



# Disaster Relief Fund: Fiscal Year 2021 Funding Requirements

*February 10, 2020*

Fiscal Year 2020 Report to Congress



Homeland  
Security

*Federal Emergency Management Agency*



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## Table of Contents

I.	Legislative Requirement .....	1
II.	Background .....	3
III.	Assumptions .....	4
IV.	FY 2021 DRF Funding Requirements .....	6
V.	Specific Estimates .....	7
	A. Funding for Major Disasters .....	7
	B. Catastrophic Events .....	7
	C. Noncatastrophic Major Disaster Estimate .....	7
	D. Base Funding Estimates .....	8
	E. Prior-Year Carryover .....	11
	F. Future-Year Carryover .....	11
	G. Recoveries .....	11
VI.	Appendices .....	12
	Appendix A: DRF Catastrophic Event Obligations and Estimates Delineated by Event and State (\$ in millions) .....	12
	Appendix B: Abbreviations .....	17

# I. Legislative Requirement

This document has been compiled pursuant to language set forth in the Fiscal Year (FY) 2020 Department of Homeland Security (DHS) Appropriations Act (P.L. 116-93).

P.L. 116-93 states:

SEC. 305. The reporting requirements in paragraphs (1) and (2) under the heading “Federal Emergency Management Agency—Disaster Relief Fund” in the Department of Homeland Security Appropriations Act, 2015 (Public Law 114-4) shall be applied in fiscal year 2020 with respect to budget year 2021 and current fiscal year 2020, respectively—

- (1) in paragraph (1) by substituting “fiscal year 2021” for “fiscal year 2016”; and
- (2) in paragraph (2) by inserting “business” after “fifth”.

The FY 2015 DHS Appropriations Act (P.L. 114-4) (referenced in P.L. 116-93) states:

*Provided*, That the Administrator of the Federal Emergency Management Agency shall submit to the Committees on Appropriations of the Senate and the House of Representatives the following reports, including a specific description of the methodology and the source data used in developing such reports:

- (1) an estimate of the following amounts shall be submitted for the budget year at the time that the President’s budget proposal for fiscal year 2016 [2021] is submitted pursuant to section 1105(a) of title 31, United States Code:
  - (A) the unobligated balance of funds to be carried over from the prior fiscal year to the budget year;
  - (B) the unobligated balance of funds to be carried over from the budget year to the budget year plus 1;
  - (C) the amount of obligations for non-catastrophic events for the budget year;
  - (D) the amount of obligations for the budget year for catastrophic events delineated by event and by State;
  - (E) the total amount that has been previously obligated or will be required for catastrophic events delineated by event and by State for all prior years, the current year, the budget year, the budget year plus 1, the budget year plus 2, and the budget year plus 3 and beyond;
  - (F) the amount of previously obligated funds that will be recovered for the budget year;
  - (G) the amount that will be required for obligations for emergencies, as described in section 102(1) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5122(1)), major disasters, as described in section 102(2) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5122(2)), fire management assistance grants, as described in section 420 of the Robert T. Stafford

Disaster Relief and Emergency Assistance Act (42 U.S.C. 5187), surge activities, and disaster readiness and support activities; and  
(H) the amount required for activities not covered under section 251(b)(2)(D)(iii) of the Balanced Budget and Emergency Deficit Control Act of 1985 (2 U.S.C. 901(b)(2)(D)(iii); Public Law 99-177) ...

