EMERGENCY RESPONSE PLAN
DRINKING WATER SECTOR

Public Water System Name: **PWSID No:**

Physical Address:

City:
State:
Zip Code:
General Phone Number:

Population Served:
Municipalities Served:

Prepared by (signature & title)**:**

Reviewed by (signature & title)**:**

Date Completed:

Date Revised:

Purpose

This Emergency Response Plan Template was developed in accordance with the Public Health Security Bioterrorism Preparedness & Response Act of 2002, (Public Law 107-188) and the New Jersey Water Allocation Regulations, specifically N.J.A.C. 7:19-11.1 *et seq*. This plan includes the actions, procedures, and identification of equipment that can be implemented or utilized to significantly lessen the impact of an emergency situation. Various scenarios are addressed, both naturally occurring and intentional actions (i.e. terrorist attacks).

Plan Distribution

Copies of the emergency plan have been distributed to all water supply personnel and other officials as indicated below. All employees will be trained on implementation of the plan.

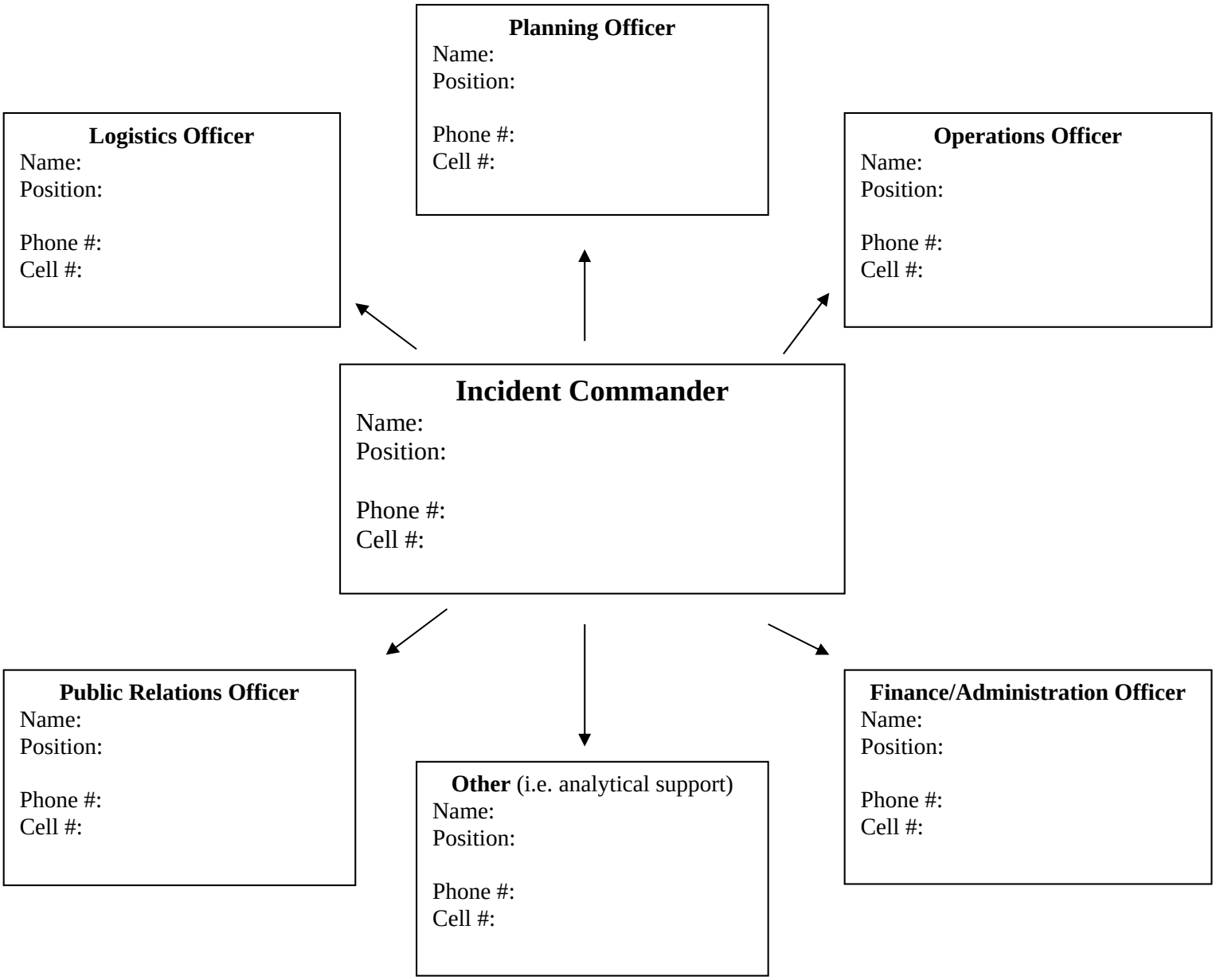
Recipient	Distributed By	Date

Table of Contents

Section 1 – Emergency Response Team
(Roles/Contact Information)

The following chart depicts our Emergency Response Team members and their contact information.

