

HURRICANE SANDY

ITS IMPACT ON NEW JERSEY CCRCs

LESSONS LEARNED

PREPARATIONS FOR THE FUTURE

A Special Report

Based on a Survey of 19 CCRCs

by

ORANJ

Organization of Residents Associations

of New Jersey

2013

HURRICANE SANDY

Contents

	<u>Page</u>
• Executive Summary	3
I. Preface	4
II. Introduction	5
III. Initial Observations -- Results of Survey	6
IV. Assumptions for Future Planning	8
V. Objectives	9
VI. Strategies	10
VII. Tactics -- Recommended Best Practices	12
VIII. Communications	19
IX. Audit and Review	21
• Appendices	22
“Sandy was a Dandy” ORANJ Tree, Winter 2013	
Survey Questionnaire, condensed	
Survey Responses, March 2013	

Executive Summary

Based on a survey of 19 CCRCs, ORANJ has prepared a Special Report that recommends how management and residents, planning and working together, can best prepare for future weather-induced emergencies. The primary objective of this effort should be the safety and comfort of residents and staff in the face of increasingly severe and frequent storms be they hurricanes, floods, heat waves or blizzards.

Effective Strategies and Tactics are described in detail for dealing with three phases of an emergency --

- Preparing...The “Before” Period
- Coping...The “During” Period
- Recovering...The “After” Period

They are expressed in terms readily adaptable to the needs of individual CCRCs. One factor given special attention is the maintenance of an adequate supply of electric power so essential to virtually every aspect of CCRC operations.

While some New Jersey-based CCRCs were unscathed or suffered minor damage, many were hard hit by Sandy, a severe storm rarely experienced in this section of the nation. This report draws heavily on the experiences of the latter group. Scientists have insisted that the planet is undergoing a “climate change” which will subject all parts of the country to weather patterns never seen before. It is essential, therefore, that CCRCs be prepared to a much greater degree than in the past.

An essential first step, we believe, should be the creation of a permanent Emergency Preparedness Team which would develop and implement a Strategic Plan suited to its particular situation. This report provides detailed, practical guidance for this critical activity. It spells out roles of residents as well as management in three key areas: Equipment, Supplies and Personnel. It also deals in depth with Communications between and among parties caught up in an emergency. Skillfully practiced, they can make the difference between control and chaos.

Finally, this Report explains the necessity of a thorough audit and review of how well -- or poorly -- a CCRC’s Plan worked in a “real” emergency. Even though perfection may escape the Team, there is always room for improvement.

* * *

I. Preface

This report consists of two parts: (1) The experiences of 19 New Jersey Continuing Care Retirement Communities (CCRCs) as they prepared for and endured the impact of Hurricane Sandy; and (2) Recommendations for surviving future weather-induced emergencies. It has been prepared by three CCRC residents, Edward Babbott of Fellowship Village, Frank Honn of Crane's Mill and Charles Taggart of Stonebridge, guided by Ellen Handler, President of ORANJ, of Winchester Gardens.

Special thanks to David Hibberson of Harrogate and Ellen, who prepared a lengthy questionnaire sent to all Resident Association presidents and thanks to those who took the time to respond in timely fashion. Thanks, too, to Brian Lawrence, President & CEO, Fellowship Village, for providing us with a copy of their recently updated Emergency Plan. We have borrowed liberally from it in preparing this report.

While this report is being sponsored by ORANJ, the organization of the 25 CCRC Retirement Associations in New Jersey, it is **directed toward Management -- CEOs, Executive Directors and Staffs of the CCRCs**. Although Resident Associations ideally participate in the development of emergency plans, it is up to management to execute those plans.

II. Introduction

The National Weather Service in early autumn 2012 took special note of a tropical storm named “Sandy” as it developed in warmer waters and moved ever so slowly toward the Midlantic coast of mainland America. It was eventually reclassified as a hurricane when its winds reached the critical level of 70 mph. Timely warnings were issued as it headed directly toward an area extending from the Chesapeake Bay on the south to Long Island on the north with the New Jersey coast squarely in the middle. Sandy was expected to wreak not only severe wind damage but also havoc from flooding as it made landfall coincident with high tide.

Concerned about possible casualties, New Jersey Governor Christie ordered mandatory evacuation of low-lying shore communities. Disaster management agencies, federal, state and local, alerted key personnel, stockpiled critical supplies and put in motion emergency plans. CCRC managers made similar preparations which, as the ORANJ survey found, varied widely. While most communities had long established, rehearsed plans for fire emergencies, few had devoted much attention to plans for handling weather-induced emergencies. In past years, New Jersey had experienced hurricanes but they tended to be less severe and less frequent than those which struck areas like Florida, the Carolina barrier islands and regions exposed to Gulf of Mexico weather.

Sandy proved especially damaging because it continued to hover over the coastal area rather move inland where it would lose energy. News reports and extensive TV coverage, as well as word of mouth, quickly made clear that New Jersey was in for a tough period of days not just hours. Atlantic City was especially hard hit because the mayor refused to enforce the governor’s evacuation orders. The popular amusement park at Seaside Heights was virtually wiped out. Indeed the slender peninsula between the ocean and Barnegat Bay, site of many luxurious beachfront homes, suffered major damage.

Caught in the midst of this disaster, how did the state’s 25 CCRCs make out?

Not long after the storm had abated and recovery efforts got underway, Ellen Handler conducted a brief survey of the impact of Sandy on a few of our communities. Her findings were soon published in the Winter issue of *ORANJ Tree* under the headline, “Sandy was a Dandy.” In an email sent to all resident association presidents she focused on seven topics: Length of Power Outage, Generators for Independent Living, Preparedness, Handicapped Residents, Meal Service, Outreach Beyond the CCRC and The Human Factor. All communities responded. The experiences they recounted suggested that a major study would yield valuable information on how best to prepare for other weather-induced emergencies that are sure to come. (See Appendix 1)

III. Initial Observations -- Results of Survey

A lengthy questionnaire was designed and sent to the presidents of all 25 CCRCs that are members of ORANJ. Nineteen responded in timely fashion, many with helpful comments. The results were entered on a comprehensive spreadsheet and tabulated for analysis. (See Appendix 2 for a “coded” version of the questionnaire in which related questions are consolidated and numbered to facilitate analysis. See Appendix 3 for a tabulation of responses and initial observations.)

