

**FEMA Purchased More
Manufactured Housing
Units Than It Needed in
Texas After Hurricane
Harvey**





DHS OIG HIGHLIGHTS

FEMA Purchased More Manufactured Housing Units Than It Needed in Texas After Hurricane Harvey

February 26, 2020

Why We Did This Audit

On August 25, 2017, the President declared Hurricane Harvey a disaster for Texas due to severe storms and flooding. We conducted this audit to determine to what extent FEMA balances its manufactured housing unit program costs with disaster-related housing needs.

What We Recommend

We made four recommendations to FEMA that, when implemented, should help the agency balance manufactured housing program costs with its disaster-related housing needs.

For Further Information:

Contact our Office of Public Affairs at (202) 981-6000, or email us at DHS-OIG.OfficePublicAffairs@oig.dhs.gov

What We Found

The Federal Emergency Management Agency (FEMA) did not balance its manufactured housing unit (MHU) program costs with disaster-related housing needs. In response to Hurricane Harvey in Texas, FEMA overestimated the number of MHUs it needed by nearly 2,600, which amounted to purchase, transportation, and storage costs of at least \$152 million. The agency also overestimated the number of tank and pump systems (TPS) it needed to operate MHU fire sprinklers by nearly 2,400, which amounted to purchase and transportation costs of about \$29 million.

The excess MHUs, TPS's, and transportation costs occurred due to management and oversight deficiencies. In most cases, FEMA focused on providing prompt assistance to survivors when carrying out its MHU housing mission in response to Hurricane Harvey. However, FEMA did not emphasize financial accountability or maintain complete records of MHU and TPS program costs to help the agency make timely financial and logistically sound decisions. For example, FEMA did not —

- have comprehensive policies and procedures or follow existing policies;
- follow its initial housing needs projections or coordinate MHU resources to execute its direct housing mission effectively; and
- maintain complete records of MHU and TPS program costs.

Had FEMA better managed and overseen the MHU program, it could have put an estimated \$182 million to better use to assist survivors of Hurricane Harvey or other disasters.

FEMA Response

FEMA concurred with the four recommendations.



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Department of Homeland Security

Washington, DC 20528 / www.oig.dhs.gov

February 26, 2020

MEMORANDUM FOR: David Bibo
Acting Associate Administrator
Office of Response and Recovery
Federal Emergency Management Agency

FROM: Sondra F. McCauley 
Assistant Inspector General for Audits

SUBJECT: *FEMA Purchased More Manufactured Housing Units Than It Needed in Texas After Hurricane Harvey*

For your action is our final report, *FEMA Purchased More Manufactured Housing Units Than It Needed in Texas After Hurricane Harvey*. We incorporated the formal comments provided by your office.

The report contains four recommendations aimed at improving the MHU program, in a cost-effective manner. Your office concurred with all four recommendations. Based on information provided in your response to the draft report, we consider recommendations 1 and 2 unresolved, and they will remain open until FEMA provides additional documentation to clarify how actions fully meet the intent of the recommendation. We consider recommendations 3 and 4 resolved and open. Once your office has fully implemented the recommendations, please submit a formal closeout letter to us within 30 days so that we may close the recommendations. The memorandum should be accompanied by evidence of completion of agreed-upon corrective actions.

Please send your response or closure request to OIGAuditsFollowup@oig.dhs.gov. Consistent with our responsibility under the *Inspector General Act*, we will provide copies of our report to congressional committees with oversight and appropriation responsibility over the Department of Homeland Security. We will post the report on our website for public dissemination.

Please call me with any questions, or your staff may contact Don Bumgardner, Deputy Assistant Inspector General for Audits, at (202) 981-6000.

Attachment



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Background

The Federal Emergency Management Agency (FEMA) coordinates the Federal Government's role in preparing for, preventing, mitigating the effects of, responding to, and recovering from all domestic disasters. The *Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended* (Stafford Act) authorizes FEMA to provide temporary housing units directly to individuals or households displaced by disasters. The Stafford Act also describes the decision criteria for determining which types of assistance FEMA can provide. Considerations include cost effectiveness, convenience to individuals and households, and other factors the President may deem appropriate.

Hurricane Harvey made landfall in Texas on August 25, 2017 as a Category 4 hurricane. That same day, the President declared Hurricane Harvey a disaster due to severe storms and flooding in southeastern Texas. Hurricane Harvey dropped more than 60 inches of rain east of Houston, forcing 780,000 residents from their homes.

FEMA's preliminary damage assessments for Hurricane Harvey showed a need for direct housing assistance that would service the temporary housing needs of displaced survivors. Manufactured Housing Units (MHU) are one type of FEMA temporary housing available for up to 18 months after a disaster declaration. FEMA may authorize an extension beyond that period due to extraordinary circumstances. FEMA MHUs are manufactured homes constructed in accordance with U.S. Department of Housing and Urban Development standards and FEMA contract requirements. Additionally, FEMA requires the attachment of a Tank and Pump System (TPS) to each MHU to operate the fire sprinklers. (See figure 1 for a picture of an MHU with a TPS.)



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Figure 1: FEMA MHU with a TPS Attached to Operate the Fire Sprinklers

Source: FEMA

FEMA keeps its new inventory of MHUs at two permanent storage sites — one in Cumberland, Maryland, and the second in Selma, Alabama. FEMA also used two temporary staging areas in Beeville and Hearne, TX to store MHUs during and after Harvey.

Additionally, FEMA maintains previously occupied (used) MHUs, which it can transfer from prior disaster staging areas as needed. In the wake of Harvey, FEMA transferred those MHUs and unused TPS's from a Louisiana staging area. To further assist residents (survivors) displaced by Hurricane Harvey, FEMA entered into an 18-month Intergovernmental Service Agreement (IGSA) with the Texas General Land Office (GLO), enabling the State to provide direct temporary housing by procuring MHUs through state-sourced vendors.

