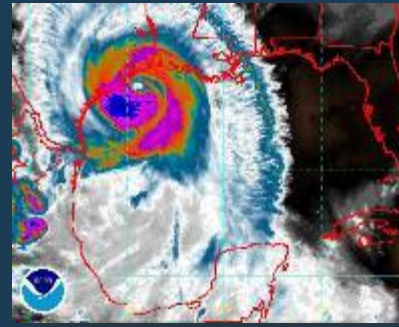


H-GAC 2022 Webinar/Workshop Series



Disaster Debris Workshop

WORKSHOP DATE:

MAY 5, 2022

TIME:

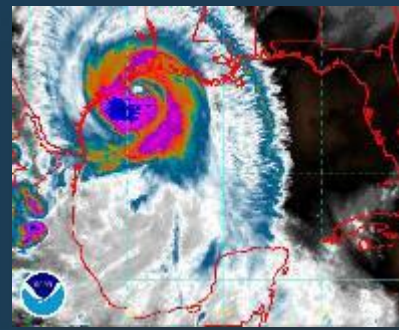
8:30 A.M. TO 12:30 P.M.



Agenda



1. Disaster Debris Management 101
2. Diversity, Equity, and Inclusion in Debris Operations
3. Diversion of Debris from Landfills
4. Private Property Debris Removal



Part 1: Disaster Debris Management 101



**NORMAL/PREPAREDNESS
ONGOING**

- Develop/update debris management plans.
- Develop/update hazard mitigation plans.
- Conduct debris trainings and exercises.
- Coordinate with debris contractors to ensure documentation is in place.
- Inventory in-house resource to support debris operations.

DISASTER

**RESPONSE
DAYS**

- Conduct preliminary damage assessments. Activate debris services contractors.
- Clear roads of debris.
- Begin truck certifications.
- Attend Applicant Briefing with FEMA Public Assistance Coordinator.
- Identify and assess debris management sites.

**RECOVERY
WEEKS-MONTHS**

- Establish and open debris management sites.
- Attend FEMA Public Assistance Kickoff Meeting.
- Conduct right of way collection.
- Develop FEMA project worksheets.
- Conduct special debris programs:
 - Leaners, hangers, and stumps
 - Parks
 - Private property debris removal
 - Waterways
 - Derelict vessels

**LONG-TERM RECOVERY
MONTHS-YEARS**

- Compile and reconcile documentation.
- Prepare audits, as necessary.
- Closeout debris projects.

Normal Operations Activities

- Update contact lists.
- Evaluate DMS locations.
- Review road list and road maps.
- Establish and maintain pre-positioned contracts.
- Review State and FEMA guidance.



Pre-Event Preparation Activities

- Download most recent road list and relevant documents to a portable storage device.
- Alert key personnel and place monitoring firm and debris removal contractors on stand-by.
- Review plan with key personnel.
- Issue pre-event media press releases.



Post-Event Response Activities

- Begin emergency roadway debris clearance.



I-45 South Near Texas City After Hurricane Ike 2008



I-45 South Near Texas City Today

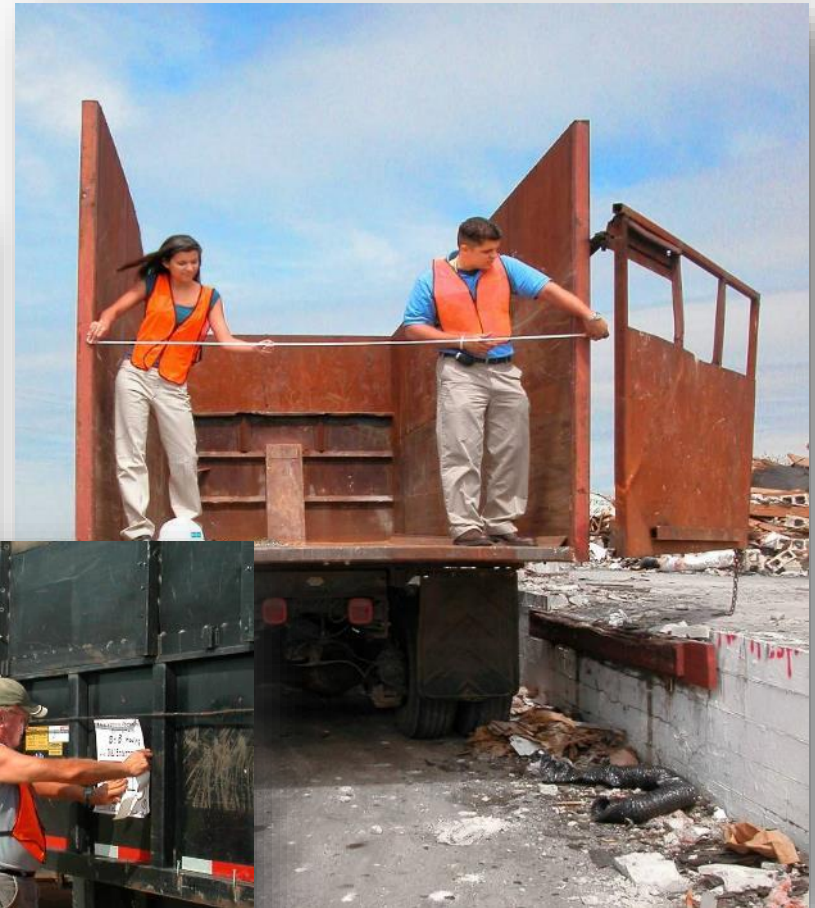
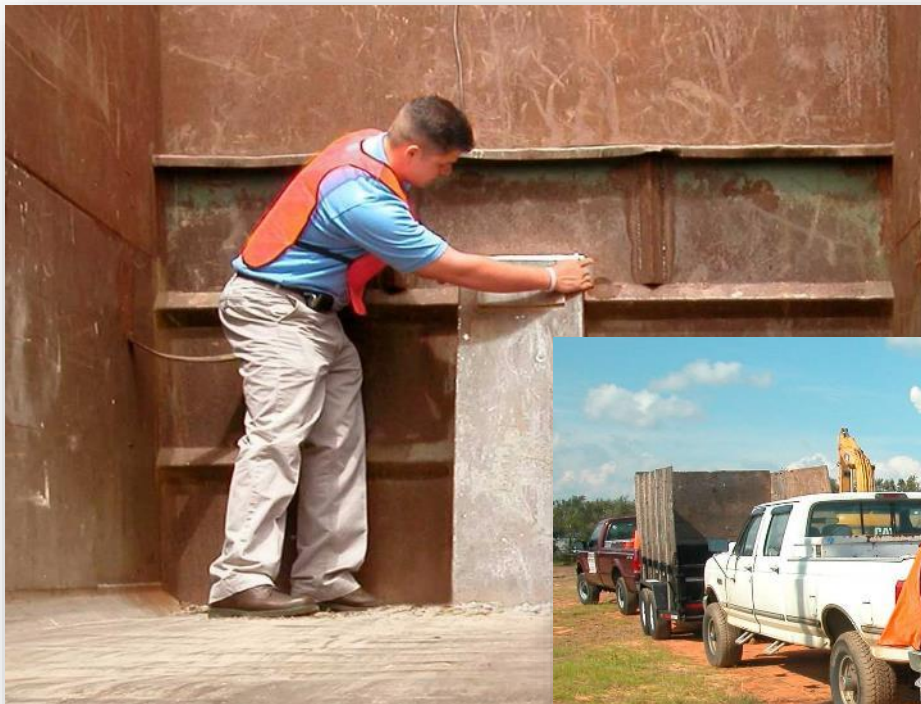
Post-Event Response Activities

- Conduct damage assessment.
- Activate monitoring firm and debris removal contractors.



Post-Event Response Activities

- Begin truck certification.



Response Activities

- Conduct meetings/briefings with key personnel.
- Review debris volume and collection cost assessment.
- Request contact information and meeting with FEMA Public Assistance Program Delivery Manager (PA PDMG).
- Issue media press release.



Post Event Recovery 2 Days - 2 Weeks

- Open Debris Management Sites.
- Prioritize roads/areas.
- Issue press release regarding segregation of debris.



Post Event Recovery 2 Days - 2 Weeks



- Begin Right of Way (ROW) debris removal.
- Perform parks damage assessment.

Debris Management Sites

- Temporary locations where debris can be stored and reduced before recycling or disposal.



Preparing the DMS

- Prepare DMS based on concentration of debris:
 - Get Texas Commission on Environmental Quality (TCEQ) and Texas Historic Commission (THC) approval.
 - Photograph the site.
 - Record physical features.
 - Conduct a historical evaluation.
 - If necessary, collect soil and water samples.



Preparing the DMS

- Decide on the reduction method to be used.