A quick look at the survey results brought to light five initial observations;

- Sandy was much more severe -- in terms of damage wrought -- than could be expected based on New Jersey’s experiences with previous hurricanes.
- Sandy hovered over the impacted area much longer than most hurricanes thus wreaking an extraordinary amount of damage from wind **and** water.
- Preparations for a storm of this severity and duration need improvement, both short- and long-term.
- Recovery from a storm like Sandy can be expensive and prolonged.
- Adequate and reliable electric power supplies are essential to almost everything a CCRC does.

A thorough study of responses revealed more of what CCRCs should do to prepare for, endure, and recover from intensive and extensive weather-induced emergencies.

- The state’s two major electric utilities, PSE&G and JCP&L, were hard-pressed to respond to a storm of Sandy’s magnitude. Repair crews, recruited from far away states, were unfamiliar with local geography and critical facilities like CCRCs. Equipment essential to power restoration was in short supply locally. Utility poles, for example, were brought from afar.
- These companies supply 14 of the 19 CCRCs responding to the survey.
- Power outages ranged from 18 hours to 9 days.
- Disrupted services (of 19 respondents): Elevators - 10; Halls and stairways - 9; Common areas - 9; Apartment heating - 13; Hot water - 11; Security Systems - 4.
- Emergency generators, in addition to those serving health centers as required by law:- 13. Number of such generators most commonly found - 1 or 2.
- Generators put on line immediately - 8; after storm or next day - 3.
- Generator capacity found adequate - 8 (3 malfunctions).
- Adequacy of fuel on site or nearby - Few of 13 with generators.
- Respondents planning to add generator capacity - 9.
- Interrupted phone service: Landline - 5; Cell - 3; Internal - 5.
- Available cell phone directory - 7.
- Available charging stations - 12.
- Communication between management and residents, various methods - all.
- Communication with local services (police...), various methods - most.

- Communication with local authorities (mayors...) - most.
- Communication with families, mainly by phone - most.
- Recreational, social programs:- many kinds run jointly by staff, residents.
- Lists of residents needing help - 15
- Extra services offered them - 10. Filling prescriptions - 10.
- Meals provided per day: 2-3. Menus changed during outage: 11
- Extra treats during outage - 11
- Food delivery to residents: Mostly normal - A few trays.
- Refugees hosted - 11. Group size - 2 to 20. Length of stay - 1-2 weeks.
- Provided meals only - 4. Totals up to 1400.
- Emergency plans updated - 17. Monthly, annually or as needed.
- Input from residents - 7.
- Emergency drills - 16. Mostly for fire. Monthly or annually.
- Stocked food - 15. Three days - 5, 5-7 days - 8, 14 days - 1.
- Stocked water - 15. Mostly 3-7 days.
- Stocked fuel - 13. Mostly 5-7 days.
- Stocked batteries, flashlights, lanterns - 12. Mostly for staff.
- Written evacuation plans - 18.
- Evacuation transportation - 15
- Use any part of evacuation plan - 2.
- Estimated repair cost - \$10,000 to \$200,000.
- Estimated other costs (food, overtime...) - \$5,000 to \$95,000.
- Filed insurance claims (through February) - 9.
- Filed other claims, e.g., FEMA - 3.
- Received outside help (fire, police) - 6

Conclusions

Sandy was an expensive and daunting challenge to residents and management alike. On the whole, ORANJ members came through remarkably well. There were many inconveniences and annoyances. But there were no reported fatalities and few injuries.

One factor stands out from this survey and interviews with residents and staff: the absolute need for adequate backup electrical generation facilities and fuel supplies. There is no excuse for a certified CCRC to lack the ability to heat and light common areas, halls and stairways,, operate elevators and feed residents at least one hot meal per day. One CCRC is now considering the installation of a co-generation plant which would provide heat *and* light at reduced cost. That is the kind of progressive leadership our residents deserve.

The following sections of this report will include recommendations that ORANJ suggests be implemented in preparing for, enduring and recovering from the next severe weather-induced emergency. There is no way anyone can foresee when the NEXT BIG ONE will occur. But come it will! Be prepared!

IV. Assumptions for Future Planning

Plans are subject to a variety of external events that are outside the planner's control. Assumptions must, therefore, be included in a professionally acceptable plan. Here are some that should be considered by CCRC managers in planning for the future.

- Thanks to ongoing climate change, they should assume that storms will become more frequent and more violent. Torrential rains, heavy snowfalls, hurricane force winds will wreak major damage over a period of days rather than hours.
- Prolonged electric power interruptions will become more common. Attempts to legislate priority repairs, except for hospitals and registered nursing homes, will be futile. Engineering reality dictates that public areas be repaired first, private properties later.
- Utilities will be challenged by widespread damage requiring trained personnel imported from outside the affected region, potentially scarce equipment and supplies to restore service.
- CCRC capital and expense budgets will be stressed.
- Uncertainty: One Thing That's For Sure!

V. Planning Objectives

Professionally written Strategic Plans focus attention on very few but major aims of an organization. We believe that the following three are key to the successful operation of a CCRC in the face of weather-induced emergencies. Successfully implemented, they are strong evidence that an institution is well managed and worthy of a resident's investment.

- A. The safety and comfort of residents at all times but especially in times of danger and uncertainty.
- B. The preservation and maintenance of physical facilities.
- C. Adequate capital and expense budgets.

