City of Palm Coast

After Action Report
Hurricane Matthew
Response and Recovery
October 7, 2016



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Executive Summary

The following is an after action report for the events leading up to and following Hurricane Matthew which passed off shore on October 7th, 2016. Because the aftermath of a storm such as this was not as severe as anticipated, we caution this community to continue to be diligent. The City of Palm Coast and our residents should continue to make personal plans for their families for future events, prepare to take necessary actions to secure their homes prior to potential disasters, and adhere to evacuation notices when given for their personal safety.

Our concern is the Palm Coast community feeling this hurricane was not damaging enough that they should not have evacuated and that in the future, they may not leave after warnings are issued from the Emergency Manager. This could not be further from the truth and it was because of two factors that spared this areas from severe devastation.

- 1. It should be clearly understood that this hurricane did not make landfall in the Palm Coast / Flagler County area and the center of the storm stayed 25-40 miles out to sea. It was for this reason that we must consider this event more of a strong wind event with moderate storm surge rather than what would be considered a force from a hurricane. The highest wind speed identified through the Flagler County Emergency Operations Center were gusts up to 86 miles an hour both in Flagler Beach and North Palm Coast.
- 2. "The Wobble" during the night of October 6th, a small deviation in the path of the storm occurred off the Brevard County coast line. By the time the storm was centered off the Flagler County coast, this "wobble" moved the storm to the east by approximately 15 miles from initial projections and in doing so, pulled the most damaging winds that far from our coast.

There is no other way to say that this storm was going to be the "big one" we all fear and recovery could have lasted for many months, not weeks. We were very lucky because of these two critical points and it is our responsibility to ingrain in the City employees and citizens that this is not what a minor hurricane can do to our community.

Introduction Overview

In late September, 2016, Tropical Storm Matthew reached the eastern Caribbean, it became a hurricane and rapidly intensified. Its peak intensity was late Sept. 30 into early Oct. 1 when it reached Category 5 strength with 160 mph winds. Matthew then made landfall in Haiti and eastern Cuba on Oct. 4 as a Category 4.

Matthew affected the Bahamas on Oct. 5-6 as a Category 3 and 4 hurricane. The southeastern United States was then hit hard by Hurricane Matthew as it moved very close to the coasts of Florida, Georgia, South Carolina and North Carolina. Matthew made official U.S. landfall on Oct. 8 southeast of McClellanville, South Carolina, as a Category 1 hurricane with 75 mph winds. Matthew was declared post-tropical by the National Hurricane Center as it moved away from North Carolina on Oct. 9.

During the day on October 7, 2016, Hurricane Matthew moved along the coast of Florida. At approximately 12:46 hours, the eye of the hurricane was the closest proximately the City of Palm Coast and top winds were recorded in North Palm Coast area as 86 mph according to National Weather Service. A peak storm surge of 9.88 feet above normal was measured at an Navel Operational Station (NOS) tide gauge at Fernandina Beach, Florida. In Palm Coast, water reached 44 inches above the sea walls in the C section which is consistent with a 5-6 foot storm surge after high tide occurred in late afternoon. Rainfall amounts averaged 6.25 inches throughout the City.

The storm blamed for hundreds of deaths in the Caribbean did not cause injuries or deaths related to the storm in Palm Coast. There were 43 confirmed deaths in the United States that included 22 in North Carolina, 12 in Florida, four in South Carolina, three in Georgia and two in Virginia.

City of Palm Coast Pre-Incident Preparations

4 Days prior to impact – Monday, October 3, 2016

City Staff began meeting with the Executive team and members of what would be the Incident Management team to review operations and consider pre-storm preparations. Phone conference were held with Flagler County Emergency Operations Center (EOC) at 16:00 hours followed by discussion to address concerns learned through the teleconference.

3 Days prior to impact – Tuesday, October 4, 2016

Morning Executive Group meetings begin at 09:00 hours at the Flagler County EOC to cover the latest changes in the storm projections. 10:00 hour's operational meeting was conferenced in at the EOC. City Departments discussed findings and made operational plans for the coming operational period.