FEMA Process for Projecting Direct Housing Needs

FEMA's *Direct Housing Guide*,¹ requires the agency to:

- Conduct a Direct Housing Initial Assessment — following an incident, this assessment determines whether to implement a Direct Housing Mission involving MHUs in the disaster-affected area;
- Conduct a Direct Housing Analytical Assessment — this second assessment provides a more “in-depth” housing assessment of the disaster-affected area and results in a recommendation to implement an MHU mission or other housing mission for displaced disaster survivors; and

¹ FEMA Direct Housing Guide, August 2017 (Version 1.0).



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- Produce a Direct Housing Mission Report — this follows the completion of the Direct Housing Analytical Assessment and identifies the operational requirements for providing the recommended forms of direct housing.

FEMA Divisions Responsible for Direct Housing

Three divisions within FEMA have responsibilities for implementing and managing the MHU program. Immediately after a disaster is declared, survivors may apply for Federal assistance. FEMA's Individual Assistance (IA) division manages the application process, including interviewing applicants and inspecting each applicant's damage claims. The initial registration period is 60 days, but can be extended, if needed. The Recovery and Analytics Division (RAD) creates Direct Housing projections for FEMA disaster assistance functions, including the number of MHUs needed. The Logistics Management Directorate (LMD) acquires, receives, stores, and provides preventive maintenance, staging, and disposition of MHUs.

As FEMA determines MHUs are part of the Federal response and the appropriate type of housing, IA personnel certify survivors for MHUs and coordinate with LMD to provide housing for them.

FEMA Housing Inventory Sourcing for Hurricane Harvey

FEMA MHUs are individual prefabricated housing modules that meet U.S. Housing and Urban Development manufactured housing code and an additional FEMA requirement to include fire sprinklers. TPS's have their own ready supply of water, and installers attach this system to an MHU during set-up at a survivor's location. After installers secure the TPS in place, it is not accessible to the survivor.

FEMA has an inventory of new² MHUs and TPS's at two permanent storage sites. Based on its *Direct Housing Guide*, FEMA sends MHUs and TPS's from the storage sites to temporary staging areas. Depending on MHU mission needs, FEMA can also elect to have new MHUs and TPS's delivered directly from the vendor to the temporary staging areas. Furthermore, FEMA personnel can decide to "clean and make ready"³ previously used MHUs, and reuse both MHUs and TPS's — depending on their conditions upon return. FEMA uses its temporary staging areas to store MHUs and TPS's when preparing to place them with survivors, as well as to store them upon return after being used.

² New MHUs and TPS's have a 1-year manufacturer's warranty, which is included in the acquisition price of the units.

³ "Clean and make ready" MHUs no longer have all warranties that help defray maintenance costs during storage and reinstallation.



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FEMA determined, given the significant damage caused by Hurricane Harvey in the State and the exigent need for housing, it needed support to execute the direct housing mission. Therefore, FEMA entered into an IGSA on September 22, 2017 with the state of Texas' GLO to provide MHUs about a month after the disaster declaration and after FEMA had already begun implementing its MHU and TPS acquisition and shipping strategy. The IGSA allowed the State to procure its own MHUs, as well as recreational vehicles or "travel trailers,"⁴ and place either type of temporary housing directly with survivors. (See appendix B for a flowchart of the MHU deployment process in response to Hurricane Harvey.)

Since 2006, the Department of Homeland Security Office of Inspector General (OIG) has issued seven reports identifying weaknesses in FEMA's manufactured housing program. Our reports included more than 10 recommendations for FEMA to improve its manufactured housing program. FEMA had taken corrective actions to resolve and close all of the recommendations, but deficiencies remain and this program continues to face challenges. (See appendix C for a list of related OIG reports.) We conducted this audit to determine to what extent FEMA balances its MHU program costs with disaster-related housing needs.

Results of Audit

FEMA Purchased and Transported More MHUs and TPS's than It Needed

According to Office of Management and Budget (OMB) Circular A-123⁵, Federal managers must carefully consider the appropriate balance between risk, controls, costs, and benefits in their mission-support operations. In addition, the Stafford Act describes considerations that include cost-effectiveness as a factor when providing temporary housing assistance.

Despite these requirements, FEMA overestimated the number of MHUs needed in response to Hurricane Harvey. Specifically, FEMA:

- purchased new MHUs from its seven vendors;
- transferred reused units from the 2016 Louisiana flooding disaster;
- transported units from its national inventory storage site in Selma, Alabama; and
- reimbursed Texas' GLO for MHUs it purchased.

⁴ FEMA's direct housing policies do not include the use of recreational vehicles, also called travel trailers.

⁵ Office of Management and Budget (OMB) Circular No. A-123, Management's Responsibility for Enterprise Risk Management and Internal Control, July 2016.



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These actions led to an excess of 2,596 MHUs that remained in a Texas staging area as of September 21, 2018.⁶ The total cost of the units in Texas was approximately \$135.3 million. FEMA transported the 2,596 excess MHUs to Texas at a cost of at least \$15.1 million. In addition, FEMA transported unused MHUs between two Texas staging areas at a cost of approximately \$2.1 million. This resulted in a total expenditure by FEMA of \$152.4 million for the excess units and their transportation.

Furthermore, the agency overestimated the number of TPS's needed for MHUs slated for Hurricane Harvey victims. Specifically, FEMA:

- purchased new TPS units from its three vendors,
- transferred unused units from the 2016 Louisiana flooding disaster, and
- transported unused units from its national inventory storage sites.