The first objective consists of two parts. Safety is an absolute must. It includes shelter, heating or cooling, lighting of common areas, living areas, corridors and stairwells, food and drink (hot and cold), medical supplies, equipment and services, and 24/7 security. Comfort includes reassurances by trained staff, frequent communication factual but free of panic, planned recreation to distract residents and help fill in perhaps lengthy and boring periods, access to working means of communicating with families and friends.

The second objective, visibly executed, is another way of reassuring residents that short-term repairs are made promptly and efficiently. (Note: One CCRC reported that Sandy had torn off a roof section requiring that some residents had to be moved immediately. Here again management must communicate frequently with residents to assure them that, once the storm has passed, that temporary fixes will be followed by permanent -- perhaps improved -- restorations.

The third objective also consists of two parts. In sharing financial plans and results with residents represented by an association finance committee, management should be able to point to a contingency line in the annual expense budget. As noted in the Assumption section, we live in uncertain but hazardous times where prudence dictates availability of funds to make immediate repairs. A multi-year capital plan should include projects to replace building components that did not fare well in the latest storm, as well as changes in the exterior areas to minimize power failures from falling trees or structures.

VI. Strategies

Strategies are often defined as the *conceptual* basis for the actions to be taken to achieve the stated objectives. They are necessarily general in language and not to be confused with Tactics, which are specific actions to be taken to achieve objectives. They are sometimes referred to as the “who, why, what and when” of strategic planning.

From a timing standpoint, distinctly different strategies are needed to achieve the three Objectives listed above.

- Preparing.....The “Before” Period
- Coping.....The “During” Period
- Recovering.....The “After” Period.

Before a severe storm strikes, owner-operators of a facility must pay serious attention to the design, construction and maintenance of the facility itself. Do these elements provide for the safety and comfort of potential residents? Consider the all-important electrical system. Despite the cost, will it be installed underground away from wind or water? Will it be built to safeguard transformers and switch gear from incursions of subsurface water? Will it be kept in first class condition through a well-funded preventative maintenance program? If it must be built or has been built above ground, are transmission lines free of large trees? Are the trees trimmed regularly to keep them away from power lines? The same sorts of questions must be asked of all other components of the CCRC’s physical plant. Stockpiling of water, food, fuel and a host of other items is another aspect of the “Before” strategy. Above all, a comprehensive plan must be developed, publicized, distributed and explained to staff and residents.

During the storm, as the survey results make clear, communication is a critical element of an effective “During” strategy. Management must be pro-active in keeping residents advised of what is happening and what is being done to cope with the situation as it develops. Keeping residents warm (or cool), fed and busy assures them that the situation is being handled competently.

Recovering from the storm involves much more than repairing physical damage. It may involve medical treatment as well as psychological counseling. If some critical equipment is damaged beyond repair, it should be replaced as soon as possible and its replacement celebrated to boost morale and build confidence in the future. Above all, a full report of damage sustained and steps being taken to restore full service must be rendered orally, with all questions answered, followed by a written document.

The recreation/education staffs can play a key role in keeping residents occupied and distracted during an emergency. What they plan to do should be thought through and agreed upon during the “Before” period and put into play as the emergency approaches -- if given enough warning -- and continued as long as the emergency continues.

Close collaboration between management/staff and residents is essential in all strategic periods, especially the “Before” and “During” periods. Small groups of volunteer residents should be appointed by the Emergency Management Team and one member of each group appointed to lead each group. Each group should be assigned a specific task to be undertaken when the emergency strikes. Their operation should be overseen by a senior staff member, e.g., the Activities Director. Regularly scheduled rehearsals should be held to practice the hone the skills of the groups.

VII. Tactics -- Recommended Best Practices

The following are ORANJ's recommendations that CCRCs should heed to plan for, cope with and recover from weather-induced emergencies. While generally applicable to all New Jersey CCRCs, they should be modified to serve the peculiar needs of each member organization.

The importance of detailed planning in advance of such emergencies cannot be over-emphasized. Each institution should form a permanent Emergency Preparedness Team chaired by the senior on-site management executive and comprised of all staff department heads, the president and vice president of the Residents Association aided by other residents selected for their expertise.

If an emergency plan already exists, the Team's first duty should be a thorough critique, no holds barred, in light of a CCRC's own experience with Hurricane Sandy, as well as earlier storms, notably the unseasonably heavy snow fall in October 2011. The prevailing attitude should be: "No plan is perfect. Where can ours be improved?" The *Results of Survey* section of this report would be one source of fresh ideas.

An existing plan may have proved inadequate in three major areas: Equipment, Supplies and Personnel. Clearly, backup electric power has been a general problem for some time. Sandy's severity heightened the need for remedial action. One CCRC has taken the initiative to investigate a technology hitherto restricted to large industrial plants, namely, co-generation, which provides both heat and light. Adding or upgrading equipment can be expensive. "The money is not available" is no excuse for endangering the safety/comfort of CCRC residents. It is management's job to find it.

ORANJ does not recommend the use of rented major equipment even if its delivery is "assured" by contract. When news of an impending severe storm is broadcast, there will be a rush for such items as backup generators by a wide range of users. In the confusion a supplier's employees can easily give preference to first come, first served renters. Then there is the matter of maintenance. Our survey revealed cases where the generators were there but malfunctioned. Advice: Own your own, stock critical spare parts, service it as you would a fine car and test it weekly. Conditions permitting, install an automatic starter, battery operated, that kicks in as soon as line voltage drops significantly.

Stockpiling supplies is a challenging task. How long will a CCRC's supply chain be disrupted? How much of what should be on hand when the storm hits? The Sandy survey revealed a wide disparity, for example, in fuel supplies for generators. With so much attention paid to power generation it is easy to overlook the fuel needs of other equipment such as trucks, plows and cars to move sick and injured residents to hospitals or, worse yet, evacuate a facility altogether.

