

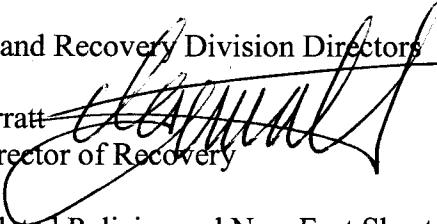


**FEMA**

**MAY 2 2006**

MEMORANDUM FOR: FEMA Regional Directors  
FEMA Acting Regional Directors  
Regions I - X

ATTENTION: Response and Recovery Division Directors

FROM: David Garratt   
Acting Director of Recovery

SUBJECT: Debris Related Policies and New Fact Sheet

The attached documents provide clarification on the eligibility criteria for removing eligible hazardous stumps from public property and for hand-loaded debris. Also attached is a fact sheet that provides guidance on debris contracting practices to applicants.

- Eligibility of Hazardous Stump Extraction and Removal, Recovery Policy #9523.11
- Debris Operations – Hand Loaded Trucks and Trailers, Recovery Policy #9523.12
- Fact Sheet – Debris Removal – Applicant’s Contracting Checklist

If you have any questions regarding these policies or guidance, please contact Steve Miller, Public Assistance Branch, at (202) 646-3246 or via email [Steven.Miller@dhs.gov](mailto:Steven.Miller@dhs.gov).

Attachments



# FEMA

## RECOVERY POLICY - RP9523.11

### I. TITLE: **Hazardous Stump Extraction and Removal Eligibility**

II. DATE: May 1, 2006

### III. PURPOSE:

Establish criteria used to reimburse applicants for removing eligible hazardous stumps from public or, where authorized, private property.

### IV. SCOPE AND AUDIENCE:

The policy is applicable to all major disasters and emergencies declared on or after the date of publication. It is intended for all personnel involved in the administration and execution of the Public Assistance Program, including applicants.

### V. AUTHORITY:

Sections 403 and 407 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121-5206, as amended.

### VI. BACKGROUND:

Public Assistance regulations authorize reimbursement for the removal of debris from public and private land when it is in the public interest. Such removal is in the public interest when it is necessary to: eliminate immediate threats to life, public health and safety, or eliminate immediate threats of significant damage to improved public or private property; or to ensure economic recovery of the affected community to the benefit of the community at large. Trees that are uprooted during a disaster event such that all or part of their roots are exposed may pose an immediate threat to public health and safety.

### VII. POLICY:

A. When a disaster event uproots a tree or stump (i.e., 50% or more of root ball is exposed) on a public right-of-way, improved public property or improved property owned by certain private nonprofit organizations, and the exposed root ball poses an immediate threat to life, public health and safety, FEMA may provide supplemental assistance to remove, transport, dispose, and provide fill for the root cavity of an eligible uprooted tree or stump. The Federal Emergency Management Agency (FEMA) will reimburse applicants reasonable costs for this type of work only when uprooted stumps are more than 24 inches in diameter (measured two



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## RECOVERY POLICY - RP9523.11

feet from the ground), with the consensus of the Applicant and the State, and is approved in advance by FEMA, using the attached Hazardous Stump Worksheet.

1. If it is necessary to remove an uprooted stump before it can be inspected by FEMA because it poses a threat that must be dealt with immediately, the applicant must submit documentation, to FEMA including photographs, that establishes its location on public property, specifics on the threat, stump diameter measured two feet up the trunk from the ground, quantity of material to fill the hole, and any special circumstances.

2. FEMA will reimburse applicants for extraction, transport and disposal of stumps with a diameter of 24 inches or smaller at the unit cost rate for regular vegetative debris, using the attached Stump Conversion Table, as such stumps do not require special equipment.

3. FEMA will reimburse applicants at the unit cost rate (usually cubic yards) for normal debris removal for all stumps, regardless of size, placed on the rights-of-way by others (i.e., contractors did not extract them from public property or property of eligible Private Non Profit organization). In such instances, applicants do not incur additional cost to remove these stumps – the same equipment is used to pick up “regular” debris can be used to pick up these stumps.