These actions led to an excess of 2,367 TPS's that remained in a Texas staging area as of September 21, 2018.⁷ The total cost of the units remaining in the Texas staging area was approximately \$28.4 million. FEMA transported the 2,367 excess TPS's to Texas, incurring costs of at least \$776,000. In addition, FEMA transported unused TPS's between two Texas staging areas, incurring additional costs of about \$28,000. This resulted in a total cost of approximately \$29 million for the excess units and related transportation costs.

These costs for storing MHUs and transporting TPS's exclude leasing, depreciation, security, personnel, equipment, and maintenance costs. FEMA could not timely provide comprehensive records and good estimates of such costs.⁸ These costs would likely increase estimated funds put to better use had FEMA provided these records.

⁶ We were unable to determine the length of time the September 21, 2018 excess MHUs remained in the Texas staging area because of fluctuations in survivor needs.

⁷ We were unable to determine the length of time the September 21, 2018 excess TPS's remained in the Texas staging area because of the fluctuation of survivor needs.

⁸ There is a 1-year manufacture warranty, which is included in the acquisition price of the units. Maintenance costs begin when the manufacturer's warranty expires.



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FEMA Management and Oversight Deficiencies Resulted in Excess Inventory and Unnecessary Costs

The excess MHUs and TPS's and related transportation costs occurred because FEMA did not have comprehensive policies and procedures for the MHU program, and it did not follow existing policies. FEMA did not follow its initial housing needs projections or coordinate all its MHU resources to execute its direct housing mission. Furthermore, FEMA did not maintain complete records of MHU and TPS program costs.

FEMA Did Not Have or Did Not Follow Existing Policies and Procedures for the MHU Program

FEMA did not have or did not follow existing policies and procedures covering various aspects of the MHU program to ensure effective management. For example, FEMA did not have guidance that requires identifying, evaluating, and prioritizing all sources of existing FEMA MHU inventory and finalizing its agreement with Texas before purchasing new MHUs. FEMA has policies and procedures to maintain a national inventory of new MHUs at its storage sites but does not have a similar policy regarding TPS inventory. As such, FEMA purchased and transported to Texas more MHUs and TPS's than it needed.

FEMA's policies do not promote MHU reuse and do not provide specific criteria for determining whether to sell or reuse MHUs. MHUs returned in good condition can be reused based on each unit's condition, the available FEMA inventory, or the level of disaster activity; however, these factors are not clearly defined in FEMA's guidance. For example, FEMA's *Manufactured Housing Support Guide*⁹ allows delivery of new MHUs from storage sites to temporary staging near disaster-affected areas. On this basis, FEMA purchased new units before completely assessing its inventory of new and used units available for deployment to Texas in response to Hurricane Harvey. Without detailed criteria to guide determinations, decisions to retain or sell used MHUs were at the discretion of each local field office.

FEMA did not follow its existing policies and procedures requiring that it maintain a baseline inventory of MHUs. On June 12, 2017, FEMA established its minimum baseline inventory of 2,150 MHUs. However, on August 25, 2017, the date of Hurricane Harvey, it had approximately 1,700 MHUs in storage. According to FEMA officials, they had a shortfall because they did not have a policy stating they had to monitor its baseline inventory to ensure an adequate supply. Although this did not directly lead to the excess MHU purchases, a shortfall in inventory complicates FEMA's ability to plan and respond to disasters.

⁹ FEMA Direct Housing Support, Logistics Management Directorate Manufactured Housing Support Guide, May 22, 2013.



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FEMA did not follow its policy to conduct two of the three required direct housing assessments to determine disaster survivors' housing needs. According to a FEMA official, the agency did not conduct its Direct Housing Analytical Assessment or develop its Direct Housing Mission Report following the Hurricane Harvey disaster as required in the *Direct Housing Guide*. Further, LMD asserted the guide issued was for "developmental purposes" to help FEMA identify additional content and is not the agency's final product. Without the information provided by all three completed housing assessments, FEMA's housing projections were incomplete and led to excess MHU and TPS units.

FEMA Did Not Follow Its Housing Projections or Coordinate Resources

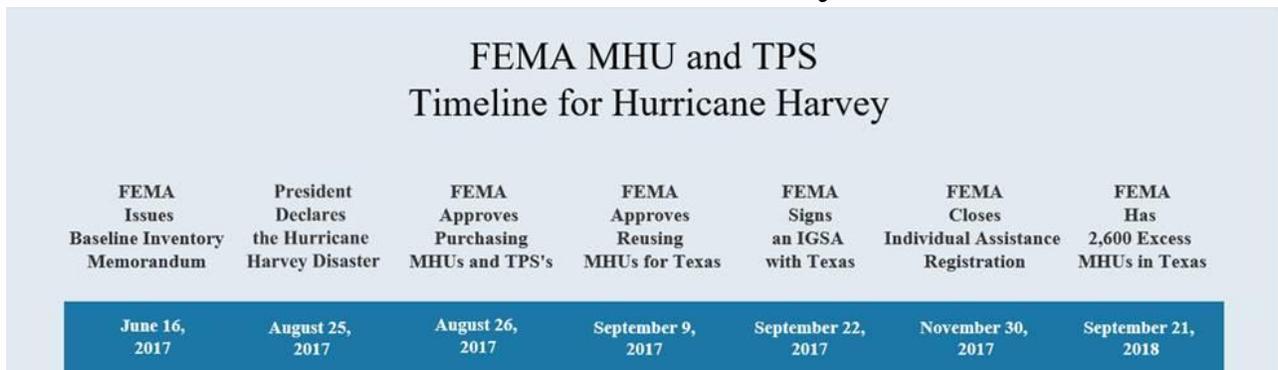
FEMA logistics personnel overlooked RAD's initial housing projections and did not modify the number of MHUs and TPS's required to respond to changing conditions. RAD initially projected 4,000 MHUs would be needed in the wake of Hurricane Harvey. The intent of this projection was to begin guiding FEMA's response. However, according to FEMA LMD personnel, they increased the housing projections in September 2017 from 4,000 to 8,500 without coordinating with either RAD or IA personnel. LMD personnel decided to increase the projections to 8,500 based on "lessons learned" and "historical trends," including the 2016 Louisiana flooding disaster, instead of using RAD's survivor projections. Additionally, LMD ordered the MHUs before IA personnel responsible for managing the survivor application process could determine the number of MHUs needed and communicate that information to LMD.

