Public Assistance Program Alternative Procedures

Fourth Quarterly Status Report for Fiscal Year 2015

June 9, 2016

Fiscal Year 2015 Report to Congress

Homeland Security

Federal Emergency Management Agency

Foreword from the Administrator

June 9, 2016

I am pleased to submit the following report, "Public Assistance Program Alternative Procedures: Fourth Quarter, Fiscal Year 2015," prepared by the Federal Emergency Management Agency (FEMA).

This document was compiled pursuant to a requirement in House Report 113-481, which accompanies the *Fiscal Year* (FY) *2015 Department of Homeland Security* (DHS) *Appropriations Act* (P.L. 114-4). This report provides an overview of Public Assistance Program Alternative Procedures including summaries of permanent work and debris removal projects; financial information associated with these projects; an overview of FEMA's authorities under Sections 406, 422, and 428 of the Stafford Act; and a discussion of issues related to the implementation of alternative procedures.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable Joseph R. Biden, Jr.
President of the Senate

The Honorable Paul Ryan
Speaker of the House of Representatives

Inquiries related to this report may be directed to me at (202) 646-3900 or to the Department's Deputy Under Secretary for Management and Chief Financial Officer, Chip Fulghum, at 202-447-5751.

Sincerely,

W. Craig Fugate
Administrator
Federal Emergency Management Agency

Executive Summary

The Sandy Recovery Improvement Act (SRIA) (P.L. 113-2), signed by the President on January 29, 2013, amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act (P.L. 93-288) to add Section 428 (42 U.S.C. 5189f). Section 428 authorizes alternative procedures for the Public Assistance Program and allows the Federal Emergency Management Agency (FEMA) to implement these new authorities through a pilot program. The law sets forth four goals of the alternative procedures: (1) reducing the costs to the Federal Government; (2) increasing flexibility in the administration of such assistance; (3) expediting the provision of such assistance; and (4) providing financial incentives and disincentives for the timely and cost-effective completion of projects.

This report serves as FEMA's response to House Report (H.R.) 113-481 accompanying the *Fiscal Year 2015 Department of Homeland Security Appropriations Act* (P.L. 114-4), which directs the Administrator to submit quarterly reports to Congress detailing and describing the projects proceeding under the Public Assistance Alternative Procedures (PAAP) pilot programs. H.R. 113-481 requires the Administrator to provide information on the following five requests:

(1) A financial summary of the projects under the section 428 alternative procedures for permanent work (report Section IV);
(2) A brief description of each section 428 project in excess of $50,000,000 and information about how section 428 projects are expected to meet the goals of the program (report Sections V and VI);
(3) An overview of the use of sections 406, 422, and 428 (report Section III);
(4) A summary of the projects under alternative procedures for debris removal (report Section VII); and
(5) An identification of challenges and recommendations, including proposed authority modifications, to better enable the Program to achieve the four stated goals (report Section VIII).

This report provides the specific information requested, including financial information related to permanent work and debris removal projects under the alternative procedures. It also explains the authorities under which FEMA may provide assistance and the procedures for implementing these authorities. This information includes eligibility requirements, project timeframes, administrative procedures, and conditions affecting the provision of assistance.

The alternative procedures for permanent work and debris removal projects described in this report represent innovative concepts that are intended to further FEMA's mission of

aiding community recovery following a major disaster or emergency. The alternative procedures are specifically designed to achieve FEMA's goals of providing disaster assistance expediently and efficiently, with options that allow communities greater flexibility in meeting their needs for more resilient rebuilding and recovery.

Public Assistance Program
Alternative Procedures
Fourth Quarter, Fiscal Year 2015

Table of Contents

I. Legislative Request 1

II. Background on the Alternative Procedures for Permanent Work 3

III. Overview of Public Assistance Authorities – Sections 406, 422, and 428 of the Stafford Act 4
- Section 406. Repair, Restoration, and Replacement of Damaged Facilities (42 U.S.C. 5172) 4
- Section 406(e) Eligible Cost 4
- Section 422. Simplified Procedures (42 U.S.C. 5189) 5
- Section 428. Public Assistance Program Alternative Procedures (42 U.S.C. 5189f) 6

IV. Alternative Procedures Pilot Program for Permanent Work Financial Summary ... 9

V. Alternative Procedures Permanent Work Pilot Projects in Excess of $50 Million . 14
1. Long Island Power Authority 14
2. Metropolitan Transportation Authority 15
3. Nassau County Wastewater Treatment Facilities 16
4. New York University 17
5. South Nassau Communities Hospital 18
6. Queens Rockaway Boardwalk 19
7. Bellevue Hospital 20
8. Metropolitan Hospital Center 21

9. Fire Department of the City of New York 22
10. New York City Department of Environmental Protection (NYCDEP)..... 23
11. Coney Island Hospital 24
12. Coler Hospital 25
13. New York City Housing Authority 26
14. Southern University of New Orleans 27
15. Staten Island (SI) Homeport & Bush Terminal 28

VI. How Alternative Procedures Permanent Work Pilot Projects are expected to meet the Stated Program Goals..... 29

VII. Alternative Procedures Pilot Program for Debris Removal Summary 31
Straight-Time Force Account Procedure 33
Accelerated Debris Removal – Increased Federal Cost Share (Sliding Scale) Procedure..... 34
Recycling Revenue Procedure 35
Debris Management Plan Procedure..... 36

VIII. Challenges and Recommendations 37

IX. Appendix 38

I. Legislative Request

This document was compiled pursuant to legislative language set forth in House Report 113-481 accompanying the *Fiscal Year* (FY) *2015 Department of Homeland Security* (DHS) *Appropriations Act* (P.L. 114-4).

House Report 113-481 states:

Sandy Recovery Improvement Act

"The Committee commends FEMA for its efforts to implement its new authorities under Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5189f), which was enacted as a provision of the Sandy Recovery Improvement Act January 29, 2013 (Public Law 113–2, Division B). Section 428 authorizes the Administrator to establish a Public Assistance Alternative Procedures Program and explicitly lays out the goals of the alternative procedures: (1) reducing the costs to the federal government; (2) increasing flexibility in the administration of such assistance; (3) expediting the provision of such assistance; and (4) providing financial incentives and disincentives for the timely and cost-effective completion of projects.

The Committee directs the Administrator to submit quarterly reports, commencing 60 days after the date of enactment of this Act, to the Committee and to the House Committee on Transportation and Infrastructure detailing and describing the projects proceeding under the Public Assistance Alternative Procedures Program. Each report shall include the following:

(1) A financial summary of the projects under the Section 428 alternative procedures for permanent work, including planned and anticipated projects, and their anticipated obligation and expenditure dates;
(2) A brief description of each Section 428 project in excess of $50 million, a description of how each of these projects is expected to meet the four stated goals for the Program, and a summary of how the Section 428 projects below that threshold are cumulatively addressing each of those goals;
(3) An overview of the use of Sections 406, 422, and 428, including the eligible scope of work and costs of such projects; the eligibility and costs of Section 406 mitigation funds, project timetables administrative costs; and other relevant information determined by the Administrator;
(4) A summary of the projects under alternative procedures for debris removal; and
(5) An identification of challenges and recommendations, including proposed authority modifications, to better enable the Program to achieve the four stated goals."

The Joint Explanatory Statement accompanying the *FY 2015 DHS Appropriations Act* states:

> In lieu of direction in the House Report directing FEMA to provide a report on the Public Assistance Alternative Procedures Program to certain committees, FEMA shall provide the report to Congress.

II. Background on the Alternative Procedures for Permanent Work

On January 29, 2013, President Obama signed into law the Sandy Recovery Improvement Act of 2013 (SRIA). This law amends Title IV of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). It authorizes FEMA to implement the Public Assistance (PA) Alternative Procedures (PAAP) Pilot Program for Debris Removal and Permanent Work. The PAAP Pilot Program for Permanent Work began May 20, 2013, and the PAAP Pilot Program for Debris began June 28, 2013.

Goals of the PAAP Pilot Programs:

Goal 1: **Reduce Costs**: Reduce the costs to the Federal Government of providing Public Assistance.

Goal 2: **Increase Flexibility**: Increase flexibility in the administration of such assistance.

Goal 3: **Expedite Assistance**: Expedite the provision of assistance to a state (includes U.S. Territories), tribal or local government, or nonprofit owner or operator of a private nonprofit facility.

Goal 4: **Provide Incentives/Disincentives for Timely/Cost-effective Completion**: Provide financial incentives and disincentives for timely and cost-effective completion of projects with such assistance.

FEMA's PAAP implementation guides for both Debris Removal and Permanent Work Pilots are available on FEMA's website at *https://www.fema.gov/alternative-procedures*.

III. Overview of Public Assistance Authorities – Sections 406, 422, and 428 of the Stafford Act

Section 406. Repair, Restoration, and Replacement of Damaged Facilities (42 U.S.C. 5172)

Section 406 authorizes FEMA to provide federal award assistance to state, local, and tribal governments and eligible private nonprofit (PNP) organizations for the repair, restoration, and replacement of damaged or destroyed facilities.[1] FEMA categorizes this type of work as "permanent work," or PA categories C-G work. Permanent work is that which is required to restore a damaged facility, through repair or restoration, to its pre-disaster design, function, and capacity in accordance with applicable codes, specifications, and standards.[2]

Under Section 406, FEMA may also provide funding for an improved or alternate project in accordance with 44 CFR § 206.203(d)(1) and (2). An improved project is where a subrecipient wants to make improvements, but still restore the pre-disaster function of a facility. This requires approval from the recipient/pass-through entity, and federal funding is limited to the federal share of the approved estimate of eligible costs. An alternate project is where the subrecipient has determined that restoring a damaged public facility or the function of that facility does not best serve the public interest, and the subrecipient requests approval from FEMA to use the funding for an alternate eligible use. For alternate projects, the federal funding for damaged public facilities is 90 percent of the federal share of the federal estimate of the cost of repairing, restoring, reconstructing, or replacing the facility, while damaged PNP facilities may receive 75 percent of the federal share of the federal estimate of the cost of repairing, restoring, reconstructing, or replacing the facility.

Section 406(e) Eligible Cost

Section 406(e) authorizes FEMA to fund as an eligible cost the work necessary to conform to applicable codes, specifications, and standards. This includes "hazard mitigation criteria required by the President."[3] Hazard mitigation is defined as "any cost effective measure which will reduce the potential for damage to a facility from a disaster event."[4] Therefore, the Stafford Act allows FEMA to consider for inclusion in PA subawards certain mitigation measures that are beyond work required to repair a facility to its pre-disaster function and design.