Table 1

Essential Supplies

The average CCRC undoubtedly stocks thousands of items needed in day-to-day operations. Which of these *must be on hand* in sufficient quantity when a severe storm hits? The Team must assume that it may be isolated for a matter of days with power lines down, streets closed by drifting snow, flooding or the police for public safety reasons. Or a CCRC may be accessible but its normal suppliers' warehouses may be under water.

Fuel, food and potable water seem to be the most critical classes of supplies to be stocked in advance and monitored so that the planned amounts will be there when needed. What about medical supplies? Well-run healthcare operations are normally well stocked as they are meant to be able to handle emergencies. The one exception, as noted in the Fellowship Village plan, might be oxygen. Fuel supplies are strictly a management responsibility. Food and water, however, need to be stocked not only by the institution but all independent living residents.

ORANJ recommends that enough fuel be on hand in on-site storage tanks to keep the generators and certain work vehicles running for a minimum of 15 days. Only a few of the CCRCs surveyed approached that level. But one should recall that some areas, for example, Princeton Township, were without power for 22 days after the 2011 blizzard.

Instructions given to residents at Fellowship Village cover two pages. A few highlights:

General Guidelines

Ready to eat canned meats, fruit, vegetables
Canned juices, soups, salt, pepper, sugar.
Flashlights and spare batteries.
Comfort goodies -- cookies, hard candy
Vitamins
At least 3 days worth of food per person

Sample List

6 cans of fruit
5 cans of soup
3 cans of chili
1 jar of pasta sauce
1 jar of peanut butter
1 jar of jelly

Beverages

5 gallons of water *
Canned 100% fruit juices

* For drinking, ORANJ recommends a case of bottled spring water; for washing, filling the bathtub. During Sandy, no water utility failed to maintain service.

Tanks large enough to hold the amount of diesel and/or gasoline fuel called for by the stockpiling plan should be located on site where they be reached without difficulty even

flooding or snow drifts are already blocking some internal roads. They should be elevated on sturdy supports so that fuel can be withdrawn by gravity feed.

Personnel problems may have arisen in several ways. Did key individuals accept their responsibilities? Did they understand what was expected of them? Were the instructions given them clear? Were they trained to do their jobs? Were they tested in trial runs before having to confront the “real thing?” Were sleeping facilities provided for paid staff so that they could be on hand 24/7? In short, did A, B and C do their jobs? Was performance above and beyond the call of duty recognized and rewarded?

If an emergency plan for dealing with storms does not yet exist, the Team should prepare one, guided by this report, consultation with experts and government agencies like FEMA as well as other members of ORANJ. We are all in this together!

* * *

The Team should divide its plan into three parts: actions to be taken by designated persons/departments Before, During and After the emergency. Each of these sets of actions should be accompanied by appropriate communications (see Section VIII). oral and written, within management and between management and residents.

Before: Although many people stay abreast of the weather and forecasts by the Weather Bureau through radio/TV, one or more members of the Team should be assigned the task of staying current and alerting the Team as to a possible emergency. Fortunately, potential hurricanes can be spotted early on as “tropical storms” and their course followed for days in advance of landfall. So, too, major snow storms. Tornadoes are another matter. Within 15 minutes of being spotted, they will swoop down and do their damage. The only sure hiding place is underground, a refuge which few CCRC residents could reach in time. New Jersey is fortunate in that tornadoes rarely appear here. When they do, prayer and luck seem to be the only defense.

As soon as a hurricane or blizzard seems threatening, the Team should meet, review and issue assignments orally and in writing per Plan. Senior members should make sure that assignments are received and understood, then oversee performance. The following is one set of instructions that the Team at Fellowship Village issues to Plant Operations as soon as an alert is sounded. Similar sets are included in their Plan for all departments.

- Ensure fuel for generator is topped off.
- Ensure primary and secondary vendors of diesel are notified.
- Ensure that hall lanterns are ready to be deployed in Independent Living halls and stairwells.
- Confirm location of Stryker chairs.
- Verify supply of :LED flashlights/lanterns for Health Center staff
- Verify enough batteries are on hand for lanterns and flashlights.
- If high wind is forecast, bring in loose items and secure large items.

Note the word “verify.” It implies that elsewhere in the Plan there is a detailed list of items to be stocked and quantities to be on hand for emergency use. (See Table 1).

While Plant Operations are essential but rarely visible to residents, not so Healthcare. Here is a sampling of instructions given to the Fellowship Village Health Center.

- The Director of Nursing should determine professional staffing needs and support expected from Helping Hands (volunteers).
- Carpools should be arranged to facilitate staff transportation.
- At least 30 oxygen tanks should be on hand per stockpiling plan.
- Alert oxygen supplier that additional tanks may be needed.
- Ensure that the snack closet for staff is well stocked.
- Ensure that enough flashlights and batteries are available.

As important as other services are to residents, arguably none is more visible or more a subject of discussion than food service. During emergencies, especially in cold, wet weather, one hot meal per day should be provided to all independent living residents and staff. Arrangements should be made to deliver hot meals to residents who cannot leave their apartments. Nutritious box lunches should be available at other times. While a properly designed emergency electrical systems would supply power for cooking and refrigeration, prudence suggests that food stockpiled for emergencies be largely dry or canned.

In addition to alerting department heads and other key staffers of an impending emergency, the Team should promptly notify residents. A notice in large bold type, drafted in advance, should be quickly updated and placed in each resident's mail box. It should be followed by a letter from the CEO/ED giving more information about the storm as well as stressing the uncertainty of its trajectory and possible time of arrival. It would also remind the residents to perform certain tasks specified in the Plan and discussed in past drill exercises. (See below) For example: removing loose items outside and checking emergency supplies. Communication with the president of the Residents Association will be ongoing to keep residents fully informed of developments.

The sturdiest of Independent Living Residents should be assigned a list of units and fellow residents to monitor as the storm nears and eventually hits the facility. Board members of the Residents Association would act as overseers to make sure, to the extent possible, that all residents are safe and comfortable for the duration.