In addition, the agreement FEMA signed with Texas' GLO, one month after Hurricane Harvey on September 22, 2017, allowed the State to provide temporary housing directly to survivors, thereby reducing the number of MHUs FEMA would need to assist Hurricane Harvey survivors. However, according to FEMA officials they did not have a policy in place to monitor inventory and did not have visibility of the State's purchases. As such, FEMA continued sending MHUs to Texas staging areas even after Texas' GLO began providing MHUs and travel trailers to survivors, as shown in figure 2.



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Figure 2: FEMA’s Timeline for Providing MHUs and TPS’s after Hurricane Harvey



Source: OIG analysis of FEMA records

Coordinating with other responsible areas of the MHU program could have resulted in LMD aligning its response with more accurate housing projections as disaster needs changed. Although FEMA officials assert their policies allow for flexibility and scalability of economies, FEMA must balance the need to provide housing assistance while maintaining public’s trust that taxpayer money is spent using sound financial responsibility and accountability.

FEMA Did Not Maintain Complete Records for MHU and TPS Program Costs

FEMA did not maintain complete records of MHU and TPS program costs for Hurricane Harvey. According to OMB Circular A-123, management should have a clear, organized plan with well-defined documentation processes that contain an audit trail and specify document retention periods. Otherwise, someone not connected with the procedures cannot understand the assessment process. In addition, the Federal Acquisition Regulation, Part 4, states agencies should retain their contracts and related records or documents for 6 years after final payment.¹⁰

FEMA personnel could not demonstrate an ability to maintain comprehensive records of MHU and TPS program costs for its new and existing MHUs and TPS’s sent to Texas. FEMA focused on providing prompt assistance to survivors and did not emphasize financial accountability and recordkeeping or oversight of MHU program spending. Without complete records, FEMA cannot accurately determine the costs it incurred for its housing mission. For example, when we attempted to calculate the number and cost of MHUs and TPS’s purchased and transported to Texas, FEMA took 8 months¹¹ to respond to our requests for

¹⁰ Federal Acquisition Regulation (FAR) 4.805

¹¹ The 8-month period from May 2018 through January 2019 includes the government shutdown period of December 22, 2018 through January 25, 2019.



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records such as invoices and bills of lading. When FEMA responded, it provided incomplete information. We recognize FEMA deploys its staff with little notice when a disaster occurs. However, it is not adequate justification for the agency's inability to provide requested records in a timely manner. For example, FEMA provided invoices for 1,866 of the 2,596 (72 percent) excess MHUs and 1,512 of the 2,367 (64 percent) excess TPS's. In the information provided, FEMA transposed numbers and included duplicate invoices. Therefore, we believe accurate transportation costs incurred for MHUs and TPS's sent to Texas would be greater.

Conclusion

Although FEMA has made efforts to improve its MHU program, it continues to experience problems assisting disaster survivors in a cost-effective manner. In most instances, FEMA focused on providing prompt assistance to survivors when carrying out its MHU housing mission in response to Hurricane Harvey. However, FEMA did not emphasize financial accountability or maintain complete records of MHU and TPS program costs to help the agency make timely financial and logistically sound decisions. Even though we recognize FEMA requires flexibility and scalability in its MHU program, it must balance the need to provide housing assistance with maintaining public's trust that taxpayer money is spent using sound financial responsibility and accountability. Had FEMA better managed and overseen the MHU program, it could have put an estimated \$182 million to better use to assist survivors from Hurricane Harvey or other disasters. (See appendix D.)

Recommendations

Recommendation 1: We recommend the Office of Response and Recovery, Associate Administrator develop and implement guidance that requires identifying, evaluating, monitoring, and prioritizing all sources of existing FEMA MHU and TPS inventory before procuring new units or entering into agreements with states or other entities to directly purchase units.

Recommendation 2: We recommend the Office of Response and Recovery, Associate Administrator institute controls to ensure compliance with existing policies and procedures to manage and maintain a sufficient amount of inventory of MHUs and TPS's.

Recommendation 3: We recommend the Office of Response and Recovery, Associate Administrator, finalize and issue the *Direct Housing Guide*. At a minimum, the guide should clearly:



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- define the roles, responsibilities, and authorities of each division within the Office of Response and Recovery for field and headquarters operations;
- establish mandatory steps FEMA must perform in determining the quantity and type of housing units to purchase, including documentation and level of approval needed; and
- require approval of the Office of Response and Recovery, Associate Administrator before purchasing a quantity of housing units different from the projected number.

Recommendation 4: We recommend the Office of Response and Recovery, Associate Administrator take steps to maintain a complete set of supporting documentation, including invoices and bills of lading to support all of its MHU and TPS assets. FEMA should also align its recordkeeping with Office of Management and Budget Circular A-123 and the Federal Acquisition Regulation by establishing documentation processes that include audit trails and specific document retention periods.