## II. Background

The Federal Emergency Management Agency (FEMA), pursuant to P.L. 116-93, is providing this report on the Disaster Relief Fund (DRF) budget requirements. Specifically, the reporting requirements include:

- The amount that will be required for obligations for emergencies, as defined in Section 102(1) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5122 (1)); for major disasters, as defined in Section 102(2) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5122 (2)); for fire management assistance grants, as defined in Section 420 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5187); for surge activities; and for disaster readiness and support activities;
- The amount that will be obligated for catastrophic events;
- The amount that will be obligated for noncatastrophic disasters;
- The amount that will be required for activities not covered under Section 251(b)(2)(D)(iii) of the Balanced Budget and Emergency Deficit Control Act of 1985 (2 U.S.C. 901(b)(2)(D)(iii); P.L. 99-177);
- The unobligated balance of funds in the DRF that has been carried over from the prior fiscal years;
- The unobligated balance of funds in the DRF that will be carried over in the next fiscal year;
- The amount of previously obligated funds that will be recovered for the budget year; and
- The amount of funds that previously were obligated or will be required for catastrophic events, delineated by event and state for all prior years, the current year, the budget year plus one, the budget year plus two, and the budget year plus three.

### III. Assumptions

Providing cost estimates for disaster-related events that, in some cases, have yet to occur can be complex and imprecise, given various factors throughout the fiscal year that may alter the estimates—total amount, category of expense, and/or timing of the obligation could change. To that end, several assumptions, listed below, should be considered with respect to the cost estimates presented.

1. The estimates assume that no new catastrophic events will occur during the budget year. FEMA defines a catastrophic event as a disaster or a grouping of disasters (i.e., a disaster event) resulting in a total cost to the Federal Government in excess of \$500 million. As in prior years, the budget assumes that future catastrophic events during the budget year will be funded separately with emergency supplemental appropriations.
2. Estimates for catastrophic events that already have occurred are derived from bottom-up cost estimates obtained from FEMA staff working with state and local governments to support disaster relief. Given this approach and given that the spending plans typically do not go beyond 1 fiscal year, estimates for FY 2021 and beyond are based primarily on available cost estimate information. Further, the actual timing of the obligations is subject to the required clearance and approval processes.
3. FEMA defines a noncatastrophic event as a major disaster declaration that costs the Federal Government less than \$500 million. Estimates for noncatastrophic disasters are based on a rolling 10-year average of prior-year noncatastrophic disaster obligations. The estimates assume that the noncatastrophic spending in the budget year holds to this average. The average is updated at the beginning of each fiscal year after final closeout of the accounting system.
4. The amount of funds that can be expected to be recovered in a given year depends on several factors, including availability of resources to close out contracts and grants, active participation from other federal agencies in validating and closing out mission assignment balances, and obligation reviews and adjustments during the fiscal year that reduce future recovery of funds. Provisions in the 2011 Budget Control Act require that recovery of funds obligated post-2012 be posted to the DRF category (i.e., Major Disaster Relief or Base) from which the original obligation was made, which will result in fewer funds being applied to the base.
5. The estimates assume that no major policy or legislative changes will be enacted during the budget year that could affect projections significantly. Policy changes or new legislative mandates that are enacted without associated resource considerations could affect the estimates. For example, the impact to the DRF from new authorities granted within the Sandy Recovery Improvement Act of 2013 (part of the Disaster Relief Appropriations Act, 2013 (P.L 113-2)) resulted in additional obligations of more than \$1 billion in FY 2016 for Hurricane Katrina-capped public assistance grants. Other examples include presidentially authorized cost-share adjustments and costs related to the implementation of the Disaster Recovery Reform Act, or DRRRA (P.L. 115-254).

6. Pursuant to Section 1234 of P.L. 115-254, the estimate includes a 6-percent set-aside for predisaster mitigation (PDM), also referred to as Building Resilient Infrastructure and Communities. The set-aside assumes that the 6 percent will not exceed the historical 5-year average used to calculate the requirement.

## IV. FY 2021 DRF Funding Requirements

Table 1 summarizes the estimated DRF funding requirements for FY 2021. In consideration of the assumptions listed in Section III of this report, a number of factors can cause significant variability in disaster spending in a given year.

