

Hurricanes Helene and Milton After-Action Report

Lee County, Florida

June 2025





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Handling Instructions

The Lee County Hurricanes Helene and Milton After-Action Report identifies areas of strength and opportunities for improvement based on the lessons learned from Lee County's response to Hurricane Helene and Hurricane Milton. The analysis outlined in this report represents the best identified practices and areas of improvement.

The information outlined in this report is current as of the date of publication, July 2, 2025.

Input for this report was sought from and provided by Lee County personnel, mutual aid responders, and private sector and non-profit stakeholders who supported emergency response activities.

For more information about this report, please utilize the following points of contact:

Lee County Office of Communications and Community Engagement

LeeCountyPIO@leegov.com

www.leegov.com

Benjamin Abes

Director, Lee County Public Safety



Acknowledgements

The 2024 Hurricane Season presented unique challenges for both Lee County and the State of Florida. While Hurricanes Helene and Milton did not impact Lee County as severely as other parts of the State, the challenge of subsequent storms served as a stress test of Lee County's capabilities and resources. The back-to-back nature of these hurricanes strained local and state resources, limiting available mutual aid, and underscoring the need for sustained readiness across multiple operational periods.

Since Hurricane Ian, Lee County has taken significant steps to strengthen its preparedness and response by developing new procedures, enhancing operational capabilities, and adjusting protocols to better serve the community's evolving needs. These improvements are evident throughout this After-Action Report.

The *Lee County Hurricanes Helene and Milton After-Action Report* was produced through a collaborative process that incorporated feedback from response and recovery stakeholders and a comprehensive document review. This process identified key strengths and opportunities for improvement across the County's hurricane response operations.

The mission of Lee County Emergency Management (LCEM) is to collaboratively manage emergencies that impact Lee County. Lee County extends its sincere appreciation to all its partners who contributed their insights and expertise as part of the After-Action Review process. This participation is invaluable in enhancing the County's ability to prepare for, respond to, and recovery from future disasters.



Executive Summary

In early Fall 2024, Lee County (the County) and the State of Florida (the State) experienced two significant hurricane impacts within close succession: Hurricane Helene in late September, and Hurricane Milton in early October. While the impacts to Lee County following Hurricane Helene were minimal compared to Hurricane Milton, the quick succession of the two storms led to a complicated overlap of planning, response, and recovery operations, as well as a stress test of the County's Comprehensive Emergency Management Plan (CEMP) and activation procedure in a short timeframe.

Since Hurricane Ian in 2022, Lee County has undertaken significant efforts to incorporate lessons learned and enhance emergency preparedness and response operations. While this After-Action Report (AAR) does not serve as a comparative analysis between Hurricane Ian and the 2024 Hurricane Season, it provides an assessment of the County's planning and operational performance during the 2024 season. The report identifies key successes and areas for improvement while also demonstrating how lessons from Hurricane Ian were applied to strengthen response and recovery capabilities.

The AAR is organized by the following sections:

- Introduction: Purpose, Approach and Methodology
- Incident Overview: Event Summary, Event Timeline, Response by the Numbers
- Response Analysis: Hurricanes Helene and Milton, Hurricane Ian Improvements
- Conclusion

The AAR review process addressed the following focus areas with Stakeholders:

- Command Staff
- Community Coordination Team
- Community Engagement
- Debris Operations
- EOC Activation Readiness
- Finance and Administration
- Lee County Department of Transportation
- Logistics
- Municipal Liaisons
- Operations – Emergency Services
- Operations – Infrastructure



- Operations – Sheltering
- Planning Section
- Planning Section – Recovery

During the review process, it was evident that Lee County had made significant investments into its emergency preparedness and response structure and remained dedicated to supporting the Lee County community before, during, and after Hurricanes Helene and Milton.

Observations

The following are observations of the County's response and recovery actions before, during and after Hurricanes Helene and Milton:

Observation 1: Community Coordination Teams (CCT) were deployed earlier and expanded their coverage beyond just coastal communities.

Observation 2: Municipal Liaisons noticed enhanced integration into County EOC operations.

Observation 3: GIS dashboards and mapping were effectively used in debris management and damage assessment operations to track debris locations, monitor tasking, and support real-time decision-making.

Observation 4: The County developed and utilized a new, comprehensive situation reporting format, called the Lee Common Operating Picture (LeeCOP).

Observation 5: Lee County established a Mass Care Hotline, providing a single-source resource for shelter staff to ask questions, share concerns, and make requests.

Observation 6: Across all phases of hurricane response, Lee County improved in public messaging.

Observation 7: Early coordination with debris vendors allowed for a more successful debris removal operation.

Observation 8: Staff reported that the EOC environment and culture had significantly improved from past hurricane seasons.

Observation 9: FDEM's new process for waterway debris removal resulted in challenges.

Observation 10: Lee County experienced increased challenges with debris and sand disposal on private properties and roadways.

Observation 11: Social media policies regarding what information could be shared to the public were unclear.



Introduction

The purpose of the Lee County Hurricanes Helene and Milton AAR is to evaluate the County's preparedness, response, and recovery efforts during the two storms; identify key strengths and areas for improvement; and, where applicable, document specific enhancements implemented following Hurricane Ian. The observations identified in this report are based on information provided by stakeholders who supported incident response and recovery efforts. Information collected in this AAR is intended to memorialize lessons learned, identify best practices, and support the County's readiness for future hurricane events.

This AAR is not intended to include all operational or departmental challenges and does not document County department-level issues and corrective actions taken during or after these events.

Approach and Methodology

This AAR was developed using three primary information gathering methods: document review, in-person and virtual interviews, and supplemental research.

DOCUMENT REVIEW

Plans and operational documents from Hurricane Helene and Hurricane Milton, including Emergency Operations Center (EOC) Activation Schedules, EOC Briefings, WebEOC Survey Responses, Flash Reports, and Lee Common Operating Pictures (LeeCOPs) were analyzed to better understand the County's EOC structure, operational details, planning assumptions, recovery activities, and coordination processes.

Key findings were recorded in a customized Document Review Matrix. This included identifying operational timelines, major action items, milestones, and important strategies directly from the documents, without using any outside sources. The review captured both the operational framework, and the specific tactical steps described in each document. When available, information on damage assessments, recovery strategies, and phased recovery actions was also highlighted. This approach made sure that all findings were taken directly from the documents and organized clearly to support future analysis and planning efforts.

STAKEHOLDER FOCUS GROUPS

Over the course of one week, Hagerty Consulting, Inc. (Hagerty) conducted a series of 14 stakeholder focus groups to gather feedback and data from response and recovery partners across different functional areas, agencies, departments, and municipalities within the County.



Stakeholders were carefully selected and grouped according to key focus areas, ensuring that each interview addressed specific aspects of the County's emergency operations. Stakeholders who were unable to participate in interviews were provided the opportunity to contribute through written responses, helping ensure a comprehensive and inclusive review process.

The 14 focus groups are listed below:

- Command Staff
- Community Coordination Team
- Community Engagement
- Debris Operations
- EOC Activation Readiness
- Finance and Administration
- Lee County Department of Transportation
- Logistics
- Municipal Liaisons
- Operations – Emergency Services
- Operations – Infrastructure
- Operations – Sheltering
- Planning Section
- Planning Section – Recovery

SUPPLEMENTAL RESEARCH

Additional research was conducted to ensure accurate reporting of meteorological data and timeline dates, and for the inclusion of details not found during the document review or stakeholder interviews. Data collected was used to verify operational developments and validate the incident overview, through the inclusion of National Weather Service (NWS) Post Tropical Cycle Reports, Lee Board of County Commissioners (Lee BOCC) Press Releases and outage reporting from utilities.

Incident Overview

Event Summary

The 2024 Atlantic hurricane season brought significant impacts across the Southern and Eastern United States (U.S.), becoming one of the most notable and impactful hurricane seasons to date. With 18 named storms across the season, including five major hurricanes, significant human and financial loss were seen across the U.S. During this season, three hurricanes made landfall in the State over a three-month period, underscoring the importance of preparedness and emergency response. Of the three storms to impact the State during this season, two storms caused significant challenges for Lee County. Hurricanes Helene and Milton impacted the Florida Gulf Coast within a two-week timeframe, leading to unique challenges associated with prolonged response efforts due to back-to-back consecutive storms.

Hurricane Helene

PRE-LANDFALL

September 23, 2024

On Monday, September 23, 2024, the National Oceanic and Atmospheric Administration's (NOAA) National Hurricane Center (NHC) released a [Potential Tropical Cyclone Advisory](#) identifying Potential Tropical Cyclone Nine southwest of the Cayman Islands in the Caribbean Sea. In a subsequent advisory released later that evening, the NHC forecasted that the storm was expected to become a hurricane by Wednesday, September 25.

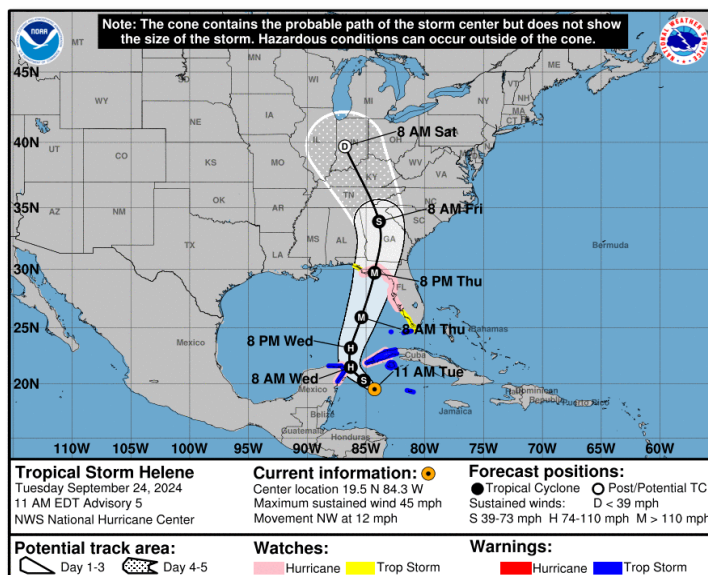


Figure 1: Tropical Storm Helene Storm Track, Source: NWS NHC

At 11:00 a.m., Florida Governor Ron DeSantis issued [Executive Order \(EO\) 24-208](#), later amended as [EO 24-209](#), which declared a State of Emergency for 41 counties in Florida, including Lee County.