Fire services began preparing employees for scheduling changes with staffing up for City-wide coverage the expected day of the event. Employees were requested to put their home affairs in order on the next three days prior to the incident. Staffing request was sent to Volunteer firefighters for additional coverage during the hurricane. 9 Volunteers returned with availability to cover for the duration. Vol. Lts John and Julie Frailey made contact with each shift at each station to review Urban Search and Rescue procedures with the crews. All fuel levels were topped off and the school board was scheduled to come out to fill all the fuel at the stations. Liquid propane was filled at the stations with tanks. Chains saws were inspected and extra saws ordered to be placed on the additional utility vehicles.

Fire Station 25 was converted to the City EOC. IT installed the phones and computers in the training room while Customer Service activated the computers in the cubicles in the station administration wing.

16:00 hours Briefing at City Hall – Phone Conference with the Flagler EOC. Debriefing from the day's events and discussion of the next operational period.

2 Days prior to impact – Wednesday, October 5, 2016.

Morning Executive Group meetings begin at 09:00 hours at the Flagler County EOC to cover the latest changes in the storm projections. 10:00 hour's operational meeting was conferenced in at the EOC. City Departments who were not at the EOC attend via phone conference. Upon return to City Hall, executive team and IMT discussed findings and made operational plans for the coming operational period.

Human Resources sent out the following update to all City employees:

Hurricane Matthew is a BIG storm and is heading our way.

- Today is the day you need to prepare your home and family for the storm.
- There is a voluntary evacuation for residents east of the Intercostal Waterway.
- There is a voluntary evacuation for residents in other areas of the City. The majority of those affected are in areas near waterways. A map of the area will be posted shortly.
- Mandatory evacuations for the areas listed above will begin tomorrow.
- Shelters will be opening soon. Those with Special Needs will shelter at Rymfire Elementary. Pets and others will shelter at Bunnell Elementary.
- If you are planning on evacuating or sending your family elsewhere, plan on going WEST. The storm is heading NORTH so those areas may also be impacted by the storm.

- If you need to make arrangements for the safety of your family and your residence, discuss your needs with your supervisor.
- Be sure you have plenty of fresh water (our Utility Department has plenty of water but better to be prepared). You may wish to freeze some in the likely event we lose power.
- Be sure you have at least a weeks' worth of any prescription medications you are taking.
- Flagler Schools will be closed Thursday and Friday.
- All special events through the weekend have been cancelled.
- The City will be OPEN tomorrow and operating at full staff. That does not mean that all staff will be doing their normal duties. We are in active storm preparation mode. Please be flexible and if asked to do something in preparation for Matthew, please do so if you are able. Department Directors and other supervisory staff will be communicating with you as to who is essential and who is not. The Executive Team and others have been meeting regularly to determine appropriate staffing.
- The City will be CLOSED on Friday for all those that do not have an active storm-related function. Your supervisor will share with you who is required to report on Friday. However, City Hall will be closed. Those that are working will do so out of either Wellfield Grade, Utility Drive or Fire Station 25. For those that are not required to work, you will be paid for the day. Before you leave on Thursday, unplug your computers and any other electronic devices. Those with virtual WYSE boxes will still be able to access information from another location or virtually with your I-pad or laptop.
- Those that are required to work before, during and after the event no more than a 12 hours shift for non-fire personnel.
- Directors are requesting that some non-essential personnel work on Saturday. If you have any questions regarding your status, please get with your supervisor.
- As with all other significant weather events, in preparation for potential FEMA submittals; document, document, document.
- In the event there is an on-the-job injury, Medi-quick will be closed so proceed to Florida Hospital.

Information Technology created a badge group for all personnel working at station 25 for ease of access.

Cots were ordered through the Flagler EOC to accommodate the added staff. Station 21, 12 cots; Station 22 will be down during the high winds; Station 23 5 cots; Station 24 6 cots; Station 25 will staff city hall personnel possibly 20 cots will be required.

16:00 hours Briefing at City Hall – Phone Conference with the Flagler EOC. Debriefing from the day's events and discussion of the next operational period.

20:00 hours - Customer Service Representatives (CSR)began their first operational period at the City EOC at station 25.

1 Day prior to impact – Thursday, October 6, 2016

Morning Executive Group meetings via conference call begin at 09:00 hours at the Flagler County EOC to cover the latest changes in the storm projections. 10:00 hour's operational meeting was conferenced in at the EOC. Following the calls, executive team and IMT discussed findings and made operational plans for the coming operational period.

Radio Channels were identified through the Flagler EOC and sent to all department members. During the course of the hurricane, it can be expected the microwave dishes that operate the 800 radio system may come off line due to the wind. This is not unusual for the wind we are expecting. If or when this happens, you will not be able to use the radios for long distance operations.