What if no “real” emergency occurs to test a CCRC’s plan? Answer: Drills conducted quarterly, semi-annually or, at a minimum, annually. The resident turnover at most CCRCs is such that ORANJ recommends that they be held quarterly on a schedule published in the internal house organ. The notice placed in mail boxes should make very clear that this is a test. The Fellowship Village notice says that there will be a mock power outage and that the staff will be knocking on doors between 9 and 10 AM to

check on all residents. Since this is a mock drill, all meals and other activities will continue. Attached to the notice is a letter reminding residents that drills are essential to ensure the safety of residents in a “real” emergency.

* * *

Being well prepared in advance of a serious storm, the Team is ready to launch the second set of actions to be taken when a real emergency is about to strike.

During: The Fellowship Village Plan includes many pages of instructions for the “Day of the Emergency” beginning with that vitally important activity, Communications. (See Section VIII of this report for a full discussion of this subject.) Note: Based on our experience with Sandy, this “day” will extend over many 24-hour periods before normal services are restored.

The Emergency Preparedness Team should meet daily early in the morning, as long as the emergency lasts, to discuss the following:

- The nature of the emergency - its severity and probable duration based on official weather forecasts and local observation.
- Implementation of the Plan -- assignments, priorities, possible scenarios should be discussed and decisions made. At each meeting the Team should ask: “Is our Plan working or do we need to make changes to accommodate this particular situation?”
- Injuries to residents and staff, as well as serious illness, may require on-site treatment or transportation to a hospital emergency room. Will the Medical Director be on site 24/7? Is a vehicle on standby to serve as am ambulance?

Due to the importance of reliable electric power for virtually every CCRC activity, two possible situations should be considered and appropriate action taken.

- **No Loss of Power:** Advise residents that, while there has been no interruption so far, one can come at any time as the storm wreaks its havoc. If this happens, the Plan provides enough backup generation to maintain power in the health center, common areas including the kitchen, and lighting in halls, stairs and limited elevator service.
- **Loss of Power during Off-Hours** (10 PM to 7 AM): After 7 AM, volunteers designated by the Residents Association, equipped with cell phones and a directory of numbers (See Section VIII for recommended communication equipment) will go door-to-door to inform residents that normal power was cut off during the night but backup generators are on line supplying power to specific areas per Plan. Residents on oxygen are being monitored by the nursing staff and all other residents checked this morning and daily by staff at mid-day. The primary purpose of these visits is to allay panic and build confidence that the situation is under control.
- **Loss of Power during Daytime Hours** (7 AM to 10 PM): Volunteers will go door-to-door to deliver the above message.

Frail residents should be offered space, if available, where more attention can be paid to their special needs. If feasible, empty, unsold apartments should be put to use housing staff needed 24/7 during the most trying days. They may also be opened to evacuees from damaged buildings on site or residents of other CCRCs unable to cope. The average stay of such residents during Sandy was 1-2 weeks. CCRCs may also be a “port in the storm” to non-residents. Cedar Crest, for example, served 4000 meals to outsiders during and immediately after the worst of Sandy. All CCRCs should, in their planning, provide for this contingency.

Although the Plan, as written and published, spells out assignments for departments and key staffers, the Team should review and reissue them, orally and in writing, with changes highlighted so that they fit the actual situation at hand. Clarity and follow-up are immensely important at this time.

*

There is nothing like the “real thing” to test the quality and “fit” of a Plan. Once the storm has passed, and everyone is breathing a collective sigh of relief, be warned that the staff and residents have not yet finished their work. A third set of actions must still be taken now that the emergency has passed.

After: Storms like Sandy wreak two kinds of damage -- Physical and Emotional. The former may be extensive and costly to repair. But capable engineers and contractors can provide expertise that will have the facilities looking better than ever. Financially, CCRCs can seek help from two major sources -- insurance and government grants. The Sandy survey taken roughly three months after the storm revealed that few CCRCs had yet taken advantage of this aid. Caution: Be aware that tapping these sources, especially government grants, takes lots of time, patience and political pressure.

All that said, what specific questions should Team ask after the wind has died down, power has been restored, and life has returned to “normal?” Here are a few....

- How well did the Plan work?
- What deficiencies became evident in the “Big Three” problem areas -- Equipment, Supplies and Personnel?
- What changes in the Plan should we consider?
- What quick-fix emergency repairs must be made ASAP?
- What major repairs, replacements must be undertaken?
- What will they cost? How will they be financed?
- What unusual expenses have been incurred? What is their budgetary impact?
- What personnel actions deserve special recognition and thanks?
- Was resident morale generally high during the storm?
- Were there cases where residents panicked or complained bitterly?
- Will professional help be required?

* * *

VIII. Communications

The importance of clear communications within management, between management and residents and among residents cannot be overemphasized. The officers and board of the Residents Association bear a special responsibility in keeping the lines open at all times and on a wide variety of subjects including preparations for severe weather-induced emergencies. The latter challenge starts with the joint drafting of a detailed Plan which would guide all those who live and work at a CCRC in coping with emergencies Before, During and After a severe storm strikes the region.

General Principles

ORANJ recommends the creation of an Emergency Preparation Team, chaired by the top on-site manager (CEO or ED), staffed by all department heads, the President and Vice President of the Residents Association, and individual residents selected for their expertise. Listening to concerns of residents and heeding their own instincts for safety and comfort, their first task should be the creation of a Plan appropriate to a particular CCRC. Their next task should be communication of the Plan, orally and in writing, to residents in meetings, bulletins and a special issue of the house organ. The Team should advise residents that the Plan will be tested through periodic drills (ORANJ recommends quarterly tests on a pre-announced schedule). Once a year, or after exposure to a real emergency, the Plan should be updated to take advantage of Lessons Learned.