Air Curtain Incineration or Grinding



Post Event Recovery 2 Days - 2 Weeks

- Begin DMS environmental monitoring program.
- Coordinate with external agencies.
- Initiate discussions with FEMA.
- Obtain FEMA guidance for gated community and private property debris removal.



Post-Event Recovery 2 Weeks - 1 Month

- Maintain and evaluate ROW cleanup.
- Begin ROW stump removal as necessary.
- Open additional DMS as necessary.



Post-Event Recovery 2 Weeks - 1 Month



- Continue daily meetings with FEMA.
- Begin debris removal from private property and gated communities.
- Communicate project closeout to residents via press release.

Post-Event Recovery 1 Month - 3 Months

- Maintain and evaluate ROW cleanup (vegetative and C&D).
- Begin ROW leaners and hangers program.
- Initiate haul-out.
- Progress to weekly meetings with FEMA.



Special Debris Programs

- Hazardous leaners, hangers, and stumps



Special Debris Programs

- Private property debris removal



3 Months - Project Completion

- Complete all debris recovery activities.
- Identify ineligible debris on ROW.
- Complete the disposal of reduced debris.
- Close out and remediate DMS.
- Conduct project close-out meetings with FEMA and external agencies.



Public Information in Disaster Debris Operations

Public Information Objective

- The objective for public information is to provide timely, accurate, and consistent information to improve understanding and cooperation, thereby increasing efficiency of debris management operations while minimizing disruption to the general public.



Road Clearance

- Priority streets will be identified for debris clearance. Residents may not understand why trucks are passing their street without stopping initially.



Debris Collections



- Trucks picking up debris may only be picking a certain type of debris (e.g., vegetative, or white goods) so all the debris from residences yards may not all be removed by the same truck.

Provide Instructions To Residents On Debris Separation.

Separating Your Debris

Debris should be placed curbside, without blocking the roadway or storm drains.

NO PICKUP ZONE
Any debris placed from the sidewalk toward your property will not be picked up.

DEBRIS SEPARATION
Separate debris into the six categories shown below.

DO NOT STACK OR LEAN
Placing debris near or on trees, poles, or other structures makes removal difficult. This includes fire hydrants and meters.

UNSURE WHERE TO PLACE DEBRIS?
If you don't have a sidewalk, ditch, or utility line in front of your house, place debris at the edge of your property before the curb.

Normal Household Trash
Normal household trash and bagged debris of any kind will not be picked up with disaster debris. You should continue to follow your normal garbage removal schedule.

VEGETATIVE DEBRIS

- Leaves (do not put in bags)
- Logs
- Plants
- Tree branches

CONSTRUCTION & DEMOLITION DEBRIS

- Building materials
- Carpet
- Drywall
- Furniture
- Lumber
- Mattresses
- Plumbing

APPLIANCES & WHITE GOODS

- Air conditioners
- Dishwashers
- Freezers
- Refrigerators
- Stoves
- Washers, dryers
- Water heaters

ELECTRONICS

- Computers
- Radios
- Stereos
- Televisions
- Other devices with a cord

HOUSEHOLD HAZARDOUS WASTE

- Cleaning supplies
- Batteries
- Lawn chemicals
- Oils
- Oil-based paints and stains
- Pesticides

OIL

FUEL

For more information contact your local government.

Public Information/Emergency Set-out Procedures

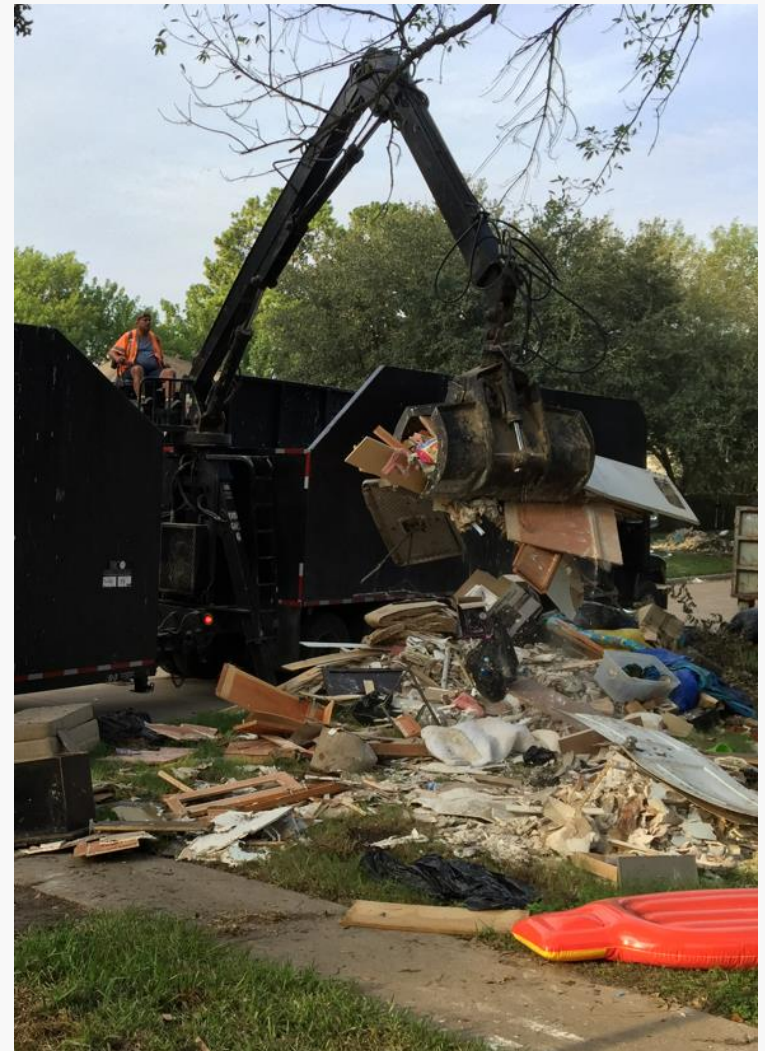
- Debris should be staged separately by debris type along the right of way (ROW). Identify the ROW.
- Do not bag debris; only loose debris will be collected.
- Do not mix HHW with any of the other staged debris types.
- Do not mix household garbage with any of the other staged debris types.
- Do not place debris near water vaults, fire hydrants, or any other above-ground utility.
- Do not place debris on driveways.

Multiples Passes Will Be Needed

- Multiple passes by trucks will be needed to collect the debris.
- Communicating the status of the passes through areas can help residents prepare and have their debris in the right of way.

Final Pass

- Communication the final pass to residents.
- Residents will need to understand it is their last chance for the jurisdiction contractors to collect their debris.
- After the last pass residents are responsible for the removal of their own debris.



Public Drop Off Sites

- Public drop off sites give residents the opportunity to self-haul their disaster debris to a staging area for future pick-up by jurisdiction crews or contractors.



Public Drop Off Sites

- Develop public information messages to inform the public of the hours of operation as well as the types of debris that may be disposed of at the site.



Provide Realistic Updates On The Status Of Debris Operations.

- Debris removal operations could take weeks or months depending on the scope of the damage and quantity of debris. Coordinate with the debris manager for realistic updates on the status of debris operations.



Collaborate in Messaging



- Public information must be coordinated and integrated across jurisdictions and organizations involved in the incident.
- Strive for consistency and accuracy.

Use of Call Centers

Call Center

- A call center, manned with trained staff to answer questions from callers, can be an effective tool to help provide information to the public and dispel rumors and can help gauge effectiveness of public information efforts.



Call Center Considerations

- **Facility:** Ensure the call center will be in a facility with an adequate number of phones and workstations for the anticipated call volume.
- **Staffing:** Ensure that adequate staff will be available to answer the anticipated volume of calls.
- **Training:** Ensure staff can operation phone equipment. Provide them with a list of frequently asked questions with responses and make sure they understand the importance of staying on message.

Call Center Considerations



- Documentation: Provide call takers with a checklist so that types of calls/complaints/questions received can be monitored. Update the frequently asked questions document to address the complaints and questions received to ensure staff have the most current information to offer callers.

Call Center Considerations

- **Stress:** Answering calls from affected residents during a disaster can be very stressful on those trying to assist callers. Observe staff for signs of stress and fatigue. Ensure staff take breaks as needed. Conduct a debriefing at the end of the call takers shift.

Considerations for Contracting Call Center Services

- Staffing requirements
- Hours of operation: 24/7 or business hours
- Frequently asked questions document
- Specific scripting you would like used
- Numbers to other resources in the jurisdiction such as:
 - Red Cross
 - United Way
- Any other information you would like provided to callers

Keep Elected Leaders in the Loop

- Keep elected leaders informed of sensitive issues and provide them updates on the status of those issues.
- Let them hear from you before they hear it from the media.
- Provide them with messages they can share with the media and their constituents.