September 24

On September 24, one day after the initial advisory was issued, Tropical Depression Nine became an organized system and was classified by NOAA and NHC as Tropical Storm Helene. Following the State's

EO, Lee BOCC held an emergency meeting and voted to declare a State of Local Emergency (SOLE) ([RES 24-09-52](#)) for Lee County. Following this declaration, LCEM began County-wide calls with local jurisdictions to identify and address any unmet needs and begin gathering situation reports. These coordination calls continued twice daily through Hurricane Milton recovery.

President Biden declared a pre-landfall Major Disaster Declaration for 28 counties in Florida, including Lee County. The Declaration authorized the coordination of relief efforts by the Federal Emergency Management Agency (FEMA), including opening opportunities for federal funding for certain eligible costs for emergency protective measures under the Public Assistance (PA) program, including evacuation and sheltering operations.

The Florida Division of Emergency Management (FDEM) activated the State Emergency Operations Center (SEOC) to Level 1, initiating resource staging through the State Emergency Response Team (SERT). This activation mobilized personnel, equipment, and supplies across multiple state agencies, including the Florida State Guard, Florida Department of Law Enforcement, Florida Fish and Wildlife Conservation Commission, and Florida Department of State.

A Hurricane Watch was issued for areas in the Western Coast of Florida; however, Lee County was not included in the Watch.

September 25

Following classification, Tropical Storm Helene continued to strengthen and track North towards the Gulf of America and Florida's Gulf Coast. By September 25, the storm had strengthened into a Category 1 Hurricane, exhibiting sustained winds of 80 miles per hour (mph). LCEM activated the EOC to a Level 2 Activation, although storm monitoring began by LCEM earlier in the week. Lee County began sandbag distribution and resource staging ahead of storm impacts.

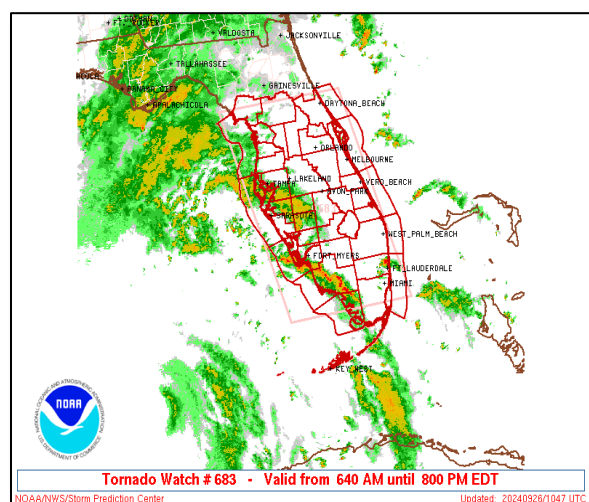


Figure 2: Tornado Watch #683, Source: NOAA

September 26

At approximately 6:40 a.m. on September 26, the National Weather Service (NWS) Storm Prediction Center (SPC) issued a [Tornado Watch](#) for much of the State of Florida, including Lee County. Over the next 12 hours, Hurricane Helene continued to intensify into a Category 4 Hurricane as it approached Florida's Gulf Coast, with sustained wind speeds reaching 140 mph. Throughout the day, many jurisdictions across Lee

County announced school and government closures for September 27 as impacts from Helene began to be seen across the region.

In anticipation of landfall, Emergency Management Offices across the State began opening shelters to support community members in regions forecasted to be most heavily impacted. As there were no voluntary or mandatory evacuation orders issued in Lee County for Hurricane Helene, LCEM did not open any shelters. Instead, LCEM opened two *Safe Havens* to provide a location for community members to visit should they feel otherwise unsafe during the storm. *Safe Havens* were opened at the North Fort Myers Recreation Center and the Estero Recreation Center. The County also provided free transportation to members of the community seeking refuge at a Safe Haven site.

Safe Havens

Safe Havens were a new sheltering concept used by Lee County in 2023. These locations were established to provide short-term refuge for individuals who felt unsafe sheltering at home or lacked access to an alternative safe location. While Safe Havens did not offer meals, they served as temporary, accessible locations where community members could seek immediate safety.

Lee County Emergency Medical Services (EMS) temporarily suspended normal operations to Boca Grande, Pine Island, Sanibel, and Captiva in the early afternoon, as winds reached unsafe operating speeds. The peak wind gust reported by the NWS in Lee County was measured at the Southwest Florida International Airport at 1:55 p.m. prior to landfall, reaching 63 mph.

LANDFALL

September 26

Hurricane Helene made landfall just after 11:00 p.m. on September 26, 2024, as a Category 4 Hurricane approximately 40 miles south of Tallahassee. The storm brought historic winds and storm surge across much of the state, with the highest surge levels recorded near the point of landfall. In Lee County, a peak storm surge of 5.12 feet was recorded in Fort Myers approximately 30 minutes after landfall ([Source: NWS](#)), and local weather stations measured up to 5.8 inches of rain in some areas. As a new initiative during this storm season, Lee County deployed 8



Figure 3: Lee County DPS Boca Grande Weatherstem Unit
(Photo courtesy of Weatherstem).

Hohonu Tidal Gauges for increased situational awareness and to support critical decision-making surrounding road accessibility and school closures.

POST LANDFALL

September 27

Hurricane Helene had the potential to impart significant impact on Lee County. However, due to the path of the storm and where it eventually made landfall, the County was fortunate that impacts were limited. Additionally, all watches and warnings issued by the NWS for this event ended or were expired early. Because of this, life safety operations began on the evening of September 26 as the winds subsided, and many other county operations were able to resume normally on Friday, September 27. The following County operations were resumed or completed:

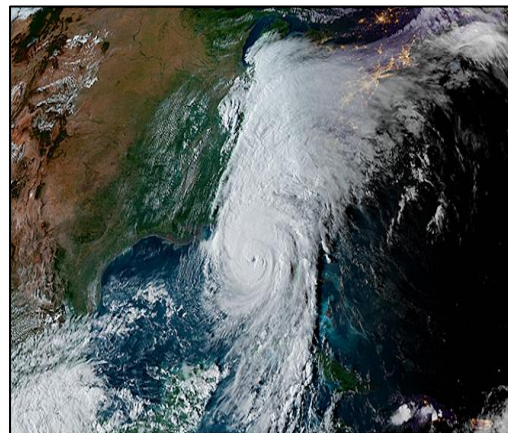


Figure 3: Satellite Image of Hurricane Helene,

- Waste Management Services resumed in all areas of Lee County except Sanibel Island.
- Safe Haven operations were closed by 1:30 p.m., and facilities were returned to normal operations.
- Search and rescue operations were completed County-wide as of 10:00 a.m. on September 27.

September 28

At 4:00 p.m., the Lee County EOC deactivated after 80 hours of operation. At the time of deactivation, all major roadways were clear of debris and flood impacts. An estimated 50,000 cubic yards of construction and demolition debris were collected. Additionally, all regional airports had resumed normal operations for commercial and cargo flights.

Hurricane Milton

PRE-LANDFALL

October 5

The FDEM State Watch Office began monitoring the formation of a new tropical disturbance developing in the Southwestern Gulf of America on October 5. By the afternoon, Tropical Depression 14 organized into Tropical Storm Milton, with a trajectory towards Florida's Gulf Coast and an expectation to become

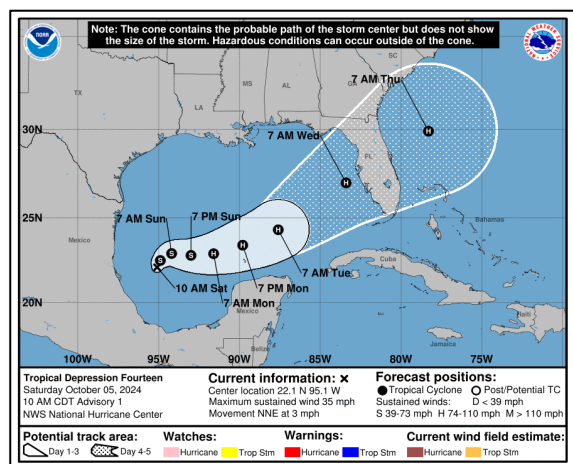


Figure 4: Tropical Depression Fourteen, Source: NWS NHC

Commission began staging high-water vehicles, air assets, and other equipment across the State to support response operations, and State Urban Search and Rescue (USAR) Task Forces were activated, along with other state, federal, and military resources.

By 2:00 p.m. on October 6, Tropical Storm Milton reached hurricane strength, and was located 900 miles Southwest of Tampa, FL. The storm was strengthening quickly and continued to intensify as it approached land. Lee County BOCC declared a State of Local Emergency ([RES 24-10-15](#)) in anticipation of impacts to the County.

October 7

Hurricane Milton showed historic strengthening as it intensified from a Category 1 Hurricane to a Category 5 Hurricane within a single day. The storm continued to gain and lose momentum sporadically, although forecasters maintained the classification of Hurricane Milton as an extremely dangerous storm. Hurricane Milton became one of the strongest storms since the NHC's records began in 1958.