An obvious issue with forecasting disaster activity and related costs stems from the inability to predict weather patterns, geologic events, incidents of terrorism, and other DRF-related funding scenarios during the long term, from one budget year to the next. A secondary issue arises when one of these events occurs and resources are diverted from existing recovery and mitigation efforts to address these new, urgent, and immediate concerns. Thus, predictable spending patterns for ongoing recovery efforts may change as more urgent needs take precedence. Another overarching issue in predicting DRF budget needs stems from the variability (scope, impact, location, type of requirements, state and local capabilities, etc.) inherent in disaster requirements. For example, projections included for past catastrophic events rely on estimates provided by regional FEMA staff working closely with states and localities based on assessment of the above factors.

As depicted in Table 1 below, a reserve of \$1 billion is included to ensure that FEMA maintains the ability to fund initial response operations related to a new catastrophic event. Because FYs 2019 and 2020 enacted appropriations as well as supplemental appropriations provided funding to support Hurricanes Harvey, Irma, and Maria, FEMA estimates that \$5.65 billion will provide sufficient resources for DRF requirements in FY 2021.

**Table 1. DRF FY 2021 Funding Requirements**

DRF FY 2021 President's Budget (\$ in millions)			
	Base	Majors	Total
<b>Major Declarations</b>			
Catastrophics	\$ -	\$ 1,513	\$ 1,513
Harvey, Irma, Maria	-	18,917	18,917
Noncatastrophic 10-yr. Historical Average	-	2,159	2,159
Offset from Estimated Carryover Balance	-	(18,917)	(18,917)
Subtotal	-	3,672	3,672
<b>Base</b>			
EM,FM,SU	266	-	266
DRS	327	-	327
Subtotal	593	-	593
Reserve	-	1,000	1,000
6% Set-aside for PDM per DRRRA <sup>(1)</sup>	-	388	388
Subtotal	-	1,388	1,388
<b>Total <sup>(2)</sup></b>	<b>\$ 593</b>	<b>\$ 5,060</b>	<b>\$ 5,653</b>

1) Pursuant to section 1234 of P.L. 115-254.

2) This table does not include prior-year recoveries.



## V. Specific Estimates

### A. Funding for Major Disasters

In estimating the funding for major disasters, FEMA considers the projected FY 2021 obligations for previously declared catastrophic events (\$20.43 billion) and FY 2021 estimates for the noncatastrophic major disaster activities (\$2.159 billion). Also considered are estimated carryover balances to fund requirements for Hurricanes Harvey, Irma, and Maria (\$18.917 billion) in FY 2021. As shown in Table 2 below, the total FY 2021 estimated requirement for major disasters is \$3.672 billion.

### B. Catastrophic Events

The FY 2021 requirement of \$1.513 billion for previously declared catastrophic events is derived from a bottom-up budgeting process using spending plans prepared by regional FEMA staff working with affected states and localities. It also considers estimated carryover balances to fund requirements for Hurricanes Harvey, Irma, and Maria.

Appendix A provides details on the FY 2021 estimated obligations for the following events: 2005 hurricane season (Hurricanes Katrina, Rita, and Wilma); Hurricanes Ike, Gustav, Irene, Isaac, Sandy, and Matthew; 2008 Midwest floods; 2010 Tennessee floods; 2011 Spring floods; 2011 Spring tornadoes; 2013 Colorado flood; 2016 Louisiana floods; Tropical Storm Lee; 2017 California wildfires; 2017 hurricane season (Hurricanes Harvey, Irma, and Maria); Hurricane Florence; Hurricane Michael; Typhoon Yutu; and 2018 California wildfires. These estimates were devised using the most current information available and assume that no new catastrophic events will occur during the budget year.

The detailed estimates presented in the appendix include total obligations through FY 2019, projected obligations for FY 2020 and FY 2021, and an estimate for obligations from FY 2022 through FY 2024.

