



Alabama EMA

Recovery Operations

Alabama Emergency
Management Agency

Recovery Division



About AEMA



Vision

Building resiliency for tomorrow, strength for today,
applying lessons from yesterday for a better Alabama

Mission

To support our citizens, strengthen our communities,
and build a culture of preparedness through a
comprehensive Emergency Management Program



Public Assistance



Supplemental financial assistance to State and local governments and certain private non-profit organizations for response and recovery activities required as a result of a declared disaster

Funding is cost shared at a federal share of no less than 75% of eligible costs

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The PA Program is a Partnership ———



- **FEMA – manages the program, provides technical assistance, approves grants**
- **State – educates applicants, works with FEMA to manage the program, implements and monitors grants awarded**
- **Local – identifies damage, provides documentation, manages funded projects**



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Types of Work



Emergency Work

- A. Debris Removal
- B. Emergency Protective Measures

Permanent Work

- C. Roads and Bridge Work
- D. Water Control Facilities
- E. Public Buildings/Equipment
- F. Public Utilities
- G. Other (Parks, Recreation, etc.)



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Preliminary Damage Assessment Process



1. Event occurs

2. Local damage assessments (preferably using Orion) ASAP

Did damages meet my county threshold?

If no, retain documentation

If yes, County EMA Director requests Local/State PDA through WebEOC

3. AEMA performs site inspections to validate County's estimates

If Statewide threshold and County's threshold is met, AEMA requests

Local/State/FEMA PDAs **(AEMA has 30 days from date of event to request PDAs)**

4. FEMA performs site inspections to validate County's and State's estimates

If FEMA validates all estimates and thresholds are met, the Governor will request the disaster declaration

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Orion Damage Assessment Solution —



Mobile app that captures damages

- pictures
- coordinates
- input dollar amounts

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PA Program Points of Contact —



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FEMA

Public Assistance Joint Preliminary Damage Assessments



FEMA Preliminary Damage Assessment Guide

May 2020



FEMA

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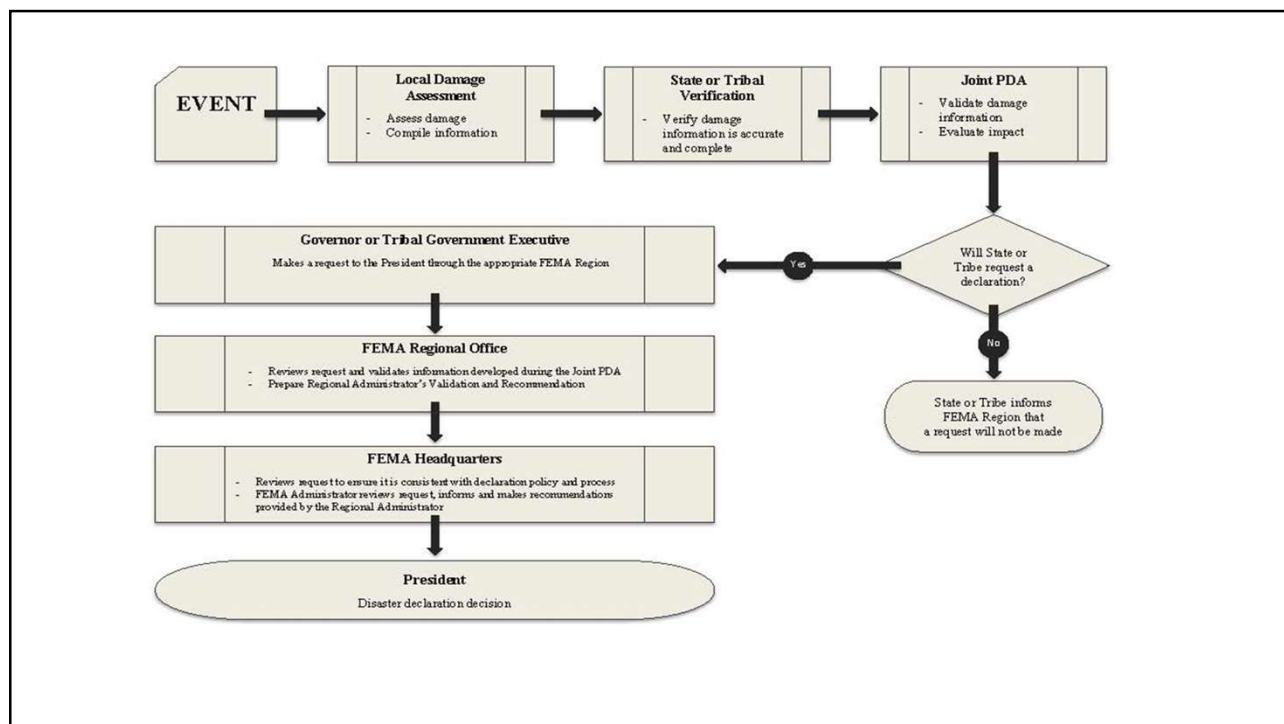
Part 1:

An Overview of Public Assistance Preliminary Damage Assessments

Purpose/Objectives



- The primary objective of the PDA process is to help disaster impacted SLTT governments and the Federal Government determine whether the impacts of a disaster warrant a Presidential disaster declaration.
- The data collected during the PDA process is primarily intended to inform a state, tribal, or territorial government's decision to request a Presidential disaster declaration and the Federal Government's assessment and adjudication of the request.



PDA Roles and Responsibilities

- Local Governments
- State, Tribal, or Territorial Government
- FEMA Region
- Joint PDA Team

Local Government



- The local government conducts the initial damage assessment (IDA), shares damage information with the state, and participates in the joint preliminary damage assessment (PDA).
- Responsible for identifying and training local assessment team members, coordinating assessment activity in the jurisdiction, and submitting information to the county or state or tribal government, as appropriate
- Generally performed by an emergency manager, a designee, representatives of potential applicants from government offices or private nonprofits (PNP).
- Should be familiar with the Public Assistance (PA) categories of work and be able to collect information and supporting documentation during the damage assessment.

State or Territorial Government



- The state or territorial government manages the PDA planning process by coordinating with local authorities and the respective FEMA regional office to ensure mutual understanding and expectations.
- States/territories provide appropriate vehicles, transportation, and/or access to damage.
- States/territories review damages identified during the IDAs to decide whether to request a joint PDA from FEMA.
- State and territorial authorities participate in the joint PDA and determine whether to request a Presidential disaster declaration and to collect information to develop data-driven written requests for Presidential disaster declarations.

FEMA Region

- FEMA regional staff work closely with the state, tribe, or territory to ensure that all necessary information is ready and available before joint PDAs are approved.
- FEMA regional staff participate in the joint PDA and make a data-driven recommendation based on declaration factors to FEMA headquarters (HQ) on whether the state, tribe, or territory should receive a Presidential disaster declaration.
- FEMA regional staff provide field subject matter expertise (SME) who are available to answer complex eligibility questions that arise from site assessments.
- FEMA region is responsible for collecting, aggregating, and archiving joint PDA information for the development of, analysis, and making a recommendation based on information provided in the regional administrators Validation and Recommendation (RVAR).



Part 2: The Joint Preliminary Damage Assessment

Damage Assessment Methods—Onsite Inspections



- **Joint PDAs for PA are typically done with in-person site assessments because PA damage assessments require a considerable amount of site-level information.**
- **Site assessments may include in-person visits to the damaged facility and interviews with representatives from potential applicants who may have already completed the work (e.g., emergency protective measures or debris removal) or are familiar with the anticipated method of repair (permanent work).**

Damage Assessment Methods—Desktop (Virtual/H



- **Thorough IDAs may result in the State, tribe or territory requesting to conduct desktop PDAs.**
 - Site inspections should still be conducted for large projects
- **Joint PDA teams must validate estimates with visual confirmation.**
 - Visual confirmation does not necessarily need to be in person in certain circumstances.
- **Desktop Assessment Concept of Operations are similar to traditional onsite PDAs**

Virtual PDAs



- When local and tribal governments conduct thorough IDAs with photographs and supporting documentation, joint PDA teams may choose to validate smaller damages through desktop validation
- Site assessment should still be conducted for large projects, prioritizing the largest, and for projects with the potential for environmental, historic, or cultural significance
- Joint PDA teams must validate estimates with visual confirmation.
 - Visual confirmation does not necessarily need to be in person in certain circumstances.