Plan the Content of the Message

- Express empathy
- Provide relevant, helpful information
- Use plain language
- Avoid cliches
- Promote action
- Show respect
- Promote collaboration



Using Plain Language To Communicate the Message



Disseminating the Message

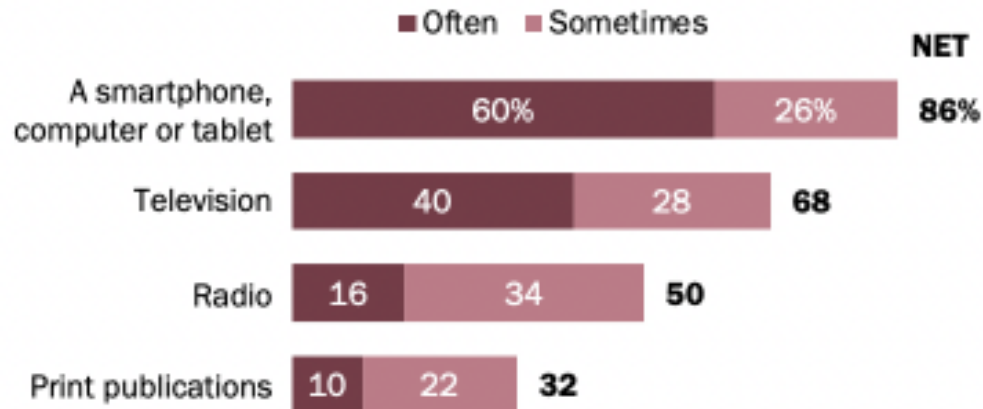
- Media
 - Print/TV/Radio
- Website
- Social Media
- Reverse 911
- Call Bank
- Flyer



How Does the Public Receive Information?

Large majority of Americans get news on digital devices

% of U.S. adults who get news ____ from ...



Source: Survey of U.S. adults conducted Aug. 31-Sept. 7, 2020.

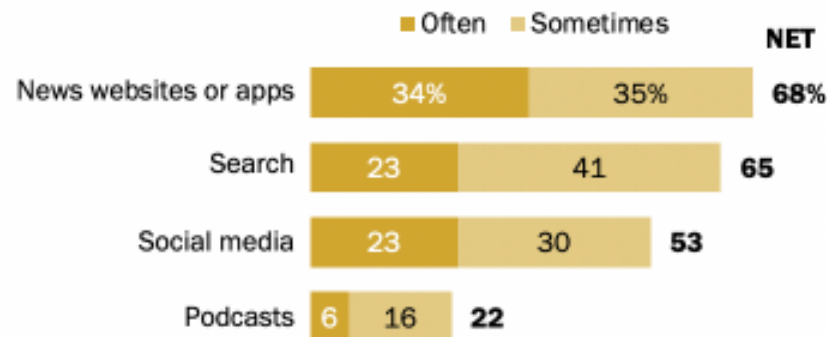
PEW RESEARCH CENTER

<https://www.pewresearch.org/fact-tank/2021/01/12/more-than-eight-in-ten-americans-get-news-from-digital-devices/>

How Does the Public Receive Information?

Americans more likely to get news on digital devices from news websites, apps and search engines than from social media

% of U.S. adults who get news ____ from ...



Source: Survey of U.S. adults conducted Aug. 31-Sept. 7, 2020.

PEW RESEARCH CENTER

<https://www.pewresearch.org/fact-tank/2021/01/12/more-than-eight-in-ten-americans-get-news-from-digital-devices/>

Social Media Use

Social Media

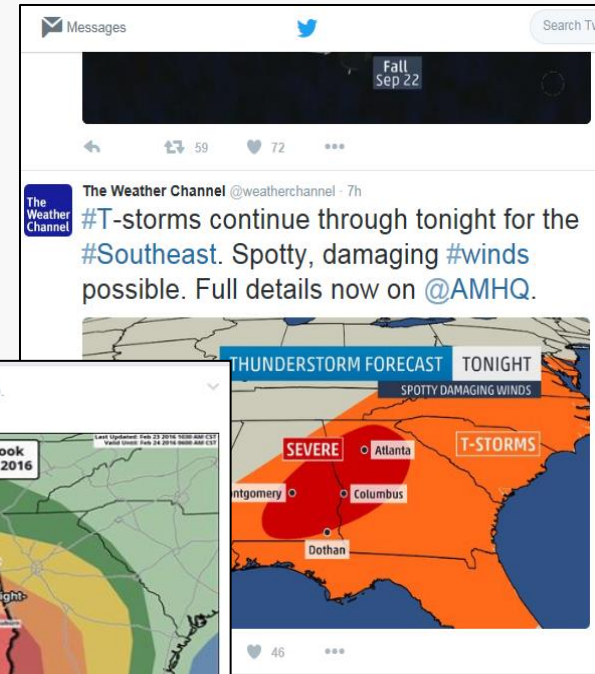
Impact on Disaster-Related Communications

- Quick and efficient way to communicate
- Can be updated constantly
- May be the only way of reaching residents in a no-notice event




Social Media Severe Weather Updates

- Effective way to get weather alerts to your residents or give instructions



Social Media Road Closures

- Helpful in minimizing traffic especially during a no-notice event
- May inform residents of evacuation routes



City of Tuscaloosa – Government
November 20 at 12:27pm · 🌐

Coming to Tuscaloosa to see the most important game this weekend for Tide football? Be aware of this road construction on your way to the stadium. #TheProcess

ROADS CURRENTLY UNDER CONSTRUCTION

BE AWARE OF THESE AREAS WHEN ENTERING THE CITY FOR GAMEDAY!

- ➡ 15th Street/McFarland Boulevard Intersection
- ➡ Intersection of Hargrove Road and Skyland Boulevard
- ➡ Intersection of 23rd Avenue East and 7th Street East
- ➡ Alberta Bridge on University Boulevard is now open
- ➡ 24th/25th Avenue East and 7th Street East are now open

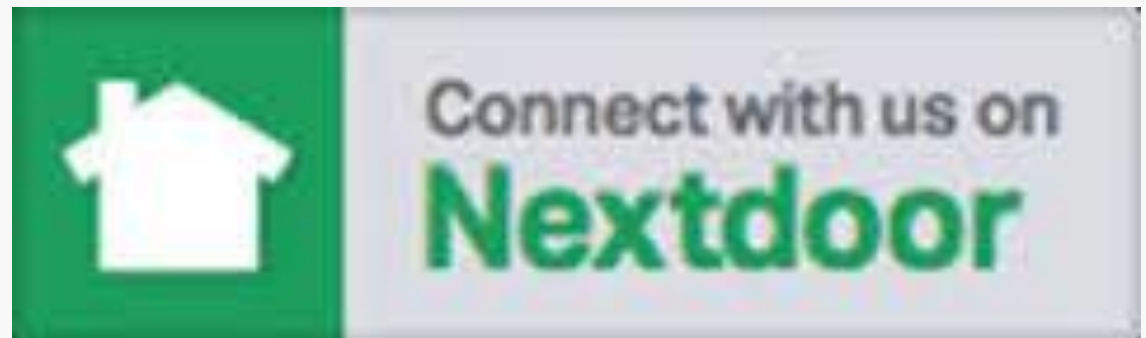
Social Media Concerns

- Rapid spread of misinformation
- Public complaints
- Disreputable charities or scams asking for donations



Social Media Resident Input

- Damages created
- Unreported hazards
- Available emergency supplies



Social Media Response Tips

Question	Primary Functions
<ul style="list-style-type: none">• Does the person seem to be open to constructive discussion?	Sometimes people use social media to rant or provoke others to anger. Ignore posts like these. Do not feel obligated to engage with every comment.
<ul style="list-style-type: none">• Is there a website or other resource I can point this person to?	If the person or organization commenting needs information from another source, share a link or contact information.
<ul style="list-style-type: none">• Are other people asking similar questions?	To address common questions or concerns, consider using a general post to reach more people. Think of other channels for sharing information—for example, can the website be updated with frequently asked questions?
<ul style="list-style-type: none">• Is the response strategic?	Correct misinformation with accurate information. Investigate and refute rumors.

Preparedness Public Information Tasks

- Maintain contact information for staff, news media, and response partners.
- Maintain and update social media sites and websites regularly.
- Conduct drills and exercises to test contact information, communications systems, and communication processes.
- Provide training to ensure spokespersons are adequately trained and prepared to speak to the media.
- Prepare pre-scripted messages.

Response Public Information Tasks

- Provide instructions to the public regarding proper set-out procedures.
- Provide safety messages in coordination with health authorities and other response partners.
- Set up a call center to answer questions from the public.
- Monitor media coverage and social media posts.
- Correct any misinformation.