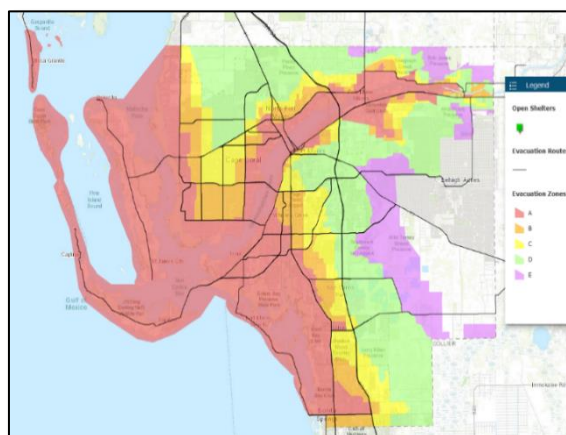


Figure 6: Lee County Evacuation Zones, Source: Lee Prepares Dashboard

a major hurricane. Much of the State was still managing response and recovery operations from Hurricane Helene as the threat of new tropical weather loomed. As of October 5, 760 Florida residents were still without power. Governor DeSantis issued [EO 24-215](#), declaring a State of Emergency in 51 counties, including Lee County.

October 6

The SEOC remained at a Level 1 activation between Hurricane Helene and the development of Tropical Storm Milton. Many state agencies began preparing again for response and recovery operations ahead of additional impacts. The Florida Fish and Wildlife Conservation

The Lee County BOCC issued [Resolution 24-10-16](#) at 12:00 p.m. calling for mandatory evacuations in Evacuation Zones A and B, as well as those in mobile or manufactured homes. The total population residing within these zones was approximately 416,000. Three general population shelters opened on October 7 at 3:00 p.m. for evacuated residents in addition to one special medical needs shelter. In addition to opening shelters, transportation fees were suspended by Lee County Transit (LeeTran), and free transportation to shelters was offered to residents. Coordination between the Lee County Visitor & Convention Bureau and hotel partners took place to secure accommodations and support the relocation of displaced guests within the evacuation zones. Tolls were also suspended by LeeWay, Lee County's Toll Service, countywide.

Lee County distributed sandbags to residents starting, Saturday, October 5 via public safety agencies and had distributed approximately 50,000 by 12:30 pm on October 7. Distribution ended at 4:00 p.m. due to weather complications.

October 8

Throughout the day on October 8, various forecast products were issued by the NWS ahead of landfall.

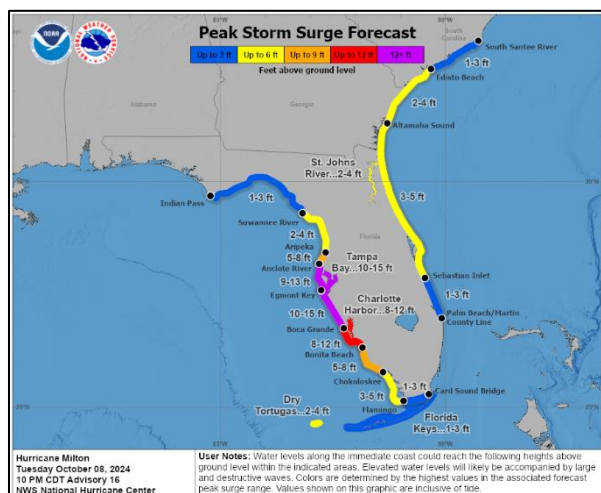


Figure 7: Storm Surge Forecast, October 8, Source: NWS

Lee County Fire Branch maintained operational readiness by requiring personnel to submit status reports, monitoring rising call volume, and preparing 2 six-person swift water rescue teams. The Lee County Law



Figure 5: Hurricane Milton Advisory 8, Source: NWS NHC

A Hurricane Warning and a Storm Surge Warning were issued for much of the Western Florida Coast, including Lee County, in anticipation of dangerous and life-threatening forecasted storm surge up to 12 feet and expected hurricane conditions. Wind speeds increased throughout the day, putting public safety personnel at risk. Once winds surpassed 45 mph Lee County EMS and Fire Districts coordinated and suspended all field operations in accordance with safety protocols. During this pause in service, all incoming emergency calls were placed into a triaged queue to be addressed once conditions allowed. Despite the suspension of field response, the Lee

Enforcement Branch was also undergoing preparations, determining if preemptive road closures were necessary, staffing bridges and barricades, and supporting evacuation operations.

Infrastructure across Florida began closing in anticipation of the storm. Safety messaging was publicly distributed by Lee County Electric Cooperative (LCEC) to encourage the public to maintain safe practices with power loss and rising water. Additionally, LCEC suspended daily operations for October 8 and 9, and conducted emergency operations as it was safe to do so. LeeTran suspended services on the evening of October 8. Water service was turned off for Fort Myers Beach to encourage evacuations, a successful tactic used during Hurricane Ian. Additional general population shelters opened in Lee County, bringing the total shelter count on October 8 to 14, including 13 general population shelters and one special medical needs shelter. A full breakdown of shelter operations and census data can be found in the [Mass Care](#) section of this report.

October 9

On October 9, Lee County began to experience the first significant weather impacts ahead of landfall. [Tornado Watch #690](#) was issued for much of South Florida. The NHC released an additional public advisory at 11:00 a.m. on October 9 indicating a threat for tornadic supercells across Southern Florida as Milton continued to approach land. At approximately 12:15 p.m., a tornado touched down in the Fort Myers area, tracking 11.29 miles. The tornado was rated EF-2, with estimated peak winds of 132 mph. Fortunately, no injuries or fatalities were attributed to this tornado. Two other tornadoes touched down in Lee County, including an EF-0 in Punta Rassa and an EF-1 near Buzzard Bay. Over 50 tornado warnings were issued across South Florida, including three in Lee County. Additionally, in response to anticipated storm impacts, the Southwest Florida International Airport (RSW) announced that the airport will remain closed through October 10.



Figure 8: Tornado Watch #690, Source: NWS SPC

As landfall loomed, the public was continuously searching for information from the County. The Community Engagement team fielded social media inquiries, hosted daily media briefings, and ensured the County website remained up to date throughout the storm. The County website received over 25 million visits by October 9, and the Emergency Information Hotline received over 1,800 phone calls.



Lee County Fire and Law Enforcement Branches remained on standby for response and recovery while waiting for weather conditions to clear. Both Lee County Fire and Law Enforcement Branches made requests for additional resource deployments following the storm to support search and rescue, wellness checks, and other emergency operations. As of 3:00 p.m., Lee County's shelter population reached over 9,000 residents with a total of 15 shelters open. Additional requests for water and Meals Ready to Eat (MRE) were submitted to the State. In anticipation of resident needs following the storm, the County began evaluating locations to establish points of distribution (POD) for commodities such as food, water and ice.

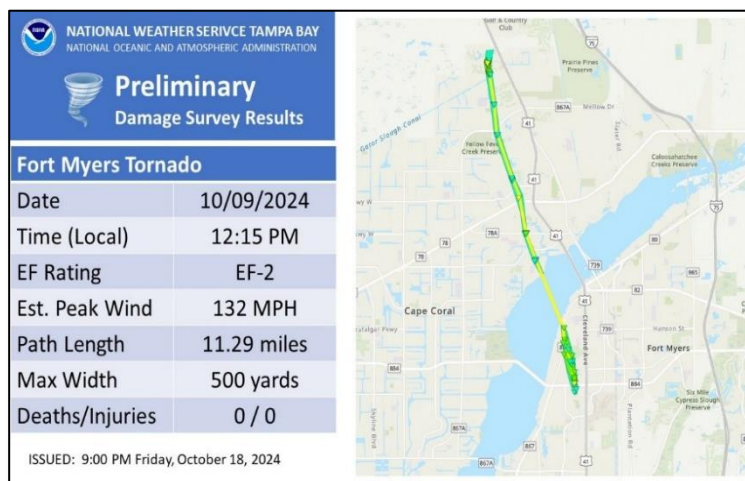


Figure 9: Fort Myers Tornado Preliminary Damage Survey, Source: NWS

LANDFALL

October 9

Hurricane Milton made landfall near Siesta Key at 8:30 p.m. on October 9, 2024, as a Category 3 Hurricane. Maximum wind speeds were estimated at 120 mph at landfall in the strongest areas of the storm. Hurricane Milton became one of the strongest hurricanes to develop in the Gulf, with windspeeds reaching 180 mph. Although landfall was not a direct impact in Lee County, storm surge measurements taken at weather stations across the County indicated significant flooding impacts. A weather station in Captiva Pass measured 6.81 feet of storm surge, and a station in Fort Myers measured 5.72 feet.

POST LANDFALL

October 10

Although landfall had passed and the strongest part of the storm moved through the area quickly overnight, the County was still experiencing weather-related impacts into October 10. Gusty winds and continued rainfall hindered recovery efforts, damage assessments, and debris removal, and delayed the recession of flood

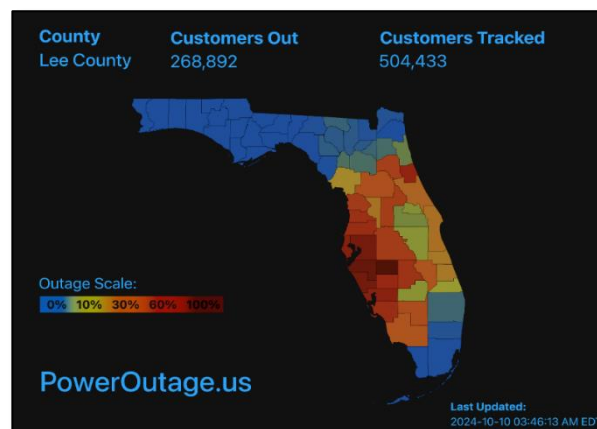


Figure 4: State of Florida Power Outage Data, Oct. 10; Source: PowerOutage.us



waters. Road conditions remained hazardous, resulting in additional delays for emergency service resumption and the delivery of essential supplies.

