



# **BANKS COUNTY, GEORGIA**

## **DEBRIS MANAGEMENT PLAN**

2012

Table of Contents	2
References	3
Executive Summary	4
Debris Management Plan Outline	5
I. Mission	5
II. Purpose	5
III. Situation	5
IV. Assumptions	6
V. Organization and Concept of Operations	7
VI. Staff Roles and Responsibilities	9
VII. Staff Training and Tasks	10
VIII. Health and Safety	11
IX. Communications Plans	11
X. Contracting Procedures	11
XI. Permitting	13
XII. Response Operations	13
XIII. Recovery Operations	14
XIV. Debris Collection – Removal Priorities during Recovery	16
XV. Debris Collection Methods during Recovery	17
XVI. Forecasting Debris Type	18
XVII. Estimating Debris Quantity	18
XVIII. Forecasting Debris Locations	19
XIX. Debris Collection Removal Priorities	20
XX. Debris Management Sites	20
XXI. Debris Classification	24
XXII. Debris Disposal and Reduction	25
XXIII. Site Remediation & Environmental Monitoring	28
XXIV. Public Information Plan	30

## Appendices

- A. Emergency Key Points of Contacts & Information
- B. Banks County Debris Management Task Force (DMTF)
- C. Debris Estimation Charts
- D. Pre-identified TDM Sites in Banks County
- E. TDM Site Preparation Check List
- F. Existing Landfills (Servicing Banks County)
- G. Table of Pre-identified TDSR Sites
- H. Blank
- I. Blank
- J. Eligibility of Curbside Pick-Up (Job Aid)
- K. Removal of Eligible Debris from Private Property (Job Aid)
- L. Right of Entry Permit – Private Property
- M. Emergency Operation Routes
- N. Recycling Vendors Point of Contact
- O. Hazardous Waste Vendor Point of Contact
- P. FEMA Fact Sheet “Eligibility of Hazardous Stump Removal
- Q. Daily Haul Record/Load Ticket
- R. Municipality Public Works Point of Contact
- S. Public Information Office Media Contacts
- T. Pre-scripted information for public dissemination
- U. Grinding Company Vendor Point of Contact
- V. Weight Scales Service Company & Alternate Weight Scales
- W. Georgia Environmental Protection Division POC
- X. Pre-qualified Contractors (haulers)
- Y. Georgia DNR Policy on Granting Variances to Open Burn Storm Generated Debris

## **References**

FEMA 9500 Series Policy  
FEMA Debris Management Guide 325  
FEMA Public Assistance Guide 322  
FEMA Policy Digest 321  
FEMA 44 Code of Federal Regulations [(CFR) 13.36 dated 5-23-06]  
Stafford Act, Sec 403 & 407  
GA DNR Policy on Granting Variances To Open Burns

## **Executive Summary**

Banks County is responsible for developing a Debris Management Plan and selecting a Debris Management Staff.

- The Debris Management Staff may be comprised of personnel representative of the expertise needed to formulate a thorough plan and to conduct needed operations. Following are examples of people that may be involved with this team: County Emergency Management Agency, County Emergency Response Representatives, County Roads Department, County Planning / Zoning and Building Official Department, GIS Department, North Georgia Resource Management Authority, County Finance Department, County Attorney and the County Clerk's Office representing the County Commissioners. Other persons may be added to this staff as needed.
- The County Road Department Director will be in charge when it pertains to cleaning debris from roads and will act as the Debris Management Leader for the County.
- Cities will be encouraged to develop a similar plan and Debris Management Staff.

The County Debris Management Plan outlines the roles, responsibilities and functions of these various county departments involved in the process of disaster debris recovery. In addition, this plan reflects assumptions, priorities, operational information and current requirements related to disaster recovery as well as informing the public of the current disaster situation.

### **NIMS Compliance**

This plan will follow the National Incident Management System Incident Command System protocol for all incidents and activities. The situation will dictate the type of Command, Unified command, Area Command or single Incident Command. All personnel will complete the required level of NIMS and Safety training within their individual departments as a part of their normal daily duties to aid them in debris management, this training is the responsibility of the individual Department Head.

### **Summary**

The County Debris Plan is designed to provide organizational structure, guidance, and standardized procedures for clearance, removal and disposal of debris caused by a major debris-generating event. It is developed to establish the most efficient and cost effective methods to resolve disaster debris removal and disposal issues and to expedite debris response efforts that will provide visible signs of recovery designed to mitigate the threat to health, safety, and welfare of county residents. In addition, it serves as a method to coordinate partnering relationships through communications and pre-planning with local, State and Federal agencies involved with debris management responsibilities and to implement and coordinate private sector debris removal and disposal contacts to maximize cleanup efficiencies.

The County Debris Plan is a "living document" and will be modified and updated as needed.

## **Debris Management Plan Outline**

### **1. MISSION**

The mission for the Banks County Debris Management Plan is to provide a unified and coordinated approach by the Debris Management Staff to facilitate and aid any contracted help to coordinate the removal, collection, and disposal of debris following a disaster, to mitigate against any potential threat to the health, safety, and welfare of the impacted citizens, and expedite recovery efforts in the impacted area, and address any threat of significant damage to improved public or private property. In so doing, Banks County will comply with all State and Federal regulatory safety and health requirements by ensuring strict compliance with Environmental Protection Division licensing and permitting requirements.

### **2. PURPOSE**

To provide organizational structure, guidance, and standardized procedures for clearance, removal and disposal of debris caused by a major debris-generating event and to establish the most efficient and cost effective methods to resolve disaster debris removal and disposal issues. It will further expedite debris response efforts that will provide visible signs of recovery designed to mitigate the threat to health, safety, and welfare of county residents. The plan will also coordinate partnering relationships through communications and pre-planning with local, State and Federal agencies involved with debris management responsibilities and implement and coordinate private sector debris removal and disposal contacts and pre-qualify contractors to maximize cleanup efficiencies.

### **3. SITUATION**

Natural and man-made disasters precipitate a variety of debris that includes, but is not limited to, such things as trees, sand, gravel, building/construction materials, vehicles, personal property, etc.

The quantity and type of debris generated from any particular disaster is a function of the location and kind of event experienced, as well as its magnitude, duration, and intensity.

The quantity and type of debris generated, its location, and the size of the area over which it is dispersed directly impacts the type of collection and disposal methods used to address the debris problem, associated costs incurred, and the speed with which the problem can be addressed.

In a major or catastrophic disaster, Banks County may have difficulty in locating staff, equipment, and funds to devote to debris removal, in the short as well as long term.

Private contractors play a significant role in the debris removal, collection, reduction, and disposal process. The County has bid out and announced prequalified contractors from this bid process. These Pre-Qualified Contractors are on stand-by for pricing as requested and the

County may also reach out to others as deemed needed on debris removal projects. The Pre-Qualified contact information (in no prioritized order) is as follows:

- a. DTS, Incorporated  
326 E Darby Road  
Taylors, SC 29687  
Daniel McClaran, Owner  
[info@dts-inc.org](mailto:info@dts-inc.org)  
864-244-5284 Office  
864-895-4807 Fax
  
- b. Byrd Brothers Emergency Services, LLC  
5164 Lamm Road  
Wilson, North Carolina 27893  
Jamey Byrd  
[jameybyrd@byrdbrothers.com](mailto:jameybyrd@byrdbrothers.com)  
252-293-4488 Office  
866-932-0333 Toll Free  
252-293-4490 Fax
  
- c. DRC Emergency Services, LLC  
740 Museum Drive  
Mobile, Alabama 36608  
Buddy Persons or Catherine Walker  
[bpersons@drcusa.com](mailto:bpersons@drcusa.com)  
[cwalker@drcusa.com](mailto:cwalker@drcusa.com)  
251-343-3581 Office  
251-343-5554 Fax
  
- d. TFR Enterprises, Incorporated  
601 Leander Drive  
Leander, Texas 78641  
Tiffany Wilkes, Contract Administrator  
[tiffanyw@tfrinc.com](mailto:tiffanyw@tfrinc.com)  
512-260-3322 Office  
512-528-1942 Fax

The debris management program implemented by Banks County will be based on the waste management approach of reduction, reuse, and reclamation. Resource recovery, incineration, and land-filling will each be reviewed respectively.

#### **4. ASSUMPTIONS**

The plan addresses the basis for planning which include assumptions for various events and forecasting/modeling for debris volumes, such as; the assumption that a major natural disaster

that requires the removal of debris from public or private lands and water could occur at any time.

The plan also provides the assumption that The Banks County Board of Commissioners will declare that a Local State of Emergency and that a disaster exists and they may request State and Federal assistance and may activate the Debris Management Plan and solicit bid pricing from Pre-Qualified or other Contractors. This plan also assumes that The Governor of Georgia will declare a State of Emergency that will authorize State resources to assist in the removal and disposal of debris followed by the President approving a Presidential Disaster Declaration that will authorize Federal resources to assist in removal and disposal of debris.

Note - If these declarations are not in place, the debris will most likely be handled at local level and using local resources. No outside resources will be called upon without approval from the Board of Commissioners and only on following local, state and federal guidelines for contracting aid.

The County Debris Plan further outlines various forecasting models for estimating debris volumes and that the amount of debris resulting from a major natural disaster will exceed the county's removal and disposal capabilities.

The County will contract for additional resources (as approved by the Board of Commissioners and as needed) to assist in the debris removal, reduction, and disposal process.

## **5. ORGANIZATION AND CONCEPT OF OPERATIONS**

The Banks County Road Department is the primary agency responsible for the debris removal function.

The Banks County Road Department Director will serve as the Debris Manager for County areas and will communicate to the EOC / EMA Director to ensure all guidelines are followed and all is documented.

The Debris Management Staff may be comprised of personnel representative of the expertise needed to formulate a thorough plan and to conduct needed operations. Following are examples of people that may be involved with this team: County Emergency Management Agency, County Emergency Response Representatives, County Roads Department, County Planning / Zoning and Building Official Department, GIS Department, North Georgia Resource Management Authority, County Finance Department, County Attorney and the County Clerk's Office representing the County Commissioners. Other persons may be added to this staff as needed.

The municipalities within the County are responsible for their debris removal, until their capacity is exceeded. At that time, they may request assistance from the County.

The County Road Department Director / Debris Manager will work in conjunction with designated support agencies utility companies, debris removal companies, waste management firms, and trucking companies, to facilitate the debris clearance, collection, reduction, and disposal needs following a disaster.

