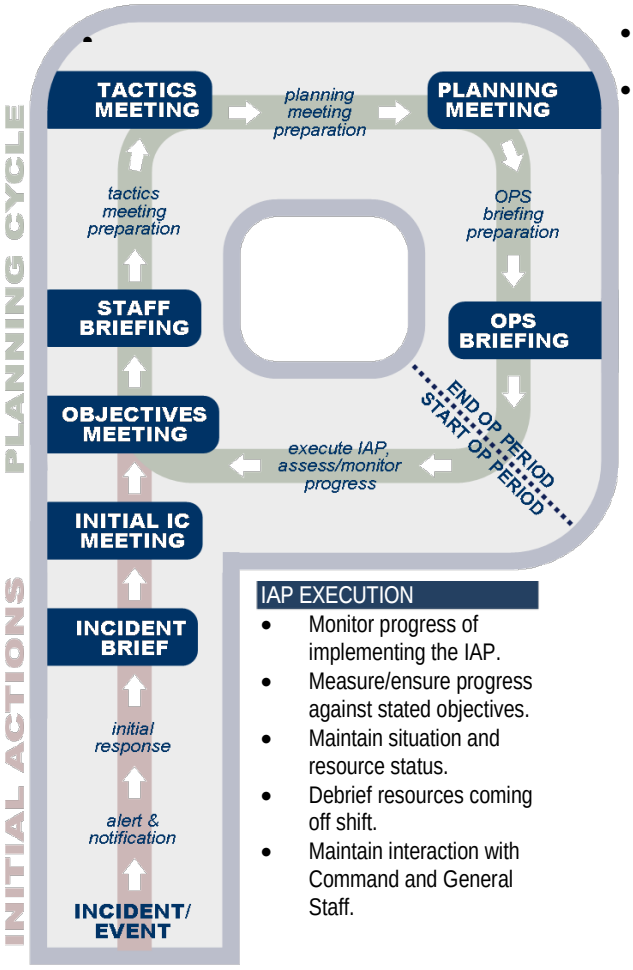
ATTEND STAFF BRIEFING
- Set up meeting room.
- Facilitate Staff Briefing.
- Provide Situation Briefing.
- Receive work tasks and assignments.
- Resolve conflicts and clarify roles/responsibilities.

ATTEND OBJECTIVES MEETING
- Set up Meeting Room.
- Facilitate Objectives Meeting.
- Provide recorder to document decisions.
- Distribute and post decisions.

ATTEND INITIAL IC
- Set up meeting room.
- Facilitate Initial IC Meeting.

ATTEND INCIDENT BRIEF
- Facilitate Incident Brief.

PLANNING MEETING PREPARATION
- Revise ICS-215; make hard copies for attendees.
- Notify participants of meeting location and time.
- Set up meeting room.



IAP EXECUTION
- Monitor progress of implementing the IAP.
- Measure/ensure progress against stated objectives.
- Maintain situation and resource status.
- Debrief resources coming off shift.
- Maintain interaction with Command and General Staff.

INITIAL RESPONSE
- Report to EOC as requested.
- Receive situation status briefing.
- Activate Planning Section as needed.
- Organize and brief subordinates.
- Acquire work materials.

ATTEND PLANNING MEETING
- Facilitate Planning Meeting.
- Provide Situation Briefing
- Confirm availability of resources.
- Verify support for the proposed plan.
- Document decisions and assigned actions.

OPS BRIEFING PREPARATION
- Develop components of the IAP.
- Review completed IAP for correctness.
- Provide IAP to UAC for review and approval.
- Make copies of IAP for distribution.

ATTEND OPS BRIEFING
- Facilitate Ops Briefing.
- Provide Situation Briefing.
- Distribute copies of IAP.
- Make adjustments to IAP, if necessary.

[10] Adapted from the United States Coast Guard, Incident Management Handbook, August 2006.

Logistics Section Chief Position Guide

Position Description

The Logistics Section Chief (LSC) is responsible for coordinating resource management activities and overseeing all activities from ordering through to demobilization. The LSC should be copied on all requests, orders, and disposition reports.

Response Actions

RESPONSE ACTIONS – INITIAL RESPONSE	✓
Report to Emergency Operations Center or Incident Command Post.	❑
Develop logistics responsibilities and delegate as needed. Identify work locations across the Logistics Section. Logistics functions, which may require personnel support, include supply, distribution, facilities, ground support (transportation), communications, and food.	❑
Assemble and brief personnel on status of logistics needs and requests.	❑
Coordinate with Planning Section and Incident Commander to ascertain the number of personnel in need of food and lodging.	❑
Notify the Planning Section of the Logistics Section units activated, including names and locations of assigned personnel.	❑
Initiate coordination with Finance and Administration Section Chief to ensure coordination and visibility with regard to resource acquisition, usage, tracking, and disposition.	❑
Conduct a needs assessment to identify and prioritize unmet resource needs.	❑
For resources not on hand, consult with the Incident Commander to determine availability of funds and most appropriate, time sensitive and cost effective methods of procuring the resources.	❑
Provide support as needed for resource staging or direct delivery. Staged resources will require establishment of a secure staging area.	❑
Inform the Incident Commander of any unmet resource needs for referral to the County or State Divisions of Emergency Management.	❑
Incident Brief ❑ Order staff if/when activated. ❑ Receive current situation briefing, resource assignments, resources en-route/ordered, facilities established incident potential, etc. ❑ Ensure that the Communications Plan (ICS-205) is prepared. ❑ Ensure that the Medical Plan (ICS-206) and Traffic Plan are prepared.	❑

RESPONSE ACTIONS – SEQUENCE FOR EACH OPERATIONAL PERIOD	✓
Staff Briefing ❑ Receive situation status briefing. ❑ Discuss established goals, operational period objectives, priorities, assignments, etc. ❑ Assist in preparing ICS-203 and ICS-204.	❑
Tactics Meeting ❑ Receive current situation update. ❑ Participate and contribute logistics information as necessary. ❑ Identify and resolve major logistical issues. ❑ Determine tactics, control operations, and what resources will be assigned. ❑ Verify support requirements.	❑
Planning Meeting Preparation ❑ Verify support requirements. ❑ Develop information regarding resource availability.	❑
Planning Meeting ❑ Receive situation update (including resources at risk). ❑ Assist with approval/revision of the IAP. ❑ Support Operations in making tactical resource assignments and determining Operations facilities and reporting locations. ❑ Develop resources, support, and overhead order with Planning Section. ❑ Assist with implementing the IAP once approved. ❑ Provide briefing regarding logistical support and resource ordering status. ❑ Obtain responsibilities and deadlines for open actions, tasks, and IAP assignments.	❑
Operations Briefing Preparation ❑ Develop logistics information pertinent to the IAP. ❑ Verify resources ordered.	❑
Operations Briefing ❑ Review IAP changes. ❑ Receive Situation Briefing. ❑ Provide transport, communication, and supply update.	❑
IAP Execution and Progress Assessment ❑ Verify and maintain status of resources and resolve logistical problems.	❑

RESPONSE ACTIONS – GENERAL TASKS	WHEN
Ensure general welfare and safety of Logistics Section personnel.	Continually
Monitor status of resources currently in use.	Routinely
Receive resource requests and submit request for fulfillment.	As needed
Identify service & support requirements for planned & expected operations	As needed
Coordinate, process, & track requests for additional resources via asset management system	As needed
Advise IC on current service & support capabilities	As needed
Assist in preparing the Check-in List (ICS-211)	As needed
Prepare a Unit Log (ICS-214)	As needed

RESPONSE ACTIONS – DEMOBILIZATION	✓
Assist in preparing the Demobilization Checkout (ICS-221).	❑
Demobilize or redeploy resources that are no longer needed. ❑ Return loaned and rented resources. ❑ Dispose of, sell, or warehouse excess resources. ❑ Document disposition. ❑ Conduct financial settlement with suppliers (in coordination with Finance and Administration Section). ❑ Send thank you notes to suppliers and donors.	❑
Receive Incident Demobilization Plan from Planning Section when incident is nearing termination.	❑
Recommend release of Unit resources in conformity with Incident Demobilization Plan.	❑
Collect resource tracking worksheets from participating business units upon incident termination.	❑
Present resource tracking worksheets to the Finance and Administration Section for accountability & cost recovery.	❑
Return to normal logistical activities.	❑
Participate in After Action Report/Improvement Plan development process.	❑

Coordination with Others

COORDINATE W/OTHERS:	WHEN:	LOGISTICS SECTION CHIEF PROVIDES:	LOGISTICS SECTION CHIEF OBTAINS:
Incident Commander	Routinely	Situation updates	Feedback
Planning Section & Incident Commander	After Logistics units are assigned	Number of personnel in need of food and lodging	Number of personnel in need of food and lodging
Planning Section	After Logistics units are assigned	Identification of logistics units activated (including names and locations)	Feedback & Guidance
Finance and Administration Section Chief	As needed	1. Coordination and visibility with regard to resource acquisition, usage, tracking, and disposition 2. Determination of fund availability and most appropriate, time sensitive, and cost effective method of procuring resources	1. Coordination and visibility with regard to resource acquisition, usage, tracking, and disposition 2. Determination of fund availability and most appropriate, time sensitive, and cost effective method of procuring resources

Logistics Section Chief – Planning P[11]

ATTEND TACTICS MEETING
- Receive current situation update.
- Participate and contribute logistics information as necessary.
- Identify and resolve major logistical issues.
- Determine tactics and control operations and what resources will be assigned.
- Verify support requirements.

TACTICS MEETING PREPARATION

NO PREP NECESSARY
- Operations/Planning Sections prepare for Tactics Meeting.

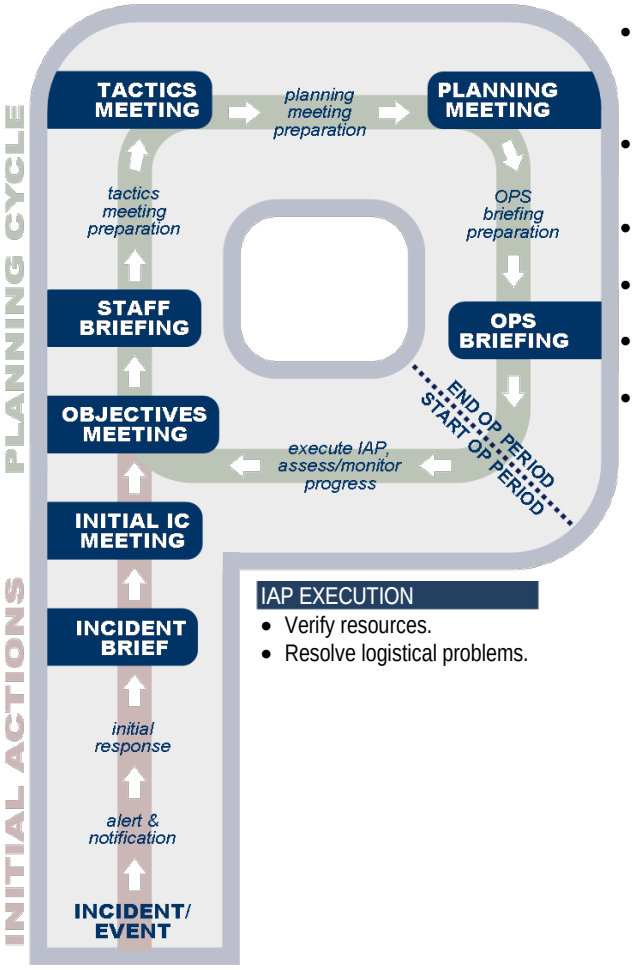
ATTEND STAFF BRIEFING
- Receive situation status briefing.
- Discuss established goals, operational period objectives, priorities, assignments, etc.

ATTEND OBJECTIVES MEETING IF INVITED
- Objects identified/reviewed and prioritized for next operational period.

ATTEND INITIAL IC MEETING IF INVITED
- Response scope and priorities are established.
- Command/General Staff assigned.
- Resource ordering procedures agreed upon.

ATTEND INCIDENT BRIEF
- Order staff as needed if/when activated.
- Receive current situation status, resource assignments, resources en-route/ordered, facilities established, incident potential, etc.

PLANNING MEETING PREPARATION
- Verify support requirements.
- Know resource availability.



IAP EXECUTION
- Verify resources.
- Resolve logistical problems.

INITIAL RESPONSE
- Report to EOC as requested.

ATTEND PLANNING MEETING
- Receive situation update.
- Assist with approval/revision of plan.
- Support Operations in making tactical resource assignments and determining reporting locations.
- Obtain responsibilities and deadlines for open actions, tasks and IAP assignments.
- Support resource ordering with Planning Section.
- Assist with implementing plan once approved.
- Provide briefing on logistical support and resource ordering
- Obtain deadlines for open actions, tasks and IAP assignments.

OPS BRIEFING PREPARATION

PREP NECESSARY
- Provide logistical input to IAP.

ATTEND OPS BRIEFING
- Review IAP changes.
- Receive Situation Briefing.
- Provide transport, communication, and supply update.

[11] Adapted from the United States Coast Guard, Incident Management Handbook, August 2006.

Finance and Administration Section Chief Position Guide

Position Descriptions

The Finance and Administration Section Chief provides financial management for all business units involved with the incident and works directly with the Logistics Section Chief (LSC) to expedite and track procurement requests.

Response Actions

RESPONSE ACTIONS – INITIAL RESPONSE	✓
Report to Emergency Operations or Incident Command Post.	❑
Work with Incident Commander to confirm need and scope of declared emergency.	❑
Support emergency procurement based on resource and logistics needs.	❑
Initiate an emergency procurement tracking system.	❑
Incident Brief ❑ Order staff as needed if/when activated ❑ Receive overview of current situation status, resource assignment, resources en-route/ordered, facilities established, incident potential, etc.	