LCEM focused initial response efforts on clearing roadways, assessing barrier islands, repairing inoperable road signs and signals, and planning for community recovery. Additionally, priority was given to school properties and facilities to allow for a speedy reopening of schools. As emergency operations resumed, first responders conducted First Impression Damage Assessments (FIDA) to develop a preliminary estimate of countywide impacts. LCEC and Florida Power and Light (FPL) began assessing electric infrastructure and making repairs to critical elements. Airports in the region sustained some damage and remained closed, including Page Field and RSW. Water service was restored to the Town of Fort Myers Beach (the Town), however, due to the power outage, the Town issued a 48-hour boil water notice.

October 11

The evacuation orders in Lee County were repealed through Lee County [Resolution 24-10-23](#). As residents were able to return to their homes, LCEM began demobilizing and consolidating shelter resources. The County reduced efforts to two shelters, with a total occupancy of 219 residents.

By October 11, Lee County Law Enforcement and Fire Branches were operating at full capacity and continuing to support response and recovery, and the Community Development Team began conducting the Initial Damage Assessments (IDAs). Furthermore, RSW announced its re-opening beginning at 4:00 a.m.

LCEC and FPL both continued to work to restore primary circuits, requesting additional resources as needed and keeping the public informed on the estimated time of restoration and current outages through their websites. A breakdown of restoration timelines can be found in the [Infrastructure Section](#) of this narrative.

Roadways across the region continued to remain hazardous due to storm debris and sand. Sand became a significant challenge for the Florida Department of Transportation (FDOT) and Lee County Department of Transportation (LCDOT) to manage, particularly in the coastal areas and barrier islands, such as Boca Grande and Captiva. Other utility infrastructure across the County was also impacted by the storm. A significant water main break occurred on Gasparilla Island, which was expected to take up to 30 days for repair.

President Biden issued a Major Disaster Declaration for Hurricane Milton (DR-4834-FL), authorizing the provision of both Public Assistance (PA) and Individual Assistance (IA) for Lee County. This declaration facilitated access to federal resources to support the County's recovery operations and to assist residents impacted by the disaster.



EXTENDED RESPONSE AND INITIAL RECOVERY

The extended response and recovery from Hurricanes Helene and Milton continued in Lee County and the State of Florida for many weeks following the storm. As of the date of this report, the County is still under a State of Local Emergency for Hurricane Helene ([Resolution 25-06-27](#)) and for Hurricane Milton ([Resolution 25-06-28](#)). Throughout the recovery process, LCEM maintained consistent communication with local jurisdictions to ensure any unmet needs could be addressed and to provide any necessary support. LCEM reduced the EOC to a Level 3 monitoring activation on Friday, October 18, maintaining on-call personnel through the following weekend as response and recovery operations continued.

Impacts to Barrier Islands

Across the barrier islands, there was extensive damage to transportation infrastructure. In Boca Grande, large roadways and shoulders were washed away by flooding, heavy rainfall, and significant storm surge. LCDOT, in coordination with Ajax Paving Industries and Hardesty & Hanover, conducted work on the *Emergency Road Repairs on Local Roads on Boca Grande* project. The goal of the project was to restore major roadway access as quickly and safely as possible. During a two-month period, 20 roads were restored through resurfacing, grading, and the installation of new roads and pedestrian ramps. Additionally, all county owned storm drainpipes were desilted. Project work began on November 21, 2024, and was completed on January 31, 2025.

State and Federal Response

On October 13, Disaster Survivor Assistance Teams (DSAT) began canvassing the heavily impacted areas, including those with tornado impacts, providing recovery information and assisting residents with federal applications. Further canvassing continued after October 17 and the teams enrolled between 1,100 and 1,300 individuals for assistance during this period.

Following the FEMA IA declaration, Federal and State partners coordinated with the County to establish Disaster Recovery Centers (DRC). The first DRC was opened in Lee County on December 18.

Table 1: Initial Disaster Survivor Assistance Team Efforts

| Date | Visits | Applications for Assistance |
|------------|--------|-----------------------------|
| October 13 | 78 | 7 |
| October 14 | 86 | 27 |
| October 15 | 35 | 5 |
| October 16 | 540 | 22 |
| October 17 | 609 | 25 |

Source: Lee County Recovery Flash Reports



On October 17, the SEOC reduced their activation posture to a Level 2 activation.

Infrastructure

Both Florida Power and Light (FPL) and the LCEC worked tirelessly to restore power across the County and State following Hurricanes Helene and Milton. Both utilities brought support in from other states and counties to support damage assessment, critical repairs, restoration, and safety operations.

Table 2: Power Restoration by Date

| Date | Florida Power and Light | | Lee County Electric Cooperative | |
|------------|---|---|---|---|
| | Total Customers without Power (per day) | Percentage of Total Customers Without Power (per day) | Total Customers without Power (per day) | Percentage of Total Customers Without Power (per day) |
| October 9 | 5,940 | 1.9% | 11,910 | 5.4% |
| October 10 | 95,710 | 31.6% | 120,891 | 55.5% |
| October 11 | 51,210 | 16.9% | 64,524 | 29.6% |
| October 12 | 21,270 | 7.0% | 9,177 | 4.2% |
| October 13 | 4,930 | 1.6% | 3,696 | 1.6% |
| October 14 | 1,470 | 0.4% | 1,685 | 0.7% |

Source: PowerOutage.us

Debris Removal

The County began storm debris removal on October 14, using various resources to address impacts from Hurricanes Helene and Milton. For Hurricane Helene, Solid Waste handled most of the debris removal, in coordination with Crowder Gulf, Thompson, and WastePro, the County's debris removal vendors. Public drop-off sites were set up for vegetative, construction, and demolition debris, along with a separate site for household chemical waste. A summary of Hurricane Milton debris removal efforts is provided below.



Table 3: Hurricane Milton Debris Removal

| Debris Type | Total Cubic Yards |
|-----------------------------------|-------------------|
| Construction and Demolition (C&D) | 91,223 |
| Vegetation | 259,105 |
| Sand | 100,239 |
| Compact C&D | 74,697 |
| Total Debris | 577,201.5 |

Source: Lee County Hurricane Milton Debris Removal Dashboard

Current calculations estimate that the debris removal operations to date totaled approximately 15,805 loads and cost \$22,750,455.18.

Mass Care

Lee County's emergency shelters remained open until Sunday, October 13, with comfort stations opening throughout the County in the immediate days following. In support of mass care operations, Lee County's collaborative network of nonprofit organizations serves as valuable partners, playing a critical role in the overall success of these efforts. At the time of this report, many of these partners are still providing support to the residents of Lee County.

Table 4: Mass Care Operations by Date

| Date | Number of General Population Shelters Open | Number Special Needs Shelters Open | Shelter Census |
|------------|--|------------------------------------|----------------|
| October 7 | 3 | 1 | --- |
| October 8 | 12 | 1 | 3,035 |
| October 9 | 14 | 1 | 9,164 |
| October 10 | 5 | 1 | 373 |
| October 11 | 2 | 1 | 219 |
| October 12 | 1 | 0 | 48 |
| October 13 | 0 | 0 | 0 |

Following the shelter closure on October 13, Transitional Sheltering Assistance (TSA) was approved for the County through FEMA, which opened an opportunity for continued support for displaced residents.

The County determined that although impacts in some areas were severe, the widespread impact severity did not necessitate any Points of Distribution (PODs) in the County. Instead, Community Coordination Teams were established and deployed to assess the needs of residents, provide critical support, and

share important recovery information with residents. Community Coordination Teams visited heavily impacted areas to determine unmet needs and establish Comfort Stations. Five comfort stations were initially planned, but only three opened in Boca Grande, Pine Island, and Captiva, as water, wastewater and other utility services returned to Sanibel and Fort Myers Beach sooner than expected.

In addition to County resources, nonprofit partners coordinated many services for the community. Donations were collected, meals were distributed, and volunteers were registered. Nonprofits and faith-based organizations provided support and coordination of these resources.

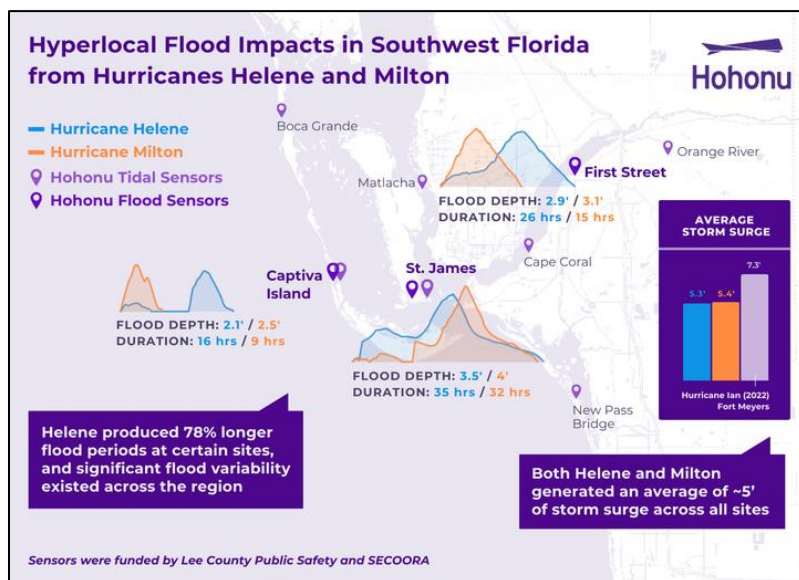


Figure 5: Lee County Hohonu Flood Data; Source: LCEM

Flood and Tidal Monitoring

Following Hurricane Ian, Lee County installed Hohonu tidal gauges, along with adopting access synthetic aperture radar (SAR) satellite constellation data via ICEYE, which delivered near real-time, all-weather, day-and-night data to improve real-time storm surge monitoring and flood risk awareness. This affordable technology enhanced LCEM's coordination of emergency response. Additionally, since the 2024 Tropical Cyclone season, Lee County has invested in strengthening real-time data collection through the expansion of its weather monitoring system, with additions to the Weatherstem network. All of these initiatives reflect Lee County's ongoing commitment to using practical tools that enhance community resilience.