Team Members:
(Available 24/7)



Section 1 – Emergency Response Team (Responsibilities)

A description of the responsibilities for the Emergency Response Team members is as follows.

Incident Commander: This individual is reachable 24 hours a day, 7 days a week and is responsible for decision-making during the event and for coordinating efforts with local emergency responders. All personnel involved in the incident will report to the Incident Commander. Should the incident escalate, the Incident Commander may delegate this position to an official from local, State or Federal government and assume a support role: in this situation a full briefing of the situation will be given to the incoming Incident Commander and all staff will be notified of the change.

Information Officer: This individual will be the primary spokesperson to the media or other organizations requesting information concerning the event. All Staff are advised to refer any requests for information directly to the Information Officer and not to talk directly to members of the press.

Planning Officer: This individual(s) will be responsible for developing an Action Plan for responding to the incident and will evaluate incoming information and revise the Action Plan as necessary.

Operations Officer: This individual(s) will be responsible for carrying out the Action Plan and directing resources.

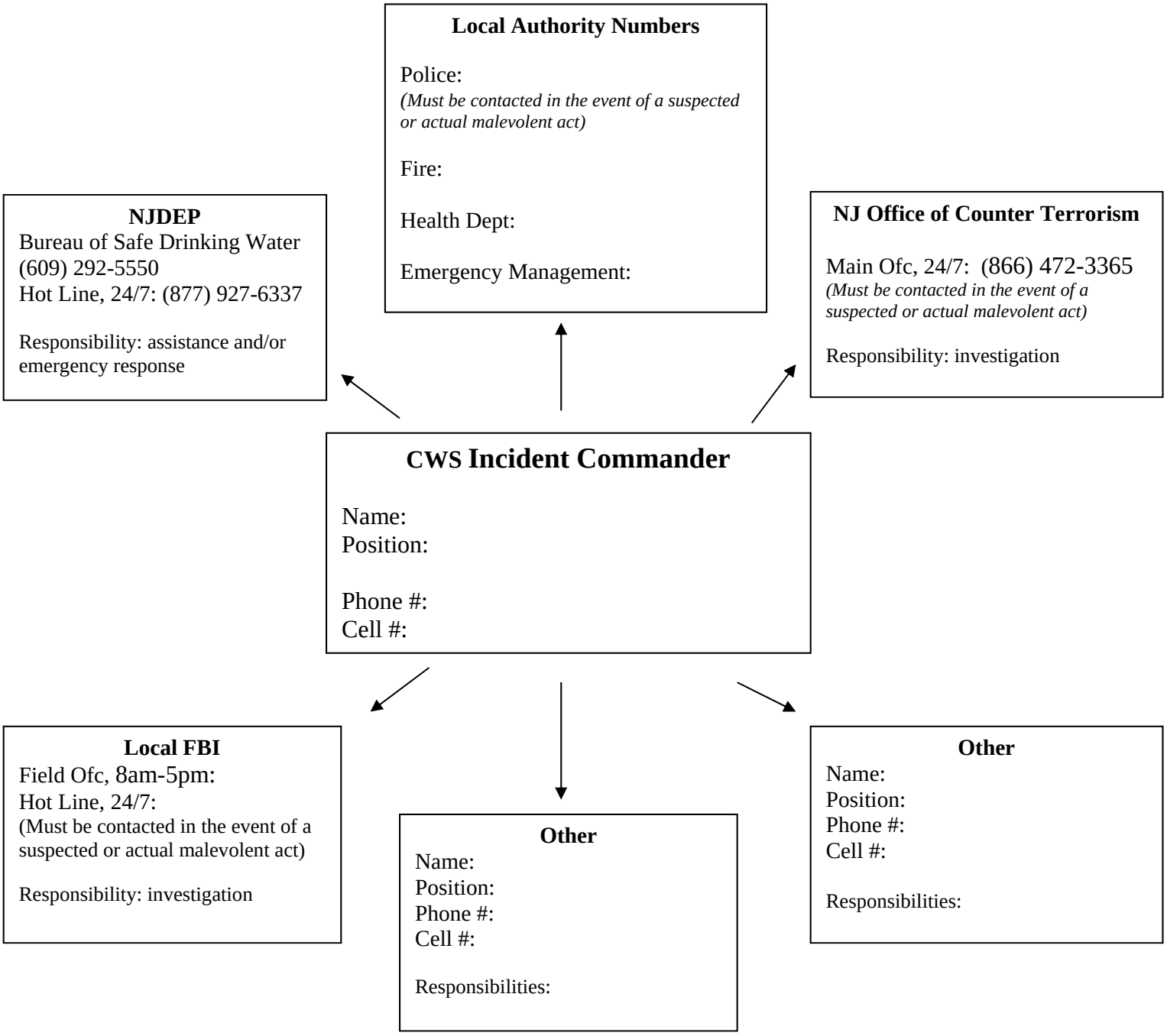
Logistics Officer: This individual (s) will be responsible for providing the necessary resources and any additional services required for responding to the incident.

