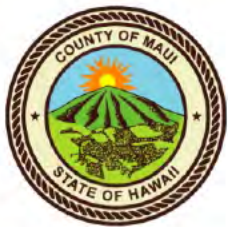


FOR OFFICIAL USE ONLY (FOUO)

Maui County

***After Action Report & Improvement Plan***  
*for*  
***2018-08-18 Tropical Cyclone Lane***



Prepared by County of Maui  
Emergency Management Agency  
Prepared August, 2019



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## HANDLING INSTRUCTIONS

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1. The title of this document is the *After Action Report and Improvement Plan for 2018-08-18 Tropical Cyclone Lane*
2. Information gathered in this report is designated as *For Official Use Only* (FOUO) and should be handled as sensitive information that is not to be disclosed. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives. Reproduction of this document, in whole or in part, without prior approval from the Maui Civil Defense Agency is prohibited.
3. At a minimum, the attached materials will be disseminated strictly on a need-to-know basis and, when unattended, will be stored in a locked container or area that offers sufficient protection against theft, compromise, inadvertent access, and unauthorized disclosure.
4. For more information about the event, please consult the following points of contact:

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## EXECUTIVE SUMMARY

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In August of 2018, the County of Maui prepared for the arrival of Tropical Cyclone Lane. The National Weather Service indicated that the County, in addition to impacts often associated with tropical storms, may also experience coastal flooding especially in the remote areas of Hana and Molokai. As Lane neared the County, a large brush fire ignited and threatened Lahaina town. A number of agencies responded to the brush fire including but not limited to: Maui Fire Department, Maui Police Department, County of Department of Public Works, State of Hawaii Department of Land and Natural Resources – Division of Forestry and Wildlife, FEMA – Swift Water Rescue Team, and the Hawaii Army National Guard. When the fire was contained, Lahaina town was spared and no lives were lost. However, there were a number of homes that were destroyed as a result of the fire.

The Maui Emergency Management Agency (MEMA) recognizes the importance of conducting after action reports for events that led to the activation of the Emergency Operation Center (EOC). This report contains summaries of observations and recommendations of those who were involved during the event. Major strengths and primary areas for improvement are outlined below (*additional findings and more detailed analysis can be found throughout this report.*);

### Major Strengths

**Strength:** Support from the agencies who did participate in the EOC was strong. Many of the people assigned to the EOC were decision makers for the organization and able to assist cross departmentally in solving operational challenges. People were willing to step out of their day to day role and participate in EOC operations. Partners reached outside of their training to make all aspects of the EOC operations work including things like taking out the garbage and making coffee. Despite the sleep deprivation and the high stress situations there remained a lack of interpersonal breakdowns throughout the event.

**Strength:** The call receivers were good for both the public and the EOC. They were able to share information directly with individuals and ensure the county was able to provide good customer service to the public. They were also able to share information into the EOC quickly and effectively including issues that needed resolution and information that needed to be better communicated to the public.

**Strength:** The use of multiple platforms and additional support to assist with information dissemination. In addition to traditional press releases there were live press conferences with the mayor, County of Maui and MEMA Facebook page updates, and the use of the Maui County Website as current and up to date information for the public.

**Strength:** Special recognition needs to be given to the MEMA staff. Many responses throughout the request for feedback noted how professional, knowledgeable and hard working the staff was throughout the event.

## Primary Areas for Improvement

**Area for Improvement:** Additional staffing needs to be identified prior to events in order to augment the existing MEMA staff to increase the capabilities of disaster management. This includes the utilizing of State and county workers both within the EOC and within the greater emergency response structure.

**Recommendation:** Develop a list of potential positions that county and State workers may be assigned to participate in during a disaster

**Recommendation:** Identify potential workers from each of the departments who may be able to be reassigned in a disaster.

**Recommendation:** Need to improve the language when people are sent home regarding call backs and expectations that all county workers are disaster workers and can be asked to respond at any time.

**Recommendation:** Planning section persons need to be trained. Planning department has offered personnel to assist in the section but need better training prior to deployment.

**Recommendation:** Logistics Section needs additional staffing with experience in resource management and material support and supply.

**Recommendation:** Additional EOC Operations Training

**Area for Improvement:** Existing shelter sites are insufficient.

**Recommendation:** Need to work with the DOE and HI-EMA on increasing shelter capabilities including new facilities built to hurricane standards and retrofitting existing facilities to increase safety.

**Recommendation:** Work with the DOE on retrofitting facilities with transfer switches and generators for all hurricane shelters.

**Recommendation:** Need additional shelter sites throughout the county but especially on the west side of Maui and the east end of Molokai.

**Recommendation:** The county needs to look further at the process of opening shelters that are not red cross run sites in the case that Red Cross is unable to fulfill expectations.

**Area for Improvement:** The EOC is insufficient for the level of operations that is expected for emergency response. There needs to be some alterations to the existing space in order to improve response in addition to looking for a new space that will be sufficient for EOC Activations

**Recommendation:** Identify a location and develop plans for a new EOC.

**Recommendation:** Improve power supply into the EOC and conference rooms

**Recommendation:** Provide additional amplification devices for the EOC including microphones and speakers.

**Recommendation:** Additional phone and Ethernet connections for the EOC to increase ability to coordinate response

**Recommendation:** Improved Wi-Fi capabilities to ensure the number of partners who enter the room are capable of signing on and staying connected.

**Recommendation:** Develop a list of EOC positions and ensure that critical positions identified have a space and a computer assigned to ensure workflow can be completed.

**Recommendation:** Improve air flow and air conditioning of the EOC.

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## SECTION 1: EVENT OVERVIEW

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### General Statement

#### Major Response Activities by Operations Period

A. **0700 – Saturday August 18, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

Time – Action

Time – Action

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**0700 – SUNDAY AUGUST 19, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

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**0700 – MONDAY AUGUST 20, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

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**0700 - TUESDAY AUGUST 21, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

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**0700 – WEDNESDAY AUGUST 22, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

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**0700 – THURSDAY AUGUST 23, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

**0700 – Friday August 24, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

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**0700 – SATURDAY AUGUST 25, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

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**0700 – SUNDAY AUGUST 26, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

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**0700 – MONDAY AUGUST 27, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

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**0700 - TUESDAY AUGUST 28, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

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**0700 – WEDNESDAY AUGUST 29, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

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**0700 – THURSDAY AUGUST 30, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action

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**0700 – FRIDAY AUGUST 31, 2018**

**NWS Issued advisories/watches/warnings**

Time – Action



## SECTION 2: ANALYSIS OF RESPONSE

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This section of the report reviews the performance of the capabilities, activities, and tasks demonstrated during the response. In this section, observations are organized and categorized by types of feedback and include analysis as well as recommendations. MCDA gathered data for this section using responder surveys, hot washes and other open requests for feedback. The questionnaire from the survey can be found in Appendix A and the feedback received from all formats can be seen in Appendix B & D. Section 3 contains the improvement plan consolidated into a tabular format designed from this analysis.

### Feedback Categories;

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### EOC Response Structure

**Strength:** Maintenance and pre-storm hardening of county and state facilities and infrastructure did mitigate post storm effects.

**Strength:** Use of ICS especially the reinforcing the process and structure led to a smoother response. Assigning additional roles including Branch Section Chiefs created additional oversight and responsibilities within the EOC.

**1. Area for Improvement:** Use of BlueJeans video conferencing allowed remote locations partners to see what was going on but they were unable to hear the meetings within the EOC.

**1.1 Recommendation:** Acquire communications equipment that can be used to amplify the sound in the room and pick up voices for sharing via phone conference.

**2. Area for Improvement:** Planning section staffing is insufficient without outside assistance.

**2.1 Recommendation:** Coordinate with departments to assign staff to planning section including training and exercise requirements.

**2.2 Recommendation:** Identify critical roles and provide resources to partners to be able to fulfill those roles quickly and effectively.

3. **Area for Improvement:** The emergency fund needs to be increased. The cost for repairs or response in a large disaster would be incredible and the current fund is insufficient and difficult to access.
  - 3.1 **Recommendation:** Work with council to identify ways to quickly access the emergency fund in a disaster.
4. **Area for Improvement:** The Operations Section was not able to quickly identify the requirements or existing resources of debris teams.
  - 4.1 **Recommendation:** Work on a resource unit that has better access to existing county accessible resources.
  - 4.2 **Recommendation:** Expand the debris management plan to include debris team guidelines and expectation
5. **Area for Improvement:** Donations were brought to places where they were not needed and there was no identified way to redistribute.
  - 5.1 **Recommendation:** Donations Management plan needs to be developed. Potentially in coordination with VOAD. This plan should include public messaging recommendations.
6. **Area for Improvement:** Expectations of the MEMA secretary position in a disaster is far beyond the existing position description.
  - 6.2 **Recommendation:** We need to look at redescribing the secretary position to have it match the expectations.
7. **Area for Improvement:** The IMT assistance with EOC operations can be worked out to be very valuable. However, there needs to be a better understanding of the established EOC plans, policies and procedures.
  - 7.1 **Recommendation:** Develop clearly identified roles for IMT integration into the EOC and train and exercise with the personnel.
8. **Area for Improvement:** Safety officers have concerns about field operations not being properly monitored by county safety personnel
  - 8.1 **Recommendation:** ID cards from MEMA for safety personnel to use to access restricted sites in a disaster
  - 8.2 **Recommendation:** Work with MPD to ensure that safety issued ID's will be acceptable to pass through secure areas.

## Staffing

**Strength:** Special recognition needs to be given to the MEMA staff. Many responses throughout the request for feedback noted how professional, knowledgeable and hard working the staff was throughout the event.

**Strength:** Keeping personnel in the EOC when relevant and releasing personnel from the EOC when no longer needed for operational stability. Several people commented on the timing for both the request to include staff in the EOC and the call to limit the staff in the EOC were done in timely fashion.

**Strength:** Good integration of additional trained staff into EOC operations including the use of intra state and EMAC personnel to assist with EOC operations both during the event and after the immediate threat passed. This includes utilizing some of the EOC partners with backgrounds in emergency management who now hold a different role in the county.

**Strength:** Support from the agencies who did participate in the EOC was strong. Many of the people assigned to the EOC were decision makers for the organization and able to assist cross departmentally in solving operational challenges. People were willing to step out of their day to day role and participate in EOC operations. Partners reached outside of their training to make all aspects of the EOC operations work including things like taking out the garbage and making coffee. Despite the sleep deprivation and the high stress situations there remained a lack of interpersonal breakdowns throughout the event.

**9. Area for Improvement:** Additional staffing needs to be identified prior to events in order to augment the existing MEMA staff to increase the capabilities of disaster management. This includes the utilizing of State and county workers both within the EOC and within the greater emergency response structure.

**9.1 Recommendation:** Develop a list of potential positions that county and State workers may be assigned to participate in during a disaster

**9.2 Recommendation:** Identify potential workers from each of the departments who may be able to be reassigned in a disaster.

**9.3 Recommendation:** Need to improve the language when people are sent home regarding call backs and expectations that all county workers are disaster workers and can be asked to respond at any time.

