

# ***DEBRIS MANAGEMENT PLANNING***



**Presenter: Freddie Gardner  
GOHSEP Debris Manager**

## Debris Management Plan

- Plan must first be formally adopted by the applicant.
- Applicant may submit formally adopted plan to FEMA through GOHSEP for approval prior to disaster or once disaster is declared.
- FEMA plan approval is based on FEMA Debris Management Plan checklist.

## Pre-qualification Of Contractors

- Applicant must have pre-qualified 2 or more debris contractors before the disaster declaration.
- Pre-qualification involves identifying and evaluating contractor's abilities to perform debris work and whether they meet applicant's existing procurement requirements (equipment, labor, etc.).

# What Is A Debris Management Plan?



- Written document establishing procedures and guidelines for managing disaster debris in a coordinated, environmentally-responsible, and cost-effective manner.
- “GROCERY LIST”

# Importance Of A Debris Management Plan

- WHO, WHAT, WHERE, WHEN, HOW
- To facilitate response and emergency activities.
- To return the community to normalcy quickly.
- To reduce impacts to humans and the environment.
- To ensure effective use of resources.
- To control and minimize costs.

## Components Of A Comprehensive Debris Management Plan:

1. Established debris management structure.
2. Good assessment of the situation and assumptions.
3. Well-defined debris collection strategy.
4. Identification of debris management sites.
5. Procedures for contracted services.
6. Process for demolition and debris removal from private property.
7. Process for disseminating information
8. Health and safety measures.



# Debris Management Plan Checklist

1. Does the plan address health and safety procedures in accordance with State/Local health safety standards/requirements?
2. Does the plan identify procedures for acquiring required regulatory permits?
3. Does the plan address the basis for planning which include assumptions for various events and forecasting/modeling for debris volumes?
4. Does the plan include priorities for the clearance, collection, and disposal of debris?
5. Does the plan address recycling?
6. Is there a process for the collection and disposal of hazardous waste and/or white goods?
7. Does the plan address debris monitoring of the pickup sites, Debris Management Sites (DMS) or Temporary Debris Storage and Reduction Sites (TDSR) and final disposal?
8. Does the plan outline the roles and responsibilities of the various functions identified (Public works, Finance, Solid Waste etc.)?

# Debris Management Plan Checklist

9. Does the plan identify DMS or TDSR's and potential landfills for final disposal to include operation and site management procedures and staffing?
10. Does the plan address the environmental requirements?
11. Does the plan address contracting/procurement procedures?
12. Does the plan address the authority and processes for private property debris removal?
13. Does the Plan address the dissemination of information to the general public and media?

## LIST OF PRE-QUALIFIED CONTRACTORS

1. Does the applicant have a list of pre-qualified contractors?
2. Does the applicant have documentation demonstrating how the list was obtained?