> **Note**: The duties of Planning, Operations and Logistics may be carried out by one individual or by several, depending on the size and severity of the incident.

Finance/Administration Officer: This individual will be responsible for on-site financial management, especially the provision of funds to obtain the necessary equipment or supplies required to respond to the incident. This individual will activate contracts, deal with vendors and make cost estimates of alternative strategies. This individual can also monitor the costs associated with responding to the incident, although this is a secondary function.

Section 1 – Emergency Response Team
(External Notifications)

The NJDEP will be notified, in accordance with N.J.A.C. 7:10-2.4(b), as soon as possible but no later than within six hours of any emergency that has the potential to lessen the quality or pressure of delivered water. The following charts establish other agencies to be contacted in the event of an emergency and identifies the contact person (where applicable) and phone number:



Other Emergency Contacts and Phone Numbers

The following *sensitive populations* (hospitals, nursing homes, childcare centers, schools, etc.) exist within our service area and will be contacted directly in the event of an emergency:

Facility Name	Contact	Population Type	Phone # (24/7)

Additional contact information for utilities and the media:

Organization	Contact	Phone (day)	Phone (24/7)
Electric Company			
Gas Company			
Sewer Company			
Telephone Company			
One Call			
Other			

* *A list of utility account numbers is attached to facilitate efficient communication with and repair of utilities.*

Organization	Contact	Phone (day)	Phone (24/7)
Newspaper – Local			
Newspaper – Regional			
Radio			
Television			

Section 2 – Emergency Communication Procedures (Communications Equipment Inventory)

An inventory of our communications equipment (cellular phones, two-way radios/Nextel phones, etc.) is as follows:

Type	Assigned to	Location	Number/Frequency/Channel

Section 2 – Emergency Communication Procedures (Communications Plan)

The following is a written description of our notification procedures and means of implementation that accounts for the loss of any mode of communication:

Section 3 - Water System Priorities
(Water Usage)

This section establishes water usage priorities and assigns the best use of our water system resources during an emergency. Using *high*, *medium* or *low*, the chart to follow establishes the priority given to each use, our assessment of the water needed, and the method of sustaining the use. In some instances user groups were contacted directly to establish actual water needs.

Use Category	Priority	Water Needed	Method of Sustaining Use
Fire Protection			
Sanitary			
Industrial/Commercial			
Potable (cooking, drinking, hygiene)			
Sensitive Populations			
Hospitals			
Rehabilitation Centers			
Emergency Shelters			
Other			

System Capacity: _____ million gallons per day (MGD)

Demand (MGD)	2004	2003	2002
Average Daily			
Maximum Daily			
Peak Daily			

Section 3 - Water System Priorities
(Emergency Provisions)

This section details emergency procedures for treatment, pumping, distribution, and water stations:

Critical Process/Component	Emergency Procedures
Treatment	
Pumping	
Distribution	
Water Stations	

Section 4 – Resource Inventory
(Personnel Protection)