Early on, residents should be advised that they, as individuals bear personal responsibility for their own safety by maintaining stocks of food, water and other supplies in accordance with recommendations in the Plan. When possible, residents should also volunteer to watch over their neighbors in the event of an emergency. The Team might consider holding periodic meetings to show attendees the ideal mix of supplies to be kept on hand. Because a CCRC population is in constant turnover, the Team should emulate the old advertising maxim: “Hit ‘Em Again and Again.”

The immediate threat of a severe storm offers the Team leader an opportunity to demonstrate his/her communication skills. The initial message to the community should be a mix of fact and forecast that mobilizes resources without creating panic. It should remind residents that there is a detailed Plan in place which makes clear who is in charge of what, how management will continue to keep residents informed, where residents can get answers to their questions, where meals, including hot food, will be served, and how residents can get assistance if needed.

The leader's follow-on messages, oral and written, must maintain a high level of alertness as the storm intensifies while instilling confidence that the CCRC's Plan is working. A power outage, as emphasized elsewhere in this report, can be a frightening experience since many normal activities in addition to lighting cannot be performed. Residents should be reminded that their CCRC's preparations (hopefully) included installing enough backup, site-owned generator capacity and stockpiling enough fuel to

handle the needs of the Health Center and common areas including kitchens, halls, stairs and elevators for up to two weeks.

A central information office should be open to all where accurate, up-to-date reports can be provided to all at all times.

Channels of communication should also include contacts outside the CCRC, notably local, county, and state authorities as well as FEMA. Fire and police headquarters are an obvious example, as well as nearby hospitals and ambulance services. These external channels should be established well in advance of an emergency and individuals identified in each to aid in making contact when the emergency strikes. Although CCRCs generally have close contact with local fire departments, they probably need refinement to cope with weather-induced emergencies.

Technical Considerations

If there is a power outage, land line telephones, for example, Verizon's, will not operate. ORANJ recommends that all staff be furnished cell phones and all residents encouraged to buy their own cell phone service. A worthwhile project for the Residents Association would be the creation and distribution of a cell phone directory. Like the land line phone directory, this new document could be made available on request from the front desk. To make cell phones operable during an emergency a "charging strip" of power outlets should be installed in a central location serviced by the backup power supply.

A recent technical development worthy of consideration in the Plan would be the installation of a "reverse 911" system which would enable management to reach a general audience in case help is needed somewhere in the facility. The successful use of cell phones and reverse 911 would require explanation and demonstration. Also, the wireless internet system currently installed in many CCRC common areas and apartments can be useful ways for residents to communicate with families and friends outside.

A very new development, being tested by Verizon and AT&T in the Northeast, is the wireless home telephone. The expense and time required to repair downed land lines has impelled these companies to seek ways to bypass the normal telephone network. Termed "Voice Link," it converts the ordinary telephone handset into a tethered cell phone. Emergency planners must stay alert to such developments.

We Were on TV!

Public television recently gave Sandy recognition by holding two-hour town meetings at Lincoln Center and Monmouth University in Long Branch, NJ. Under a moderator a panel of experts fielded questions on infrastructure, building codes, environmental consequences, storm response, and economic ramifications. Local audiences were present and also allowed to query the experts. Message: **Sandy was a Dandy!**

* * *

IX. Audit and Review

A Strategic Plan should provide for periodic audits of the effectiveness of the Plan and a review of the Plan after it has been subjected to a real-world test. Questions to be asked, among others: Did the Plan achieve the stated objectives? Completely or partially? Were some critical objectives overlooked in the planning process? Did the planning assumptions turn out to be true? Were the strategies chosen to achieve the objectives correct? Did the persons assigned to perform important tasks perform as expected? Did critical equipment, e.g., emergency generators, operate as planned? Did spare parts and consumables (fuel, food, other supplies) prove to be satisfactory in quantity and quality?

A Strategic Plan can always be improved with the experience gained when it is put to the test. As soon as possible after the emergency has passed, those who created the Plan and those who were responsible for its execution should meet with the CEO/ED and the Resident Association President to discuss the Plan's shortcomings. A deadline should be set for submission and evaluation of proposed changes. The revised Plan should be distributed promptly and explained to those who will be called upon to execute it. When feasible, a "dress rehearsal" should be conducted with due consideration given to fears of residents that a "real" emergency has arisen. (See Communications above.)

A sensitive subject needs to be included under Audit and Review -- the quality of leadership displayed during the emergency. Some thrive in the face of danger, others fail. One example comes to mind. When Hurricane Katrina hit New Orleans, the mayor hid on the 26th floor of a hotel. The governor failed to dispatch the National Guard in time to prevent rioting and looting. FEMA, headed by a political employee, proved ineffective in both planning and execution. The President seemed indifferent.

In any emergency there are heroes. Some were carrying out their assignments, some were volunteers who saw a problem and figured out a solution. They should be recognized and rewarded appropriately.

* * *

Appendix I

SANDY WAS A DANDY

(Editor's Note: The following is excerpted from *ORANJ Tree*, Winter 2013 issue.)

Sandy blew down many beautiful trees but the only serious damage to a CCRC occurred when some below ground rooms were damaged by water that surged over the bulkhead. Nonetheless, ORANJ conducted a limited survey focused on basic health and safety issues. Resident association presidents were asked three questions: (1) What was the duration of the power outage? (2) Did you have a generator for independent living residents? (3) Did it power elevators and kitchens, and light halls and stairs? All CCRCs responded.

Length of Power Outage. Six communities did not lose power noticeably, four for one day, ten for 2-3 days, two for 4 days, two for five days, and one for 9 days.

Generators for Independent Living. Most of the communities that lost power had a generator for essential services, running elevators, lighting hallways/stairwells and powering kitchens. Two communities said that management recognized the need and planned to install generators shortly. The one with the 9-day outage had no generators for independent living and made no mention of a change.

Preparedness. Several respondents mentioned careful preparations. One described a week-long class for residents and staff. Another implemented an emergency plan that is periodically reviewed and updated at monthly resident meetings.