The County Road Department Director will be responsible for ensuring the removal of debris from the public right-of-way. **Only when pre-approved by the Board of Commissioners and when it is deemed in the public safety interest will The County Road Department remove debris from private property. It is important to note that this is not something that is recommended nor something that should routinely happen; it is only as required to enable emergency ingress and egress.**

The County Road Department Director / Debris Manager may further stage equipment in strategic locations locally as well as regionally, if necessary, to protect the equipment from damage, preserve the decision maker's flexibility for deployment of the equipment, and allow for the clearing crews to begin work immediately after the disaster.

Because of the limited quantity of resources and service commitments following the disaster, Banks County may be relying heavily on private contractors to remove, collect, and manage debris for reuse, resource recovery, reduction, and disposal. Banks County has pre-qualified contractors on stand-by that are able to provide pricing and be activated as approved by the Board of Commissioners or the County may choose to accept bids from other contractors. Using private contractors instead of government workers in debris removal activities has a number of benefits. It shifts the burden of conducting the work from Banks County to the private sector, freeing up government personnel to devote more time to their regularly assigned duties. Private contracting also stimulates local, regional, and State economies impacted by the storm, as well as maximizes State and local governments' level of financial assistance from the Federal government. Private contracting allows the County to more closely tailor its contract services to its specific needs. The entire process (i.e., clearance, collection, transporting, reduction, and disposal, etc.) or segments of the process can be contracted out.

Banks County may also utilize trained volunteers that have been trained to assist with damage assessment and debris site monitoring as approved by the EMA Director and as needed and requested by the Debris Manager or contracted debris management companies.

The Banks County EMA has a list of approved contractors (listed above) that have been prequalified and have the capability to provide debris removal, collection, and disposal in a cost effective, expeditious, and environmentally sound manner following a disaster. This list was generated through a sealed bid process. This is just a list of contacts and all work will still be bid but these will be contractors called upon for pricing.

The Banks County Local Resolution for Emergency Management (Rev 7/7/00) in reference to local emergency management powers is the overarching policy for emergency operations.

## 6. STAFF ROLES AND RESPONSIBILITIES

The Debris Management Staff may be comprised of personnel representative of the expertise needed to formulate a thorough plan and to conduct needed operations. Following are examples of people that may be involved with this team: County Emergency Management Agency, County Emergency Response Representatives, County Roads Department, County Planning / Zoning and Building Official Department, GIS Department, North Georgia Resource Management Authority, County Finance Department, County Attorney and the County Clerk's Office representing the County Commissioners. Other persons may be added to this staff as needed.

### Roles & Responsibilities

#### Debris Manager:

The Banks County Road Department Director will serve as the Debris Manager. The Road Department is responsible for the debris removal function, in conjunction with designated support agencies that will aid to facilitate the debris clearance, collection, reduction, and disposal needs following a disaster.

The County Road Department will be responsible for removing debris from the County public right-of-way. Only when pre-approved by the Board of Commissioners and when it is deemed in the public interest will the County Road Department remove debris from private property. **Only when pre-approved by the Board of Commissioners and when it is deemed in the public interest will The County Road Department remove debris from private property. It is important to note that this is not something that is recommended nor something that should routinely happen.**

#### Debris Management Staff:

The Debris Management Staff may be comprised of personnel representative of the expertise needed to formulate a thorough plan and to conduct needed operations. Following are examples of people that may be involved with this team: County Emergency Management Agency, County Emergency Response Representatives, County Roads Department, County Planning / Zoning and Building Official Department, GIS Department, North Georgia Resource Management Authority, County Finance Department, County Attorney, PIO and/or the County Clerk's Office representing the County Commissioners. Other persons may be added to this staff as needed.

All staff may assist with responsibilities that are as follows and as requested:

1. Administration Function: Administrative responsibilities will include, but are not limited to: contracting / procurement, soliciting bids, advertising, contract development,

funding, accounting, equipment, supplies, and housekeeping. The administrative section will provide for the collection and compilation of all labor, equipment hours, materials and supplies and related expenditures concerning disaster debris recovery.

- All involved are required to keep record of all transactions, equipment usage, personnel time, supplies used etc and this is reported back to the Department Head and copied to Finance and EMA for FEMA records.
- All county and state and federal policy will always be followed, especially in regards to contracting and procurement. Contracting, procurement and bids should be directed through the Debris Manager, EMA Director and Finance Officer with final approval by the Board of Commissioners.

2. Legal Function: The legal section responsibilities will include, but not limited to: Contract review, right of entry permits, community liability, condemnation of buildings, land acquisition for temporary staging and reduction sites, land acquisition for disposal sites, insurance. This will typically be the County Attorney reviewing contracts as requested and the Planning / Zoning representative along with the County Building Official that works with Debris Manager, EMA and the Commissioners to advise and direct on these issues.

3. Operations Function: The operations section responsibilities will include, but not limited to: Supervision of government and contract resources and overall project management. The Debris Manager will work with other Operation Chiefs to oversee this.

4. Public Information Specialist Function: The County has an identified PIO. It is the County Clerk. They work closely with Command to gather accurate and approved information for release. The PIO responsibilities will include, but not limited to: Coordinate press releases, contacts with local organizations, individuals, and media; and public notices for debris removal and disposal contracts. The PIO will develop a proactive information management plan in times that will require an activation of the Debris Management Plan. Emphasis will be placed on actions the public can perform to expedite the clean-up process.

## **7. STAFF TRAINING & TASKS**

The Debris Management Staff will attend training as offered and able. The staff will be assigned the task of:

- Review / approve a Debris Management Plan for adoption by the BOC.
- Develop public information and education programs.
- Train personnel in debris management techniques.
- Maintain pre-disaster maps, blueprints, photos and other documents.
- Make a list of critical facilities (streets, roads, and bridges).
- Identify non-government groups that could assist.

## **8. HEALTH AND SAFETY PLAN**

The County always works to ensure the highest quality of health and safety standards for its residents.

Individual departments within the County and any person working in debris management should participate in safety training, to include, but not limited to, first aid, job site safety, and use of safety equipment. Volunteer personnel should be included in these trainings. In addition, personnel utilizing equipment will be certified on that equipment before the operation of that equipment is begun, this will be enforced by the department responsible for those personnel.

Information will be disseminated through the PIO whenever possible to inform the public regarding basic health and safety issues as necessary. This may include boil-water notices, disposal of dead animals, reducing home hazards, etc.

## **9. COMMUNICATIONS PLANS**

The County Emergency Management Agency with E-911 and the Emergency Operations Center (EOC) maintains several means of communications systems and uses ARES and cellular solutions as redundant/backup systems. The primary means of emergency communications for debris removal operations will be the Banks County Utilities Radio and cellular telephones.

## **10. CONTRACTING PROCEDURES**

Contracting for labor and equipment may be necessary if the magnitude of the emergency debris clearance, removal and disposal operation is beyond the capabilities of the local force account resources, state resources, mutual aid agreements and volunteer labor and equipment. No contractor will be activated without direction from the Debris Manager and approval of the Board of Commissioners. All County Policy, State and Federal guidelines will be followed in contracting any help.

Banks County EMA has worked with the Board of Commissioners to pre-qualify four (4) debris management companies that may be called upon to obtain pricing and work as needed and as approved by the Debris Manager and Commissioners.

The specifics of the debris removal tasks will be based on the magnitude of the debris clearance, removal and disposal operation and the site clearance and restoration requirements. The list of approved pre-qualified contractors have the capability to provide debris removal, collection, and disposal in a cost effective, expeditious, and environmentally sound manner following a disaster are held in the EOC.

The Debris Manager will be familiar with contracting procedures for he/she will be required to define specific debris removal tasks and recommend specific contract types based on the

magnitude of the debris clearance, removal and disposal operation and the site clearance and restoration requirements.

The Finance Director in coordination with the Debris Manager and Debris Management Staff will aid in developing, processing and administering debris clearance, removal and disposal contracts. This may be accomplished utilizing the pre-qualified contractors on file in the EMA Office and asking them to solicit sealed bids and/or seeking other sealed bids.

The Debris Manager with aid from Finance and EMA and the Commissioners will be responsible for managing any debris contract from project inception to completion. Managing the debris contract includes such things as monitoring of performance, contract modifications, inspections, acceptance, payment, and closing out of activities.

Should Banks County decide to award contracts for debris removal the County:

1. Will not allow contractors to make eligibility determinations without direct consultation and approval from the Debris Manager and clarification / approval from State and Federal agencies; as they have no authority to do so.
2. Will utilize pre-negotiated contracts if in the County best interest and able.
3. Will utilize formal competitive bid procedures when time permits. If time does not permit for normal competitive procedures, competitive bids still may be obtained using a reduced time frame for submittal for bids.
4. Will request copies of references, licenses, and financial records of unknown contractors.
5. Will document procedures used to obtain contractors.
6. Will not accept contractor-provided contracts without close review.
7. Will make all efforts, when possible, to encourage use of local resources and companies when conducting work.
8. If necessary will request FEMA provide technical assistance on contracts and contract procedures.

Generally, three types of contracts that may be used for debris operations are as follows:

1. ***Time and Materials*** Contracts may be used for short periods of time immediately after the disaster to mobilize contractors for emergency removal efforts. They must have a dollar ceiling or a not-to-exceed limit for hours, and should be terminated when this time limit is reached. Such contracts will be limited to 70 hours of actual work. The contract will state that (a) the price for equipment applies only when the equipment is operating, (b) the hourly rate includes the operator, fuel, maintenance, and repair, (c) the community reserves the right to terminate the contract at its convenience, and (d) the community does not guarantee a minimum number of hours.
2. ***Unit Price Contracts*** are based on weights (tons) or volume (cubic yards) of debris hauled, and may be used when scope-of-work is not well defined. Unit

price contracts require close monitoring of pick-up, hauling, and dumping to ensure that quantities are accurate.

3. ***Lump Sum Contracts*** establish the total contract price using a one-time bid from the contractor. Will only be used when the scope of work is clearly defined, with areas of work and quantities of material are clearly defined. Lump-sum contracts may be defined in one of two ways: (1) area method where the scope of work is based on a one time clearance of a specified area; and (2) pass method where the scope of work is based on a certain number of passes through a specified area.

## **11. PERMITTING**

In the event of a major disaster such as a hurricane or tornado some government permit requirements may be suspended, temporarily. Should this not be the case, permits such as for temporary debris sites, land disturbance for site prep, highway entrance permits, and other may be issued as may be needed. The Georgia Environmental protection division, Georgia DOT, Natural Resource Conservation Service, and the U.S. forestry Service will be consulted to determine permits that may be required, processes for obtaining permits, and inspection timetables.