Recovery Public Information Tasks

- Provide the status of debris operations.
- Provide instructions to the public regarding how debris will be managed going forward.
- Monitor social media posts.
- Correct any misinformation.
- Express gratitude to residents for their cooperation.
- Participate in any debriefing of the event.
- Note lessons learned for plan improvement.

Prepositioned Contracts

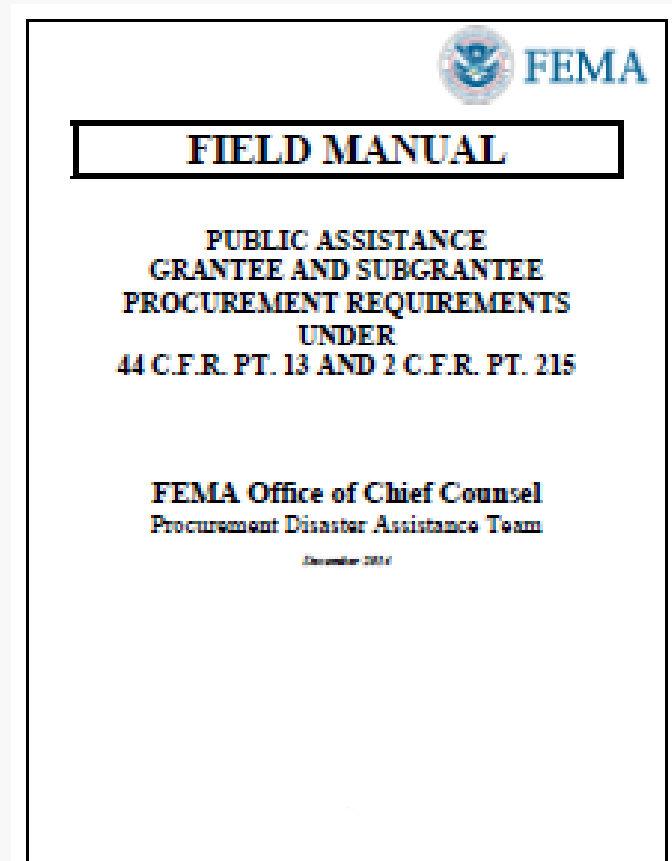
Pre-Negotiate Contracts

- Other communities may be competing with the same resources following a disaster.
- Can save time in an emergency.
- Provides an opportunity to negotiate better rates than at the time of an emergency.
- Contractors may be stretched thin and may not be willing to take on any new business.



Avoiding Contracting Minefields

- Local governments must use their own documented procurement procedures that reflect State and local laws and regulations, providing those laws and regulations conform with Federal laws and standards.



Avoiding Contracting Minefields

- Provide full and open competition.
- Conduct all necessary affirmative steps to ensure the use of minority businesses, women's business enterprises, and labor surplus area firms when possible.
- Exclude contractors that develop or draft specifications, requirements, statements of work, etc.
- Maintain written standards of conduct governing employees who engage in the selection, award, and administration of contracts.

Avoiding Contracting Minefields

- Maintain records sufficient to detail the history of the procurement:
 - Rationale for the method of procurement
 - Selection of contract type
 - Contractor selection or rejection
 - Basis for the contract price



Avoiding Contracting Minefields

- FEMA may reimburse costs incurred under a contract procured through a noncompetitive proposal only when:
 - The item is only available from a single source.
 - The public exigency or emergency for the requirement will not permit a delay resulting from competitive solicitation.
 - FEMA or the Recipient expressly authorizes a noncompetitive proposal in response to a written request from the Applicant.
 - After solicitation of a number of sources, competition is determined inadequate.

Avoiding Contracting Minefields

- FEMA reimburses costs incurred using three types of contract payment obligations:
 - Fixed price
 - Cost-reimbursement
 - Time and materials (to a limited extent)

FEMA does not reimburse costs incurred under a cost-plus-percentage-of-cost (CPPC) contract or a contract with a percentage of construction cost method.

Avoiding Contracting Minefields

- In issuing contracts, the County should:
 - Have required provisions in all contracts awarded.
 - Maintain oversight to ensure contractors perform according to the conditions and specifications of the contract and any purchase orders.



Avoiding Contracting Minefields

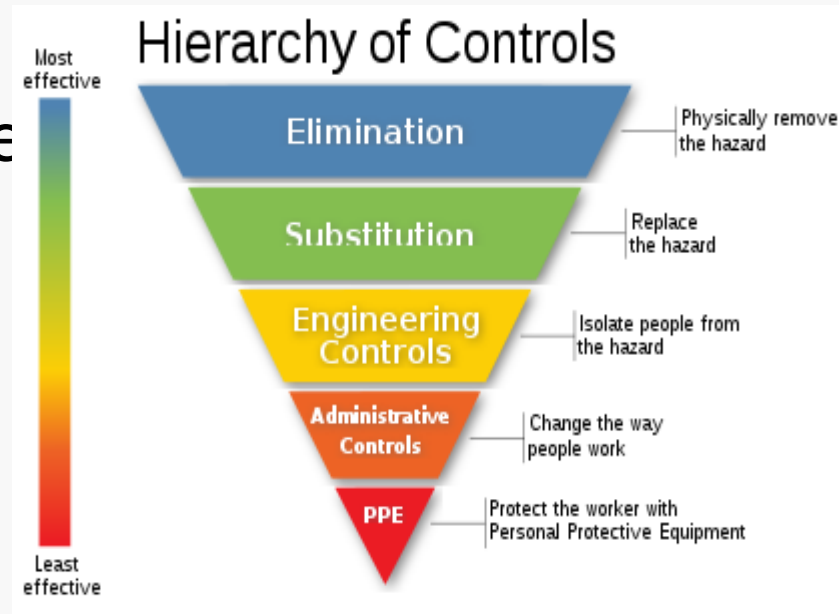
- Required Provisions Include:
 - Equal Employment Opportunity
 - Copeland “Anti-Kickback” Act
 - Davis-Bacon Act
 - Contract Work Hours and Safety Standards Act
 - Clean Air Act and the Federal Water Pollution Control Act
 - Byrd Anti-Lobbying Amendment
 - Debarment and Suspension
 - See 2 CFR §215.48 for contract provision requirements.

Health and Safety

Health & Safety Plan

- OSHA requires employers to inform their employees about workplace hazards they may be exposed to and how to mitigate potential hazards through training, controls and personal protective equipment
- Health & Safety Plan (HASP) Components

- Project Leadership
- Roles & Responsibilities
- Hazard Identification
- Controls
- Emergency Response
- Incident Reporting
- Emergency Facilities



All Hazards Analyses

- Functional approach to workplace hazards
 - Each role is described in steps
 - Truck Certification
 - Debris Collection
 - Hazardous Tree Removal
 - Debris Disposal
 - Each step lists associated hazards
 - Each hazard has associated controls
 - Required equipment and training is listed for each role



Training

- Project Overview/Onboarding
- Training on the HASP and signed acknowledgement
- Role-based training
- Daily Safety Briefs
 - Daily Weather Outlook
 - Lessons Learned from Previous Day
 - Driving Safety Tip
 - Safety Brief: Tips for Avoiding Incidents
- Field Supervision is Key
- OSHA - “Not documented, not done!”



Policies & Procedures

- Chain of Command/Communication Protocols
- Incident Reporting Procedures
 - Notify chain of command
 - Respond and document
 - Medical consult/first aid treatment priority
 - Release to return
- Illness Protocol - if sick, STAY HOME
- Motor Vehicle Incident Policy
 - Document thoroughly
- Drug & Alcohol Policy

The image shows two pages of incident reporting forms from Tetra Tech, Inc. The left page is the 'INCIDENT REPORT' form, and the right page is the 'CORRECTIVE ACTIONS' form. Both forms include sections for report information, incident details, witness information, and corrective actions.

INCIDENT REPORT FORM (Page 1 of 2):

- Report Date:** [] **Report Prepared By:** [] **Incident Report Number:** []
- INSTRUCTIONS:** All incidents (including those involving subcontractors under direct supervision of Tetra Tech personnel) must be documented on the IS Form. Complete any additional parts in this form as indicated below for the type of incident selected.
- TITLE OF INCIDENT (check all that apply):**
 - Motor Vehicle Completion Form 100
 - Other Completion Form 100
 - Other Completion Form 100
 - Other Completion Form 100
 - Other Completion Form 100
 - Other Completion Form 100
- INFORMATION ABOUT THE INCIDENT:**
 - Date of Incident:** [] **Time of Incident:** []
 - Location of Incident:** []
 - Witness Information:** []

CORRECTIVE ACTIONS FORM (Page 2 of 2):

- CORRECTIVE ACTIONS:** []
- ROOT CAUSE ANALYSIS LEVEL REQUIRED:** []
- NOTIFICATIONS:** []



Field Supervision

- Be aware of hazards to staff.
- Provide and document training.
- Enforce safe work practices.
- Provide personal protective equipment (PPE).
- Observe staff for proper use of PPE.
- Only allow staff with the proper training to operate equipment.
- Traffic controls.
- Watch staff for signs of fatigue.
- Schedule rest breaks.