RESPONSE ACTIONS – SEQUENCE FOR EACH OPERATIONAL PERIOD	✓
Staff Briefing ❑ Receive situation status briefing ❑ Discuss established goals, operational period objectives, priorities, assignments, etc ❑ Assist in preparing Assignment Lists (ICS-203 & 204)	❑
Planning Meeting Preparation • Verify financial and administrative requirements	❑
Planning Meeting • Receive situation summary • Provide briefing on administrative and financial status/projections, etc • Assist with approval/revision of plan • Receive responsibilities/deadlines for open actions/tasks and IAP assignments • Assist with implementing plan once approved	❑
Operations Briefing Preparation • Verify financial and administrative requirements for IAP.	❑
Operations Briefing • Review IAP changes. • Receive Situation Briefing. • Provide information on fiscal issues, time reporting, etc.	❑
IAP Execution and Progress Assessment • Facilitate smooth administrative and financial reporting.	❑

RESPONSE ACTIONS – GENERAL TASKS	WHEN
Provide status report summarizing procurement requests & their statuses.	Upon request from Incident Commander or EOC Director
Development of feasibility studies	As needed
Assist in preparing the Check-in List (ICS-211)	As needed
Prepare a Unit Log (ICS-214)	As needed

RESPONSE ACTION - DEMOBILIZATION	✓
Assist in preparing the Demobilization Checkout (ICS-221).	❑
Return to normal finance and administration responsibilities upon incident termination.	❑
Participate in After Action Report/Improvement Plan development process.	❑

Coordination with Others

COORDINATE W/OTHERS:	WHEN:	F&A SECTION CHIEF PROVIDES:	F&A SECTION CHIEF OBTAINS:
Incident Commander	Routinely	Situation updates	Support & Information
Logistics Section Chief (if activated separately)	As needed	Coordination of procurement requests	Coordination of procurement requests

Finance & Administration Section Chief – Planning P[12]

ATTEND TACTICS MEETING
- Receive current situation update.
- Participate and contribute financial information as necessary; resolve major financial issues.
- Determine tactics and control operations and what resources will be assigned.
- Verify support requirements.

TACTICS MEETING PREPARATION
NO PREP NECESSARY
- Operations/Planning Sections prepare for Tactics Meeting.

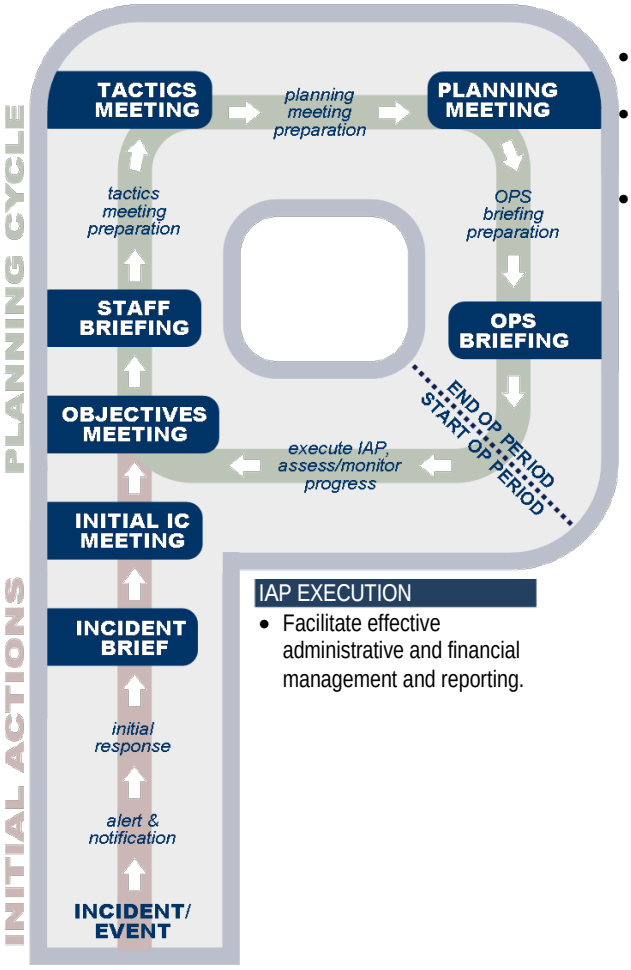
ATTEND STAFF BRIEFING
- Receive situation status briefing.
- Discuss established goals, operational period objectives, priorities, assignments, etc.

ATTEND OBJECTIVES MEETING IF INVITED
- Objects identified/reviewed and prioritized for next operational period.

ATTEND INITIAL IC MEETING IF INVITED
- Response scope and priorities are established.
- Command/General Staff assigned.
- Cost-sharing procedures are agreed upon.

ATTEND INCIDENT BRIEF
- Order staff as needed if/when activated.
- Receive current situation status, resource assignments, resources en-route/ordered, facilities established, incident potential, etc.

PLANNING MEETING PREPARATION
- Verify financial and administrative requirements.



INITIAL RESPONSE
- Report to EOC as requested.

IAP EXECUTION
- Facilitate effective administrative and financial management and reporting.

ATTEND PLANNING MEETING
- Receive situation update.
- Provide briefing on administrative and financial status/projections.
- Assist with approval/revision of the IAP.
- Receive responsibilities and deadlines for open actions, tasks, and IAP assignments.
- Assist in implementing the IAP once approved.

OPS BRIEFING PREPARATION
PREP NECESSARY
- Verify administrative and financial requirements for the IAP.

ATTEND OPS BRIEFING
- Review IAP changes.
- Receive Situation Briefing.
- Provide information on fiscal issues, time reporting, and other administrative needs.

[12] Adapted from the United States Coast Guard, Incident Management Handbook, August 2006.

Appendix E
Equipment Lists

- Emergency Equipment Located at the MBWWTP
- Emergency Equipment Located at the City of Chattanooga Department of Public Works

Equipment Lists

ISS Equipment located at the MBWWTP that can be used during an emergency is summarized in Table E-1.

TABLE E-1
ISS Emergency Equipment Located at the MBWWTP

Item	Quantity
Backhoes	1
Excavators	3
Skid Steer Loaders	2
Dump Trucks	4
Roll-off Container Trucks	2
Vacon Trucks	4
Dumpster Trucks	2
Truck equipped with sewer inspection closed circuit television equipment	3
Portable Dewatering Pumps	3
Portable Generators	5
Barricades/Cones/Caution Tape	Varies
Pressure Washers	Varies
Absorbent Spill Pads	
Absorbent Spill Booms	
Oil-Dry Absorbent	

Equipment located at the City of Chattanooga Department of Public Works Citywide Services Division (CWS) that can be used during an emergency is summarized in Table E.2. The equipment is available in various quantities.

TABLE E-2
Emergency Equipment Located at the City of Chattanooga Department of Public Works CWS

Item
Front-end Loaders
Backhoes
Bulldozers
Excavators
Skid Steer Loaders
Tractors
Dump Trucks
Roll-off Container Trucks
Vacon Trucks
Knuckleboom Trucks
Flush Trucks
Street Sweepers
Snow and Ice Removal Equipment
Garbage Trucks
Portable Air Compressors
Brush and Trash Removal Equipment
Pressure Washers
Portable Dewatering Pumps
Portable Generators
Traffic Control Devices

Appendix F
News Release Templates

- Known Contaminant has Entered Chattanooga's Sewer System
- Sewer Force Main Breaks
- Notice of Discharge of Untreated Sewage

EXAMPLE
NEWS RELEASE

CITY OF CHATTANOOGA DEPARTMENT OF PUBLIC WORKS
Date 1, 2014

KNOWN CONTAMINANT HAS ENTERED CHATTANOOGA'S SEWER SYSTEM
Chattanooga Residents Should Refrain From Non-Essential Water Use and Remain Clear of Barricaded Areas

A hazardous solvent material called trichloroethylene (TCE) has entered the Chattanooga wastewater collection system at two known locations in the downtown area of the City.

City of Chattanooga (City) Department of Public Works (DPW) has issued a "Minimize Non-Essential Water Usage" notice and shut down a portion of the sewer system. City Officials ask that all residents, businesses, and industries refrain from non-essential water use or activities that result in discharges to the sewer system (such as unnecessary toilet flushing, washing machine usage, and dishwashing) until further notice.

TCE is a colorless liquid, which is used as a solvent for cleaning metal parts. Breathing high levels of TCE may cause nervous system effects, liver and lung damage, abnormal heartbeat, coma, and possibly death. Residents are advised to avoid contact with all sanitary sewer pipes, manholes, and pump stations.

The City Emergency Operations Center is activated, and actions are underway to remove the TCE from the sewer system.

The "Minimize Non-Essential Water Usage" order will remain in effect until officials from DPW and the City of Chattanooga have cleared the wastewater system for normal operations.

The City has set up a 24-hour Hotline for residents to obtain updated information regarding this matter. The Hotline number is (XXX) XXX-XXXX.

EXAMPLE
NEWS RELEASE

CITY OF CHATTANOOGA DEPARTMENT OF PUBLIC WORKS
Date, 2014

SEWER FORCE MAIN BREAKS NEAR XXXXXXX
City of Chattanooga Residents, Businesses, and Industries n the Vicinity of XXXXXXXX Should Refrain from Non-Essential Water Use

City of Chattanooga (City) Department of Public Works (DPW) repair crews arrived at Pump Station XXX located at XXX Main Street at xxx AM today in response to a submerged 12-inch sewer force main break. The sewage spill was mostly contained as of this afternoon at 3:15 PM, and repairs to the pipeline are underway.

Residents of the affected areas have not lost sewer services, but DPW officials have asked that all residents in the XXXXX area of town refrain from non-essential water use, such as unnecessary toilet flushing, washing machine usage, and dishwashing until further notice.

Caution signs have been posted at XXXXXXXXXX asking residents to refrain from all recreational uses of the water in including wading, fishing, and swimming, until further notice.

The City DPW has notified the Tennessee Department of Environment and Conservation. The Hamilton County Health Department is monitoring the potential water quality impacts. Officials will notify the public and remove the warning signs when XXXXXXXXXX is safe for recreational use.

For more information, please contact the City Public Information Officer at (XXX) XXX-XXXX.

EXAMPLE
NEWS RELEASE
CITY OF CHATTANOOGA DEPARTMENT OF PUBLIC WORKS
Date, 2014

NOTICE OF DISCHARGE OF UNTREATED SEWAGE

City of Chattanooga (City) Department of Public Works (DPW) had a discharge of untreated sewage from a pump station located at XXX Main Street of approximately XXXXX gallons. The discharge was first discovered on XXXX, 2014 at 2:00 PM and lasted for approximately XX hours. The untreated wastewater entered XXXX Lake through a seasonal streambed. The discharge was the result of an XXXXXX that caused the pump station pump motor to become inoperative. The electrical wiring and pump motor were repaired to prevent further discharge.

The City DPW contacted health and regulatory agencies about the discharge. The City has posted signs at the XXXXXXXXXX area warning people not to be exposed to the water. Utility staff is analyzing water samples taken from XXXXXXXX. The warning signs will be removed when the water is determined to be safe for swimming and boating.

For more information, please contact the City Public Information Officer at (XXX) XXX-XXXX.

Appendix G
Internal Contact List

Waste Resources Division - Internal Contact List

This Internal Contact List identifies names and phone numbers for IMT staff and other key staff and designates staff who are responsible for conducting external notifications.

Name of WRD ISS Incident Management Team	Contact Information
Director of WRD Alice L. Cannella, P.E.	423-757-0053 Cell phone: 423-421-5109
Administrator of Public Works Donald L. Morris - *Coordinates with City PIO to notify the public of an emergency.*	423-643-6011 Cell phone: 423-421-5138
Deputy Director of WRD Michael Patrick, P.E. - *Primary person responsible for notifying regulatory authorities.*	423-757-5026, Extension 3316 Cell phone: 423-488-7983
Plant Manager Brian Lessman - *Alternate person responsible for notifying regulatory authorities.*	423-757-0054 423-757-5026, Extension 3312 Cell phone: 423-260-7808
Occupational Safety Specialist	423-757-5026, Extension ____ Cell phone:
City PIO - *Responsible for notification of the public.* Lacie Stone	423-643-7800
Pump Stations/CSOTF Operations Supervisor Bill Newell	423-757-5026, Extension 3265 Cell phone: 423-304-0278
Pretreatment Supervisor Rick Tate	423-757-5026, Extension 3325 Cell phone: 423-309-2597
Maintenance Manager Jim Spence	423-757-5026, Extension 3336 Cell phone: 423-421-4491
Maintenance Planner Allen Martin	423-757-5026, Extension 3259 Cell phone: 423-314-0412
System Engineer Eric Brooks	423-757-5026, Extension 3302 Cell phone: 423-762-4120
Sewer Maintenance General Supervisor Eric Emry	423-757-5026, Extension 3251 Cell phone: 423-304-0939
Asset Management System Coordinator Charlotte Hicks	423-757-5026, Extension 3255 Cell phone: 423-504-3285
Fiscal Analyst Ed Wellmann	423-757-5026, Extension 3311 Cell phone: 423-653-6876
MBWWTP Operations and Control Room	423-757-5026 - Outside plant Extension 3318 or 3319 - Inside plant Red Phone: 423-757-4949

Appendix H
External Contact List

External Contact List

This External Contact List identifies names and phone numbers of external public agencies who must be contacted during an emergency. The ***Criteria*** established as the basis for immediately notifying the public and other impacted entities, including users with a downstream water intake, an emergency caused by an SSO, prohibited bypasses, or effluent limit violations are provided in ***blue italics.***

Name of Agency	Emergency Phone Number
City of Chattanooga Fire Department, Police Department, Sheriff ***Notify in the event of any hazardous material entering the sewer, if there is an explosive atmosphere in the sewer, or if there is a fire at an ISS facility. Also notify of an intrusion into the facilities and of a malevolent threat to WRD.***	Dial 911
Tennessee Department of Environment and Conservation (TDEC) Division of Water Pollution Control Chattanooga Basin Office ***Notify via email TDEC Contact Person, Angela Young of any SSO, CSO, prohibited bypasses, or effluent limit violations that may within 24 hours (in addition conduct a 5-day follow-up).***	email address: ***angela.young@tn.gov*** Field Office phone number: 423-634-5708
Georgia Department of Natural Resources (DNR) **Environmental Protection Division (GAEPD)** ***Mountain District Cartersville Office*** ***Contact GAEPD of any SSO events that occur in Georgia***	770-387-4900 Fax: 770-387-4906 800-241-4113
Public Health Department - Chattanooga-Hamilton County Chattanooga, TN 37403 ***Notify Public Health in the event that a SSO, prohibited bypasses, or effluent limit violations may affect the public.*** ***The City PIO and the Director of WRD (with support from the Plant Manager and the Operations Supervisor) in coordination with the Public Health Department will identify and notify downstream users potentially affected.*** ***Criteria used to determine when a downstream user is notified include: conditions evaluated such as river conditions, SSO volume, CSO volume, and chemical spill volume and type.*** ***An Emergency Action level of "High" may also trigger Public Health notification.*** ***Notify Public Health of an illness or public health issue identified.***	24-hour Phone: 423-209-8000 ***sabrinaN@hamiltontn.gov***

Name of Agency	Emergency Phone Number
National Response Center ***Notify immediately for oil and hazardous material discharges into the environment in the United States. The Administrator of Public Works is responsible for completing this notification.***	800-424-8802
Hamilton County Emergency Management Greg Helms ***The County EMA will be notified by the Fire Department if the emergency requires elevated assistance.*** Command and control during response and recovery phases of disasters and large scale emergencies is maintained in the Emergency Operations Center.	24-hour 911 Dispatch Center: 423-622-7777 e- mail: *gregoryh@hamiltontn.gov*
Tennessee Emergency Management Agency (TEMA) Nashville, TN 37204 ***The County EMA will notify TEMA.*** TEMA's mission is to coordinate emergency management response and recovery to reduce loss of life and property in the State of Tennessee. TEMA provides assistance by reaching out for mutual aid from other departments or agencies of the state, from local jurisdictions, from other states and from the federal government. TEMA manages the flow of materiel and special teams and services to the incident commander.	800-262-3300 615-741-0001
Tennessee -State Emergency Response Commission (TN SERC) **Hamilton County - Local Emergency Planning Committee (LEPC)** ***The State Emergency Response Commission (SERC) and the Local Emergency Planning Committee (LEPC) must be notified of the release of a reportable quantity (RQ) of hazardous chemical. The Administrator of Public Works is responsible for completing these notifications.***	Mr. Jim Bassham Director, TEMA Chair, TN SERC 3041 Sidco Drive Nashville, TN 37204 Phone: (615) 741-0001 Hamilton County LEPC Emergency Services 317 Oak Street Suite 302 Chattanooga, TN 37403 Phone: 423-209-6900 FAX: 423-209-6901

Appendix I
Evacuation and Shelter-in-Place Procedure

MOCCASIN BEND WASTEWATER TREATMENT PLANT

EVACUATION/SHELTER-IN-PLACE PROCEDURE

Update to be provided

_____	_____
Gary Williams	Alice L Cannella, P.E.
Occupational Safety Specialist	Director, Waste Resources Division
Prepared	Approved

This procedure describes the guidelines for evaluation and/or shelter-in-place for employees at the Moccasin Bend Wastewater Treatment Plant.