**9.4 Recommendation:** Planning section persons need to be trained. Planning department has offered personnel to assist in the section but need better training prior to deployment.

**9.5 Recommendation:** Logistics Section needs additional staffing with experience in resource management and material support and supply.

**9.6 Recommendation:** Additional EOC Operations Training.

**9.7 Recommendation:** Request additional positions from county counsel.

**10. Area for Improvement:** Not enough time was given to some staff members between shifts in order to ensure proper off duty time for rest and personal care.

**10.1 Recommendation:** EOC Director needs to enforce proper shifting of workers especially after the initial threat has passed.

**10.2 Recommendation:** Additional staff needs to be trained in all positions to ensure positions can be covered when personnel is unavailable.

11. **Area for Improvement:** There are departments and agencies that are not well represented within the EOC.

**11.1 Recommendation:** Identify ways to include additional personnel within the EOC structure through ESF support systems or by adding additional required seats.

**11.2 Recommendation:** Reach out to partners who are not represented (i.e. judiciary) or not represented consistently and ask for feedback on EOC procedures and ways to better engage.

## GIS

**Strength:** Utilizing GIS specialists we were able to develop interactive ArcGIS maps with relatively current information.

12. **Area for Improvement:** Although there was initial improvements with the use of GIS inside the EOC, more progress needs to be made at assigning GIS specialists to assist with the situational awareness within the EOC.

**12.1 Recommendation:** Work with partners to ensure GIS specialists are trained and available.

**12.2 Recommendation:** A system need to be developed to ensure that all location based information needs to be provided to the GIS unit for mapping.

## Call Receivers

**Strength:** The call receivers were good for both the public and the EOC. They were able to share information directly with individuals and ensure the county was able to provide good customer service to the public. They were also able to share information into the EOC quickly and effectively including issues that needed resolution and information that needed to be better communicated to the public.

**Strength:** The google drive that was used to share information was well utilized by the call receivers. They felt like they were able to quickly access the information they needed. It was helpful to have personnel in the EOC to update the drive in real time to ensure the public was getting the most accurate and up to date information.

13. **Area for Improvement:** Despite the ease of use of the google drive, there were times when the information was out of date or not helpful for the callers.

**13.1 Recommendation:** Develop a description and staff the position to work with the call receivers to ensure their information is up to date.

**13.2 Recommendation:** Develop some printed documentation with static information for the call receivers to use.

**13.3 Recommendation:** Develop procedures to ensure in escalated situations like the fire we continue to update the call receivers with current information.

## Damage Assessment

**Strength:** Lots of different agencies were quickly deployed to provide damage assessments in order to get as much help as possible to the public quickly.

**14. Area for Improvement:** Damage assessments were not coordinated across the different agencies conducting them. This led to multiple visits and a misunderstanding of what people were reporting for.

**14.1 Recommendation:** Develop a damage assessment plan that includes EOC facilitation and coordination.

**14.2 Recommendation:** Assign DA coordination within the EOC to individuals outside of the MEMA staff.

**14.3 Recommendation:** Develop MOU's that can ensure existing agencies who do DA can share information.

**15. Area for Improvement:** Lines of authority and responsibilities of individuals were unclear to some EOC participants.

**15.1 Recommendation:** Coordinate with departments to assign staff to planning section including time to meet training and exercise requirements

**15.2 Recommendation:** Provide additional reinforcement of roles and responsibilities within the EOC structure.

**16. Area for Improvement:** Recovery efforts including damage assessment need a strong focus. It was difficult for MEMA personnel to address recovery needs due to response priorities.

**16.1 Recommendation:** Look at adding short term recovery positions to the MEMA staff.

## Sheltering

**Strength:** Special recognition went to the DOE in coordinating throughout the event. Representatives were included in the shelter committee in coordinating shelter sites, accommodating of locations, assisted in the site openings, and were able to stage a DOE person on sites.

**Strength:** Supplies and staff were staged at all sites designated to open throughout the county. This has been a struggle in the past and there were great improvements in capabilities during this event.

**17. Area for Improvement:** There was some differences in understanding regarding the agreements between the DOE and the ARC.



- 17.1 Recommendation:** The agreements need to be looked at with the DOE and ARC and updated to ensure responsibilities are able to be met.
- 17.2 Recommendation:** Need to take a closer look at responsibilities regarding cleaning the facilities after sheltering especially within DOE sites.
- 18. Area for Improvement:** Need to take a closer look at medical support within the sheltering system.
- 18.1 Recommendation:** Need to plan for medical support shelters during large shelter operations.
- 18.2 Recommendation:** The federal agency USPHS does Medical Shelter Assessments. Request should be made to them to assess all the hurricane shelters in Maui County as potential medical sites.
- 18.3 Recommendation:** Need an update on policies on use of walk on clinicians and the best way to integrate them into a large disaster
- 19. Area for Improvement:** Existing shelter sites are insufficient.
- 19.1 Recommendation:** Need to work with the DOE and HI-EMA on increasing shelter capabilities including new facilities built to hurricane standards and retrofitting existing facilities to increase safety.
- 19.2 Recommendation:** Work with the DOE on retrofitting facilities with transfer switches and generators for all hurricane shelters.
- 19.3 Recommendation:** Need additional shelter sites throughout the county but especially on the west side of Maui and the east end of Molokai.
- 19.4 Recommendation:** The county needs to look further at the process of opening shelters that are not red cross run sites in the case that Red Cross is unable to fulfill expectations.
- 20. Area for Improvement:** Shelter site staffing could be a problem if we open sites beyond our initial priority shelters.
- 20.1 Recommendation:** Sheltering committee needs to talk more about staffing augmentation of additional sites.
- 21. Area for Improvement:** There were some issues in transitioning the shelters and some differences in understanding regarding the process of closing shelters after a disaster.
- 21.1 Recommendation:** Transitioning from evacuation shelters to congregate care shelters or closing needs to be planned early and coordinated with all partners.
- 22. Area for Improvement:** After the storm passed the schools priority is to reopen for students as soon as possible. The transition timing was too short for some of the residents. There was a disconnect for the shelter residents, shelter staff, and partner agencies on transitioning.
- 22.1 Recommendation:** Transitioning from evacuation shelters to congregate care shelters or closing needs to be planned early and coordinated with all partners.

## Pet Sheltering

**Strength:** This was the first time that the Pet Sheltering Plan was tested on this scale. Overall, the system worked as planned.

**Strength:** Police assisted Pet Shelter group through roadblocks to get to shelter sites. Again the system worked as planned.

**23. Area for Improvement:** Management of shelter/pet shelter supplies at the facilities not getting back to humane society.

**23.1 Recommendation:** Better coordination and communication of pet sheltering supplies during shelter transition.

**24. Area for Improvement:** Communications flow to the Humane Society was unclear leading to problems.

**24.1 Recommendation:** Look at communications expectations and responsibilities for humane society. Potentially look at VOAD as the communications point instead of ARC.

## Information Sharing - Partners

**Strength:** Existing email updates were well utilized by partners.

**25. Area for Improvement:** In the past, information pushes to the partners included information for public release. This allowed some of our public facing partners to be able to quickly disseminate information to the public. This did not happen over this response.

**25.1 Recommendation:** Work with planning section and the PIO's to insure information sharing is as wide as possible.

## Information Sharing - Public

**Strength:** The use of multiple platforms and additional support to assist with information dissemination. In addition to traditional press releases there were live press conferences with the mayor, County of Maui and MEMA Facebook page updates, and the use of the Maui County Website as current and up to date information for the public.

**Strength:** Despite the rampant rumors that were being shared, the PIO team was able to address the rumors and quickly and counteract bad information with good information.

**26. Area for Improvement:** County website and Facebook pages need to have a dedicated person assigned in order to ensure continued current status.

**26.1 Recommendation:** Develop position descriptions and expectations to ensure personnel will be trained and available.

**26.2 Recommendation:** Develop procedures to ensure partners are providing up to date information to be included on the website and in the Facebook page

**27. Area for Improvement:** PIO Process remains undefined and EOC partners are unsure how to fully utilize.

**27.1 Recommendation:** JIC needs to be established and staffed with all the partners.

**27.2 Recommendation:** JIC needs to establish the talking points for the mayor. If no JIC is developed, the PIO's for each group needs to be consulted.

**27.3 Recommendation:** PIO needs to have careful oversight of the call receiver questions and be working with them on information sharing and response.

**28. Area for Improvement:** Long term recovery messaging needs to be included early in the process.

**28.1 Recommendation:** Additional messaging from coastal planning group needs to be solidified and pushed out as a part of the regular messaging rotation in a disaster

**28.2 Recommendation:** Post disaster reconstruction guidelines need to be consulted as part of the messaging process.

**29. Area for Improvement:** Some of the radio stations were playing prerecorded programs and were not able to push out current messages.

**29.1 Recommendation:** Work with the radio stations to find out what their capabilities are and how to best utilize them in a disaster.

## Coordination with State Resources

**Strength:** Liaisons assisting from state and federal partners were great. They integrated well into the EOC and were able to quickly get responses and coordination.

**30. Area for Improvement:** Personnel at HI-EMA were unfamiliar with Maui County. This led to some confusion in ordering resources and difficulty in providing accurate information to the statewide system.

**30.1 Recommendation:** Provide basic Maui County data for HI-EMA's Maui Desk for quick reference in an event

**30.2 Recommendation:** Include HI-EMA staff in Maui County training in order to better conceptualize operations in Maui County.

**31. Area for Improvement:** Some of the state radios do not communicate outside of the EOC.

**31.1 Recommendation:** Additional boosters or other equipment may need to be installed to improve capacity

## Facilities

**Strength:** Despite the ongoing and obvious challenges with the EOC space, the county was able to rearrange and accommodate additional response in a proactive way. Special recognition goes to ITSD for setting up and troubleshooting additional equipment including power supply and to DPW who figured out a way to bring in additional AC capabilities into a space that is difficult to cool.

**32. Area for Improvement:** The EOC is insufficient for the level of operations that is expected for emergency response. There needs to be some alterations to the existing space in order to improve response in addition to looking for a new space that will be sufficient for EOC Activations

**32.1 Recommendation:** Identify a location and develop plans for a new EOC.

**32.2 Recommendation:** Improve power supply into the EOC and conference rooms

**32.3 Recommendation:** Provide additional amplification devices for the EOC including microphones and speakers.

**32.4 Recommendation:** Additional phone and Ethernet connections for the EOC to increase ability to coordinate response

**32.5 Recommendation:** Improved Wi-Fi capabilities to ensure the number of partners who enter the room are capable of signing on and staying connected.

**32.6 Recommendation:** Develop a list of EOC positions and ensure that critical positions identified have a space and a computer assigned to ensure workflow can be completed.

**32.7 Recommendation:** Improve air flow and air conditioning of the EOC.

**33. Area for Improvement:** The monitor in the call receiver room is difficult to see from the majority of the stations.

**33.1 Recommendation:** Adjust the monitor in the call receivers room so it is in a more visible location.

**34. Area for Improvement:** Access to the EOC is limited to badge holders. There are not enough badges for partners to use and it is difficult to vet the number of people who are requesting access to the secured facility.