At this point, take you radio off of "locked" mode. The arrow on the face of the radios will change the talk group to "FLAG CONV". This will allow your radios to interact directly with the tower closest to you. You will see channels for Marine land tower, Espanola tower, Cody's corner tower or Flagler beach tower. Depending on where you are operating will depend on the tower that you are able to access. The north end of the city will be the Marine land tower. Station 25 might be Espanola.

Computer Automated Dispatch (CAD) operational changes made by County Chief Burnsed for single unit response. Palm Coast station assignments sent to County Chief Bazanos for accountability

Station 21: Engine 21 with crew of 4 and Attack 21 with a crew of 2. One heavy position for public works streets.

Station 22: Engine 22 with a crew of 4 and Utility 23 with a crew of 2 (chain saw crew) one heavy position for public works streets. (Until the winds are too strong to house at that station)

Station 23: Engine 23 with a crew of 4 and the confined space medic truck re titled MERV 23 for cad will be ALS with a crew of 2. One heavy position for public works streets.

Station 24 Tower 2 BLS crew of 3 and E-24 (ALS) (E-212) crew of 3. One heavy position for public works streets.

Station 25 E-25 Crew of 4, Medic 25 crew of 3, New truck (chain saw crew) staffing TBD and Battalions 21 & 23. One heavy position for public works streets.

16:00 hours Briefing at City Hall – Phone Conference with the Flagler EOC. Debriefing from the day's events and discussion of the next operational period. This is the final meeting of City staff before the operational period when the hurricane is predicted to affect the City. The EOC will convene with the ESF 3 functions operating at station 25. Staffing by all field departments is required to maintain flow of information.

Flagler EOC staffed with Lt Pattee and Jay Maher. Station 11 reassigned from Flagler Beach to Palm Coast station 25 for safety. Station 41 personnel reassigned to station 21 for safety.

Day of impact – Friday, October 7, 2016

With fire stations being staffed from the night before, and heavy equipment operators standing by with their equipment in the station parking lot, Fire Administration made a final sweep of the city to ensure last minute road ways were open for ambulance transports if needed. By 09:30, all personnel were housed for safety purposes until the wind dangers of the hurricane had passed. CSR staff continued operations at station 25 EOC.

CONCERNS

Emergency Operations Center (EOC) Management - Staffing

MC Beadle - FIRE

<u>Concern 1 -</u> The EOC for the City, located at Fire Station #25 was functioning at 2000 hours on Thursday October 6, 2016. ESF functions to include division Chiefs were established but all positions did not have the department director in that position.

<u>Concern 2 – Department</u> directors need to consider the pending work schedule for all employees expected to operate in the coming days / weeks. Each department will need to consider daytime and nighttime operations and in comparison to the FEMA timelines.

G Forte - FIRE

<u>Concern 3</u> - Staffing of the EOC requires dedicated personnel that are of the full understanding of the tasks related to their department and have the ability to take actions on situations that could affect their and other departments as well. Personnel in the EOC need to have a strong control of the flow of information that come through the EOC and be able to recognize when the information flow is in jeopardy so they can make improvements.

Adams – Utility

Matrix

<u>Concern 4</u> – the Matrix is a living document and needs to be maintained regularly according to each department. It is updated in the spring of each year and contains names of all the employees in the city and their assigned areas of responsibility. If an employee leave the City after it has been updated, that change will not be reflected in the matrix document until the following year. People change positions, staff are promoted to higher positions of responsibility, and people move to other departments. The matrix is only as good as the last time it is updated.

Concern 18 – ADDED March 13, 2017 – (T. Greco)

"I believe this incident, like all incidents I've encountered can always be handle using the ICS system. As you know once understood, this system is the easiest and best way to plan, develop, and implement for any incident type. In the Fire service we train our people to have the minimum required training through FEMA, we also encourage our people to continue their training to expand in incident complexity... I've worked in several different positions from the bottom through type 4 IC, also being a trainee for IC-3/Division group supervisor..."

Customer Service representatives - Call Center

C Schweers – CUSTOMER SERVICE MANAGER UTILITY

Timeline of incidents and possible improvements:

<u>Concern 5</u> - (C Schweers) October 5th and 6th prior to the event we had a lot of miscommunication with employees leaving early since they were being evacuated in certain areas. We had no understanding on what the process is for getting paid when you had to leave to prepare for the storm. Not much communication was done for employees because supervisors had no idea how it worked. We should have a policy in writing if you leave due to evacuation that you need to use sick time or vacation time.