Lessons Learned

- Go beyond the policies to “what to do if”
- Motor Vehicle Incidents
 - Distracted Driving (most incidents)
 - Adjusting speed for weather / road conditions
 - Following too closely
 - Early morning / late afternoon drowsiness
 - Wildlife
- Stay out of the work zone!
- Slips/trips/falls
- Strong Field Supervision is Key



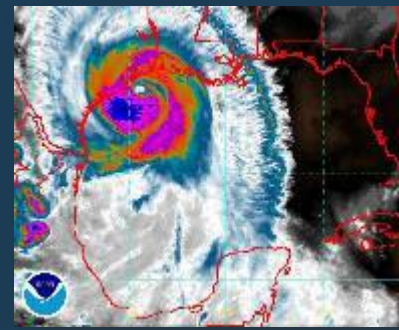
The Value of Planning

The Value of Disaster Debris Management Planning

- Establish clear roles and responsibilities in a debris-generating incident.
- Identify resources that can be used in response:
 - Debris haulers and monitors
 - Debris management sites (DMS)
 - Equipment
 - Personnel
 - Recycling options, transfer stations, landfill sites

The Value of Disaster Debris Management Planning (continued)

- Provide debris estimates to aid in planning.
- Identify priorities and strategies for debris clearing and collection.
- Identify applicable regulations that must be adhered to in conducting debris operations.
- Provide public information strategies and templates for use in developing public information messages.
- **Failure to follow federal guidance and regulations can result in not being reimbursed for expenses.**



Part 2: Diversity, Equity, and Inclusion in Debris Operations



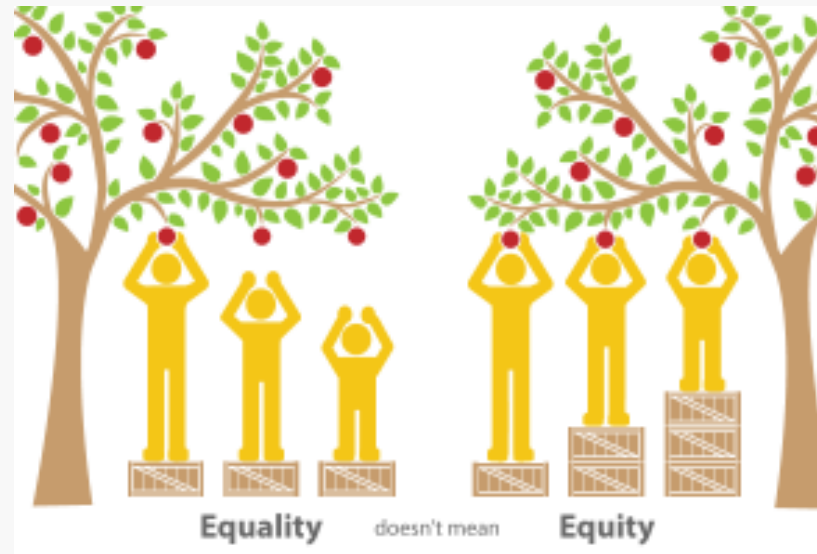
Diversity

- **Diversity** is the presence of differences that may include race, gender, religion, sexual orientation, ethnicity, nationality, socioeconomic status, language, disability, age, religious commitment, or political perspective.



Equity

- Equity is promoting justice, impartiality and fairness within the procedures, processes, and distribution of resources by institutions or systems.



Equity



FEMA

“We’re turning a page at FEMA and infusing equity throughout our agency, programs, and policies to better serve people who face unique barriers before, during and after disasters.”

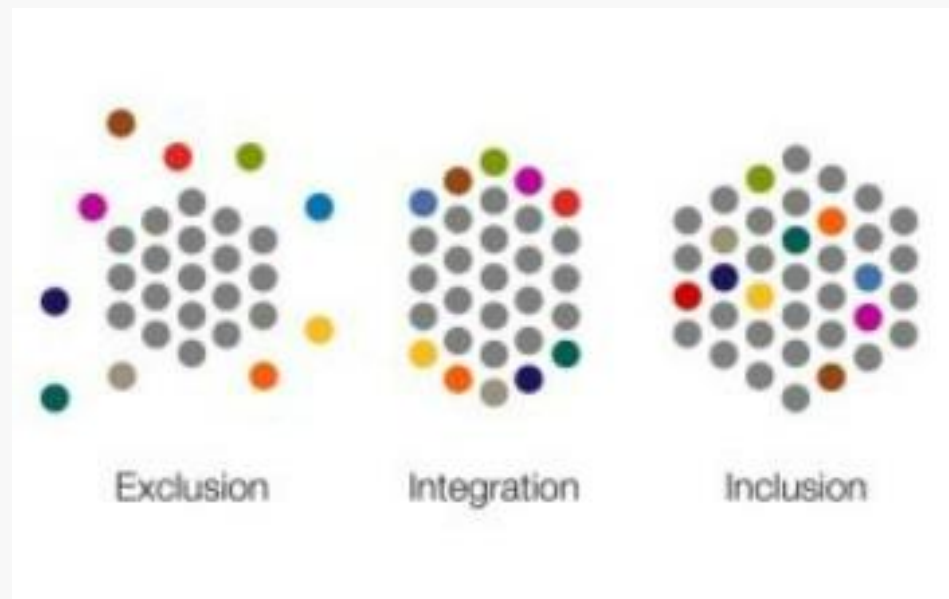
FEMA Administrator Deanne Criswell

Equity Reporting

- FEMA's IA Program has established reporting mechanisms to track completion and full implementation of actions.
- The IA Program also intends to continue to work with the Recovery Reporting and Analytics Division to apply data-informed strategies to ensure objective assessment of equity outcomes based on these actions.

Inclusion

- **Inclusion** is an outcome to ensure diverse individuals can participate fully in the decision-making processes and participate in development opportunities within an organization or group.



FEMA's Current Diversity and Inclusion Initiatives

- Proactively and continuously engage state, local, tribal, and territorial partners, local community leaders, and other community representatives to gain insight into how FEMA programs can better serve them.
- Policy and program implementation must be routinely informed by how they will impact underserved communities.
- Routinely evaluate programs and policies for disparities in outcomes.

Environmental Justice

- The fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Summary of Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

59 FR 7629; February 16, 1994

Executive Order (E.O.) 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations - was issued by President William J. Clinton in 1994. Its purpose is to focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities.

The E.O. directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law. The order also directs each agency to develop a strategy for implementing environmental justice. The order is also intended to promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation.

In addition, the E.O. established an Interagency Working Group (IWG) on environmental justice chaired by the EPA Administrator and comprised of the heads of 11 departments or agencies and several White House offices.

Quick Links

- [E.O. 12898 from the National Archives](#)
- [Environmental Justice at EPA](#)
- [EJSCREEN](#)



DESMOG

CLEARING THE AIR POLLUTION THAT CLOUDS CLIMATE SCIENCE

HOME RESEARCH DATABASE SERIES ABOUT DESMOG MEDIA RESOURCES CONTACT US

Why Is a Dump for Hurricane Harvey Debris Next to an African American Community?

By Julie Dermansky • Thursday, October 19, 2017 - 18:22

Read time: 10 mins



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Tami Thomas-Pinkney's house in Port Arthur, Texas, was not damaged when Hurricane Harvey soaked the city with up to 28 inches of rain on August 29. But now, a month and a half after the storm, she is preparing to move. Across the street from her family's home is a temporary dumpsite for storm debris, which she says is endangering her family's health and making her home unlivable.

Countless trucks haul the debris —ruined building material ripped from storm-damaged homes and household belongings previously submerged in floodwater but now covered with mold — past her house. Each day they rattle down the streets around Thomas-Pinkney, dumping their loads about a hundred feet from her front porch.

Environmental Justice

- Fair treatment means no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies.

Cultural Competency

- *Cultural competence* is the ability to effectively interact with people from cultures different from one's own, especially through a knowledge and appreciation of cultural differences.

