Emergency Response Plan

For Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Disaster Specific Preparedness / Response Plan

Water System: _____

Street Address: _____

City, State, Zip: _____

Phone: _____

Fax: _____

Contact: _____

E-mail: _____

Number Connections: _____

PWS: _____

County: _____

Date: _____

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Requirements For Emergency Response Plans

This worksheet has been developed to help you prepare your Emergency Response Plan.

Chapter 62-555.350 (15) of the Florida Administration Code (FAC) requires that Community Water Systems serving 350 or more persons or 150 or more service connections to develop a written **Disaster-Specific Preparedness / Response Plan** (a.k.a. Emergency Response Plan or ERP) and shall update and implement the plan as necessary.

Plans are to be coordinated with Local Emergency Planning Committee and Florida Department of Law Enforcement Regional Security Task Force when developing emergency plans and shall include.

(a) Communication Charts
(b) Written Agreements with Other Agencies, Utilities, or Response Organizations
(c) A disaster-specific preparedness/response plan shall incorporate the results of a Vulnerability Assessment for each of the following disasters:
- Vandalism or Sabotage
- Drought
- Hurricane
- Structure Fire
- Flood, if applicable
- Forest or Brush Fire
- Hazardous Material Release

(d) Standby Power Requirements
(e) Recommendations regarding the amount of Drinking Water Treatment Chemicals

➔ **The FDEPDEP Deadline for ERP completion is December 31, 2005!**

*However upon completion, **DO NOT** submit your ERP to the Florida Department of Environmental Protection (FDEP) **OR** the Environmental Protection Agency (EPA). FDEP will verify ERP completion during their Sanitary Survey of your system (routine water system inspection).*

This worksheet is intended for use by small water systems and may be modified to fit the specific needs of each system. This ERP complies with FFDEPDEP minimum requirements and; you may modify it in any way that works for you – add sections, or rearrange them if you wish.

Please send a copy of your ERP to Florida Rural Water Association ~ we would like to see your work!

Section 1 - Communication Charts

Water System Chain of Command – Lines of Authority		
Order	**Name, Title & Responsibilities**	**Contact Information**
1	**Water System Manager (WSM)** *Responsible for overall management and decision-making. The Water System Manager is the lead for managing the emergency, coordinating with support agencies, and providing information to regulatory agencies.*	Phone: Cell: Email:
2	**Water Treatment Plant Operator (WTPO)** *In charge of running water treatment plant, performing inspections, maintenance and sampling and relaying critical information, assessing facilities, and providing recommendations to the Water System Manager.*	Phone: Cell: Email:
3	**Office Administrator** *Responsible for administrative functions in the office including receiving phone calls and keeping a log of events. This person will provide a standard pre-scripted message to those who call with general questions. Additional information will be released through the Water System Manager.*	Phone: Cell: Email:
4	**Maintenance Staff** *Delivers door hangers and assists water system operator.*	Phone: Cell: Email: Phone: Cell:

Emergency Notification List

We recommend that you establish a relationship with these agencies before you need them!

Organization or Department	Name & Position	Telephone	Cell Phone	e-mail
State Warning Point	**Duty Officer**	**800-320-0519**	**800-320-0519**	N/A
Local Law Enforcement				
Fire Department				
Emergency Medical Services				
Water Operator (if contractor)				
County Health Department				
DEP District Office				
County Emergency Management Dept.				

Emergency Notification List

We recommend that you establish a relationship with these agencies before you need them!

Organization or Department	Name & Position	Telephone	Cell Phone	e-mail
Local Leader (City Mgr., Mayor, Commission Chair, Dept Head, etc.)				
Hazmat Team / Hotline				
National Spill Response Center	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider		850-668-2746	N / A	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital / Clinic				
Nursing Home(s)				
Public Schools				
Private Schools				
WW Treat Plant				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co				
Water Test Lab				
Telephone Co				
Pump Supplier				
Safe Dig / One Call				
Rental Equip				
Chlorine Supplier				
Chem Suppliers				
Bulk / Bottled Water				

Designated Public Spokesperson

blic Spokesperson	Name & Position	Telephone	Cell Phone

Spokesperson			

Develop possible messages in advance, and update them as the emergency develops (Boil Water Notices, Emergency Water Outages, Emergency Conservation Measures, Water Quality Issues, etc.)

Section 2 - Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT HEREAttach any written agreements.

