

PREPARED?

Planning for a natural disaster

North Carolina Department of Environment and Natural Resources
Division of Waste Management
Solid Waste Section

Disasters strike anywhere, anytime. Is your community prepared? The Solid Waste Section of the North Carolina Division of Waste Management has developed this brochure to help you plan a disaster debris management program.

Being prepared helps divert significant amounts of valuable materials that can be recycled or reused and preserve landfill capacity.



Several first steps should be taken when establishing a debris management plan:

- STEP 1: Designate department liaisons, form a debris team and name a manager. Debris teams staffed by decision makers are more efficient.
- STEP 2: Evaluate the potential for specific disaster events. Have the debris team develop disaster specific checklists.
- STEP 3: Study existing emergency plans and procedures to see how they impact your plan.
- STEP 4: Create a contact list of local, state, and federal agencies involved in disaster debris management.

DEBRIS TEAM TASKS

Establishing the debris team with public and private upper management staff is critical to an efficient, coordinated relationship in times of crisis. This team needs to establish guidelines for these tasks:

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| <ul style="list-style-type: none"> ◆ rebuilding using recycled-content products ◆ pre-disaster assessment ◆ debris management programs ◆ emergency and disaster declaration process ◆ contracts (short and/or long term) | <ul style="list-style-type: none"> ◆ ◆ ◆ ◆ ◆ | <ul style="list-style-type: none"> building demolition program public information program curbside collection program household hazardous waste program Federal Public Assistance Program | <ul style="list-style-type: none"> ◆ mutual aid ◆ reimbursement ◆ government coordination ◆ temporary storage sites |
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Advance planning is the key to a successful disaster debris management program. When public health and safety are priorities, debris disposal and diversion programs are critical. Managing debris properly helps restore and maintain public health and safety.



STEP 1: All Temporary Debris Staging Sites Must Be Pre-Approved By The DWM, SWS (sites are approved for a six month period only)

- STEP 2: Make diversion programs a priority.
- STEP 3: Learn federal debris removal criteria and guidelines.
- STEP 4: Develop a debris removal strategy.
- STEP 5: Identify project scope.
- STEP 6: Select debris management program(s).
- STEP 7: Set program goals.
- STEP 8: Identify labor needs.
- STEP 9: Identify equipment needs.
- STEP 10: Determine operation methods.

- STEP 11: Adapt program length.
- STEP 12: Review funding options.
- STEP 13: Create public information program.
- STEP 14: Develop monitoring and enforcement program
- STEP 15: Identify program barriers.
- STEP 16: Develop a contingency plan.
- STEP 17: Pursue regional coordination.
- STEP 18: Develop diversion incentives.
- STEP 19: Create program accounting/tracking system.
- STEP 20: Develop a training program.
- STEP 21: Create records retention system and archives.
- STEP 22: Prepare summary of activities and results.
- STEP 23: SWS must conduct a final closure inspection.

Planning is only effective if written guidelines are in place. This allows a systematic, comprehensive strategy. A central notebook with detailed information should be developed and updated annually. Here are some checklists to consider including in a notebook:

- ✓ Contact lists of executive and emergency management staff with home and office numbers. Update frequently and keep confidential.

- ✓ Equipment and supply listings. Include a brief description of type of equipment, amount of available supplies, and locations of both.
- ✓ Field and regional office/facility locations. Include maps, personnel, contact data and a list of available equipment and supplies for each location.
- ✓ Lists of private sector supplies and equipment that can supplement or substitute for agency resources.
- ✓ Media lists with fill-in-the-blank press releases and background materials for a variety of crises. Include television, radio, print, media, and wire services.
- ✓ Maps, charts, and diagrams of major transportation corridors and alternative routes. Emergency vehicles and debris removal teams need fast access during emergencies.



CONTRACTS

Evaluating and awarding contracts to remove and process debris takes time you don't have in a crisis. Create sample contracts that invite bids and request services now, to reduce response time in the future. The contracts vary per emergency. Here are several options:

CONTRACT TYPE	USE WHEN
Time and Material	Short-term Contractor paid by time spent Services for first 70 hours Used immediately after a disaster for emergency life saving activities and debris clearance
Unit Price	Long-term Payment based on construction units Prices and scope of work can be increased/decreased Use beyond initial 70 hours of recovery Use when scope of work is undefined and can be quantified by actual field measures (e.g. recycle 10 tons concrete, 7 trees, etc.)
Lump Sum	Long-term Total contract price by one-item bid Use beyond initial 100 hours of recovery Use when scope of work is clearly defined and areas of work specifically quantified (e.g. demolish and recycle 1 structure for \$10,000)

SAMPLE CONTRACT LANGUAGE

Example 1: City of XYZ cleanup contract.



