



# Hurricane Season Disaster Planning Checklist

## Introduction

This document is a collection of lessons learned by municipal utilities from the storm season of 2004 and serves as a checklist for future storm seasons. The items listed may not be germane to all cities/utilities but should be considered for their applicability by each operating utility.

This is not intended to be a storm response manual but rather should form the basis for developing or refining a utility specific manual.

The suggestions listed below are organized into five categories:

- A) Actions to take before the hurricane season starts
- B) Actions to take when a storm threatens;
- C) Actions to take during a storm event; and
- D) Actions to take after a storm passes

If you have suggestions for changes or additions, please contact Barry Moline at FMEA, 800-993-3632, ext. 1, or [bmoline@publicpower.com](mailto:bmoline@publicpower.com).

### A. Before the Season

Either before or very early in each storm season (June 1 to November 30) utility staff should review the following items and take action as necessary:

	W	C	N/A
1. Make sure your city's information in the FMEA Mutual Aid Directory is correct and up to date. a. Always identify more than one person per utility/city as mutual aid contacts.			
2. Review and update your storm response manual. If you do not have one, solicit help from FMPA members and develop one.			
3. Hold a pre-hurricane season meeting to discuss hurricane plans.			
4. Organize and understand your various mutual aid agreements (FMEA, FCG, FEMA, APPA, and other states) so that it is easy to determine the procedures to obtain mutual aid.			
5. Investigate and understand FEMA reimbursement rules. Plan to record crew movement and obtain a tracker number.			
6. As appropriate, establish agreement(s) with out-of-state utilities for mutual aid. Items to be covered in the agreement(s) include: (1) Insurance responsibilities; (2) Labor rates; (3) Call-out procedures; and, (4) Billing and payment procedures. Consider doing something jointly with other municipals that may be hit by an oncoming storm – possibly share in the mobilization cost.			
7. As appropriate establish agreement(s) with local contractors for certain services that are likely to be needed, such as: (1) Office supplies; (2) Hotels / motels; (3) Caterers; (4) Equipment rental; (5) Gasoline and diesel fuel; and, (6) Laundry services.			
8. Develop and standardize on a reporting process to identify energized and de-energized lines.			
9. Plan on multiple lines of communication during and after a storm. Work with the telecommunications companies to improve reliability and restoration priority. Identify feeders in the service territory to restore power to cell towers and telephone central offices. Consider a private communications system for the utility/city.			
10. Develop staging area(s) for outside contractors / utilities and even your own crews.			
11. Conduct training exercises, mock drills, etc. to provide experience to staff and test the plan.			
12. Make arrangements for facility security during and after a storm. Consider requesting assistance from the National Guard or local law enforcement.			
13. Update critical customer list, e.g., customers with health concerns, health and safety related customers. Include hospitals, nursing homes and lift stations. Tell customers to consider relocating after an extended outage. Consider notifying customers via email with a blind cc so that their names remain confidential.			
14. Evaluate inventory levels of critical construction materials (poles, transformers, wire). Consider increasing inventory levels where appropriate early in the storm season.			
15. Evaluate tree trimming program. If possible, consider a major trimming "push" before the season to reduce damage from falling limbs.			
16. Include necessary management in the utility radio network. These may not need to be included for normal operations but should have access to a radio for storms.			
17. Become familiar with FEMA forms and procedures for claiming storm damage and ensure that record keeping procedures will easily support a FEMA claim.			
18. Develop storm preparation checklists as part of development of an overall City emergency plan.			
19. Purchase satellite phones in case of local communication failures.			
20. Invest in storm shutters for critical utility facilities.			
21. Train employees that will be doing some job in storm restoration that is not their normal job. Make sure every employee knows what they will be doing after the storm and train ahead of time.			
22. Include a bill stuffer prior to hurricane season to all customers describing your plan and what they can expect in the event of a hurricane.			
23. Evaluate your system for adequate fuses, reclosers, and other sectionlizers to help keep as many customers in service as possible.			