- ❑ **Emergency Interconnect Agreements** ❑
- ❑ **Memoranda / Letters of Understanding**
- ❑ **Mutual Aid Agreements**
- ❑ **FlaWARN** (Agreement is available at: www.flaWARN.org)

Section 3 - Disaster-Specific Preparedness / Response Plan

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans, see ERP Guide pages 17 thru 20.

The table below is a basic vulnerability assessment method for a water system. Provide appropriate answers for each component of your system, and you will have completed a vulnerability assessment. Note that "Security improvements" INCLUDES your existing security measures, such as the concrete pad around each wellhead, fences, buildings, locks on gates, doors and windows; redundant pumps and motors, etc. ALSO: "Security Improvements" DOES NOT mean you are required to improve your existing security, it simply means that all security measures, planned or existing, should be listed.

Raw Water Source (check or circle items that apply ~ strikethrough items that do NOT apply)

Description & Condition	Groundwater Wells: # ___ is _____ feet deep; Well is located within _____ feet of developed areas # ___ is _____ feet deep; Well is located within _____ feet of developed areas # ___ is _____ feet deep; Well is located within _____ feet of developed areas # ___ is _____ feet deep; Well is located within _____ feet of developed areas. # ___ is _____ feet deep; Well is located within _____ feet of developed areas. ❑ Wells are in excellent / good / poor condition ❑ _____
Vulnerability	❑ The wells are most vulnerable to contamination from above ground activities because they are _____ feet deep. ❑ Potential contamination can occur from ground water point sources (septic tanks, leaking petroleum tanks, agricultural activities, commercial / industrial activities, etc.) ❑ _____
Security Improvements	❑ Implement wellhead protection program (ask FRWA Circuit Rider for assistance) ❑ Secure well houses to foundation and install lighting around well houses ❑ Wellheads are secured within locked fences or well houses ❑ Consider upgrading well house doors with deadbolts

	❑ Consider purchasing additional land surrounding wells ❑ Average Daily Demand is provided by wells # ____ and # ____ (wells # ____ and # ____ provide standby capacity) ❑ _____

Pumping Facilities (check / circle items that apply ~ strikethrough items that do NOT apply)

Description & Condition	❑ The pump-house and pumping facilities are in excellent / good / poor condition ❑ _____ ❑ _____
Vulnerability	❑ Pumps might be vulnerable to falling trees during major storms ❑ Pumps could be damaged by intentional physical attack ❑ Pumps could be damaged by flooding
Security Improvements	❑ Pump-house has security fencing or lighting and is NOT prone to vandalism ❑ Fencing, lighting, and signage protect against unauthorized entry ❑ Tamper-proof padlocks and harden entry points protect against unauthorized entry ❑ _____

Treatment Facilities (check or circle items that apply ~ strikethrough items that do NOT apply)

Description & Condition	❑ There is a chlorination system at each well / pump-house ❑ Treatment facilities are in excellent / good / poor operating condition ❑ _____
Vulnerability	❑ Chlorination systems are subject to power outages ❑ Gas chlorine release could cause injury or death to operators & public ❑ _____
Security Improvements	❑ Fencing, locks, lighting, and signage protect against unauthorized entry ❑ Stand-by generators provide operational security in compliance with Ch. 62-555.320(14) FAC ❑ Sodium hypochlorite systems eliminate chlorine gas release risk

Storage Facilities (check or circle items that apply ~ strikethrough items that do NOT apply)

Description & Condition	❑ Storage facilities ARE / ARE NOT fenced ❑ Storage facilities are in excellent / good / poor operating condition ❑ _____ ❑ _____
Vulnerability	❑ Vandals could access storage hatches ❑ _____
Security Improvements	❑ Fencing, locks, lighting, and signage protect against unauthorized entry ❑ Coordinate with local law enforcement for increased patrols ❑ Tamper-proof padlocks on hatches and ladder locks protect against unauthorized entry ❑ _____

Distribution System (check or circle items that apply ~ strikethrough items that do NOT apply)

Description & Condition	❑ System maps & computers are located in the water system's main office ❑ Distribution System is in excellent / good / poor operating condition ❑ We have an active Valve & Fire Hydrant Exercise and Flushing Program ❑ _____
Vulnerability	❑ The system is most vulnerable to cross connection contamination from contractors, residents, commercial and industrial customers ❑ The distribution system can be vulnerable to bio-terrorist attack ❑ _____
Security Improvements	❑ Computers secured with firewalls, virus protection, passwords, and back-up protection ❑ Main office security system guards against theft and vandalism ❑ Cross Connection Control Program protects against unintentional contamination ❑ Local law enforcement can assist monitoring for illegal water system connections ❑ _____