In evaluating whether hazard mitigation may be eligible for inclusion as an eligible cost in a PA subaward, FEMA considers project eligibility requirements and cost-effectiveness of the proposed measures. In some cases, FEMA may require mitigation measures as part of an approved project, such as requiring that a flood-damaged building be elevated in compliance with local ordinances as established under the National Flood Insurance Program requirements. The basic considerations for hazard mitigation measures funded under Section 406 are: that the

[1] Stafford Act Section 406, 42 U.S.C. 5172.
[2] *Public Assistance Guide* FEMA 322 dated June 2007, page 79.
[3] Stafford Act Section 406(e)(1)(A)(ii), 42 U.S.C. 5172(e)(1)(A)(ii).
[4] 44 CFR § 206.201(f).

mitigation is implemented through the PA program (as opposed to other sources of mitigation funding, such as Section 404 hazard mitigation administered by the state (recipient)); the mitigation applies to structural measures; the mitigation must apply to the damaged element(s) of the facility; and while there are no programwide limits on funds, each project must be cost-effective and approved by FEMA.

For further guidance on Section 406 hazard mitigation funding, please see *FEMA Policy 104-009-2, Public Assistance Program and Policy Guide* dated January 1, 2016.[5]

Section 422. Simplified Procedures (42 U.S.C. 5189)

Pursuant to Section 422, FEMA is authorized to provide PA subaward funding based on federal estimates rather than on actual costs for small projects (those with estimated or actual costs below the threshold determined in accordance with the annually adjusted Consumer Price Index (CPI) for All Urban Consumers published by the U.S. Department of Labor). Funding for the project is made based on the initial amount approved, whether this amount is for estimated or actual costs.

As explained in the *Public Assistance Program and Policy Guide* dated January 1, 2016, on pages 137 and 138:

> "FEMA also establishes a dollar threshold each Federal fiscal year for the implementation of Simplified Procedures under Section 422 of the Stafford Act. This threshold defines a project as large or small. FEMA categorizes projects as large or small based on the final approved amount of eligible costs after any cost adjustments, including insurance reductions:
>
> - A Large Project is a PW with a cost equal to or greater than the threshold.
> - A Small Project is a PW with a cost below the threshold.
>
> The threshold applies to incidents declared within that fiscal year. FEMA administers funding for Large and Small Projects differently. For Large Projects that are not capped projects, FEMA adjusts any estimated costs to the actual incurred amount so that the final approved funding is based on actual costs. For Small Projects, FEMA does not adjust estimated costs to the actual incurred amount."[6]

Section 1107 of the SRIA revised Section 422 of the Stafford Act and directed the Administrator to evaluate whether it would be appropriate to increase the small project threshold.[7] Following this analysis, on January 29, 2014, FEMA submitted a report to Congress conveying the determination that the threshold for small project subawards should be increased to a maximum of $120,000. On February 26, 2014, FEMA issued a notice in the *Federal Register* adjusting the threshold for simplified procedures to $120,000.[8] FEMA also adjusted the minimum project threshold to $3,000, from $1,000. Both threshold amounts are adjusted annually based on the CPI. For major disasters and emergencies declared after October 1, 2015, the large project

[5] Available on FEMA's website at *http://www.fema.gov/media-library/assets/documents/111781*
[6] Available on FEMA's website at *http://www.fema.gov/media-library/assets/documents/111781*
[7] Stafford Act Section 422(b)(1)(A), 42 U.S.C. 5189 (b)(1)(A).
[8] 79 Fed. Reg. 62648 (Oct. 20, 2014).

threshold is $121,800 and the minimum project threshold is $3,050.[9] Further, on November 19, 2014, FEMA issued a subsequent notice in the *Federal Register* seeking comment on the findings of the report to Congress to inform any future revisions to the project thresholds.[10] This comment period closed on January 20, 2015. FEMA received 19 comments from 17 respondents that will be considered as part of the triennial review of Simplified Procedures, as required by the SRIA.

Section 428. Public Assistance Program Alternative Procedures (42 U.S.C. 5189f)

The SRIA also amended the Stafford Act to add Section 428, which authorized alternative procedures for PA under Sections 403(a)(3)(A), 406, 407, and 502(a)(5). The statute further authorized FEMA to implement pilot programs for the alternative procedures until FEMA promulgates and adopts revised regulations that implement the PA program changes that the law authorizes. Section 428 applies to both debris removal and permanent work.

Permanent Work

Participation in the alternative procedures pilot program is voluntary. For permanent work, a subrecipient must accept a fixed capped subaward based on an agreed-upon estimate in order to participate in the pilot program. The law:

- Allows for making grants for permanent work projects on the basis of fixed estimates to provide financial incentives and disincentives for the timely or cost-effective completion of work if the state, tribal, or local government, or owner or operator of the private nonprofit facility agrees to be responsible for actual costs that exceed the estimate;
- Provides an option for state, tribal, or local government, or owner or operator of the private nonprofit facility to receive an in-lieu contribution, without reduction, on the basis of estimates for repair, restoration, reconstruction, or replacement of a public facility and management expenses (i.e., eliminates the funding reduction for alternate projects under Sections 406(c)(1) of the Stafford Act);
- Allows for consolidating, as determined by the Administrator, the facilities of a state, tribal, or local government, or owner or operator of the private nonprofit facility as a single project based upon estimates adopted under the procedures;
- Allows for the Administrator to permit a recipient or subrecipient to use all or part of the excess grant funds for cost-effective activities that reduce the risk of future damage, hardship, or suffering from a major disaster and other activities to improve future PA operations or planning;
- Requires the Administrator to make available an independent expert panel to validate the estimated eligible cost if requested by a subrecipient, and where the Administrator or certified cost estimate prepared by the applicant's professionally licensed engineers has estimated an eligible Federal share for a project of at least $5 million; and

[9] 80 Fed. Reg. 61836 (October 14, 2015).
[10] 79 Fed. Reg. 10685 (November 19, 2014).

- Requires the Administrator, at an applicant's request, to consider properly conducted and certified cost estimates prepared by professional licensed engineers (mutually agreed upon by the Administrator and the applicant)."[11]

The alternative procedures do not change timelines for identifying disaster damage, as established by regulation. In order to achieve the goal of expediting assistance, agreement on the cost estimate of the fixed subaward must be reached within 9 months of the declaration date. This deadline may be extended as appropriate based on extenuating circumstances. If FEMA, the recipient, and subrecipient cannot agree on the estimate within this timeframe, the subaward will be processed pursuant to standard procedures. Subrecipients have 12 months from the date of declaration to consolidate fixed estimate subawards into a single subaward.

Regarding hazard mitigation funding, under standard Section 406 PA procedures, hazard mitigation funding cannot be retained on alternate or improved projects that involve facility replacement or relocation. However, as the alternative procedures authorized under Section 428 seek to promote greater flexibility for the use of fixed estimate subaward funding, FEMA may allow subrecipients, on a case-by-case basis, to retain mitigation funding on Alternate and Improved projects that involve facility replacement or relocation when a subrecipient can demonstrate a commensurate reduction of risk.

Debris Removal

Participation in the alternative procedures pilot program is voluntary. For debris removal, subrecipients may elect to use one or more of the procedures for their debris removal projects. Utilizing multiple debris removal alternative procedures is not required in order to receive the incentive for any of the other provisions. The law allows for:

- And FEMA is currently piloting, the use of a sliding scale for determining the Federal share for removal of debris and wreckage based on the time it takes to complete debris and wreckage removal;
- The use of program income from recycled debris without offset to the subaward amount;
- Reimbursing base and overtime wages for the employees of state, tribal, or local governments, or owners or operators of private nonprofit facilities performing or administering debris and wreckage removal; and
- Providing incentives to a state, tribal, or local government to have a debris management plan (DMP) approved by the FEMA Administrator and have pre-qualified one or more debris and wreckage removal contractors before the date of declaration of the major disaster.[12]

---

[11] See Section 428 of the Stafford Act, 42 U.S.C. 5189f. See also *PA Alternative Procedures Pilot Program Guide for Permanent Work Version 2* dated December 19, 2013, pages 1-2, available on FEMA's website at https://www.fema.gov/media-library-data/1459890486997-dfefe73bae7234ddb0538a2d3394b3d5/PAAP_Pilot_Program_Guide_for_Permanent_Work_Version_3.pdf.

[12] See Section 428 of the Stafford Act, 42 U.S.C. 5189f. See also *PA Alternative Procedures Pilot Program Guide for Debris Removal Version 3* dated June 28, 2015, pages 1- 2, available on FEMA's website at https://www.fema.gov/media-library-data/1435580301706-b94102af3744952b11345fc13fabf70e/PAAPGuideforDebrisRemovalv3FINAL62515508.pdf.

In June, FEMA approved a 1-year extension of the debris removal procedures pilot until June 27, 2016.

The law also authorizes FEMA to make subawards for debris removal on the basis of fixed estimates, and to allow subrecipients to use excess funds from those subawards for approved purposes. FEMA is not implementing these procedures as part of this pilot. FEMA continues to work to improve debris estimating methodologies and will consider implementing these procedures in the future.

IV. Alternative Procedures Pilot Program for Permanent Work Financial Summary

FEMA is piloting five permanent work alternative procedures:

1) Fixed estimate subawards (if a subrecipient elects to accept a fixed estimate subaward then it may choose to participate in the four other procedures) [13];
2) Elimination of the reduction in federal cost share for alternate projects;
3) Consolidation of fixed estimate subawards;
4) Use of an expert panel to validate project estimates over $5 million[14]; and
5) Use of excess funds for certain PA program-related purposes.