**34.1 Recommendation:** Ensure all county partners listed as potential EOC liaisons have badged access to the facility.

**34.2 Recommendation:** Ask for additional shared badges to be made that grant access to the facility

**34.3 Recommendation:** Revoke access to all badges missing from EOC stash to ensure we are not allowing undue access.

**35. Area for Improvement:** Molokai has insufficient facilities for EOC response.

**35.1 Recommendation:** Molokai EOC needs to be developed and finalized.

## Equipment

**36. Area for Improvement:** Printers were difficult to print to and difficult to access.

**36.1 Recommendation:** Double check that all the existing EOC computers can print to the printers within the EOC and the default is one of the EOC printers.

**36.2 Recommendation:** Ensure that there are easy ways for partners to print to the EOC printers using tools such as thumb drives or wireless access.

**36.3 Recommendation:** Request additional printers that are easily accessible by each of the operations branches

**37. Area for Improvement:** EMS radios (including the special response unit) could use more radios that include both State EMS frequencies ~and~ a full complement of local 7/800mHz frequencies.

**37.1 Recommendation:** Look into additional ways to tie in EMS radios into the communication frequencies and institute it in smaller disasters and training to ensure comfortability in frequency changes.

**38. Area for Improvement:** It is difficult to hear inside the EOC.

**38.1 Recommendation:** Look into sharing the VTC on additional TV's

**38.2 Recommendation:** Add microphones and speakers to the EOC structure.

**38.3 Recommendation:** Look into sound baffling substances to add to the EOC

**39. Area for Improvement:** There are concerns about the amount of reliance on networking and outside programs.

**39.1 Recommendation:** Look into replacing the Google doc's with a system inside of the network

**39.2 Recommendation:** Look into replacing the Google email with a shared system inside of the network

**40. Area for Improvement:** There were some confusion regarding which roles personnel was fulfilling

**40.1 Recommendation:** Purchase of new vests that help to support the EOC operations

**40.2 Recommendation:** Enforce the use of the existing vests and the critical elements of those roles.

## Training Programs

**Strength:** Partners overwhelmingly stated that the training that has been made available is very valuable.

**41. Area for Improvement:** Despite feeling that the existing training was valuable, partners believed more opportunities for training are needed to feel prepared for EOC activations.

**41.1 Recommendation:** Continue improving on the existing training program to increase training opportunities.

**42. Area for Improvement:** Additional position specific training should be encouraged for EOC personnel. Especially for positions other than liaisons.

**42.1 Recommendation:** PIO Training

**42.2 Recommendation:** Training on FEMA regulations and ICS structures

**42.3 Recommendation:** Additional EOC Operations Training

**42.4 Recommendation:** Section specific training

**42.5 Recommendation:** Deployment to other jurisdictions to continue to have hands on training

SECTION 3: IMPROVEMENT PLAN

This section of the report contains the improvement plan consolidated into a tabular format designed from the analysis in Section 2. In this section, observations are organized using the capability element and the *POETE* model (Planning, Organization, Equipment, Training, and Exercise) and include corrective actions as well as the Priority level.

Capability Element		Issue/Area for Improvement	Corrective Action
EOC Response Structure	Equipment	Use of BlueJeans video conferencing allowed remote locations partners to see what was going on but they were unable to hear the meetings within the EOC.	1.1 Recommendation: Acquire communications equipment that can be used to amplify the sound in the room and pick up voices for sharing via phone conference.
EOC Response Structure	Plans / Operations	Planning section staffing is insufficient without outside assistance.	2.1 Recommendation: Coordinate with departments to assign staff to planning section including training and exercise requirements.
EOC Response Structure	Plans / Operations		2.2 Recommendation: Identify critical roles and provide resources to partners to be able to fulfill those roles quickly and effectively.
EOC Response Structure	Plans / Operations	The emergency fund needs to be increased. The cost for repairs or response in a large disaster would be incredible and the current fund is insufficient and difficult to access.	3.1 Recommendation: Work with council to identify ways to quickly access the emergency fund in a disaster.
EOC Response Structure	Plans / Operations	The Operations Section was not able to quickly identify the requirements or existing resources of debris teams.	4.1 Recommendation: Work on a resource unit that has better access to existing county accessible resources.
EOC Response Structure	Plans / Operations		4.2 Recommendation: Expand the debris management plan to include debris team guidelines and expectation

Capability Element		Issue/Area for Improvement	Corrective Action
EOC Response Structure	Plans / Operations	Area for Improvement: Donations were brought to places where they were not needed and there was no identified way to redistribute.	5.1 Recommendation: Donations Management plan needs to be developed. Potentially in coordination with VOAD. This plan should include public messaging recommendations
EOC Response Structure	Plans / Operations	Expectations of the MEMA secretary position in a disaster is far beyond the existing position description.	6.2 Recommendation: We need to look at redescrbing the secretary position to have it match the expectations.
EOC Response Structure	Plans / Operations	The IMT assistance with EOC operations can be worked out to be very valuable. However, there needs to be a better understanding of the established EOC plans, policies and procedures.	7.1 Recommendation: Develop clearly identified roles for IMT integration into the EOC and train and exercise with the personnel.
EOC Response Structure	Equipment	Safety officers have concerns about field operations not being properly monitored by county safety personnel	8.1 Recommendation: ID cards from MEMA for safety personnel to use to access restricted sites in a disaster
EOC Response Structure	Plans / Operations		8.2 Recommendation: Work with MPD to ensure that safety issued ID's will be acceptable to pass through secure areas.
Staffing	Plans / Operations	Additional staffing needs to be identified prior to events in order to augment the existing MEMA staff to increase the capabilities of disaster management. This includes the utilizing of State and county workers both within the EOC and within the greater emergency response structure.	9.1 Recommendation: Develop a list of potential positions that county and State workers may be assigned to participate in during a disaster
Staffing	Plans / Operations		9.2 Recommendation: Identify potential workers from each of the departments who may be able to be reassigned in a disaster.
Staffing	Plans / Operations		9.3 Recommendation: Need to improve the language when people are sent home regarding call backs and expectations that all county

Capacity Element		Issue/Area for Improvement	Corrective Action
			workers are disaster workers and can be asked to respond at any time.
Staffing	Plans / Operations		9.4 Recommendation: Planning section persons need to be trained. Planning department has offered personnel to assist in the section but need better training prior to deployment.
Staffing	Plans / Operations		9.5 Recommendation: Logistics Section needs additional staffing with experience in resource management and material support and supply.
Staffing	Plans / Operations		9.6 Recommendation: Additional EOC Operations Training
Staffing	Plans / Operations		9.7 Recommendation: Request additional positions from county counsel.
Staffing	Plans / Operations	Not enough time was given to some staff members between shifts in order to ensure proper off duty time for rest and personal care.	10.1 Recommendation: EOC Director needs to enforce proper shifting of workers especially after the initial threat has passed.
Staffing	Training / Exercise		10.2 Recommendation: Additional staff needs to be trained in all positions to ensure positions can be covered when personnel is unavailable.
Staffing	Plans / Operations	There are departments and agencies that are not well represented within the EOC.	11.1 Recommendation: Identify ways to include additional personnel within the EOC structure through ESF support systems or by adding additional required seats.
Staffing	Plans / Operations		11.2 Recommendation: Reach out to partners who are not represented (i.e. judiciary) or not represented consistently and ask for feedback on EOC procedures and ways to better engage



Capability Element		Issue/Area for Improvement	Corrective Action
GIS	Plans / Operations	Although there was initial improvements with the use of GIS inside the EOC, more progress needs to be made at assigning GIS specialists to assist with the situational awareness within the EOC.	12.1 Recommendation: Work with partners to ensure GIS specialists are trained and available.
GIS	Plans / Operations		12.2 Recommendation: A system need to be developed to ensure that all location based information needs to be provided to the GIS unit for mapping.
Call Receivers	Plans / Operations	Despite the ease of use of the google drive, there were times when the information was out of date or not helpful for the callers.	13.1 Recommendation: Develop a description and staff the position to work with the call receivers to ensure their information is up to date.
Call Receivers	Equipment		13.2 Recommendation: Develop some printed documentation with static information for the call receivers to use.
Call Receivers	Plans / Operations		13.3 Recommendation: Develop procedures to ensure in escalated situations like the fire we continue to update the call receivers with current information.
Damage Assessment	Plans / Operations	Damage assessments were not coordinated across the different agencies conducting them. This led to multiple visits and a misunderstanding of what people were reporting for.	14.1 Recommendation: Develop a damage assessment plan that includes EOC facilitation and coordination.
Damage Assessment	Plans / Operations		14.2 Recommendation: Assign DA coordination within the EOC to individuals outside of the MEMA staff.
Damage Assessment	Plans / Operations		14.3 Recommendation: Develop MOU's that can ensure existing agencies who do DA can share information.

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Capability Element		Issue/Area for Improvement	Corrective Action
Damage Assessment	Plans / Operations	Lines of authority and responsibilities of individuals were unclear to some EOC participants.	15.1 Recommendation: Coordinate with departments to assign staff to planning section including time to meet training and exercise requirements
Damage Assessment	Training / Exercise		15.2 Recommendation: Provide additional reinforcement of roles and responsibilities within the EOC structure.
Damage Assessment	Plans / Operations	Recovery efforts including damage assessment need a strong focus. It was difficult for MEMA personnel to address recovery needs due to response priorities.	16.1 Recommendation: Look at adding short term recovery positions to the MEMA staff.
Sheltering	Plans / Operations	There was some differences in understanding regarding the agreements between the DOE and the ARC.	17.1 Recommendation: The agreements need to be looked at with the DOE and ARC and updated to ensure responsibilities are able to be met.
Sheltering	Plans / Operations		17.2 Recommendation: Need to take a closer look at responsibilities regarding cleaning the facilities after sheltering especially within DOE sites.
Sheltering	Plans / Operations	Need to take a closer look at medical support within the sheltering system.	18.1 Recommendation: Need to plan for medical support shelters during large shelter operations.
Sheltering	Plans / Operations		18.2 Recommendation: The federal agency USPHS does Medical Shelter Assessments. Request should be made to them to assess all the hurricane shelters in Maui County as potential medical sites.
Sheltering	Plans / Operations		18.3 Recommendation: Need an update on policies on use of walk on clinicians and the best way to integrate them into a large disaster
Sheltering	Plans / Operations	Existing shelter sites are insufficient.	19.1 Recommendation: Need to work with the DOE and HI-EMA on increasing shelter capabilities including new facilities built to

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Capacity Element		Issue/Area for Improvement	Corrective Action
			hurricane standards and retrofitting existing facilities to increase safety.
Sheltering	Plans / Operations		19.2 Recommendation: Work with the DOE on retrofitting facilities with transfer switches and generators for all hurricane shelters.
Sheltering	Plans / Operations		19.3 Recommendation: Need additional shelter sites throughout the county but especially on the west side of Maui and the east end of Molokai.
Sheltering	Plans / Operations		19.4 Recommendation: The county needs to look further at the process of opening shelters that are not red cross run sites in the case that Red Cross is unable to fulfill expectations.
Sheltering	Plans / Operations	Shelter site staffing could be a problem if we open sites beyond our initial priority shelters.	20.1 Recommendation: Sheltering committee needs to talk more about staffing augmentation of additional sites.
Sheltering	Plans / Operations	There were some issues in transitioning the shelters and some differences in understanding regarding the process of closing shelters after a disaster.	21.1 Recommendation: Transitioning from evacuation shelters to congregate care shelters or closing needs to be planned early and coordinated with all partners.
Sheltering	Plans / Operations	After the storm passed the schools priority is to reopen for students as soon as possible. The transition timing was too short for some of the residents. There was a disconnect for the shelter residents, shelter staff, and partner agencies on transitioning.	22.1 Recommendation: Transitioning from evacuation shelters to congregate care shelters or closing needs to be planned early and coordinated with all partners.
Pet Sheltering	Plans / Operations	Management of shelter/pet shelter supplies at the facilities not getting back to humane society.	23.1 Recommendation: Better coordination and communication of pet sheltering supplies during shelter transition.