The following tables outline possible actions and procedures to be taken in response to specific events. TABLES A, B, C and D are REQUIRED. TABLES E, F and G are to be used IF THEY ARE APPLICABLE.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
   a) Calls Water System Manager
   b) Calls 9-1-1 / Local Law Enforcement
2 Water System Manager determines severity of incident, and calls:
   a) Mayor
   b) State Warning Point
3 Water System Manager determines need to contact others:
   a) County Emergency Management Director
   b) County Health Department
   c) others as needed
4 Water System Manager assesses damage and directs repairs as needed:
   a) Isolate components (if necessary)
   b) Minimize damage
   c) Repair facilities
5 Upon completion of repairs, Water System Manager returns system to normal:
   a) Reports findings to Mayor and others as needed
   b) Updates ERP as needed1. Utility staff first aware of incident:
   a) Calls 9-1-1/Local Law Enforcement.
   b) Calls Water System Manager (WSM).
2. WSM determines severity of incident, and calls:
   a) Mayor, who also informs city commissioners, and if necessary, calls for emergency meeting of City Commission.
   b) State Warning Point.
3. City Commission determines need to contact others:
   a) County Emergency Management Director.
   b) County Health Department.
   c) others as needed.
4. WSM assesses damage and directs repairs as needed:
   a) Isolate components (if necessary)
   b) Minimize damage
   c) Repair facilities
5. Upon completion of repairs, WSM returns system to normal:
   a) Reports findings to Mayor and others as needed.
   b) Updates ERP as needed.

B. Drought Response Procedures

1. Water System Manager coordinates with Mayor and Water Management District (WMD) regarding drought conditions
2. If necessary, Mayor meets with Commission regarding additional (more stringent than required by WMD) restrictions
3. Mayor directs Water System Manager to implement additional water use restrictions, if necessary
4. Water System Manager activates Customer Notification Plan
5. City Commission determines there is no further need for additional restrictions
6. Water System Manager returns system to normal by activating Customer Notification Plan
7. Water System Manager reports system status as needed
8. Water System Manager updates ERP as needed

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane *(36 - 48 hrs prior to arrival)*	1. Water System Manager coordinates with Mayor and County Emergency Management regarding response to hurricane 2. Manager checks operation of auxiliary and standby equipment 3. Manager orders/ensures available fuel and treatment chemicals to provide for a fourteen (14) day period 4. Manager checks and replenishes inventory of spare parts, supplies; rain suits, flashlights, batteries, portable radios, hard hats, rubber boots, gloves, etc
Hurricane Watch *(24 -36 hrs prior to arrival)*	1. County Emergency Manager declares Emergency; 2. Mayor instructs Water System Manager to coordinate with Emergency Operations Center 3. Mayor cancels personal leave 4. Water System Manager issues work assignments and reporting protocol 5. Water System Manager authorizes employees to secure their personal property and arrange for safety of family members 6. Employee(s) top-off fuel in vehicles, stand-by and portable equipment 7. Water System Manager stops all construction in utility service area and advises contractors to secure their equipment/material
Hurricane Warning *(24 hrs or less prior to arrival)*	1. Personnel report to duty at designated location with protective gear, work clothing and personal gear for a four (4) day period 2. Water Treatment Plant Operatorfills all water storage facilities to capacity 3. Employee(s) load trucks with supplies and equipment 4. Employee(s) follow evacuation protocol (directed by Emergency Management) a. Disconnect electrical power supply to treatment plant(s) and wells b. Store vehicles and equipment in designated area c. Enact system shutdown and evacuate to location as directed by Incident Commander
Recovery Procedures	Initiate upon receiving ***"All Clear"*** from Incident Commander: 1. Manager surveys damage and submits Damage Assessment Report to Mayor 2. Manager coordinates with County Emergency Management Dept and activates Customer Notification Plan, if necessary 3. Manager notifies FDEP of any limitations in ability to supply potable water 4. Manager and staff make all necessary repairs and take water samples as needed 5. Manager keeps detailed records of labor, material, rental and repair costs for FEMA reimbursement 6. Manager obtains FDEP approval to return to normal operation, if necessary 7. Manager returns system to normal operation 8. Manager activates Customer Re-notification Plan, if necessary 9. Manager reports water system information as needed 10. Manager updates ERP as needed

D. Structure Fire Response Procedures *(if your water plant catches fire)*

1. Utility staff discovering fire:
    a) Orders evacuation of the building
    b) Calls 9-1-1 to notify Fire Department and local Law Enforcement
    c) Calls Water System Manager
2. Water System Manager determines severity of incident, and calls:
    a) Mayor, who informs city commissioners (if necessary, calls for emergency meeting of Commission)
    b) State Warning Point
3. City Commission determines need to contact others:

a) County Emergency Management Director
b) County Health Department
c) Others as needed

4. Manager directs staff to support Fire Department and other emergency staff, if needed
5. Manager and staff assess damage when fire extinguished
6. Manager and staff repair facilities as needed
7. Manager reports water system status, as required
8. Manager updates ERP, as needed

NOTE: *Use the following 3 tables ONLY if they are applicable to your system.*

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area? If so, then this table is required.