As of December 29, 2015, the overall participation in permanent work alternative procedures is summarized below. This constitutes all of the disasters, subrecipients, and PWs with fixed estimate subawards (see Tables 1 and 2; Figure 1). The procedures have been used in 44 declarations by 113 subrecipients for 232 subawards – PWs – at a total of $9.9 billion in project costs ($8.9 billion in obligated federal share).[15]

Table 1. Permanent Work Procedures – Participation and Associated Costs[16]

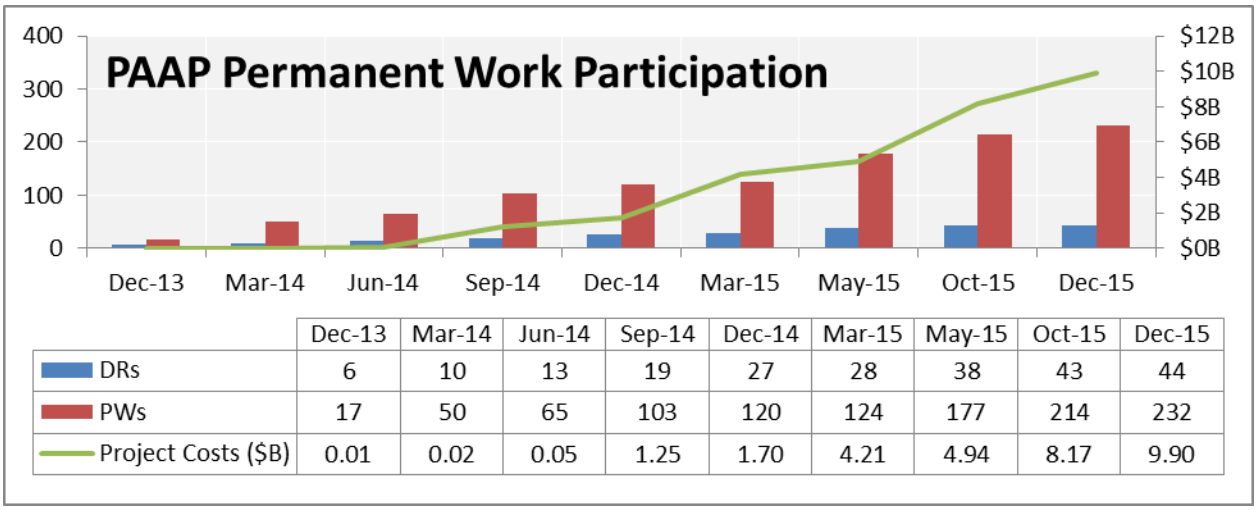
Permanent Work Procedure	Declarations	Subrecipients	PW	Project Costs[17]	Obligated Federal Share
1) Fixed Estimate Subawards	44	113	232	$9,903,611,245	$8,881,745,821
2) Elimination of Reduction in Federal Share – Alternate Projects	21	40	41	$102,620,808	$81,280,667
3) Consolidated Subawards	20	37	44	$2,692,120,098	$2,425,299,257
4) Expert Panel Validation	1	1	1	$7,633,333	$6,869,999
5) Use of Excess Funds[18]	0	0	0	$0	$0

[13] Note that a subrecipient must participate in the first procedure – fixed estimate subawards – in order to participate in any of the other alternative procedures for permanent work.
[14] FEMA will submit for validation any project with a value of $25 million or higher to the expert panel.
[15] Costs include those for PAAP permanent work projects where version 0 of the associated PW has been obligated. In some cases, these projects are going through additional review at this time. For example, a project originally may have been obligated (version 0) as a standard PA project and is in the process of being reviewed as a PAAP project. Or, multiple fixed subaward PAAP projects may have been obligated but now are being consolidated into one project and are being processed as such.
[16] Note that figures for provisions 2-5 are a subset of the total number of fixed estimate subawards. Also note that subrecipients may elect to participate in more than one procedure. As such, the sum of the figures above does not represent the total amount of participation in the alternative procedures.
[17] Project costs represent the total project costs for PWs that use each procedure, not the costs associated with the use of the procedure itself. For example, the project costs of PWs that indicate use of the elimination of reduction in federal share for alternate project procedure total $102,620,808. This figure does not represent the additional federal share.
[18] Data is not available at this time as work is still being completed.

Table 2. Permanent Work Procedures (all Fixed Amount Subawards) by Category of Work

Permanent Work Category	PW	Project Costs	Obligated Federal Share
C - Roads & Bridges	80	$470,847,985	$417,357,199
D - Water Control Facilities	8	$25,660,922	$19,431,442
E - Public Buildings	100	$6,164,633,298	$5,542,163,834
F - Public Utilities	21	$2,588,965,561	$2,324,983,940
G - Recreational or Other	23	$653,503,479	$577,809,407
Grand Total	**232**	**$9,903,611,245**	**$8,881,745,822**

Figure 1. Overall Permanent Work Procedures Participation



	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15	May-15	Oct-15	Dec-15
DRs	6	10	13	19	27	28	38	43	44
PWs	17	50	65	103	120	124	177	214	232
Project Costs ($B)	0.01	0.02	0.05	1.25	1.70	4.21	4.94	8.17	9.90

Elimination of the Reduction in Eligible Costs for Alternate Projects

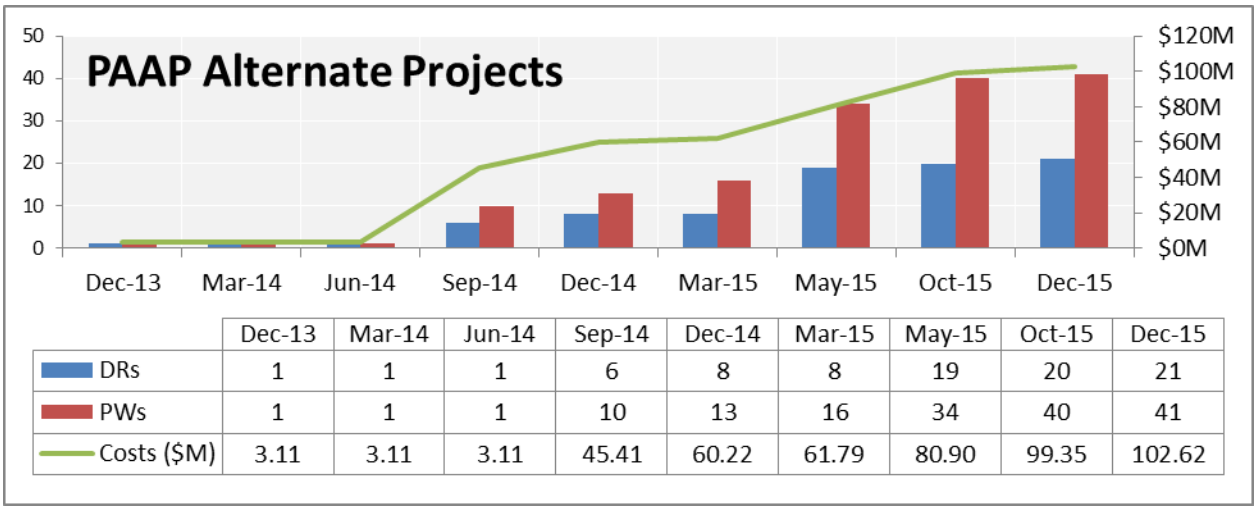
When a subrecipient accepts a fixed estimate subaward under the permanent work pilot, FEMA will waive the federal cost share reduction imposed on alternate projects under the standard procedures.[19]

This procedure has been used in 21 declarations for 41 subawards – PWs – at a total of $102,620,808 in projects costs ($81,280,668 in obligated federal share). The data below reflectsparticipation in this option of the fixed estimate subawards (Figure 2 and Table 3):

Table 3. Permanent Work Alternate Projects Provision Summary

Alternate Projects	PW	Project Costs	Obligated Federal Share
C - Roads & Bridges	17	$7,018,041	$5,804,723
D - Water Control Facilities	2	$1,483,094	$1,112,321
E - Public Buildings	13	$50,700,308	$40,031,731
F - Public Utilities	4	$933,390	$735,416
G - Recreational or Other	5	$42,485,975	$33,596,477
Grand Total	**41**	**$102,620,808**	**$81,280,668**

Figure 2. Permanent Work Alternate Projects Provision Participation



	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15	May-15	Oct-15	Dec-15
DRs	1	1	1	6	8	8	19	20	21
PWs	1	1	1	10	13	16	34	40	41
Costs ($M)	3.11	3.11	3.11	45.41	60.22	61.79	80.90	99.35	102.62

[19] Stafford Act Section 406(c)(1)(A), 42 U.S.C. 5172(c)(1)(A); 44 CFR § 206.203(d)(2)

Consolidation of Fixed Estimate Subawards

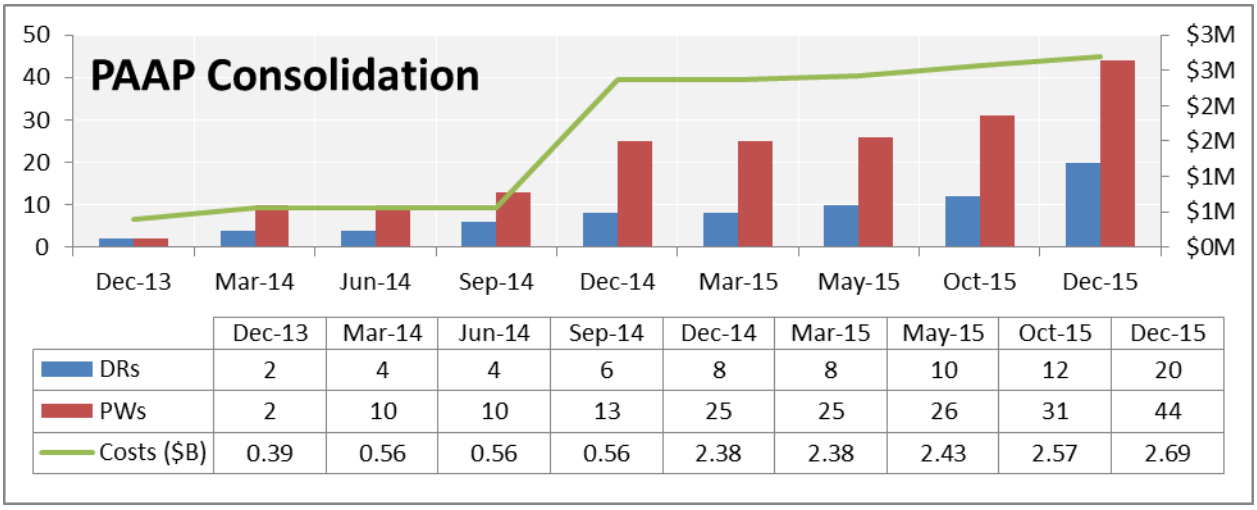
A subrecipient can combine two or more fixed subawards into a single consolidated project. This feature allows the subrecipient greater flexibility to execute work and share funding across multiple facilities or sites in ways that support its post-disaster recovery needs. While estimated costs to restore a facility to its pre-disaster function, design, capacity, and condition determine the amount of FEMA eligible funding, a subrecipient is not constrained from using this funding to complete a project or projects with a different function, design, or capacity. Funding for the consolidated subaward is capped at the aggregate amount of the eligible costs for the formerly separate, individual fixed subawards.

This procedure has been used in 20 declarations for 44 subawards – PWs – at a total of $2,692,120,098 in project costs ($2,425,299,257 in obligated federal share). The data below reflect participation in this option of the fixed estimate subawards (Figure 3 and Table 4):

Table 4. Permanent Work Consolidated Subawards Provision Summary

Consolidated Projects	PW	Project Costs	Obligated Federal Share
C - Roads & Bridges	14	$13,522,437	$10,344,806
D - Water Control Facilities	3	$16,238,845	$12,179,134
E - Public Buildings	15	$339,070,102	$319,825,343
F - Public Utilities	6	$2,226,415,680	$2,003,700,732
G - Recreational or Other	6	$96,873,034	$79,249,242
Grand Total	**44**	**$2,692,120,098**	**$2,425,299,257**

Figure 3. Permanent Work Consolidated Subawards Participation



Fixed Estimate Subawards – Expert Panel Validation

Subrecipients may request a FEMA-funded, independent validation of estimates for permanent work subawards with an estimated federal share of at least $5 million. FEMA also may direct subawards of the same threshold to the expert panel at its discretion. The panel shall be composed of design, engineering, construction, cost-estimating, and industry professionals independent of FEMA, the recipient, and subrecipient. FEMA currently is utilizing the United States Army Corps of Engineers (USACE) Center of Excellence for Cost Estimating to provide this support.