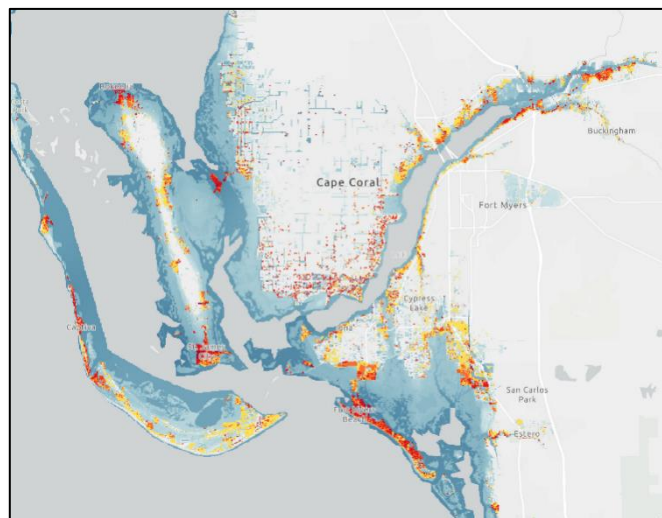


Figure 6: ICEYE Dashboard of Impacted Buildings in Lee County; Source: ICEYE, LCEM

Since the 2024 Tropical Cyclone season, Lee County has invested in strengthening real-time data collection through the expansion of its weather monitoring system, with additions to the Weatherstem network. All of these initiatives reflect Lee County's ongoing commitment to using practical tools that enhance community resilience.

Damage Assessment

To conduct thorough damage assessments throughout the County following Hurricane Milton, FIDA and IDA surveys, along with drones, were utilized to collect impact data. Lee County reached out to local businesses to collect information on



damages to the business community. Below is a comprehensive summary of impacted residential and commercial structures, and the total cost of impacts.

Table 5: Initial Damage Assessment Report (Hurricane Milton)

| Damage | Total Residential and Commercial Structures | Total Damage Cost |
|--------------|---|------------------------|
| Destroyed | 79 | \$10,675,574 |
| Major | 2,087 | \$396,964,619 |
| Minor | 5,323 | \$1,078,628,639 |
| Affected | 5,233 | \$350,670,960 |
| Total | 12,722 | \$1,839,758,838 |

Window assessments of the most affected areas began as early as it was safe to do so, and more detailed assessments continued in the weeks following.

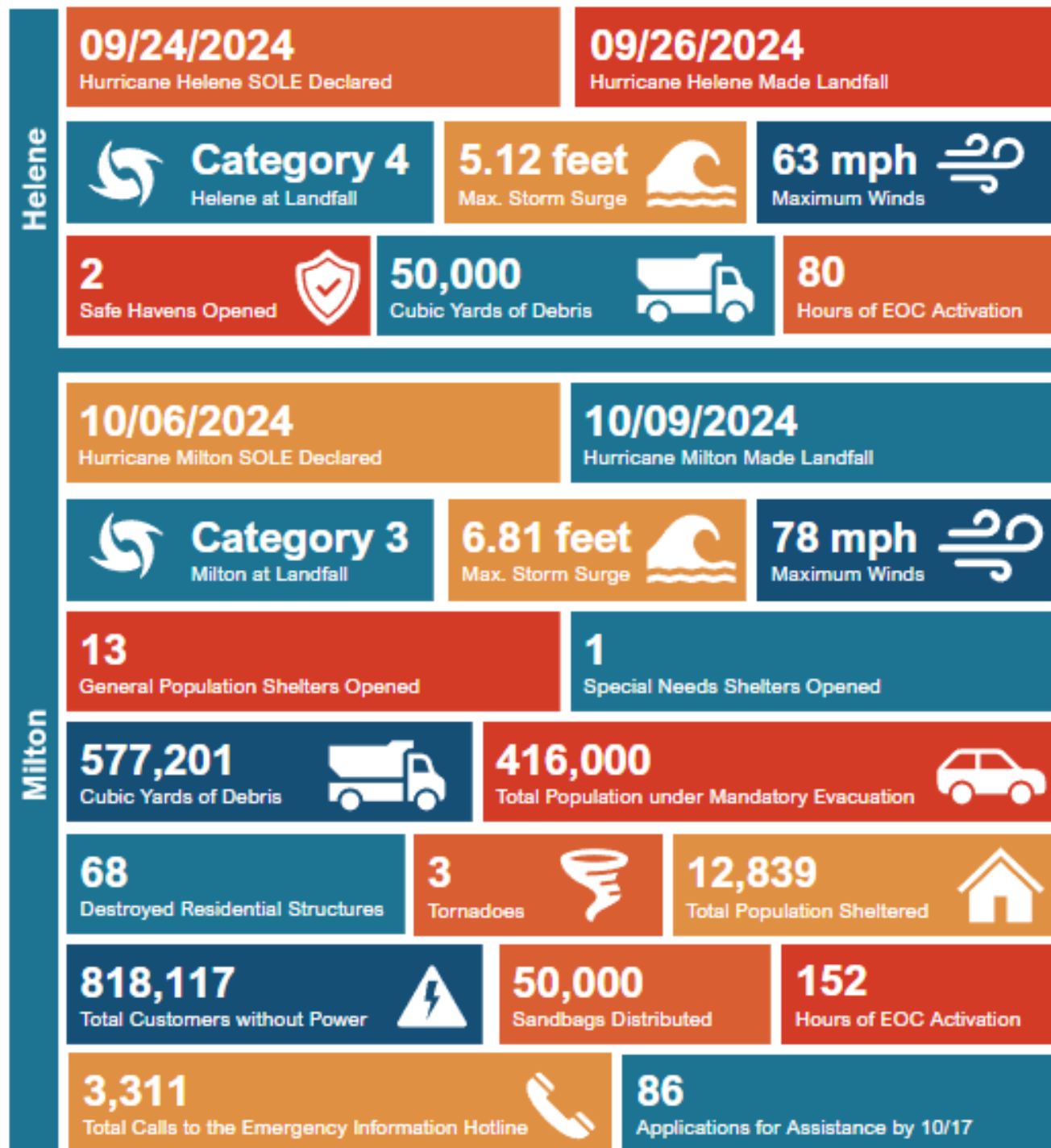


Timeline





Response by the Numbers





Response Analysis

Hurricanes Helene and Milton

The following section details observations made of Lee County's preparedness, response and recovery operations for Hurricanes Helene and Milton. Observations will show areas of strength and areas for improvement, with associated recommendations.

OBSERVATIONS AND RECOMMENDATIONS

Observation 1: Community Coordination Teams (CCT) were deployed earlier and expanded their coverage beyond just coastal communities.

During Hurricanes Helene and Milton, Lee County's Community Coordination Teams (CCTs) were deployed earlier and across a wider geographic range compared to previous events. Early field presence was recognized as a major strength, with residents responding positively to the visibility of County personnel embedded within impacted communities earlier than in previous storms. Real-time information sharing between CCTs and the EOC facilitated faster issue resolution, and structured communication methods, such as daily end-of-day check-ins, helped maintain situational awareness across operations. However, opportunities exist to strengthen CCT operations even further through earlier deployment timelines, enhanced field identification tools, improved fuel and equipment logistics, and clearer pre-event assignments.

The County successfully expanded CCT deployments beyond coastal communities and established real-time communication structures that improved situational awareness and responsiveness. Identification tools such as shirts and hats were issued to teams, making them more recognizable to the public. Early deployment of CCTs at least one day before impact would allow stronger community connections before emergency conditions worsen. Improvements are also needed in the assignment of clear team roles prior to the season, advanced distribution of fuel cards, and the identification of vehicles that can be easily refueled. Additionally, enhancing field identification by issuing "CCT" badges rather than generic "Volunteer" labels would improve public recognition. Finally, mission requests should be more detailed to ensure all necessary equipment is delivered. For example, requests for comfort stations should include mention of full wrap around services such as daily cleanings, light towers, generator fuel and refuel, etc.

- **Recommendation:** Consider continuing the early deployment of CCTs into impacted communities as soon as it is safe to do so to promote early engagement and support for Lee County residents.



- **Recommendation:** Consider hosting an annual pre-hurricane season CCT coordination meeting to finalize team assignments, expectations, and provide all necessary tools and resources. Issuing appropriate and recognizable field credentials, ensuring comprehensive equipment lists for mission requests, and conducting pre-season training on procurement and funding authorization processes would further enhance the effectiveness of the CCT deployment model.

Observation 2: Municipal Liaisons noticed enhanced integration into County EOC operations.

Liaisons from Lee County municipalities were integrated into the County's EOC during the Hurricane Milton response. Enhanced collaboration ensured all parties maintained situational awareness and built stronger relationships during the event. Each day, two coordination calls were hosted with all municipalities, where they were provided with a platform to share situation updates, ask questions, and share needs. Municipalities were engaged in the response and were willing to participate through all phases. Since Hurricane Ian, Municipal Liaisons felt that their presence had been valued by County staff and helped to support response and recovery operations.

Early integration also afforded the Municipal Liaisons the opportunity to be proactive about their needs and to be better advocates on their municipality's behalf. Before landfall, the Liaisons were able to submit resource requests as well as have collaborative conversations across many County departments, streamlining efforts as it related to their municipality's operations. Not only did this integration support their needs, but the County was also able to receive information quickly from each municipality, address misinformation, and ensure efforts were streamlined and smooth.

- **Recommendation:** Consider continuing to enhance the integration of Municipal Liaisons throughout the planning process, including socializing the EOC meeting schedule to promote attendance, if the Liaisons desire. Additionally, consider continuing to encourage coordination between Municipal Leadership and the Liaisons.

Observation 3: GIS dashboards and mapping were effectively used in debris management and damage assessments operations to track debris locations, monitor tasking, and support real-time decision-making.