1. Water System Manager informed of flood conditions at WELL
2. Manager directs staff to operate water system without WELL for the duration of the flood event.
3. Once flood has receded, Water System Manager and staff assess flood damage.
4. Water System Manager and staff repair facilities as needed.
5. Manager directs staff to pump WELL until it is clear, and then takes samples for quality and bacteriological analysis.
6. Staff repeats step 3 until the well meets water quality standards.
7. Manager directs staff to return WELL to normal service protocol.
8. Manager reports water system status, as required.
2. 9. Manager updates ERP, as needed.➔ *Ken & Coy – INSERT EXAMPLES HERE!*

F. Forest or Brush Fire Response Procedures

Is any critical part of your system subject to forest or brush fire? If so, then this table is required.(Is any critical part of your system subject to forest or brush fires?) ❑

1. Utility staff discovering fire at water plant:
   a. Orders evacuation of any threatened buildings
   b. Calls Water System Manager
   c. Calls 9-1-1 to notify Fire Department and local Law Enforcement
2. Water System Manager determines severity of fire, and calls:
   a. Mayor, also informs city commissioners (if needed, calls for emergency meeting of Commission)
   b. State Warning Point
3. City Commission determines need to contact others:
   a. County Emergency Management Director
   b. County Health Department
   c. Others as needed
4. Manager directs staff to support Fire Department and other emergency staff, if needed
5. Manager and staff assess damage when fire extinguished
6. Manager and staff repair facilities as needed
7. Manager reports water system status, as required
   Manager updates ERP, as needed

G. Hazardous Material Release Response Procedures

EXAMPLE: Do you have any hazardous material (chlorine gas) at your water system?

1. Utility staff discovering chlorine leak/release orders evacuation of facility
2. Utility staff calls 9-1-1 and Water System Manager
3. Water System Manager calls:
    a. State Warning Point
    b. Mayor, who also informs commissioners (if needed, calls for emergency meeting of Commission)
4. Water System Manager ensures that staff is safe and aware of the situation
5. Fire Department Hazardous Materials Team (HAZMAT) determines severity of the leak & need to contact others:
    a. County Emergency Management Director
    b. County Health Department
    c. Others as needed
6. HAZMAT establishes “hot zone” perimeter and ensures that all unprotected people are kept outside of it
7. Manager ensures that any injured staff member is receiving proper care
8. Manager directs staff to support FDHMT and other emergency staff, if needed
9. HAZMAT locates source of Chlorine leak and stops it
10. HAZMAT measures Chlorine concentrations until all areas are safe for unprotected people
11. HAZMAT informs all parties of safe conditions
12. Manager and staff assess damage
13. Manager and staff repair facilities as needed
14. Manager reports water system status, as required
15. Manager updates ERP as needed

Section 4 - Standby Power Requirements

Include Details details about how the water system meets the standby power requirements" as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC.

Standby Power for Wells, Treatment & Distribution

Standby Power (or alternate means) OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	(gpd or gpm)
Wells Needed to Supply Average Daily Demand	(Well No & gpm)
Standby Generator for ADD (kW, Voltage & phases)	(kW, Volt, Phase)
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	(gal per hour)
On-Site Fuel Storage (gallons)	(gal & days)
Reserve Fuel by Supplier Contract	(gal & days)

Section 5 - Chemicals & Disinfectants

Disinfection Treatment Information ❑

Disinfection Chemicals	Chemical / Location No. 1	Chemical / Location No. 2	Chemical / Location No. 3
Type of Chemical	Sodium Hypochlorite		
Chemical Feed Type	Injector Pump		
Storage Location			
2-wks Min Storage (gal) Recommended			

Other Chemical Information

Chemicals Used	Chemical #1	Chemical #2	Chemical #3
Type of Chemical	Poly-Phosphate		
Chemical Feed Type	Injector Pump		
System Location			
Storage Location			
2-wks Min Storage (gal) Recommended	gallons		