Certain events such as fire, severe weather, chlorine leak or other serious events could be a cause for management to order an evacuation of the plant or for employees to shelter-in-place.

Should management at the Moccasin Bend Wastewater Treatment Plant order a plant-wide evacuation or shelter-in-place, it shall be accomplished by announcing the order over the plant radio and the plant voice paging system. The Plant Manager or the Chief Operator shall make the announcement. If time and conditions permit, operations employees shall give a verbal alarm by telephone to as many buildings as possible.

Accountability

If an evacuation or shelter-in-place becomes necessary, all employees must be accounted for. Attachment 1 of this procedure list the Accountability Wardens who are responsible for the accounting for the employees located in their building. Accountability Wardens shall designate an alternate warden in case of their absence. Each warden assigned for accountability shall develop a roster of employees assigned to their building, designate an assembly area within the building, and perform a roll call. After the employees have been accounted for, the results shall be reported to the Waste Resource Director, the Plant Manager, or the Safety Director. If an employee is in another building at the time the evacuation or shelter-in-place order is given, that employee shall remain in that building and report to the designated assembly area and report to the Accountability Warden.

Those employees assigned as Accountability Wardens shall also determine the electrical disconnect switch for air conditioners. In the event of a shelter-in-place, due to a chlorine leak, the air conditioners must be turned off and all doors and windows must be closed.

Employees Working Offsite

Employees working offsite shall remain offsite and shall not return to the plant or any area close to the plant. Sludge truck drivers who are on the road shall remain at the City Landfill or proceed to North Hawthorne site and remain until further instructions are given. Other employees working offsite (Sewer Maintenance, I&I, Operations, etc) shall remain offsite and monitor their plant radios for further instructions.

Communications

Communications is the most critical asset during an evacuation or shelter-in-place. It is very important to keep radio traffic to a minimum on both channels. After accountability of offsite employees by the Accountability Wardens, radio traffic must be limited to traffic concerning the emergency. Should offsite emergency assistance be required, 911 shall be used. During the 911 call, the person making the call shall inform the emergency operator that Moccasin Bend Wastewater Treatment Plant will monitor Disaster Channel 1 for communications with the Emergency Responders. Disaster Channel 1 is Channel 5 on the plant radios. The Control Room shall use a plant portable radio to establish communications with the Emergency Responders on Channel 5 as soon as possible after the 911 call is completed. The Operations & Control base station should not be changed.

Access Control

When the evacuation or shelter-in-place is announced, the Scale Operator in the guardhouse shall close the gate control switch, located on the wall next to the light switch. This will transfer control of the gate to the Operations and Control Building. The Scale Operator will then proceed to the Administration

Building. Operations personnel shall keep the gate closed and admit only emergency response personnel, such as the Fire Department, etc.

Night & Weekend Shifts

During the night and weekend shifts, the responsibility for evacuation or shelter-in-place shall be the responsibility of the Chief Operator. The Chief Operator shall inform the Director of Waste Resources, the Plant Manager, the Safety Director, and Liquids Supervisors soon as possible of the problem.

Critical Operations

The only critical manned operation is the Oxygen Plant. This process should be kept in service if possible. Should it become necessary to evacuate this operation, it should be decided as soon as possible so the shutdown process can be completed in a timely manner. All other critical process can be monitored from the Control Room.

Attachment 1

Listed below are the Accountability Wardens and their responsible buildings. Each warden should develop a list of employees assigned to their building and keep the roster on a clipboard in an accessible location. Each warden should name an alternate in case of his or her absence.

Building	**Warden**
Administration/Lab	Joachim Volz Paul Patterson
Filter Press Building &	Brian Lessman
Centrifuge Buildings	Jeff Posely
O & C Building	Duty Chief Operator
Sewer Maintenance &	Mike Pardue
Warehouse	
I & I Building	Rick Tate
	Maintenance Building
Warehouse	Bill Gibson

Appendix J
Pump Station and CSOTF Information

- First Emergency Power Plan
- City of Chattanooga Sewage Pump Station Electric Service Information
- Citico Sewer Pumping Station
- 23rd Street Sewer Pumping Station
- 19th Street Sewer Pumping Station
- Friars Branch Sewer Pumping Station
- South Chickamauga Creek Sewer Pumping Station
- Dupont Sewer Pumping Station

Pump Station and CSOTF Information

First Emergency Power Plan

Station	Source	Generator
19th Street	EPB Secondary Feed	
23rd Street	EPB Secondary Feed	
26th Street	Vaccon/Portable Generator with Flying Leads	W6686
Airport	Portable Generator	W6686
Airport2	Portable Generator	W6685/W6687
Alt. Pk.	Portable Generator	W6686
Altamont	Portable Generator	W6685/W6687
Arbor Creek	Vaccon/Portable Generator with Flying Leads	W6686
Bat. Place	Portable Generator	W6686
Big Ridge 1	Portable Generator	W6685/W6687
Big Ridge 2	Portable Generator	W6685/W6687
Big Ridge 3	Portable Generator	W6685/W6687
Big Ridge 4	Portable Generator	W6686
Big Ridge 5	Portable Generator	W6685/W6687
Big Ridge 6	Onsite Generator	
Big Ridge 7	Portable Generator	W6686
Big Ridge 8	Portable Generator	W6686
Big Ridge 9	Portable Generator	W6686
Big Ridge 10	Portable Generator	W6686
Big Ridge 11	Portable Generator	W6685/W6687
Big Ridge 12	Portable Generator	W6685/W6687
Big Ridge 13	Portable Generator	W6686
Big Ridge 14	Portable Generator	W6685/W6687
Boy Scout	Portable Generator With Flying Leads	W6685/W6687
Brain Golf	Portable Generator	W6686
Brain. Man.	Vaccon/Portable Generator With Flying Leads	W6686
Citico	EPB Secondary Feed	
Collegedale	Onsite Generator	
Davidson Place	Portable Generator	W6685/W6687

Station	Source	Generator
Dup Ind Pk	Portable Generator	W6685/W6687
Dup Pkw Ps	Portable Generator	W6685/W6687
Earl Lane SS	Portable Generator	W6685/W6687
East Brain	Portable Generator with Flying Leads	W6685/W6687
Eastgate	Portable Generator	W6686
Eastgate 2	Portable Generator	W6685/W6687
Enterprise	Portable Generator	W6685/W6687
Fagan Street	Vaccon/Portable Generator with Flying Leads	W6686
Friar Bridge	EPB Secondary Feed	
Heritage Green	Portable Generator	W6686
Highland Park	Portable Generator	W6685/W6687
Hix No.1	Portable Generator with Flying Leads	W6685/W6687
Hix. No.2	Portable Generator with Flying Leads	W6685/W6687
Hix. No.3	Portable Generator	W6685/W6687
Komatsu	Vaccon/Portable Generator with Flying Leads	W6686
Lake Vista	Vaccon/Portable Generator with Flying Leads	W6685/W6687
Latta Street	Portable Generator with Flying Leads	W6685/W6687
Man Patt	Portable Generator	W6686
Mead. Tr.	Vaccon/Portable Generator with Flying Leads	W6686
Mt Creek	Onsite Generator	
Mur Hill 1	Portable Generator	W6685/W6687
Mur Hill 2	Portable Generator	W6685/W6687
Mur Hill 3	Portable Generator	W6685/W6687
Mur Hill 4	Portable Generator	W6685/W6687
Mur Hill 5	Portable Generator	W6685/W6687
North Terrace	Portable Generator	W6685/W6687
Orc. Knob SS	Need Epb Secondary Feed	
Orch Knob WW	Epb Secondary Feed	
Pine. Road	Vaccon/Portable Generator With Flying Leads	W6686
Ringgold	Onsite Generator	
River Park 1	Vaccon/Portable Generator With Flying Leads	W6686
River Park 2	Vaccon/Portable Generator With Flying Leads	W6686

Station	Source	Generator
South Chick	Epb Secondary Feed	
Spring Creek	Onsite Generator	
Storm Station 1	Need Epd Secondary Feed Plan	
Storm Station 2	Portable Generator	W6685/W6687
Storm Station 3	Portable Generator	W6685/W6687
Tift 1	Portable Generator	W6685/W6687
Tift 2	Portable Generator	W6685/W6687
Tift 3	Portable Generator	W6685/W6687
Tift. 4	Portable Generator	W6685/W6687
Tift.5	Portable Generator	W6685/W6687
VAAP	Portable Generator	W6685/W6687
Valley Brook	Portable Generator	W6686
West Chickamauga	Onsite Generator	
Will. Bend	Vaccon/Portable Generator With Flying Leads	W6686
Warner Park SS	Portable Generator	W6685/W6687
19th St. CSO	Onsite Generator	
Carter St. CSO	Onsite Generator	
Central Ave. CSO	Onsite Generator	
Citico CSO	EPB Secondary Feed	
MLK CSO	Onsite Generator	
Ross Lndg CSO	Operate CSO Manually	
Tremont CSO	Operate CSO Manually	
Williams St. CSO	Onsite Generator	
Warner Park CSSF	Onsite Generator	
19th St. Regulator	Operate Regulator Manually	
Carter St. Regulator	Operate Regulator Manually	
Sidney St Regulator	Operate Regulator Manually	

City of Chattanooga Major Pump Station Electric Service Information

Citico Pump Station

Three-phase underground service tap to EPB owned 2500 KVA transformer #M 2P046 Radial circuit from pole #M 2506 located on Riverside Drive, 0.12 mile south of site

EPB preferred source - Riverside substation (RIV), .12 mile SW of site

EPB preferred feeder - RIV 209

EPB secondary source - alternate feeders in RIV substation or Tenth St. substation (TEN) feeder 203, switch located .3 mile E of site

Ultimate sources - RIV: TVA Moccasin Bend substation (MOC), TEN: TVA Ridgedale substation (RID)

23rd St. Pump Station

3-Phase underground service tap to EPB owned 750 KVA transformer #M 8POO8 Radial circuit from pole #M 8003 located at corner of 25th St. and Alton Park Blvd., 0.5 mile W of site

EPB preferred source - Sidney St. substation (SID), 1 mile W of site

EPB preferred feeder - SID 201

EPB secondary source - alternate feeders in SID substation or Long St. substation (LON) feeder 206, switch located .7 mile S of site

Ultimate source - SID & LON: TVA Moccasin Bend substation (MOC)

19th St. Pump Station

3-Phase underground service tap to EPB owned 300 KVA transformer #M 5P039 Radial circuit from pole #M 1 513 located at corner of 19th St. and Riverfront Pky., 0.3 mile E of site

EPB preferred source - College Hill substation (COL), 0.7 mile NE of site

EPB preferred feeder - COL 218

EPB secondary source - alternate feeders in COL substation or Sidney St. substation (SID) feeder 205, switch located 1.5 miles S of site

Ultimate source - COL & SID: TVA Moccasin Bend substation (MOC)

Friar's Branch Pump Station

3-Phase underground service tap to EPB owned 750 KVA transformer #R 5POO1 Radial circuit from pole #R 5 042 located at corner of Dogwood Dr. and Juandale Dr, 0.5 mile W of site

EPB preferred source - McCarty substation (MCC), 1.3 miles SW of site

EPB preferred feeder - MCC 201

EPB secondary source - Eastdale substation (EDA) feeder 201, switch located 1.5 miles SW of site

Ultimate sources - MCC: TVA Chickamauga substation (CHI), EDA: TVA Ridgedale substation (RID)

South Chickamauga Pump Station

3-Phase underground service tap to EPB owned 1500 KVA transformer #N 2P017 Radial circuit from pole #N 1 032 located on North Hawthorne St., 0.3 mile E of site

EPB preferred source - Hawthorne substation (HAW), 1 mile SE of site

EPB preferred feeder - HAW 207

EPB secondary source - HAW feeder 215, switch located 0.5 mile SE of site

Ultimate sources - HAW: TVA Chickamauga substation (CHI)

Dupont Pump Station

3-Phase overhead service tap from EPB owned 3-25 KVA transformer bank on pole #F 4 727 Pole located on loop circuit at the corner of Elm St. and Memphis St.