Capability Element		Issue/Area for Improvement	Corrective Action
Pet Sheltering	Plans / Operations	Communications flow to the Humane Society was unclear leading to problems.	24.1 Recommendation: Look at communications expectations and responsibilities for humane society. Potentially look at VOAD as the communications point instead of ARC
Information Sharing – Partners	Plans / Operations	In the past, information pushes to the partners included information for public release. This allowed some of our public facing partners to be able to quickly disseminate information to the public. This did not happen over this response.	25.1 Recommendation: Work with planning section and the PIO's to insure information sharing is as wide as possible.
Information Sharing – Public	Plans / Operations	County website and Facebook pages need to have a dedicated person assigned in order to ensure continued current status. 28. Area for Improvement:	26.1 Recommendation: Develop position descriptions and expectations to ensure personnel will be trained and available.
Information Sharing – Public	Plans / Operations		26.2 Recommendation: Develop procedures to ensure partners are providing up to date information to be included on the website and in the Facebook page
Information Sharing – Public	Plans / Operations	PIO Process remains undefined and EOC partners are unsure how to fully utilize.	27.1 Recommendation: JIC needs to be established and staffed with all the partners.
Information Sharing – Public	Plans / Operations		27.2 Recommendation: JIC needs to establish the talking points for the mayor. If no JIC is developed, the PIO's for each group needs to be consulted.
Information Sharing – Public	Plans / Operations		27.3 Recommendation: PIO needs to have careful oversight of the call receiver questions and be working with them on information sharing and response.

Capability Element		Issue/Area for Improvement	Corrective Action
Information Sharing – Public	Plans / Operations	Long term recovery messaging needs to be included early in the process.	28.1 Recommendation: Additional messaging from coastal planning group needs to be solidified and pushed out as a part of the regular messaging rotation in a disaster
Information Sharing – Public	Plans / Operations		28.2 Recommendation: Post disaster reconstruction guidelines need to be consulted as part of the messaging process.
Information Sharing – Public	Plans / Operations	Some of the radio stations were playing prerecorded programs and were not able to push out current messages.	29.1 Recommendation: Work with the radio stations to find out what their capabilities are and how to best utilize them in a disaster.
Coordination with State Resources	Plans / Operations	Personnel at HI-EMA were unfamiliar with Maui County. This led to some confusion in ordering resources and difficulty in providing accurate information to the statewide system.	30.1 Recommendation: Provide basic Maui County data for HI-EMA’s Maui Desk for quick reference in an event
Coordination with State Resources	Training		30.2 Recommendation: Include HI-EMA staff in Maui County training in order to better conceptualize operations in Maui County.
Coordination with State Resources	Equipment	Some of the state radios do not communicate outside of the EOC.	31.1 Recommendation: Additional boosters or other equipment may need to be installed to improve capacity
Facilities	Equipment	The EOC is insufficient for the level of operations that is expected for emergency response. There needs to be some alterations to the existing space in order to improve response in addition to looking for a new space that will be sufficient for EOC Activations	32.1 Recommendation: Identify a location and develop plans for a new EOC.
Facilities	Equipment		32.2 Recommendation: Improve power supply into the EOC and conference rooms

Capability Element		Issue/Area for Improvement	Corrective Action
Facilities	Equipment		32.3 Recommendation: Provide additional amplification devices for the EOC including microphones and speakers.
Facilities	Equipment		32.4 Recommendation: Additional phone and Ethernet connections for the EOC to increase ability to coordinate response
Facilities	Equipment		32.5 Recommendation: Improved Wi-Fi capabilities to ensure the number of partners who enter the room are capable of signing on and staying connected.
Facilities	Equipment		32.6 Recommendation: Develop a list of EOC positions and ensure that critical positions identified have a space and a computer assigned to ensure workflow can be completed.
Facilities	Equipment		32.7 Recommendation: Improve air flow and air conditioning of the EOC.
Facilities	Equipment	The monitor in the call receiver room is difficult to see from the majority of the stations.	33.1 Recommendation: Adjust the monitor in the call receivers room so it is in a more visible location.
Facilities	Equipment	Access to the EOC is limited to badge holders. There are not enough badges for partners to use and it is difficult to vet the number of people who are requesting access to the secured facility.	34.1 Recommendation: Ensure all county partners listed as potential EOC liaisons have badged access to the facility.
Facilities	Equipment		34.2 Recommendation: Ask for additional shared badges to be made that grant access to the facility
Facilities	Equipment		34.3 Recommendation: Revoke access to all badges missing from EOC stash to ensure we are not allowing undue access.
Facilities	Equipment	Molokai has insufficient facilities for EOC response.	35.1 Recommendation: Molokai EOC needs to be developed and finalized.

Capability Element		Issue/Area for Improvement	Corrective Action
Equipment	Equipment	Printers were difficult to print to and difficult to access.	36.1 Recommendation: Double check that all the existing EOC computers can print to the printers within the EOC and the default is one of the EOC printers.
Equipment	Equipment		36.2 Recommendation: Ensure that there are easy ways for partners to print to the EOC printers using tools such as thumb drives or wireless access.
Equipment	Equipment		36.3 Recommendation: Request additional printers that are easily accessible by each of the operations branches
Equipment	Equipment	EMS radios (including the special response unit) could use more radios that include both State EMS frequencies ~and~ a full complement of local 7/800MHz frequencies.	37.1 Recommendation: Look into additional ways to tie in EMS radios into the communication frequencies and institute it in smaller disasters and training to ensure comfortability in frequency changes.
Equipment	Equipment	It is difficult to hear inside the EOC.	38.1 Recommendation: Look into sharing the VTC on additional TV's
Equipment	Equipment		38.2 Recommendation: Add microphones and speakers to the EOC structure.
Equipment	Equipment		38.3 Recommendation: Look into sound baffling substances to add to the EOC
Equipment	Equipment	There are concerns about the amount of reliance on networking and outside programs.	39.1 Recommendation: Look into replacing the Google doc's with a system inside of the network
Equipment	Equipment		39.2 Recommendation: Look into replacing the Google email with a shared system inside of the network

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Capability Element		Issue/Area for Improvement	Corrective Action
Equipment	Equipment	There were some confusion regarding which roles personnel was fulfilling	40.1 Recommendation: Purchase of new vests that help to support the EOC operations
Equipment	Plans / Operations		40.2 Recommendation: Enforce the use of the existing vests and the critical elements of those roles.
Training Program	Training / Exercise	Despite feeling that the existing training was valuable, partners believed more opportunities for training are needed to fell prepared for EOC activations.	41.1 Recommendation: Continue improving on the existing training program to increase training opportunities.
Training Program	Training / Exercise	Additional position specific training should be encouraged for EOC personnel. Especially for positions other than liaisons.	42.1 Recommendation: PIO Training
Training Program	Training / Exercise		42.2 Recommendation: Training on FEMA regulations and ICS structures
Training Program	Training / Exercise		42.3 Recommendation: Additional EOC Operations Training
Training Program	Training / Exercise		42.4 Recommendation: Section specific training
Training Program	Training / Exercise		42.5 Recommendation: Deployment to other jurisdictions to continue to have hands on training



## SECTION 4: CONCLUSION

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Tropical Cyclone Lane's unexpected delayed arrival to the County tested the depth of our personnel pool. As the storm approached the County, its speed decreased significantly which led to its delayed arrival. As a result, the staff and our EOC partners found themselves in the EOC for several days.

During the video tele conference with State and Federal partners, the National Weather Service predicted that there would be immense coastal flooding as a result of TS Lane. For this reason, the Hawaii Emergency Management Agency (HIEMA) requested FEMA's swift water rescue team to be pre-staged on the island of Maui. Much of the EOC's preparation was for the effects of a hurricane or tropical storm and so we were caught off guard when the threat turned into a large brush fire that came close to engulfing all of Lahaina town.

TS Lane demonstrated the strength of our EOC and the ability to quickly respond to an evolving threat. The storm also revealed gaps and shortfalls as previously discussed. Most glaring of these gaps was the ability to efficiently coordinate our recovery efforts. While the staff was effective in our response to the storm, our recovery efforts were sorely neglected. Each phase of any emergency has staff primarily assigned to it, with the exception of the recovery phase. In light of this revelation, the Mayor and County Council approved the creation of a position with the primary responsibility of recovery. The addition would also provide more depth to our staff during emergency activations and standby rotations. The position would be responsible for engaging community organizations interested in assisting during disasters. This would be done during "blue skies" throughout the year and developing these relationships so that in the event such disasters occur, the recovery specialists would be comfortably able to communicate needs to these organizations and coordinate our recovery efforts.

The brush fire also created significant debris and the department responsible for debris management was ill prepared and unable to handle the situation. Fire victims were in need of assistance for debris removal which was necessary to begin the rebuilding phase. It was important to ensure that the debris management was in compliance with FEMA rules to ensure reimbursement of costs. This meant that the responsible department must be well versed in FEMA regulations as it relates to debris removal and management. As a result of this gap, the administrator of MEMA requested that HIEMA adopt this issue as the main focus of Makani Pahili (Hawaii State hurricane exercise). Multiple workshops were scheduled and various departments responsible for debris management traveled to Oahu to participate in workshops and exercises.

APPENDIX A: FEEDBACK FORM



Maui County Emergency Management Agency

MEMA

County of Maui



Tropical Cyclone Event Feedback Form

To improve the county's ability to provide for the safety of its residents and visitors, we are asking for feedback from everyone involved in the emergency response. An Improvement Plan will be developed based on this input.

This questionnaire consists of three questions of your opinion on a scale of 1 to 5 and three short answer questions. Please provide as much information as possible.

Name:

Date:

Department/Agency:

Emergency Response Role:

Do you have adequate TRAINING to participate in EOC operations?

No I do not 1 - 2 - 3 - 4 - 5 Yes I do

Please explain your answer;

Do you have access to adequate and appropriate EQUIPMENT to fulfill your emergency role in the EOC?