# Debris Management Structure

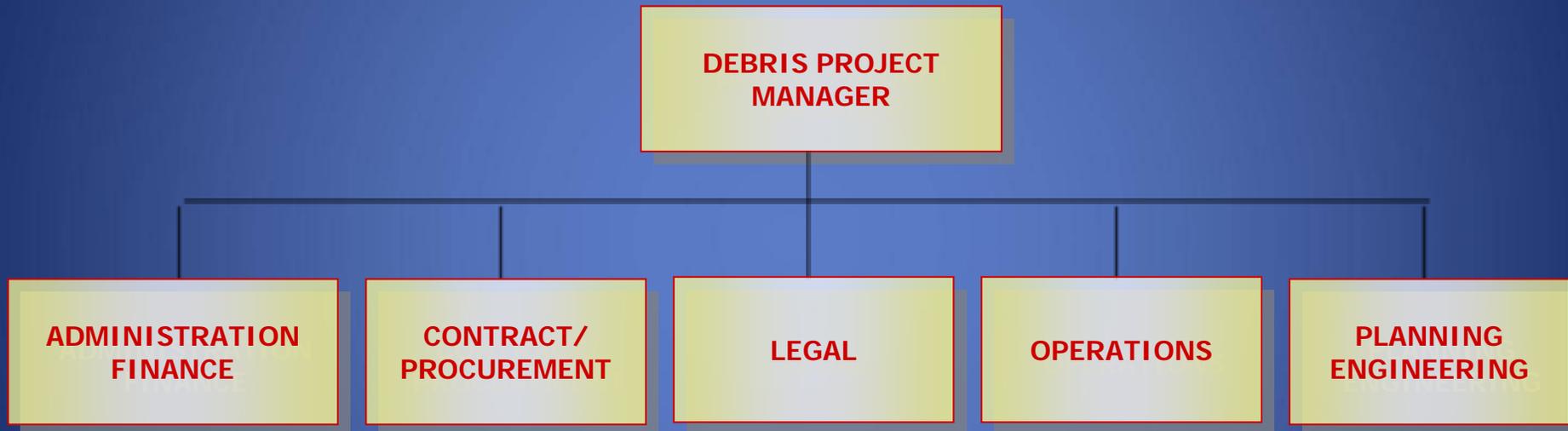
## Debris Management Team



- Facilitates successful coordination following a disaster event.
- Includes personnel within the Local government and representatives from external agencies.

# *Debris Management Structure*

## Debris Management Team Functions





# Assessment of Risks and Assumptions



# *Risks and Assumptions Assessment*

## What Are You Planning For?



The quantity and type of debris generated from any particular disaster will be a function of:

- Type of event.
- Magnitude, duration, intensity.
- Location.

# *Risks and Assumptions Assessment*

## **Design Disaster Event**



What is the likely size and extent of a potential disaster?

- Typically based on historical data.
- Consider all potential scenarios.



# Risks and Assumptions Assessment

## Composition Of Disaster Debris

➤ Disasters generate a variety of different types of debris:

Types of Disasters	Typical Debris Streams									
	Vegetative	Construction & Demolition (C&D)	Personal Property/ Household Items	Hazardous Waste	Household Hazardous Waste (HHW)	White Goods	Soil, Mud and Sand	Vehicles and Vessels	Putrescent	
Hurricanes/Typhoons	X	X	X	X	X	X	X	X	X	
Tsunamis	X	X	X	X	X	X	X	X	X	
Tornadoes	X	X	X	X	X	X		X	X	
Floods	X	X	X	X	X	X	X	X	X	
Earthquakes		X	X	X	X	X	X			
Wildfires	X		X		X	X	X			
Ice Storms	X			X						

# *Risks and Assumptions Assessment*

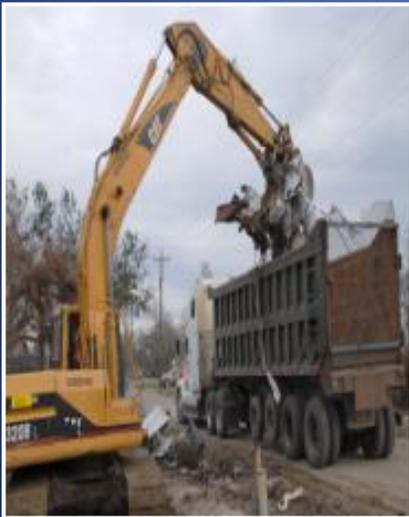
## **Forecasting Methods**

- After the disaster parameters and geographic extent are established, debris can be quantified based on:
  - Historical data.
  - Neighboring/similar jurisdictions.
  - US Army Corps of Engineers modeling.

# *Why do you need to develop Risks and Assumptions Assessment*

## **Resource Inventory/Needs Assessment**

➤ Can existing resources meet anticipated debris removal needs? If not, how will they be met?



- Force account labor/temp labor.
- CONTRACT (Removal/Management & Monitoring)
- Mutual aid.
- Volunteers.
- Subject matter experts/technical advisors.
- Applicant-owned equipment.
- Recycling/disposal capacity.
- Local and regional resources.



# Debris Collection Strategy





# *Debris Collection Strategy*

## **What Is A Debris Collection Strategy?**

- A debris collection strategy establishes a systematic approach for the efficient removal of debris so that the community can be restored to normalcy quickly.
- Simply, how are you going to get this “stuff” removed and disposed of and get everyone and everything back to normal as quick as possible.