	W	C	N/A
24. Procure backup generators for critical water well pumps, other water pumps, lift stations, and fueling pumps. Pre-wire connecting plugs / throw-over switches and test run the generators.			
25. Make a list of emergency personnel contact numbers, including home, cells, pagers, etc. and give one to each member of your emergency and/or standby personnel.			
26. Gather other important telephone numbers such as electric and natural gas providers, insurance provider, area agencies that are coordinating efforts with your city, and mutual aid agreement contacts. Also have contact information for any organizations you are affiliated with that may provide support/assistance such as: APWA, FMPA, FMEA, FNGA, etc.			
27. Be sure your storm center has independent and reliable sources of electric, water and wastewater services.			
28. Consider local area demographics and have a plan to communicate with those customers that may not speak English. Identify staff that have the appropriate language skills.			
29. Be aware of the radio stations that the community listens to. Consider communicating with one radio station principally. Consider purchasing an AM radio station for use during emergencies.			
30. Consider employee concerns, including: a) locating families during the storm; b) day care for children after the storm so employees can work; c) have employee assistance group available to assist employee families & homes, making moderate repairs to homes to keep out the weather.			
31. Identify a representative to communicate with the county emergency operations center, and consider placing someone at the EOC if possible.			
32. Consider bringing retired utility employees back to assist, particularly with restoration management.			

**B. Before the Storm**

When a tropical storm or hurricane threatens to strike your area, it is time to take steps to prepare for the storm.

	W	C	N/A
1. Activate security for facilities. Consider requesting assistance from the National Guard or local law enforcement.			
2. Fill all fuel tanks on vehicles and standby generators. Replenish storage tanks at all facilities.			
3. Evaluate inventory levels of critical construction materials and notify suppliers of potential needs.			
4. Establish a storm command center for coordination with other City departments and the County EOC, dispatch and tracking of utility response personnel, emergency material procurement, customer trouble call fielding and tracking to closure, coordination of storm recovery activities, emergency notifications, and status reporting. Minimum shift crews and Utility management staff the command center during the storms.			
5. Board up all of the generator and exciter air vents and radiators on combustion turbines and other units as appropriate.			
6. Test run appropriate generating units.			
7. Put plant operators on 12 hour shifts.			
8. Close off all fuel valves on fuel storage tanks.			
9. Supply station service at one plant internally to minimize the probability of a black start (cities with large power purchases and idle generation).			
10. Coordinate with Department of Environmental Protection (DEP) if likely to need to generate outside of permits.			
11. Communicate with employees about expectations after the storm.			
12. Set up communication lines for employees to learn the status of the utility, when and where to report back to work after the storm.			
13. Send letters or emails to potential vendors putting them on notice that we may need them and, if necessary, providing them with entry permissions / instructions.			

	W	C	N/A
14. Run ads on local radio stations informing customers on what to expect. Post information for customers on your Web site. Include a message on customer service phone line providing basic information of interest to customers. Run an ad in your local newspaper.			
15. Close the utility to give employees time to prepare and/or evacuate.			
16. Distribute satellite phones and number lists to appropriate personnel.			
17. Install or otherwise prepare storm shutters on critical facilities.			
18. Stage utility vehicles at multiple locations.			
19. Do a meal plan for one week including breakfast, lunch and supper for crews to eat at any restaurant that is convenient to their work location.			
20. Prepare chainsaws and equipment to remove debris. Get extra chains, bar oil, and mixing oil. Have enough hydraulic oil on hand for repairs to hydraulic equipment.			
21. Clean grates, culverts, storm drains to help prevent stoppage and flooding.			
22. Check supply of rain suits, flashlights, batteries, emergency lighting, barricades, barricade lights and batteries, camera and camera batteries, radio and pager batteries, gloves, rakes, garbage bags, rubber boots, etc.			
23. Do a back up all computer systems.			
24. Do a test of your emergency notification system. Provide step by step directions for use of the system for those authorized to do so (it is hard to remember details and passwords under pressure).			
25. Send a public notice - delivered door to door if necessary - to those in flood prone areas, to let them know that an evacuation may be required.			
26. Have an evacuation plan such as location, food, transportation, etc.			
27. Have a current list of ARC shelters in your area; also note 'special needs' shelters and animal shelters.			
28. Consider RV rental to house out-of-town crews.			