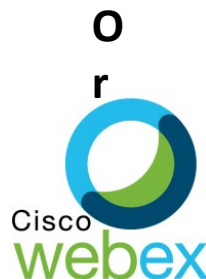
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Platforms for Conducting Virtual PDAs



FEMA Conference Bridge



Federal Emergency Management Agency

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Supporting Documentation needed for Joint PDA



- Photographs
- Cost estimates
- Historical costs
- Maps
- Contracts, bids, invoices
- Maintenance records, inspection reports
- Debris Quantity calculation sheets
- Insurance Documentation (whole policy, schedule of values, denial letter)
- Force Account Labor/Equipment Summary
- Work Orders, Timesheets, Daily Logs
- Material Invoice Summary
- Damage Descriptions and Dimensions
- Impact Statements

Impact Statements

Capturing the impact of damage in impact statements is an essential PA programmatic assessment requirement. Impact statements help illustrate whether the disaster is beyond the capacity of the impacted jurisdiction and if supplemental federal assistance is required to recover. Impact statements should include the following basic components:

- An outline of the incident (whether human-caused or natural, time of occurrence and location),
- A description of the impacted population,
- An explanation of losses and whether the losses have economic impact, and
- Numbers or statistics that lend context to the incident.

Costs



Considered for PDA

- **Force Account Labor**
- **Force Account Equipment**
- **Leased Equipment**
- **Supplies**
- **Contract services**
- **Repair or Replacement**
- **Mutual Aid**

Costs NOT considered for PDA

- **Loss of useful service life of facilities**
- **Tax Assessments**
- **Increased operating expenses**
- **Surveys to assess damage**
- **Insured losses (less the deductible)**



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Costs
Potentially
Eligible for PA
but not for PDA

- **Cost of administration or management**
- **Cost of engineering**
- **Cost to upgrade codes and standards**
- **Cost of mitigation measures**

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Costs: Insurance Coverage in Force



- **When conducting a PA damage assessment, FEMA considers whether or not a disaster-impacted facility has insurance coverage in force and what the insurance policy covers. Beyond what is covered through insurance, FEMA will consider the following information when assessing damage:**
 - Potential applicant's deductible
 - Damage not covered under an existing policy or required by regulation
 - Circumstances where eligible FEMA PA restoration costs exceed policy limits but do not include costs to upgrade codes and standards

Costs: FEMA needs to know



- **Method of Repair – Applicant's method of repair for each damage claim**
- **Who performed/will perform the work?**
- **Change of material from original design?**
- **Change in size/footprint?**
- **Other work/repair comments – If planning to change the design, size, or capacity, please provide plans and explain why.**
- **Are there EHP issues associated with the proposed scope of work? Explain.**

Damage Descriptions and Dimensions — Very Important



Facility Damage Description – Confirm damages were caused by the incident and occurred during the incident period.

- Start and end dates of incident period
- Date damaged
- Description of the cause of damage

Component Description and Damage – Include for each damaged component to explain what the damage looked like.

- Component type (e.g., wall and pavement)
- Component location
- Dimension, material, and capacity of the original component
- Dimensions of the damage
- Make/model/type
- Capacity/volume/quantity/number/units

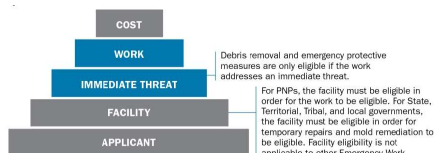
FEMA Categories of Work

FEMA categorizes disaster-related work as:

Emergency Work

Addresses an immediate threat:

- Debris Removal
- Emergency Protective Measures



Permanent Work

Restoration of:

- Roads/bridges
- Water control facilities
- Buildings/equipment
- Utilities
- Parks, recreational, and other facilities

Category A Debris Removal

- Record types and density of debris
- Estimate quantity in cubic yards
- Identify type of property affected
- Identify services affected
- Use unit costs that reflect debris pickup through disposal
- Record start/end dates for emergency work
- Describe local response



CAT A Damage Assessment Methods

- Estimate quantities by sampling
- Estimate cost based on force account or contract
- Use historical or local area unit cost
- Focus on debris on public property
- Do include potential debris brought to curb
- Private roads/gated communities may not be eligible
- Debris on FAS roads may not be eligible



Example Applicant Debris Removal Operation (FA Labor & Equipment)

City of Example started debris cleanup on 10/29/2020 using City forces. The City is using (4) 25 CY grapple trucks and (3) 15 CY dump trucks. The 25 CY trucks average 7 loads a day while the 15 CY dump trucks average 5 loads a day. Crews have been operating from sunup to sundown 7 days a week since the storm impacted the County. The City is operating two debris disposal sites at (2) City landfills. The City Public Works director estimates the debris operation is at 70% complete.