To date this procedure was used for a single fixed estimate subaward under DR-4085-NY, (Hurricane Sandy), PW #3521, with a total project cost of $7,633,333. FEMA did not agree with the subrecipient-provided estimate and provided it to USACE for validation. Based on the USACE-generated estimate, the subrecipient agreed to a downward-adjusted funding amount and accepted the subaward. The data below reflects participation in this option of the fixed estimate subawards (Table 5):

Table 5. Permanent Work Pilot Expert Panel Validation Summary

Expert Panel Projects	PW	Project Costs	Obligated Federal Share
E - Public Buildings	1	$7,633,333	$6,869,999
Grand Total	**1**	**$7,633,333**	**$6,869,999**

V. Alternative Procedures Permanent Work Pilot Projects in Excess of $50 Million

FEMA has obligated 15 PAAP Permanent Work Pilot Program projects (as of December 29, 2015) in excess of $50 million.

1. Long Island Power Authority

DR-4085-NY –PW # 367 – Long Island Power Authority	
Damage Category	F – Public Utilities
Application Title	Overhead Power Distribution Lines
Project Cost	$1,409,702,766
Federal Share Obligated	$1,268,732,489
Date Obligated	September 18, 2014
Alternative Procedure Used	PAAP Consolidated Fixed Estimate

Subrecipient
The Long Island Power Authority is a nonprofit municipal electric provider servicing more than 1.1 million customers in Nassau and Suffolk counties and the Rockaway Peninsula in Queens.

Damage
Strong winds associated with Hurricane Sandy caused extensive damage to the power infrastructure throughout the subrecipient's four divisions on Long Island, New York, resulting in power outages for approximately 90 percent of the customer base. Specific damages occurred when trees and broken limbs fell onto and across overhead electric distribution circuits damaging poles, pole structure hardware, transformers, power lines, insulators, and fuses.

Repair Project Description
The project scope of work includes activities to restore the damaged overhead power distribution line facilities and associated components to their pre-disaster design, capacity, and function. PW 367 identifies specific work associated with overhead power distribution line repairs, costs of materials for line repairs, incidental removal of trees and limbs to clear power lines and rights-of-way, and electric meter replacement. Specific work includes the replacement of damaged wood poles, replacement of damaged cross arms, replacement of damaged transformers, replacement and installation of 454 miles of conductors, replacement and installation of pole structural hardware, and disposal of removed items.

Hazard Mitigation Scope of Work
Hazard mitigation measures were identified to reduce future physical damages and loss of function to the subrecipient's infrastructure. These include elevating or relocating equipment at damaged substations, strengthening portions of vulnerable overhead three-phase mainlines of distribution circuits, installing automatic sectionalizing unit and associated hardware and software, and strengthening damaged lines.

2. Metropolitan Transportation Authority

DR-4085-NY – PW # 3791 – Metropolitan Transportation Authority	
Damage Category	C – Roads & Bridges
Application Title	Public Assistance Alternative Procedures
Project Cost	$373,571,860
Federal Share Obligated	$336,214,674
Date Obligated	November 28, 2014
Alternative Procedure	PAAP Fixed Estimate

Subrecipient
Metropolitan Transportation Authority (MTA) is a public benefit corporation chartered by the State of New York. It provides transportation services to 12 counties in southeastern New York.

Damage
Hurricane Sandy inundated portions of the Brooklyn Battery Tunnel (BBT) with an estimated 60 million gallons of brackish water. Water entered through the Manhattan portal roadway into both tubes, and through the ConEdison vault and exhaust air duct grating of the west tube; the Brooklyn portal did not flood. Containing a mix of seawater, storm runoff, and up to 2,000 gallons of spilled fuel oil, the water inundated approximately 65 percent (5,800 linear feet) of the tunnel. Industrial pumps completed dewatering 10 days after the incident. Hurricane damages include mechanical, electrical, and structural components of the tunnel and its support facilities.

Hurricane Sandy also inundated the lowest portions of the Queens Midtown Tunnel (QMT) with an estimated 12 million gallons of brackish water. Water entered through the Queens portal roadway into both tubes; the Manhattan portal did not flood. Containing a mix of seawater, storm runoff, and leaked sewage, the water inundated approximately 16 percent (1,000 linear feet) of the tunnel roadway ceiling. Industrial pumps completed dewatering five days after the incident. Hurricane damages include mechanical, electrical, and structural components of the tunnel and its support facilities.

Project Description
This PW will provide funding for the permanent repair of both the BBT and QMT, including repairing tunnel walls, roadways, and electrical and mechanical components.

Hazard Mitigation Scope of Work
Hazard mitigation opportunities have been identified for the two tunnels to prevent flooding and loss of mechanical and electrical system functionality during a future event. The project includes mitigation measures for the Manhattan Plaza Area, Brooklyn Plaza Area, Brooklyn Ventilation Building, BBT Facilities Service Building, Governor's Island Ventilation Building, Queens Tunnel Plaza, QMT Manhattan Plaza, Queens Ventilation Building, and the QMT Facilities Service Building. The measures include raising plaza perimeter walls, installing flood gates, erecting flood walls, dry floodproofing measures, and raising certain pieces of equipment.

3. Nassau County Wastewater Treatment Facilities

DR-4085-NY – PW # 3714 – Nassau County	
Damage Category	F – Public Utilities
Application Title	Wastewater Facilities
Project Cost	$810,708,377
Federal Share Obligated	$729,637,539
Date Obligated	September 18, 2014
Alternative Procedure	PAAP Consolidated Fixed Estimate

Subrecipient
The Nassau County Department of Public Works is responsible for the design, construction, repair, and maintenance of all streets and bridges, county buildings, parks and grounds, water and wastewater system facilities and infrastructure, and other facilities within the county.

Damage
Storm surge and flooding from Hurricane Sandy caused extensive damage to structural elements and mechanical, electrical, and plumbing (MEP) systems at the Bay Park wastewater treatment plant (WWTP), two water pollution control plants (WPCP), and 32 pump stations throughout the wastewater distribution system.

Project Description
The fixed estimate subaward includes restoration work for the WWTP, the two WPCPs, and the 32 pump stations. Included in the subaward is funding for repair or replacement of damaged structural elements, the replacement of MEP systems, required upgrades to meet codes, specifications, and standards, architecture and engineering fees, and program management fees and contingencies.

Hazard Mitigation Scope of Work
The estimate also includes funding for hazard mitigation measures to make the reconstructed plants and pump stations more resilient to future disasters. This includes the construction of a protective berm at the WWTP to eliminate or mitigate the potential for future flooding, and dewatering and electrical system improvements to better handle future flooding events.

4. New York University

DR-4085-NY – PW # 4005 – New York University	
Damage Category	E – Public Buildings
Application Title	Campuswide Repair
Project Cost	$1,091,635,575
Federal Share Obligated	$982,472,017
Date Obligated	August 21, 2014
Alternative Procedure	PAAP Fixed Estimate

Subrecipient
New York University Langone Medical Center is a PNP organization located in Manhattan that provides direct healthcare services to patients; medical education for doctors, nurses, and researchers; and medical and healthcare research.

Damage
Floodwaters and storm surge from Hurricane Sandy flooded the first floor of the facilities; filled the basements, cellars, and subcellars; and caused failure of the backup generators that supported the facility's pumping systems. Some of the basement areas were flooded from the floor to the ceiling while other basement areas were only partially submerged. Approximately 406,439 square feet of basement and ground floor space suffered flood damage.

Project Description
The scope of work includes cleaning and painting of the interiors, and repair or replacement of: damaged elements; lab equipment; research equipment; diagnostic equipment; IT systems; research animals; bio-specimens; and supplies and contents. This work will be performed at multiple facilities within the main campus and at off-campus facilities.

Hazard Mitigation Scope of Work
Exterior mitigation measures are focused on the construction of an integrated dry flood-proofing barrier. Major elements of the mitigation proposal include: installation of exterior flood doors and barriers; wall and slab reinforcements, elevation of mechanical, electrical, and plumbing systems and equipment; and installation of interior flood doors, barriers, penetrations seals, check/backflow valves, pumps, and sump pumps.

5. South Nassau Communities Hospital

DR-4085-NY – PW # 4276 – South Nassau Communities Hospital	
Damage Category	E – Public Buildings
Application Title	Public Assistance Alternative Procedures
Project Cost	$171,224,942
Federal Share Obligated	$154,102,448
Date Obligated	January 21, 2015
Alternative Procedure	PAAP Fixed Estimate

Subrecipient
South Nassau Communities Hospital is a PNP entity providing critical healthcare services to surrounding communities.

Damage
Flooding from Hurricane Sandy caused extensive architectural damage to the main medical facility, which consists of five wings. Standing floodwaters in the basement level of all five wings also caused significant damage to the facility's MEP systems that were housed on the basement level.

Project Description
The fixed estimate subaward includes the restoration of the medical facilities to their pre-disaster function and capacity, applicable codes, specifications, and standards upgrades, contents replacement, and a FEMA-approved hazard mitigation proposal. Repairs include structural repairs, elevator repairs, and replacement of MEP infrastructure (e.g., wiring, piping, etc.) throughout the facility. Additional costs for demolition are also included. Codes, specifications, and standards upgrades include seismic retrofitting for structural elements, and structural modifications to the elevators. Contents approved for replacement consist of medical supplies and medications.

Hazard Mitigation Scope of Work
The hazard mitigation proposal involves moving the MEP system housing from the basement to the roof to prevent future flood-related damage to critical systems.

6. Queens Rockaway Boardwalk

DR-4085-NY – PW # 4223 - Office of New York / Management and Budget	
Damage Category	G – Recreational or Other
Application Title	Queens Rockaway Boardwalk
Project Cost	$480,373,535
Federal Share Obligated	$432,336,182
Date Obligated	April 30, 2015
Alternative Procedure	PAAP Fixed Estimate

Subrecipient
New York City's park system has approximately 1,700 parks that include marinas, golf courses, boardwalks, skating rinks, and numerous other public facilities. The Rockaway Boardwalk was completed in the 1930s and stretches a little more than 5 miles along the beach from 126th Street east to 9th Street along the Rockaway Beach shoreline in Queens.

Damage
Hurricane Sandy's high winds, heavy rain, and storm surge damaged or destroyed 3.42 miles of the boardwalk's wooden decking system along with concrete supports and concrete fire breaks. The storm also damaged or destroyed ramps, stairs, park benches, shower units, and electrical lighting infrastructure.