# *Debris Collection Strategy*

## **Debris Removal Priorities**

The debris collection strategy should establish collection priorities based on response and recovery needs.

### *Response*

- It is important to first list and map locations of critical facilities and shelters.
- Remove debris obstructing access to emergency/critical facilities and posing an immediate threat to the public health and safety.

# *Debris Collection Strategy*

## **Debris Removal Priorities**

### *Recovery*

- Remove debris from residential neighborhoods and public areas.
- Performed after response priorities have been completed.

# *Debris Collection Strategy*

## Methods of Debris Collection (Cont'd)



### *White Goods & E-Waste*

- Residents set materials out at the curb for collection.
- Residents drop off at designated waste collection site.

# *Debris Collection Strategy*

## **Recycling Disaster Debris**

Is recycling disaster debris feasible?

- If so, what types of disaster debris could be recycled or reused?
- What is the ease of collecting and taking debris to recycling facilities or debris management sites?
- What are the end-use specifications?
  - Mulch (agricultural/horticultural).
  - Aggregate.
  - Energy generation.



# Landfill, Recycling & Debris Management Sites



# *Debris Management Sites/Landfills*



- The Debris Management Plan should identify where the disaster debris will be placed, both on a temporary and final basis.
- Document where the debris came from and where it was taken either temporarily and/or permanently

# *Debris Management Sites/Landfills*

## Site Mapping And Capacity Assessment



### *Landfills*

- Hazardous waste.
- Inert.
- Solid waste.

### *Recycling Facilities*

- Scrap metal/plastics/glass/textiles/wood.
- Construction & demolition (C&D).
- Electronic waste (TVs, computers, etc.).
- White goods.

# *Debris Management Sites/Landfills*

## **Disaster Debris Management Site**

A temporary, permitted site to manage disaster debris. Pre-identifying sites involve evaluating:

### *Location*

- Is the potential site zoned for debris activities?
- Is the topography appropriate for the site?

### *Size*

- Is the site large enough to handle the projected debris?
- Is the site large enough for all planned debris operations?

# *Debris Management Sites/Landfills*

## Disaster Debris Management Site (Cont'd)



### *Environmental Impacts*

- What are the potential impacts to:
  - Humans?
  - Animal/plant species?

# *Debris Management Sites/Landfills*

## Debris Management Site Functions



### *Materials Separation*

- Hazardous waste.
- White goods and electronic waste.
- Recyclables (metal, wood, concrete, etc.).

### *Volume Reduction*

- Burning.
- Grinding.
- Baling (compaction).

# *Debris Management Sites/Landfills*

## Disaster Debris Management Site Closure



### *Site Closure Procedures*

- Restoration of site.
- Environmental assessment.
- Land owner acceptance.
- LDEQ Closeout of Permit and Permitted Site

# Contracted Services





# *Contracted Services*

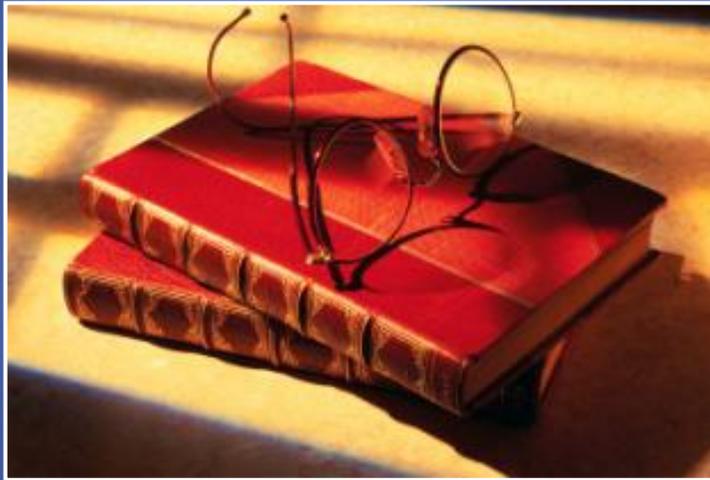
## Types Of Contracted Services



- Debris removal.
- Recycling collection.
- Constructing debris. management sites.
- Management of debris. management sites.
- Monitoring services.
- Project management.