**Table 2. FY 2021 Estimated Obligations for Major Disasters**

Major Declarations	Estimated Funding Requirement (\$ in millions)
Catastrophic	\$ 1,513
Noncatastrophic	2,159
Estimated Harvey, Irma, Maria Supplemental Balance	18,917
Offset from Estimated Carryover Balance	(18,917)
<b>Total</b>	<b>\$ 3,672</b>

### C. Noncatastrophic Major Disaster Estimate

The projected FY 2021 obligations for noncatastrophic major disasters were determined by averaging the past 10 years' obligations. The average was computed with no outliers (i.e., no

exclusion of high or low values) because all data fall safely within two standard deviations of the mean. As detailed in Table 3, the inflation-adjusted 10-year average is calculated to be \$2.159 billion.

**Table 3. Historical Obligations - Noncatastrophic Major Disasters**

<b>Noncatastrophic Obligations (\$ in millions)</b>	
<b><u>Fiscal Year</u></b>	<b><u>Total</u></b>
2010	\$ 3,162
2011	2,198
2012	1,971
2013	1,444
2014	1,633
2015	2,054
2016	3,196
2017	1,710
2018	2,179
2019	2,047
Grand Total	21,594
<b>10-Year Average</b>	<b>\$ 2,159</b>

#### D. Base Funding Estimates

The DRF Base is used to fund emergency declarations (EM), fire management assistance grants (FMAG), predeclaration surge activities (SU), and programmatic readiness and preparedness activities authorized under the Stafford Act. The FY 2021 DRF Base request is \$593 million, which includes \$266 million for EM, FMAG, and SU, and \$327 million for the Disaster Readiness and Support (DRS) account. Table 4 provides a historical depiction of the Base category funding for EM, FMAG, and SU activities. Because funding for these activities can be difficult to plan for, the 10-year average of \$269 million is the basis for the FY 2021 request. The (\$3 million) net difference between the 10-year average and the FY 2021 requirement of \$266 million shown in Table 1 is \$4 million reclassified to DRS for Logistics Disaster Support Equipment and a \$1 million increase for awards, per Office of Management and Budget guidance to increase the previous award ceiling recognizing Stafford Act employee (SAE) performance.

**Table 4. Historical Obligations - Base Activities (EM, FMAG, SU)**

Fiscal Year	All Events (\$ in millions)			
	EM	FMAG	SU	Total
2010	\$ 50	\$ 131	\$ 34	\$ 215
2011	123	34	97	254
2012	282	56	38	376
2013	58	120	23	201
2014	18	112	8	138
2015	2	136	13	151
2016	26	102	12	140
2017	100	61	163	324
2018	97	270	96	463
2019	129	195	103	427
Grand Total	885	1,217	587	2,689
<b>10-Year Average</b>	<b>\$ 88</b>	<b>\$ 122</b>	<b>\$ 59</b>	<b>\$ 269</b>

Conversely, the DRS category encompasses spending that is controlled through a more traditional annual budgeting process; therefore, the FY 2021 budget estimate for this category is derived from spend plans in lieu of the 10-year average. The average for the EM, FMAG, and SU activities, plus the budget requirements for the DRS category, make up the total \$593 million FY 2021 Base requirement as shown in Table 5.

**Table 5. Base Estimated Funding Requirements**

Base Categories	Estimated Funding Requirement (\$ in millions)
EM	\$ 88
FMAG	122
SU	59
DRS	327
FY 2021 Settlement Offsets <sup>(1)</sup>	(3)
<b>Total</b>	<b>\$ 593</b>

<sup>(1)</sup> The (\$3 million) net difference between the 10-year average of \$269 million shown in Table 4 and the FY 2021 requirement of \$266 million shown in Table 1 is \$4 million recategorized to DRS for Logistics Disaster Support Equipment and a \$1 million increase for awards.