No I do not 1 - 2 - 3 - 4 - 5 Yes I do

Please explain your answer;

Do you have the SKILLS necessary to fulfill your emergency role in the EOC?

No I do not 1 - 2 - 3 - 4 - 5 Yes I do

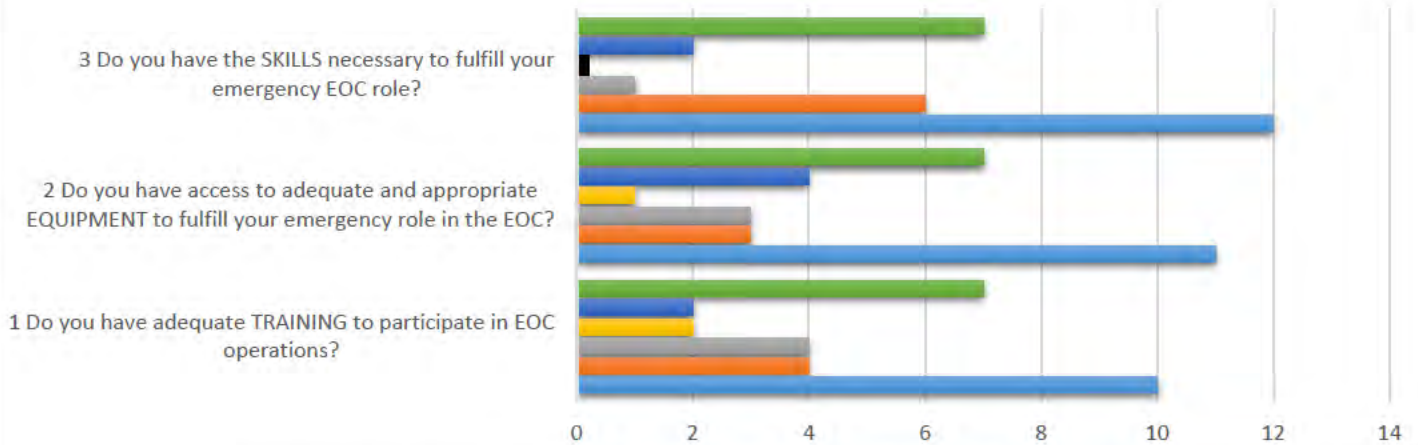
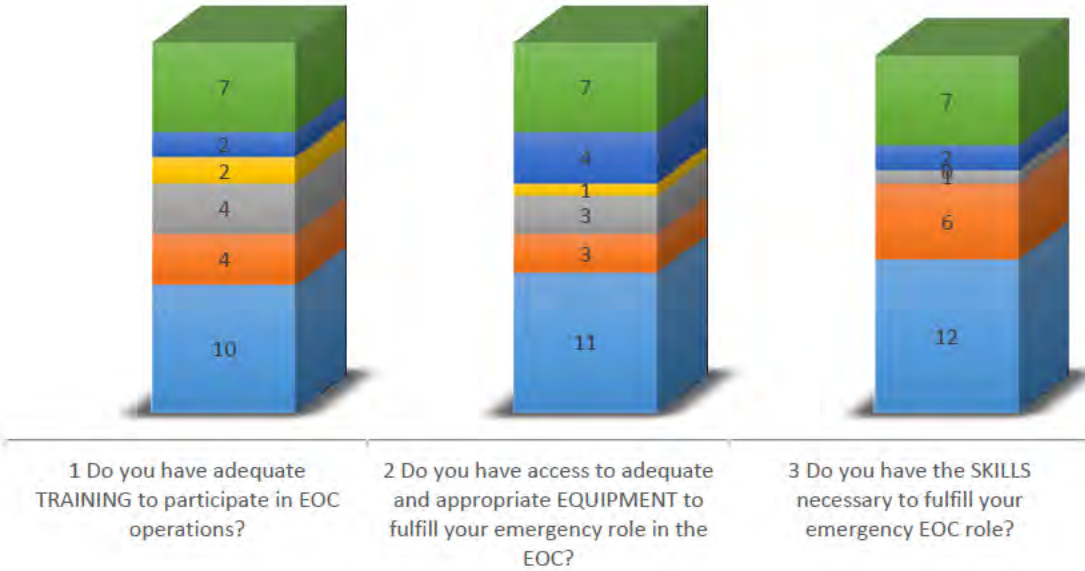
Please explain your answer;

Is there anything that happened in this response that you would like to see repeated in future EOC responses?

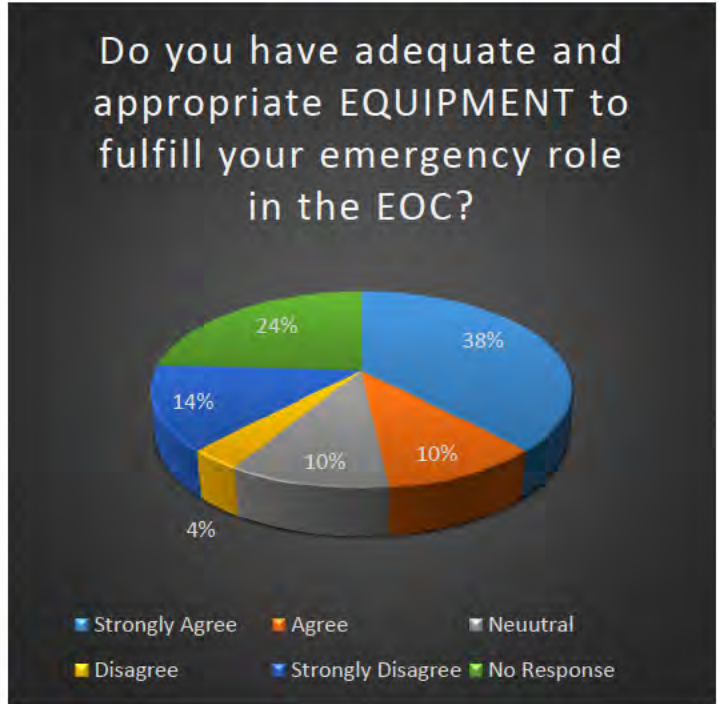
What changes can be made to improve emergency response in Maui County?

Any other comments you would like to share?

APPENDIX B: SURVEY RESULTS



	1 Do you have adequate TRAINING to participate in EOC operations?	2 Do you have access to adequate and appropriate EQUIPMENT to fulfill your emergency role in the EOC?	3 Do you have the SKILLS necessary to fulfill your emergency EOC role?
No Response	7	7	7
Strongly Disagree	2	4	2
Disagree	2	1	0
Neutral	4	3	1
Agree	4	3	6
Strongly Agree	10	11	12



**APPENDIX C: SURVEY RAW RESPONSES**

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*Note: All numerical feedback received was included in this data. Some written feedback has been limited for safety, clarity, or repetitive statements*

**Online survey provided to EOC partners**

1 Do you have adequate TRAINING to participate in EOC operations?

2 Do you have access to adequate and appropriate EQUIPMENT to fulfill your emergency role in the EOC?

3 Do you have the SKILLS necessary to fulfill your emergency EOC role?

5	5	5
4	4	4
5	4	5
2	5	5
5	1	5
4	5	5
5	5	4
4	3	5
5	1	5
4	3	4
5	5	5
5	5	5
1	3	4
5	5	5
1	5	1
5	5	5
Na	Na	Na
Na	Na	Na
Na	Na	Na
Na	Na	Na
Na	Na	Na
Na	Na	Na
3	1	3
3	5	
5	2	5
Na	Na	Na
3	5	4
3	1	4
2	4	1

## Training

Been through many activations and have attended majority of FEMA courses.

Briefing was done day before shiftwork began.

HAD ISC TRAINING UP TO 700

I believe I have adequate training, but because this is not a full time job, there is never enough training or enough time to do things properly.

I feel I was trained but still feel inadequate

I feel much more comfortable and competent as an EMS rep at the EOC, but more training and experience is always welcome.

I have extensive EOC from the US Navy to build one in Saipan.

I have had some training but not enough training in EOC operations nor my new position

I have received ICS training in the past along with continuing training in EOC operations.

I was trained in all ICS courses back on the East Coast, had not worked in Maui EOC before TS Lane.

Maui Emergency Management Agency has provided the training and I have attended.

Need training on FEMA regulations and what all the abbreviations mean.

No more than 2. Lack expertise on all the FEMA regulations and EOC terminology.

past experience with FEMA and EOC ops.

Previous training and exercise experiences facilitated the knowledge and understanding on how to perform the functions/responsibilities I had to help the response process.

Training has been "on the job" but most of the requirements are intuitive and the MEMA staff is very helpful.

We have not been given any training in the EOC

WENT THROUGH ICS TRAINING BECAUSE OF TROPIC CARE BUT NO EXPERIENCE FOR PIO

Yes, I have adequate training to do what I need to do representing the airport. It is not enough training to assist with all aspects of the EOC.

## Equipment

A small standalone printer would be helpful with our digital ICS forms.

all I need is a telephone my personal resources and the VOAD book

At the time no, but we have created a notebook for Olivia.

equipment is provided by our partners

I bring my own things that I need

Internet access (computer) to inform callers on status of hurricane, other info.

Molokai EOC/CP operations are split between the police station in Kaunakakai and the Emergency Dispatch at the Kaunakakai Fire Station. We need the Molokai EOC/CP room completed so we have access to the needed communication set up and area to conduct operations.

Needed to have a fully staffed Planning Section unit as well as better connections with other Ops branches. Logistics unit severely lacking. Misconnect with PIO. Should have stood up Resources unit

No, the radio I use does not reach outside the MEMA office.

Only need access to the internet.

Only need access to the internet. Smart cell phone seemed sufficient

#### PREPARED

Resource UL will utilize everything from index cards (T-card system) to excel/computer programs to organized and visualize the response capabilities.

There was no laptop identified for use by this position. I am unable to quickly share information amongst the different responders in the EOC and there is not a direct reporting system.

We (EMS, esp. our special response unit) could use more radios that include both State EMS frequencies ~and~ a full complement of local 7/800MHz frequencies (e.g. FD1, FD2, etc.)

yes, but using unfamiliar computer.

Yes. Kudos to ITS for helping me hook up a DWS laptop; this vastly improved communications.

#### Skills

30 plus yrs. 100, 200, 300, 400, 700 and 800 plus All-Hazard Safety Officer Cert., OSHA 500 and 501, NFPA Building code and more

Again, I always welcome more training and experience, but my qualifications do include completion of NIMS and ICS train-the-trainer workshops at the National Fire Academy / Emergency Management Institute, and I have served as supervisor for medical operations at numerous major incidents in numerous jurisdictions.

Have worked in 100+ pervious disasters as Ops and Planning Chiefs.

I have been with the Dept for 24 years and am aware of the operations and who to call if need to.

Lack basic FEMA knowledge.

Need the FEMA training.

Skills are insufficient based on limited training and a lack of clear expectations. additional support is needed in order to fulfill this role sufficiently

That is if I am allowed to do so within my current organizations chain-of-command.