EPB preferred source - Fairfax substation (FAI), 1.5 miles W of site

EPB preferred feeder - FAI 201

EPB secondary source - FAI feeder 202, switch located at site

Ultimate sources - FAI: TVA Moccasin Bend substation (MOC) through EPB Valdeau (VAL) substation

Orchard Knob Pump Station

277/480V - 3-Phase underground service tap to EPB owned 225 kVa transformer # N8P003 Located at 808 Holtzclaw Ave. N

EPB Preferred Source - Riverside substation (RIV) located 1.1 mile W of site

EPB Preferred Feeder - RIV 209

EPB Secondary Source - alternate feeds in RIV substation or TEN 203, switch located .6 miles W of site

Ultimate Source - TVA Moccasin Bend substation (MOC)

Brainerd Levee Pump Station

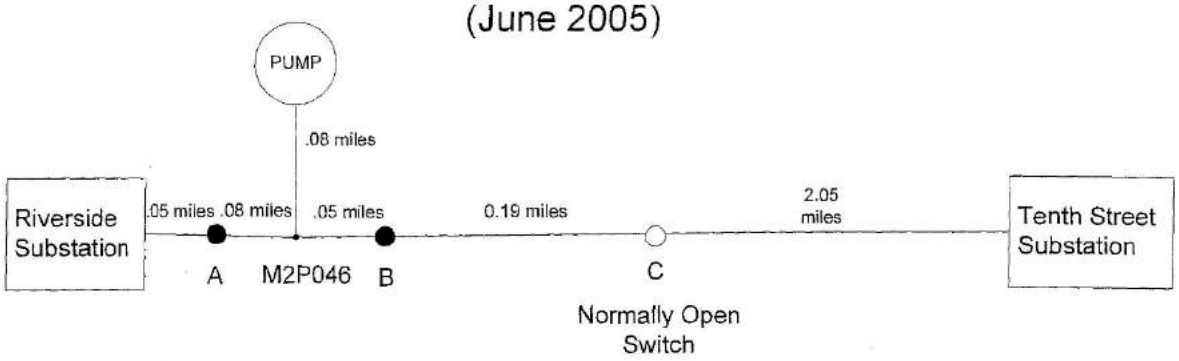
46kV - 3-Phase Overhead Transmission circuit at Pole # S3404 located just east of Chickamauga Creek between Moore Rd and Lee Highway

EPB Preferred Source - TPS - TVA Pump Station1

EPB Secondary Source - Midland Pike

Citico Sewer Pumping Station

Outage Study
(June 2005)



Circuit Diagram is not to any Scale

○ Normally Open Switch
● Normally Closed Switch

Mileage denotes 12 kV primary distances between sectionalizing devices

Normal service to Citico Pump is from Riverside Substation.
The following details our existing standby capabilities and our estimates of outage time during normal weather conditions.

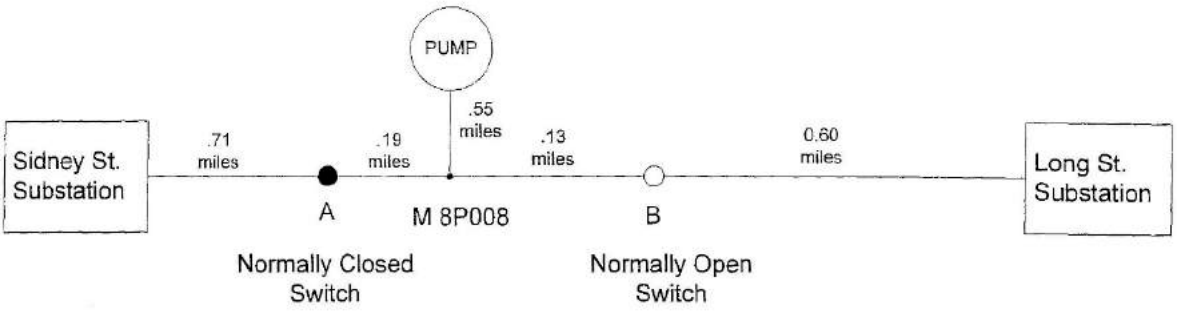
Outage due to:	Est. outage time	Description of one method to restore power
Riverside Sub Failure	1 hour	Close switch C to Tenth Sub, Open at Riverside Sub
Primary Line Out between Riverside Sub and Switch A	1 hour	Close switch C to Tenth Sub, Open at Riverside Sub
Primary Line Out between Switch A and Switch B	6 hours	Call in line crew to repair primary circuit (Worst case would be a broken pole)
Primary Line Out between Switch B and Open Switch C	1 hour	Open at Switch B, Citico still served from Riverside
Distribution Transformer Bank Failure	12 hours	Replace distribution transformer
Secondary Conductor Failure		Customer call electrician to repair internal problem

**During abnormal weather conditions, the estimates of outage time are very unpredictable. EPB will make an effort to restore power as soon as possible.

**This represents how the Citico Pump is presently served. EPB is constantly reviewing the transmission and distribution systems and may make changes at any time without notifying the Citico Pumping Station.

23rd Street Sewer Pumping Station

Outage Study
(June 2005)



Circuit Diagram is not to any Scale

○ Normally Open Switch
● Normally Closed Switch

Mileage denotes 12 kV primary distances between sectionalizing devices

Normal service to 23rd St. Pump is from Sidney Substation.
The following details our existing standby capabilities and our estimates of outage time during normal weather conditions.

Outage due to:	Est. outage time	Description of one method to restore power
Sidney Sub Failure	1 hour	Close switch B to Long St. Sub, Open at Sidney Sub
Primary Line Out between Sidney Sub and Switch A	1 hour	Close switch B to Long St. Sub, Open at Switch A
Primary Line Out between Switch B and Open Switch A	6 hours	Call in line crew to repair primary circuit (Worst case would be a broken pole)
Distribution Transformer Bank Failure	12 hours	Replace distribution transformer
Secondary Conductor Failure		Customer call electrician to repair internal problem

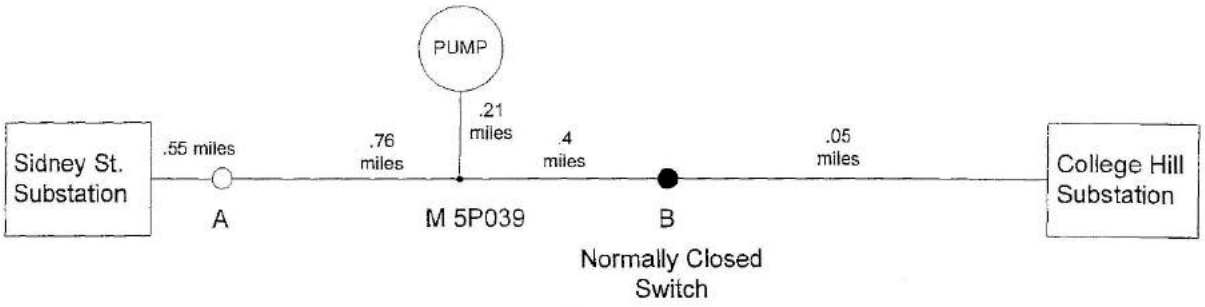
**During abnormal weather conditions, the estimates of outage time are very unpredictable. EPB will make an effort to restore power as soon as possible.

**This represents how the 23rd Street Pump is presently served. EPB is constantly reviewing the transmission and distribution systems and may make changes at any time without notifying the 23rd Street Pumping Station.

June 16, 2005

19th St. Sewer Pumping Station

Outage Study
(June 2005)



Circuit Diagram is not to any Scale

Normally Open Switch
Normally Closed Switch

Mileage denotes 12 kV primary distances between sectionalizing devices

Normal service to 19th St. Pump is from College Hill Substation.
The following details our existing standby capabilities and our estimates of outage time during normal weather conditions.

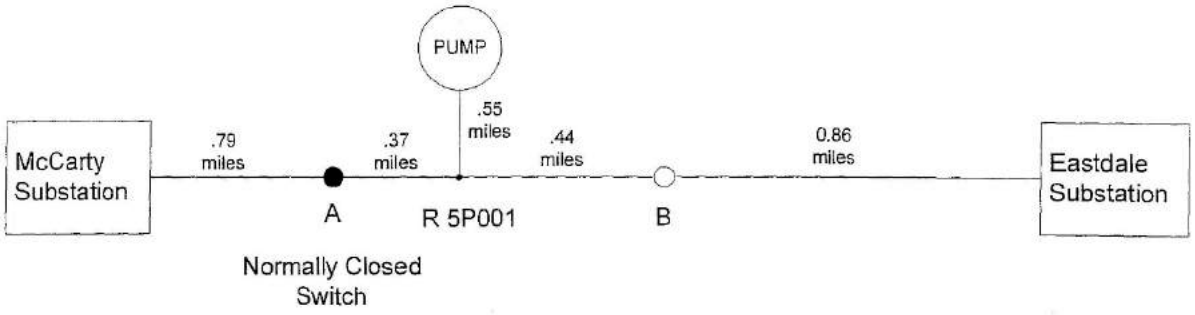
Outage due to:	Est. outage time	Description of one method to restore power
College Hill Sub Failure	1 hour	Close switch A to Sidney Sub, Open at College Hill Sub
Primary Line Out between College Hill Sub and Switch B	1 hour	Close switch A to Sidney Sub, Open at Switch B
Primary Line Out between Switch B and Open Switch A	6 hours	Call in line crew to repair primary circuit (Worst case would be a broken pole)
Distribution Transformer Bank Failure	12 hours	Replace distribution transformer
Secondary Conductor Failure		Customer call electrician to repair internal problem

**During abnormal weather conditions, the estimates of outage time are very unpredictable. EPB will make an effort to restore power as soon as possible.

**This represents how the 19th St. Pump is presently served. EPB is constantly reviewing the transmission and distribution systems and may make changes at any time without notifying the 19th St. Pumping Station.

Friars Branch Sewer Pumping Station

Outage Study
(June 2005)



Circuit Diagram is not to any Scale

○ Normally Open Switch
● Normally Closed Switch

Mileage denotes 12 kV primary distances between sectionalizing devices

Normal service to Friars Branch Pump is from McCarty Substation.
The following details our existing standby capabilities and our estimates of outage time during normal weather conditions.

Outage due to:	Est. outage time	Description of one method to restore power
McCarty Sub Failure	1 hour	Close switch B to Eastdale Sub, Open at McCarty Sub
Primary Line Out between McCarty Sub and Switch A	1 hour	Close switch B to Eastdale Sub, Open at Switch A
Primary Line Out between Switch A and Open Switch B	6 hours	Call in line crew to repair primary circuit (Worst case would be a broken pole)
Distribution Transformer Bank Failure	12 hours	Replace distribution transformer
Secondary Conductor Failure		Customer call electrician to repair internal problem

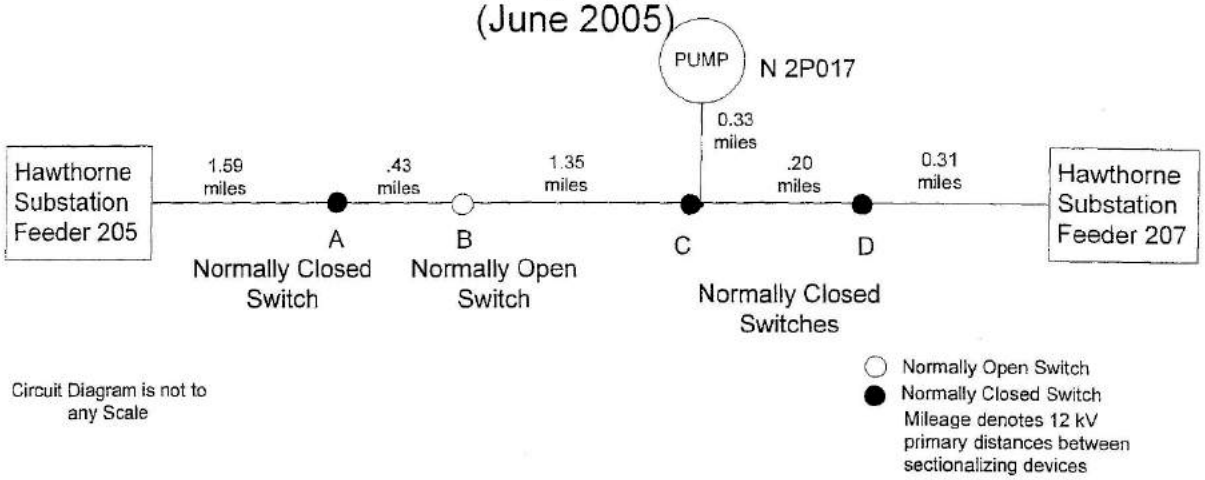
**During abnormal weather conditions, the estimates of outage time are very unpredictable. EPB will make an effort to restore power as soon as possible.

**This represents how the Friars Branch Pump is presently served. EPB is constantly reviewing the transmission and distribution systems and may make changes at any time without notifying the Friars Branch Pumping Station.

June 16, 2005

South Chickamauga Creek Sewer Pumping Station

Outage Study (June 2005)



Normal service to S. Chickamauga Creek Pump is from Hawthorne Substation, Feeder 207. The following details our existing standby capabilities and our estimates of outage time during normal weather conditions.

Outage due to:	Est. outage time	Description of one method to restore power
Hawthorne Sub Failure	1 hour	Close switch B to Feeder 205, Open at Feeder 207
Primary Line Out between Hawthorne Sub and Switch D	1 hour	Close switch B to Feeder 205, Open at Switch D
Primary Line Out between Switch D and the pump	6 hours	Call in line crew to repair primary circuit (Worst case would be a broken pole)
Distribution Transformer Bank Failure	12 hours	Replace distribution transformer
Secondary Conductor Failure		Customer call electrician to repair internal problem

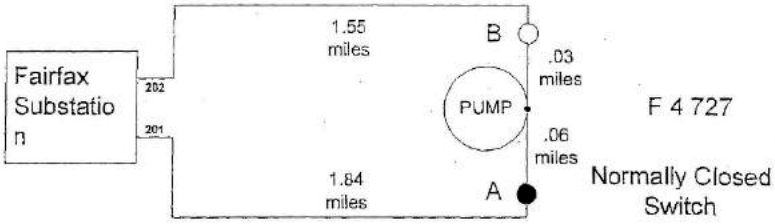
**During abnormal weather conditions, the estimates of outage time are very unpredictable. EPB will make an effort to restore power as soon as possible.

**This represents how the S. Chickamauga Creek Pump is presently served. EPB is constantly reviewing the transmission and distribution systems and may make changes at any time without notifying the S. Chickamauga Creek Pumping Station.

June 16, 2005

Dupont Sewer Pumping Station

Outage Study
(June 2005)



Circuit Diagram is not to any Scale

○ Normally Open Switch
● Normally Closed Switch

Mileage denotes 12 kV primary distances between sectionalizing devices

Normal service to Dupont Pump is from Fairfax Substation Feeder 201.
The following details our existing standby capabilities and our estimates of outage time during normal weather conditions.