Debris will be reduced by burning via air curtain at the following two permitted landfills:

- 123 Road, Atlanta, GA Public 35045 Works Dept Landfill (33.166668, -86.319402)
- EMA Road, Atlanta, GA 35045 off HWY 148 (33.174016, -86.232847)

Debris estimates Citywide

(1) 25 CY truck averages 7 loads a day = 175 CY	(1) 15 CY dump truck averages 5 loads a day = 75 CY
175 CY x 4 trucks = 700 CY per day	75 CY x 3 dump trucks = 225 CY per day
700 CY x 21 days = 14,700 CY	225 CY x 21 days = 4,725 CY

Est 14,700 CY + 4,725 CY = 19,425 CY hauled to date

19,425 CY / 70% complete = 27,750 CY

19,425 CY + 8,325 CY (est to 100%) = 27,750 CY

27,750 CY x 25% reduction to account for dead space in loads = 6,937.5 CY reduction

27,750 CY - 6,937.5 CY = 20,812.5 CY

20,812.5 CY x \$15CY = \$312,187.50





CAT C Roads and Bridges



- If not passable, note alternative routes
- Identify maintenance responsibility
- Note road surface materials, lanes, and road-classification
- Note bridge size and type (steel, concrete, timber, truss)
- Describe specific type of damage
- Note any history of previous damage
- Describe the social and economic impacts

CAT C Roads and Bridges



- **FHWA Roads and Bridges are not considered**
- **Verify maintenance responsibility**
- **Bridge Inspection Reports**
- **Ineligible damage**
 - Surface cracking
 - Potholes (Maintenance)

County temporary road closure (Incidental debris, Cat B and Cat C)

County site assessment team reported costs related to barricading impassable roadways, cut/toss (emergency clearance) of vegetative debris from roadways, and making emergency repairs to damaged road sites along essential routes.

- Responder County constructed a temporary road due to the road failure/washout at Responder Road near the community center. This road failure isolated residential homes at one end, approximately 3/4 mile back from the damaged road site. County barricaded the damaged section of road and built an emergency sand and gravel bypass detour roadway beginning for approximately 3/4 mile to restore access back to Responder Road for emergency vehicles. The county used force account labor, force account equipment, rental equipment, and materials to construct the temporary road.
- Responder County had heavy rainfall causing a 120 ft. long x 30 ft. wide x 50 ft. deep asphalt road washout, along with loss of a 30 ft. long by 30 in. diameter pipe. Responder County Road ABC (CR 1) connects Tropical Highway 20 to U.S. 2020, serving an estimated 700 vehicles per day. PDA estimate costs in this category are expected to increase due to engineering fees, geotechnical studies, and possible codes/standard upgrades and are not included in PDA. Responder County provided an estimate of over \$792,000 to repair this road to pre-disaster condition based on similar historical project costs.

Category of Work: "C"

Unit Price per Cubic Yard for Backfill Repairs (Labor/Equipment/Materials): \$150.00

Location: ██████████k
Latitude: ██████████
Longitude: ██████████

Ex. Pipe: 3 - 60" Ø CMP @ 40 L.F. each

Failure Area:

Length (ft.):	30
Width (ft.):	40
Height (ft.):	15

→ Volume (CY): 667
Pipe Volume (CY): 84
Fill Volume (CY): 583 → \$87,450.00

Pipe Replacement (10 Gage, Aluminized, 5"x1" Corrugated Metal):

Diameter (in.): 72 Unit Cost per L.F.: \$129.73
No. of Pipe: 2
Length (ft.): 55 (each)
No. of Bands: 2
(@ 3' of pipe)
Freight: 4 (No. of trucks @ \$400.00 each)

Pipe: \$14,270.30
Bands: \$778.38
Freight: \$1,600.00

Pipe Total: \$16,648.68

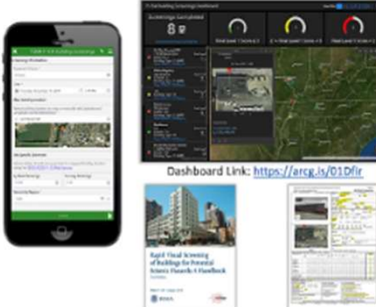
OVERALL TOTAL: \$104,098.68

Part 3: Integrating Technology into the PDA

FEMA is currently working with ESRI to construct a PA PDA Survey 123

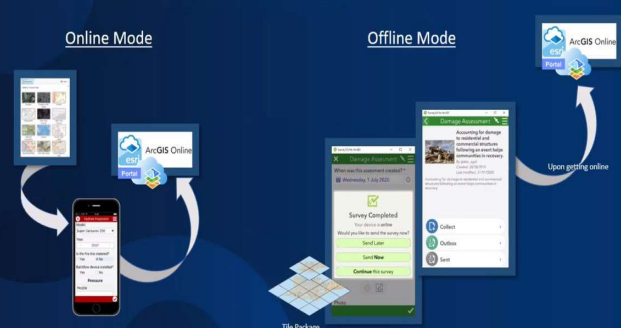
FEMA P-154 Rapid Visual Screening form Using Survey123 for ArcGIS