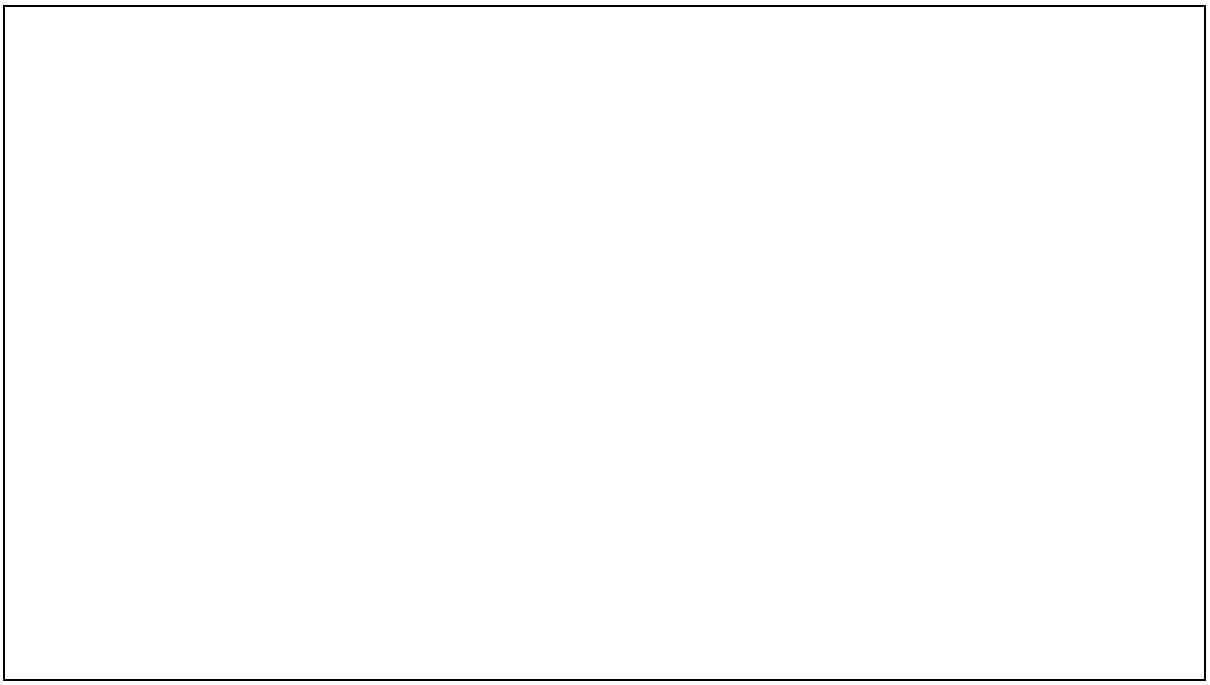
This section provides direction for water system personnel regarding the *safe* response to an emergency situation and covers Evacuation Procedures, Assembly Areas/Staff Accountability, Shelter Locations, and First Aid Equipment. Additionally, this section establishes the frequency of staff training (workshops, tabletop exercises, drills, refresher training, etc.) regarding the content of this plan and use of personal protective equipment and other safety protocols.

First Aid Equipment

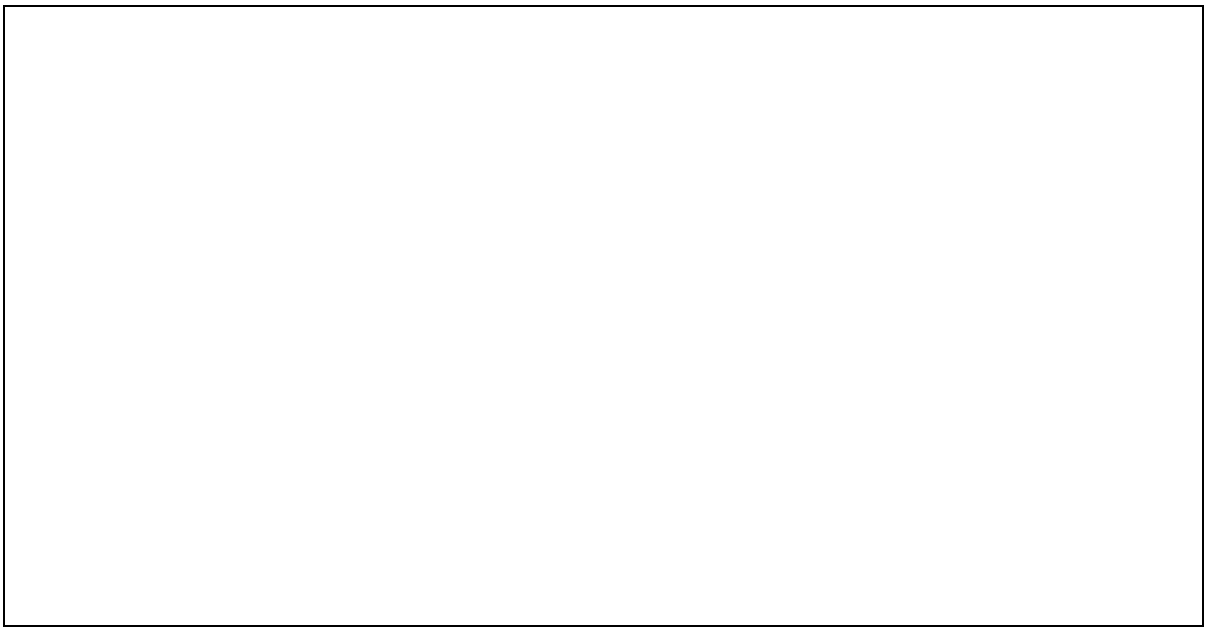
Type	Location

Evacuation Procedures

Assembly Areas/Staff Accountability



Shelter Locations



Staff Training Frequency and Course Content

Date	Course Location	Course Description

Section 4 – Resource Inventory
(Plant Equipment)

This section serves as a quick inventory of the available equipment, either maintained on-site or from a neighboring water system. Provisions for procuring appropriate equipment takes into consideration the Vulnerability Assessment process of identifying critical components. This section also provides contact information for supplies, equipment repair, and emergency services.