The Planning & Zoning and Building Official office will be responsible for applying for and obtaining permits for all potential debris sites, land disturbance permits if required, and roadway entrance permits from the appropriate agencies. If possible, permits will be obtained prior to the event and permits will be renewed as needed for each site.

Regardless whether permits themselves are required, Banks County will comply with all state and local regulations for debris sites, site prep, and burning of debris. Best management practice will be put in place at the activation of any site and maintained throughout the use of each site.

## **12. RESPONSE OPERATIONS**

During the response / emergency phase; emergency 9-1-1 calls will dictate priority of work for road clearing debris removal/collection crews and resources at all times to ensure access for emergency vehicles and resources into the impacted area to protect public health and safety following a major disaster or catastrophic event.

The initialization of the Debris Management Plan will occur in three parts; Response / Removal, Collection / Ongoing Removal, and Reclamation.

The debris removal/collection process must be initiated promptly and conducted in an orderly, effective manner in order to protect public health and safety following a major disaster or catastrophic event.

Initially, there is no attempt to physically remove or dispose of the debris, only to clear key access routes to expedite the following: movement of emergency vehicles; law enforcement;

resumption of critical services; assessment of damage to key public facilities and utilities such as schools, hospitals, government buildings, and utilities.

The type of debris that may be encountered consist of: trees blown-down and broken limbs; yard trash such as outdoor furniture, trash cans, utility poles, power-telephone-cable TV lines, transformers and other electrical devices; building debris such as sheds, and signs; building debris such as roofs, sheds and signs; and personal property such as clothing, appliances, boats, cars, trucks and trailers.

The work will be coordinated with local utility crews to ensure safety issues are addressed with regards to energized power lines and gas lines. Contact will be made with the local Department of Transportation (DOT) office to discuss the priority for clearance on State roads.

Any debris moved while performing clearing operations should be placed as close as possible to the edge of the roadway.

All debris clearing actions should be supervised by County personnel using all available resources.

Special crews equipped with chain saws may be required to cut up downed trees. This activity is hazardous, and common sense safety considerations are necessary to reduce the chance of injury and possible loss of life. When live electric lines are involved, work crews will coordinate with local utility companies to have power lines de-energized for safety reasons. Equipment and or vehicles used will be equipped for safety and have protective gear on board. Driveway cutouts, fire hydrants, valves, and storm-water inlets will be left unobstructed. All personnel will wear protective gear.

The USDA Forest Service and other State and Federal land management agencies are equipped for fast responses to tornadoes, and hurricanes. They, along with other outside assistance, may be requested from the State EOC through the Banks County EMA Director or representative at the Banks County EOC. If any of these requests happen to be for Federal assistance, it will also be requested through the local EMA Director to the State Coordinating Officer (SCO) at GEMA to the FEMA Federal Coordinating Officer (FCO).

All agencies will be responsible for documenting costs and tracking resources (public and private) used during the incident and this will continue through the end of the event and be submitted to the Finance Director and he or she will copy it to EMA for filing with FEMA records.

### **13. RECOVERY OPERATIONS**

The collection and ongoing removal phase, also called the recovery phase, will activate the Debris Management Staff. During the recovery phase the County will continue to collect, store, reduce, and dispose of debris generated from the event in a Cost-effective and environmentally responsible manner. The Debris Manager and Debris Management Staff

will use the prioritized road list to identify critical routes that are essential to emergency operations that may still need to be opened. These will be the first roads addressed in the recovery phase.

Both public and private resources will continue to be tracked.

Priorities regarding current resources will continue to be established.

The team will work to identify and establish Temporary Debris Storage and Disposal sites, and address any legal, environmental, and health issues relating to the debris removal process.

The team will also begin to more formally address the documentation process. Costs will continue to be documented.

The public will be kept informed through the Public Information Officer (PIO) through the EMA and EOC and after releases are approved by Command and Commissioners.

Upon completion of the debris removal mission, close out will begin for debris storage and reduction sites by developing and implementing the necessary site restoration actions. And, the reclamation stage will commence when all debris sites are no longer needed and will also include review and assessment of all activities.

Audits of operations will be performed by the Debris Management Staff to ensure completion and claims for Federal assistance will be submitted when and where available. It is VITAL that all documents be kept (whether it is notes, receipts or reports) for filing with the entire incident report.

All debris clearing actions should be supervised by County personnel using all available resources.

Special crews equipped with chain saws may be required to cut up downed trees. This activity is hazardous, and common sense safety considerations are necessary to reduce the chance of injury and possible loss of life. When live electric lines are involved, work crews will coordinate with local utility companies to have power lines de-energized for safety reasons. Equipment and or vehicles used will be equipped for safety and have protective gear on board. Driveway cutouts, fire hydrants, valves, and storm-water inlets will be left unobstructed. All personnel will wear protective gear.

The USDA Forest Service and other State and Federal land management agencies are equipped for fast responses to tornadoes, and hurricanes. They, along with other outside assistance, may be requested from the State EOC through the Banks County EMA Director or representative at the Banks County EOC. If any of these requests happen to be for Federal assistance, it will also be requested through the local EMA Director to the State Coordinating Officer (SCO) at GEMA to the FEMA Federal Coordinating Officer (FCO).

All agencies will be responsible for documenting costs and tracking resources (public and private) used during the incident and this will continue through the end of the event and be submitted to the Finance Director and he or she will copy it to EMA for filing with FEMA records.

#### **14. DEBRIS COLLECTION - REMOVAL PRIORITIES DURING RECOVERY**

The plan includes priorities for the clearance, collection, and disposal of debris removal/collection process, and must be initiated promptly and conducted in an orderly, effective manner in order to protect public health and safety following a major disaster or catastrophic event.

The first priority will be removal/collection of debris from key Banks County roads in order to provide access for emergency vehicles and resources into the impacted area.

The second priority will be to ensure the elimination of debris related threats to public health and safety. This will include such things as the repair, demolition, or barricading of heavily damaged and structurally unstable buildings, systems, or facilities that pose a danger to the public. Any actions taken to mitigate or eliminate the threat to the public health and safety must be closely coordinated with the owner or responsible party. If access to the area can be controlled, the necessary actions can be deferred.

The third priority will be for economical, industrial, business and residential usage.

#### **Examples of priority for debris removal/collection as follows:**

1. Areas of threat to public health and safety are priority, in order to address these threats, areas of the County/City roads which have a critical facility such as Fire/EMS station, 911, law enforcement agency and hospitals must take priority.
2. Second to this will be nursing home facilities, water treatment facilities, utility companies, shelters, health departments, doctor offices, urgent care centers followed by schools and other governmental institutions such as the Courthouse, Courthouse Annex and other essential government facilities.
3. Other debris related threat areas where threats to public health and safety still exist.
4. Other primary county/city roads with the highest estimated traffic counts.
5. Secondary county/city roads.
6. Private roads – only as approved based upon emergency needs and based upon Commissioners approval. This is typically NOT a road we will clear unless homes are blocked. And, we DO NOT go onto private property.

Note: 9-1-1 emergency calls will communicate initial need for response and resources at all times. Again, this will help to ensure access for emergency vehicles and resources into the impacted area to protect public health and safety following a major disaster or catastrophic event. This is vital as the need and demand for critical services will be increased significantly following a disaster.

## 15. DEBRIS COLLECTION METHODS DURING RECOVERY

### **Curbside Pick-Up:**

There will be debris along the right-of-way as roads are cleared and debris may continue to accumulate as residents bring eligible debris from their properties to public rights-of-way. Typically, this occurs in three stages:

- Stage 1: Woody Debris and yard waste moved to right-of-way.
- Stage 2: Household waste, such as damaged personal goods, moved to right-of-way in a location apart from the woody debris.
- Stage 3: Construction and demolition materials removed by the homeowner prior to the receipt of insurance and individual assistance payments.

Residents should not mix garbage with debris. Debris deposited at the curbside must be disaster-related to be eligible for pickup and disposal by the applicant.

Construction and demolition materials (known as C&D) from minor or major repairs or reconstruction by contractors should not be deposited at the curbside. Contractors should remove and deposit the debris at approved landfills. Insurance proceeds usually cover the cost for demolition debris removal from private property.

***Remember, only disaster-related debris removal costs not covered by insurance are eligible for reimbursement.*** Watch for non-disaster related materials (bagged grass clippings, household garbage, automobile parts etc.).

Eligible and non-eligible debris should be communicated clearly to the public. When it becomes apparent that the eligible, disaster-related debris being brought to the curb is slowing down and non-disaster-related / non-eligible debris, or reconstruction debris is beginning to appear, the local EMA, GEMA and FEMA should communicate to the public that this debris is not eligible. Then the local EMA, GEMA and FEMA should negotiate to set and advertise a realistic deadline for final eligible debris removal and make sure the applicants have advance notice. This cut-off date should be coordinated with the Banks County Debris Manager in conjunction with the Commissioners and EMA and then communicated to the public through the PIO. For example, it is unrealistic to impose a deadline that takes effect 48 hours later. For large events, it is unrealistic to set deadlines immediately following the disaster. However, discussions with the State on the need to establish deadlines should begin early.

Remember, the time extension authority given to the State applies only to disaster-related debris. That authority does not apply to curbside pick-up of non-disaster debris, or to reconstruction debris.

### **Public Rights-of Way Debris Removal and Disposal:**

The initial roadside piles of debris become the dumping location for additional yard waste and other storm-generated debris, such as construction material, personal property, trash,

white metals such as refrigerators, washers, dryers and hot water heaters, roofing and even household, commercial, and agricultural chemicals. This phase will consist of removing and subsequent disposal of the debris accumulated curbside during the previous phase.

The Debris Manager with aid from local EMA may develop an independent team using local and State and volunteer personnel to monitor the removal activities.

## 16. FORECASTING DEBRIS TYPES

To facilitate the debris management process, debris will be segregated by type. It is recommended that the categories of debris established for recovery operations will be standardized. Debris removed will consist of two broad categories (clean wood debris and construction and demolition debris). Most common debris will consist of 30% clean woody material and 70% C&D. Of the 70% mixed C&D it is estimated 42% will be burnable but require sorting, 5% will be soil, 15% will be metals, and 38% landfill.