- Streamlines screenings by auto populating values for seismicity using USGS ASCE 41-17 and calculating modifiers and final scores.
- Attach photos, sketches and other documents.
- Inputs update a real-time Dashboard.
- Provides direct access to GIS data with exports to documents and spreadsheets.
- Can be hosted by any ArcGIS Online Organization or ArcGIS Enterprise Portal.



Dashboard Link: <https://arcg.is/01Dfir>

Offline & Online Data Collection



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Click to edit Master title style

12/10/2020 2020 November 11 Rains - Site Specific

Submitted by: trjordan1
Submitted time: Nov 13, 2020, 11:58:47 AM

Date of Inspection
Nov 13, 2020

Name of Damage Inspector
Jeff Kanipe

Phone Number of Damage Inspector
7047482400

Division
12

Site Number
A3

Site Location

County
Alexander

Type of Route
SR


Route Number
1,472

Road Name
Lackey Mountain Rd

[https://survey123.arcgis.com/survey989923tw03k01896d0f0a969838d0a0a7ee?x=-81.080335,-89.97,-81.027735,95.12&f=0&county=2726... 1/8](https://survey123.arcgis.com/survey989923tw03k01896d0f0a969838d0a0a7ee?x=-81.080335,-89.97,-81.027735,95.12&f=0&county=2726...)

12/10/2020 2020 November 11 Rains - Site Specific

Site Location
Lat: 35.92237 Lon: -81.02996



latitude
35.92236734930046

longitude
-81.0299536297655

Damage description

Type of Site Damaged
Pipe Culvert

Type of Pipe Damaged
CMP_corrugated metal pipe

Shape of Pipe
Round

Diameter of Pipe
24"

Length of Pipe
50

<https://survey123.arcgis.com/survey989923tw03k01896d0f0a969838d0a0a7ee?x=-81.080335,-89.97,-81.027735,95.12&f=0&county=2726... 2/8>

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Survey 123 output

12/10/2020 2020 November 11 Rains - Site Specific

Number of barrels
1

Headwalls
No

Hydraulic Recommendation
No

Pavement Damage
No

Roadbed Damage
No

Shoulder/Embankment Damage
Yes

Length of Shoulder/Embankment damaged
20

Width of Shoulder/Embankment damaged
20

Depth of Shoulder/Embankment damaged
10

Type of Fill Material Used
Dirt

Signs and Guardrail
No

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12/10/2020 2020 November 11 Rains - Site Specific

Utilities
Yes

Affected Utilities

- water
- fiber

Photos

Damage Photo 1




[https://survey123.arcgis.com/surveys/9f923be5b0946189df6b5d56983855data?w=81.0509,35.9497,-81.0527,35.9512&file=0&county=127&... 4/8](https://survey123.arcgis.com/surveys/9f923be5b0946189df6b5d56983855data?w=81.0509,35.9497,-81.0527,35.9512&file=0&county=127&...)

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Survey 123 output


12/10/2020 2020 November 11 Rains - Site Specific

Damage Photo 2



Optional Photos
Yes


Optional Photo 1



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12/10/2020 2020 November 11 Rains - Site Specific

Optional Photo 2



shoulder_damage_estimate
12000

subtract_barrel
0

added_price
4500

calc_added_price_pipe
0

price_per_diameter
6000

pipe_estimate
6000

[https://survey123.arcgis.com/surveys/9f923be5b0946189df6b5d56983855data?w=81.0509,35.9497,-81.0527,35.9512&file=0&county=127&... 6/8](https://survey123.arcgis.com/surveys/9f923be5b0946189df6b5d56983855data?w=81.0509,35.9497,-81.0527,35.9512&file=0&county=127&...)