This event helped. Need to expand our Plans Unit training. Go to Google Docs so everyone can input data rather than send unit the sit rep, watch for emails, cut and paste from different formats, then collate and reproduce. google docs might improve efficiency. JB

WE ARE IN CONSTANT COMMUNICAITONS WITH OUR PARTNERS TO INSURE OPERATIONS ARE SAFE ALONG WITH SAFETY OF OUR CONSITUENTS WHO NEEDED OUR SERVICES

While I believe I have the skills necessary, utilizing them effectively will come with each and every additional experience.

Yes, I have taken some of the classes for EOC and IC. Exercises and real world response strengthen my skills.

Yes. I have a fairly good understanding of the DWS operations and am able to discern most of the "who/what/when/where" matters to provide relevant feedback to the EOC.

#### Repeated

Additional support called in to assist with the running of operations in the EOC

Communication, continuity and coordination across the State and with the State resources. Utilization of the ICS system and forms including the IAP. Meeting briefs and timeliness.

Continue having the mayor and MD attend daily briefings.

DISCONNECT BETWEEN EOC OPERATIONS AND CALL CENTER.

EMS just having a 'seat at the table' with peers from Fire, Police, and other branches of health and public safety is terrific. In my view, inter-agency communication and collaboration continues to improve, and this translates to better unified command and response in the field.

Having to entire spectrum of people in the operations center was very effective at solving problems.

I will provide an additional attachment.

I would like training for the individuals who filled in for Water Dept.

Keep up the email updates and VTC as needed.

MEMA was able to split into two shifts and had personnel to do so. We should continue and also learn to do this. Great job!

No.

PEOPLE SAID THAT THE PIO SHOULD BE SOMEWHERE AT MEMA AT ALL TIMES

The readiness, enthusiasm and participation of the team was amazing. I was especially impressed with the Police and Fire Departments. they were amazing.

The use of the DLNR for Planning was on it. That's what I am used to.

There was quick communications with MEMA.

There were new higher uppers in the EOC who have not been involved in previous activations. They were trying to micro manage the experience departments, who were following their own established protocol.

Thought that everything went well, We do need to improve on WIFI in that room since our iPads and tablets had no reception at times

When it was apparent that conditions were fairly stable and DWS would not offer any further information, DWS was excused from the EOC. That made sense and was very helpful.

## Changes that can be made

- If the IMT and EOC are going to be combined, clearly identify roles and dual task those in the "EOC" to help fulfill the ICS positions. They can take the online classes, and preferably train for the specific roles, but will be able to aid both functions at the same time.

- If the framework of accountability (people, vehicle, equipment resource tracking) is set before the incident starts it will help streamline the accountability process (finance/admin and justifying federal support) at the end. Due to time constraints, and in this case the scope including the entire county, it is very difficult to get basic information like start/stop time of every individual involved let alone more specific details like the typing of the equipment being utilized. It is vitally important to have tools to collect the necessary information at the lowest level possible. A couple of examples:

- Needing to know what kind of generator was used at the shelters and if it would work for the water pumps. If we had already typed the equipment we would have been a step ahead and would have already known whether it would be sufficient or not.

- Knowing all the debris removal teams available to the IMT. The Public Safety branch didn't know that the Parks department had Sawyer teams, how many people were on each team, and what they were capable of doing. To maximize utilization of all of the different "types" of saw teams within the different departments, we need to know what they all are, what a team is comprised of, what equipment they have, and what their capabilities are.

- If you are expecting to have 2 CAP planes available and didn't know one was out of commission, how would that impact the prioritization of the mission for the 1 available?



- 1) Add security cell in and out, badging, all have vests,
- 2) build standard running PPT presentations on VTC for the Sit Rep so that anyone can look up and get an idea of status via place base maps.
- 3) I was unaware of how our call center went, but we might want to organizationally set up a Social Media Branch with adequate staff to tweet info out about everything.
- 4) Consider Incident Objective from beginning to include Departmental and EOC operations staffing patterns -- develop a deeper 24/7 staffing operational posture.
  1. Could use training - workflow, how the EOC is organized, what is expected of us. The branches are pretty obvious, but how they do what they do is not so intuitive. Don't know what logistics and planning do or why.
  2. Kinda shocked the EOC needed as much help as it does. Should be air conditioned, saw way too many IT people trying to make things work. I understand this is kind of Council's fault, we have asked for money and they said no.
  3. We should plan beforehand who the on-call county workers are. We had an incident where the Mayor and MD wanted county workers to help Red Cross open classrooms at shelters. The work involved moving furniture around to make room for people. They thought DHHC employees would be the best since they deal with people all the time.  
  
For one, we don't really have anyone with that kind of physical ability. The employees who get out in the field are older, mostly female, and they just got through doing a double duty shift to provide meals to our home-bound folks. They don't have that kind of physical ability, particularly after performing their work. We do have a few Kaunoa guys, but they are not enough.  
  
My thought is Parks maintenance employees, the ones who are doing outdoor work already, could be the best for this job. There are quite a few of them and they are distributed around the island. Our folks are central Maui only.

4. It is surprising that shelters do not have emergency power or breaker boxes to cut off a facility from regular MECO power. I know these are DOE facilities, but OMG if there is some kind of medical need. Plus as someone pointed out, just having lights on in the middle of a nighttime storm is comforting. Would not know who to go to for that one - funding from legislators?

5. Water treatment have emergency generators but the wells do not? Self-evident bummer when the fire raged through and cut power to wells.

6. There was nobody from the VOAD group when we needed one. A quite obese woman was abandoned at Maui High with all of her belongings, we were not sure what to do with her or who to contact.

7. My vote for best snacks - No. 1 was dried mangoes from Costco. No. 2 was cashew clusters from Costco, No 3, M&Ms, after that it is all good.

8. Do we need a list of emergency medical sites? Might not be possible till the disaster is there. It might be helpful to know if possible.

1. We need more shelter options especially on the west side of the island

2. Need an agreement with radio stations to keep their station live during an emergency and not on prerecorded programming.

9-1-1 Dispatch supervisor had some concerns about response procedures that they had been unaware of; making sure that they have representatives present may alleviate some of those concerns.

As per our conversation earlier today, is it possible to create policies and procedures for shelters that are not Red Cross shelters.

DWS currently has a list of several staff members who are considered eligible to represent the Department. There should be standardized, defined expectations from the EOC with regards to the qualifications necessary to assist in the EOC.

EOC Identification cards for the Safety staff to be able to do their jobs in the field.

I thought overall the emergency response was good.

I will provide an additional attachment.

I would like to see Maui Emergency Management Agency send out official updates like they use to so we can forward those on to our visitors and/or if people are signed up for emergency notices, they will automatically get it.

IMPROVE ON THE COMMUNICATIONS BETWEEN EOC OPERATIONS AND THE CALL CENTER. WE GAVE EOC OUR OPERATIONAL SCHEDULE, HOWEVER IT WAS NOT PASSED ON TO THE CALL CENTER.

Improve sound system.

Improve the sound system and perhaps add in a couple more monitors.

LARGER MEETING ROOM. SEEMS RATHER CRAMPED

Let's start with good planning, better updates, Ops briefing, don't forget the importance of safety and etc...

Since I don't have an official EOC role, I thought it would be better if I email you directly rather than respond to the electronic survey. I think Sgt. Masse may have already noted the use of Blue Jeans during county briefs. We were able to see the video clearly but, as you likely know, couldn't hear the discussion very well. Only Keanu's voice (I think it was Keanu?) was very clear, as though she were speaking into a microphone. If there is any way to have the person speaking use whatever technique or device Keanu was using, that would probably solve that issue. Re Lt. Rodrigues' not being able to verbally comment: that was an issue originating on our end so we should have that resolved for future use.

The Director needs more training in the area of reading and interpreting the weather maps; the State should not have been called into take over the coordination of County assets. Clearly that is the Mayor's responsibility in consultation with your Director; the briefing room is much too small and for some reason the air conditioning does not work when the room is full; Cellphone reception is not very good, you may need a signal booster within the basement.

The EOC needs a bigger room. EOC manager should invite the Administrative Judge of the Second Circuit to attend our Event Briefings.

The federal agency USPHS (Mark Byrd) reports that they would be available to do Medical Shelter Assessments. Requests can be made through them for additional information. There may be value in requesting those assessments for all the hurricane shelters in Maui County.

We need the Molokai EOC/CP room.

While seating was added, which made it better, there is still not enough room in the MEMA operations room.

## Other

- Don't be afraid to ask for help. The RFA for additional IMT support was great!
- Continue to engage the entire professional services (PD, FD, medical, etc.) to flexibly use the ICS on every call and to rotate the major ICS roles. With occasional and frequent (if possible) carrots to play along, you'll get all the departments to play on the All-hazards team vs. their own. I've seen how long it takes, but how beneficial it can be when everyone buys into it.
- Keep up the good work!

1) Messaging: Coastal Planning Group need to get messaging out to public very early. As I was consumed by EOC operations, I was unable to attend to my ESF planning "response" role. 2) Idea to establish a Coastal Erosion Clearinghouse to organize all eyes and ears along shoreline, via interested stakeholders to report to someone like Tara Owens, UH SeaGrant through maybe a survey monkey like this (if power is up:)) or other better reporting format. JAB

DWS staff members participating in the EOC should be trained.

Everyone seemed very professional.

For the Call Receiver Center to provide better information to the calling public, better communication between the Call Receiver Center and the actual EOC. They were not provided up to date information at time.

Great job overall.

Herman and all his staff was amazing

Kudos to Keith Regan for correcting the county website so all the information was available to the public.

Like the improvements in the furnishings. And again, great job by all involved.

Many thanks to MEMA and partners for bolstering our community's team approach to emergency preparedness and response.

No

NOT OTHER COMMENTS AT THIS TIME. WE WERE PREPARED, ALL OF OUR PROTOCOLS WERE FOLLOWED. THERE IS A VERY MINOR ITEM WE NEED TO TWEAK FOR FUTURE INCIDENTS.

Rest! Everyone needs to take proper rest and relieve your staff.

Thank God for DLNR DOFAW staff

Thank you to your staff on keeping everyone up to date.

Thank you.

THANKS TO MEMA STAFF FOR ALL YOUR HARD WORK!

Website info (both mauicounty.gov and Call Center internet access info) needs to be updated immediately upon any status changes so accurate info can be given to callers. "Paper" info given to Call Center is too cumbersome to read and remember, especially if there's several "papers". Also, as new "paper" info is given, assistants need to remember to destroy "old" paper info.

## Notes from Shelter Committee Hot wash post event;

### Strength

Pet Sheltering system worked as planned

- Supplies staged at all shelters

- Staffing

- Coordination with DOE went well

- Locations

- Communications templates development

Police coordination of getting Pet Shelter group through roadblocks

Humane enforcement did support the evacuation efforts

DOE coordination with Red Cross was fantastic.