Outage due to:	Est. outage time	Description of one method to restore power
Fairfax Sub Feeder 201 Failure	2 hours	Close at Switch B, Open at Switch A
Primary Line Out between Switch A and Open Switch B	6 hours	Call in line crew to repair primary circuit (Worst case would be a broken pole)
Distribution Transformer Bank Failure	12 hours	Replace distribution transformer
Secondary Conductor Failure		Customer call electrician to repair internal problem

*During abnormal weather conditions, the estimates of outage time are very unpredictable. EPB will make an effort to restore power as soon as possible.

**This represents how the Dupont Pump is presently served. EPB is constantly reviewing the transmission and distribution systems and may make changes at any time without notifying the Dupont Pumping Station.

June 16, 2005

Appendix K
Action Plans/Checklists

- Action Plan 01 – Bomb Threat
- Action Plan 02 – Chemical Release
- Action Plan 03 – Fire / Explosion
- Action Plan 04 – Sheltering-In-Place
- Action Plan 05 – Evacuation
- Action Plan 06 – Toxic Substance Detected In Wastewater
- Action Plan 07 – Explosive Substance Detected In Wastewater
- Action Plan 08 – Terrorist Attack or Civil Unrest
- Action Plan 09 – Unauthorized Entry
- Action Plan 10 – Chemical Spills in the Collection System
- Action Plan 11 – Chlorine Release
- Action Plan 12 – Severe Weather
- Action Plan 13 – Flood
- Action Plan 14 – Medical Emergency
- Action Plan 15 – Industrial Emergencies Creating the Potential for Contaminated Discharges to the Collection System
- Action Plan 16 – Contaminated Debris in the Collection System
- Checklist 01 – Destruction/Failure of Any Part of the Wastewater System
- Checklist 02 – Explosive Substance Detected in Wastewater
- Checklist 03 – Toxic Substance Detected in Wastewater

Action Plans/Checklists

Action Plan 01 - BOMB THREAT	
Do not use radios during a bomb threat. Use of radio communications may cause a possible transmission detonation of an explosive device.	
Line	**TASK**
WWTP STAFF RESPONSE TASKS	
1	If bomb threat is received by telephone, Call 911 and report the emergency
2	fill out *ATF Bomb Threat Checklist (see Appendix K)* to document the information received
3	Notify the Administrator of Public Works and Director of WRD.
INCIDENT COMMANDER (or Designee) RESPONSE TASKS	
4	Direct employees to check their immediate work areas for any suspicious items while preparing to evacuate the building or facility.
5	Instruct employees (via cell phone and/or intercom) not to disturb any suspicious items and not to use radios.
6	Evacuate the building or facility in accordance with the established procedure. Account for all personnel in the designated assembly area.
7	Report any suspicious items to the local emergency response agency's Incident Commander.
8	Provide technical support and resources to local emergency response agencies, as requested.
9	If bomb explodes, follow other applicable emergency response checklists (e.g., fire/explosion, medical emergency, chemical release, etc.).
10	Coordinate building re-entry with the Incident Commander.

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 02 - CHEMICAL 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.	
Line	**TASK**
GENERAL STAFF RESPONSE TASKS	
1	Investigate alarm or potential leak/spill to determine if a chemical release has occurred. If the release involves chlorine, follow the emergency response procedures outlined facility's Risk Management Program
2	Consider calling 911, announce the release to nearby employees, and direct other personnel to remain clear of the affected area.
3	Evacuate or shelter personnel, if needed.
4	Notify the Chief Operator on Duty, Director of WRD, Administrator of Public Works, and Occupational Safety Specialist Notify TDEC if required per regulatory requirements
INCIDENT COMMANDER (or Designee) RESPONSE TASKS	
5	If possible to shutoff the leak safely, direct trained personnel to stop additional releases from occurring (e.g., closing valve to stop flow to leaking pipe or tank).
6	Perform personnel accountability.
7	Follow other applicable emergency response checklists.
8	Determine if department staff with internal resources can clean up the release. If so: • Ensure that the cleanup is performed safely and that the source of the release is repaired or replaced. • Ensure that contaminated material from cleanup operations is properly characterized and disposed.
9	If the nature and extent of the release exceed internal response capabilities, call 911 to request support from the local HazMat team.
10	Provide support and technical resources to the local HazMat team, as needed.
11	Contact the Tennessee Emergency Management Agency

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 03 – 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	**TASK**
GENERAL STAFF RESPONSE TASKS	
1	When smoke or flames are visible, the fire alarm sounds, or an explosion occurs: • Call 911 and report the emergency
2	Use the public address system to direct personnel to: • Begin evacuating the building through the nearest exit. • Report to the designated assembly area, which should be upwind of the affected area.
3	If the public address system does not work, direct verbal notification to evacuate; for some locations, use of the radio system is needed.
4	Notify the Chief Operator on Duty, Director of WRD and Administrator of Public Works.
INCIDENT COMMANDER (or Designee) RESPONSE TASKS	
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	Follow other applicable emergency response checklists (medical emergency, chemical release, etc.).
8	Provide technical support and resources to local emergency response personnel, as requested.
9	Direct personnel to an alternate assembly area if the designated assembly area becomes unsafe because of the path of the plume, other dangers associated with the emergency or inclement weather.
10	Provide support to the Police Department and other law enforcement agencies (preserve evidence, interview witnesses, etc.)

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 04 - 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 severe weather, chemical release, terrorist/hostile attack, and civil unrest. See also the Sheltering-in-Place Procedure in Appendix I.	
Line	**TASK**
GENERAL STAFF RESPONSE TASKS	
1	Notify personnel to shelter in the building, or as directed by facility/site announcements.
2	Notify the Chief Operator on Duty, Director of WRD and Administrator of Public Works Administrator.
INCIDENT COMMANDER (or Designee) RESPONSE TASKS	
3	Ensure that all windows and doors are closed. If applicable, ensure that all openings have been sealed so that they are airtight.
4	Ensure that all personnel remain indoors. Do not allow personnel to leave the building unless approved by the incident commander.
5	If applicable, shut down all ventilation systems or configure ventilation systems to recycle internal air.
6	Shutdown any electronic equipment including computers, fans, space heaters, etc. Do not shut off lights if sufficient light is not available.
7	Identify a single door for entry into the building, and post a door monitor.
8	Maintain a list of all personnel in the building.
9	Isolate personnel who may be contaminated.
10	If sheltering is the result of a hazardous materials release, do not allow personnel to smoke, eat, drink, apply cosmetics, or chew tobacco or gum.
11	Follow instructions from the appropriate authority.
12	Maintain log of actions and forward to the Administrator of Public Works at the conclusion of the emergency event.

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 05 - EVACUATION	
Evacuation may be required when it has been determined that the conditions at the MBWWTP are unsafe. Types of emergencies that may involve evacuation include severe weather, chemical release, terrorist/hostile attack, and civil unrest. The Plant Manager and/or Fire Department will order an evacuation.	
Line	**TASK**
GENERAL STAFF RESPONSE TASKS	
1	See the evacuation procedure in Appendix I.

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 06 - TOXIC SUBSTANCE DETECTED IN WASTEWATER	
A substance that is toxic to the biological treatment process may be introduced accidentally or intentionally. There is no system for detecting toxins in the wastewater, but parameters used to monitor the biological treatment process will likely change significantly and identify the problem after it has already occurred.	
Line	**TASK**
GENERAL STAFF RESPONSE TASKS	
1	Investigate and verify status of biological process alarm. Identify any automatic process modifications that may have occurred because of the alarm conditions.
2	Report process alarm status and any automated (or manual) process modifications to Chief Operator, Liquid Ops Supervisor, and Plant Manager.
3	If problem is severe and may impair treatment of wastewater, immediately contact the Division Director.
INCIDENT COMMANDER (or Designee) RESPONSE TASKS	
4	Assemble a team of Operations & Maintenance and Engineering Coordinators to assess the situation and identify possible solutions.
5	Addition of toxic substance may have been intentional. Contact the Public Works Administrator, request that local law enforcement investigate the incident, and provide increased security measures. Investigation should include a review of recent discharge quality from permitted dischargers.
6a	If loss of treatment will result in the release of untreated wastewater to the environment, contact City's Public Information Officer (PIO) to inform regulatory agency, media, and public (via news release).
6b	Contact TDEC
7	If necessary, contact another wastewater utility to provide additional resources.
8	Continue with process modifications and increased security measures until biological process has returned to normal.

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 07 - EXPLOSIVE SUBSTANCE DETECTED IN WASTEWATER	
An explosive substance in the wastewater could result in an explosion in the collection system or at the MBWWTP plant. LEL meters at the plant may detect the presence of an explosive substance. A portable LEL meter may be used in specific circumstances.	
Line	**TASK**
GENERAL STAFF RESPONSE TASKS	
1	Investigate and verify status of LEL alarm. Identify any automatic process modifications that may have occurred because of the alarm condition. For example, the cryogenic oxygen feed system should shut down when 50% of the LEL is reached in the biological reactors.
2	Report LEL meters alarm status (i.e., 1st level, 2nd level), automated process modifications, and alarm location (i.e., headworks, biological reactors), to the Chief Operator, Liquid Ops Supervisor, and Plant Manager.
3	If LEL exceeds 50% of the limit, contact the Incident Commander. (IC may be the Director of WRD)
INCIDENT COMMANDER (or Designee) RESPONSE TASKS	
4	Assemble a team of Operations & Maintenance and Engineering staff to assess the situation and identify possible solutions.
5	Addition of explosive substance may have been intentional. Contact the Public Works Administrator, request that local law enforcement investigate the incident, and provide increased security measures at the plant site. Investigation should include a review of recent discharge quality from permitted dischargers.
6	If a fire explosion does occur, refer to the Fire/Explosion Action Plan
7	Continue with process modifications and increased security measures until biological process has returned to normal at all locations.

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 08 - TERRORIST ATTACK OR CIVIL UNREST	
This checklist includes procedures for responding to terrorist attacks or civil disturbances that directly affect the wastewater collection or wastewater treatment systems. This checklist is primarily intended to protect staff and other on-site personnel during such an event.	
Line	**TASK**
GENERAL STAFF RESPONSE TASKS	
1	Call 911 and report the emergency.
2	Notify the Chief Operator, Public Works Administrator, and the Director of WRD.
3	Comply with facility announcements and law enforcement instructions.
4	Provide technical support and resources to local emergency responders, as requested.
5	During situations involving violence, gunfire, hand grenade blasts, etc.:
5a	Direct employees in the immediate area to hide under furniture and hold badges near their faces when approached by emergency responders. If possible to perform safely, evacuate the area and retreat to a secure location.
5b	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 911.
7	Follow other applicable emergency response checklists.
8	Restore building to normal operations when authorized by the local emergency response agency's Incident Commander.

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 09 - UNAUTHORIZED ENTRY	
Unauthorized entry or criminal activity may occur at any facility. The criminal activity may range from vandalism that results in insignificant damage to terrorist acts that result in major structural damage, chemical or fuel spills, or contamination of the water supply.	
Line	**TASK**
GENERAL STAFF RESPONSE TASKS	
1	If unauthorized entry is observed, immediately call 911 and report the emergency.
2	Notify the Chief Operator, Public Works Director and Director of WRD
3	Wait for law enforcement assistance and NEVER approach the suspects. Record a description of each intruder and the vehicle make, model, color, and license number.
INCIDENT COMMANDER (or Designee) RESPONSE TASKS	
4	Direct employees to check their immediate work areas for any suspicious items or damage.
5	Instruct employees not to disturb any suspicious items.
6	If applicable, evacuate the building or facility. Account for all personnel at the designated assembly area.
7	Report any suspicious items to the local emergency response agency (i.e., police) Incident Commander.
8	Provide technical support and resources to local emergency response agencies as requested.
9	Determine whether there are any impacts or potential impacts to the operation of wastewater facilities.
10	Follow other applicable emergency response checklists.
11	Coordinate building re-entry with the local emergency response agency (i.e., police) Incident Commander.

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 10 – CHEMICAL SPILLS IN THE COLLECTION SYSTEM
Memorandum of Understanding for Emergency Response to Spills Between Chattanooga Fire Department and Chattanooga Public Works has been developed to address chemical spills in the collection system that could make their way to the wastewater plant and threaten the plant processes and the biosolids. See Appendix A for a copy of the Memorandum of Understanding for Emergency Response to Spills Between Chattanooga Fire Department and Chattanooga Public Works.

Action Plan 11 – CHLORINE RELEASE
Process Safety Management and Risk Management Program (RMP) for the Moccasin Bend Wastewater Treatment Plant document addresses emergency actions relative to the accidental release of chlorine. See the Risk Management Program for actions during a chlorine release.

Action Plan 12 - SEVERE WEATHER	
Severe weather includes tornadoes, thunderstorms, lightning, and flooding.	
Line	**TASK**
INCIDENT COMMANDER (or Designee) RESPONSE TASKS	
1A	Monitor weather using a National Oceanic and Atmospheric Administration (NOAA) radio, local news media, or internet weather sites.
1B	During severe weather events, any applicable instructions of the Hamilton County Emergency Services shall be followed.
2	During a tornado or severe thunderstorm watch, ensure the following actions are taken: • Move loose outdoor items into buildings, if possible. • Allow employees to perform only essential outdoor activities. • Instruct employees to move to permanent structures and prepare for sheltering. • Listen to weather reports for further announcements and direction
3	During a tornado or severe thunderstorm warning, ensure the following actions are taken: • Have personnel move to designated shelters, or to the interiors of buildings away from doors and windows. • Direct personnel to get under desks, tables, or other sturdy objects (tornado warning only). • Monitor weather reports to determine when personnel can return to their normal assignments. • If a tornado or severe thunderstorm damages the facility, follow other applicable emergency response checklists. • After immediate emergency is over, follow damage assessment and recovery procedures
4	During a flood warning, ensure the following actions are taken: • If flooding affects the facility, follow other applicable emergency response checklists. • Assess electrocution or grounding hazards in flooded or water-damaged areas, and secure those areas. • Initiate public warning for water contamination, if necessary. • Coordinate the emergency provision of potable water, if necessary.
5	After completing the above activities, follow damage assessment and recovery procedures. Identify repairs needed immediately in order to ensure an adequate supply of wastewater pumping capacity for public needs.