DRS funding enables FEMA to be more proactive and to provide a robust readiness posture to respond to large-scale, complex, presidentially declared major disasters instead of waiting for disasters to occur and then reacting with costlier and less efficient response actions. This funding allows FEMA to provide timely disaster response, responsive customer service, and cost-effective program oversight and delivery. Cost variability in the DRS account is driven by the severity of annual disasters, which determines the level of workforce response activities. Typically, the more active the disaster season, the more these costs shift to the Major Disasters portion of the DRF. Conversely, a less-active disaster season results in greater obligations in the DRS, which is supported by the DRF Base. The FY 2021 DRS requirement of \$327 million is

based on FEMA’s detailed spend plans using a zero-based budget methodology. The DRS funds key activities and initiatives, such as:

- Salaries and expenses for SAEs while not deployed to a specific disaster.
- Qualifications, training, and equipment for SAEs.
- Stockpiling and maintaining of pre-positioned disaster assets and commodities.
- Support contracts that enable FEMA to mobilize response and recovery capacities as quickly as needed.
- Disaster facilities and support costs.
- FEMA integration teams.
- Non-enterprisewide information technology (IT) systems that directly support disaster response and recovery activities.

FEMA is requesting an additional \$25.3 million in FY 2021 for disaster facilities and related support costs, of which \$4.5 million is a transfer from the Operations & Support appropriation to fund facilities directly supporting FEMA’s readiness for disaster response and recovery operations. This policy change ensures FEMA’s ability to maintain a robust readiness posture by expanding, reconfiguring, and/or relocating facilities directly supporting disasters to meet the needs of survivors and communities more efficiently.

FEMA continues to increase its transparency and budgetary disciplines within the DRS account using detailed annual spend plans and program reviews. DRS readiness categories (RC) provide added visibility in reporting cost projections and obligations. DRS RCs include: (1) cadre operational readiness and deployability structure; (2) readiness support contracts and supplies; (3) facilities support; and (4) IT support. FEMA measures operational readiness annually through Government Performance and Results Act reporting, which demonstrates cadre preparedness across staffing, equipping, and training metrics. In addition, the introduction of the RC structure enhances the justification of resources needed to support cadre operational readiness and response capabilities. This approach helps to measure FEMA’s current state of readiness and identifies potential weaknesses and needs. As a result, FEMA is better informed on how to maintain its critical disaster support activities and infrastructure, ensuring the timely delivery of disaster assistance (e.g., reliable communications, an effective intake process, an efficient delivery system for disaster commodities, and improved oversight of disaster aid through FEMA’s technical assistance contractors). Table 6 depicts the FY 2021 DRS funding requirement of \$327 million.

**Table 6. DRS Readiness Category Reporting Structure**

<b>Readiness Category</b>	<b>Allowable Costs (\$ in millions)</b>	<b>FY 2021 Request</b>
<b>Cadre Operational Readiness and Deployability</b>		<b>\$122</b>
Disaster Employee Staffing	Non-deployed salaries and benefits, FEMA Corps contract for staff, hiring costs (i.e., recruiting, background investigations, SAE onboarding)	55
Disaster Employee Training	Course/Exercise development and delivery costs, travel for training, SAE orientation, FEMA Qualifications System, venue for training	46

<b>Readiness Category</b>	<b>Allowable Costs (\$ in millions)</b>	<b>FY 2021 Request</b>
Disaster Employee Equipping	Uniforms, equipment, telecom (services, devices, lines of service, wireless, and satellite), replacement and repair costs, and supplies for disaster operations and staff	21
<b>Readiness Support Contracts and Supplies</b>		<b>71</b>
Readiness Support Contracts and Interagency Agreements (IAA)	IAs, memoranda of agreement, memoranda of understanding, contracts necessary for technical assistance, and readiness support allowing for quick mobilization	52
Stockpiling	Storage, maintenance, and delivery of disaster response goods and supplies. Purchase and storage of perishable disaster response supplies and consumables. Purchase and storage of nonperishable disaster response supplies.	11
Disaster Housing Program	Temporary housing units and assistance	8
<b>Facilities Support</b>		<b>62</b>
Leases and Support Cost	Rental or lease of space or structures and associated facility costs	62
<b>IT Support</b>		<b>72</b>
IT Systems	Disaster IT, technical support, infrastructure costs, lifecycle system maintenance costs, cybersecurity, and any other operations & maintenance not specified	72
<b>TOTAL DRS</b>		<b>\$327</b>

## E. Prior-Year Carryover

A number of factors influence the actual DRF carryover balance. Key factors that may change the FY 2020 ending balance include the actual FY 2020 obligations and recoveries, actual transfers, and the 6-percent set-aside amount for PDM, per P.L. 115-254. As of the DRF monthly congressional report for the month ending December 31, 2019, FEMA estimated that the DRF will end FY 2020 with a balance of \$34.846 billion. This estimate is a point-in-time estimate that is expected to change before the end of FY 2020.