Inventory of Available Equipment/Parts

Auxiliary Power Sources

Type/Capacity	Location

Auxiliary Fuel Storage

Type	Capacity	Location

Spare Pumps

Type/Manufacturer	Service Capabilities	Location

Spare Pump Parts

Part	Location

Spare Distribution Parts

Part	Location

Spare Treatment Parts

Part	Location

Reserve Chemicals

Chemical	Location

Contact Information for Equipment Repair and Supplies

Organization	Contact Name/Title	Phone (day)	Phone (24/7)
Electrician			
Plumber			
Pump Specialist			
Soil Excavator/Backhoe Operator			
Equipment Rental or Cooperative (e.g. fuel cooperative or heavy equipment rental)			
Equipment Rental (Chlorinators)			
Equipment Repairman			
SCADA Repair Service			
Pump Supplier			
Well Driller			
Pipe Supplier			
Local/Regional Analytical Laboratory			
Chemical Supplier(s)			
Fuel Supplier(s)			
Other			

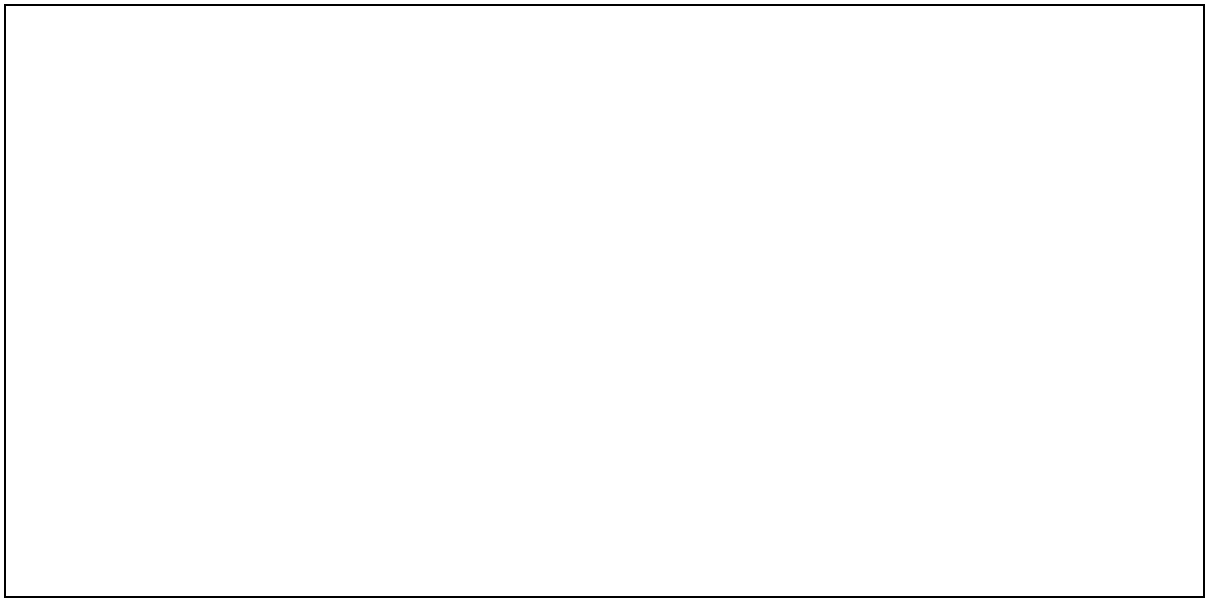
Section 4 – Resource Inventory
(Property Protection)

This section details procedures for protecting and securing water system facilities, equipment, and vital records. Additionally, this section provides information for water system personnel regarding lock-out procedures, restricted access protocols, and in the event of a criminal act, perimeter security and evidence preservation.