(Adams) Employees who were committed to the event felt they were needing to evacuate with the hurricane approached. They felt they were supposed to leave but were in conflict between job and family. They would like clarification on housing family members in their areas of work or facility if they have no other options. Shelters for families should be given more consideration as to who and where this could improve.

<u>Concern 6 and 7</u>- Call Center was stationed at the fire station and we needed help feeding the staff members during the event, fire station had their own food but call center didn't have anything. Thought Parks and Recreation was supposed to help with that, they did after the storm since everyone worked the weekend but food should have been provided to those who were stuck at the EOC overnight. By the time we realized we didn't have food the stores had nothing.

October 8th and 9th:

<u>Concern 8 -</u> The call center needed more staff after the storm hit then we had available. After the storm hit, call volumes were high and other employees should have come in to help on Saturday and Sunday. We didn't get help offered until Monday. Our Matrix list needs to have more call center agents. We should have had the call center open for Urban forestry since we received so many calls about down trees.

Phone lay out - We did have issues with the layout of the phones. We switched the phones around so that we removed the options of what departments to go to. We wanted to make it easier for the residents to go straight to the next available representative. Since Customer Service was getting all the calls it would have been nice to have all of the customer service reps in code and urban forestry jump on and help us since most of the calls were related to urban forestry.

<u>Concern 9 -</u> (C Schweers) Trees Down - We had multiple issues with trees down and debris issues that no one was able to organize the calls that were coming in. Customer Service ended up asking Wendy in HR to help on Saturday to just form a list of the tree

calls coming in, but there was still a disconnection because we had no direction on who was handling what with the trees on power lines.

Then tree issues became bigger by Sunday and HR called in Debbie to help and Joan and we ended up having all inspectors go street to street to see what trees were out in the roads, meanwhile we already had a list for the day prior. We ended up doing a new list daily because public works was just going around and cleaning up but not following up and closing out anything we had on the list. We needed a better system of understanding what was done and what wasn't done.

G Forte – FIRE - Information that enters the EOC room has an origin from another starting point. Once the information is sent out to the field, it has reached its destination for action to begin. After the task has been completed by the field technicians, the information must be returned to the starting point so it can be closed out at the point of origin. With the orders remaining open, additional orders will fill the system unnecessarily creating duplicate and triplicate orders.

October 10th:

Concern 10 - Phone system went down, and the provider was down so IT had no way of helping. We moved the Call center down to the main EOC. When we showed up they first had no idea we were coming so we had to get with the head of the EOC to ask permission. Then while we were setting up we found out that all of the volunteers were answering the phones and they were giving out wrong information. The volunteers didn't understand that Palm Coast was there answering phones so they just kept directing people to call our number. We asked if we can take over the calls for them and the main EOC guy said no because they wouldn't get reimbursed. They then told us every call needed to be written on a sheet for the county to get reimbursement. Friction between Volunteers not knowing the City operation and were not willing to give up their positions in the Call Center to City Staff that had access to the City Computer system. We got to the point where any call the volunteers took we had to call each resident back to find out what the real issue was because they wouldn't get enough information for the residents that called in. Once we realized how crazy everything was getting Cynthia went back to the office and asked for more call center agents to see if maybe we can answer for calls so the volunteers would leave. I ended up getting three more people from building but it still didn't work because the call volume was so high.

When we were down at the EOC at the county there was a few people that suggested that maybe we consider working the EOC together since most of the calls that they received were the city of palm coast residents. The only way this would work would be not to have any volunteers and allow Customer Service to manage the whole phone system. The guys that managed it doesn't even handle a call center

<u>Concern 11 -</u> In the future we need to make sure we have a few different scripts ready for an event that happens so the phone system just switches over.

Pep System / Field Operations Challenges-

<u>Concern 12 -</u> After two days without power, the call center began receiving calls about the septic backing up into homes. It was the anticipation that when power was turned on to the areas with pep systems, the tanks would pump to the lift stations and the system would improve. Commitments from Florida Power and Light did not come to fruition which prolonged the assistance from outside sources. Initial discussion with representatives from FPL indicated power restoration was expected the areas in question within 48 hours.