Notice Inviting Bids

◆ In response to the tornado of September 16, 1999, the City of XYZ has stockpiled disaster related debris at two designated sites. The North Carolina Solid Waste Management Act (G.S. 130A-309.04(c)) requires that the City of XYZ take steps to reduce the amount of waste going to landfills. Consequently, the stockpiled materials shall be diverted from landfills to the greatest extent possible.

Contractor Service Requirements

- ◆ Contractor should transport recovered material to a permitted resource recovery facility within a 40-mile radius from sites.
- ◆ Contractor shall provide all necessary equipment, materials and labor necessary to remove and recover, to the extent possible, all stockpiled disaster related debris at the sites.
- ◆ Contractor shall haul all material that is non-recoverable to a state-permitted sanitary landfill for disposal.
- ◆ Contractor shall provide the City of XYZ with documentation of the amount and type of material removed from the sites.
- ◆ 'Recover' means to utilize materials which can be used as raw materials in the manufacture of new products, or as values which can be converted into a fuel or energy source. 'Recover' may include reuse, recycling, waste-to-energy, composting, and/or other components.

Example 2: City of ABC, master contract, 1999 Hurricane Sam.



The City let a master contract for the removal, disposal, and recycling of debris. Bid specifications for the contractors to remove the debris stated that the contractor is responsible for removal and transportation of cut trees to proper recycling or recovery facilities and that the contractor must segregate metals, concrete, and other recyclables from non-recyclable debris at the site of generation.

◆ Additionally, the City provided contractors with the names of Triangle area construction and demolition waste recyclers, and required contractors to provide weekly load verification reports to prove that the materials were entering a recycling facility.

Example 3: City of LMN, building demolition, spring 1998 flood



Project Requirements

- ◆ Recycle demolition materials to the greatest extent possible without delaying the project.
- ◆ Summarize and document the amounts and types of materials directly recycled and material removed from the site on the recycling log attached to this Contract. Documentation includes receipts of materials sold, etc.
- ◆ Demolition debris not directly recycled from the site must be hauled to the recycling facility (not landfill) located at (site). The recycling facility located at (address) charges \$ xx/ton for inert material and \$ xx/ton for mixed loads.
- ◆ Identify loads to (site) as "City Demolition Debris," state the demolition site address, and pay all allocated fees. A representative from the City Solid Waste Management Office will collect copies of weight tickets from the previous day's work at the demolition site on a regular basis. Copies of weight tickets must also be turned in to the Engineer at the completion of the project.
- ◆ Note: Contractor will be assessed a non-compliance fee of \$ XXX per load for any documented mixed debris that is not delivered to the recycling center at (address). The non-compliance fee will be deducted from final payment.



REFERENCES

- ❖ California Integrated Waste Management Board- Disaster Plan, January 1997 (<http://www.calrecycle.ca.gov/Disaster/>)
- ❖ Public Assistance Debris Management Guide, FEMA, (FEMA 325) April 1999

For Federal Regulations refer to:

- ◆ The Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288 Amended. This act summarizes the process and procedures for declaration, response, and recovery during federally declared disasters.
- ◆ Code of Federal Regulations Title 44 Part 13 - Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments. These regulations describe the administrative procedures and requirements for subgrantees receiving federal funding and awarding contracts for disaster-related repairs.

Available at <http://www.fema.gov/library/stafact.htm>

- ◆ Code of Federal Regulations Title 44 Part 206-Federal Disaster Assistance for Disasters Declared on or after November 23, 1988. This regulation describes rules and requirements for Public Assistance Project Administration, applicant and work eligibility, and hazard mitigation.

- ◆ FEMA State and Local Guide (SLG) 101: Guide for All-Hazard Emergency Operations Planning (September 1996).

Available at <http://www.fema.gov/pte.gaheop.htm>



For technical assistance or information on North Carolina guidelines contact:

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