## F. Future-Year Carryover

The projected carryover into FY 2022 is dependent on the FY 2021 carryover, FY 2021 appropriations, and FY 2021 obligations.

## G. Recoveries

Recoveries totaled \$2.805 billion in FY 2019 and are expected to exceed \$1.1 billion by the end of FY 2020. The increase in recoveries is primarily for mission assignments and contract costs associated with catastrophic disasters.

## VI. Appendices

### Appendix A: DRF Catastrophic Event Obligations and Estimates Delineated by Event and State (\$ in millions)

Event/DR	Obligations Through FY 2019 <sup>(1)</sup>	FY 2020 Estimated <sup>(2)</sup>	FY 2021 Estimated <sup>(3)</sup>	FY 2022 Through FY 2024 Estimated	Total
<b>Gustav</b>					
1786-LA	\$ 1,682	\$ 23	\$ 20	\$ 16	\$ 1,741
1789-AL	10	-	-	-	10
1793-AR	6	-	-	-	6
1794-MS	40	-	-	-	40
1806-FL	6	-	-	-	6
<b>Total</b>	<b>1,744</b>	<b>23</b>	<b>20</b>	<b>16</b>	<b>1,803</b>
<b>Ike</b>					
1791-TX	4,422	4	23	9	4,458
1792-LA	372	2	3	3	380
1797-AL	8	-	-	-	8
1802-KY	24	-	-	-	24
1804-AR	3	-	-	-	3
1805-OH	56	-	-	-	56
<b>Total</b>	<b>4,885</b>	<b>6</b>	<b>26</b>	<b>12</b>	<b>4,929</b>
<b>Katrina Rita Wilma</b>					
1602-FL	233	-	3	2	238
1603-LA	32,782	188	51	41	33,062
1604-MS	10,092	7	21	15	10,135
1605-AL	1,041	-	-	-	1,041
1606-TX	1,878	-	-	-	1,878
1607-LA	1,928	3	22	17	1,970
1609-FL	2,570	2	21	17	2,610
<b>Total</b>	<b>50,524</b>	<b>200</b>	<b>118</b>	<b>92</b>	<b>50,934</b>

	Obligations Through FY 2019 <sup>(1)</sup>	FY 2020 Estimated <sup>(2)</sup>	FY 2021 Estimated <sup>(3)</sup>	FY 2022 Through FY 2024 Estimated	Total
<b>Event/DR</b>					
<b>Midwest Floods</b>					
1760-MO	3	-	-	-	3
1763-IA	1,872	-	37	20	1,929
1765-NE	2	-	-	-	2
1766-IN	213	-	-	-	213
1768-WI	156	-	-	-	156
1770-NE	48	-	-	-	48
1771-IL	91	-	-	-	91
1772-MN	9	-	-	-	9
1773-MO	55	-	-	-	55
1774-SD	8	-	-	-	8
1775-OK	11	-	-	-	11
1776-KS	64	-	-	-	64
1777-MI	18	-	-	-	18
<b>Total</b>	<b>2,550</b>	<b>-</b>	<b>37</b>	<b>20</b>	<b>2,607</b>
<b>TN Floods</b>					
1909-TN	549	11	11	9	580
<b>Total</b>	<b>549</b>	<b>11</b>	<b>11</b>	<b>9</b>	<b>580</b>
<b>2011 Spring Tornadoes</b>					
1971-AL	704	-	2	2	708
1972-MS	67	-	-	-	67
1973-GA	44	-	-	-	44
1974-TN	92	-	1	1	94
1975-AR	104	-	2	1	107
1976-KY	60	2	-	-	62
1980-MO	511	-	3	2	516
<b>Total</b>	<b>1,582</b>	<b>2</b>	<b>8</b>	<b>6</b>	<b>1,598</b>
<b>2011 Spring Floods</b>					
1981-ND	638	1	2	2	643
1982-MN	27	-	-	-	27
1983-MS	36	-	-	-	36
1984-SD	83	-	-	-	83
<b>Total</b>	<b>784</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>789</b>