Handicapped Residents. Several communities brought them for temporary shelter to the AL/Health Center where light and heat are mandated by NJ law. Two communities organized clusters of residents under a volunteer leader responsible for visiting and comforting them.

Meal Service. Almost all respondents told of creative efforts by kitchen staffs who kept residents fed with hot meals. One said that canned goods, cookies, bottled water, etc. were made available for the taking. All communities delivered meals to those unable to reach a central delivery location.

Outreach. At least four communities provided significant aid to the homeless, setting aside rooms for those who had lost their houses for an extended stay. One CCRC had more than 100 "visitors" from a nearby shore area. Families of staff were routinely asked to stay if their homes were seriously impaired.

The Human Factor. Responses indicated the importance of attitude in helping residents cope with difficult circumstances. Where residents and employees collaborated

in reaching out to the unfortunate, there was pride in how well they came together in the storm's aftermath. This, too, can be a lesson from Sandy that will become part of future preparedness.

Ellen Handler

Appendix 2

SANDY SURVEY QUESTIONNAIRE

The following questions were sent to the presidents of the 25 CCRCs that are members of ORANJ. Responses from 19 were consolidated in the body of this report in Section III "Initial Observations -- Results of Survey."

CCRC _____ Respondent _____ Date _____

Electrical Systems

Who is your electrical supplier? _____

Who is your gas supplier? _____

Did you have a total power outage? Y N

If Yes, for how long? _____

How frequently within 2 weeks of storm? _____

Did you have a partial power outage? Y N

If Yes, for how long? _____

Did it disrupt elevator service? Y N

Did it disrupt lighting in

Hallways? Y N

Stairwells? Y N

Common areas, e.g., sitting rooms? Y N

Individuals apts/units? Y N

If Yes, for how long? _____

Did it disrupt heating

In common areas? Y N

In individual apts/units Y N

If Yes, for how long? _____

Did you have "warming" areas? Y N

If Yes, how were residents informed? _____

Did it disrupt security features, e.g., pull cords? Y N

Did you have alternative ways for residents

to call for help, e.g., bells, whistles? Y N

If Yes, describe/explain _____

What was effect on hot water availability?

To resident units with electric heaters? _____

To resident units with gas heaters? _____

In kitchens, dining rooms, etc? _____

Did you have readily available charging facilities? Y N

Generators

Do you have emergency generators? Y N

If Yes, what did they power? _____

How many units? _____

When did they arrive? _____

Were they adequate? Y N

Name and Address of suppliers _____

If No, did you attempt to get emergency generators? Y N

Have you made plans to get generators for future emergencies?

Explain _____

Do you have other emergency power sources?

Explain _____

Telephone Systems

Interruptions of land line service to outside? Y N

If Yes, for how long? _____

Interruptions of internal telephone connections? Y N

If Yes, for how long? _____

Interruptions of cell phone service? Y N

If Yes, for how long? _____

Do you have a directory of resident cell phone numbers? Y N

Communications

How did management communicate with residents? Explain _____

Did you set up on-site communications units, e.g., buddy systems or corridor leaders? Explain _____

How did you communicate with residents' families?

Explain _____

Did you communicate with outside authorities?

Explain _____

Was there a joint management/resident working group to make decisions about safety, food, daily bulletins?

Describe _____

Resident Welfare

Describe social/recreational programs for residents during the emergency.

Do you keep a list of residents who need special help? Y N

What extra services did you offer them? _____

What steps were taken to provide prescription medicines to residents?

Explain _____

Did you contact local pharmacies for help?

Explain _____

Did any residents manifest extreme reactions, e.g., claustrophobia, panic attacks, depression? Describe _____

Food Service

Source of power in kitchen: Electric, gas, other _____

During power outage, how many meals/day were provided? _____

During power outage were planned menus changed? Y N

If Yes, please describe _____

Did you provide extra food or treats to residents? Y N
If Yes, please describe _____

During power outage, how was food distributed.....

To mobile residents on ground floor? _____

To mobile residents not on ground floor? _____

To handicapped residents? _____

Outreach

Did you host refugees from the storm? Y N

If Yes, how many did you shelter and feed? _____

For how long? _____

If Yes, for how many did you provide only meals? _____

Emergency Plan

How often is your Plan for Independent Livers updated? _____

Do residents provide input to the Plan? Explain _____

How often do you conduct practice drills? _____

Describe nature of drills _____

How much of the following was stockpiled before the storm?

Food _____

Water _____

Fuel _____

Emergency lights (flashlights, batteries, lanterns) _____

Entertainment (games, radios) _____

Do you have a written Plan for evacuation? Y N

If Yes, does it identify a target destination? Y N

If Yes, will you provide transportation? Y N

Did you implement any part of the evacuation plan? Y N

Explain _____

What provision did you make for residents who refused to evacuate?

Explain _____

What additional steps did you take to ensure residents' safety/comfort?

Describe _____

Costs

List damage or losses sustained including repairs, replacements, cleanup and removal of trees, including estimated cost of each major item:

Item	Cost
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Estimate other costs as a result of the storm, e.g., food spoilage, overtime pay, extra help:

Have you or will you file insurance claims? Y N

Have you or will you file non-insurance claims? Y N

Describe _____

Did you receive help from outside sources, e.g., fire, police, rescue squad?

Describe _____

Other Comments

Appendix 3

SANDY SURVEY RESPONSES

The following is a tabulation of responses to the questionnaire sent to Association presidents requesting information as to how they prepared for and survived Sandy, the hurricane which hit New Jersey especially hard. These data will form the basis of a “Best Practices” study which would guide member associations in future emergencies. The numbers below refer to questions posed to the presidents. There were 19 responses out of 25 ORANJ members.