Action Plan 13 - FLOOD	
Flooding may occur when severe weather affects the Tennessee River.	
LINE#	**TASK**
INCIDENT COMMANDER (or Designee) RESPONSE TASKS	
1	Monitor weather using a National Oceanic and Atmospheric Administration (NOAA) radio, local news media, or internet weather sites.
2	During all severe weather events, any applicable instructions of the Hamilton County Emergency Services shall be followed.
3	If floodwaters are predicted to rise to a stage that could potentially flood facility, assure that all personnel are aware and are moved to high ground above potentially impacted area.
4	If flooding of the facility is imminent, process equipment should be disconnected from power, only at the direction of the WRD Director.
5	If flooding affects the facility, follow other applicable emergency response checklists as appropriate.
6	Once flood has receded, assess electrocution or grounding hazards in flooded or water-damaged areas, and secure those areas.
7	WRD Director and staff assess flood damage.
8	WRD staff repair facilities as needed.
9	After completing the above activities, follow damage assessment and recovery procedures. Identify repairs needed immediately in order to ensure an adequate supply of wastewater pumping capacity for public needs.
10	Update ERP as needed.

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 14 - 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	**TASK**
GENERAL STAFF RESPONSE TASKS	
1	Check the scene for safety before providing emergency assistance. Remove, shut down, or minimize any hazards that you can safely control.
2	Call 911 to report the illness/injury and to request medical and/or other emergency assistance.
3	If available, ensure the following information is relayed to the 911 Call Center: • Name of individual reporting • Type of emergency • Number and identity of victim(s) • Number and types of injuries • Type of first aid assistance being provided • Location (room, floor, building) of victim(s) • Nearest available accessible entrance
4	Direct emergency response personnel to the location(s) of the victim(s).
5	Assist local emergency responders, as requested.
6	Coordinate notification of the employee's family or emergency contact with the employee's supervisor and human resources representative.
7	Provide support to the Police Department and other law enforcement agencies (preserve evidence, interview witnesses, etc.)
8	In the event of injury and/or death (or transport to the hospital) of a Waste Resources Division employee, the family of the employee will be notified by a member of the Crisis Communication Team (or their designee).

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 15 – INDUSTRIAL EMERGENCIES CREATING THE POTENTIAL FOR CONTAMINATED DISCHARGES TO THE COLLECTION SYSTEM
Memorandum of Understanding for Emergency Response to Spills Between Chattanooga Fire Department and Chattanooga Public Works has been developed to address contaminated discharges to the collection system from industrial or other emergencies which could make their way to the wastewater plant and threaten the plant processes and the biosolids

Action Plan 16 – CONTAMINATED DEBRIS IN THE COLLECTION SYSTEM
Contaminated debris in the collection system, either from older, past practices or from current incidents, can be carried to the wastewater plant during times of high flow or by being dislodged during sewer line cleaning or other work. Caution must be taken at all times prior to cleaning sewer lines, particularly in the combined sewer area and in the older, industrial sections of the collection system. Testing of debris in the laboratory shall be done prior to sewer line cleaning. Collection System SOP number COL-308 addresses this issue.

Checklist 01 – DESTRUCTION/FAILURE OF ANY PART OF THE WASTEWATER SYSTEM		
This checklist describes procedures for responding to the destruction or failure of any part of the wastewater system, including large interceptor breaks. Routine collection pipe failure/breaks will be handled in accordance with standard operating procedures. The procedures in this checklist provide additional guidance for non-routine failures that may require response from multiple WRD staff and/or external agencies.		
√	**Line**	**TASK**
GENERAL STAFF RESPONSE TASKS		
	1	Notify Incident Commander.
INCIDENT COMMANDER (or DESIGNEE) RESPONSE TASKS		
	2	If local emergency response assistance is required, call 911.
	3	Direct Media Relations Officer to contact the appropriate City officials and federal, state, and local agencies.
	4	Call the Media Relations Officer and decide whether, when, and how to notify customers and the news media.
	5	Assemble team of Supervisors and crews to assess damage and identify possible solutions.
	6	If the damage appears to be the result of an intentional act:
		a. Treat the site as a crime scene. Consult with the Police Department and other law enforcement agencies to ensure that evidence is preserved.
		b. If the damage appears to be intentional, increase security measures at the facility and related facilities to discourage further attack.
	7	Notify local emergency responders about potentially hazardous materials that may be present at the site.
	8	Determine the impact of the destruction/failure on the ability of the wastewater system to collect and pump wastewater.
	9	Determine effect of sewer backups on customers and sanitary sewer overflows on the local environment.
	10	Deploy environmental inspectors and lab personnel as needed, to collect and analyze samples.
	11	Based on the extent of the damage, consider alternative (interim) treatment, and/or distribution schemes.
	12	Implement recovery plan.
	13	Notify customers when system is returned to service.
	14	Maintain log of actions and forward to the Emergency Response Office 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 column.
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.

Checklist 02 – EXPLOSIVE SUBSTANCE DETECTED IN WASTEWATER		
An explosive substance in the wastewater could result in an explosion in the collection system or at the plant. A portable LEL detector may be used in specific circumstances.		
√	**Line**	**TASK**
GENERAL STAFF RESPONSE TASKS		
	1	Investigate and verify status of LEL alarm. Identify any automatic process modifications that may have occurred because of the alarm condition. For example, the cryogenic oxygen feed system should shut down when 50% of the LEL is reached in the biological reactors.
	2	Report alarm status (i.e., 1st level, 2nd level), automated process modifications, and location (i.e., headworks, biological reactors) to Supervisor.
	3	If LEL exceeds 50% of the limit, contact the Incident Commander.
INCIDENT COMMANDER RESPONSE TASKS		
	4	Assemble a team of Supervisors and crews to assess the situation and identify possible solutions.
	5	Addition of explosive substance may have been intentional. Request that security staff and/or local law enforcement investigate the incident and provide increased security measures at plant. Investigation should include a review of recent discharge quality from permitted dischargers.
	6	Continue with process modifications and increased security measures until LEL level has returned to normal at all locations.
	7	Maintain log of actions and forward to the Emergency Response Office 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 column.

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.

Checklist 03 – TOXIC SUBSTANCE DETECTED IN WASTEWATER		
A substance that is toxic to the biological treatment process may be introduced accidentally or intentionally. There is no system for detecting toxins in the wastewater, but parameters used to monitor the biological treatment process will likely change significantly and identify the problem after it has already occurred.		
√	**Line**	**TASK**
GENERAL STAFF RESPONSE TASKS		
	1	Investigate and verify status of biological process alarm. Identify any automatic process modifications that may have occurred because of the alarm condition.
	2	Report process alarm status and any automated (or manual) process modifications to plant Supervisor.
	3	If problem is severe and may impair treatment of wastewater, immediately contact the Incident Commander.
INCIDENT COMMANDER RESPONSE TASKS		
	4	Assemble a team of Supervisors and crews to assess the situation and identify possible solutions.
	5	Addition of toxic substance may have been intentional. Contact the Communications Director and request that security staff and/or local law enforcement investigate the incident and provide increased security measures. Investigation should include a review of recent discharge quality from permitted dischargers.
	6	a. If loss of treatment will result in the release of untreated wastewater to the environment, contact Communications Director to inform regulatory agency, media, and public.
		b. Contact AFCEMA, GAEPD, USEPA, and GAWARN as needed.
	7	If necessary, contact another wastewater utility to provide additional resources (i.e., activated sludge)
	8	Continue with process modifications and increased security measures until biological process has returned to normal.
	9	Maintain log of actions and forward to the Safety Officer 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 column.

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.

Appendix L
Incident Investigation Report

Incident Investigation Report

SECTION 1: INCIDENT INVESTIGATION REPORT COVER		*(See Section 9 below for additional guidance.)*
Facility Name	Facility ID#	
Prepared By	Title	Date
Type of Accident		
Date of Accident *(day, month, and year)*	Time Accident Began *(hours and minutes)*	
NAICS Code of Process (if applicable) i.e. 221320 (Sewage Treatment Facilities)	Release Duration *(hours and minutes), if applicable*	
Describe chemical release Incident: Provide chemical name, CAS number, quantity released in pounds, percent weight of chemical in a mixture (toxics only), and process involved.		
Flooding: Describe in detail the flood scenario as it occurred.		
Tornado: Describe in detail the tornado scenario as it occurred.		
Employee Incident: Describe in detail the accident.		
Other Information:		

Incident Investigation Report

SECTION 2: WITNESS IDENTIFICATION	*Identify all personnel (including contract employees) that witnessed the incident in the space provided below. Instruct all witnesses to not discuss the incident with anyone until the incident investigation team has interviewed them. Witnesses shall prepare a written account of the incident (see Section 3 below) prior to being interviewed by the incident investigation team.*

Name	Title

Incident Investigation Report

SECTION 3: WITNESS ACCOUNT OF INCIDENT	*Witnesses shall prepare a written account of the incident prior to being interviewed by the incident investigation team.*
Name:	Title:
Instructions: Each witness shall prepare a written account of what they experienced in the space provided below. Summarize the events of the incident, what happened, and why it happened.. Identify the following: 1) Time and date of incident; 2) Event and source 3) Employee accident, flood, or tornado; 4) Initiating Event (equipment failure, human error, weather, unknown); 5) Contributing Factors (i.e. factors that led to the initiating event or contributed to the severity of the incident). Describe the weather conditions during the incident. Identify any other personnel involved. Estimate the duration and quantity of release. Attach sketches, additional sheets, etc. as needed.	
SECTION 4: WITNESS CERTIFICATION	

Incident Investigation Report

I certify that the above account of the incident is a complete and accurate description of the incident as I experienced it.	Witness Signature	Date/Time

Incident Investigation Report

SECTION 5: INCIDENT DESCRIPTION	*The following description of the incident is based on witness accounts of the incident (see Section 3), follow-up interviews with witnesses, and an evaluation of all collected evidence by the incident investigation team. Attach any sketches or notes as needed. See Section 9 for additional guidance for filling in this section of the report.*

5.1 Event *(select at least one)*

- □ Gas release
- □ Fire, explosion
- □ Tornado
- □ Liquid spill / evaporation
- □ Flooding
- □ Employee accident

5.2 Asset(s) involved in incident *(select at least one)*

- □ Storage Vessel
- □ Pump or Pump Station
- □ Piping, hose
- □
- □ Valve
- □ Other *(specify)* _____
- □ Manhole

5.3 Initiating Event *(select at least one)*

- □ Equipment Failure
- □ Natural (*weather conditions, earthquake*)
- □ Human error
- □ Unknown

5.4 Contributing Factors *(select all that apply)*

- □ Equipment Failure
- □ Unsuitable Equipment
- □ Human Error
- □ Unusual Weather Conditions
- □ Improper Procedure
- □ Management Error
- □ Overpressurization
- □ Other (*specify*) _____
- □ Upset Condition
- □ By-pass Condition
- □ Maintenance Activity/Inactivity
- □ Process Design Failure

5.5 Weather Conditions at Time of Event (*If Known*)

5.5.A Wind Speed_____ (*numerical*) □ miles/hr □ knots □ meters/sec (*check one*)

5.5.B Height of Wind Measurement_____ (*numerical*) □ meters □ feet (*check one*)

5.5.C Wind Direction

5.5.D Tornado Category

5.5. □ Temperature (°*F*)	5.5.E Stability Class (*A-F*)	5.5.F Precipitation and Flood Data

Incident Investigation Report

SECTION 5: INCIDENT DESCRIPTION (*continued*)

5.6 On-site Impacts

5.6.A Deaths (*enter numbers*)

Workers/Contractors _____

Responders _____

Others _____

5.6.B Injuries (*enter numbers*)

Workers/Contractors _____ Offsite

Offsite Responders _____

_____

5.6.C Property Damage ($) _____

5.7 Known Offsite Impacts (*enter numbers*)

Deaths _____

Hospitalizations _____

Other Medical Treatment _____

Evacuated _____

Sheltered In-Place _____

Property Damage ($) _____

5.8 Environmental Damage (*select all that apply*)

- □ Fish or animal kills
- □ Tree, lawn, shrub, or crop damage
- □ Water contamination
- □ Soil contamination
- □ Other (*specify*) _____

5.9 Offsite Responders Notified

□ Police □ Fire □ Hazardous Materials Team □ Emergency Medical Services

Notes (*this space provided for any notes/comments*)

Incident Investigation Report

Section 6: Safety RECOMMENDATIONS	*For each safety recommendation resulting from the incident investigation, complete the following table. Attach all additional documentation regarding the evaluation and resolution of each recommendation. Note: all recommendations must be resolved to complete the incident investigation. (Attach additional sheets if needed.)*			
Describe Safety Recommendation and Intent	**Assigned To**	**Target Resolution Date**	**Date Resolved**	**Describe Resolution**

Incident Investigation Report

SECTION 7: CONCLUSIONS	*Provide a written summary of the investigation conclusions in the space provided below and identify any changes introduced as results of the accident. (Attach additional sheets if needed). See Section 9 for additional guidance for filling in this section of the report.*

7.1 Summary (*Summarize investigation conclusions here*)

7.2 Changes Introduced as a Result of the Accident *(select at least one)*

□ Improved/Upgraded Equipment	□ New Process Controls	□ Reduced Inventory
□ Revised Maintenance	□ New Mitigation Systems	□ None
□ Revised Training	□ Revised Emergency Response Plan	□ Other (*specify*) _____
□ Revised Operating Procedures	□ Changed Process	

Incident Investigation Report

SECTION 8: INCIDENT INVESTIGATION TEAM CERTIFICATION	*The incident investigation team members who sign below certify that they have reviewed and agree with the conclusions of this incident investigation report.*		
Name	**Title/Affiliation**	**Signature**	**Date**

Incident Investigation Report

SECTION 9: ADDITIONAL INSTRUCTIONS	*This section provides additional guidance for filling in selected items in selected sections of the Incident Investigation Report.*

Guidance for Completing Section 1

NAICS Code of Process – North American Industrial Classification System.

Chemical Release Duration - Indicate the approximate length of time of the release in minutes and Type of Chemical (regulated or non-regulated)

Quantity Released - Estimate the amount of each substance released in pounds.

Tornado: Document events leading up to tornado event.

Flooding: Document event leading up to the flooding event. Height of flood stage. Are assets located in a flood zone? Document where asset(s) lie on FEMA Flood Maps.

Employee Accident: Document details involving accident such as location of asset(s) and employee information.

Guidance for Completing Section 5

5.1 Release Event - Indicate which of the following release events best describes your accident. Check all that apply:

- *Gas Release.* A gas release is a release of the substance as a gas (rather than vaporized from a liquid). If you hold a gas liquefied under refrigeration, report the release as a liquid spill.
- *LiquidSpill/Evaporation.* A liquid spill/evaporation is a release of the substance in a liquid state with subsequent vaporization.
- *Fire.* A fire is combustion producing light, flames, and heat.
- *Explosion.* An explosion is a rapid chemical reaction with the production of noise, heat, and violent expansion of gases.