# *Contracted Services*

## Procurement Processes And Procedures



- Must adhere to State and Local procurement laws. Also Federal laws, when applicable.
- 44 CFR Part 13

# *Contracted Services*

## **Procurement Policies And Procedures**

### *Contracting Section*

- Describe the procurement process for contractor services.
  
- Identify the criteria for selecting debris contractors:
  - Other criteria related to debris removal.
  - Contractor minimum qualification criteria such as licensing, labor, bonding, equipment, safety requirements, etc.

# *Contracted Services*

## **Monitoring Contract Requirements**

- Local governments (applicants) should have procedures for monitoring contracts and contractor work activities.
- These procedures should ensure that contractors are performing work in accordance with the contract provisions and are operating efficiently. (Applicants are responsible for this not the State or FEMA)

# *Contracted Services*

## **Monitoring Contract Requirements**

- Monitoring, by the applicant of the contractor will vary according to the type of debris removal contract.

### *Time and Materials*

- Examine contractor time, equipment and materials. (70 hours of work maximum)
- *Unit Price*
- Examine quantity and type of debris collected.

### *Lump Sum*

- Examine quantity and type of debris collected.

# *Contracted Services*

## **Monitoring Field Operations**

- Ensures debris removal contractor is performing the scope of work required by contract and the work is accurately and adequately documented:
  - Measuring and certifying truck capacities.
  - Completing and physically controlling load tickets (in monitoring towers and the field).
  - Ensuring that trucks are not artificially loaded.
  - Ensuring daily loads meet permit requirements.

# Private Property Debris Removal and Demolition



# *Private Property Debris & Demolition*

## Types Of Private Property



- Residential private properties.
- Gated communities.
- Mobile home parks.
- Marinas.
- Commercial property.

# *Private Property Debris & Demolition*

## Private Property Debris Removal



- Determine conditions under which removal of debris from private property will become necessary:
  - Immediate public health or safety threats.
  - Area-wide catastrophic damage.

# *Private Property Debris & Demolition*

## Entry Onto Private Property



➤ Determine laws that provide government legal responsibility to enter private property to remove immediate threats:

- Health and safety codes.
- Solid waste codes.
- Building and safety codes.

# *Private Property Debris & Demolition*

## Private Property Debris Removal Procedure

*Property Owner Notification*

Property owner permission

Right of entry

Hold harmless

Indemnification

Executive Order

Court Order



# *Demolition*

## Demolition Of Private Structures

- Determine conditions/criteria under which Local government may condemn and demolish private structures:

### *Conditions*

- Immediate public health or safety threats.

### *Criteria*

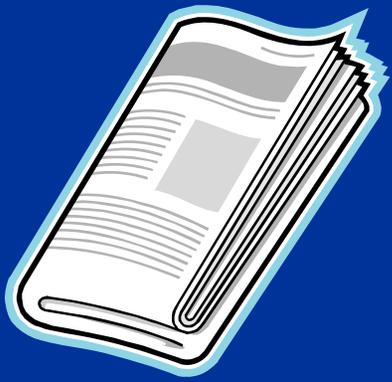
- Public health and safety codes, building codes, fire codes, etc.

# *Demolition*

## Demolition Procedure



- Define the procedure required by law to demolish structures.
- Condemnation process.
- Cost recovery from property owner.



# Public Information





# *Public Information*

## **Public Information Strategy**

- Identify a public information officer.
- Prepare information to be distributed.
- Establish procedures to distribute the information.
- Identify procedures to update, correct, revise and redistribute information as operations progress.
- Establish a venue to address all concerns, questions, and complaints.



# Health & Safety



# *Health & Safety*

## Objectives Of Health & Safety Strategy

- Establish minimum safety standards for Local government and contractor personnel to:
  - Avoid accidents during debris recovery operations.
  - Protect workers from exposure to hazardous materials.