1. Electric suppliers: PSE&G - 8; JCP&L - 6; others - 5
2. Gas suppliers: PSE&G - 8; other - 7; none - 4
3. Power outage: Yes - 14; No - 5
4. Length of outage: 18 hrs to 9 days
5. Disrupted elevator service: Yes - 10; No - 5; NA - 4
6. Disrupted hall lighting: Yes - 9; No - 6; NA - 4
7. Disrupted stair lighting: Yes - 9; No - 5; NA - 4; unk - 1
8. Disrupted common area lighting: Yes - 9, No - 6; NA - 4
9. Disrupted apartment lighting: Yes - 13; No - 3; NA - 3
10. Disrupted common area heating: Yes - 8; No - 8; NA - 3
11. Disrupted apartment heating: Yes - 13; No - 3; NA - 3
12. Warming area: Yes - 9; No - 4; NA - 3; unk - 3
13. Security systems disrupted: Yes - 4; No - 11; MA - 3; unk - 1
14. Alternate hospital calls: Yes - 8; No - 3; NA - 5; unk - 3
15. Hot water available: Yes - 4; No - 11; NA - 4
16. Charging station available: Yes - 12; No - 4; NA - 1; unk - 2
17. Emergency generator ex-Health Center: Yes - 13, No - 6
18. Number generator units: Most common 1 or 2
19. When put on line: Immediately - 8; After storm or next day - 3; unk - 8
20. Adequate generator capacity: Yes - 8; No (malfunction) - 3; unk - 8
21. Availability of supplies: On site or nearby local source - few; unk - many
22. Plan to add generator capacity: Yes - 9; No - 10
23. Landline phone service to outside interrupted: Yes - 5; No - 13; unk - 1
24. Internal phone service interrupted: Yes - 5; No - 13; unk - 1
25. Cell phone service interrupted: Yes - 3; No - 15; unk - 1
26. Have directory of cell phone numbers: Yes - 7; No - 11; unk - 1
27. Management communicate w residents Various methods: Yes - all
28. Local units (police...) communicate: Various methods; Yes - most
29. Families communicate: Various methods, mostly phone; Yes - most
30. Outside authorities (mayors...) communicate: Various methods; Yes - most
31. Management/Resident working group: Yes - 5; No - 10; NA - 4
32. Social/Recreational Programs: Many, mostly usual
33. “ “ “ “ Responsibility: Joint staff and residents

34. List of residents needing help: Yes - 15; Mo - 2; unk - 2
35. Extra services offered them: Various. Yes - 10; NA - 2; unk - 7
36. Filling prescription needs: Various. mostly Yes
37. Source of kitchen power: Gas & electric
38. Meals/day provided: 2 - 3
39. Menu changes during outage: Yes - 11; No - 4; unk - 4
40. Extra treats provided: Yes - 11; No - 3; unk - 5
41. Food delivery during outage: mostly normal; few trays
42. Refugees hosted: Yes - 11, 2 to 50 including staff; No - 6; unk - 2
43. Length of stay: Most 1 - 2 weeks
44. Provided meals only: Yes - 4. up to 1400; unk - 15
- 45 Frequency of updating emergency plans: Yes - 17 monthly, annually, as needed
46. Input from residents: Yes - 7; No - 7; unk - 5
47. Frequency of drills: Yes - 16, mostly for fire; monthly or annually; unk - 3
48. Stocked food supplies: Yes - 15. Normal (1); 3 days (5), 5-7 (8), 14 (1); unk - 4
49. Stocked water: Yes - 15. Mostly 3-7 days; unk - 4
50. Stocked fuel: Yes - 13. Mostly 5 - 7 days; No - 1; unk - 5
51. Stocked batteries, flashlights, lanterns: Yes - 12. Mostly for staff.; ink - 7
52. Written evacuation plan: Yes - 18; unk - 1
53. Target location: Yes - 14; No - 2; unk - 3
54. Evacuation transportation: Yes - 15; unk - 4
55. Utilize any part of evacuation plan: Yes - 2; No - 13; unk - 4
56. Provision for residents refusing to evacuate: Mostly none
57. Additional actions for residents' safety, comfort: Yes - 11. Various
58. Estimated damage cost: \$10,000 to \$200,000
59. Estimated other costs such as food, labor overtime: \$5,000 to %95,000
60. Filed insurance claims: Yes - 9; No - 5; unk - 5
61. Filed non-insurance claims, e.g., FEMA: Yes - 3; No - 8; NA - 2; unk - 6
62. Outside help, e.g., fire, police: Yes - 6, No - 7; NA - 2; unk - 4

* * *

Observations:

- Most CCRC operations and systems require reliable and adequate supplies of electric power. In emergencies like Sandy, which can disrupt normal service for days or weeks, on-site backup generators, properly sized and maintained, would immediately come on line to supply not only health centers (legally required) but also central operations areas, kitchens, hallways and stairwells.
- When Sandy hit, five of the reporting 19 CCRCs had generators that supplied only their health centers. One had no generator whatsoever. The five were fortunate enough to regain normal power within 2 days. but sixth was without light or heat for 9 days.
- Fuel supplies on hand to service the backup generators varied widely from several gallons to an estimated 7 days operation.
- The large number of “unknowns” or blanks us a cause for concern. Is this a sign of lax Association management or lack of transparency. The Sandy group should call the presidents for clarification.

Planning Assumption:

Plans are subject to a variety of external events outside a planner's control. Assumptions must, therefore, be included in a professionally acceptable plan. Here are some that should be considered by CCRC managers in planning for the future.

- Thanks to ongoing climate change, they should assume that storms will become more frequent and more violent. Torrential rains, heavy snowfalls, hurricane force winds will wreak major damage over a period of days rather than hours.
- Prolonged power interruptions will become more common.
- Utilities will be challenged by widespread damage requiring trained manpower, potentially scarce equipment and supplies to restore service.
- Priorities for repair, already established, will be enforced -- vital public areas first, private properties later.
- CCRC capital and expense budgets will be stressed.