Management Comments and OIG Analysis

FEMA concurred with all four recommendations and is taking or has implemented actions to address them. Appendix A contains FEMA management's comments in their entirety. We also received technical comments on the draft report and made revisions as appropriate. We consider recommendations 1 and 2 unresolved; they will remain open until FEMA provides additional documentation to clarify how actions taken fully meet the intent of the recommendation. We consider recommendations 3 and 4 resolved and open. A summary of FEMA's responses and our analysis follows.

FEMA Response to Recommendation 1: The Office of Response and Recovery concurred with the recommendation. FEMA uses a 2012 memorandum to determine baseline inventory levels for temporary housing units, which requires FEMA assess baseline inventory levels annually before each hurricane season. It allows FEMA to adjust inventory levels based on operational needs and ongoing analyses. The Assistant Administrator has authorized LMD to determine whether FEMA needs additional units exceeding baseline inventory levels to ensure FEMA's readiness to address no-notice events and restore inventories to target levels.

FEMA also explained its plan to make existing MHU sources available to states or other entities before entering into agreements with them. However, FEMA will not require a state to prioritize using FEMA's inventory of existing MHUs over locally available MHUs and other sources of temporary housing. FEMA asserts state-



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administered direct housing missions allow states to play a greater role in disaster recovery to efficiently meet the needs of disaster survivors.

OIG Analysis of FEMA Comments: Although we acknowledge FEMA's existing guidance, its response during Hurricane Harvey demonstrated it was insufficient to provide the most cost-effective response for direct housing. Further, allowing the states to seek and purchase temporary housing units without considering available FEMA-owned units could result in long periods of storage or staging, or additional transportation and other indirect costs. Based on FEMA's response, we cannot determine how this process will lead to better management of temporary housing. We consider this recommendation unresolved; it will remain open until FEMA provides additional documentation to clarify how these actions fully meet the intent of the recommendation.

FEMA Response to Recommendation 2: The Office of Response and Recovery concurred with the recommendation. FEMA reiterated that use of the May 2012 memorandum established guidelines for determining baseline inventory levels for temporary housing units. The memorandum requires FEMA to assess baseline inventory levels annually before the start of each hurricane season. FEMA also indicated it will continue to conduct bi-weekly reviews with LMD leadership to determine if additional units should be purchased based on Direct Housing Program needs and economies of scale.

OIG Analysis of FEMA Comments: As discussed in Recommendation 1, FEMA's response during Hurricane Harvey showed its existing guidance was insufficient to help the agency provide the most cost effective response for supplying direct housing. Based on FEMA's response, we cannot determine how this process will lead to better internal controls and management of temporary housing. We consider this recommendation unresolved; it will remain open until FEMA provides documentation to clarify how these actions fully meet the intent of the recommendation.

FEMA Response to Recommendation 3: The Office of Response and Recovery concurred with the recommendation. IA will take steps to finalize the *Direct Housing Guide*, with the support of LMD. FEMA plans to complete this effort by June 30, 2021.



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OIG Analysis of FEMA Comments: We consider this recommendation resolved. It will remain open until FEMA provides a copy of the final issued *Direct Housing Guide* so we can ensure it addresses all aspects of the recommendation.

FEMA Response to Recommendation 4: The Office of Response and Recovery concurred with the recommendation. LMD will identify any resources needed to improve its records management system for its direct housing related costs, including MHU and TPS assets. LMD estimated a completion date of June 30, 2020.

OIG Analysis of FEMA Comments: LMD's plan to improve its records management system for its direct housing related costs and implement policies and training meets the intent of the recommendation. We consider this recommendation resolved, but it will remain open until LMD provides documentation to substantiate all planned corrective actions are completed.

Objective, Scope, and Methodology

The Department of Homeland Security Office of Inspector General was established by the *Homeland Security Act of 2002* (Public Law 107-296) by amendment to the *Inspector General Act of 1978*. This is one of a series of audit, inspection, and special reports prepared as part of our oversight responsibilities to promote economy, efficiency, and effectiveness within the Department.

Our objective was to determine to what extent FEMA balances its MHU program costs with disaster-related housing needs. To answer our objective, we:

- researched OMB A-123 and the Federal Acquisition Regulation to identify applicable criteria governing record keeping;
- reviewed FEMA's IGSA with Texas' General Land Office;
- identified and analyzed the MHU and TPS inventory delivered from Louisiana to Texas from October 2017 through January 2018;
- analyzed FEMA's contracts with MHU and TPS vendors;
- collected and attempted to assess FEMA's Sunflower Asset Management System (SAMS) and Logistics Supply Chain Management System (LSCMS) inventory and cost data from August 2017 to September 2018;
- analyzed MHU and TPS invoices and bills of lading to quantify the number and costs for units transported from October 2017 to June 2018;
- reviewed the lease agreement to determine the costs for leasing Beeville and Hearne, TX from November 2017 to September 2018;
- reviewed prior DHS OIG reports.



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We interviewed personnel from:

- FEMA Office of Response and Recovery;
- FEMA Logistics Management Directorate;
- FEMA Individual Assistance Division;
- FEMA Recovery and Analytics Division;
- Texas Joint Field Office; and
- Texas General Land Office.

We evaluated the reliability of SAMS and LSCMS data. We used these systems to quantify costs for acquiring and transporting MHUs and TPS's for FEMA's Hurricane Harvey response. We assessed the data in accordance with guidance in *Assessing the Reliability of Computer-Processed Data*, U.S. Government Accountability Office (GAO-09-680G, July 2009). We assessed the reliability of the data by interviewing personnel responsible for SAMS and LSCMS, conducting site visits, reviewing existing documentation related to the data sources, and performing SAMS inventory testing at the MHU storage area located in Cumberland, Maryland; and at staging areas located in Sherwood, Louisiana and Hearne and Beeville, Texas. We determined SAMS and LSCMS provided reasonably reliable data for the purposes of this report.