Waste water Employees were taken off normal duties to train other City employees to bring them up to speed on the operation. People were clearing work orders that should have or could have been out in the field. This took significant time away from the operations. Logistics for the Tank Trucks that arrived did not have directions. There was an overwhelming group of tankers reporting and limited personnel able to receive them. Personnel considered non-essential were not utilized at the onset of post hurricane. Personnel were stretched thinly in all areas of the Utility department. Many were overworked and others overwhelmed with the needs of the system

Communications

Critical information dispensing

MC Beadle - FIRE

Communications.

<u>Concern 13 -</u> Past practice of having fire department personnel establish City communications after the storm worked well. By 20:00 hours following the event, crews had made a pass on City streets and had an initial accurate count and location of those areas of most need.

H.A.M.M. radio operators were to be assigned to 2 City fire stations and they did not show up. After speaking with the President of the ARIES group, Mr. Steven Palmer, he advised that the members assigned decided to evacuate leaving a void in the operation. This void was seen in Palm Coast.

Sharing information

G Forte - FIRE

<u>Concern 14 -</u> The 800 Mhz system had a system upgrade earlier in the year. All FIRE portable radios were sent to the county for the software upgrade and the added group system was included. This feature was put in place in the event the radio towers experienced a failure and we could not communication with other towers in the system.

To use this feature, the radio group has to change as well as the channels. This is not customary for our department. The day before the hurricane, it was found that 6 Fire radios did not have the FLAGER CONVENTIONAL channel from the system upgrade. In order for the FLAGCON to work, the users need to switch groups not just change the channels on the upper key pad. There was no training done for this operation and direction was give as a last moment for the operations. Since this was the first time the system required fire personnel to go to another talk group, an email was sent on 10/6 to all fire personnel with instruction as to how to maneuver in the talk groups.

Concern 15 – Evacuation Zones. Prior to the storm's arrival, notification from the Flagler County EOC was advising mandatory evacuation on the barrier island and initially. As the storm grew closer, areas of the "C" and "F" section and Grand Haven were also included in the mandatory evacuation. As the information was being disseminated, confusion between where Flagler County Evacuation Zone **B**, which interlaces with the Palm Harbor subdivision, and waterway areas of the "C" and "F" section were affected. Flagler County Evacuation Zone **D** is also part of the Palm Harbor subdivision but does not have direct waterway access. The two zones encompass the entire Palm Harbor subdivision but the evacuation order split Flagler County Evacuation Zone **B**.

GO / NO GO for crews to work in the weather

<u>Concern 16 -</u> When the winds reach a sustained point of 40 miles per hour in land, all crews were to report to their assigned housing locations and wait out the event. Supervisors made final sweeps prior to the winds reaching that point.

When the winds subside, it is the command staff that determines the ability for the crews to enter the field. That is determines by having select supervisors perform a "First Look" to give an initial assessment for major road access and areas of major damage to be addressed first. Staff is concerned that they are being given the directive to start field work in an unsafe environment.

Coordination for Shelters

<u>Concern 17 -</u> City Shelter Plan - FPC HS, building 700 is <u>not</u> currently a designated shelter for City Employees as a family shelter. This was set up many years ago through Flagler County Emergency management as a family shelter for government employees. It was intended to keep City employee families isolated from general population during a disaster in case people wanted information from those family members that they did not have. The 700 building plan was never activated since the plan was incepted. Because of the rotation of the principals and superintendents, this plan has fallen by the wayside.

Public Information and Employee Update

G Forte – FIRE

Information flowed well from the Communications Division to the incident managers. The information was detailed and timely. It was not until after October 12th did I realize the information did not go to all city employees just the management team.

Logistical Support

G Forte – Staffing of the County EOC was 24 hours the first two days. Lt Pattee and Jay Maher were the first to staff the Flagler County EOC during the initial impact. It was offset with Lt Ascone and Lt Berryhill during the night shifts in the days that followed. The EOC needed a dedicated city representative for 24 hour periods for many days that followed. We need to consider several representatives for that position in the future.