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FEMA Damage Inventory Template

Category	Name of damage/facility	Address 1	City	State	Zip	Latitude	Longitude	Describe Damage (Damage Descriptions and Dimensions)	Primary Cause of Damage	Approx. Cost	% Work Complete	Labor Type	Has received PA grant(s) on this facility in a past?	Applicant priority
A	Debris Removal and Monitoring	Unincorporated County	Atlanta	GA	28403	33.878750	-84.267240	Monitoring and removal of debris - downed trees and Use of in-house staff	Hurricane	\$3,318,741	60%	C	Y	High
B	Emergency Protective Measures	County-wide	Atlanta	GA	28403	33.878750	-83.267240	performing Emergency Wind and structural damage due to tree landing on the 7th floor breakroom water under door, 3rd floor office	Hurricane	\$50,054	90%	FA	Y	High
E	421 Firing Range Storage Facility	1235 U.S. 421	Atlanta	GA	28401	33.878750	-82.267240	Tree landed on a corner of the building, resulting in The metal and glass greenhouse was	Hurricane	\$3,300	80%	C	N	Medium
E	320 Chestnut/Admin	320 Chestnut Street	Atlanta	GA	28401	33.878750	-81.267240	Side curtain and door of Master Gardener	Hurricane	\$86	100%	FA	Y	Low
E	Animal Control Cooperative Ext.-Lewis	180 Division Drive	Atlanta	GA	28401	33.878750	-80.267240	Sally port gate was damaged by high wind and rain, and Wind driven rain left water on gym floor and adjacent	Hurricane	\$3,856	15%	FA/C	Y	Medium
E	Greenhouse and Tool Shed Cooperative Ext.-Master Gardener Greenhouse	6206 Oleander Drive	Atlanta	GA	28403	33.878750	-79.267240	Wind and storm damage to and parapet / coping.	Hurricane	\$1,800	0%	C	N	Medium
E	Detention Center - Administration	3950 Juvenile Center Road	Atlanta	GA	28429	33.878750	-77.267240		Hurricane	\$1,000	0%	FA	N	Medium
E	Gang Task Force/Shaw Speaks	718 S. 3rd Street	Atlanta	GA	28401	33.878750	-76.267240		Hurricane	\$1,015	100%	FA/C	N	Medium
E	Government Center/EOC-911	230 Government Center Dr	Atlanta	GA	28403	33.878750	-75.267240		Hurricane	\$65	100%	FA	Y	Low
	Damage Inventory	Lists	Cat A	Cat B	Cat E	Cat G				\$3,283	90%	FA/C	Y	Medium

Ready

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Questions?



FEMA

Thank you for attending today's presentation.



FEMA

DEBRIs Management – what's trending in 2021



1. National Response Framework

- USACE Lead Agency for Public Works and Engineering

Typical Mission Assignment:

Temp Housing

Temp Roofing

Infrastructure Assessment

Critical Public Facilities

Temp Power

Debris Removal

- FEMA Mission Assignments

Direct Federal Assistance – Support for State & FEMA

Federal Operational Support - Partnered with FEMA

Fully Funded by FEMA

USACE allowed to coordinate with applicants (if beneficial)

Supports FEMA with monitoring field operations

Determines eligibility & interprets policy guidance

2. COVID-19 Impacts on Response & Recovery

FEMA Virtual Workforce – More USACE Mission Assignments

DEBRIs Management – what’s trending in 2021



3. 2020 FEMA Mission Assignments for Debris Technical Support

- Tennessee Tornado Events (Nashville & Chattanooga)
- Oregon Wildfires
- Louisiana Hurricanes (Laura & Delta)
- Florida Hurricane (Sally)
- Alabama Hurricanes (Sally & Zeta)

4. Providing an Environment for Successful and Timely Debris Removal

- Using the Media & Social Media
 - Curbside Segregation
 - Operational Updates
 - Vicinity Notification
 - Operational hours, delays and holidays
 - Special messaging
- Happy Drivers
 - Short Hauls
 - Competitive Rates
 - Reasonable Volume
- Planning
 - Debris Management Plan
 - Pre-Event Contracts
- Final Pass
- Work zones, GIS maps
- Identify DMS Locations
- Trained Workforce

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DEBRIs Management – what’s trending in 2021



5. Monitoring Reminders

- Contract Monitors
 - Applicant's Need to Monitor their Monitors
- ADMS
 - Location Matters
 - Leaners & Hangers – must show hazard within ROW
- Load Calls – Anything 80%+ will raise concerns
- Debris Reduction
 - Vegetation – Know Final Disposal (Before Grinding)
 - C&D – 50% or Less Will Raise Concerns

6. How Can USACE Help?

- Local Office - Outreach Available
- Impartial Players – Honest Assessments
- Relationships Within Industry
- Conflict Resolution
- Mission Analysis
- Estimating
- Reporting
- Working Together to Correct Mistakes

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DEBRIs Management – what's trending in 2021



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