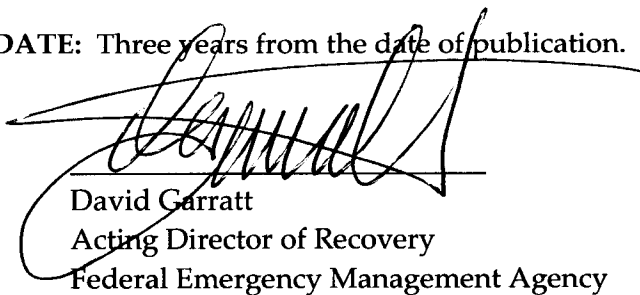
4. If an applicant incurs additional costs in picking up large stumps (over 24 inches in diameter) from rights-of-way, it should complete the Hazardous Stump Worksheet and present documentation to FEMA in advance for consideration.

5. Stumps with less than 50% of their root ball exposed should be cut flush at ground level, and the cut portion included with regular vegetative debris. Straightening or bracing of trees is not eligible for reimbursement.

VIII. ORIGINATING OFFICE: Recovery Division (Public Assistance Branch)

IX. SUPERSESSION: This Policy Directive supersedes all previous guidance on this subject.

X REVIEW DATE: Three years from the date of publication.



David Garratt  
Acting Director of Recovery  
Federal Emergency Management Agency



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## RECOVERY POLICY - RP9523.12

**I. TITLE: Debris Operations – Hand-Loaded Trucks and Trailers**

**II. DATE:** May 1, 2006

**III. PURPOSE:**

To describe the criteria the Federal Emergency Management Agency (FEMA) will use to reimburse applicants for eligible debris removal accomplished with trucks and trailers loaded physically by hand, rather than with mechanical equipment.

**IV. SCOPE AND AUDIENCE:**

The policy is applicable to all major disasters and emergencies declared on or after the date of publication. It is intended for all personnel involved in the administration and execution of the Public Assistance Program, including applicants.

**V. AUTHORITY:**

Sections 403 and 407 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121-5206, as amended.

**VI. BACKGROUND:**

A. Debris removal companies under contract with local governments have frequently supplemented their vegetative debris removal operations by hiring subcontractors who modify their trucks and trailers by extending sidewalls with plywood or other materials to increase the vehicle's load capacity. Because of the tenuous nature of these improvements, operators typically load these vehicles physically by hand. The inefficiencies associated with loading these trucks or trailers by hand, instead of using mechanical equipment, effectively negates the increased capacity advantages of these vehicles. Hand loading cannot achieve compaction levels comparable to mechanically loaded vehicles. Further, the unit cost for transporting debris is based on mechanical loading of trailers and trucks.

B. FEMA performed studies throughout the State of Florida following the four devastating hurricanes in 2004 and determined that a mechanically-loaded vehicle had a weight-to-volume ratio at least twice that of hand-loaded vehicles. In other words, vehicles of the same measured capacity that were loaded by mechanical equipment and reasonably compacted carried at least



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## RECOVERY POLICY - RP9523.12

twice the volume of debris as those loaded physically by hand. FEMA has therefore determined it is not reasonable to reimburse applicants - for hand-loaded vehicles and mechanically loaded vehicles - at the same rate.

### VII. POLICY:

A. Debris monitors located at temporary or final debris disposal sites will reduce the observed capacity of each hand-loaded truck or trailer load by 50% because of the low compaction achieved by hand-loading. For example, if a 40 cubic-yard (CY) hand-loaded truck or trailer arrives at a debris management or disposal site, and it appears to be 100 percent full, the actual quantity of debris in the truck or trailer will be recorded as 20 CY  $\{(40 \text{ CY} / 2) * 100\}$ . In the same manner, if the truck or trailer appears half full, the load will be recorded as 10 CY  $\{(40 \text{ CY} / 2) * 50\}$ . The maximum amount recorded for a hand-loaded vehicle will be 50% of its measured capacity.

B. FEMA will reimburse applicants on the basis of capacities calculated in VII-A.

VIII. ORIGINATING OFFICE: Recovery Division (Public Assistance Branch)

IX. SUPERSESSION: Not applicable.

X REVIEW DATE: Three years from the date of publication.

A handwritten signature in black ink, appearing to read "David Garratt", written over a horizontal line.