5.2 Release Source - Indicate all that apply.

- *Storage Vessel.* A storage vessel is a container for storing or holding gas or liquid. Storage vessels include transportation containers being used for on-site storage.
- *Piping.* Piping refers to a system of tubular structures or pipes used to carry a fluid or gas.
- *Process Vessel.* A process vessel is a container in which substances under certain conditions (e.g., temperature, pressure) participate in a process (e.g., substances are manufactured, blended to form a mixture, reacted to convert them into some other final product or form, or heated to purify).
- *Transfer Hose.* A transfer hose is a tubular structure used to connect, often temporarily, two or more vessels.
- *Valve.* A valve is a device used to regulate the flow in piping systems or machinery. Relief valves and rupture disks open to release pressure in vessels
- *Pump.* A pump is a device that raises, transfers. or compresses fluids or that attenuates gases by suction or pressure or both.
- *Joint.* The surface at which two or more mechanical components are united.
- *Other.* Specify other source of the release.

Incident Investigation Report

SECTION 9: ADDITIONAL INSTRUCTIONS	*This section provides additional guidance for filling in selected items in selected sections of the Incident Investigation Report.*

Incident Investigation Report

Guidance for Completing Section 5 - Continued

5.3 Initiating Event - Indicate the initiating event that was the immediate cause of the accident, if known. If you conducted an investigation of the release, you should have identified the initiating event.

- *Equipment Failure.* A device or piece of equipment failed or did not function as designed. For example, the vessel wall corroded or cracked.
- *Human Error.* An operator performed a task improperly, either by failing to take the necessary steps or by taking the wrong steps.
- *Weather Conditions.* Weather conditions, such as lightning, hail, ice storms, tornadoes, hurricanes, floods, or high winds, caused the accident.
- *Unknown.*

5.4 Contributing Factors - These are factors that contributed to the accident. but were not the initiating event. If you conducted an investigation of the release, you may have identified factors that led to the initiating event or contributed to the severity of the release. Indicate all that apply.

- *Equipment Failure*. A device or piece of equipment failed to function as designed, thereby allowing a substance leading to or worsening the accidental release.
- *Human Error.* An operator performed an operation improperly or made a mistake lead to or worsened the accident.
- *Improper Procedures.* The procedure did not reflect the proper method of operation, the procedure omitted steps that affected the accident, or the procedure was written in a manner that allowed for misinterpretation of the instructions.
- *Overpressurization.* The process was operated at pressures exceeding the design working pressure.
- *Upset Condition.* Incorrect process conditions (e.g., increased temperature or pressure) contributed to the release.
- *By-pass Condition.* A failure occurred in a pipe, channel, or valve that diverts fluid flow from the main pathway when design process or storage conditions are exceeded (e.g., overpressure). By-pass conditions may be designed to release the substance to restore acceptable process or storage conditions and prevent more severe consequences (e.g., explosion).
- *Maintenance* Activity*/lnactivity.* A failure occurred because of maintenance activity or inactivity. For example, the storage racks remained unpainted for so long that corrosion caused the metal to fail.
- *Process Design.* A failure resulted from an inherent flaw in the design of the process (e.g., pressure needed to make product exceeds the design pressure of the vessel).
- *Unsuitable Equipment.* The equipment used was incorrect for the process. For example, the forklift was too large for the corridors.
- *Unusual Weather Conditions.* Weather conditions, such as lightning, hail, ice storms, tornadoes, hurricanes, floods, or high winds contributed to the accident
- *Management Error.* A failure occurred because management did not exercise its managerial control to prevent the accident from occurring. This is usually used to describe faulty procedures, inadequate training, inadequate oversight, or failure to follow existing administrative procedures.

SECTION 9: ADDITIONAL INSTRUCTIONS	*This section provides additional guidance for filling in selected items in selected sections of the Incident Investigation Report.*

Guidance for Completing Section 5 - Continued

5.5 Weather Conditions at Time of Event (if known) - This information is important to those concerned with modeling the effects of accidents. Reliable information from those involved in the incident or from an on-site weather station is ideal. However, this rule does not require your facility to have a weather station. If you do not have an onsite weather station, use information from your local weather station, airport. or other source of meteorological data. To the extent possible, complete the following:

- *Wind Speed, height of wind measurement and Direction.* Wind speed is an estimate of how fast the wind is traveling. Indicate the speed in miles per hour. In addition, indicate the height the wind speed was measured at. Wind direction is the direction from which the wind comes. For example, a wind that blows from east to west would be described as having an eastern wind direction. You may describe wind direction as a standard compass reading such as "Northeast" or "South-southwest." You may also describe wind direction in degrees--with North as zero degrees and East as 90 degrees. Thus, northeast would represent 45 degrees and south-southwest would represent 202.5 degrees. Abbreviations for the wind direction such as NE (for northeast) and SSW (for south-southwest) are also acceptable.
- *Temperature.* The ambient temperature at the scene of the accident in degrees Fahrenheit. If you did not keep a record, you can use the high (for daytime releases) or low (for nighttime releases) for the day of the release. Local newspapers publish these data.
- *Stability Class.* Depending on the amount of incoming solar radiation as well as other factors, the atmosphere may be more or less turbulent at any given time. Meteorologists have defined six atmospheric stability classes, each representing a different degree of turbulence in the atmosphere. When moderate to strong incoming solar radiation heats air near the ground, causing it to rise and generating large eddies, the atmosphere is considered unstable, or relatively turbulent. Unstable conditions are associated with stability classes A and B. When solar radiation is relatively weak, air near the surface has less of a tendency to rise and less turbulence develops. In this case, the atmosphere is considered stable or less turbulent with weak winds. The stability class is E or F. Stability classes D and C represent conditions of neutral stability or moderate turbulence respectively. Neutral conditions are associated with relatively strong wind speeds and moderate solar radiation.
- *Tornado and Flood data:* Obtain from USGS, NOAA, County EMA.

SECTION 9: ADDITIONAL INSTRUCTIONS	*This section provides additional guidance for filling in selected items in selected sections of the Incident Investigation Report.*

Guidance for Completing Section 5 - Continued

Table A (below) presents the stability classes associated with wind speeds, time of day, and cloud cover.

Atmospheric Stability Classes						
Surface Wind Speed at 10 Meters		**Day**			**Night**	
Meters per Second	**Miles per Hour**	**Incoming Solar Radiation**			**Thinly Overcast or ≥ 4/8 Low Cloud**	**≤ 3/8 Cloud**
		Strong[1]	**Moderate**	**Slight[2]**		
<2	<4.5	A	A-B	B	--	--
2-3	4.5-7	A-B	B	C	E	F
3-5	7-11	B	B-C	C	D	E
5-6	11-13	C	C-D	D	D	D
>6	>13	C	D	D	D	D

[1]*Sun high in the sky with no clouds*
[2]*Sun low in the sky with no clouds*

- *Precipitation Present.* Precipitation may take the form of hail, mist, rain, sleet, or snow. Indicate "yes" or "no" based on whether there was any precipitation at the time of the accident.

5.6 On-site Impacts - Complete the following about on-site effects.

- *Deaths.* Indicate the number of on-site deaths that are attributed to the accident or mitigation activities. On-site deaths means the number of employees, contract employees, offsite responders, or others (e.g., visitors) who were killed by direct exposure to toxic concentrations, radiant heat, or overpressures from accidental releases or from indirect consequences of a vapor cloud explosion from an accidental release (e.g., flying glass, debris, other projectiles). You should list employee/contractor, offsite responder, and other on-site deaths separately.
- *Injuries.* An injury is any effect that results either from direct exposure to toxic concentrations, radiant heat, or overpressures from accidental releases or from indirect consequences of a vapor cloud explosion (e.g., flying glass, debris, other projectiles) from an accidental release and that requires medical treatment or hospitalization. You should list injuries to employees and contractors, offsite responders, and others separately.
- *Property Damage.* Estimate the value of the equipment or business structures (for your business alone) that were damaged by the accident or mitigation activities. Record the value in American dollars. Insurance claims may provide this information. Do not include any losses that you may have incurred as a result of business interruption.

SECTION 9: ADDITIONAL INSTRUCTIONS	*This section provides additional guidance for filling in selected items in selected sections of the Incident Investigation Report.*

Guidance for Completing Section 5 - Continued

5.7 Known Offsite Impacts - These are impacts that you know or could reasonably be expected to know of (e.g., from media reports or from reports to your facility) that occurred as a result of the accidental release. You are not required to conduct an additional investigation to determine offsite impacts.

- *Deaths.* Indicate the number of offsite deaths that are attributable to the accident or mitigation activities. Offsite deaths means the number of community members who were killed by direct exposure to toxic concentrations, radiant heat, or overpressures from accidental releases or from indirect consequences of a vapor cloud explosion from an accidental release (e.g., flying glass, debris, other projectiles).
- *Injuries.* Indicate the number of injuries among community members. Injury means any effect that results either from direct exposure to toxic concentrations, radiant heat, or overpressures from accidental releases or from indirect consequences of a vapor cloud explosion from an accidental release (e.g., flying glass. debris, other projectiles) and that requires medical treatment or hospitalization.
- *Evacuated.* Estimate the number of members of the community who were evacuated to prevent exposure that might have resulted from the accident. A total count of the number of people evacuated is preferable to the number of houses evacuated. People who were ordered to move simply to improve access to the site for emergency vehicles are not considered to have been evacuated
- *Sheltered-in-Place.* Estimate the number of members of the community who were sheltered-in-place during the accident. Sheltering-in-place occurs when community members are ordered to remain inside their residence or place of work until the emergency is over to prevent exposure to the effects of the accidental release. Usually these orders are communicated by an emergency broadcast or similar method of mass notification by response agencies.

5.8 Environmental Damage - Indicate whether any environmental damage occurred and specify the type. The damage to be reported is not limited to environmental receptors listed in the rule. Any damage to the environment (e.g., dead or injured animals, defoliation, water contamination) should be identified. You are not, however, required to conduct surveys to determine whether such impact occurred. Types of environmental damage include:

- Fish or animal kills
- Lawn, shrub, or crop damage
- Water contamination
- Soil Contamination
- Other (*specify*)

SECTION 9: ADDITIONAL INSTRUCTIONS	*This section provides additional guidance for filling in selected items in selected sections of the Incident Investigation Report.*

Guidance for Completing Section 7

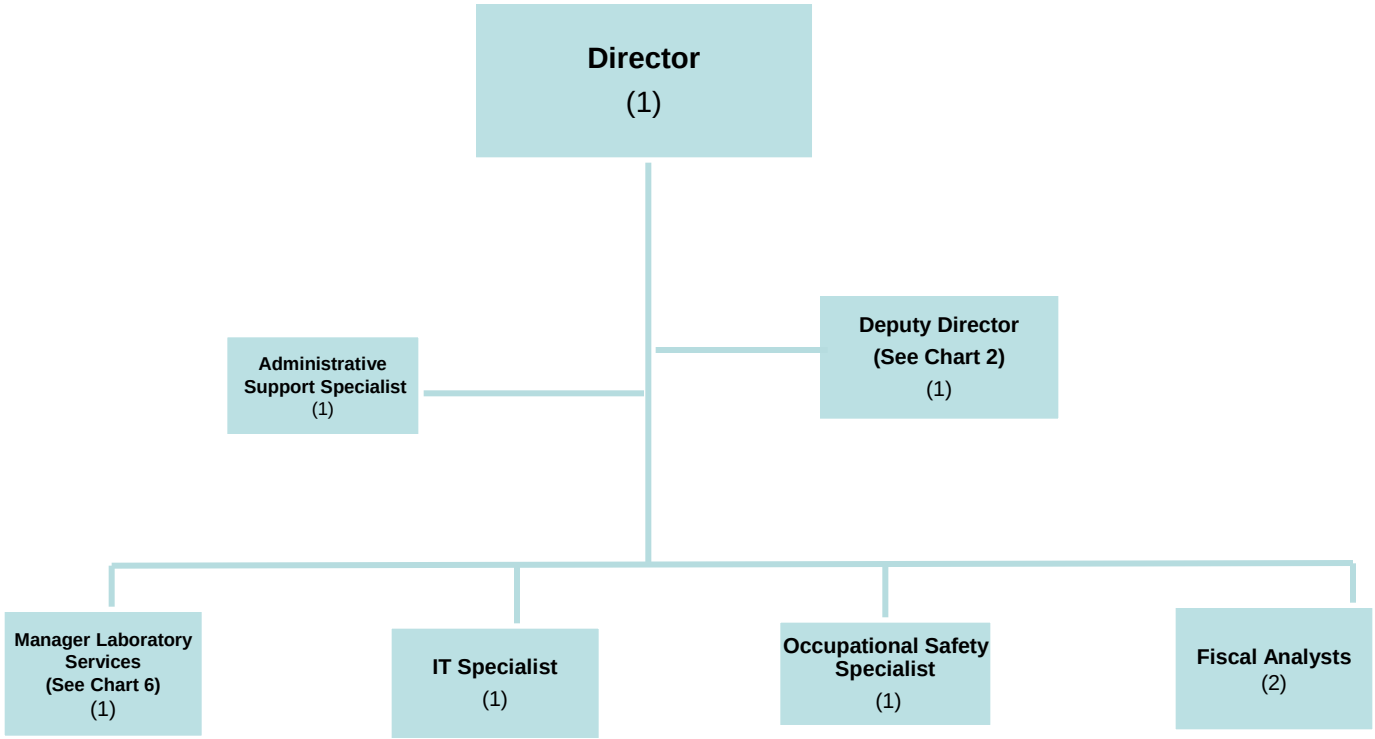
7.1 Summary – See instructions in Section 7 of the Incident Investigation Report.

7.2 Changes Introduced as a Result of the Accident - Indicate any measures that you have taken at the facility to prevent recurrence of the accident. Indicate all that apply.