- Staged persons on site

- Accommodating of locations

Red Cross volunteers were able to staff shelters

**Delta**

Donations Management plan needs to be developed. Potentially in coordination with VOAD  
Financial management  
Messaging regarding private donations coordination  
Need to message  
Coordinate DA is needed  
Management of shelter/pet shelter supplies at the facilities not getting back to humane society  
Volunteer staffing.  
Communications from EOC to Humane Society for changes in operations  
Need for medical shelters in large shelter operations  
Least organized part of the sheltering process was  
Need more sheltering operations for the west side

**Notes from County Departments Leadership Hot wash 08/29/2018**

**STRENGTHS**

IT section – assisting with the reformatting the EOC and establishing the planning section area and call receiver area, GIS  
Redesign of the call receiver area  
MPD radio and generator assistance  
Google Drive Status reports were well utilized by call receivers. It was a usable document for the call receivers  
Planning P and operational period was a positive. Especially the assistance in setting up the structure with DLNR and Planning section.  
Branch chief format was a good format.  
Food unit was spectacular.  
People worked well together, took it seriously, showed up, and coordinated well. Sleep deprivation did not lead to interpersonal breakdowns.  
State assistance – liaisons were good.  
Including people in the VTC questioning process.  
Support from the agencies who did show up in the EOC.  
Call receivers were good for the public and good for the EOC  
List of equipment and staging areas were utilized for the agencies that had it  
Org chart with contact information  
24 hours ops was established at an appropriate time. It triggered some departmental operations based on EOC procedures. The timing was good and appropriate.  
The people assigned to the EOC were good decision makers.  
Supportive of each other’s operational challenges and solution oriented  
EMS involvement in the EOC operations, including training preparedness and response.  
The police and fire and supporting agencies response to the Fire within the incident was remarkable.  
12 hour operational periods were a positive

Knowledge from the long time emergency responders utilized in the operations (Pam, Jim, DLNR)  
Rumor mill was quickly addressed and debunked by PIO team  
Mayors scheduled press briefings.  
MEMA staff were professional and coordinated in a tough situation  
Having federal assistance early and consistently.  
Highways maintenance and pre-storm hardening of the facilities  
MPD response to issues that came up in the shelters  
ARC and CERT volunteers assisting  
All hands were willing to do all things. Staff who were in the EOC were willing to participate in any actions, without ego.

### **DELTA**s

Printouts for the call receivers. Some of them prefer the printed versions rather than the electronic versions.  
Ensuring that there is proper trading off of persons for all positions.  
Concerned about the amount of reliance on networking and outside programs. Need to replace the Google doc's with a system inside of the network.  
The monitor in the call receiver room needs to be adjusted.  
Additional ID's for partners to have access to the EOC  
Insure that all information is coordinated into the same documents for call receiver documentation.  
High intensity situations need to have more information shared with the call receivers  
EOC is insufficient for the needs of the event. Connections, power trips, phone connections, ac, size,  
Area familiarization by HI-EMA staff  
Staffing remains insufficient for the events. Planning section and Logistics section needs to have staffing identified outside of the MEMA staff.  
Everyone should be doing ICS 100, 200, 300, 400, 700. Section specific trainings. Deployments as a part of the training programs.  
Work rest periods are not being observed.  
Better signs on Planning P and Ops period.  
Communications structures.  
The agreements need to be looked at with the DOE and ARC  
Transitioning Hurricane/Evacuation sheltering quickly and effectively.  
Need to look at the policies of cleaning up after sheltering, especially in the school.  
Policies on use of walk on clinicians and the best way to integrate them into shelter response.  
Language when people are sent home regarding call backs and expectations that all county workers are disaster workers and can be asked to respond at any time.  
Secretary position needs to be redefined for the sake of the position.  
Sheltering committee needs to talk more about staffing augmentation of additional sites.  
EOC acoustics in the EOC are insufficient.  
Bigger more functional and more versatile EOC is needed.  
Situational awareness needs to be improved. Information going onto the boards all needs to go into the maps.  
Need to have a system in place to alert others to the situation.

The emergency fund needs to be increased. The cost for repairs or response would be incredible and the current fund is insufficient.

JIC needs to be established and staffed with all the partners. They can make the talking points for the mayor. If no JIC is developed, the PIO's for each group needs to be consulted. PIO needs to also be addressing the call receiver questions.

Decision making needs to be the focus of the EOC. Sometimes it becomes too tactical.

Identification cards for safety officer staff to be able to access field operations on behalf of the EOC.  
Is it possible to create policies and procedures for shelters that are not Red Cross shelters?

**APPENDIX D: DAMAGE SUMMARY**

After activation of the county emergency response system, county departments and agencies are asked to submit costs associated with the event. These costs should include personnel, equipment, and repairs. This data is used to determine qualifications for funding from national sources as well as allow the county to plan for future events of similar magnitude.

**Damage Reports collected from partners;**

Unknown... Needs details

**Damage Reports collected from the public;**

A push for reports of damages, led to submittals being turned in online through the Maui County website. County of Maui teams, Red Cross and CERT all provided additional detailed looks at neighborhoods and reported effected homes. These were coordinated along with county approved damage assessments and provided to Hawaii Emergency Management Agency and FEMA. Additional Preliminary Disaster Assessments were conducted on homes designated major or destroyed with teams from the county, FEMA, HI-EMA and SBA. The county did not meet the threshold for need for FEMA assistance but did meet the threshold for assistance provided through SBA.

The complete list of identified homes in available at MEMA. Due to privacy concerns, limited information is included in this document

Report from	Street	City	Primary Home	Insurance	Damage Type (description from source)
Online Tool	[REDACTED]	Lahaina			Lost Shingles during the storm, roof was 11 yrs old. Wanted to know what wind MPH for Lahaina was.
Online Tool	[REDACTED]	Lahaina			Storage units on property were burned in the fire. Mostly tools, welding equipment, ladders, etc. Main home has ask and needs some clean up, but remains unburned.
Online Tool	[REDACTED]	Lahaina			Storage units on property were burned in the fire. Mostly tools, welding equipment, ladders, etc. Main home has ask and needs some clean up, but remains unburned.

						Owner of [REDACTED] is looking for assistance with hauling the metal debris from their storage area. Still had small manufacturing happening at this location. It is all effected from the fire.
CERT	[REDACTED]	Lahaina				Not sure if roof is damaged would like someone to check roof
CERT	[REDACTED]	Lahaina				Roof damage but no help needed
						Roof damage. Peak of roof shingles gone and 18" wind turbine vent gone. Elderly couple cannot fix themselves. \$1000 deductible to fix through insurance. May want to remove vent
CERT	[REDACTED]	Lahaina				Not home but solar heater blew off and hit [REDACTED] car
CERT	[REDACTED]	Lahaina				Gate floor from other damaged car. No need help
ARC/Street Sheet	[REDACTED]	Lahaina				Destroyed - Foundation
						Destroyed - Foundation Behind gated community Puunooa.
ARC	[REDACTED]	Lahaina				
ARC	[REDACTED]	Lahaina				Affected – Shingles, Siding
ARC	[REDACTED]	Lahaina				Affected – Shingles, Siding
						Screens missing has some screen and frame material but needs help putting them together. May need someone to go on roof and check for damage
CERT	[REDACTED]	Lahaina				Cracked skylight on roof from wind damage.
Online Tool	[REDACTED]	Haiku			Uninsured	
				Owner		
Online Tool	[REDACTED]	Lahaina		Occupied	Uninsured	Burned in fire
				Owner		
Online Tool	[REDACTED]	Lahaina		Occupied	Uninsured	Burned in fire
				Owner		
Online Tool	[REDACTED]	Lahaina		Occupied	Uninsured	Burned in fire
				Owner		
Online Tool	[REDACTED]	Lahaina		Occupied	Uninsured	Multiple family homes on this property
				Owner		
Online Tool	[REDACTED]	Lahaina		Occupied	Uninsured	Burned in fire



Online Tool	[REDACTED]	Lahaina	Owner Occupied	Uninsured	Burned in fire.
Online Tool	[REDACTED]	Lahaina	Owner Occupied	Uninsured	Fire damage.
Self Reporting	[REDACTED]	Lahaina	Owner Occupied	Uninsured	Burned in fire
Self Reporting	[REDACTED]	Lahaina	Owner Occupied	Uninsured	Burned in fire
Self Reporting	[REDACTED]	Lahaina	Owner Occupied	Uninsured	Burned in fire
Self Reporting	[REDACTED]	Lahaina	Owner Occupied	Uninsured	Burned in fire
	[REDACTED]	Lahaina	Owner Occupied	Uninsured	Lost access to water intake due to fire
	[REDACTED]	Lahaina	Owner Occupied	Uninsured	Lost access to water intake due to fire
CERT	[REDACTED]	Lahaina			Needs general cleanup. Home Saturday/Sunday. Media aware
CERT	[REDACTED]	Lahaina			Needs general cleanup. Cut branches near electrical wires
CERT	[REDACTED]	Lahaina			Needs general cleanup. [REDACTED]
CERT	[REDACTED]	Lahaina			lots of ash, done cleaning
	[REDACTED]				Destroyed - Other fire created by hurricane no specific location in abandoned sugarcane field
ARC	[REDACTED]	Lahaina			
CERT	[REDACTED]	Lahaina			Electricity in kitchen stopped working. Need help to fix.
CERT	[REDACTED]	Lahaina			Tenants missing right side of home. Request assistance. Roof shingles missing. Attic cover missing. Need replacement 4x4 plywood missing.
CERT	[REDACTED]	Lahaina			Roof damage, leaking roof, 1 load rubbish to haul in front yard. Evacuated
CERT	[REDACTED]	Lahaina			Roof damage and rubbish need taken away, Roof damage. Just needs bundle of rubbish hauled off.
CERT	[REDACTED]	Lahaina			Roof shingles missing, can't climb on roof

CERT	[REDACTED]	Lahaina			Soot damage on walls
CERT	[REDACTED]	Lahaina			Shingles missing from street
CERT/Online Tool	[REDACTED]	Lahaina	Homeowners		Ceiling fell in garage. Roof damage. Ice box damage. Cleanup from damage and soot removal
ARC	[REDACTED]	Lahaina			Affected – Shingles, Siding
ARC	[REDACTED]	Lahaina			Affected – Shingles, Siding
Online Tool	[REDACTED]	Kula	Homeowners		Damages to roof leading to water coming into the home around the fireplace
CERT	[REDACTED]	Lahaina			roof damage, shingles removed
Street Sheet	[REDACTED]	Lahaina	Yes		Burned Agriculture Land
Online Tool	[REDACTED]	Lahaina			Vehicles and personal items
CERT	[REDACTED]	Lahaina			Saturday cleanup required. High amount of soot. High priority. 1 room bad
CERT	[REDACTED]	Lahaina			Assist to get rid of trash. Giant truck. Trim tree by electric wires. Grub along large acreage.
ARC	[REDACTED]	Lahaina			Minor – Walls
Street Sheet	[REDACTED]	Lahaina			Smoke Damages
Street Sheet	[REDACTED]	Lahaina			
Online Tool	[REDACTED]	Lahaina	Homeowners		We need help!!! damage to goods - smoke damage - soot, ash in house
Online Tool / ARC	[REDACTED]	Lahaina	Homeowners		I lost my house, total loss of everything, all memories, everything. My family lost everything & has no long term plan. having a hard time finding a long term rental that accommodates our family. family of four and one dog, all lost, all contents lost, house is repairable, need to rebuild everything
Online Tool / ARC	[REDACTED]	Lahaina	Homeowners		Total loss of home and contents