Integrated with contractor progress reports and damage assessment efforts, the dashboards helped streamline operations and prevented duplicate site visits. A public-facing debris collection dashboard increased transparency, reduced complaints, and allowed residents to track real-time progress and view summary data on debris operations across the County.

Additional maps were used to provide real-time visibility and were used to prioritize damage assessments and road closures with increased accuracy. This mapping provided enhanced situational awareness for all involved in the operation and was beneficial in keeping County leadership updated. There were,



however, some limitations to this technology. GIS pins lacked some necessary metadata and status updates for adequate tracking of debris locations, task monitoring, or support of real-time decision-making. Additional gaps were identified in contractor task tracking and metadata updates within the GIS system, leading to occasional duplication of debris collection efforts.

- **Recommendation:** Consider coordinating with the GIS Team to integrate enhanced and standardized metadata into debris dashboards and reporting to improve task tracking and avoid duplication of missions.

Observation 4: The County developed and utilized a new, comprehensive situation reporting format, called the Lee Common Operating Picture (LeeCOP).

During the 2024 hurricane season, Lee County developed and implemented the Lee Common Operating Picture (LeeCOP), a new situation reporting format designed to enhance visibility and coordination across response and recovery operations. LeeCOP was designed as a Community Lifeline-based report to provide a comprehensive account of operations to County leadership, elected officials, and external partners.

The document functioned as a hybrid between a traditional Situation Report (SitRep) and an Incident Action Plan (IAP), providing a robust picture of current operational statuses across various functional areas, while also outlining plans for future efforts. By framing updates around FEMA's Community Lifelines and integrating the Activation Schedule, LeeCOP offered clarity on priorities, upcoming deliverables, and interagency coordination points.

LeeCOPs were released at a specified time daily throughout Hurricane Milton, which supported consistent information sharing across sections and improved situational awareness at all levels. Internal staff, elected officials, and external stakeholders praised the format for its clarity, usability, and its role in streamlining decision-making during operations.

Observation 5: Lee County established a Mass Care Hotline, providing a single-source resource for shelter staff to ask questions, share concerns, and make requests.

The establishment of a Mass Care Hotline during Hurricane Milton marked a significant improvement in shelter operations during the 2024 hurricane season. Designed to serve as a centralized communication tool, the hotline provided shelter managers and staff with a single point of contact to escalate operational issues, request additional resources, and seek real-time guidance from the EOC.

This direct communication link streamlined issue resolution and reduced delays that were common in previous storm responses, particularly in shelters with limited staffing or first-time leads. Shelter staff consistently reported that hotline personnel were responsive, knowledgeable, and supportive, helping to resolve challenges quickly while also offering reassurance during stressful periods.



The Mass Care Hotline also enabled the County to better track and respond to recurring needs across shelter sites, allowing for more coordinated deliveries, consistent messaging, and improved situational awareness at the EOC level. Its implementation contributed to a smoother and more effective sheltering operation and was widely regarded as the best practice by shelter teams.

Observation 6: Across all phases of hurricane response, Lee County improved in public messaging.

Lee County took lessons learned from Hurricane Ian to establish new and improved public information protocols. The County leveraged a variety of platforms for public messaging, including amateur radio, social media, billboards, live streams, and language-accessible content to broaden reach within the County. The goal of public messaging, especially in the time leading up to and during a hurricane, is to provide vital information to as many members of the community as possible. The addition of new mediums for message presentation, as well as incorporating additional translation options, supports the County in reaching that goal. Additionally, as CCTs engaged with the community, teams were able to interact directly with the public and understand their values, priorities, and needs. Messaging was catered to the needs of the community, leading to more effective and trusted messaging.

In addition to expanding media coverage across the County, the Community Engagement Team developed messaging prior to the storm while the team had additional bandwidth to workshop. Pre-developed content allowed the team to have space to ensure the message was consistent and clear, and to obtain the necessary approvals from County Leadership. While not every pre-developed message will be perfectly suited to the incident, they provide a framework from which messages can be quickly adapted to better meet community needs.

Observation 7: Early coordination with debris vendors allowed for a more successful debris removal operation.

Debris management operations during Hurricanes Helene and Milton were notably more streamlined compared to previous activations. The County's proactive engagement with vendors prior to hurricane season allowed for clear expectations, faster mobilization, and better situational awareness throughout the response. The County's early coordination efforts resulted in faster debris contractor mobilization, while the public-facing GIS dashboard increased transparency, reduced complaints, and allowed residents to track debris collection progress in real time.

Observation 8: Staff reported that the EOC environment and culture had significantly improved from past hurricane seasons.

The high-functioning EOC culture was described as calm, collaborative, and focused, even with new staff in key roles. EOCs can be high-stress environments, especially for staff who have never experienced emergency operations before. The EOC culture during Hurricanes Helene and Milton was characterized



by trust, empowerment, and collaborative leadership. County leadership provided the Emergency Management team with greater autonomy in managing incident objectives, while maintaining transparent and consistent communication with elected officials. These improvements fostered a calmer, more supportive environment inside the EOC, even with the integration of new staff members in critical roles.

Streamlining the oversight of the decision-making process allowed the EOC to respond more rapidly to emerging needs. Structured briefing schedules for elected officials minimized confusion and built greater trust between operational staff and leadership. Positive feedback regarding EOC atmosphere and collaboration was widespread across stakeholders.

- **Recommendation:** Consider developing and socializing a formalized EOC Expectations document to ensure the continuation of a positive environment and culture.

Observation 9: FDEM's new process for waterway debris removal resulted in challenges.

During the response to Hurricane Milton, Lee County encountered operational delays related to the management of waterway debris. FDEM implemented a new process for the 2024 Hurricane Season, resulting in some roadblocks for locals. For example, there was confusion resulting from unclear assignments for the management of different categories of debris, most notably, waterway debris versus vessels. This confusion was later resolved when protocols and assignments were clarified. LCEM coordinated with the Department of Natural Resources to manage waterways debris, while the Law Enforcement was responsible for vessels.

Furthermore, there was a lack of pre-approved temporary offload sites (TOLS) that initially slowed the waterway debris removal process, delaying mission execution and requiring additional clarification during a critical operational window. These initial limitations introduced administrative delays and increased the burden on staff tasked with coordinating debris removal in complex and dynamic post-storm environments.

- **Recommendation:** Consider obtaining pre-approval of offload sites and a more adaptable agreement structure to help ensure more efficient execution and improved clarity on roles and responsibilities during future waterway debris operations.

Observation 10: Lee County experienced increased challenges with debris and sand disposal on private properties and roadways.

In prior hurricane seasons, debris management and removal have always been a challenging function of response, however, storm surge from Helene and Milton pushed a disproportionate amount of sand compared to other hurricane seasons into coastal communities, causing unique challenges for the County.



When there is a significant storm surge, sand is pushed on land by flood waters. This is difficult to model or predict, thus limiting debris removal teams from accurately planning for operations. Not only was it challenging for the Lee County debris operations to determine the accurate number of resources needed for sand removal operations, but there were also extremely limited resources statewide due to the extensive impacts across Florida, coupled with a significantly higher volume of sand. Some privately owned areas of the County fell outside the eligible scope of work of approved FEMA guidance from the Public Assistance Program and Policy Guide (PAPPG), such as Upper Captiva, leading to frustration from residents not able to receive County assistance.

Because sand disposal was a newer challenge for the County, messaging had not been developed or distributed to the public prior to Hurricane Milton. Many residents were unsure of the process for the removal of sand from their property. As County teams were able to clear the roadways of sand and debris, many residents and private contractors pushed sand from private property back into the roads. This resulted in multiple clearance rounds on many roadways and required additional resources to be brought in to manage the duplication of effort.

- **Recommendation:** Before hurricane season, consider developing and publishing educational materials for how to dispose of varying debris types, with an emphasis on debris in privately owned areas versus public property. Reshare consistent messaging during storm response to reinforce messages and ensure public understanding
- **Recommendation:** Consider developing sand disposal internal procedures and controls in coordination with County departments and state regulatory agencies, in order to ensure prompt activation of additional resources when needed. Additionally, consider expanding contract scope to include areas of the County not currently included, such as Upper Captiva.

Observation 11: Social media policies regarding what information could be shared to the public were unclear.

During Hurricanes Helene and Milton, expectations regarding public information sharing were unclear for many County personnel, particularly shelter staff and Emergency Role (E-Role) personnel. Staff reported uncertainty around what information could be shared publicly, what needed to be routed through official communication channels, and how to address rumors or conflicting information observed online.

This lack of clarity led to conflicting messaging between official County correspondence and premature or unofficial information being posted on personal social media accounts. For example, information about shelter locations was released early by staff on private accounts, leading to confusion among residents before official activation announcements were made.



Without a standardized protocol in place to guide staff on how to handle social media use during activations, many were left to make individual judgment calls in high-pressure situations. This introduced avoidable risks to operational messaging and public confidence.

- **Recommendation:** Consider developing social media best practices for all staff engaged in response and recovery.
- **Recommendation:** Consider ensuring all messaging is pre-approved and released only on approved channels.
- **Recommendation:** Consider developing and distributing a formal policy outlining staff responsibilities related to public information sharing and social media use during emergencies.

Hurricane Ian Improvements

The County has made improvements from lessons learned during Hurricane Ian, striving for continuous growth and enhancement across all phases of emergency management. An After-Action Report was published following Hurricane Ian to review strengths and areas of improvement in operations. While some observations from Hurricane Ian were not discussed in stakeholder interviews and others lacked supporting data to confirm progress, the following section presents an analysis of Hurricane Ian AAR recommendations, along with improvements and corrective actions that were directly observed during this After-Action Review process.

Hurricane Ian AAR – Observation 2

The County should continue to emphasize preparedness actions, such as sharing talking points in coordination with the local media and actions that the public can take prior to an evacuation order (e.g., boarding up windows, gathering shelter in place supplies, packing a go-bag) that can be shared with the public once a hurricane is forecasted to impact Southwest Florida.