## 17. ESTIMATING DEBRIS QUANTITIES

The formula for estimating debris quantity is:  $Q = H (C) (V) (B) (S)$

H (Households) = Population/3 (3 persons per household)

C (Category of Storm) = Factor (See table below)

V (Vegetation Multiplier) = Factor (See table below)

B (Commercial Density Multiplier) = Factor (See table below)

S (Precipitation Multiplier) = Factor (See table below)

Storm Category	Value of "C" Factor
1	2 CY
2	8 CY
3	26 CY
4	50 CY
5	80 CY

Vegetative Cover	Value of "V" Multiplier
Light	1.1
Medium	1.3
Heavy	1.5

Commercial Density	Value of "B" Multiplier
Light	1.0
Medium	1.2
Heavy	1.3

Precipitation	Value of "S" Multiplier
None to Light	1.0
Medium to Heavy	1.3

Once the amount of debris has been estimated, Banks County may require temporary storage sites the size of which can be determined by taking the following factors into consideration:

1. The debris pile shall be stacked to a height of no more than 10 feet.
2. 60% usage of the land area will be devoted to roads, safety buffers, burn pits, household hazardous waste, etc.,.
3. 10 foot stack height = 3.33 yards
4. 1 acre = 4,840 square yards (sy)
5. Total volume per acre = 4,840 sy/ac x 3.33y = 16,133 cy/ac.

Using the above assumptions, the estimate of total debris from any storm will be within 30% plus or minus of the actual amount of debris accumulated.

Following is an average scenario, using a Category 3 storm with an area of medium vegetation cover affected with medium commercial density and medium to heavy precipitation that fell. The calculated amount of acres needed for a temporary landfill is 54.24 acres. The calculation (assuming the factors in this example) is as follows:

$$Q = H(C)(V)(B)(S)$$
$$Q = 10,000 \times 26 \times 1.3 \times 1.2 \times 1.3$$
$$Q = 527,280 \text{ cy of debris.}$$

$$527,280 \text{ (cy of debris / 16,133 (cy/ac))} = 32.68 \text{ acres of debris.}$$
$$32.68 \text{ acres} \times 1.66 \text{ (60\% more area needed for roads, etc...)} = 54.24 \text{ acres.}$$

Note: To help visualize what 527,280cy of debris looks like, picture a building occupying 1 acre. 1,000,000 cy of debris would create a stack 62' high on one acre. That building would be 32.67 feet high or approximately 3.26 stories high.

Banks County will make all efforts to utilize the final disposal site, Waste Management Landfill, and their expertise for our final disposal needs.

## 18. FORECASTING DEBRIS LOCATIONS

1. County of Banks (18,395 population per 2010 Census)
  - A) City of Homer (3,268 population)
  - B) City of Maysville (5,456 population)
  - C) City of Gillsville (4,487 population)
  - D) City of Lula (8,535 population)
  - E) City of Alto (8,291 population)
  - F) City of Baldwin (3,279 population)

Debris forecasted location makes the assumption that the population density in Banks County is no greater in any given rural unincorporated area than that of the most populous municipality.

## **19. DEBRIS COLLECTION REMOVAL PRIORITIES**

The debris removal process must be initiated promptly and conducted in an orderly, effective manner in order to protect public health and safety following a major disaster or catastrophic event. To achieve this objective, the first priority will be to clear debris from key roads in order to provide access for emergency vehicles and resources into the impacted area.

Clearance of debris from roadways such as that from State and municipal roadways as well as that of private subdivisions will be the responsibility of that entity; however the County reserves the right in coordination with that entity to clear such roadways to allow for emergency vehicle access and for the protection of public health and safety.

The first priority will be to clear debris from key Banks County roads in order to provide access for emergency vehicles and resources into the impacted area; secondarily for economical, industrial, business and residential usage.

Note: 9-1-1 emergency calls will communicate initial need for response and resources at all times. Again, this will help to ensure access for emergency vehicles and resources into the impacted area to protect public health and safety following a major disaster or catastrophic event. This is vital as the need and demand for critical services will be increased significantly following a disaster.

The County Road Department may stage equipment in strategic locations, if necessary, to protect the equipment from damage, preserve the decision maker's flexibility for employment of the equipment, and allow for the clearing crews to begin work immediately after the disaster. Because of the limited quantity of resources and service commitments following the disaster, the county will be relying heavily on private contractors to remove, collect, and manage debris for reuse, resource recovery, reduction, and disposal.

## **20. DEBRIS MANAGEMENT SITES**

For the purpose of this plan; three (3) types of primary sites will be identified. These sites will be known as Debris Management Sites (DMS), Temporary Debris Storage (TDS) and Reduction Sites (TDSR) and Final Disposal Sites.

The plan addresses debris monitoring of the all sites through and to final disposal. All sites (DMS and TDSR as well as Final Disposal) will be identified and evaluated by the Debris Management Staff who are familiar with the area. Pre-qualified debris management companies may be requested to assist with identification of these sites in order to assure need is met.

Initially debris will be pushed from roadways directly to the County Right-of-Ways. Following this it will be moved to a Final Disposal Site. However should there be a backlog; debris will be placed in temporary holding areas (TDSR), determined before the onset of the disaster. It is also important to note that location of sites may have to be adjusted dependent on the location of the destruction. Sites pre-identified are County owned sites that have been

approved by the Commissioners and will work if the site is not in the damage area. Also, in times where a disaster has not been declared, the County Road Department will make the decision on when, where and if the debris should be removed from County Right-of-Way; in some instances it may be feasible to allow debris to naturally dispose of itself provided that it is not a hazard.

Collection sites will be on public property when feasible to facilitate the implementation of the mission and mitigate against any potential liability requirements.

Activation of sites will be under the control of the Debris Manager, and will be coordinated with other recovery efforts through the Emergency Operations Center following approval from the Commissioners.

Site selection criteria will be developed into a checklist format for use by the Debris Management Staff to facilitate identification and assessment of potential sites. Criteria will include such factors as ownership of property, size of parcel, surrounding land uses and environmental conditions, and transportation facilities that serve the site. A site selection priority list is attached as an annex to this plan.

The Debris Management Staff with assistance from pre-qualified debris management companies will also be responsible for establishment and operations planning, procedures, permitting and associated requirements such as site layouts and site preparation to include volume reduction methods as approved by FEMA for the various debris storage and reduction sites.

Site Management, Monitoring staff and assignments and Safety Personnel appointments will be the responsibility of the Debris Manager with aid from EMA.

### **SITE SELECTION**

Temporary Debris storage and reduction sites will be identified and evaluated by County site selection teams comprised of staff that is familiar with the area.

Every attempt will be made to move the debris directly to the Waste Management Landfill. However should there be a backlog; debris will be placed in temporary holding areas. These temporary areas will be determined before the onset of the disaster whenever possible (understanding that the location will be dependent on the path of destruction) and they will remain active until after the local traffic has been restored.

### **Establishment and Operations Planning:**

The Debris Manager with aid from the Debris Management Staff will be responsible for the establishment and operations planning, permitting and associated requirements such as site layouts and site preparation to include volume reduction methods for the various Debris storage and reduction sites that will be identified and evaluated by County site selection teams.

Sites will be designed based on preliminary data obtained with special considerations being given to environmental impact reduction.

Operational boundaries will be established for each site. The site should preferably have areas for equipment storage and fuel storage that are outside areas of operation. Buffering between operational uses will be established. Depending upon the scale of operations, each debris stream will be given its own tipping area if needed. Public drop off areas will be designed for passenger vehicle traffic and each site will consider public safety as a primary component.

Site security will be taken into consideration in the planning and design of each individual site with provisions for obtaining barricades if needed. Provisions for ample water supply will be necessary for all sites that will implement burn pits. Access for firefighting equipment should be accounted for.

Traffic patterns throughout the entire site will be well defined and will be clearly marked before site operations begin and may be supplemented with flag personnel to help direct traffic. Volunteers or paid employees may be provided to assist with this when they are available. If possible, all traffic should enter and exit through different points. There should also be a segregation of debris haulers / heavy equipment and public vehicular traffic.

### **TDSR Locations:**

Removal and disposal actions will be handled at the lowest possible level based on the magnitude of the event. It follows the normal chain of responsibility, i.e., local level, State level, and when resources are exceeded at each level of responsibility, Federal assistance may be requested according to established procedures. Because of the limited debris removal and reduction resources, TDSRs will most likely be established and placed into operation in a large event that exceeds local control.

The following is a list of Final Disposal Sites and the Pre-identified temporary holding sites preceded:

- Waste Management Landfill – Final Disposal Site
- Banks County Farm / Horse Arena
- Banks County Road Barn / Oscar Rucker
- Banks County Fire Station / 310 / Industrial Park
- Banks County Fire Station / 240 / Mt. Carmel

### **SITE LOCATION / LAYOUT**

#### **Site Preparation.**

1. The topography and soil conditions should be evaluated to determine best site layout. Ways to make remediation and

restoration easier when planning site preparation will be considered. The pre-identified sites have been reviewed by the Building Official.

2. Research will be conducted on each site prior to any activation to establish a baseline against which reclamation requirements will be established. This may include pictures, maps, sketches, topography maps, soil studies and water sampling, and other documentation as required per site. Important features such as structures, fences, culverts and landscaping will be noted. Water samples from any existing wells on site or adjacent to the staging area will also be taken. The sites will be checked for volatile organic compounds. The Building Official, Zoning Officer, GIS and Environmental Health Agent will be asked to assist with this.
3. Site preparations, such as land clearing, driveways, fencing to establish operational barriers and temporary monitoring facilities will begin only after the required permits are obtained or permission has been given by the permitting authority. The Building Official and Zoning Officer and Commissioners will be asked to assist with this.
4. Burn pits, as required, will be constructed to EPD standards using linings of limestone or other approved material and reinforced. Pits will be located at least 1,000 feet from any stockpile areas and warning signs will be erected once the pit(s) have been dug. The Building Official and Zoning Officer will be asked to assist with this.
5. Other signage, such as directional signs, information signs etc., will be put in place prior to operation. The Road Department will assist with this.
6. After activities begin, constant monitoring will take place. Photos, maps, and sketches of the site will be updated and fuel spills will be noted. GIS, Environmental Health, Road Department and multiple other team members will be asked to assist with this.

### **Site Operations.**

- If the site is also an equipment staging area, fueling and equipment repair will be monitored to prevent and mitigate spills such as petroleum products and hydraulic fluids
- Awareness of and mitigation of issues that might irritate neighbors will be closely monitored, such as:

- a. Smoke – proper construction and operation of incineration pits. Don't overload air curtains.
- b. Dust – employ water trucks.
- c. Noise – construct perimeter berms.
- d. Traffic – proper layout of ingress and egress procedures to help traffic flow.