# *Health & Safety*

## **Debris Operation Hazards**

- Unique safety hazards associated with debris operations, include:
  - Flying debris from tub grinders at debris management sites.
  - Unstable debris monitoring towers.
  - Lack of coordinated traffic control.
  - Uncovered loads while hauling debris.
  - Overloaded trucks on hauling routes.



# Development of Debris Management Plan



# *Plan Development*

## **Plan Development Issues To Consider**

### *Who Needs To Be Involved?*

- Local Government.
- Regional Authorities.
- Federal/State/County Agencies.

# *Plan Development*

## **Plan Development Issues To Consider**

### *Additional Resources:*

- Other departments and in-house debris removal specialists.
- Other jurisdictions/Local governments.
- FEMA/State emergency management agencies.
- Regional/State/Federal authorities or agencies (Coast Guard, USACE, FHWA, etc.).
- Utilities.
- Contractors.

## *Plan Development*

### **Suggested Sections For The Debris Management Plan**

1. Mission Statement.
2. Citations of Legal Authority.
3. Staff Roles and Responsibilities.
4. Assessment of Risks and Assumptions.
5. Debris Collection Strategy.
6. Landfill, Recycling, Debris Management Sites.

## *Plan Development*

### **Suggested Sections For The Debris Management Plan (Cont'd)**

7. Force Account Resources/ Contracted Services.
8. Private Property Debris Removal and Demolition.
9. Public Information Strategy.
10. Health and Safety Strategy.
11. Training and Exercise.
12. Plan Maintenance.
13. Appendices.



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# *DEBRIS CONTRACTING OPERATIONAL ASPECT*

Presenter: Freddie Gardner  
GOHSEP Debris Manager



## *Eligible for Reimbursement*

- ✓ Contracts for Debris Removal must meet rules for Federal Grants, as provided for in 44CFR Part 13.36 Procurement
- ✓ [http://www.access.gpo.gov/nara/cfr/waisidx\\_04/44cfr13\\_04.html](http://www.access.gpo.gov/nara/cfr/waisidx_04/44cfr13_04.html)
- ✓ Public assistance applicants should comply with their own procurement procedures in accordance with applicable State and local laws and regulations, provided that they conform to applicable Federal laws and standards identified in Part 13.



*Do you think you a need a contractor to clean up this mess?*





## ***CONTRACTING PROCESS CHECKLIST***

- ✓ Use competitive bidding procedures.
- ✓ Provide a clear and definitive scope of work and monitoring requirements in the request for proposals/bids. Use acceptable emergency contracting procedures that include an expedited competitive bid process only if time does not allow for more stringent procedures.



## ***CONTRACTING PROCESS CHECKLIST***

- ✓ Require bidders to provide copies of references, licenses, financial records, and proof of insurance and bonding
- ✓ Obtain review from your legal representative of your procurement process and any contract to be awarded to ensure they are in compliance with all Federal, State and local requirements.



## ***CONTRACTING PROCESS CHECKLIST***

- ✓ Document procedures used to obtain/award contracts (procurement information, bid requests and tabulations, etc.)
- ✓ Use load ticket requirement to record with specificity (e.g., street address) where debris is picked up and the amount picked up, hauled, reduced and disposed of.
- ✓ **FEMA will, when requested by applicants, assist in the review of debris removal contracts. However, such a review does not constitute approval.**



## *CONTRACTING PROCESS CHECKLIST*

- ✓ THERE DOES NOT EXIST A FEMA APPROVED CONTRACT FOR DEBRIS REMOVAL.

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## *CONTRACT PROVISIONS CHECKLIST*

*All contracts must contain/reflect the following provisions*

- ✓ All Payment provisions must be based on unit prices.
- ✓ No payments may be based on time and material (T&M) costs unless limited to work performed during the first 70 hours of actual work following a disaster event.



## *CONTRACT PROVISIONS CHECKLIST*

- ✓ That payment will be made only for debris that FEMA determines eligible, referencing FEMA regulations and Public Assistance guides and Fact Sheets.
- ✓ An invoice provision requiring contractors to submit invoices regularly and for no more than 30-day periods.