David Garratt  
Acting Director of Recovery  
Federal Emergency Management Agency

# Stump Conversion Table

## Diameter to Volume Capacity

The quantification of the cubic yards of debris for each size of stump in the following table was derived from FEMA field studies conducted throughout the State of Florida during the debris removal operations following Hurricanes Charley, Frances, Ivan and Jeanne. The following formula is used to derive cubic yards:

$$\frac{[(\text{Stump Diameter}^2 \times 0.7854) \times \text{Stump Length}] + [(\text{Root Ball Diameter}^2 \times 0.7854) \times \text{Root Ball Height}]}{46656}$$

0.7854 is one-fourth Pi and is a constant.

46656 is used to convert cubic inches to cubic yards and is a constant

The formula used to calculate the cubic yardage used the following factors, based upon findings in the field:

- Stump diameter measured two feet up from ground
- Stump diameter to root ball diameter ratio of 1:3.6
- Root ball height of 31"

Stump Diameter (Inches)	Debris Volume (Cubic Yards)	Stump Diameter (Inches)	Debris Volume (Cubic Yards)
6	0.3	46	15.2
7	0.4	47	15.8
8	0.5	48	16.5
9	0.6	49	17.2
10	0.7	50	17.9
11	0.9	51	18.6
12	1	52	19.4
13	1.2	53	20.1
14	1.4	54	20.9
15	1.6	55	21.7
16	1.8	56	22.5
17	2.1	57	23.3
18	2.3	58	24.1
19	2.6	59	24.9
20	2.9	60	25.8
21	3.2	61	26.7
22	3.5	62	27.6
23	3.8	63	28.4
24	4.1	64	29.4
25	4.5	65	30.3
26	4.8	66	31.2
27	5.2	67	32.2
28	5.6	68	33.1
29	6	69	34.1
30	6.5	70	35.1
31	6.9	71	36.1
32	7.3	72	37.2
33	7.8	73	38.2
34	8.3	74	39.2
35	8.8	75	40.3
36	9.3	76	41.4
37	9.8	77	42.5
38	10.3	78	43.6
39	10.9	79	44.7
40	11.5	80	45.9
41	12	81	47
42	12.6	82	48.2
43	13.3	83	49.4
44	13.9	84	50.6
45	14.5		





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# RECOVERY DIVISION FACT SHEET

## DEBRIS REMOVAL APPLICANT'S CONTRACTING CHECKLIST

### Overview

To be eligible for reimbursement under the Public Assistance Program, contracts for debris removal must meet rules for Federal grants, as provided for in 44 CFR 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. The following guidance is provided to assist Public Assistance applicants in the procurement process.

### Contracting Process Checklist

- Use competitive bidding procedures. Complete and document a cost analysis to demonstrate price reasonableness on any contract or contract modification where adequate price competition is lacking, as detailed in 44 CFR 13.36(f).
- 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.
- 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.
- 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.*



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# RECOVERY DIVISION FACT SHEET

## DEBRIS REMOVAL APPLICANT'S CONTRACTING CHECKLIST

### 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 costs unless limited to work performed during the first 70 hours of actual work following a disaster event.
- That payment will be made only for debris that FEMA determines eligible, referencing FEMA regulations and Public Assistance guides and fact sheets. (This is an optional provision to protect the applicant, and is used only following a major disaster declaration.)
- An invoice provision requiring contractors to submit invoices regularly and for no more than 30-day periods.
- 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.
- 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.
- Option of a unit price for extracting from ground and removing FEMA-eligible stumps (only for stumps with diameters larger than 24 inches, measured 24 inches above the ground, and with 50% or more of the root ball exposed), or including all stumps in the unit price.



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# RECOVERY DIVISION FACT SHEET

## DEBRIS REMOVAL APPLICANT'S CONTRACTING CHECKLIST

### Contract Provisions Checklist - Continued

**All contracts must contain/reflect the following provisions:**

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

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

- The solicitation for a pre-disaster contract must adequately define in the proposed scope of work all the potential types of debris, typical haul distances, and size of events for which the contract may be activated.
- You may request bids for multiple scenarios for varying sizes of events.
- To ensure reasonable debris removal costs, award pre-disaster debris removal contracts based on either unit prices (volume or weight) or time and material.
- 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.
- After the initial 70-hour period, payment should be on a unit price basis (volume or weight).



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# RECOVERY DIVISION FACT SHEET

## DEBRIS REMOVAL APPLICANT'S CONTRACTING CHECKLIST

### Avoidance Checklist

- 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:** 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:** Allow separate line item payment for stumps 24 inches 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:** 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.