## 21. DEBRIS CLASSIFICATION

The Banks County Road Department will be able to work with numerous types of debris such as Construction and Demolition Debris, Trees, Stumps, Limbs, Leaves and Metal. Banks County would out source hazardous materials clean-up.

To facilitate the debris management process, debris will be segregated by type. It is recommended that the categories of debris established for recovery operations will be standardized. Debris removed will consist of two broad categories (clean wood debris and construction and demolition (C&D) debris. Most common storm-generated debris will consist of 30% clean woody material and 70% C&D. Of the 70% mixed C&D it is estimated 42% will be burnable but require sorting, 5% will be soil, 15% will be metals, and 38% landfill.

Definition of reduction methods for various classifications of debris are as follows:

**Burnable Materials:** Burnable materials will be of two types with separate burn locations:

**Burnable Debris:** Burnable debris includes, but is not limited to, damaged and disturbed trees; bushes and shrubs; broken, partially broken and severed tree limbs; and bushes. Burnable debris consists predominately of trees and vegetation. Burnable debris does not include garbage or construction and demolition material debris.

**Burnable Construction Debris:** Burnable construction and demolition debris consists of non-creosote structural timber, wood products, and other materials designated by the coordinating agency representative.

**Non-burnable Debris:** Non-burnable construction and demolition debris includes, but is not limited to, creosote timber, plastic, glass, rubber and metal products, sheet rock, roofing shingles, carpet, tires, and other materials as may be designated by the coordinating agency. Garbage will be considered non-burnable debris.

**Stumps:** Stumps will be considered tree remnants exceeding 24 inches in diameter; but no taller than 18 inches above grade, to include the stump ball. Any questionable stumps shall be referred to the designated coordinating agency representative for determination of its disposition.

**Ineligible Debris:** Ineligible debris to remain in place includes, but is not limited to, chemicals, petroleum products, paint products, asbestos, and power transformers.

## **22. DEBRIS DISPOSAL AND REDUCTION**

Once the debris is removed from the damage sites, it will be taken directly to a Banks County Site. Methods of disposal include, but are not limited to; burning, recycling, grinding/chipping and landfill.

Banks County will use all of its resources to recycle materials that are recyclable. NGRMA will be asked to aid with this portion. This will include recycling of metals, electronics etc.

Some specialty items that the County may choose to do are things such as grinding. Banks County would bring in a grinding operation if deemed necessary due to large quantities of stumps, leaves and limbs.

Any outside company will be required to bid if the amount meets the prerequisites to require a bid process. Grinding operations will be done at one or more of the identified sites.

Standing broken utility poles, damaged and downed utility poles and appurtenances, transformers and other electrical material will be reported to the coordinating agency representative and or the proper power company representative. Emergency workers shall exercise due caution with existing overhead and underground utilities and above ground appurtenances, and advise the appropriate authorities of any situation that poses a health or safety risk to workers on site or to the general population.

### **Collecting Hazardous Waste and White Goods:**

Hazardous material removal operations are vital and it is important to note that Banks County will have to outsource hazardous materials removal. Hazardous material removal operations will be addressed on a case by case basis by the County if no debris management vendor is activated. And, it should be included by any outsource debris removal contract should one of the pre-approved vendors be activated by the County.

- Any material that is found to be classified as hazardous or toxic waste (HTW) will be reported immediately to the designated coordinating agency representative. At the coordinating agency representative's direction, this material will be segregated from the remaining debris in such a way as to allow the remaining debris to be loaded and transported. The Debris Manager will communicate and coordinate any Hazardous Waste to the County EMA and the State of Georgia Environmental Protection Division, as appropriate for the situation. Items classified as Hazardous Waste WILL NOT be accepted into County approved sites. Individuals with material of this nature will be directed to contact a Hazardous Waste Contractor.

### **Household Hazardous Waste Removal (HHW)**

- The debris manager will coordinate any household hazardous waste (HHW) with the Banks County Debris Manager, the Department of Public Health and the Keep Banks Clean and Beautiful Department. HHW may be generated as a result of a major

natural disaster. HHW may consist of common household chemicals, propane tanks, oxygen bottles, batteries, and industrial and agricultural chemicals. These items will be mixed into the debris stream and will require close attention throughout the debris removal and disposal process. Appropriate coordination with regulatory agencies concerning possible regulatory waivers and other emergency response requirements will be adhered to.

Arrangements will be made for salvageable hazardous materials to be collected and segregated based on their intended use. Properly trained personnel or emergency response HHW contractors will accomplish removal of hazardous waste.

Coordination will always be followed closely with State regulatory agencies to ensure cleanup actions meet local, State, and Federal regulations. Complete HHW identification and segregation should always take place before building demolition begins. Qualified contractors will remove HHW debris. Regular demolition contractors can remove uncontaminated debris.

### **Private Property Demolition and Debris Removal:**

Private property debris removal operations are the responsibility of the private property owner. Long Term Recovery Operations will provide information to Private and Business owners as to any assistance they may qualify for under the FEMA Individual Assistance Program which will be made available after resolving any of their insurance providers' coverage in the event of a Presidential Declared Disaster which includes Public Assistance.

The County Debris Plan addresses the authority and processes for private property debris removal directing that the Banks County Road Department will be responsible for removing debris only from the public right-of-way. Only when pre-approved by the Board of Commissioners, FEMA and when it is deemed in the public safety interest will the County Road Department remove debris from private property.

In order to aid citizens in clearing property; the Debris Storage and Removal Sites that are established will be published by the PIO or Debris Manager with the locations along with times of operation, types of debris accepted and private property owner will be advised to transport to the nearest TDSR collection site.

The public will be reminded that dumping debris on property owned by others is illegal and will be aggressively enforced by the Banks County.

FEMA Public Assistance (PA) funds may be used for demolition and removal of resulting structural debris under the authority of Section 403, Essential Assistance, of the Stafford Act. This section allows for the demolition of unsafe structures that pose an immediate threat to life, property, or public health and safety. The primary responsibility for demolition of unsafe structures lies with the owner whether it is private or government owned property. Dangerous structures will be the responsibility of the owner to demolish to protect the health and safety of adjacent residents. However, if unsafe structures remain because of the lack of

insurance, absentee landlords, or under-staffed and under-equipped local governments, demolition of these structures may become the responsibility of the County. The Debris Manager will be responsible for taking any appropriate action regarding Dangerous Structure Demolition.

## **VOLUME REDUCTION METHODS/CLASSIFICATION**

### Volume Reduction by Recycling

Recycling reduces mixed debris volume before it is hauled to a landfill. Recycling is attractive because there may be an economic value to the recovered material if it can be sorted and sold.

Metals, wood, and soils are prime candidates for recycling.

The major drawback is the potential environmental impact of the recycling operation. In areas where there is a large usage of chemical agricultural fertilizer, the recovered soil may be too contaminated for use on residential or existing agricultural land.

Some storms may present opportunities to contract out large-scale recycling operations and to achieve an economic return from some of the prime contractors who exercise their initiative to segregate and recycle debris as it arrives at the staging and reduction sites.

Recycling should be considered early in the debris removal and disposal operation because it may present an opportunity to reduce the overall cost of the operation. The following materials are suitable for recycling:

1. **Metals:** Hurricanes and tornadoes may cause extensive damage to mobile homes, sun porches, and green houses. Most of the metals are non-ferrous and suitable for recycling. Trailer frames and other ferrous metals are also suitable for recycling. Metals can be separated using an electromagnet. Metals that have been processed to recycling can be sold to metal recycling firms.
2. **Soils:** Cleanup operations using large pieces of equipment pick up large amounts of soil. The soil is transported to the staging and reduction sites where it is combined with other organic materials that will decompose over time. Large amounts of soil can be recovered if the material is put through some type of screen or shaker system. This procedure can produce significant amounts of soil that can either be sold or recycled back into the agricultural community. This soil could also be used at local landfills for cover. It is more expensive to transport and pay tipping fees at local landfills than to sort out the heavy dirt before moving the material. Monitoring and testing of the soil may be necessary to ensure that it is not contaminated with chemicals.
3. **Wood:** Woody debris can be either ground or chipped into mulch.

4. Construction Materials: Concrete block and other building materials can be ground and used for other purposes. Construction materials and wood can also be shred to reduce volume. This construction material could also be used at local landfills for cover.
5. Residue Material: Residue material that cannot be recycled, such as cloth, rugs, and trash, can be sent to a landfill for final disposal.

Grinding and chipping will be utilized as a viable reduction method. Grinding and chipping reduces the volume on a 4 to 1 ratio. For grinding and chipping to be feasible, 25% of volume remaining must have some benefit or use.

Banks County would bring in a grinding operation if deemed necessary due to large quantities of stumps, leaves and limbs. Grinding operations will be done at one of the Banks County Sites. We will bid out this if the need arises and the volume dictates the need.

The three primary burning methods are open burning, air curtain pit burning, and incineration. Controlled open burning is a cost-effective method for reducing clean woody debris in rural areas. Burning reduces the volume by 95%, leaving only ash residue to be disposed of. Air curtain pit burning substantially reduces environmental concerns. The blower unit must have adequate air velocity to provide a “curtain effect” to hold smoke in and to feed air to the fire below. Portable incinerators use the same methods as air curtain pit systems. The only difference is that portable incinerators utilize a pre-manufactured pit in lieu of an onsite constructed earth/limestone pit.

### **23. SITE REMEDIATION & ENVIRONMENTAL MONITORING**

The Banks County Debris Manager will work with the Debris Management Team and Environmental Health and Contractors that may be working to help ensure that the appropriate Environmental Monitoring Program/Site Closure procedures are established and implemented to include necessary planning, permitting and associated requirements in coordination with appropriate local, State, and Federal agencies.

#### **Environmental Controls:**

Environmental controls are essential for all incineration methods, and the following will be considered.

1. A setback of at least 1,000 feet will be maintained between the debris piles and the incineration area. At least 1,000 feet will be kept between the incineration area and the nearest building. Fencing and warning signs will be used to keep the public away from the incineration area.
2. The fire will be extinguished approximately two hours before anticipated removal of the ash mound. The ash mound will be removed when it reaches 2 feet below the lip of the incineration pit.