**Concept Paper: Importance of Cultural Competency
in Disaster Management**

Prepared by John C. Scott, MS
Center for Public Service Communications

Purpose: To provide input to the National Project Advisory Committee (NPAC), for the design and definition of curriculum modules on culturally competent care for disaster preparedness and crisis response based on the corresponding subset of National Standards for Culturally and Linguistically Appropriate Services in Health Care (CLAS) standards.

This was a commissioned "concept paper" for the November 2007 Consensus Building Meeting for the Cultural Competence for Disaster Preparedness and Crisis Response (CCDPCR) project. Funding for the paper and the CCDPCR project was provided by the Office of Minority Health, Office of Public Health and Sciences, U.S. Department of Health and Human Services.

Cultural Competency In Disaster Recovery

- Because a disproportionate number of individuals and families on the lower socioeconomic scale are minority and poor and, largely because of their socioeconomic status, often live in physically isolated and vulnerable areas with poor access to communications, transportation and other public infrastructure, crafting and delivering life-saving information is more difficult.

Recommendations

- Partner with community organizations through which messages can be most effectively delivered in appropriate cultural and linguistic contexts.
 - Community based organizations (CBOs) such as the United Way agencies
 - Faith-based organizations

Recommendations

- Work with the media (newspaper, radio, and television) to develop culturally appropriate disaster preparedness and response messages.



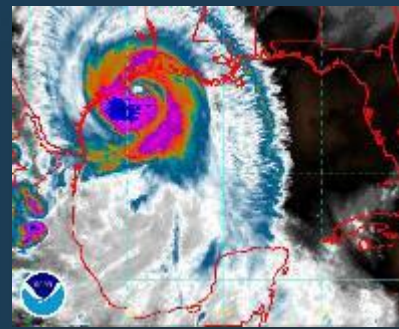
Recommendations

- Consider the local business community (and ethnic businesses, in particular) as a valuable resource with financial, technological, and logistical capabilities.



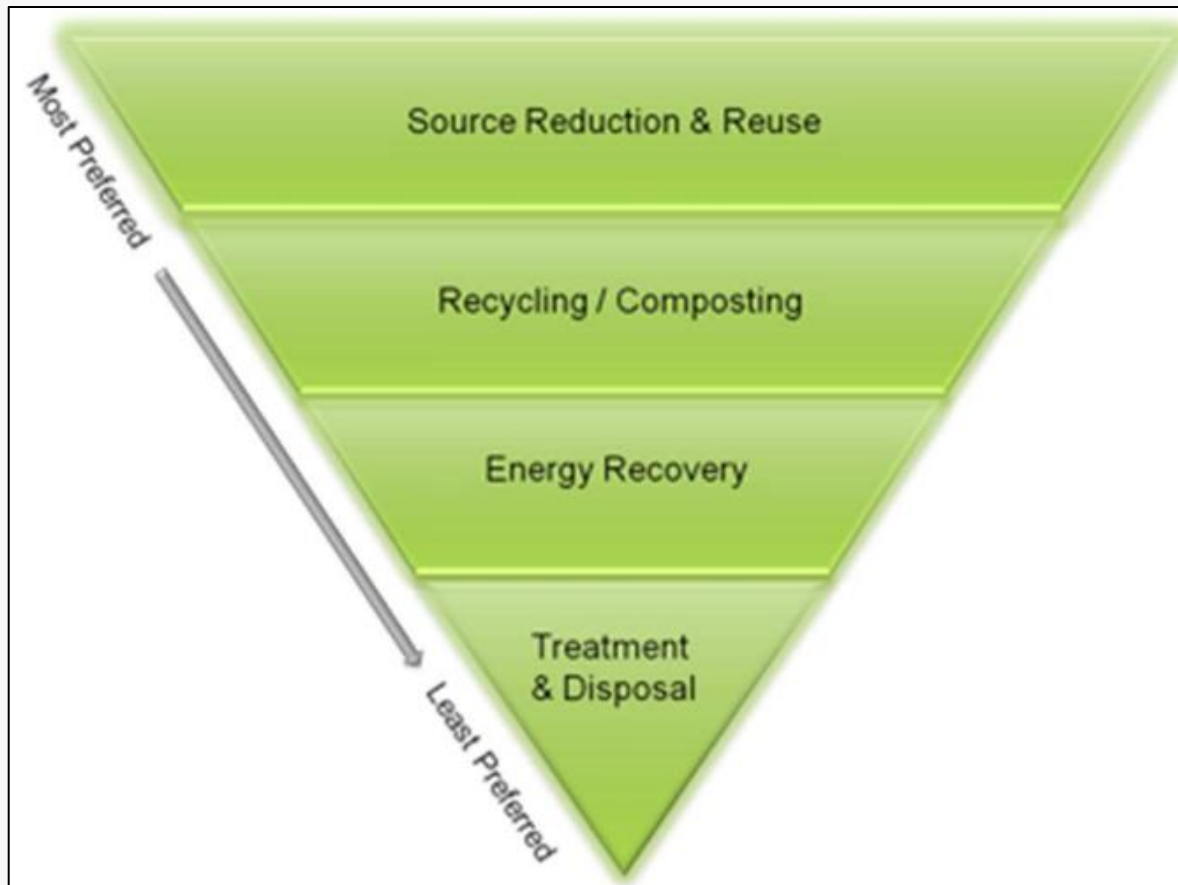
Recommendations for Access and Functional Needs Populations

- Be prepared to disseminate information to all audiences, including those with disabilities, access and functional needs, or language requirements.
- Have materials translated into common non-English area languages. Utilize other formats such as Braille, large print, audio, etc.
- Establish contacts to translate emergency information.
- Coordinate with local media resources to reach specific audiences.



Part 3: Diversion from Landfills

Debris Management Hierarchy



Planning for Natural Disaster Debris, EPA, April 2019

Reduction via Air-Curtain Incineration

- Reduces the volume by approximately 95 percent, leaving only ash residue for disposal



Reduction via Chipping/Grinding



- Reduces the volume by approximately 75 percent.



Reduction Via Compaction

- Reduces the volume by approximately 50 percent.



Reuse and Recycling

- **Metals:** Most metal debris is suitable for recycling.
- **Soil:** Can be sold, recycled back into the agricultural community or used as landfill cover.
- **Concrete, Asphalt, and Masonry Debris:** Can be crushed and reused as base material for certain road construction products or as a trench backfill. Decorative bricks might be reused as is.

Diverting Debris from Landfills

- Examine hazards, debris types, and amounts
- Develop a resource list for recycling or reuse of debris.
- Involve landfill operators in planning
- Involve recyclers in planning
- Include solid waste contractors in planning



Resources to Consider in Landfill Diversion

- Reduction
 - Air curtain incineration
 - Grinding
- Reuse opportunities
- Metal recyclers
- Electronic waste recyclers
- Compost facilities
- Mulching companies
- Waste to energy combustion facilities



Case Study

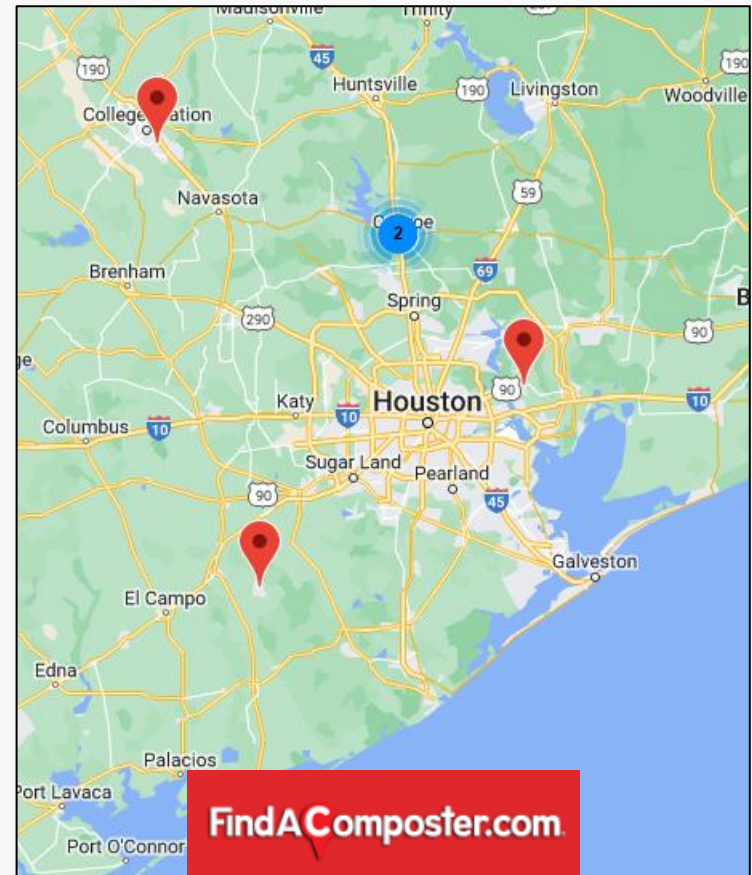
- Los Angeles, CA Northridge Earthquake 1994
- 114,000 structure were damaged
- 50 structural fires
- 72 deaths
- 1.5 million tons of debris collected
- City was able to recycle approximately 56% of the debris

Composting

- The natural process of recycling organic matter into a valuable fertilizer that can enrich soil and plants.
 - Clean vegetative waste
 - Animal carcasses
 - Food waste
 - Leaves

Findacomposter.com

- Provides the public with information on composting operations in the United States and Canada.