Project Description
The fixed estimate subaward will be used to repair or replace more than one million square feet of boardwalk and will replace 84 ramps, 87 stair units, 232 light poles, and 424 park benches.

Hazard Mitigation Scope of Work
The estimate also includes $198 million for hazard mitigation that will elevate the boardwalk, provide concrete decking, and build a sand barrier to increase resiliency.

7. Bellevue Hospital

DR-4085-NY – PW # 3887 - Office of New York Health & Hospitals Corporation	
Damage Category	E – Public Buildings
Application Title	Bellevue Hospital
Project Cost	$498,689,533
Federal Share Obligated	$448,820,580
Date Obligated	June 30, 2015
Alternative Procedure	PAAP Fixed Estimate

Subrecipient
The New York City Health and Hospitals Corporation (NYHHC) operates the public hospitals and clinics in New York City. It is a public benefit corporation with $6.7 billion in annual revenues and is the largest municipal healthcare system in the United States, serving 1.4 million patients, including more than 475,000 uninsured city residents. It operates 11 acute care hospitals, five nursing homes, six diagnostic and treatment centers, and more than 70 community-based primary care sites, serving primarily the poor and working class.

Damage
Heavy rain and storm surge from Hurricane Sandy flooded six buildings on the Bellevue Hospital campus with approximately 17 million gallons of water. The storm caused failure to the normal and emergency power systems, loss of water pressure, loss of elevator usage, and loss of medical gas systems. Further, significant damages occurred to its electrical and mechanical and HVAC systems, telecommunications, architectural and structural systems, fire protection systems, maintenance shops, and basement storage areas.

Project Description
The fixed estimate subaward includes the restoration of the medical facilities to their pre-disaster function and capacity, applicable codes, specifications, and standards upgrades, direct administrative costs, and a FEMA-approved hazard mitigation proposal. Repairs include structural repairs, elevator repairs, and repair and replacement of MEP infrastructure (e.g., wiring/panels, piping, pumps, air handling units, etc.) throughout the facility.

Hazard Mitigation Scope of Work
The estimate also includes a $351,235,474 hazard mitigation proposal to provide the hospital with a comprehensive system of mitigation measures that will limit operational impacts and physical damages in the event of a future storm and allow the hospital to resume service as quickly as possible. The proposal's main elements include perimeter flood wall protection; flood pumps for sanitary and storm water management; building roof reinforcement; loading dock ramp flood gates and strengthening; a secondary pump system for domestic water; protection of existing oxygen vault; backup steam system for heating; elevation of ventilation and mechanical equipment; elevation of emergency generator; elevation of exhaust vents for fuel oil tanks; relocation of switchgears; floodproofing measures for 30 existing elevators; and construction of four new floodproof exterior elevators.

8. Metropolitan Hospital Center

DR-4085-NY – PW # 3642 - Office of New York Health & Hospitals Corporation	
Damage Category	E – Public Buildings
Application Title	Metropolitan Hospital
Project Cost	$120,021,717
Federal Share Obligated	$108,019,545
Date Obligated	July 17, 2015
Alternative Procedure	PAAP Fixed Estimate

Subrecipient
NYHHC operates the public hospitals and clinics in New York City. As a public benefit corporation with $6.7 billion in annual revenues, NYHHC is the largest municipal healthcare system in the United States serving 1.4 million patients, including more than 475,000 uninsured city residents. It operates 11 acute care hospitals, five nursing homes, six diagnostic and treatment centers, and more than 70 community-based primary care sites, serving primarily the poor and working class.

Damage
Hurricane Sandy's strong winds and heavy rain caused both interior and exterior building damage to the Metropolitan Hospital Center. Damages to the facility were separated by wind and flood sources and segregated in four disciplines; 1) environmental, 2) architectural, 3) mechanical, and 4) electrical. High winds and airborne debris caused considerable damage to the exterior sections of the facility, while flood waters engulfed basement areas, causing damage to several offices and disturbing asbestos lined piping. Further damages occurred to roofing sheet metal; security fencing; exhaust louvers, circulating pump; flooring; walls; heating equipment; cabinets; countertops; electrical ducts, conduit, and cables; and switchgear.

Project Description
The fixed estimate subaward includes the restoration of the medical facility to its pre-disaster function and capacity, applicable codes, specifications, and standards upgrades, direct administrative costs, and a FEMA-approved hazard mitigation proposal. Repairs include structural repairs, asbestos abatement, and repair/replacement of MEP infrastructure throughout the facility.

Hazard Mitigation Scope of Work
The estimate also includes a $108,890,595 hazard mitigation proposal to provide the hospital with a comprehensive system of measures that will limit operational impacts and physical damages in the event of a future storm and allow the hospital to resume service as quickly as possible. The proposal's main elements include the installation of deployable flood planks at the loading dock; sealing of tunnels between the main building, fuel tanks, and Mental Health Building; relocation of the Emergency Management Chempack Room; sealing of manholes; interior waterproofing; fire protection standpipes; emergency egress ladders; and a hydrology study to ensure that the flood wall achieves the 500 year + 3-foot DFE level of flood protection for the entire hospital campus.

9. Fire Department of the City of New York

DR-4085-NY – PW # 4260 - Office of New York / Management and Budget	
Damage Category	F – Public Utilities
Application Title	FDNY – Conduit and Wire Replacement
Project Cost	$164,303,12
Federal Share Obligated	$147,872,801
Date Obligated	May 29, 2015
Alternative Procedure	PAAP Fixed Estimate

Subrecipient
FDNY is the largest fire department in the United States and is universally recognized as the world's busiest and most highly skilled emergency response agency, providing fire protection, search and rescue, pre-hospital care and other critical public safety services to residents and visitors in the five boroughs of New York City. Since its inception in 1865, FDNY has helped to lead efforts to make New York one of the safest cities in the Nation. FDNY not only responds to more than a million emergencies every year, its personnel also strive to prevent emergencies by continually educating the public in fire, life safety and disaster preparedness.

Damage
Hurricane Sandy's strong winds, heavy rain, and storm surge damaged conduit and wiring (22,504 linear feet) at 17 maintained fire stations and emergency medical service facilities. Additional damage was incurred to 330,647 linear feet of conduit and wiring for the mission-critical alarm/call box network system throughout the five boroughs.

Project Description
The fixed estimate subaward includes the restoration of conduit and wiring to pre-disaster function and capacity, applicable codes, specifications, and standards upgrades, and direct administrative costs. Due to corrosion from salt water inundation, a total of 353,151 linear feet of conduit and wiring (both above-grade and below-grade installations) will be replaced. The project was reviewed for hazard mitigation opportunities, but none were identified.

10. New York City Department of Environmental Protection (NYCDEP)

DR-4085-NY – PW # 4295 - Office of New York / Management and Budget	
Damage Category	F – Public Utilities
Application Title	NYQ2634 – Conduit
Project Cost	$128,747,773
Federal Share Obligated	$115,872,995
Date Obligated	June 30, 2015
Alternative Procedure	PAAP Fixed Estimate

Subrecipient
NYCDEP provides more than 1.1 billion gallons of water each day to more than nine million residents. NYCDEP is also responsible for managing the city's combined sewer system, which carries both storm water runoff and sanitary waste, and 14 wastewater treatment plants located throughout the city. NYCDEP carries out federal Clean Water Act rules and regulations, handles hazardous materials emergencies and toxic site remediation, oversees asbestos monitoring and removal, enforces the city's air and noise codes, bills and collects on city water and sewer accounts, and manages citywide water conservation programs.

Damage
Hurricane Sandy's strong winds, heavy rain, and storm surge caused flooding that inundated portions of 15 NYDEP-maintained facilities. These facilities consist of 13 wastewater treatment plants, two adjacent landfills, and a wastewater pumping station. Storm surge inundation caused damage to a total of 503,450 linear feet of conduit; duct banks, and pull boxes.

Project Description
The fixed estimate subaward includes restoration of conduit to pre-disaster function and capacity, applicable codes, specifications, and standards upgrades, and direct administrative costs. Restoration work will consist of abandonment/demolition of existing conduit and associated elements, and its subsequent replacement and installation. The projects were reviewed for hazard mitigation opportunities but none were identified.

11. Coney Island Hospital

DR-4085-NY – PW # 4539 - Office of New York Health & Hospitals Corporation	
Damage Category	E – Public Buildings
Application Title	Coney Island Hospital
Project Cost	$922,743,641
Federal Share Obligated	$830,469,277
Date Obligated	July 09, 2015
Alternative Procedure	PAAP Fixed Estimate

Subrecipient
NYHHC operates the public hospitals and clinics in New York City. As a public benefit corporation with $6.7 billion in annual revenues, NYHHC is the largest municipal healthcare system in the United States serving 1.4 million patients, including more than 475,000 uninsured city residents. It operates 11 acute care hospitals, five nursing homes, six diagnostic and treatment centers, and more than 70 community-based primary care sites, serving primarily the poor and working class.

Damage
Hurricane Sandy's strong winds, heavy rain, and storm surge caused damage to five Coney Island Hospital campus buildings and certain associated elements. All basement areas and ground floor levels were flooded. The storm caused failure to the normal and emergency power systems resulting in failure of the pumping systems. The hospital sustained major damage to its electrical and mechanical/HVAC systems, architectural/structural systems, fire protection systems, interior contents, and basement/ground level areas.

Project Description
The fixed estimate subaward includes the restoration of the medical facilities to their pre-disaster function and capacity, applicable codes, specifications, and standards upgrades, direct administrative costs, and a FEMA-approved hazard mitigation proposal. Repairs include structural repairs, replacement of damaged interior contents, and repair/replacement of MEP infrastructure (e.g., wiring/panels, piping, pumps, air handling units, etc.) and fire protection system throughout the facility.

Hazard Mitigation Scope of Work
The estimate also includes a $189,027,586 hazard mitigation proposal to protect the facilities against future damage. The proposal's main elements include a perimeter flood wall protection and installation of additional flood pumps for sanitary and storm water management.

12. Coler Hospital

DR-4085-NY – PW # 4540 - Office of New York Health & Hospitals Corporation	
Damage Category	E – Public Buildings
Application Title	Coler Hospital
Project Cost	$180,250,493
Federal Share Obligated	$162,225,444
Date Obligated	August 27, 2015
Alternative Procedure	PAAP Fixed Estimate

Subrecipient
NYHHC operates the public hospitals and clinics in New York City. As a public benefit corporation with $6.7 billion in annual revenues, NYHHC is the largest municipal healthcare system in the United States serving 1.4 million patients, including more than 475,000 uninsured city residents. It operates 11 acute care hospitals, five nursing homes, six diagnostic and treatment centers, and more than 70 community-based primary care sites, serving primarily the poor and working class.