We conducted this performance audit between May 2018 and March 2019 pursuant to the *Inspector General Act of 1978*, as amended, and according to generally accepted government auditing standards. Those standards require we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based upon our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based upon our audit objective.

The Office of Audits major contributors to this report are Christine Haynes, Director; Adrienne Bryant, Audit Manager; Larry Jones, Auditor; Christopher Byerly, Program Analyst; Garrick Greer, Auditor; Timothy Fonseth, Program Analyst; Lawanda Bebley, Program Analyst; Kevin Dolloson, Communications Analyst; and Christopher Yablonski, Independent Referencer.



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Appendix A
FEMA Comments to the Draft Report

U.S. Department of Homeland Security
Washington, DC 20472



FEMA

December 4, 2019

MEMORANDUM FOR: Don Bumgardner
Deputy Assistant Inspector General for Audits
Office of Inspector General

FROM: Joel Doolin
Associate Administrator
Office of Policy and Program Analysis

JOEL A DOOLIN
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JOEL A DOOLIN
Date: 2019.12.04
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SUBJECT: Management Response to Draft Report: "FEMA Purchased
More Manufactured Housing Units than It Needed in Texas
After Hurricane Harvey" (Project No. 18-055-AUD-FEMA)

Thank you for the opportunity to review and comment on this Draft Report. The Federal Emergency Management Agency (FEMA) appreciates the work of the Office of Inspector General (OIG) in planning and conducting its review and issuing this report.

Delivering post-disaster temporary housing is one of FEMA's most critical missions to assist members of the American public on their worst day, and to help them return to a sense of normalcy as soon as possible. Our mission's number one priority focuses on survivors, and, as part of this, we continuously evaluate our policies and procedures for effectively providing Direct Housing Assistance (DHA). FEMA will continue to strengthen its temporary housing assistance as opportunities present themselves to do so.

In April 2017, FEMA launched the Housing Assistance Initiative to improve its approach to delivering safe and durable housing for displaced survivors regardless of the disaster's location, scope, or scale. This involved a dedicated effort across the Agency with contributions from 25 different program offices, more than 170 employees, and 13 different working groups. For example, a working group conducted a recreational vehicle (RV) study to provide a comprehensive report on potential courses of action, timelines, policy implications, risks, and resource shortfalls for consideration when implementing the regular use of RVs for temporary housing. As part of the Initiative, FEMA's Individual Assistance Program also engaged the Massachusetts Institute of Technology's Lincoln Laboratory to help design a more survivor-centric and cost-effective DHA process by conducting a four-phase study, which is currently in its third phase. Other efforts under the Housing Assistance Initiative includes the development of improved policy and guidance (e.g., the Direct Housing Guide, Recovery's Re-analysis



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of FEMA's Direct Housing Inventory Policy, State-run Direct Housing program guidance), and collaboration with private sector organizations to identify potential alternative housing solutions through an Industry Day.

During the response to Hurricane Harvey, FEMA's decision to purchase 4,500 Temporary Housing Units (THUs) was the result of a close collaborative effort between FEMA's Logistics Management Directorate (LMD) and its Recovery Directorate and a comprehensive analysis of information such as: (1) the initial projected THU requirement of 4,000 units provided by the Recovery Directorate's Reporting and Analytics Division; and (2) an identified need to replenish the Ready for Dispatch (RFD) inventory to its minimum target level. With that analysis, FEMA considered how the option to purchase fewer than 4,500 units would impact production timelines and increase the risk of not having enough THUs to house survivors, based on lessons learned during the 2016 Louisiana floods. Ultimately, FEMA determined that the risk of not having enough THUs heavily outweighed any of the risks associated with ordering units early in the disaster response, such as the risk that units not used for 4332-DR-TX would later need to be redirected as national THU inventory to support the Program's readiness.

FEMA understands the importance of timely assistance of disaster survivor as well as proper document retention and other controls to ensure the agency can achieve its mission of "helping people before, during, and after disasters" in a cost-effective manner. FEMA works diligently to maintain its unwavering focus on promptly providing quality assistance to disaster survivors, and to proactively implement the internal controls needed to identify and mitigate risks, monitor and evaluate performance, and continually improve its programs. And, FEMA remained committed to its mission responding through numerous of disasters such as Hurricanes Lane, Florence, and Michael, Typhoons Manghut and Yutu, and the California Wildfires.

The Draft Report contains four recommendations with which FEMA concurs. Attached, find our detailed response to each recommendation. We previously provided technical comments under a separate cover.

Again, thank you for the opportunity to review and comment on this Draft Report. Please feel free to contact me if you have any questions. We look forward to working with you again in the future.

Attachment



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Attachment: Management Response to Recommendations Contained in OIG 18-055-AUD-FEMA

The OIG recommended that the Associate Administrator for FEMA's Office of Response and Recovery:

Recommendation 1: Develop and implement guidance that requires identifying, evaluating, monitoring, and prioritizing all sources of existing FEMA MHU [manufactured housing unit] and TPS [tank and pump systems] inventory before procuring new units or entering into agreements with States or other entities to directly purchase units.

Response: Concur. The Assistant Administrator for FEMA's Recovery Directorate issued a memorandum on May 11, 2012, establishing the guidelines FEMA uses on a continuous basis to determine the baseline inventory levels for RFD THUs. In that memorandum, the Assistant Administrator required the THU baseline inventory levels to be reassessed each year before the start of hurricane season and allowed those levels to be adjusted based on operational needs and ongoing analyses. The Assistant Administrator also authorized the LMD to determine if a percentage of additional units would need to be purchased or maintained above the baseline inventory level to ensure FEMA's readiness to meet requirements for no-notice events and to quickly return the inventory to the minimum target levels. LMD has continually followed the procedures set forth under this inventory guidance since its inception and maintains a close collaborative relationship with the Recovery Directorate in steady-state and response operations to remain informed of the Program's inventory requirements and projected THU requirements for each Direct Housing mission.