Energy Recovery

- A waste-to-energy facility converts waste materials into usable heat, electricity, or fuel through combustion.
- Typical non-hazardous waste-to-energy facilities can handle many types of debris, including:
 - Vegetative debris
 - C&D debris, furniture and other home contents
 - Putrescible wastes.

Energy Recovery Case Study

- American Biorefining, an alternative power company, salvaged millions of tons of trees, branches, and other vegetative debris left behind by Hurricane Rita. The vegetative debris was processed for use as biomass fuel and shipped to several European countries for use in power generation.

Energy Recovery

- The Energy Recovery Council can provide additional information and assistance locating waste-to-energy facilities.
- <http://energyrecoverycouncil.org>



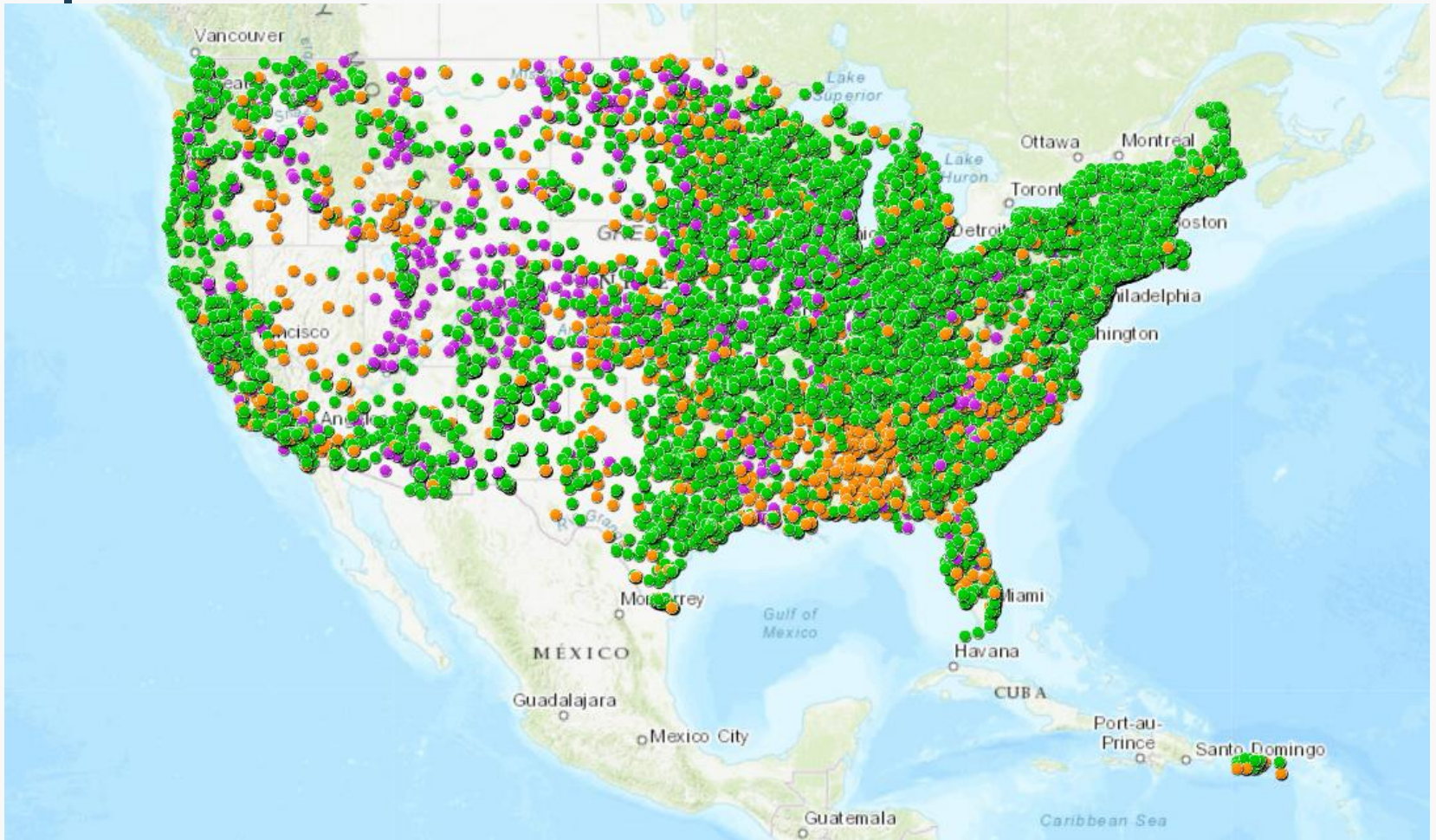
EPA Disaster Debris Recovery Tool

Disaster Debris Recovery Tool

- The Disaster Debris Recovery Tool is an interactive tool of 12 types of recovery facilities, recyclers and landfills that manage disaster debris.
- The tool can be used to help facilitate the safe recovery, recycling and disposal of disaster debris.
- www.epa.gov/debris-recovery-map



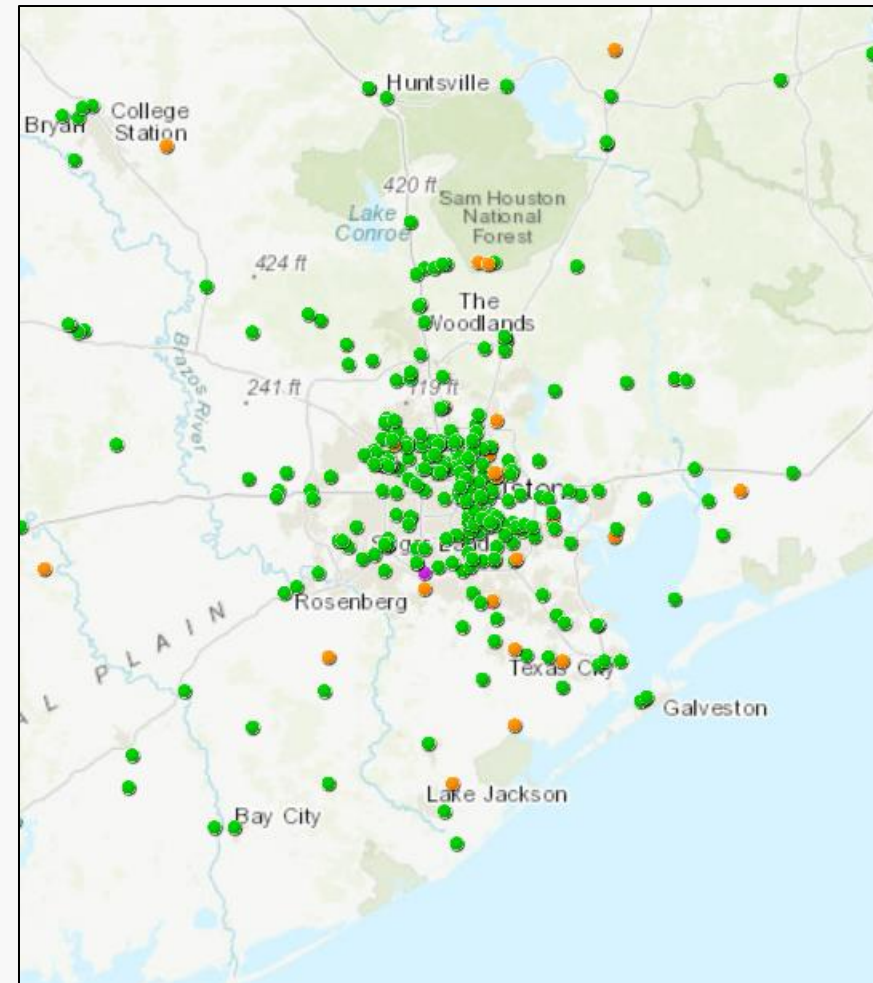
Disaster Debris Recovery Tool National Map