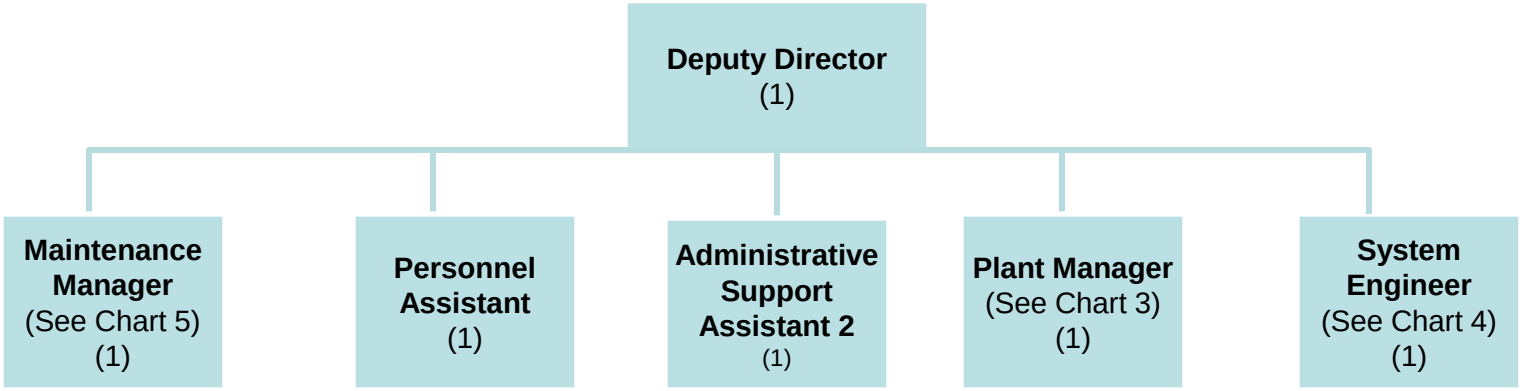
- *Improved/Upgraded Equipment.* A device or piece of equipment that did not function as designed was repaired or replaced.
- *Revised Maintenance.* Maintenance procedures were clarified or changed to ensure appropriate and timely maintenance including inspection and testing (e.g., increasing the frequency of inspection or adding a testing method).
- *Revised Training.* Training programs were clarified or changed to ensure that employees and contract employees are aware of and are practicing correct safety and administrative procedures.
- *Revised Operating Procedures.* Operating procedures were clarified or changed to ensure that employees and contract employees are trained on appropriate operating procedures.
- *New Process Controls.* New process designs and controls were installed to correct problems and prevent recurrence of an accidental release.
- *New Mitigation Systems.* New mitigation systems were initiated to limit the severity of accidental releases.
- *Revised Emergency Response Plan.* The emergency response plan was revised.
- *Changed Process.* Process was altered to reduce the risk (e.g., process chemistry was changed).
- *Reduced Inventory.* Inventory was reduced at the facility to reduce the potential release quantities and the magnitude of the hazard.
- *Other.*
- *None.* No changes initiated at facility as a result of the accident (e.g., because none were necessary or technically feasible). There may be some accidents that could not have been prevented because they were caused by events that are too rare to merit additional steps. For example, if a tornado hit your facility and you are located in an area where tornadoes are very rare, it may not be reasonable to design a "tornado proof" process even if it is technically feasible.

Appendix M
Waste Resources Division Organization Chart

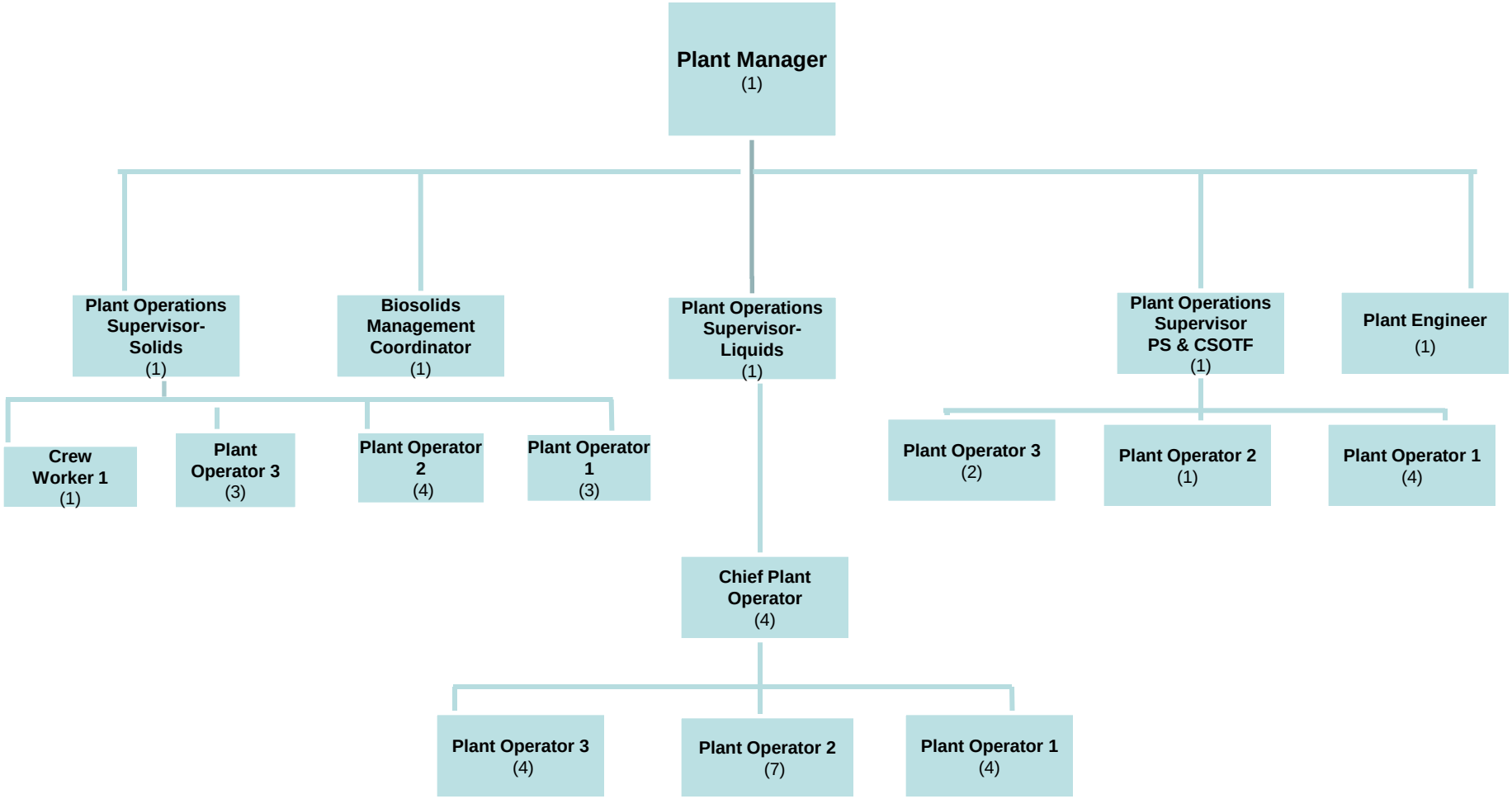
WASTE RESOURCES DIVISION
ORGANIZATIONAL CHART
(September, 2014)



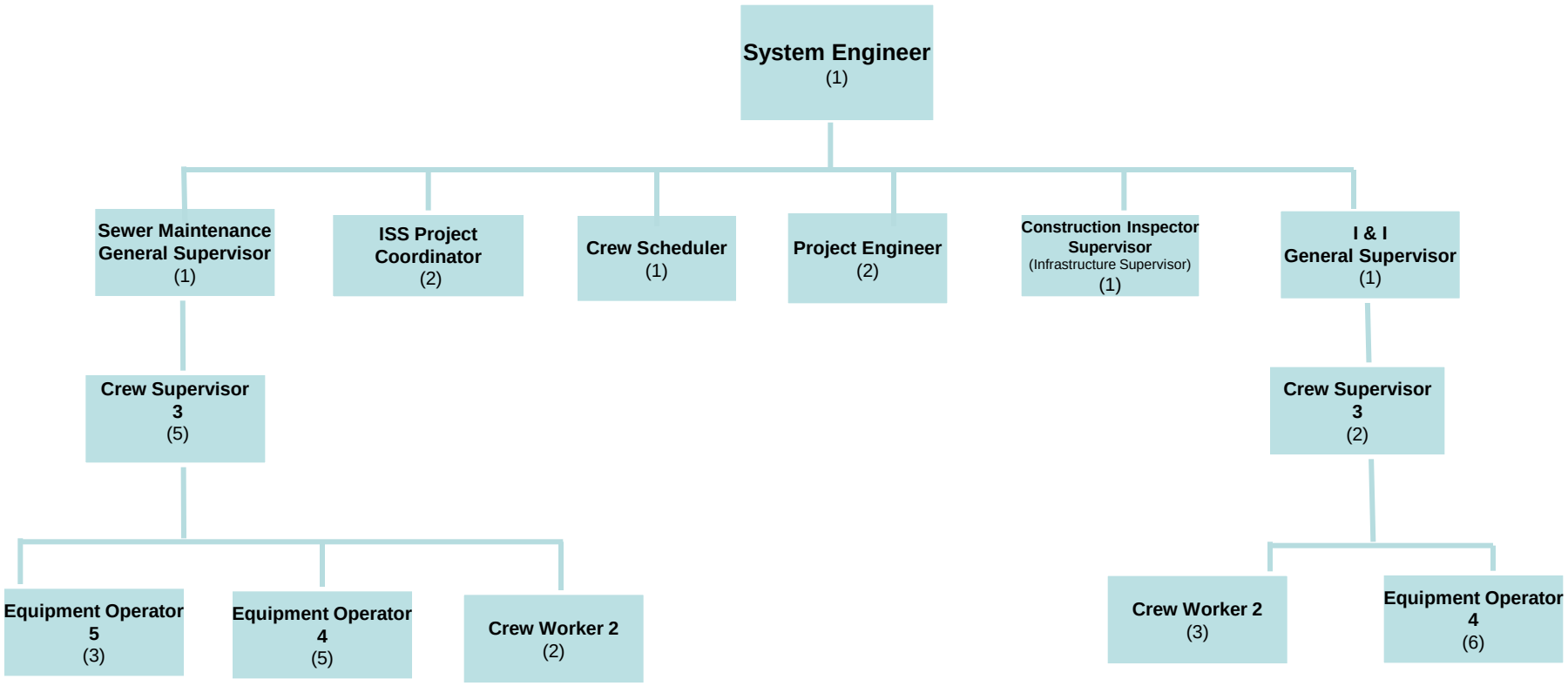
WASTE RESOURCES DIVISION
ORGANIZATIONAL CHART
Chart 2
(September, 2014)



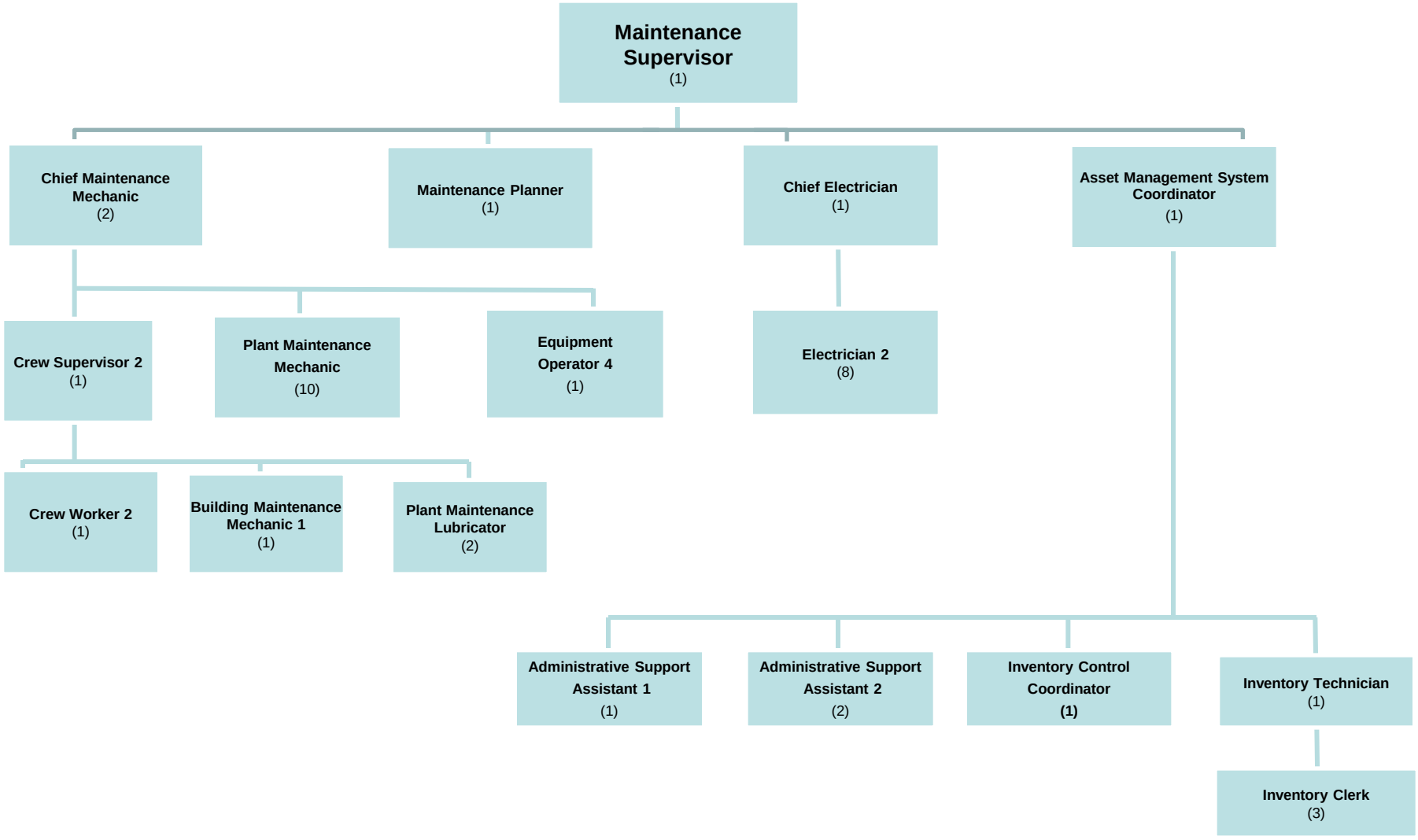
WASTE RESOURCES DIVISION
ORGANIZATIONAL CHART
Chart 3
(September, 2014)



WASTE RESOURCES DIVISION
ORGANIZATIONAL CHART
Chart 4
(September, 2014)



WASTE RESOURCES DIVISION
ORGANIZATIONAL CHART
Chart 5
(September, 2014)



WASTE RESOURCES DIVISION
ORGANIZATIONAL CHART
Chart 6
(September, 2014)