3. The incineration pits will be constructed with limestone and reinforced with earth anchors of wire mesh to support the weight of the loaders. There will be a 1-foot impervious layer of clay or limestone on the bottom of the pit to seal the ash from the aquifer.
4. The ends of the pits will be sealed with dirt or ash to a height of 4 feet.
5. A 12-inch dirt seal will be placed on the lip of the incineration pit area to seal the blower nozzle. The nozzle will be 3-6 inches from the end of the pit.
6. There will be a 1-foot high, unburnable warning stops along the edge of the pit's length to prevent the loader from damaging the lip of the incineration pit.
7. Hazardous or contaminated ignitable material will not be placed in the pit. This is to prevent contained explosions.
8. The airflow will hit the wall of the pit about 2 feet below the top edge of the pit, and the debris should not break the path of the airflow except during dumping.
9. The pit will be no longer than the length of the blower system, and the pit should be loaded uniformly along the length.

During the debris removal process and after the material has been removed from each of the debris sites, environmental monitoring will be needed to close each of the sites. This is to ensure that no long-term environmental contamination is left on the site. The monitoring will be done on three different media: ash, soil, and groundwater.

In addition; if temporary debris staging and reduction sites are used, each will eventually be emptied of all material and be restored to its previous condition and use.

### **Site Close-Out Procedures**

If utilized each temporary debris staging and reduction site will eventually be emptied of all material and be restored to its previous condition and use.

Before activities begin ground and photos will be taken, important features such as structures, fences, culverts, and landscaping will be noted. Random soil samples will be taken as well as water samples from existing wells. The site will be checked for volatile organic compounds.

After activities begin, constant monitoring of air quality and soil and water samples will take place. Photos, maps, and sketches of the site will be updated and fuel spills will be noted.

At close out final testing of soil, water, and air quality will be taken and compared to original conditions. All ash will be removed and remediation actions will be taken as needed. If warranted, additional testing may be done at other locations adjacent to the site. Final site evaluation is an extension of the environmental monitoring program.

Quality assurance inspectors will monitor all closeout and disposal activities to ensure that contractors, if used, complied with contract specifications.

Additional measures may be necessary to meet local, State and Federal environmental requirements because of the nature of the staging and reduction operation. The basic close-out steps are to remove all debris from the site; conduct an environmental audit or assessment; develop a remediation or restoration plan approved by the appropriate environmental agency; execute the plan; get acceptance from the landowner; and terminate lease payments, if applicable.

## **24. Public Information Plan**

### Public Information Officer

The debris plan addresses the dissemination of information to the general public and media through the office of the Public Information Officer following approval from Command. The County PIO is the County Clerk. The PIO's responsibilities include, but are not limited to: Coordinate press releases to include gaining approval from Incident Command before any release is made, provide contacts with local organizations, individuals, and media; and provide public notices for debris removal and disposal contracts. Emphasis will be placed on actions the public can perform to expedite the clean-up process.

The Public Information Officer will develop a proactive public information plan in order to facilitate communication to the public about cleanup and removal. Emphasis will be placed on actions the public can perform to expedite the cleanup process by separating burnable and non-burnable debris, segregating household hazardous waste; placing debris at the curbside; keeping debris piles away from fire hydrants and valves, reporting locations of illegal dump sites or incidents of illegal dumping and segregating recyclable materials.

### Pre-scripted information

The Public Information Officer (PIO) will keep the public informed of debris pick-up schedules, disposal methods and ongoing actions to comply with State and Federal Environmental Protection Agency (EPA) regulations, disposal procedures for self-help and independent contractors, and restrictions and penalties for creating illegal dumps. The Public Information Officer (PIO) will respond to questions pertaining to debris removal from the press and local residents. The following questions are likely to be asked:

- What is the pick-up system?
- When will the contractor be in my area?

- Who are the contractors and how can I contact them?
- Should I separate the different debris materials and how?
- How do I handle Household Hazardous Waste?
- What if I am elderly?

## Appendix A

### Emergency Key Points of Contact / Debris Team

DEPT	Work Phone	Cell phone	Home Phone
County Road Dept. Director	706-677-6800 x 101	706-658-6228	706-949-0533
EMA / E911 Director	706-677-1234	706-658-5120	678-677-6624
Building Official	706-677-4272	706-983-1579	
Planning / Zoning Director	706-677-4272		
Environmental Health			
Water Director			
Finance Director			
PIO / County Clerk			
Banks County News			
North GA Access			
NGRMC, Recycling Center			
County Attorney			
Fire / EMS Chief			
Sheriff			
Chairman			
Vice-Chairman			
GIS Director			
NGRMA Director			
GEMA Area 1 Coordinator			
Homer			
Maysville			
Gillsville			
Lula			
Alto			
Baldwin			
DOT			
WM Landfill, Don Daniels	706-677-2650	678-283-8252	
DTS, Debris Contractor	864-244-5284		
Byrd Brothers, Debris Cont.	252-293-4488		
DRC, Debris Contractor	251-343-3581		
TFR, Debris Contractor	512-260-3322		

# Appendix B

## Debris Estimation Chart

“U.S. Army Corps of Engineers Hurricane Debris Estimating Model”

### Background

- **The U.S. Army Corps of Engineers (USACE) Emergency Management staff has developed a modeling methodology designed to forecast potential amounts of hurricane-generated debris.**
- **Based on actual data from Hurricanes Frederic, Hugo and Andrew.**
- **The estimated quantities produced by the model have a predicted accuracy of +/- 30%.**
- **The primary factor used by the model is the number of households in a developed urban/suburban area.**
- **Other factors utilized are:**
  - **Cubic yards of debris generated per household per storm category**
  - **Vegetative cover.**
  - **Commercial density.**
  - **Precipitation.**
- **Household debris includes damage to the house, contents and surrounding shrubs/trees.**
- **Vegetative cover includes all trees and shrubbery located along public rights-of-way, parks and residential areas.**
- **Commercial density includes debris generated by damage to businesses and industrial facilities.**
- **Private contractors will remove the majority of commercial related debris; however, disposal/reduction space is still required.**
- **Very wet storms will cause ground saturation, increasing tree fall.**

### Initial Planning Data

- **For planning purposes, the worst - case scenario should be used for the subject area.**
- **The most accurate process is to determine the defined areas by using Doppler Radar (National Weather Service Broadcasts) and Geographical Information Systems (GIS).**
- **Doppler radar will define the storm’s intensity and the exact track of the eye of the storm in relation to the affected area.**
- **Track the storm and plot the eye path and 5-mile wide bands out from the eye to define area and estimate wind speeds.**
- **The wind speed of the eye wall normally determines the reported storm category with the outward or 5-mile bands being a lesser category.**
- **Track the storm inland until the wind speeds dissipate below hurricane strength.**
- **Divide outlined areas by storm category.**
- **Enter coordinates into a GIS database to determine areas and demographic information, such as:**
  - **Population; Schools; Businesses.**

# Appendix B

## Debris Estimation Chart: Continued

### STEP 1 – ESTIMATING DEBRIS QUANTITIES

The formula used in this model will generate debris quantity as an absolute value based on a known/estimated population or a debris quantity per square mile based upon population density per square mile:

- **Determine population (P) in the affected area.**
  - **For example, 2000 census data for Anderson County, SC, is 85,231.**
  - $P = 85,231$
  - **The assumption of 3 persons per household (H) is used for this model.**
  - **Known/estimated population (P) for a jurisdiction may be used to determine a value for H or  $H = P/3$ .**

#### EXAMPLE

**A category 4 storm passes through Anderson County, SC. The area is primarily single family dwellings with some apartment complexes, schools, and shopping centers. Vegetation characteristic is heavy because of the proliferation of residential landscape shrubbery and trees throughout the area. The storm is very wet, with rain before and continuing for a few days after the storm.**

FORMULA:  $Q = H(C)(V)(B)(S)$

$$H = P/3 = 85,231/3 = 28,410 \quad (3 \text{ person per household})$$

$$C = 50 \quad (\text{Factor for a Category 4 storm})$$

$$V = 1.5 \quad (\text{Multiplier for heavy vegetation})$$

$$B = 1.3 \quad (\text{Multiplier for heavy commercial due to schools/stores/apartment})$$

$$S = 1.3 \quad (\text{Multiplier for wet storm event})$$

Then  $Q = 28,410 \times 50 \times 1.5 \times 1.3 \times 1.3 = 3,600,967$  cubic yards of debris or 3.6 million cy

# Appendix B

## Debris Estimation Chart: Continued

**The Model Formula:**  $Q = H (C)(V)(B)(S)$  Where:

- Q is the quantity of debris in cubic yards.**
- H is the number of households.**
- C is the storm category factor in cubic yards**
- V is the vegetation characteristic multiplier**
- B is the commercial/business/industrial use multiplier.**
- S is the storm precipitation characteristic multiplier.**

**C is the storm category factor as shown below. It expresses debris quantity in cubic yards (cy) per household by hurricane category and includes the house and its contents, and land foliage.**

Category of Storm	Value for “C” Factor
<b>1</b>	<b>2 cy</b>
<b>2</b>	<b>8 cy</b>
<b>3</b>	<b>26 cy</b>
✓ <b>4</b>	✓ <b>50 cy</b>
<b>5</b>	<b>80 cy</b>

**V is the vegetation multiplier as shown below. It acts to increase the quantity of debris by adding vegetation, including shrubbery and trees, on public rights-of-way.**

Vegetative Cover	Value of “V” Multiplier
<b>Light</b>	<b>1.0</b>
<b>Medium</b>	<b>1.2</b>
<b>Heavy</b>	<b>1.3</b>

**B is the multiplier that takes into account areas that are not solely single-family residential, but includes small retail stores, schools, apartments, shopping centers, and light industrial/manufacturing facilities. Built into this multiplier is the offsetting commercial insurance requirement for owner/operator salvage operations.**

Commercial Density	Value of “B” Multiplier
<b>Light</b>	<b>1.0</b>
<b>Medium</b>	<b>1.2</b>
<b>Heavy</b>	<b>1.3</b>

**S is the precipitation multiplier that takes into account either a “wet” or “dry” storm event. A “wet” storm for category 3 or greater storms will generate more vegetative debris due to the uprooting of complete trees.**

Precipitation Characteristic	Value of “S” Multiplier
<b>None to Light</b>	<b>1.0</b>
<b>Medium to Heavy</b>	<b>1.3</b>

*Note: Steps 2 and 3 of this model can also be applied to other debris generating events once an estimated quantity of debris is established.*

# Appendix B

## Debris Estimation Chart: Continued

### STEP 2 – DEBRIS STORAGE SITE REQUIREMENTS

- **Estimate debris pile stack height of 10-feet.**
- **60% usage of land area to provide for roads, safety buffers, burn pits and household**

**hazardous waste.**

1 acre (ac) = 4,840 square yards (sy)

10 foot stack height = 3.33 yards (y)

total volume per acre = 4,840 sy/ac x 3.33 y = 16,117 cy/ac

From the example above, the acreage required for debris reduction site is:  
 $7,000,000/16,117 \text{ cy/ac} = 434 \text{ acres}$  (required for debris storage only, no buffers, etc.)