Online Tool	[REDACTED]	Lahaina		Homeowners	Significant smoke damage, ash & soot everywhere. Need to repair everything, clean everything, all valuables need to be replaced due to smoke odor, ash, & soot.
Street Sheet	[REDACTED]	Lahaina			
	[REDACTED]	Lahaina			5 vehicles, 20' & 45' storage containers w/various work tools, compressors, welders, etc & a hot air balloon
	[REDACTED]				20' storage container w/spray painter, floor buffer, 2 framing nailers, 2 tile saws, self-leveling 360 laser, 10, 24, & 28 ft ladders, various Craftsman tool, \$1000 in building materials, 2013 Hyundai Elantra, 98 Volkswagon Cabriolet, 02 Mercedes Benz
	[REDACTED]	Lahaina			Baseyard at [REDACTED]. Burned in the fire
Street Sheet	[REDACTED]	Lahaina	Secondary		Out Building, logs, Office, Trailer, Broken Window, Play structure
Street Sheet	[REDACTED]				Out houses destroyed by fire
Street Sheet	[REDACTED]	Lahaina			Apartment above the garage destroyed by fire
Street Sheet	[REDACTED]	Lahaina			Yard burned, tires and irrigation lines
Street Sheet	[REDACTED]	Lahaina			Yard burned, tires and irrigation lines
Street Sheet	[REDACTED]	Lahaina	Primary Home	Yes	Roof Damages
CERT	[REDACTED]	Lahaina			Solar hot water heater panels are damaged. Owner coming Sept. 3 to fix. No need help
CERT	[REDACTED]	Lahaina			No roof damage. Shingles missing from neighbors.
Online Tool	[REDACTED]	Lahaina			Fire damages destroyed farm including nursery, bee hives, production equipment, Vehicles and tractors, Food Truck.
Online Tool	[REDACTED]	Lahaina		Homeowners	Lost tiles on roof
CERT	[REDACTED]	Lahaina			all units no need; roof scratches to be taken care of by owners
ARC/Online	[REDACTED]	Lahaina		Uninsured	home completely destroyed due to fire
Online Tool	[REDACTED]	Lahaina			home completely destroyed due to fire
CERT	[REDACTED]	Lahaina			Roof issue
CERT	[REDACTED]	Lahaina			roof blew off; has been repaired, continuing ash cleanup
CERT	[REDACTED]	Lahaina			wind damage; roof repair underway by owner

Online Tool	[REDACTED]	Makawao	Homeowners	Main home and family cottage. Water coming on to property from neighbor's property behind them. Believes this is caused by changes neighbor made to his property. Also flooding from [REDACTED] Currently water is up to the cottage.
	[REDACTED]	Haiku		
	[REDACTED]	Haiku		
	[REDACTED]	Haiku		
	[REDACTED]	Haiku		
	[REDACTED]	Haiku		
	[REDACTED]	Haiku		
CERT	[REDACTED]	Lahaina	Homeowners Uninsured	water on the property
	[REDACTED]	Lahaina		Access to the residents are blocked by a washout on the county road.
Online Tool Online Tool	[REDACTED]	Lahaina	Homeowners Uninsured	Septic pipe broken by washout. Port-a-potty being utilized by residents
	[REDACTED]	Lahaina		Access to the residents are blocked by a washout on the county road.
	[REDACTED]	Lahaina		Access to the residents are blocked by a washout on the county road.
	[REDACTED]	Lahaina		Access to the residents are blocked by a washout on the county road.
	[REDACTED]	Lahaina		Roof is damaged. Missing shingles. Smoke smell. Grass is dry behind house.
	[REDACTED]	Lahaina		50 MPH winds & fire on both sides, found out deductible for hurricane ins. was \$15000 = too much for the roof. luckily All State homeowners come up with covering the roof with only deductible of \$1000.
	[REDACTED]	Lahaina		Personal contents of rental
	[REDACTED]	Lahaina		
	[REDACTED]	Lahaina		
	[REDACTED]	Lahaina		

**Pictures of Damaged Property – Public Property;**

LAHAINALUNA HIGH SCHOOL



**FOR OFFICIAL USE ONLY (FOUO)**

**After Action Report/Improvement Plan**

**2018-08-18 Tropical Cyclone Lane**

**Appendix C: Survey Raw Response**

**CD: Damage Summary D - 8**

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FOR OFFICIAL USE ONLY (FOUO)  
*County of Maui Civil Defense Agency*

FIRE HOKIOKIO ROAD AREA



FIRE LAHAINA AREA





FIRE LAHAINALUNSA ROAD AREA



FIRE KAA NAPALI ROAD AREA



PUU WAY CULVERT DAMAGE AERIAL

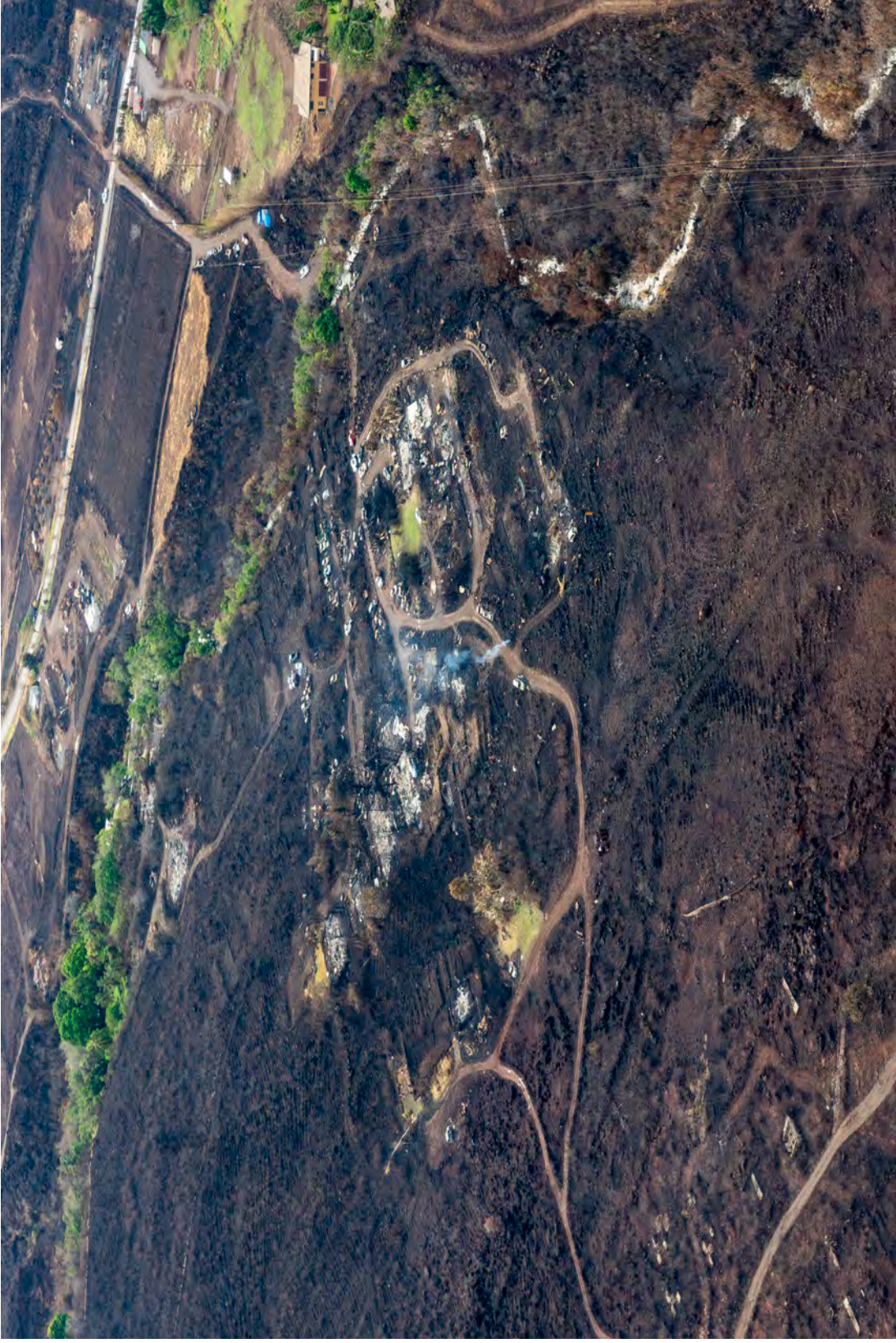


PAUWALA AND LAHAINALUNA RD;



X

KAUAULA



WILJ OKAI WAY



LAU AWA RD



Appendix C: Survey Raw Response

CD: Damage Summary D - 17

**APPENDIX E: AGENCY PARTICIPATION**

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<b>Participating Organizations</b>	
<b>Federal</b>	
<b>State</b>	
<b>Maui County</b>	
<b>NGO</b>	



## APPENDIX F: ACRONYMS

Acronym	Meaning
AMR	American Medical Response
ARC	American Red Cross (Hawaii State Chapter)
County DOT	County of Maui Department of Transportation
CPHC	Central Pacific Hurricane Center
DA	Disaster Assessment
DEM	County of Maui Department of Environmental Management
DLNR	State of Hawaii Department of Land and Natural Resources
DLNR - DBOR	DLNR – Boating and Recreation
DLNR-DOCARE	DLNR – Conservation and Resources Enforcement
DLNR-DOFAW	DLNR – Forestry and Wildlife
DLNR-SP	DLNR – State Parks
DOE	State of Hawaii Department of Education
DOH	State of Hawaii Department of Health
DOT	State of Hawaii Department of Transportation
DPW	County of Maui Department of Public Works
DWS	County of Maui Department of Water Supply
EOC	Emergency Operating Center
EOC IAP	Emergency Operations Center Incident Action plan
EOP	Emergency Operations Plan
FEMA	Federal Emergency Management Agency
FOUO	For Official Use Only
ICS	Incident Command System
IDAM	Integrated Damage Assessment Model
ITSD	Information Technology Services Division
MCCC	Maui Community Correctional Center
MCDA	County of Maui Civil Defense Agency
MECO	Maui Electric Company
MFD	County of Maui Fire Department
MMMC	Maui Memorial Medical Center
MPD	County of Maui Police Department
MST	USCG Marine Safety Team
MVB	Maui Visitors Bureau
NPS	National Park Services
RACES	Radio Amateur Civil Emergency Service
SCD/HI-EMA	State Civil Defense/Hawaii Emergency Management Agency
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard

Appendix E: Agency Participation

E - 2

Appendix F: Acronyms

F - 1

FOR OFFICIAL USE ONLY (FOUO)

After Action Report/Improvement Plan

2018-08-18 Tropical Cyclone Lane

VOAD	Voluntary Organizations Active in Disaster
VTC	Video Teleconference

Appendix E: Agency Participation

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Appendix F: Acronyms

F - 1