Damage
Hurricane Sandy's strong winds, heavy rain, and storm surge fully inundated 166,000 square feet of basement area in Coler Hospital facilities. The flooding rendered all utilities housed in these spaces inoperable, including heat, hot water distribution, communications and telephone services, elevator service, and electrical and fire alarm systems. A flooded circuit breaker for the main electrical Consolidated Edison feed malfunctioned and failed to shut power off to facilities. The electricity heated the flood waters in the South Basement of Building B and produced a large amount of steam and heat for several days. The heat and steam from the basement entered the ground floor via stairwells and other openings and causing extensive damage to the ceilings and architectural finishes to the ground floor areas throughout buildings A, B, and C. Additionally, flooding also damaged Building B's 11 passenger elevators; one service elevator; the auditorium; and emergency generator. Wave action caused "scour" and soil erosion in two locations.

Project Description
The fixed estimate subaward includes the restoration of the medical facilities to their pre-disaster function and capacity, applicable codes, specifications, and standards upgrades, direct administrative costs, and a FEMA-approved hazard mitigation proposal. Repairs include structural repairs, elevator repairs, and repair/replacement of MEP infrastructure (e.g., wiring/panels, piping, pumps, air handling units, etc.) throughout the facility.

Hazard Mitigation Scope of Work
The estimate also includes a $108,890,595 hazard mitigation proposal to protect the facilities against future damage. The proposal's main elements included perimeter flood wall protection; elevation of switchgear and automatic transfer switch to dry floodproof enclosures on the first floor; and installation of an emergency generator with fuel tank above the designated base flood elevation.

13. New York City Housing Authority

DR-4085-NY – PW # 4521 - New York City Housing Authority	
Damage Category	E – Public Buildings
Application Title	Public Housing
Project Cost	$2,243,198,639[20]
Federal Share Obligated	$2,018,878,775[21]
Date Obligated	September 24, 2015
Alternative Procedure	PAAP Consolidated Fixed Estimate

Subrecipient
The mission of the New York City Housing Authority (NYCHA) is to increase opportunities for low- and moderate-income New Yorkers by providing safe, affordable housing and facilitating access to social and community services. More than 400,000 New Yorkers reside in NYCHA's 328 public housing developments across the City's five boroughs. Another 235,000 receive subsidized rental assistance in private homes through the NYCHA-administered Section 8 Leased Housing Program.

Damage
Hurricane Sandy's heavy rain, wind and storm surge damaged numerous housing developments owned and maintained by NYCHA. Multiple housing complexes and hundreds of individual buildings sustained damages to interior and exterior architectural elements; the surrounding grounds; interior contents (e.g., furniture, appliances, etc.); and MEP systems.

Project Description
Restoration and repair work will occur at approximately 33 individual housing complexes, involving hundreds of individual buildings.[22] This fixed estimate subaward funds the permanent restoration to the grounds and five buildings at the Coney Island Housing Complex. Repairs include interior and exterior architectural repairs; repair/replacement of interior contents; repair/replacement of MEP infrastructure (e.g., wiring/panels, piping, pumps, air handling units, etc.); and security systems.

Hazard Mitigation Scope of Work
The subaward also incorporates a $1,213,641,751[23] hazard mitigation proposal to provide the facility with a comprehensive system of mitigation measures that will limit physical damages in the event of a future storm. Mitigation measures include dry floodproofing each of the buildings, elevating damaged mechanical, electrical and plumbing equipment, and providing each building with a rooftop emergency stand-by generator.

[20] NYCHA is in the process of consolidating 33 individual fixed amount subawards (19 currently are consolidated). As such, the project amount and obligation amounts reported in the previous table will increase as the additional PWs are incorporated. The hazard mitigation funding will increase as well for the same reasons.
[21] *Id.*
[22] *Id.*
[23] *Id.*

14. Southern University of New Orleans

DR-1603-LA – PW # 20958 – State of Louisiana/Facility Planning and Control	
Damage Category	E – Public Buildings
Application Title	Southern University of New Orleans
Project Cost	$84,946,133
Federal Share Obligated	$81,637,418
Date Obligated	July 22, 2015
Alternative Procedure	PAAP Consolidated Fixed Estimate

Subrecipient
The Louisiana State Office of Facility Planning and Control (LSFPC) assists in management of the state's finances and fixed assets by administration of the comprehensive capital outlay budget process and implementation of a comprehensive centralized facility management program. It provides appropriate owned or leased facilities to house the operations of state government and meet the space and functional needs of each user agency.

Damage
Hurricane Katrina's heavy rain, wind, storm surge, and general overland flooding caused extensive interior and exterior damage to four Southern University campus buildings – Brown Hall old science building; a multi-purpose building; the new Science Classroom building; and the Clark Hall Education building.

Project Description
LSFPC requested a Consolidated Fixed Estimate Alternate Project. Instead of repairing the structures to their pre-disaster condition. LSFPC determined their recovery needs would be better served by replacing the structures with four new buildings to house classrooms; laboratories; an auditorium; administrative offices; and for general use purposes. At present time, the subrecipient has not provided a hazard mitigation proposal, nor have any hazard mitigation opportunities been identified.

15. Staten Island (SI) Homeport & Bush Terminal

DR-4085-NY – PW # 4458– Office of New York / Management and Budget	
Damage Category	E – Public Buildings
Application Title	SI Homeport & Bush Terminal
Project Cost	$ 115,698,310.16
Federal Share Obligated	$ 103,289,889.74
Date Obligated	Oct. 27, 2015
Alternative Procedure	PAAP Consolidated Fixed Estimate

Subrecipient

The Department of Small Business Services/New York City Economic Development Corporation (NYCEDC) helps to unlock economic potential and create economic security for all New Yorkers by connecting New Yorkers to good jobs, creating stronger businesses, and building a fairer economy in neighborhoods across the five boroughs. The NYCEDC is the City's primary engine for economic development, charged with leveraging the City's assets to drive growth, create jobs, and improve quality of life.

Damage

Hurricane Sandy's heavy rain, wind, storm surge, and general overland flooding caused extensive interior and exterior damage to the SI Homeport facilities. The Homeport is approximately 7 acres and consists of 5 buildings (Administration, Warehouse, Boiler, DOT and Guard House). The Homeport suffered extensive damage to three of its five buildings (Administration, Warehouse, and Boiler). Bush Terminal is used as a rail terminal, servicing numerous manufacturing and warehousing tenants. The storm surge reached a height of approximately 2.5 feet above the finish floor of nine buildings: Administration; Pump House; Shop; Café; C; 39 & 40 (1 building); 45; 55 & 56 (1 building); and 57 & 58 (1 building). The conduit under the floor slabs of these nine buildings was inundated with flood water and damaged. Also, the conduit encased in the concrete duct banks located under the asphalt of the parking lots and roadways between the buildings was flooded and damaged.

Project Description

The fixed estimate subaward is calculated on the restoration of the facilities to their pre-disaster function and capacity, applicable codes, specifications, and standards upgrades, direct administrative costs, and a FEMA-approved hazard mitigation proposal. However, the subrecipient is proposing to develop an alternate project instead of repair and restoration. The alternate scope is not defined at this time.

Hazard Mitigation Scope of Work

The subaward also incorporates a $9,060,527.76 hazard mitigation proposal to provide the facility with a comprehensive system of mitigation measures that will limit physical damages in the event of a future storm. Mitigation measures include floodproofing and elevation of equipment (transformers, HVAC equipment, switch gear, etc.). The current proposal is based on repair and restoration. It likely will change in scope if an alternative project is executed.

VI. How Alternative Procedures Permanent Work Pilot Projects are expected to meet the Stated Program Goals

Goal 1: **Reduce Costs**: In contrast to standard procedures for large permanent work projects where the initial scope of work and associated cost estimate may change several times during the life of the project including a final reconciliation based on documentation of actual costs, permanent work projects funded under the Alternative Procedures are funded based on an agreed-upon fixed estimate. This eliminates administratively intense review processes for each version of the subaward as well as for the final reconciliation. Further, typical delays from incremental modification and refinement of the scope of work and reimbursable costs on such subawards are eliminated by the requirement that agreement on the fixed estimate must be reached within 9 months of the date of declaration (based on extenuating circumstances, FEMA and the recipient may agree to adjust this deadline).

Once there is agreement on the fixed estimate it will not be revised. The only exceptions will be for actual insurance proceeds adjustment and any necessary adjustments resulting from compliance audits. In the case of insurance proceeds, if the subrecipient's actual insurance proceeds exceed the amount of the reduction based on anticipated insurance proceeds, the subrecipient will have to return to FEMA the difference between those amounts in order to avoid a duplication of benefits. Conversely, if the subrecipient's actual insurance proceeds are less than the amount of the anticipated insurance proceeds used to calculate the reduction and the subrecipient demonstrates that it performed the due diligence required in pursuing all available insurance proceeds, FEMA agrees to return to the subrecipient the difference between those amounts.

Upon completion of work, the subrecipient is required to provide an accounting of actual costs to FEMA within 90 days. If the actual costs exceed the fixed estimate, the subrecipient will not receive additional funding to cover the shortfall. Conversely, if the fixed estimate exceeds the actual costs, the subrecipient must notify FEMA of its intent to use excess funds for cost-effective hazard mitigation activities that will reduce the risk of future disaster damage, or activities that improve future PA Program permanent work operations, such as training and planning for future disaster recovery operations. In these ways, FEMA expects the changes in process to result in administrative savings due to a reduction in the processing of versions and appeals and the reconciling to actual costs, similar to the ways in which simplified procedures reduce administrative costs.[24] Reduced costs resulting from the agreed-upon fixed estimates, or future costs avoided by mitigation measures, will not be known until after completion of work.

Goal 2: **Increase Flexibility**: Subawards based on fixed estimates are similar to improved and/or alternate projects. They provide the subrecipients with the flexibility to repair or rebuild a facility as deemed necessary for its operations with no requirement to rebuild to pre-disaster design, capacity, or function. While pre-disaster function, design, capacity, and condition determine the amount of FEMA-eligible funding, a subrecipient is not constrained from using this funding to complete a project with a different function, design, or capacity.

[24] Stafford Act Section 422(b)(1)(A), 42 U.S.C. 5189 (b)(1)(A); 44 CFR §§ 206.203(c)(2) and 206.205(a)

Consolidation of individual subawards allows the subrecipient to share funding across the component projects of the consolidated subaward. If the subrecipient is able to manage a component project such that efficiencies are achieved, the savings on that project can be used for overruns on another component project.

Goal 3: **Expedite Assistance**: By virtue of the agreement upon the fixed estimate, funding based on actual costs does not have to wait until project closeout and cost reconciliation. To achieve the goal of expediting assistance to subrecipients, agreement on the cost estimate of the fixed subaward must be reached within 9 months of the declaration date, under current PAAP Pilot Program guidelines. The subrecipient also must notify FEMA within 12 months of the declaration date of the subawards to be consolidated. Some recipients have reported anecdotally that by eliminating the cost reconciliation process at closeout, they expect that subrecipients will be closed and fully funded 1 to 2 years sooner than under the standard PA Program procedures.

