

Appendix **A**

**South Carolina's Guidelines
for Hurricane Procedures**

PREPAREDNESS & PROCEDURE

The hurricane season in South Carolina begins each year on June 1 and ends November 30. Since 1900, 146 tropical storms or hurricanes have passed near enough to significantly affect some portion of the state. On the average, there are about three storms every two years, with the highest probability of a storm affecting the state occurring in late summer. Even at minimum force, these tropical storms are capable of inflicting major property damage to coastal and inland regions of the state.

The sudden surge of high water that accompanies a hurricane passage, called storm surge, is usually the greatest cause for the loss of life during a hurricane passage. The storm surge associated with weaker storms may be only a few feet, but may be as high as 15 or 20 feet or more during major hurricanes.

Because they are guardians of public health, water plant operators need to be prepared for emergencies associated with this seasonal hazard. It is imperative that citizens be protected from the spread of waterborne disease both routinely and during emergency situations.

The following precautionary measures should be followed by persons responsible for safeguarding public drinking water facilities:

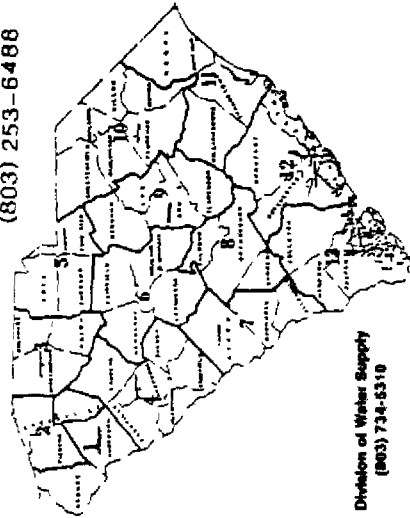
Before Storm

- 1 Check thoroughly all auxiliary and standby equipment. It is essential that this equipment function properly during emergency conditions. If possible, equipment should be automatically controlled to ensure operation if evaluation is necessary.
- 2 Stock adequate fuel supplies to operate auxiliary equipment for a 10 to 14 day period. An acceptable alternative is to make short term contracts with suppliers to hold fuel in reserve during the hurricane season.

- 3 Stock spare parts which are critical to the operation of the plant, wells or auxiliary equipment.
- 4 Maintain in good repair all mechanical equipment at water plants and wells, including booster pump stations.

S.C. Department of Health and Environmental Control
Environmental Quality Control District Offices

24-Hour Emergency Number
(803) 253-6488



Area	District	Telephone
1	Appalachia I	260-5500
2	Appalachia II	241-1800
3	Appalachia III	508-3800
4	Upper Savannah	223-0233
5	Catawba	285-7461
6	Central Midlands	737-7015
7	Lower Savannah I	648-9561
8	Lower Savannah II	648-9561
9	Wetmore	778-1531
10	Pee Dee	682-3522
11	Waccamaw	448-1802
12	Trident	554-5533
13	Low Country	522-9087

5. Stock sufficient supplies of chlorine or hypochlorite and other necessary treatment chemicals to carry the system through a 10 to 14 day period.
6. If continuous chlorination is practiced then it is advisable to slightly increase the dosage of chlorine to insure a slightly higher chlorine residual within the distribution system.
7. Keep all ground storage reservoirs and elevated tanks as near to full capacity as possible upon receiving hurricane warnings. In the event of imminent landfall, provisions should be made to valve off those tanks and distribution lines located on barrier islands or in areas where breaching of waterlines is possible. An updated distribution map showing the location of all valves should be maintained.
8. Tape or board-up windows and tie down or secure any supplies or materials to prevent them from becoming airborne during the hurricane.
9. Know emergency procedures and emergency interconnections with nearby public water systems. Frequent communications with adjacent utilities in case of a mutual need is critical to the welfare of both your community and neighboring ones.
10. After hurricane warnings are received notify the Department of Health and Environmental Control (DHEC) when emergency procedures have been completed. This should be done by calling the District Director of the local Environmental Quality Control (EQC) Office. The EQC office should be made aware of how and where to contact persons in charge during emergency conditions.

After Storm

- 1 Survey all damage and make sure all water is being properly treated once hurricane warnings have been lowered or normal services are restored. Any areas where contamination of the water system may have occurred should be reported immediately to the local EQC office so bacteriological and/or chemical samples can be taken and analyzed.

2. Following a storm which significantly impacts an area where extended power outages have occurred, DHEC will be monitoring all public water systems. Advisories will be issued including boil water notices when necessary, as information becomes available.
3. In the event that it becomes necessary to safely disinfect the water at the customers tap, the following procedures can be used for safely disinfecting water for potable use:

DISINFECTION BY HEAT

- A. Strain water through a clean cloth into a container to remove any sediment or floating matter. If water is clear, omit this step.
- B. Boil the water vigorously for at least one FULL minute.
- C. After allowing the water to cool, it is ready to use. If desired, a pinch of salt added to each quart of boiled water, or pouring it back and forth from one clean container to another several times, will improve the taste.

CHEMICAL DISINFECTION

Use liquid chlorine laundry bleach from the home laundry or grocery store. Do Not use a bleach that has a fragrance or scenting agent, like a lemon scent. Read the label to find the percentage of chlorine available then follow this table:

Available Chlorine	Drops To Be Added Per Quart**	
	CLEAN WATER	CLOUDY WATER
4 to 6 percent *	2	4
7 to 10 percent	1	2
If not known	10	20

*Common household chlorine laundry bleach (Clorox, Purex, etc.)

**1 teaspoon equals approximately 100 drops.

- A. Mix thoroughly by stirring or shaking water in container.
- B. Let stand for 30 minutes.

- C. A slight chlorine odor should be detectable in the water; if not, repeat the dosage and let stand for an additional 15 minutes before using.
- D. Water is now safe to use.

4. Any sustained damage to the water system should be immediately reported to the local EQC office. Reports concerning any minor damage should be reported within a few days or as soon as possible after the hurricane. Let the local district offices know if assistance is needed from the Department of Health and Environmental Control (DHEC).

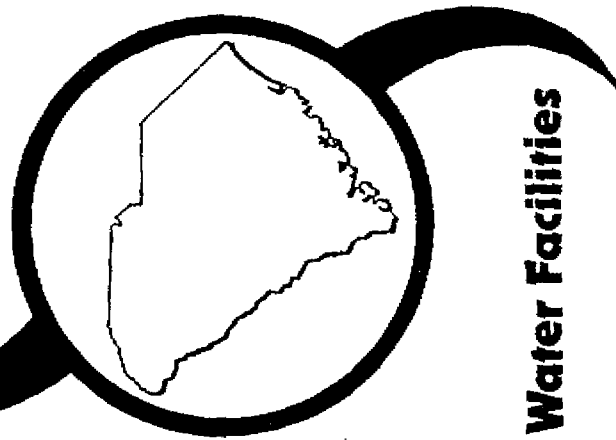
Your local DHEC representatives will be working closely with Emergency Preparedness officials to respond to your needs following a hurricane or another disaster.

Please maintain and update your Emergency Preparedness plan as needed. Get to know your local DHEC representatives and local Emergency Preparedness director. If you have any questions, please contact the appropriate EQC district office (see map) or the Water Supply Division, located in Columbia.

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Hurricane Preparedness & Procedures



Water Facilities

Hurricane Information