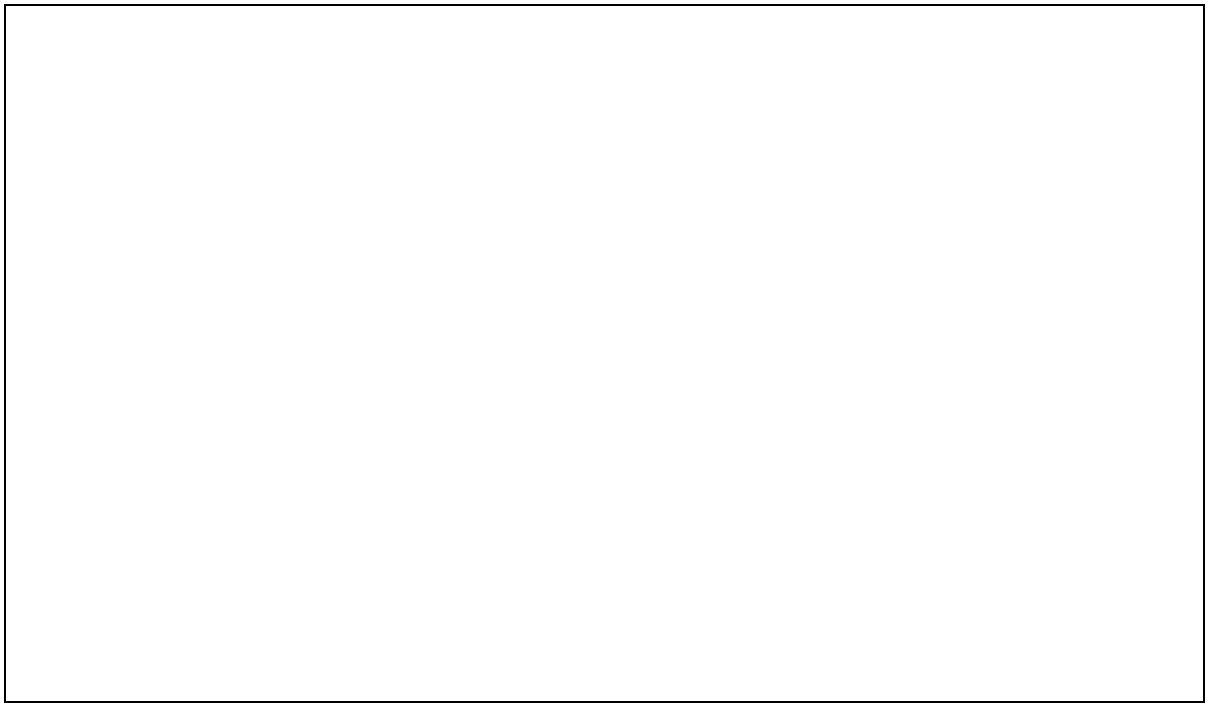
Protection and Security of Facilities, Equipment, and Vital Records

Lock Out Procedures

Restricted Access Protocols



Incident Perimeter Security and Evidence Preservation



Section 5 - Alternate Water Supplies
(Interconnections, Seasonal/Backup/Unapproved Sources)

This section provides information on available alternate water sources to be utilized in an emergency. These water sources are derived from interconnections with adjacent public community water systems, seasonal/backup sources not normally in operation, unapproved water sources, and through written contracts with bottled water companies and/or certified bulk water haulers. This section also establishes any limitations for the derivation of water through these sources.

When determining the use of alternate water supplies, both short-term (i.e. a localized contamination event or an electrical power service disruption) and long-term (i.e. a major treatment failure or a major distribution system failure) water outages were considered. Ultimately, the cause and duration of the water outage will determine our response.

Available Interconnections

Provider Name	Location(s)	Main Size	Contract Limitations

Seasonal Sources/Backup Sources/Unapproved Sources

Source Type	Source Location	Available Yield	Treatment Requirements

Bottled Water Source/Bulk Water Haulers

Company Name	Phone Number	Contract Number	Available Quantity

Section 6 – Interim Water Rationing
(Water Use Restrictions)

This section establishes the adopted water use restrictions to be implemented by our system during an emergency situation. Our phased water use restrictions model the Priority-Based Phase System of Water Restrictions outlined in the New Jersey Water Allocation regulations, specifically N.J.A.C. 7:19-13.3 through 13.6. Water use restrictions will be imposed on users (residential/non-residential) within the area served by our system depending on the severity of the water emergency situation.

PHASE I Restrictions (available water supply levels determined to be below normal)

PHASE II Restrictions (substantial threat to the public health and welfare)

PHASE III Restrictions (further rationing required)

PHASE IV Restrictions (disaster stage)

Section 7 – Emergency Situations
(Incident Characterization)

This section establishes our field and/or crisis protocols for performing threat evaluation, site characterization, and response actions.