Beadle –Fire Spare tires and part for apparatus after the storm passes. Most damage to vehicles occur with tires and punctures. Carb cleaning kits were purchased to aid in maintenance during the storm

B Falgout – ADMINISTRATIVE SERVICES / ECONOMIC DEVELOPMENT

For Additional Consideration:

Coordination on Debris Removal/Contractors/Monitors

Improved planning and coordination for City Property Damage Assessment

Advanced planning and coordination on food purchasing/preparation for City employees working event

Additional support staff needed for information entry, tracking, close out during and shortly after event (needs to be different personnel than those doing intake)

Need application to track, dispense, and close issues

Generator for City Hall as a Critical Facility

Additional portable generators for all street lights

If event was longer, would need to plan better for administrative/customer service/professional staff shift rotation

Establish better coordination with FPL prior to event

Things that Worked Well: (Abreu)

- Morning update meetings
- Centralized work orders/communication through Customer Service
- Great relationship/teamwork between Code and Public Works
- Great coordination/cooperation with Utility for staff and trucks
- Finance waving the purchasing policy, within reason
- Having one point person in the field for communication and coordination of work
- The City having a FEMA consultant available
- Fleet Division was excellent in response needs of equipment rentals & purchases

N Abreu – PUBLIC WORKS STREETS OVERVIEW

Needs Improvement:

Communication

- Proper direction for Kronos time keeping of FEMA activities
- Incoming telephone calls to Customer Service more details collected for work orders
 (i.e. on power line? Call FPL; downed tree PW needs to determine which crew to send;
 tree across the road?; life threatening?)
- Need another way of tracking work orders other than a spreadsheet (i.e. GIS locating on same street so no duplicate work orders for same street are issued)
- Too many calls were directed to PW Streets Supervisor for assistance. Once calls were centralized to Customer Service it worked well.

• Too many calls from Flagler County EOC directly to PW Manager. Needed to have one point person for City EOC.

<u>Paperwork</u>

- Refresher direction on proper paperwork requirements (which ones to complete), days before the event not months
- Clarification if to use the D-214 form or not
- First day of FEMA paperwork would be helpful if consultant could be there to review paperwork coming in, to catch data that should or should not be collected
- Suggestion in regards to paperwork: The City make up their own forms, for ease of use and clarification of what data is to be collected in the field
- More clarification on if an after-the-fact Emergency Purchase Oder must be input into the system, when invoice is over \$750. Conflicting instructions were given.

<u>Other</u>

• Each Manager of City facilities needs to evaluate and report their facility for damages

RECOMMENDATION

Recommendation 1 - I recommend that all City Directors be assigned to the first operational period with their primary representative at the City EOC to begin emergency operations. This will allow for the department directors to establish the needs of the department with full authority to make any and decisions. They will also have an opportunity to assess the representative during this operational period. (Assigned to Fire Department, Update CEMP)

Recommendation 2 - 12 hour activity shifts for fire personnel were established four days prior to land fall. I would recommend that the City employee be available for 12 hour staffing prior to and after the event to coincide to the hours regulated by FEMA during the event. (Assigned to Finance Department, Clarifying Shift/Reporting Requirements)

Recommendation 3 -It is recommended that each department that is needed in the EOC establish several consistent members to be ready to staff the EOC and they are given the authority with the responsibility to deal with all circumstances. (Assigned to Fire Department, Update CEMP / Assigned to All Departments, Update MATRIX quarterly)

Recommendation 4 - Filing the Matrix document out and updating each year with personnel and create a deeper pool for personnel to assist – Refresher training held each year with those employees expected to be in the EOC. Each department should have one person to keep the document updated with changes that occur throughout the year. (Assigned to Fire Department, Update CEMP / Assigned to All Departments, Update MATRIX quarterly / Assigned to EAT Team, Training Component)

Recommendation 5- Command staff will meet with the department directors prior to an event to establish who will or will not be needed during each aspect of the incident; pre arrival, arrival, and post arrival. (Assigned to Fire Department, Update CEMP / Assigned to HR, Update Personnel Policies regarding Essential Personnel)

Recommendation 6 – (Adams –Utility) Keep feeding the crews within each department area of responsibility. Crews are accustomed to reporting back to their own shops and the shops know how many personnel they are to account for. When crews were taken out of their home base, they did not get meals at times and the main feeding location did not have enough food to sustain meals for all. Crews that will be assigned to other areas should be reassigned to that department logistically so they are accounted for. (Assigned to Admin & Eco Dev, Update MATRIX to identify responsible for City Hall feeding, Assigned to Public Works, Update MATRIX to identify responsible for PW feeding, Assigned to Utility Department, Update MATRIX to identify responsible for UTIL feeding)