**C. During the Storm**

	W	C	N/A
1. Keep only necessary skeleton staff on duty during the storm. Release as many staff as possible so they are rested and ready to go <i>after</i> the storm passes.			
2. Include customer service representative(s), as necessary, in the minimum staffing requirements during the storm.			
3. Include IT staff, as necessary, in the minimum staffing requirements during the storm to support computers and telephones.			
4. Don't try to restore power during the storm except to special needs customers.			
5. Include a message on customer service phone line providing basic information of interest to customers.			

**D. After the Storm**

		<b>W</b>	<b>C</b>	<b>N/A</b>
1.	Designate one person to handle politicians, board members, and reporters. Designate another to coordinate the restoration.			
2.	Before releasing crews, call the state mutual aid coordinators to determine if they are need elsewhere.			
3.	Tree trimmer's procedures didn't comply with restoration. Need to communicate with tree trimmers on process of tree removal. Several dropped trees on wires, causing damage to utility system.			
4.	Plan on a way to communicate with tree trimmers before restoring power in an area. Operating a chainsaw makes it difficult to hear a cell phone or radio call. Assign someone to monitor communications for the tree trimmers in an area.			
5.	Media relations – plan to share more information with the news media.			
6.	Catering – Need to provide good food, and don't skimp. Consider contracting with several caterers that can mobilize from various locations.			
7.	Create a team of employees to help employees who are needed at work but have needs at home such as damaged homes or child care.			
8.	Emphasize SAFETY in the restoration. Provide safety orientations for all workers.			
9.	Get construction materials rolling your way early and often.			
10.	Have staff ready to call customers to verify restoration and identify customers still out.			
11.	Establish and follow priorities setting for returning customers to power			
12.	Consider bringing retired utility employees back to assist, particularly with restoration management.			
13.	Communications between customer service & control center helped to provide customers with good information.			
14.	Activate agreements with hotels and have staff organize room assignment to out of town workers. This is a full time job for someone with initiative and independence. No amount of pre-arrangements will be sufficient, so be prepared to work at this both before and after the storm. Make your selected motels a priority for electric service restoration. As a backup, keep a supply of blankets and cots. Provide showers and do crews laundry. Consider RV rental.			
15.	Clarify to out-of-area crews that accommodations may be meager. Smaller utilities may want to consider local homeowners to provide accommodations. Consider RV Rentals.			
16.	Stagger line crew and other necessary employees schedules.			
17.	Plan to keep the storm control center somewhat "sterile" so that dispatchers can concentrate on their job.			
18.	Use technical staff to inspect for safety related problems and make an initial assessment of neighborhoods in need of repair.			
19.	Use staging areas to park trucks at night and refill with gas and supplies.			
20.	Do not give times estimating when power will be restored. Instead, consider calling customers back after power is restored to confirm return to service.			
21.	Provide shower facilities for female employees.			
22.	Take care of employees homes. Designate a three or four person crew to visit employees homes to provide temporary repairs. The crew needs to pre-plan their process and have stocks of construction supplies.			
23.	Have escorts to take out-of-town crews around the service area.			
24.	Keep crews in same area until all customers' power is restored.			
25.	If possible, be able to make enough ice so that employees can take some home if they are without power.			
26.	Instruct all City personnel that if they are at a site with an energized wire down or laying on the street they are not to leave the area until the wire is known to be de-energized.			

	<b>W</b>	<b>C</b>	<b>N/A</b>
27. Assessing your condition after the storm is very difficult because of poor communications, and it's key to requesting the resources you need. Make sure your radio system is reliable and has plenty of spare parts like tower, antenna, cables, transmitters and repeaters. Do not rely on cell phones, someone else's radio, or telephone. Have a robust and reliable Internet service for outside communications.			
28. Review plans and actions from this storm and update and refine your response plan where necessary for the next storm.			
29. <b>Communicate twice daily with FMEA on restoration status. Reports are made directly to the Governor.</b>			
30. <b>When requesting out-of-area crews, request a tracking number from the county EOC – for FEMA accounting.</b>			