To provide for roads and buffers, the acreage must be increased by a factor of 1.66.

$434 \text{ ac} \times 1.66 = 720 \text{ acres}$  or, since one square mile (sm) = 640 acres  
 $720 \text{ ac}/640 \text{ as/sm} = 1.12 \text{ sm}$ .

- **If you assume a 100 acre storage site can be cycled every 45 to 60 days or one time during the recovery period, then  $720/2 = 360 \text{ ac}$  or four 100 acre sites would be required.**
- **The number of sites varies with:**
  - **Size**
  - **Distance from Source**
  - **Speed of reduction (mixed debris is slower than clean woody debris).**
  - **Removal Urgency**

# Appendix B

## Debris Estimation Chart: Continued

### STEP 3 – CATEGORIES OF DEBRIS

Debris removed will consist of two broad categories:

- **Clean wood Debris.**
- **Construction and demolition (C & D) debris.**

- The clean debris will come early in the removal process as residents and local governments clear yards and rights of way.
- The debris removal mission can be facilitated if debris is segregated as much as possible at the origin along the right-of-way, according to type.
- The public should be informed regarding debris segregation as soon as possible after the storm.
- Time periods should be set for removal, the first 7-10 days clean woody debris only, then followed by other debris, with the metals segregated from non-metals.

- Most common hurricane-generated debris will consist of the following:

1. **30 % Clean woody debris**

2. **70 % Mixed C & D**

Of the 70% mixed C & D

- - **42 % Burnable but requires sorting**
  - **5 % Soil**
  - **15 % Metals**
  - **38 % Land filled**

Based upon the above, 7,000,000 cy of debris would break down as follows:

**2,100,000 cy Clean woody debris**

**4,900,000 cy is metals, and 1,862,000 cy is Land filled.**

Burning will produce about 95 % volume reduction

Chipping and grinding reduce the debris volume on a 4-to-1 ration (4 cy is reduced to 1 cy) or by 75 %.

The rate of burning is basically equal to the rate of chipping/grinding, about 200 cy/hr. However, chipping requires on-site storage and disposal of the chips/mulch.

**Note: Appendix C information was taken from FEMA Publication 325, April 1999).**

# Appendix B

## Debris Estimation Chart: Continued

### Public Assistance Debris Operations Job Aid (FEMA 9580.1)

#### Section E: Estimating Debris Quantities

##### Estimating Debris Quantities

**General: Initial quantity estimates are difficult to make, due to a number of factors: the type, magnitude, and geographical location of the disaster; geographical extent of the debris; the types and mix of debris, and the sometimes difficulties in gaining access to the affected area. It is important, however, to make as accurate an estimate as possible, and refine that estimate as work continues.**

**Become familiar with the general results of various types of disasters. Hurricanes, and tornadoes can produce large quantities of yard waste and construction materials scattered over a large area. Floods create large amounts of debris that may be buried in silt. Ice storms and snowstorms create large amounts of woody debris from broken limbs and branches. Many of the large broken limbs remain attached to the tree trunk and must be removed by professional tree trimmers.**

**Ensure that necessary equipment is available, including:**

- **Digital (preferred) or Polaroid camera. (Disposable Cameras)**
- **100 foot tape or roll-off wheel**
- **Calculator, notepad, sketchpad**
- **Maps of area**
- **Aerial photographs (preferably before and after the disaster)**
- **Dedicated vehicle and mobile communications**

**Debris estimating can be expedited by dividing the community into sectors based on any of the following:**

- **Types of debris; woody, mixed or construction material**
- **Location of debris; residential, commercial or industrial**
- **Land use; rural or urban**

**Reminders: The following reminders may be of assistance when performing debris estimates:**

- **Look beyond the curb into side and backyards and at the condition of the homes. Most of the debris in these areas will eventually move to the curb.**
- **Wet storms will produce more personal property (household furnishings, clothing, rugs, etc.) debris if roofs are blown away.**
- **Look for hanging debris such as broken limbs after an ice storm.**
- **Flood-deposited sediment may be compacted in place. Volume may increase as debris is picked up and moved.**
- **Using aerial photographs in combination with ground measurements will help determine if there are any voids in the middle of large debris piles.**
- **Treat debris piles as a cube, not a cone, when performing estimates.**

# Appendix B

## Debris Estimation Chart: Continued

### Public Assistance Debris Operations Job Aid (FEMA 9580.1)

#### Section E: Estimating Debris Quantities

Estimating Aids – Building: **The following information will assist you in determining the amount of debris from destroyed buildings and mobile homes:**

- **One Story House Formula:**

$L' \times W' \times 8' = \text{_____ cubic yards} \times 0.33 = \text{_____ cubic yards of debris. } 27' \text{ per cy}$   
(The 0.33 factor accounts for the “air space” in the house)

- **The table below can be used to estimate debris quantities for a totally destroyed typical home. A vegetative debris multiplier is also included.**
- **Amount of personal property (as debris) from average flooded residence without a basement: 25-30 cy.**
- **Amount of personal property (as debris) from average flooded residence with a basement: 45-50 cy.**

Typical House (Square Feet)	VEGETATIVE COVER MULTIPLIER (YARD WASTE)			
	None	Light (1.1)	Medium (1.3)	Heavy (1.5)
<b>1000 SF</b>	<b>98 cy</b>	<b>107 cy</b>	<b>127 cy</b>	<b>147 cy</b>
<b>1200 SF</b>	<b>118 cy</b>	<b>129 cy</b>	<b>153 cy</b>	<b>177 cy</b>
<b>1400 SF</b>	<b>137 cy</b>	<b>150 cy</b>	<b>178 cy</b>	<b>205 cy</b>
<b>1600 SF</b>	<b>155 cy</b>	<b>170 cy</b>	<b>201 cy</b>	<b>232 cy</b>
<b>1800 SF</b>	<b>175 cy</b>	<b>192 cy</b>	<b>228 cy</b>	<b>263 cy</b>
<b>2000 SF</b>	<b>195 cy</b>	<b>215 cy</b>	<b>254 cy</b>	<b>293 cy</b>
<b>2200 SF</b>	<b>215 cy</b>	<b>237 cy</b>	<b>280 cy</b>	<b>323 cy</b>
<b>2400 SF</b>	<b>235 cy</b>	<b>259 cy</b>	<b>306 cy</b>	<b>353 cy</b>
<b>2600 SF</b>	<b>255 cy</b>	<b>280 cy</b>	<b>332 cy</b>	<b>383 cy</b>

- **Single wide mobile home = 290 cy of debris**
- **Double wide mobile home = 415 cy of debris**

Rule of Thumb:

- 15 trees 8 inches in diameter = 40 cy (average)
- Root system (8'-10' diameter) = Requires one flat bed trailer to move.
- To convert cubic yards of Construction and Demolition (C & D) debris to tons, divide by 2.
- To convert tons of C & D debris to cubic yards, multiply by 2.
- To convert cubic yards of woody debris to tons, divide by 4\*.
- To convert tons of woody debris to cubic yards, multiply by 4\*.

*\*These factors to convert woody debris from cubic yards to tons, and vice versa, is considered a good average for mixed debris, developed by the USACE.*

# Appendix B

## Debris Estimation Chart: Continued

### Public Assistance Debris Operations Job Aid (FEMA 9580.1)

#### Section E: Estimating Debris Quantities

**Debris Composition for Hurricanes: As a general statement, hurricanes are the biggest debris generators of all disasters. For planning purposes, it is sometimes useful to have an estimate of the composition of the debris expected from a hurricane. There is no exact composition data; the mix from Hurricane Andrew in Florida was generally 30% clean, woody debris and 70% construction and demolition debris. After Hurricane Fran in North Carolina, the mix was reversed – clean woody debris was 70%. Look closely at the areas impacted by the hurricane before projecting the mix. One type of debris that has a fairly consistent composition is mixed construction and demolition debris. A good average for that mix is:**

- **42% burnable, but requires sorting (Check before burning, there may be prohibitions against burning construction debris).**
- **5% soil.**
- **15% metals.**
- **38% Landfilled.**

Reduction Rates:

- **Burning: 95% reduction.**
- **Chipping and grinding: 75% reduction (average). This percentage may vary with the types of wood being chipped. It is best to carefully measure several piles of typical woody debris before they are chipped, then immediately thereafter, measure the amount of mulch generated. Palm trees normally are not chipped because of their fibrous trunks and the high content of silicates that are carried up the trunks during intake of moisture.**
- **Tub-grinders have production rates ranging from 160 to 340 cubic yards per hour for brush and yard waste. Check production rates for specific equipment being used. Do not use Grinder Production Logs: they tend to over quantify production because they may apply engine hours, use an “ideal” rate of production; lack personnel to monitor equipment usage; have changes in conditions of debris, etc. Verify by monitoring operations.**

# Appendix C

## Pre-identified Debris Management Sites in Banks County

These sites will be known as Debris Management Sites (DMS), Temporary Debris Storage (TDS) and Reduction Sites (TDSR) and Final Disposal Sites.