	Obligations Through FY 2019 <sup>(1)</sup>	FY 2020 Estimated <sup>(2)</sup>	FY 2021 Estimated <sup>(3)</sup>	FY 2022 Through FY 2024 Estimated	Total
<b>Event/DR</b>					
<b>Irene</b>					
4017-PR	141	-	1	1	143
4019-NC	194	-	3	2	199
4020-NY	892	20	13	10	935
4021-NJ	397	2	8	6	413
4022-VT	326	16	3	2	347
4023-CT	74	4	1	1	80
4024-VA	73	-	1	1	75
4025-PA	99	-	-	-	99
4026-NH	27	-	-	-	27
4027-RI	11	-	1	-	12
4028-MA	53	-	1	-	54
4032-ME	3	-	-	-	3
4034-MD	25	-	-	-	25
4036-DC	3	-	-	-	3
4037-DE	3	-	-	-	3
<b>Total</b>	<b>2,321</b>	<b>42</b>	<b>32</b>	<b>23</b>	<b>2,418</b>
<b>Lee</b>					
4030-PA	374	-	-	-	374
4031-NY	452	9	3	2	466
4038-MD	15	-	-	-	15
4039-NJ	6	-	-	-	6
4041-LA	7	-	-	-	7
4045-VA	7	-	-	-	7
<b>Total</b>	<b>861</b>	<b>9</b>	<b>3</b>	<b>2</b>	<b>875</b>
<b>Isaac</b>					
4080-LA	701	4	7	5	717
4081-MS	90	-	6	3	99
4082-AL	10	-	-	-	10
4084-FL	34	-	1	-	35
<b>Total</b>	<b>835</b>	<b>4</b>	<b>14</b>	<b>8</b>	<b>861</b>



	Obligations Through FY 2019 <sup>(1)</sup>	FY 2020 Estimated <sup>(2)</sup>	FY 2021 Estimated <sup>(3)</sup>	FY 2022 Through FY 2024 Estimated	Total
<b>Event/DR</b>					
<b>Sandy</b>					
4085-NY	17,626	461	288	315	18,690
4086-NJ	3,347	46	13	10	3,416
4087-CT	123	3	1	1	128
4089-RI	19	-	-	-	19
4090-DE	8	-	-	-	8
4091-MD	50	-	-	1	51
4092-VA	14	-	-	-	14
4093-WV	23	-	-	-	23
4095-NH	3	-	-	-	3
4096-DC	3	-	-	-	3
4097- MA	17	1	2	1	21
4098-OH	26	-	-	-	26
4099-PA	17	-	-	-	17
<b>Total</b>	<b>21,276</b>	<b>511</b>	<b>304</b>	<b>328</b>	<b>22,419</b>
<b>2013 Colorado Flood</b>					
4145-CO	643	15	2	3	663
<b>Total</b>	<b>643</b>	<b>15</b>	<b>2</b>	<b>3</b>	<b>663</b>
<b>Matthew</b>					
4283-FL	463	79	13	20	575
4284-GA	146	4	2	4	156
4285-NC	675	14	2	4	695
4286-SC	391	18	4	7	420
4291-VA	40	1	-	-	41
<b>Total</b>	<b>1,715</b>	<b>116</b>	<b>21</b>	<b>35</b>	<b>1,887</b>
<b>LA Floods 4277</b>					
4277-LA	2,625	180	59	96	2,960
<b>Total</b>	<b>2,625</b>	<b>180</b>	<b>59</b>	<b>96</b>	<b>2,960</b>
<b>CA Wildfires 2017</b>					
4344-CA	1,243	123	60	105	1,531
<b>Total</b>	<b>1,243</b>	<b>123</b>	<b>60</b>	<b>105</b>	<b>1,531</b>