Disaster Debris Recovery Tool

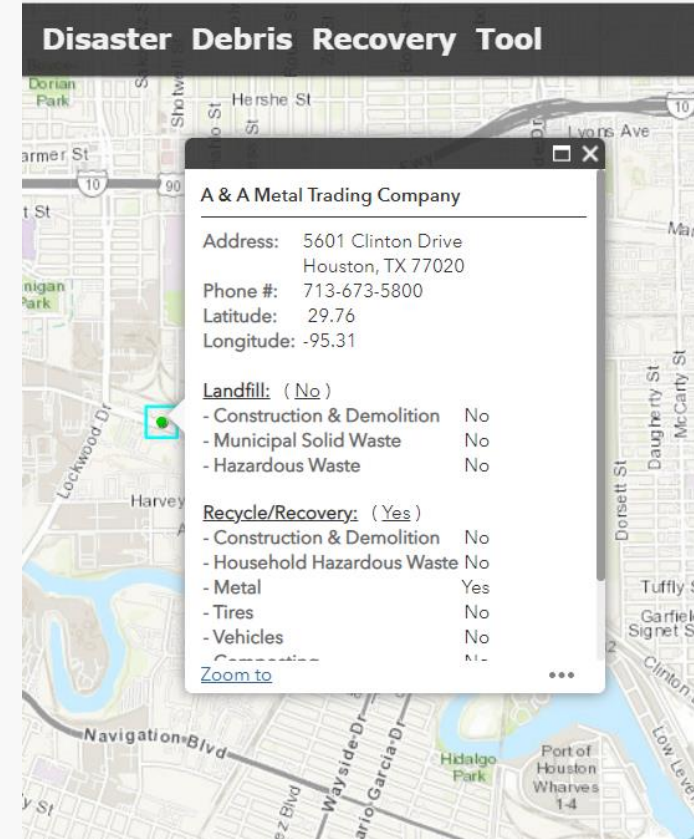
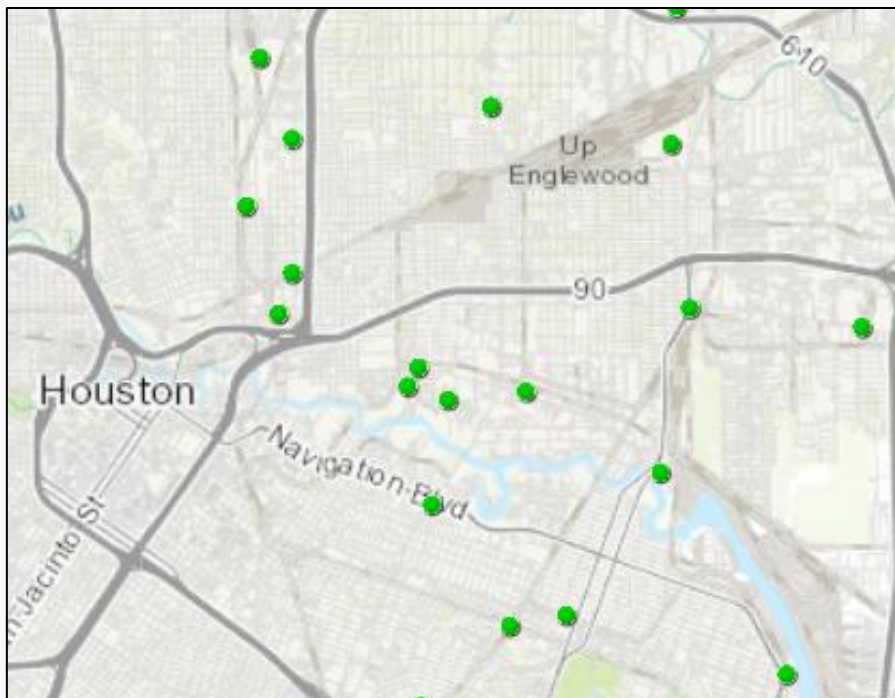
Southeast Texas Map

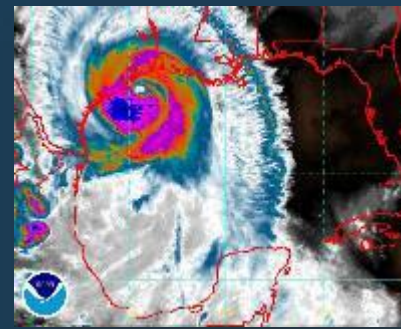
- Green = Recovery facilities (Recyclers, composters, transfer facilities, demolition companies)
- Orange = Landfills
- Purple = Facilities that offer both landfill and recovery services.



Disaster Debris Recovery Tool

- Zoom in and click on a dot to get details.
- Search by category, location, or shape.





Part 4: Private Property Debris Removal (PPDR)



Responsibility for PPDR

- Debris removal from private property is typically the responsibility of the property owner and is usually ineligible under the PA Program.



PPDR Funding Under the Public Assistance Program

- In limited circumstances, based on the severity of the impact of an incident and whether debris on private property is so widespread that it **threatens public health and safety or the economic recovery of the community**, FEMA may determine that debris removal from private property is eligible for funding under the PA Program.

Eligibility of PPDR Operations

- For PPDR to be eligible for reimbursement, the County must demonstrate that PPDR is in the public interest.
- It cannot merely benefit an individual or a limited group of individuals.
- The County must show that the private property debris is so widespread that it threatens public health and safety or the economic recovery of the community.

Requesting Properties for Inclusion in PPDR

Private Property Debris Removal

- Jurisdictions must provide a written request to the FEMA Federal Coordinating Officer.
 - Immediate threat determination
 - Documentation of legal responsibility
 - Indemnify the Federal Government



Documentation Requirements

PPDR Documentation

- Documentation must include:
 - Right of Entry (ROE)/Hold Harmless Agreement (HHA)
 - Photos
 - Private property debris removal assessment
 - Documentation of environmental and historical review

Right of Entry

- A Right of Entry (ROE) Form must be signed by the property owner to participate in a private property debris removal program. The form does the following:
 - Provides consent for debris removal teams to access the property to remove debris.
 - Indemnifies and holds harmless the local jurisdiction, contractors, and Federal government for any damage to the property.
 - Requires the property owner to assign any debris and hazard tree removal insurance proceeds to the Government to avoid a duplication of benefits.

Right of Entry Form Completion

- The jurisdiction must coordinate with property owners in affected areas to sign the ROE and verify insurance information.

ROE No.	PRIVATE CONTRACTOR/FORCE ACCOUNT DEBRIS REMOVAL
Property Address:	Florida 20 ____ (year) Address: _____
Homeowners Association Name:	PID/Tax ID: Federal/Florida/Tribal Landmark [Y/N]: _____

**RIGHT OF ENTRY ONTO PRIVATE PROPERTY FOR DEBRIS REMOVAL
DISASTER ASSISTANCE (FEMA-DR- _____)**

Ownership Interest and Grant of Right of Entry for Debris Removal Activities

The Property is owned by: _____ ("Owner")

The undersigned hereby certifies they/he/she are/is (check):
 _____ The Owner or
 _____ The authorized agent of the Owner or the Homeowner's Association ("Agent"). (Must provide documentation confirming authorization)

The Owner/agent authorizes Sarasota County, the State of Florida, and the United States of America, their respective agents, successors and assigns, contractors and subcontractors (collectively, the "Governments/Contractors") to have the right of access and to enter the private property roadway above specified for purposes of performing debris removal as it is a public health and safety threat to the general public resulting from the declared major disaster identified above.

Government Not Obligated: No Expense Except For Insurance Proceeds

The Owner/agent understands that this Right-of-Entry does not obligate the Governments/Contractors to perform debris removal. Governments/Contractors will access the property under this ROE if the work has been determined necessary in accordance with federal, state, or local regulations. The Owner will not be charged for the work conducted by Governments/Contractors. However, if the Owner receives insurance proceeds or compensation from other sources for debris removal or demolition, the Owner's obligation is set out in the section below, entitled "Avoidance of Duplication of Benefits....."

Government Indemnified and Held Harmless

The Owner/agent agrees to indemnify and hold harmless the Governments/Contractors for any damage of any type whatsoever to the Property or to personal property and fixtures situated thereon, or for bodily injury or death to persons on the property, and hereby releases, discharges and waives any and all actions, either legal or equitable, which the Owner has, or ever may have, by reason of any action taken by Governments/Contractors to remove debris.

Avoidance of Duplication of Benefits: Reporting Debris Removal Money Received

Owner/agent has an obligation to file an insurance claim if coverage is available. Owner/agent understands and acknowledges that receipt of compensation or reimbursement for performance of the aforementioned activities from any source, including the Small Business Administration, private insurance, an individual and family grant program or any other public or private assistance program could constitute a duplication of benefits prohibited by federal law. If the Owner/agent receives any compensation from any source for debris removal on this Property, the Owner/agent will report it to Sarasota County at (941) 861-5000.

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Thank You!