## *CONTRACT PROVISIONS CHECKLIST*

- ✓ A “Termination for Convenience” clause allowing contract termination at any time for any reason.
- ✓ A reasonable limit on the period of performance for the work to be done.
- ✓ A subcontract plan including a clear description of the percentage of the work the contractor may subcontract out and limiting use of subcontractors to only those you approve.



## *CONTRACT PROVISIONS CHECKLIST*

- ✓ The preference that the contractor use mechanical equipment to load and reasonably compact debris into the trucks and trailers.
- ✓ The requirement that the contractor provide a safe working environment, including properly constructed monitoring towers



## *CONTRACT PROVISIONS CHECKLIST*

- ✓ Option of a unit price for extracting from ground and removing FEMA-eligible stumps (only for stumps with diameters larger than 24" measured 24" above the ground, and with 50% or more of the root ball exposed) or including all, FEMA eligible, stumps in the unit price (lump sum).



## *CONTRACT PROVISIONS CHECKLIST*

- ✓ Requirement that all contract amendments and modifications be in writing.
- ✓ Requirement that contractor obtain adequate payment and performance bonds and insurance.



## *Pre-Disaster and Stand By Contracts Checklist*

- ✓ It is recommended that you pre-qualify contractors prior to an event and solicit bid prices from this list of contractors once an event has occurred.
- ✓ The solicitation for pre-qualifying contractors must adequately define in the proposed scope of work all of the potential types of debris, typical haul distances, and size of events for which a contract may be activated.



## *Pre-Disaster and Stand By Contracts Checklist*

- ✓ To ensure reasonable debris removal costs, award debris removal contracts based on unit prices (volume or weight)
- ✓ If the contract is awarded on a time and material basis, it should be limited to no more than 70 hours of actual clearance and removal operations.



## *Pre-Disaster and Stand By Contracts Checklist*

- ✓ After the initial 70 hour period, payment should be on a unit price basis (volume or weight)





## *DO NOT DO LIST FOR DEBRIS CONTRACTS*

- ✓ **DO NOT** Award a debris removal contract on a sole source basis.
- ✓ **DO NOT** Sign a contract (including one provided by a contractor) until it has been thoroughly reviewed by your legal representative.
- ✓ **DO NOT** Allow any contractor to make eligibility determinations, since only FEMA has that authority.



## *DO NOT DO LIST FOR DEBRIS CONTRACTS*

- ✓ **DO NOT** Accept any contractor's claim that it is "FEMA Certified." FEMA does not certify, credential, or recommend debris contractors.
- ✓ **DO NOT** Award a contract to develop and manage debris processing sites unless you know it is necessary, and have contacted the State for technical assistance concerning the need for such operations. Temporary debris storage and reduction sites are not always necessary.



## *DO NOT DO LIST FOR DEBRIS CONTRACTS*

- ✓ **DO NOT** Allow separate line item payment for stumps 24” and smaller in diameter, these should be treated as normal debris.
- ✓ **DO NOT** “Piggyback” or utilize a contract awarded by another entity . Piggybacking may be legal under applicable state law: however, the use of such a contract may jeopardize FEMA funding.



## *DO NOT DO LIST FOR DEBRIS CONTRACTS*

- ✓ **DO NOT** Award pre-disaster/stand-by contracts with mobilization costs or unit costs that are significantly higher than what they would be if the contract were awarded post-disaster. Such contracts should have variable mobilization costs depending upon the size of the debris work that may be encountered.



## *LESSONS LEARNED*

- ✓ The contract is between you and the contractor. The contractor works for you not the other way around.
- ✓ Negotiating prices after award should be based on your rules, regulations etc.
- ✓ Know what you want, get what you need.
- ✓ Develop a standard set of criteria to award a debris contract.
- ✓ ASK FOR HELP





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# *RULES, REGULATIONS AND RESPONSIBILITIES*

Things you should know before  
you start planning for a debris  
operation.