Recommendation 7 - (Adams) Engineers that were assigned to utility have been reassigned to City Hall in Community Development. They were utilized in the past to

assist with cooking and feeding. Call on CD to possibly assist with Canteen assignments if the engineers are not committed with recovery. (Assigned to Utility Department, Update MATRIX to identify responsible for UTIL feeding)

Recommendation 8 – Expand the matrix. The customer service section / call takers is limited to the customer service department. Advance the customer service section to double the amount of available people that can be trained quickly on the call center operation. Staffing will come from non-assigned personnel who are not committed to field operations. Human resources and Cynthia Schweers can develop the criteria to expand the call center. This expansion must include not only day shift, but night shift as well. (Assigned to HR, Update MATRIX to identify others to support / Assigned to EAT Team, Hold Annual Training)

Recommendation 9 – the call center was overwhelmed with repeated calls for the same location. Calls were being logged on an excel spread sheet and work orders were also being generated. We need a better tracking system for trees down, signals, powerline down on trees. The city needs to develop a seamless program that will do the following:

- A. Call center receives a call from a citizen or from field personnel it is logged into the system as location/address and the situation, date and time, name of the caller. The call is color coded Red.
- B. The call is logged into the system that can be accessed by the field personnel. When the field personnel receive the call, the color code changes to yellow.
- C. When the call has been finished by the field personnel it is considered cleared, it is reflected in the system as green. (Assigned to IT and Customer Service, Investigate Software and Technology Solutions / Assigned to Fire Department, Update CEMP and MATRIX to include dispatch roles for functional areas)

Recommendation 10 – Initiate discussions with the Flagler County Emergency manager to develop a plan for corrective action to separate the county call takers from the city call takers. Information Technology would need to be in the meeting to discuss forwarding city phone numbers to an outside agency. (Assigned to IT, backup phone system to ensure continuity of call center at City Hall location / Assigned to Fire Department, coordinate with Flagler County EOC on corrective action plan)

Recommendation 11 – Although it is difficult to completely preplan an event, scripted responses should be developed and available for general use and reviewed after each event. (Assigned to Utility Customer Service, develop scripted responses and update annually)

Recommendation 12 – Utility has developed a list of recommendation that address several areas of the PEP system

- 1. Looking at Grants for Power units to supply electricity to PEP tanks and lift stations. (Assigned to LMS Group, continue to pursue grant opportunities)
- 2. Training for other City employees should take place during winter months when the system will not be in the hurricane seasons. Utility crews can develop an emergency response group that will have a general understanding of what needs to be done during a disaster and can quickly adjust to the other department needs. (Assign to Fire Department, Expand MATRIX to identify additional people / Assign EAT Team, develop and hold annual training / Assign Utility Department, develop and hold annual training)
- 3. A Utilize other City department supervisors and train for staging and shuttle operations through Incident Command system. (Fire Department) officers can easily adapt to the operations with the training already obtained through National Incident Management System (NIMS). Develop a program that will manage Tankers or other large vehicles if the City needs them in other areas. (Assign to Fire Department / Utility Department, update MATRIX to identify individuals and offer training)
 - B Create a step up ordering process when power is not restored in areas of PEP systems.

Order 5 septic tankers within 24 hours of no power.

Order another 5 tankers at the end of 36 hours (10 Total).

Order another 5 tankers at the end of 48 hours (15 total). (Situational)

- 4. Utilize administrative assistants as part of the immediate response. They should be considered essential employees. Utilize Finance staffing be placing them in different departments to start FEMA tracking even before the hurricane hits. They can go over the D-214 usage and tracking time. (already addressed)
- 5. Identify City employees that can work in different areas of the City functions from Staging, Managing documentation, basic assignments (pumping sewer, powering PEP, tree cutting, heavy equipment, etc.) before the events occur. (already addressed)
- 6. (C Schweers)We also need a system for pep calls and sewer backing up. Having a system that make it easier for the customer service reps and also the field techs. We need a system that once the request is submitted we have admin on the other side doing the dispatching to field techs or crews and also closing them out so we prevent duplicate requests. (Forte this may possibly work with recommendation 9.) (already addressed)
- 7. Work with FPL to identify critical PEP areas for power restoration (Assign to IT-GIS, coordinate with FPL to identify critical PEP areas for power restoration)