Optional Resource: Various worksheets and report forms, such as the *Threat Evaluation Worksheet*, *Security Incident Report Form*, *Phone Threat Report Form*, and *Public Health Response Action Worksheet* are located throughout our facility to ensure their use during an emergency situation. These worksheets/forms are derived from the United States Environmental Protection Agency's *Response Protocol Toolbox: Planning for and Responding to Drinking Water Contamination Threats and Incidents – Response Guidelines*, Interim Final (dated August 2004). Copies of the Response Guidelines worksheets and forms utilized by our system are included as Appendix I of this plan.

During an emergency situation, as part of incident characterization, sample collection and analyses are required to ascertain the extent of contamination and/or safety of the water supply. To ensure the timely analyses of samples, sample collection and analytical services will be provided by in-house staff and/or contract laboratory(s) as indicated below:

Water Sampling and Analytical Services

Section 7 – Emergency Situations
(Vulnerability Assessment)

This section identifies and evaluates anticipated emergency situations and establishes the appropriate actions and responses.

A vulnerability assessment was performed that analyzed the impacts of a variety of emergency situations on system components.

The following emergency situations were analyzed:

A. Floods/Hurricanes
B. Power Outages
C. Pollution Episodes
D. Earthquakes
E. Major Distribution System Failure
F. Major Source Supply Failure
G. Major Treatment System Failure
H. Major SCADA or Other Automated Control Failure
I. Chemical Accidents
J. Explosion Affecting System Infrastructure
K. Job Actions (i.e., strikes, walkouts, etc.)
L. *****Insider Threat (i.e., disgruntled employee, contractor, etc.)
M. *****Terrorist Threat (i.e., terrorist activity involving intentional sabotage/contamination)

Note: Events caused by malevolent acts are a crime and therefore dictate crime scene preservation, evidence protection measures, and appropriate investigative techniques such as chain of custody for sampling activities and photographic documentation.

An assessment of the potential effects of each of the emergency situations on the following system components was performed:

A. Sources
B. Treatment System
C. Pumping System
D. Transmission/Distribution System
E. Personnel
F. Power Supply
G. Materials and Supplies
H. Communications

Section 7 – Emergency Situations
(Emergency Action Plans)

The vulnerability assessment enabled our system to identify critical and/or weaker components for each situation and to provide for an improved response during an emergency situation and/or a strengthening of these components.

The following general actions will be followed for all emergency situations:

- For forecast events, take pre-emptive actions (i.e. as those recommended on the pre-event preparedness checklist) typically distributed by the Department prior to a forecast event
- Take or direct any **immediate** response measures that are obviously needed to reduce risk to the public (see specific emergency response action below).
- Notify the water system administration and applicable government agencies.
- Determine and implement appropriate corrective actions to reduce and eliminate the effects of the emergency.
- Inform consumers of the emergency situation as soon as possible, and again as the status changes.

Each emergency situation (items A through M, previously listed) was evaluated and provided with a specific emergency action plan as outlined below. No actual emergency situation will conform completely to a planned response and therefore the actual responses may vary.

Emergency situation: **Floods/Hurricanes**

Recovery Time Assessment: _____

Action Plan:

•

Emergency situation: **Power Outages**

Recovery Time Assessment: _____

Action Plan:

•

Emergency situation: **Pollution Releases**

Recovery Time Assessment: _____

Action Plan:

•

Emergency situation: **Earthquakes**

Recovery Time Assessment: _____

Action Plan:

•

Emergency situation: **Major Distribution System Failure**

Recovery Time Assessment: _____

Action Plan:

•

Emergency situation: **Major Source Supply Failure**

Recovery Time Assessment: _____

Action Plan:

-

Emergency situation: **Major Treatment System Failure**

Recovery Time Assessment: _____

Action Plan:

-

Emergency situation: **Major SCADA or Other Automated Control Failure**

Recovery Time Assessment: _____

Action Plan:

•

Emergency situation: **Chemical Accidents**

Recovery Time Assessment: _____

Action Plan:

•

Emergency situation: **Explosion Affecting System Infrastructure**

Recovery Time Assessment: _____

Action Plan:

•

Emergency situation: **Job Actions (i.e. strikes, walkouts, etc.)**

Recovery Time Assessment: _____

Action Plan:

•

Emergency situation: **Insider Threat** (i.e., disgruntled employee, contractor employee)

Recovery Time Assessment: _____

Action Plan:
•

Emergency situation: **Terrorist Threat** (intentional sabotage/contamination)

Recovery Time Assessment: _____

Action Plan:

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Section 7 – ~~Vulnerability Assessment~~Emergency Situations
(Continuity of Operations)

This section establishes our daily operational protocols, which establish a complete description of our source(s), treatment, & distribution system, routine operation & management procedures, and operational monitoring requirements. These protocols are described in detail in our Operations Plan dated (insert date) (included as Appendix II to this plan). In the event of an emergency, any person so designated can implement the necessary procedures to ensure continuity of operations.