When a future disaster warrants and impacted states request temporary housing assistance, FEMA will make existing sources of MHU inventory available to the states or other entities before entering into agreements with them. However, FEMA will not require the state to prioritize FEMA's inventory of existing MHUs over locally available MHUs and other sources of temporary housing. State-administered Direct Housing missions allow states to play a greater role in their disaster recovery and achieve desired outcomes and solutions based on their communities' needs, including integrating their existing housing programs and other federal resources to efficiently meet the needs of disaster survivors. FEMA's disaster recovery goal is to promote efforts that are federally-supported, state-administered and locally-executed. Requiring states to utilize existing MHUs in FEMA's inventory runs contrary to this goal by preventing the flexibility of allowing other solutions, including locally available MHUs. FEMA remains committed to identifying, evaluating, and monitoring all sources of existing FEMA MHU and TPS inventory.



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Following the issuance of the Recovery Directorate's 2012 THU inventory policy, FEMA implemented supplemental guidance for evaluating, monitoring, and prioritizing THU inventory in a manner that appropriately balances risks and returns. This guidance includes the Manufactured Housing Support Guide issued by LMD on May 22, 2013, the Recovery Reporting and Analytics Division's (RAD's) MHU Inventory Policy and Stock Level Reanalysis issued in April 2017, and RAD's Projections Handbook issued in November 2017. In addition to FEMA's procedures for continually monitoring inventory levels and Direct Housing Program (DHP) requirements, FEMA's current guidance also provides processes to fill Direct Housing mission requirements in the event a mission's needs exceed the capabilities of FEMA's RFD THU inventory levels. For example, FEMA's Manufactured Housing Support Guide provides processes LMD may utilize on a case-by-case basis to meet housing needs in such circumstances as: (1) purchasing units under a contract awarded to a THU vendor; (2) purchasing "off-the-lot" units from local commercial dealers; or (3) redirecting lightly used or unused units to FEMA's national RFD inventory after being deployed to a disaster.

Additionally, FEMA's current process for determining the amount of TPS units required for Direct Housing is based solely on the number of THUs purchased—as both components combined are required for each THU before it can be deemed "Ready for Occupancy" under the DHP's standards.

We request that OIG consider this recommendation resolved and closed as implemented.

Recommendation 2: Institute controls to ensure compliance with existing policies and procedures to manage and maintain a sufficient amount of inventory of MHUs and TPS's.

Response: Concur. The Assistant Administrator for Recovery issued a memorandum, dated May 11, 2012, which established FEMA's process for determining the baseline inventory levels of RFD units, which also requires the inventory levels to be reassessed each year before the start of hurricane season. FEMA provided this memorandum to OIG on October 24, 2019. LMD will continue to ensure its THU and TPS inventory levels on a recurrent basis and conduct detailed reviews with LMD leadership on a bi-weekly basis to determine if additional units should be purchased based on the DHP needs and economies of scale.

We request that OIG consider this recommendation resolved and closed as implemented.

Recommendation 3: Finalize and issue the Direct Housing Guide. At a minimum, the guide should clearly:

- Define the roles, responsibilities, and authorities of each division within the Office of Response and Recovery for field and headquarters operations;



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- Establish mandatory steps FEMA must perform in determining the quantity and type of housing units to purchase, including documentation and level of approval needed; and
- Require the approval of the Office of Response and Recovery, Associate Administrator before purchasing a quantity of housing units that differs from the projected number.

Response: Concur. The Recovery Directorate, Individual Assistance Division is responsible for finalizing the Direct Housing Guide with support from the LMD. The finalized version of the Direct Housing Guide will include guidance that addresses the recommended items and additional guidance for implementing Direct Housing based on best practices and lessons learned. Our anticipated timeline for these actions are as follows:

- Complete project kick-off and framing: March 31, 2020;
- Draft Guide entered into formal concurrence: December 31, 2020; and
- The finalized version of the Direct Housing Guide (version 3): June 30, 2021.

Estimated Completion Date (ECD): June 30, 2021.

Recommendation 4: Take steps to maintain a complete set of supporting documentation, including invoices and bills of lading to support all its MHU and TPS assets. FEMA should also align its recordkeeping with Office of Management and Budget [OMB] Circular A-123 and the Federal Acquisition Regulation by establishing documentation processes that include audit trails and specific document retention periods.