Goal 4: **Provide Incentives/Disincentives for Timely/Cost-effective Completion**: Subrecipients base fixed estimates on market conditions at the time of agreement. Due to variability in the cost of materials, labor, and equipment, subrecipients are more likely to enter into contracts for the work in a timely manner to assure that the work is completed within budget. Generally, when project completion extends beyond initial target completion dates, additional funding is also required to complete the project. In this way, the fixed estimate subaward incentivizes subrecipients to manage projects effectively and efficiently as they are unable to receive additional funding from FEMA.

VII. Alternative Procedures Pilot Program for Debris Removal Summary

FEMA is piloting four debris removal alternative procedures.[25] Subrecipients may elect to participate in them individually or in combination with others:

1) Reimbursement of base (straight-time) and overtime wages for force account labor performing or administering debris and wreckage removal activities;
2) Use of a sliding scale for determining the federal share for debris removal based on the timeliness of project completion;
3) Use of program income from recycled debris without offset to the subaward amount; and
4) Providing a one-time, two-percent cost share incentive for subrecipients who have a DMP accepted by FEMA and have pre-qualified one or more debris removal contractors prior to the start of the declaration's incident period.

As of December 29, 2015 (Figure 4 and Table 10):

- 94 of 103 declarations eligible for the alternative procedures debris pilot have debris pilot subawards.
- 1,766 of 2,248 subrecipients with eligible debris removal costs are using one or more of the alternative procedures.
- 2,287 of 2,925 eligible subawards – PWs – are using one or more of the alternative procedures.
- $520.65 million of $574.2 million in total project debris costs are associated with subawards using one or more of the alternative procedures.

Table 10. PAAP Debris Pilot Provisions Summary[26]

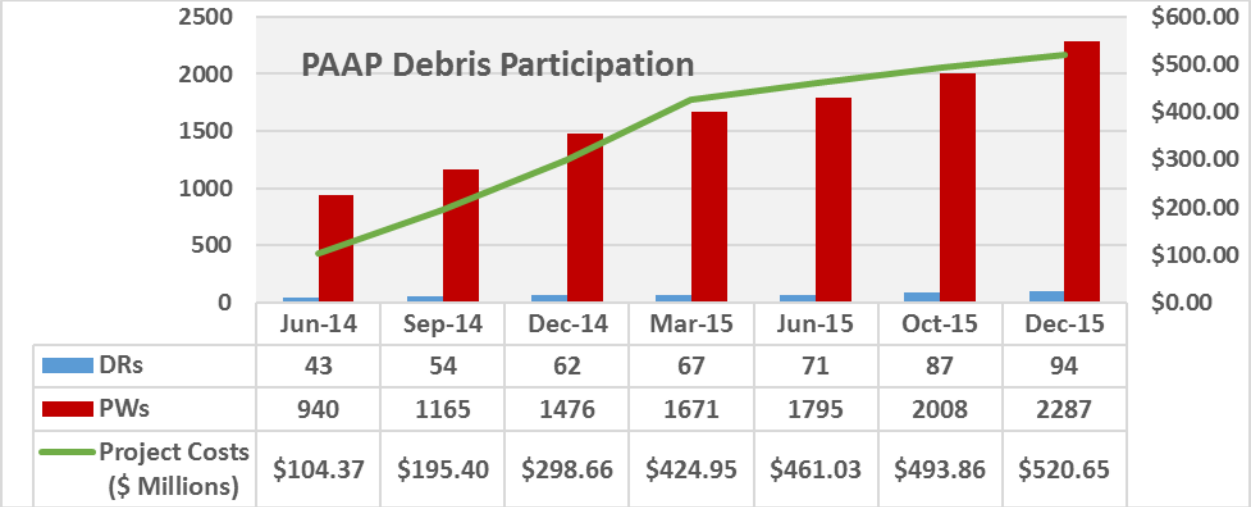
Debris Removal Procedure	Declarations	Subrecipients	PWs	Project Costs[27]	Obligated Federal Share
1) Straight-Time Force Account	92	1559	1850	$263,675,088	$213,564,345
2) Increased Federal Cost Share (Sliding Scale)	76	866	1266	$458,737,870	$377,264,298
3) Recycling Revenue	8	11	14	$26,475,262	$21,481,446
4) Debris Management Plans	7	13	95	$164,264,975	$138,271,868

[25] The law also authorized FEMA to make subawards for debris removal on the basis of fixed estimates, and to allow subrecipients to use excess funds from those subawards for approved purposes. FEMA is not implementing these procedures as part of this pilot. FEMA continues to work to improve debris estimating methodologies and will consider implementing these procedures in the future.

[26] Subrecipients may elect to participate in one or more procedures. As such, for the figures represented here, either for each provision of itself or in sum, do not represent the total amount of participation in the alternative procedures.

[27] Project costs represent the total project costs for PWs that use each procedure, not the costs associated with the use of the procedure itself. For example, the project costs of PWs that indicate use of the recycling revenue procedure total $26,475,262. This figure does not represent the recycling revenue.

Figure 4. Debris Pilot Participation



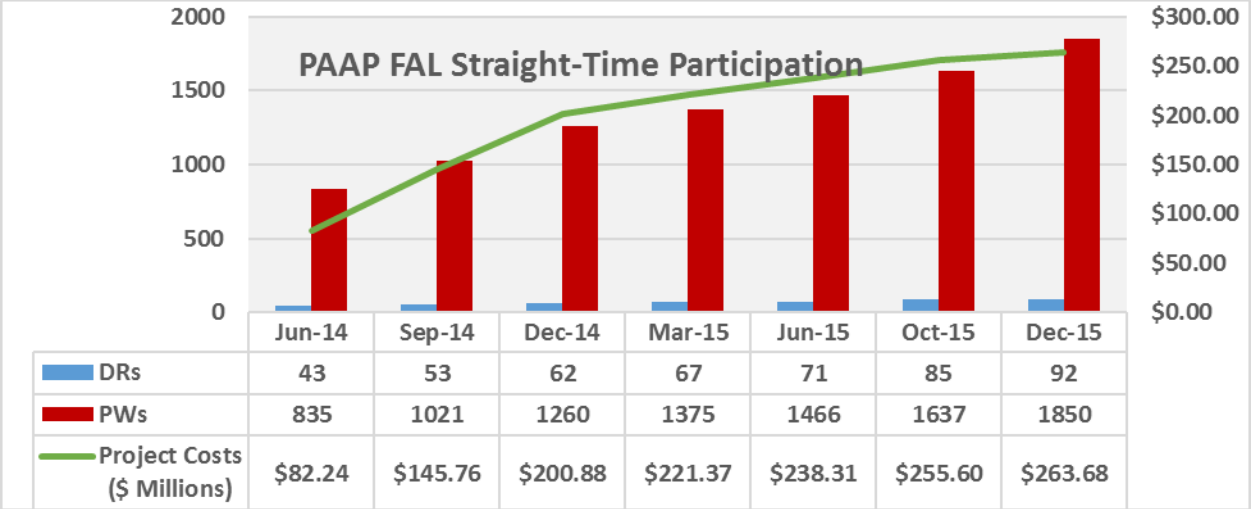
	Jun-14	Sep-14	Dec-14	Mar-15	Jun-15	Oct-15	Dec-15
DRs	43	54	62	67	71	87	94
PWs	940	1165	1476	1671	1795	2008	2287
Project Costs ($ Millions)	$104.37	$195.40	$298.66	$424.95	$461.03	$493.86	$520.65

Straight-Time Force Account Procedure

This procedure provides reimbursement of base wages for the employees of state, tribal, or local governments, or owners or operators of PNP facilities performing or administering debris and wreckage removal.

The straight-time force account procedure has been used in 92 declarations by 1,559 subrecipients on 1,850 debris subawards – PWs – at a total of $263,675,088 in project costs ($213,564,345 obligated federal share). See Figure 5.

Figure 5. Debris Pilot Straight Time Force Account Participation



	Jun-14	Sep-14	Dec-14	Mar-15	Jun-15	Oct-15	Dec-15
DRs	43	53	62	67	71	85	92
PWs	835	1021	1260	1375	1466	1637	1850
Project Costs ($ Millions)	$82.24	$145.76	$200.88	$221.37	$238.31	$255.60	$263.68

Accelerated Debris Removal – Increased Federal Cost Share (Sliding Scale) Procedure

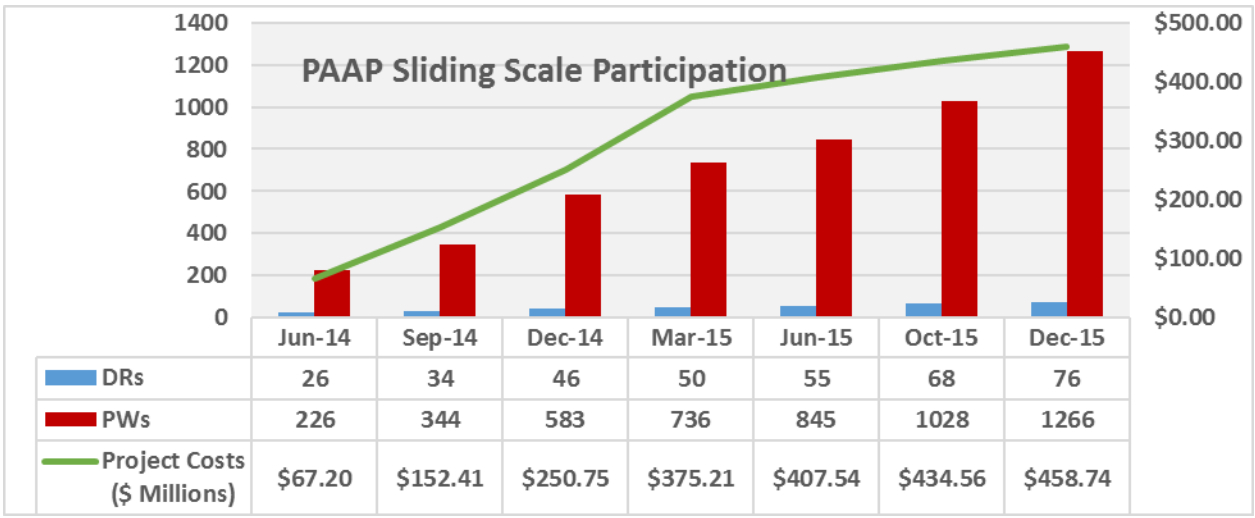
This procedure provides an increased federal cost share for a short period of time to incentivize subrecipients to initiate and complete debris removal operations quickly after a disaster.