Additional system operational data can be found at the following locations:

Item	Location
Distribution Maps	
Daily Operator Reports	
Technical Manuals	
Other	

Section 7 – Emergency Situations
(Preliminary Damage Assessment)

The preliminary damage assessment report will be utilized after an emergency situation to assess the extent of the damage caused by the emergency situation and the need for repair, replacement or abandoning of facilities.

Preliminary Damage Assessment Report

Well Stations	Yes	No	N/A
Physical damage	☐	☐	☐
Pump or motor failure	☐	☐	☐
Power source operating properly	☐	☐	☐
Test for water quality contamination	☐	☐	☐

Treatment Facilities	Yes	No	N/A
Physical damage	☐	☐	☐
Equipment operating properly	☐	☐	☐
Power source operating properly	☐	☐	☐
Chemical spills or release	☐	☐	☐

Water Storage Facilities	Yes	No	N/A
Physical damage	☐	☐	☐
Leaks	☐	☐	☐
Buckling	☐	☐	☐
Damage to inlet/outlet pipes	☐	☐	☐

Distribution System	Yes	No	N/A
Physical damage	☐	☐	☐
Leaks	☐	☐	☐
Main breaks	☐	☐	☐
Pressure loss	☐	☐	☐
Cross connection concerns	☐	☐	☐
Interconnections compromised	☐	☐	☐

Other system damage (i.e. reservoirs, vehicles, etc.) _____

Description of Damage: _____

Estimated Cost to Repair Damage: _____

Section 8 – Emergency Response Evaluation (Emergency Response Evaluation Report)

At the conclusion of an emergency event, our Emergency Response Team will assemble and prepare an *Emergency Response Evaluation Report* to evaluate the timeliness and effectiveness of our Emergency Response Plan. Communication, critical decision-making, available resources, local emergency response coordination, and the integration of external resources will be evaluated. Based on our evaluation and any subsequent recommendations, the Emergency Response Plan will be revised as accordingly. The *Emergency Response Evaluation Report* will address the following:

Emergency Response Evaluation Report

Brief description of the emergency situation (causes, chronology of events, damages and impact):

Questions and Answers:

1. Was the Incident Commander notified and the emergency response team assembled in a timely manner?
2. Were the appropriate external notifications made in a timely manner?
3. Were there any difficulties in reaching the appropriate internal (team members)/external contacts?
4. Were the communication resources sufficient?
5. Do additional communication resources need to be acquired?
6. Does the communication plan need to be revised?
7. Was the chain-of-command clear to all individuals involved?
8. Was incoming information disseminated to the appropriate individuals in an efficient manner?
9. Were sufficient in-house resources available for use?
10. Would having additional resources on hand facilitate a quicker response time and/or lessen the impact of the emergency situation?

11. Were outside services (bulk water suppliers, laboratory services, etc.) deployed in an efficient manner and according to the timeframes specified within their respective contracts?

12. Did the Emergency Response Team and other responding staff act in a safe manner, following all safety protocols and procedures?

13. Should staff be provided with additional training to ensure their knowledge of the safety protocols?

14. Does the emergency response plan require revisions?

Description of recommendations (actions/procedures that could significantly lessen the impact of the emergency situation):

Disclaimer: The ERP template is provided as guidance only and establishes a suggested format to be followed in the preparation of your Emergency Response Plan. Every section of this template may not be applicable to every water system and all potential emergency situations may not be identified. It is the responsibility of the water system to evaluate their particular vulnerabilities and the appropriate responses to them. This template should be modified as necessary to reflect specific conditions of the water system.

Acknowledgements: The ERP template was prepared from various standards on the types of information that should be contained in an Emergency Response Plan, including but not limited to, the New Jersey Water Allocation Rules, specifically *N.J.A.C. 7:19-11.1 et seq.*; the New Jersey Department of Environmental Protection's *Water Supply Emergency Response Plan – Appendix A,* revised December 2002; the National Water Association's *Rural and Small Water and Wastewater System Emergency Response Plan Template* dated March 2003, the United States Environmental Protection Agency's (EPA) *Emergency Response Plan Guidance for Small And Medium Water Systems* dated April 7, 2004; the EPA's *Response Protocol Toolbox: Planning for and Responding to Drinking Water Contamination Threats and Incidents - Module 1: Water Utilities Planning Guide,* and the New York Rural Water Association's *Water Supply Emergency Response Plan Template.*