Event/DR	Obligations Through FY 2019 <sup>(1)</sup>	FY 2020 Estimated <sup>(2)</sup>	FY 2021 Estimated <sup>(3)</sup>	FY 2022 Through FY 2024 Estimated	Total
<b>Harvey</b>					
4332-TX	7,043	903	1,253	888	10,087
4345-LA	12	1	-	-	13
<b>Total</b>	<b>7,055</b>	<b>904</b>	<b>1,253</b>	<b>888</b>	<b>10,100</b>
<b>Irma</b>					
4335-VI	325	12	30	21	388
4336-PR	81	26	1	2	110
4337-FL	3,911	1,332	70	139	5,452
4338-GA	199	30	1	2	232
4341-FL	7	-	-	-	7
4346-SC	43	4	1	1	49
<b>Total</b>	<b>4,566</b>	<b>1,404</b>	<b>103</b>	<b>165</b>	<b>6,238</b>
<b>Maria</b>					
4339-PR	15,637	3,039	17,109	11,826	47,611
4340-VI	2,701	744	452	348	4,245
<b>Total</b>	<b>18,338</b>	<b>3,783</b>	<b>17,561</b>	<b>12,174</b>	<b>51,856</b>
<b>Florence</b>					
4393-NC	979	494	179	210	1,862
4394-SC	231	31	3	7	272
4401-VA	29	2	3	4	38
<b>Total</b>	<b>1,239</b>	<b>527</b>	<b>185</b>	<b>221</b>	<b>2,172</b>
<b>Michael</b>					
4399-FL	1,195	1,036	174	253	2,658
4400-GA	285	89	28	42	444
4406-AL	13	6	2	2	23
4411-VA	16	21	2	3	42
4412-NC	8	22	1	1	32
<b>Total</b>	<b>1,517</b>	<b>1,174</b>	<b>207</b>	<b>301</b>	<b>3,199</b>
<b>Yutu</b>					
4404-NMI	539	242	78	74	933
<b>Total</b>	<b>539</b>	<b>242</b>	<b>78</b>	<b>74</b>	<b>933</b>
<b>CA Wildfires 2018</b>					
4407-CA	541	795	326	346	2,008
<b>Total</b>	<b>541</b>	<b>795</b>	<b>326</b>	<b>346</b>	<b>2,008</b>
<b>Catastrophic Subtotal</b>	<b>127,932</b>	<b>10,072</b>	<b>20,430</b>	<b>14,926</b>	<b>173,360</b>
<i>Adjustment for Inflation</i>	-	-	-	299	-
<b>Grand Total</b>	<b>\$ 127,932</b>	<b>\$ 10,072</b>	<b>\$ 20,430</b>	<b>\$ 15,225</b>	<b>\$ 173,659</b>

- 1) Obligations through FY 2019 include recoveries of prior-year funds.
- 2) FY 2020 Actual/Estimated as of October 1, 2019.
- 3) The FY 2021 President's Budget does not include estimated requirements for catastrophic events declared in FY 2020.

## Appendix B: Abbreviations

<b>Abbreviation:</b>	<b>Definition:</b>
DHS	Department of Homeland Security
DRF	Disaster Relief Fund
DRRA	Disaster Recovery Reform Act
DRS	Disaster Readiness and Support
EM	Emergency Declaration
FEMA	Federal Emergency Management Agency
FMAG	Fire Management Assistance Grant
FY	Fiscal Year
IAA	Interagency Agreement
IT	Information Technology
PDM	Predisaster Mitigation
RC	Readiness Category
SAE	Stafford Act Employee
SU	Surge Activity