Recommendation 13 – Work with County Radio Staff to develop plans for alternative communications response. (Assign to Communications Team)

Recommendation 14 - Recommend yearly training in the spring to review the radio groups and the channels that are contained within each groups. Radio Communications channels within each of the departments is not a challenge. Communications between divisions continues to be a challenge at times. Departments are accustomed to using their regular form of communications whether it is a radio systems, cell phones, or no phones at all. Standard radio traffic has been moved from City Wide 1 to department talk around channels. We have to build the communications system out so Streets and utility can readily communicate with code, building and Stormwater. If the radios are not used as a normal part of daily activity, it will not be easily used during a disaster. (Assign to Communications Team / EAT Team to coordinate, develop and host annual training)

Recommendation 15 – Direction for evacuation for storm surge comes from the National Hurricane Center based off storm surge modeling. The modeling takes current conditions and overlays expected direction and barometric pressure to forecast the possible height and duration of the storm surge. This information is sent to the Flagler County Emergency Operations Center for dissemination to the community. The behavior of the residents of the City of Palm Coast has always been a letter connotation as to the subdivision they reside in. Legal description identifies Palm Harbor as the region. Residents are accustomed to "C" and "F" Section. There are several recommendations that can eliminate future confusion and when working with the Flagler County Emergency Manager, we can develop a universal plan to address this concern.

- A. Streets signs can be placed in key entrances to subdivisions that state "EVACUATION FLOOD ZONE B" with the Gold color it represents. The signs do not have to placed on every street, just main thoroughfares that lead to the subdivisions.
- B. Street sign stickers can be added to all the street signs in the Flagler County Evacuation Zone **B**, **C** and **D**. This would be more time consuming but will easily direct residents to their closest street sign to find the color of their evacuation zone; Gold for zone **B**, Yellow for zone **C** or Lime/green for zone **D**. (Assign to Fire Department, Coordinate with Flagler County EOC and develop plan)

Recommendation 16 – The clearance to go out in the field needs to come from each department only after Command Staff Operations has made the determination it is safe to do so. Information for this determination will come from weather monitors and commanding officers in the field. (Predetermine who will be identified as who will be providing the information for the clear/ not clear) (Assign to Fire Department, Update CEMP Plan)

Recommendation 17 – Meet with Flagler County Emergency Management to discuss concerns and option to either continue with the plan to keep city employee families separate or include them in the general population for evacuation. The former will cost the City in staffing of essential personnel and time coverage. Consideration should made to include the new Community Center under development to include the City employee families. (Assign to Fire Department, coordinate with Flagler County EOC)

Recommendation 18 ADDED March 13, 2017 – (T. Greco) Below is a recommendation from a firefighter with extensive background for the Incident Management System used by the fire service nationally.

"...developing a "All Hazards Incident Management Team" this would be a team that we could use during any incident within the City of Palm Coast, in the future we could even possibly partner with other agencies to make a true "All Hazards Team." Starting this team should consist of committed personnel that are willing to mentor others, as is said, what good is knowledge if it isn't passed on. These individuals would need to be trained in all aspects of the ICS system with the proper training classes and have plenty of hands on time to understand how the process works. To help prepare and train, the city could use the team to plan and execute for regular events that are hosted throughout the year."

Firefighter Greco has been involved in several major incidents that utilize the National Incident Management System (NIMS) and his suggestions for a group that could be embedded in the EAT team for continually challenge the training each year for all employees. (Assigned to EAT Team, comprehensive training program related to emergency response and recovery)

Recommendation 19 – Generator for City Hall (Assigned to Infrastructure Team, Include in CIP)

Recommendation 20 – develop City specific work logs for employees and training (Assigned to Finance Department, annual training)

Recommendation 21 – obtain technology to record geolocations on pictures captured during emergencies (Assigned to IT Department, investigate and research)

END REPORT

Follow up on the report.

Assign personnel to oversee specific aspects of the report to complete details.

Identify categories that the recommendations need to be placed into.

- A. MATRIX staffing with Cynthia, PEP system, Tanker structuring
- B. Food Supply

Technology service for performing tasks, with updates. To be utilized on a day to day basis but be able to support a large scale event.

Communications 800 systems. Training and utilization.

City Hall Facility operation

Second Quarter review.

Falgout, Forte, Cullen, Schweers, Ashburn, Viscardi, Finance

Training and FEMA NIMS Greco and Debbie