Improvements

- The Community Engagement team enhanced pre-storm messaging and provided the community with preparedness information ahead of landfall. One notable campaign related to evacuation zones included the message “Know your home, Know your zone” which became a well-known and recognizable slogan. Additional campaigns were developed to catch viewer attention on different platforms and mediums. Continued improvement could be seen in the development of pre-hurricane season public education campaigns related to evacuation preparation, as detailed in the recommendation from Hurricane Ian.
- Pre-scripted messages and coordinated talking points were developed in collaboration with the Joint Information Center (JIC) and local media partners, helping ensure consistent, clear messaging before conditions escalated.



- Public education efforts were primarily reactive during Hurricane Ian, while the County demonstrated proactive planning and execution of public education campaigns during Hurricanes Helene and Milton. These efforts reflect a sustained commitment to improving community readiness in advance of storm threats.

Hurricane Ian AAR – Observation 3

The County should consider strengthening coordination within the EOC to identify operational developments that can be amplified to the public.

Improvements

- Through the development of the LeeCOP, LCEM was able to consolidate all response and recovery data into a single report, which was distributed to staff within the EOC. Additionally, the Community Engagement Team coordinated with Logistics, CCTs, and other field crews with EOC representation to develop a comprehensive ground truth. The Community Engagement Team utilized the information gathered from the field to inform public messaging, provide more transparent updates, and manage public expectations for response and recovery. The Call Center was also able to benefit from this coordination, as public messaging developed by the Community Engagement Team could be used to answer questions from the public.
- The JIC had improved access to operational updates, reducing delays in message clearance and enhancing its ability to push out timely, credible public communications. Pre-scripted templates and improved section coordination allowed the JIC to respond more efficiently to both proactive messaging needs and real-time requests.
- Compared to Hurricane Ian, when messaging delays and gaps in operational information impacted the quality and speed of public updates, the improvements during Helene and Milton represented a more synchronized approach between field operations, EOC staff, and public-facing communication teams.

Hurricane Ian AAR – Observation 3

The EOC should consider reevaluating the process of identifying information to be shared with the public, including ensuring complete information is available to the joint information center when the request is made.

Improvements

- During Helene and Milton, the JIC was better positioned to respond quickly to public information needs due to more consistent coordination with operational sections. Key information, such as shelter status, road closures, and recovery updates, was regularly relayed from section leads to the JIC in real time. A library of pre-approved messaging templates allowed for faster turnaround on essential public communications. This helped ensure that timely, accurate, and consistent updates were pushed out across platforms without delays caused by clearance bottlenecks.



- The inclusion of operational highlights in the LeeCOP provided the JIC with a reliable source of vetted situational updates, helping reduce the time required to validate information before public release.
- During Hurricane Ian, information flow to the JIC was inconsistent and often incomplete. During Hurricanes Helene and Milton, the response demonstrated a more structured approach to information flow, highlighting the need for a formalized intake and escalation process to support high-volume events. During Helene and Milton, the JIC maintained stronger connections with operational sections, helping ensure that messaging reflected the current status of shelter openings, debris collection, transportation, and other public-facing services. Rumor tracking and social media monitoring efforts were also expanded, and the JIC team was better equipped to respond with corrective messaging in near real-time, improving public confidence and reducing misinformation.
- Coordination between the JIC and the Planning Section improved, with LeeCOP and internal reports providing consistent situational data that could be repurposed for public messaging. This reduced misalignment and helped the JIC respond to information requests in a more timely and accurate manner.
- While opportunities remain to improve message flow and intake for sudden requests, the improvements seen in Helene and Milton reflected a clear investment in public communication readiness, especially compared to the reactive posture during Hurricane Ian.

Hurricane Ian AAR – Observation 4

The County should continue to assess and upgrade wireless and network hardware equipment in the EOC; integrate Starlink and cell-on-wheels resources; and coordinate with cellular network vendors to ensure maintenance of EOC infrastructure.

Improvements

- Following Hurricane Ian, upgrades were made to County internet infrastructure, allowing for faster uploads and internal messaging. Additionally, the infrastructure for the County website was improved, which prevented any external crashes despite high visit volume. Cell-on-wheels (COWs) were coordinated in advance and staged strategically to support both EOC and field connectivity. These resources strengthened cellular and data network reliability during the height of the storm response.
- The County attempted to utilize Starlink as an alternative option for wireless internet for the EOC, field staff, and for the public. There were limitations to the use of Starlink due to inadequate extension cords and other accessories, as well as other hardware limitations that made deployment challenging. Additional pre-planning would support a more effective implementation of Starlink assets.



- Compared to Hurricane Ian, when connectivity disruptions hampered coordination, the combination of infrastructure improvements, alternate network options, and improved vendor coordination allowed for more stable and responsive EOC operations during Hurricanes Helene and Milton.

Hurricane Ian AAR – Observation 4

The County should consider exploring methods to compile and consolidate inbound welfare check requests in an automated manner that can be accessed by the County's law enforcement, Emergency Dispatch Center, Fire, Emergency Information Hotline as well as the fire districts.

Improvements

- The County attempted to implement a wellness check program during Hurricane Milton, which reflected a proactive effort to support vulnerable populations in the aftermath of the storm. Although the system experienced challenges, an initial intake process was launched and shared with partner agencies, representing early progress toward multi-agency coordination. Some improvements were made in the development of intake forms and initial tracking mechanisms to document requests. These tools helped clarify the public's expectations and provided EOC leadership with situational awareness of inbound welfare check inquiries. Additionally, efforts were made to identify staff and partners who could support the data collection and triage process, even if ownership remained unclear. These incremental steps showed recognition of the importance of welfare check coordination, even in the absence of a fully automated or centralized solution. Lessons learned from Hurricane Ian informed the County's attempt to launch the program earlier in the response timeline, and stakeholders expressed interest in formalizing the process for future activations.

Hurricane Ian AAR – Observation 5

The County should consider incorporating lessons learned from Hurricane Ian regarding establishing and maintaining an EOC schedule and reporting structure into future CEMP, SOG, and SOP planning.

Improvements

- Lee County maintained and distributed a detailed Activation Schedule for EOC operations. The schedule was consistent each day, and included all internal and external meetings, conference calls, daily deliverables, and report submission deadlines. The schedule was also included at the end of each LeeCOP, which provided awareness to leadership and managed expectations for when to expect updates.
- The Activation Schedule was embedded at the end of each LeeCOP, ensuring that both internal staff and leadership were aware of what to expect and when. This helped manage expectations and reinforced alignment across operational sections. The consistent use of the Activation



Schedule supported greater accountability and coordination, especially among section leads contributing to daily reporting products and coordination calls. The schedule also proved to be an effective onboarding tool for incoming EOC personnel and partners, as it outlined clear expectations and allowed new team members to quickly understand the operational tempo.

- The reporting structures were less formalized, and meeting cadences were varied during Hurricane Ian, and the County demonstrated a marked improvement in EOC management discipline and communication clarity during Hurricanes Helene and Milton.

Hurricane Ian AAR – Observation 5

The County should consider upgrading the badging system capabilities to link both EOC seats and individuals to track equipment provided as well as manage the overall use of the badges.

Improvements

- The County switched to a digital credentialing system for the EOC. During Ian, paper sign in sheets were utilized. Digital sign in sheets allow for easy tracking and reconciling staffing, as well as compiling data for potential Public Assistance (PA). The digital system provided a more accurate log of seat assignments, making it easier for section leads and EOC leadership to maintain accountability and staffing visibility across shifts. While the platform did not yet fully integrate with equipment issuance, it laid the groundwork for future upgrades that could allow for asset tracking linked to individual credentials. Staff noted that the credentialing process was faster, more secure, and less administratively burdensome, particularly during high-volume periods at EOC check-in. These improvements reflect a broader shift toward automation and operational efficiency, reducing manual errors and better positioning the County to meet federal documentation standards during disaster declarations.

Hurricane Ian AAR – Observation 5

The County should consider incorporating lessons learned from Hurricane Ian to strengthen the emergency resource request and procurement process. Additionally, the County should consider establishing a policy on the triggers and circumstances under which normal procurement processes are allowed and when requests should be routed through the EOC.

Improvements

- The County made notable improvements to its emergency procurement process by increasing departmental awareness of purchasing thresholds and technical requirements. During Hurricane Ian, inconsistent understanding of these guidelines contributed to confusion and delays, but by Hurricane Helene and Milton, departments demonstrated greater clarity and adherence to procedures.



- SmartSheet was adopted as a centralized platform to track work orders and Disaster Damage Estimates (DDEs), replacing less structured tracking methods used during Hurricane Ian. This transition improved transparency, streamlined documentation, and enhanced coordination across operational and financial teams.
- Pre-approved vendor lists were developed and utilized more consistently. In contrast to Hurricane Ian, where vendor selection was sometimes delayed or reactive, the County was able to more quickly engage qualified vendors during Helene and Milton, improving response time and accountability.
- Procurement staff and operational leads demonstrated more discipline in evaluating the necessity of purchases. Unlike during Hurricane Ian — when duplicate or unnecessary requests strained resources — Helene and Milton activations saw a more measured, needs-based approach to spending.
- Communication between Procurement and operational sections improved significantly. During Hurricane Ian, unclear lines of communication often led to bottlenecks and redundant requests. In later storms, improved coordination helped streamline routing, approvals, and documentation, supporting a more efficient and compliant procurement process.

Hurricane Ian AAR – Observation 6

The County should consider coordinating with all EOC sections as well as County leadership to develop checklists or job aids for County personnel, multijurisdictional, private sector, and non-profit partners. This would allow individuals who are familiar with the County EOC to have a manageable checklist to follow for the operational period.