Table 11. Sliding Scale Procedure Federal Cost Share Matrix

Debris Removal Completed (Days from Start of Incident Period)	Federal Cost Share
1-30	85%
31-90	80%
91-180	75%
Federal dollars will NOT be provided for debris removal after 180 days (unless FEMA approves an extension)	

This procedure has been used in 76 declarations by 866 subrecipients on 1,266 debris subawards – PWs – at a total of $458,737,870 in project costs ($377,264,298 obligated federal share). See Figure 6.

Figure 6. Debris Pilot Sliding Scale Participation

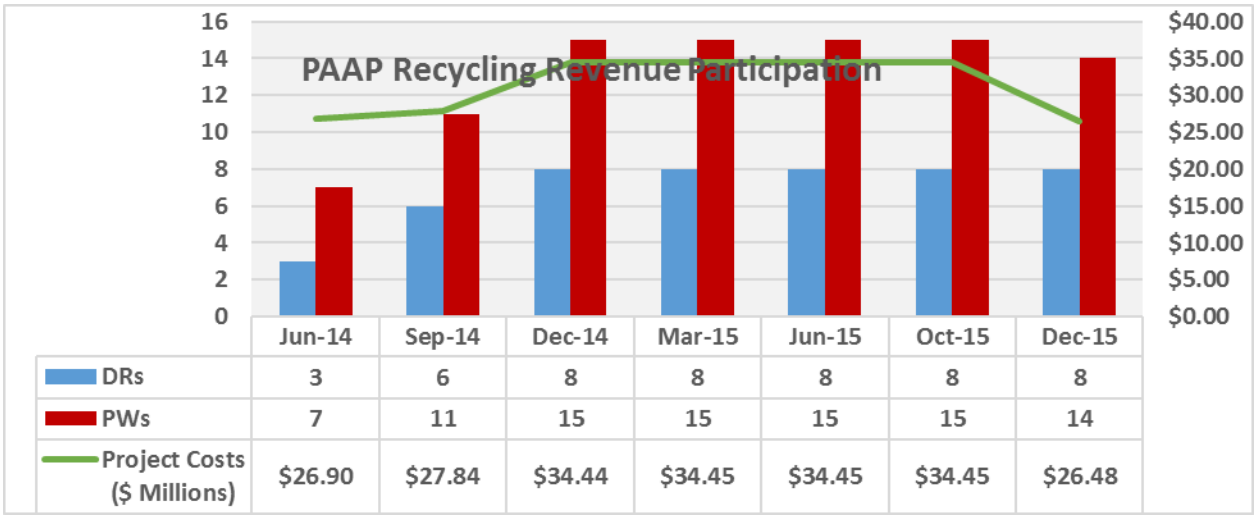


Recycling Revenue Procedure

This procedure allows subrecipients flexibility to use debris recycling proceeds to meet the cost sharing requirements of PA subaward funding for debris removal and for activities that will improve debris removal operations in the future. The subrecipient can retain program income received from recycled debris without having to offset the subaward amount.

The recycling revenue procedure has been used in 8 declarations by 11 subrecipients on 14 debris subawards (PWs) for a total of $26,475,262 in project costs $21,481,446 obligated federal share).[28] See Figure 7.

Figure 7. Debris Pilot Recycling Revenue Participation



	Jun-14	Sep-14	Dec-14	Mar-15	Jun-15	Oct-15	Dec-15
DRs	3	6	8	8	8	8	8
PWs	7	11	15	15	15	15	14
Project Costs ($ Millions)	$26.90	$27.84	$34.44	$34.45	$34.45	$34.45	$26.48

[28] The number of subawards and funding level decreased this quarter due to a PW being processed with an amendment. When a version change to a PW occurs, the grant management system no longer recognizes it as having been previously obligated and places it in the review status queue.

Debris Management Plan Procedure

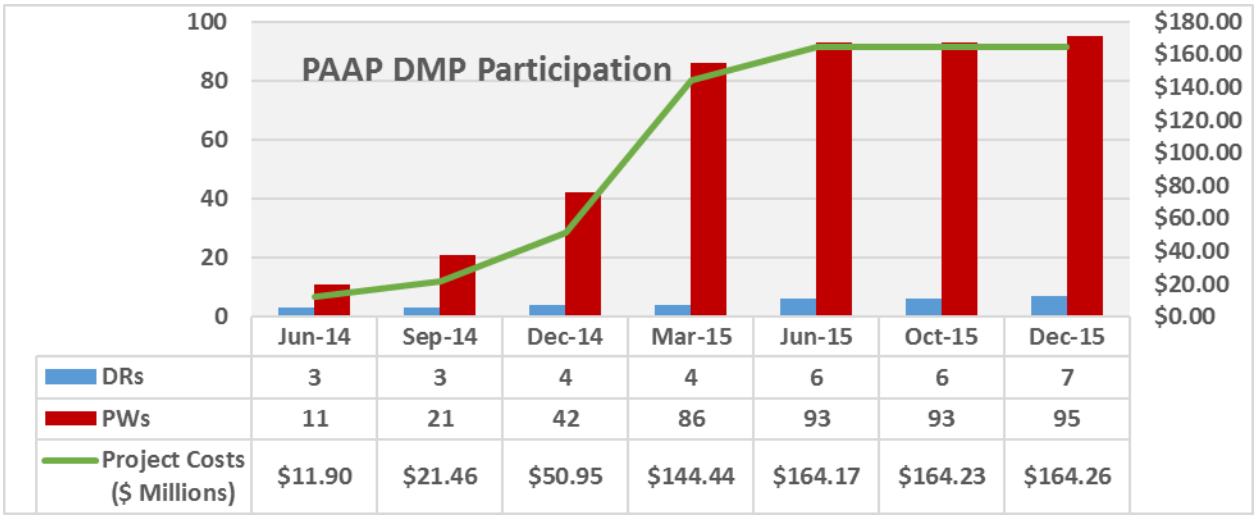
This procedure provides the subrecipient a one-time, two-percent increase in the federal cost share when it has a FEMA-accepted DMP and has pre-qualified one or more debris and wreckage removal contractors before the date of the declaration. Guidance on required content, recipient review, submittal to FEMA, and resubmittal (if necessary) of a DMP for review and approval is found in the PAAP pilot program *Debris Management Plan Review Job Aid* dated June 28, 2015, and greater detail on DMP preparation in the *Public Assistance Program and Policy Guide* dated January 1, 2016.[29]

Table 12. Debris Management Plan Submission Data[30]

Date	Received	Deemed Insufficient	Under Review	Accepted	Percent Accepted
Oct-14	212	74	35	103	58%
Dec-14	238	75	56	107	58%
Mar-15	315	99	51	165	62%
June-15	333	102	51	180	64%
Oct-15	335	102	53	180	64%
Dec-15	340	104	17	219	67%

This procedure has been used in 7 declarations by 13 subrecipients on 95 debris subawards (PWs) at a total of $164,264,975 project costs ($138,271,868 obligated federal share). See Figure 8.

Figure 8. Debris Pilot Disaster Management Plan Incentive Participation



[29] These references are available on FEMA's website at *https://www.fema.gov/media-library-data/1435583120468-5f159dfe61d4cea48d22a67980a42786/PAAPDebrisManagementPlanJobAidv2FINAL062515508.pdf*, and *http://www.fema.gov/pdf/government/grant/pa/demagde.pdf*, respectively.

[30] Values represented are cumulative with the exception of the "Under Review" column.

VIII. Challenges and Recommendations

FEMA has not identified any *significant* challenges with the authorities for implementing the alternative procedures. FEMA has identified two (2) issues thus far with the alternative procedures. The issues are related to the collection and evaluation of data for the debris alternative procedures and the expertise related to those participating in the alternative procedures for permanent work.

- **Debris Alternative Procedures: Since the implementation of the debris alternative procedures, there has not been a large-scale debris-generating event.** FEMA has collected and continues to collect data on participation under each of the debris alternative procedures. The major disasters and emergencies where the program has been used have been smaller events, and while the data trends indicate that the program is achieving its goals, accurately measuring the effectiveness of the alternative procedures provisions would occur under the conditions of a large debris-generating event. FEMA approved a 1-year extension of the pilot until June 27, 2016, in order to facilitate the necessary data collection.

- **Permanent Work Alternative Procedures: PA recipients and subrecipients may be uncomfortable with fixed estimate subaward funding.** With the exception of PA grants using simplified procedures (and these are for relatively low-dollar projects that can equate to "low risk"), and improved and alternate projects, fixed estimate subawards are an innovative concept for providing disaster assistance. Because the concept is relatively new and has not been implemented widely, PA subrecipients have expressed concern with the condition that subrecipients are responsible for any excess costs over the fixed, capped amount. The fixed estimate subaward procedure ultimately may allow more timely assistance and greater flexibility with the use of recovery funding. As more projects are completed that use this procedure, subrecipients will have more exposure to this procedure and may view it as an opportunity rather than a risk. FEMA continues to educate recipients and subrecipients on the benefits and flexibilities. FEMA expects that as more of them become familiar with the procedures and associated benefits, participation rates will increase.

At this time, FEMA does not have recommendations for changes to the authorities for alternative procedures. FEMA has begun an SRIA program evaluation to coincide with the 3-year anniversary of the SRIA legislation and implementation of the alternative procedures pilot programs. FEMA will use this evaluation to identify best practices, lessons learned, gaps or inconsistencies in alternative procedures program guidance and implementation, and areas for improvement. This evaluation also will assess how the alternative procedures are contributing to and supporting program goals, assess the extent of program implementation, identify barriers to use of the program, and inform program planning.

FEMA may have recommendations, including proposed authority modifications, after more data has been collected and analyzed, which may lead to recommended improvements to procedures and lessons on more effective implementation.

IX. Appendix

List of Abbreviations/Acronyms

BBT	Brooklyn Battery Tunnel
CFR	Code of Federal Regulations
CPI	Consumer Price Index
NYCHA	New York City Housing Authority
NYCDEP	New York City Department of Environmental Protection
DMP	Disaster Management Plan
DR	Disaster Declaration
FDNY	Fire Department of the City of New York
FEMA	Federal Emergency Management Agency
FY	Fiscal Year
GOV	Government
HTTPS	Hyper Text Transfer Protocol Secure
HVAC	Heating, Ventilating, and Air Conditioning
IT	Information Technology
KW	Kilowatt
LSFPC	Louisiana State Office of Facility Planning and Control
MEP	Mechanical, Electrical, and Plumbing
MTA	Metropolitan Transportation Authority
NYCEDC	New York City Economic Development Corporation
NYHHC	New York City Health and Hospitals Corporation
PA	Public Assistance
PAAP	Public Assistance Alternative Procedures
PL	Public Law
PNP	Private Nonprofit
PW	Project Worksheet
SBS	Department of Small Business Services
QMT	Queens Midtown Tunnel
SRIA	Sandy Recovery Improvement Act
USACE	United States Army Corps of Engineers
USC	United States Code
WPCP	Water Pollution Control Plant
WWW	World Wide Web
WWTP	Wastewater Treatment Plant