## DEQ

### Debris Management Plan

#### Comprehensive Plan for Disaster Clean-Up and Debris Management

- ✓ <http://www.deq.louisiana.gov/portal/portals/0/news/pdf/DEQDebrisPlan-8-25-FINAL.pdf>
- ✓ SB 583 Act 662 (R.S. 30:2413.1)  
2006 Regular Session



225

Johnson

OceanRunner



## *What is a DMS ?*

- ✓ Debris Management Site-is a location that has been identified by the local government and evaluated and approved by LDEQ for the purposes of staging, reduction or final disposal of disaster generated debris.
- ✓ Locate by address as well as GPS coordinates.



## *DMS*

- ✓ Site approval: Emergency Disaster Cleanup Site Request Form

<http://www.deq.louisiana.gov/portal/tabid/259/default.aspx>

Site Closure: When all debris operations are completed at this site contact LDEQ for a site closure and permit closure.

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### Emergency Disaster Cleanup Temporary Site Request

Valid for Calendar Year 2008

Government Entity (Parish, City, or Town) \_\_\_\_\_

Mailing Address \_\_\_\_\_

City, State, ZIP \_\_\_\_\_

Telephone \_\_\_\_\_ FAX \_\_\_\_\_

Contact Person \_\_\_\_\_

Type of Activity:

Staging

Chipping & Grinding Area

Burn Area

Pre-Approved C&D Area

Other \_\_\_\_\_

Requested Time Span for Activities \_\_\_\_\_

Proposed Hours of Operation: \_\_\_\_\_

Location of Site (Latitude, Longitude) \_\_\_\_\_

Physical Location (Street, Highway, etc.) \_\_\_\_\_

Owner of Property \_\_\_\_\_

Environmental Characteristics of Location \_\_\_\_\_

\_\_\_\_\_  
*Signature-Authorized  
Parish or City Official*

\_\_\_\_\_  
*Telephone Number*

\_\_\_\_\_  
*Date*

**Please Note: Approval must be obtained from the affected property owner prior to commencement of operation.**

Provide a quad map delineating the area to be utilized as the site. **Mail** or **Fax** this completed form and map to:

Robert Thomas  
Louisiana Department of Environmental Quality  
P.O. Box 4313  
Baton Rouge, LA 70821-4313  
FAX: 225-219-3138 Questions: 225-219-3070



## *Disposal of Vegetative Debris*

Senate Bill 583 Act No. 662

Regular Session 2006

R.S. 30:2413.1.C



**Of the total green and woody debris intended for final disposal in a landfill, fifty percent shall be reduced by weight and fifty percent by volume prior to transport to a landfill. Green and woody debris may be used in coastal restoration projects, as compost, or as fuel. Green and woody debris shall not be disposed of in a landfill as the first option; however, such debris may be used as a component of the cover system for a landfill or means for providing erosion control**

## **50/50 Rule**





## *Authorities of Other Agencies*

### **United States Department of Agriculture**

NRCS-National Resources Conservation Service –  
Dept. of Agriculture

Farm Service Agency –FSA

Animal, Plant and Health Inspection Service  
(APHIS)



## *Authorities of Other Agencies*

### ✓ Environmental Protection Agency (EPA)

Authorities related to cleaning up debris that is mixed with or contains oil or hazardous materials

Authorities related to establishing standards for proper management of debris (hazardous and non-hazardous)

FEMA may mission assign the EPA through the USACE to dispose of household hazardous waste following a major disaster declaration from the President.



## *Authorities of Other Agencies*

- ✓ FHWA-Federal Highway Administration  
DOTD Roads, Rights of Ways, Bridges  
Emergency Relief Program from FHWA.  
ER program reimburses **DOTD** at 100%  
for the first 180 days following an event  
that qualifies and is approved for the ER  
program.



## *Simple Rules to Follow*

Simple steps to help in getting reimbursed by FEMA for Debris Operations.

1. What did you do? (Push/Haul)
2. Who did it? (Contract/Force Account)
3. What did the work cost?
4. Quantify the work (How much debris did you do what with)
5. What did you do with the debris? (Final resting place is necessary for the completion of the debris life)
6. Remember to follow all Federal, State local laws, codes, regulations and requirements.





## QUESTIONS/COMMENTS

The quote of the year “They don’t know what they don’t know”.

Freddie Gardner

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I’m from the government and I am here to help.....