Improvements

- The County developed internal guidance documents prior to Hurricanes Helene and Milton. These materials were tailored to E-Role personnel and key operational partners, helping individuals more easily navigate their assigned responsibilities during activation.
- Activation Schedules were included in the LeeCOP and updated regularly, providing a consistent operational rhythm and helping staff anticipate deliverables across the operational period. This addressed confusion from Hurricane Ian, when limited scheduling visibility led to delayed or missed actions.
- Specific EOC sections created section-specific checklists and briefing documents that were circulated among staff. This helped both new and returning personnel orient themselves more quickly to their roles, particularly in high-tempo areas such as Planning, Operations, and Logistics.
- County leadership emphasized early distribution and socialization of guidance materials, ensuring that staff had access to expectations and workflows prior to landfall. This shift toward proactive internal communication improved role clarity and reduced the need for on-the-fly guidance during the event.



- While opportunities remain to expand this approach to non-County partners, the improvements made between Hurricane Ian and Hurricanes Helene and Milton demonstrated a clear commitment to strengthening internal coordination and operational readiness through job aids and checklist-based tools.

Hurricane Ian AAR – Observation 6

The County should consider further developing an EOC guide that potentially includes elements covering an overview of the County for partners reporting to the EOC, a cross-reference among NIMS, Emergency Support Function, and Community Lifeline models to facilitate communication in the EOC, and an overview of County government policies and laws pertaining to unincorporated areas and special districts.

Improvements

- The County made progress in organizing and distributing onboarding materials for staff and partners reporting to the EOC, particularly those unfamiliar with Lee County operations. This included briefings on the County's structure, key contacts, and operational priorities, which helped orient new personnel and out-of-county support teams.
- Internal documentation shared during Helene and Milton activations included clearer explanations of unincorporated area responsibilities and guidance on jurisdictional authority, helping to address confusion that had arisen during Hurricane Ian.
- Some sections incorporated cross references for how their roles aligned with Emergency Support Functions (ESFs), National Incident Management System (NIMS) guidance, and Community Lifeline reporting, which helped streamline updates and situational reporting.
- While a formal EOC guide has not yet been developed, the increased consistency in materials and briefings represented a step forward in standardizing EOC orientation processes and improving communication among diverse partners. These efforts contributed to greater situational awareness and reduced friction among multijurisdictional and non-County partners who activated alongside County staff.

Hurricane Ian AAR – Observation 9

The County should continue to explore and evaluate strategies and methods to staff and coordinate shelter operations.

Improvements

- The County engaged the shelter staffing vendor, Endeavors, after Hurricane Ian. Endeavors was activated for Hurricane Milton and proved to be an asset to shelter staffing and operations, including embedding with the Mass Care Branch in the EOC.
- The County benefitted from supplemental nursing staff provided through the State during sheltering operations, which allowed EMS personnel to remain focused on special needs shelters

and life safety missions. This adjustment improved overall resource allocation and reduced the burden on in-house medical teams.

- Pre-assigned shelter staff and E-role teams were better trained and knew their assigned sites in advance, allowing for faster setup and smoother operations compared to Hurricane Ian.
- On-site walkthroughs and early coordination with the school district and Department of Health built stronger relationships and clarified expectations before shelter activation.
- Pre-staged shelter supplies for both general population and pet-friendly shelters were better organized and more equitably distributed across shelter sites, enhancing readiness and reducing initial setup delays.
- A new Lessons Learned Log was added to shelter manager binders, creating an opportunity for teams to document issues and insights during the event. This effort supported continuous learning and improvement across activations.
- While some gaps in staffing and role clarity remain, particularly for first-time shelter staff, the improvements in pre-season coordination, resource staging, and communication workflows contributed to a more stable and responsive sheltering operation overall.

Hurricane Ian AAR – Observation 9

The County should continue to conduct training and exercise with County staff on shelter operations.

Improvements

- Shelter teams were better prepared for activation, with many E-Role staff pre-assigned and provided with basic guidance on roles and responsibilities in advance. This allowed for faster setup and smoother onboarding once shelters opened.

Hurricane Ian AAR – Observation 12

The County should consider increasing the capacity of staff support and wellness programs through hiring trained clinicians and procuring the necessary resources to support all County employees before, during and after disasters.

Improvements

- Leadership encouraged staff to prioritize their well-being during operations. In previous incidents, staff noted that EOC activations can be stressful and chaotic, however, staff were encouraged to take breaks and rest periods. Dedicated spaces were set up within the EOC for staff to decompress, rest, or step away briefly from operational duties. These wellness spaces provided a low-barrier opportunity for staff to manage stress during extended activations.
- Mental health and wellness were prioritized more intentionally in 2024. Pre-season training included content on stress management, resilience, and trauma-informed leadership. This marked a significant shift from prior activations, where wellness resources were less visible. Additionally, section leaders and supervisors were encouraged to “check in on their people,” which helped to



normalize conversations around burnout and mental health. These early efforts laid a foundation for more structured programs in the future and signaled a cultural shift toward recognizing the emotional and psychological demands of disaster response work.

- Staff noted a more supportive environment overall, with leadership showing visible concern for wellness and operational sustainability. The County should consider a continued expansion of resources available to County staff, including the integration of trained clinicians and additional wellness programs into County employee assistance programs.

Hurricane Ian AAR – Observation 13

The County should consider exploring methods to store life-safety equipment and vehicles on barrier islands to withstand storm surge and hurricane-force winds.

Improvements

- For Hurricane Milton, the County successfully pre-staged Search and Rescue (SAR) teams and high-water vehicles on barrier islands and other high-risk zones prior to landfall. This allowed for a faster response once conditions permitted reentry, particularly for water rescues and road clearance. Drones and additional field assets were staged in strategic locations near barrier island access points, providing quicker situational awareness and allowing rapid deployment as conditions stabilized. Coordination with regional partners, including mutual aid from Collier County, helped extend the County's operational reach without overexposing local assets to risk.
- Although permanent hardened storage structures were not yet in place, these pre-positioning strategies demonstrated progress in balancing life-safety needs with equipment survivability in high-impact areas.

Hurricane Ian AAR – Observation 14

The County should consider establishing a team of designated staff as well as a supporting protocol dedicated to liaising with elected officials at the County EOC. The staff should be prepared to escort elected officials through a brief tour of the EOC, provide an overview of the response including the most current Situation Report and IAP and listen to and address their needs and priorities. Additionally, the intergovernmental liaison team should be prepared to have a list of action items for elected officials in the event the elected officials ask how they can help the County's efforts in the response.

Improvements

- County leadership demonstrated increased engagement with elected officials, offering consistent briefings and real-time situational updates through tools like the LeeCOP. Officials were better informed and more aligned with County messaging compared to prior storms. Elected officials were more frequently present in the EOC and were well-integrated into situational awareness activities, attending briefings and receiving summaries tailored to their



districts and areas of concern. Feedback from staff indicated that communication with local leadership felt more structured and transparent, though these efforts were primarily informal and relied on existing relationships.

- Response staff were more proactive in responding to official requests and sharing action items when support was offered. This represented a cultural shift toward more collaborative, two-way engagement with government leadership during disaster operations.



Conclusion

Hurricanes Helene and Milton presented Lee County with complex and compounding challenges that tested emergency operations, planning assumptions, and response capabilities in close succession. County staff, municipal partners, and community organizations worked well beyond traditional roles, embracing new and evolving responsibilities to support the safety and well-being of the Lee County community.

The Lee County Department of Public Safety is grateful for leadership of the Board of County Commissioners and the commitment of County staff, municipal agencies, private sector partners, and nonprofit stakeholders. Their coordination laid the groundwork for a unified response effort and rapid operational progress immediately following each storm, and their continued engagement supports community-wide recovery today.

These events also offered opportunities to evaluate, adapt, and advance preparedness and recovery strategies. Improvements in shelter operations, situational reporting, public communication, and cross-agency coordination reflect the County's commitment to continuous improvement. Future initiatives, such as the implementation of recommendations from this report, enhanced role clarity, and investment in recovery planning, will further strengthen Lee County's resilience.

The scale and frequency of these storms did not deter the County from rising to the challenge. Instead, they reaffirmed the importance of collaboration, innovation, and preparedness. By continuing to invest in its people, processes, and partnerships, Lee County is not just rebuilding infrastructure, but reinforcing the foundation of a stronger, more connected community.

Appendix A: Acronyms

Table 6: Acronyms

| Acronym | Definition |
|----------------|---|
| AAR | After Action Report |
| CCT | Community Coordination Team |
| CEMP | Comprehensive Emergency Management Plan |
| County | Lee County |
| DRC | Disaster Recovery Center |
| DSAT | Disaster Survivor Assistance Teams |
| EO | Executive Order |
| EOC | Emergency Operations Center |
| E-Role | Emergency Role |
| FDEM | Florida Division of Emergency Management |
| FDOT | Florida Department of Transportation |
| FIDA | First Impression Damage Assessment |
| FL | Florida |
| IA | Individual Assistance |
| IDA | Initial Damage Assessment |
| JIC | Joint Information Center |
| LCDOT | Lee County Department of Transportation |
| LCEC | Lee County Electric Cooperative |
| LeeCOP | Lee Common Operating Picture |
| LeeTran | Lee County Transportation |
| MPH | Miles Per Hour |
| MRE | Meals Ready to Eat |
| NHC | National Hurricane Center |
| NOAA | National Oceanic and Atmospheric Administration |
| NWS | National Weather Service |
| PA | Public Assistance |
| PAPPG | Public Assistance Program and Policy Guide |



| Acronym | Definition |
|---------|------------------------------------|
| POD | Point of Distribution |
| SAR | Search and Rescue |
| SEOC | State Emergency Operations Center |
| SOG | Standard Operating Guide |
| SOLE | State of Local Emergency |
| SOP | Standard Operating Procedure |
| State | State of Florida |
| TSA | Transitional Sheltering Assistance |
| USAR | Urban Search and Rescue |