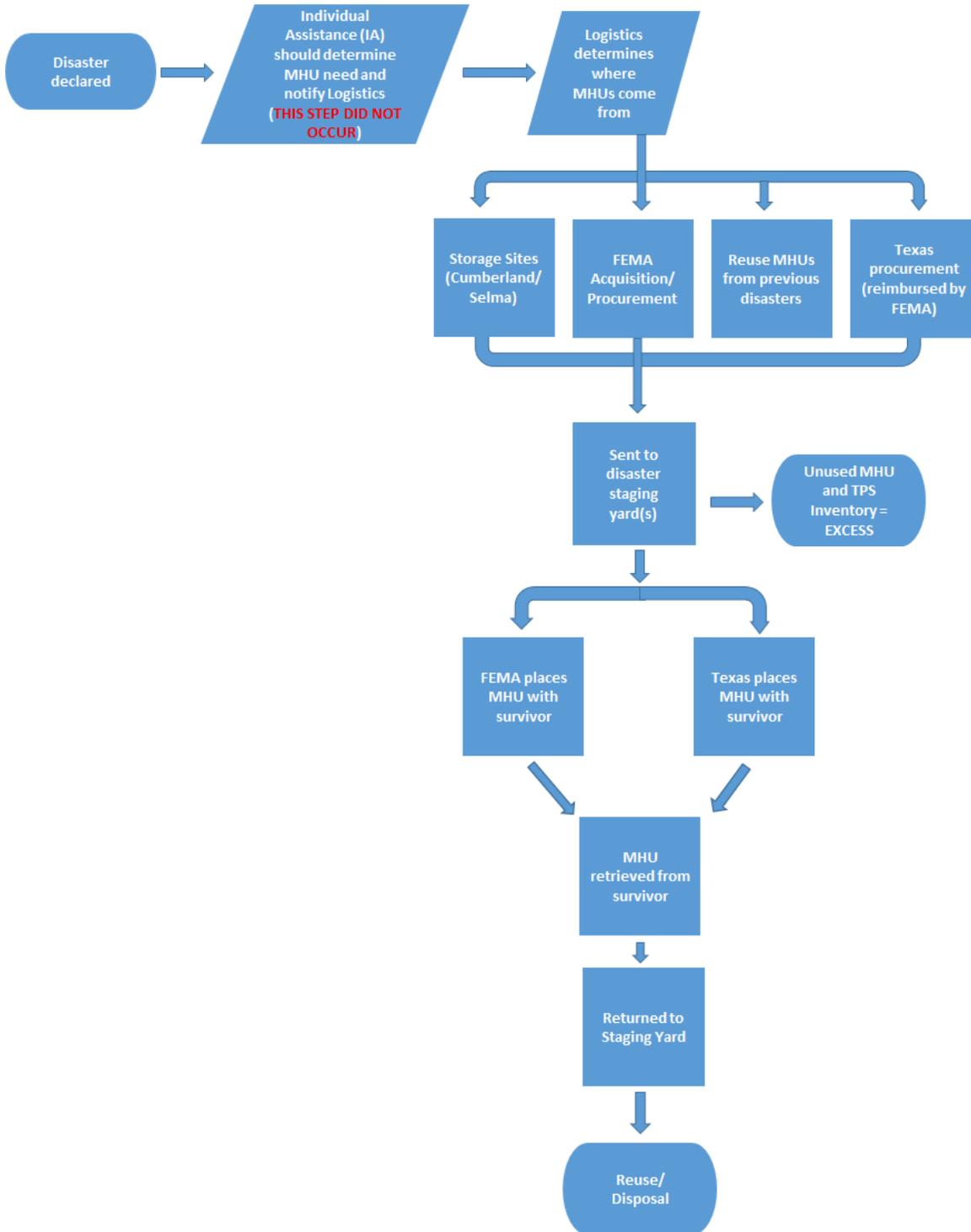
Response: Concur. LMD will identify any resources needed to improve its records management system for Direct Housing-related costs, and will implement any policies, procedures, training requirements, and guidance deemed necessary to ensure its recordkeeping processes are well-defined, clearly state the required document retention periods under the Federal Acquisition Regulation and contains an audit trail in accordance with OMB Circular A-123. ECD: June 30, 2020.



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Appendix B Hurricane Harvey MHU Deployment Process



Source: OIG analysis of MHU Program



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Appendix C

DHS OIG Prior Audit Assessment of Manufactured Housing Efforts

Since 2006, DHS OIG has issued seven reports identifying weaknesses in FEMA’s manufactured housing efforts. These reports addressed various deficiencies, such as the lack of a comprehensive plan to set forth the most cost effective way to use or dispose of manufactured homes, and the lack of a complete inventory and reconciliation of all housing units, including units previously in inventory and units purchased subsequent to a disaster. Our reports included more than 10 recommendations for FEMA to improve its manufacturing housing efforts. FEMA had taken corrective actions to resolve and close all of the recommendations.

GC-HQ-06-12	<i>Mobile Homes and Modular Homes at Hope and Red River</i>	2/17/2006
OIG-07-41	<i>Sales of the Federal Emergency Management Agency Travel Trailers and Mobile Homes</i>	5/02/2007
OIG-08-23	<i>Review of FEMA’s Use of Proceeds From the Sales of Emergency Housing Units</i>	2/05/2008
OIG-08-33	<i>Management Advisory Report – FEMA Emergency Housing Units Property Management</i>	03/25/2008
OIG-09-85	<i>FEMA’s Temporary Housing Unit Program and Storage Site Management</i>	06/29/2009
OIG-13-102	<i>Unless Modified, FEMA’s Temporary Housing Plans Will Increase Costs by an Estimated \$76 Million Annually</i>	06/25/2013
OIG-17-121-MA	<i>Management Alert – Observations and Concerns with FEMA’s Housing Assistance Program Efforts for Hurricane Harvey in Texas</i>	09/29/2017



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Appendix D
Potential Monetary Benefits

Classification of Monetary Benefits					
Finding	Rec. No.	Funds To Be Put to Better Use	Questioned Costs – Unsupported Costs	Questioned Costs – Other	Total
Excess MHU Acquisition Cost	3	\$135.3 million	\$0	\$0	\$135.3 million
Excess MHU Transportation Cost	3	\$17.2 million	\$0	\$0	\$17.2 million
Excess TPS Acquisition Cost	3	\$28.4 million	\$0	\$0	\$28.4 million
Excess TPS Transportation Cost	3	\$804,000	\$0	\$0	\$804,000
Total		\$182 Million	\$0	\$0	\$182 Million

Source: OIG analysis of findings in this report



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Appendix E
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