- Waste Management Landfill – Final Disposal Site

The following is a list of sites that may be viable for functions of temporary debris storage and reduction as well:

- Banks County Farm / Horse Arena
- Banks County Road Barn / Oscar Rucker
- Banks County Fire Station / 310 / Industrial Park
- Banks County Fire Station / 240 / Mt. Carmel

# Appendix D

## TDM Site Preparation Checklist

### SITE EVALUATION

1. **Site Ownership:**
  - a) **Use public lands to avoid costly leases and trespassing allegations. Use private land only if public sites are unavailable.**
  
2. **Site Location:**
  - a) **Consider impact of noise, dust and traffic;**
  - b) **Consider pre-existing site conditions;**
  - c) **Look for good ingress/egress at site(s);**
  - d) **Consider impact on ground water;**
  - e) **Consider site size based on:**
    - (1) **Expected volume of debris to be collected;**
    - (2) **Planned volume reduction methods;**
  - f) **Avoid environmentally sensitive areas, such as:**
    - (1) **Wetlands;**
    - (2) **Rare and critical animals or plant species;**
    - (3) **Well fields and surface water supplies;**
    - (4) **Historical/archaeological sites;**
    - (5) **Sites near residential areas, schools, churches, hospitals and other sensitive areas;**
  - g) **Perform recordation of site chosen (pictures, videos).**
  
3. **Site Operations:**
  - a) **Use portable containers;**
  - b) **Separate types of waste as operations continue;**
  - c) **Monitor site at all times;**
  - d) **Perform on-going volume reduction (on site or removal for disposal/reduction);**
  - e) **Provide nuisance management (dust, noise, etc.);**
  - f) **Provide vector controls (rats, insects, etc);**
  - g) **Provide special handling for hazardous materials;**
  - h) **Provide security (limit access);**
  - i) **Ensure appropriate equipment is available for site operations.**
  
4. **Site Closeout:**
  - a) **Remove all remaining debris to authorized locations;**
  - b) **Restore site to pre-use condition;**
  - c) **Perform recordation of site (pictures, videos);**
  - d) **Ensure compliance with ADEM Guidelines.**

## Appendix E Existing Landfills (Servicing Banks County)

Name	Location	Owned By	Operated By	Municipal or Industrial or C&D or All	Permit # and Permitted capacity
R&B Landfill	Homer	Waste Management	Waste Management		

NOTE:

# Appendix F

## Eligibility of Curbside Pick - Up

Public Assistance Debris Operations Job Aid (FEMA 9580.1)

### Eligibility of Curbside Pick-Up

**Debris may continue to accumulate as residents bring debris from their properties to public rights-of-way. Typically, this occurs in three stages:**

- Stage 1: Woody Debris and yard waste moved to right-of-way.**
- Stage 2: Household waste, such as damaged personal goods, moved to right-of-way.**
- Stage 3: Construction and demolition materials removed by the homeowner prior to the receipt of insurance and individual assistance payments.**

**Residents should not mix garbage with debris. Debris deposited at the curbside must be disaster-related to be eligible for pickup and disposal by the applicant. Applicants should resume normal garbage pick-up schedules as soon as possible.**

**Construction and demolition materials from minor or major repairs or reconstruction by contractors should not be deposited at the curbside. Contractors should remove and deposit the debris at approved landfills.**

**Insurance proceeds usually cover the cost for demolition debris removal from private property. Remember, only disaster-related debris removal costs not covered by insurance are eligible for reimbursement. Watch for non-disaster related materials (bagged grass clippings, household garbage, automobile parts etc.).**

**When it becomes apparent that the debris being brought to the curb is not disaster-related, or is reconstruction debris, the Public Assistance Officer (PAO-FEMA) should negotiate with the State counterpart to set a realistic deadline and make sure the applicants have advance notice.**

*Note: The Banks County Roads Dept. Director in conjunction with the Solid Waste Manager should evaluate this cut-off point first, and issue a notice to the public announcing the cut off date.*

**For example, it is unrealistic to impose a deadline that takes effect 48 hours later. For large events, it is unrealistic to set deadlines immediately following the disaster. However, discussions with the State on the need to establish deadlines should begin early.**

**Remember, the time extension authority given to the State applies only to disaster-related debris. That authority does not apply to curbside pick-up of non-disaster debris, or to reconstruction debris.**

# Appendix G

## Removal of Eligible Debris from Private Property

Public Assistance Debris Operations Job Aid (FEMA 9580.1)

### Removal of Eligible Debris from Private Property

A discussion of eligibility for removal of debris from private property is contained in the Debris Management Guide, FEMA Publication 325; however, issues regarding such removal are common. In particular, problems may arise regarding the definitions of “public health and safety” and “economic recovery” related to debris on private property. Removal of debris from private property is primarily the responsibility of the individual property owner, aided by insurance settlements or volunteer organizations.

- **Ensure that the term “economic recovery of the affected areas” is not being misapplied. Use of this criterion is normally restricted to the removal of disaster-related debris from large commercial areas to expedite restoration of the economic viability of the affected community.**
- **Ensure that all applicants** (Note: Applicants as applied here would be the Banks County Board of Commissioners for Public Assistance through FEMA) **are aware that only FEMA makes eligibility determinations regarding removal of debris from private property.**
- **Ensure that all applicants are aware of the limitation of debris removal from private property early in the disaster.**
- **If FEMA determines that debris is so widespread that removal from private property is appropriate, ensure that the eligible applicant understands the requirement to collect any insurance proceeds that covers the debris removal. These proceeds must be reported to FEMA, and that amount de-obligated from the appropriate Public Worksheet (PW of the PA application).**
- **Ensure that the determination that “ a public health and safety issue exists” is not based on building codes. Generally, the determination would be based on ordinances related to condemnation. Additionally, most such ordinances require that the applicant place a lien on the property for re-coupmnt of demolition and debris removal costs. If so, that amount should be treated similar to insurance proceeds, and de-obligated.**
- **Ensure that there is a clear understanding that a public health and safety hazard must exist for the removal of the debris to be eligible. Again, the final determination for the eligibility of debris removal from private property is a FEMA responsibility.**
- **Demolition of a structure is not always the most cost-effective health and safety alternative. For “attractive nuisances,” where structural integrity has not been compromised, cleaning and securing the facility may be the best alternative.**
- **Concrete slabs or foundation-on-grade do not present a health or safety hazard to the general public except in very unusual circumstance, such as erosion under a concrete slab on a hillside.**
- **Broken slabs, or slabs incapable of supporting a new structure, do not constitute a public health or safety hazard. They are more appropriately part of the reconstruction of the facility, and concrete slabs that are removed for reconstruction purposes are not eligible for removal as disaster-related debris, even when brought to the curbside.**
- **The cost of removing substantially damaged structures, as well as associated slabs, driveways, fencing, garages, sheds, and similar appurtenances, are eligible when the property is part of a Section 404 Hazard Mitigation buyout and relocation project. Review the *Policy on Demolition of Private and Public Facilities*, November 9, 1999.**

**Appendix H**  
**Banks County**  
**RIGHT OF ENTRY AGREEMENT**  
**Private Property**

I/We \_\_\_\_\_, the owner(s) of the property commonly identified as: (911 Address) \_\_\_\_\_, of (city/town) \_\_\_\_\_ (zip code) \_\_\_\_\_, in Banks County, in the State of Georgia do hereby grant and give freely and without coercion, the right of access and entry to said property to the Banks County Board of Commissioners, its agencies, contractors, and subcontractors thereof, for the purpose of removing and clearing any or all storm-generated debris of whatever nature from the above described property.

It is fully understood that this permit is not an obligation to perform debris clearance. The undersigned agrees and warrants to hold harmless Banks County, the State of Georgia, its agencies, contractors, and subcontractors, for damage of any type, whatsoever, either to the above described property or persons situated thereon and hereby release, discharge, and waive any action, either legal or equitable that might arise out of any activities on the above described property. The property owner(s) will mark any storm damaged sewer lines, water lines, and or other utility lines located on the described property.

I/We (have \_\_\_\_\_, have not \_\_\_\_\_) (will \_\_\_\_\_, will not \_\_\_\_\_) received any compensation for debris removal from any other source including Small Business Administration (SBA), National Resource Conservation Service (NRCS), private insurance, individual and family grant program or any other public assistance program. I will report for this property any insurance settlements to me or my family for debris removal that has been performed at government expense. For the consideration and purposes set forth herein, I set my hand this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Owner: \_\_\_\_\_  
Telephone Number: (    ) \_\_\_\_\_ - \_\_\_\_\_  
Address: (Street) \_\_\_\_\_  
(City, State, Zip Code) \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Owner: \_\_\_\_\_  
Telephone Number: (    ) \_\_\_\_\_ - \_\_\_\_\_  
Address: (Street) \_\_\_\_\_  
(City, State, Zip Code) \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Witness: \_\_\_\_\_  
Telephone Number: (    ) \_\_\_\_\_ - \_\_\_\_\_  
County Representative: (Signature) \_\_\_\_\_  
Telephone Number: (    ) \_\_\_\_\_ - \_\_\_\_\_  
Department or Contractor Name (Signature): \_\_\_\_\_

# Appendix I

## Emergency Routes to Critical Facilities / Infrastructure

### Major State / US Routes:

1. Interstate 85
2. Highway 441 / GA 15
3. Highway 164
4. Highway 98
5. Highway 326
6. Highway 59
7. Highway 51 N
8. Highway 51 S
9. Highway 23
10. Highway 323
11. Highway 52
12. Highway 105
13. Highway 63
14. Highway 184 E
15. Highway 198

### Major County / City Roads:

1. All State / US Routes
2. Historic Homer Hwy
3. Old Highway 441 N
4. Damascus Road
5. Apple Pie Ridge Road
6. E Ridgeway Rd
7. W Ridgeway Rd
8. Grove Level Road
9. Thompson Street
10. Windmill Farm Rd
11. Hudson Valley Drive
12. Hudson Ridge
13. Hickory Flat Rd
14. Carson Segars Rd
15. Yonah Homer Rd
16. Whippoorwill Way
17. Baldwin Heights
18. Sims Bridge Rd
19. Industrial Park Dr
20. Industrial Park Blvd
21. Sycamore Street
22. Evans Street
23. Wells Rd
24. Oscar Rucker Rd
25. Rylee St
26. Barrett Rd
27. W Banks Dr

# Appendix J

## Recycling Vendor Point of Contact

**\*Banks County would take all of its metal materials to the following company for recycling:**

???

**\*Banks County would take all of it's electronic equipment , for recycling, to the following company:**

???

# Appendix K

## Hazardous Waste Vendor Point of Contact

### **Seymours Spill Recovery**

2909 Ila Rd

Commerce, Ga 30529

706-335-4545

Contact: Mitch Seymour

# Appendix L

## FEMA FACT SHEET

“Eligibility of Hazardous Stump Removal”

Date Published: May 16, 2005

**This fact sheet provides guidance on the eligibility of extracting, transporting and disposing of hazardous tree stumps and root balls that were created by a disaster event. FEMA will reimburse applicants a reasonable cost on a per stump basis for stumps larger than 24 inches in diameter that are extracted from the public right-of-way. FEMA will reimburse the removal of all other stumps on a cubic yard basis using the attached Stump Conversion Table.**

**When a disaster event uproots a tree (i.e. 50% 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 extract, remove and dispose of the eligible stump and root ball and filling of the root cavity. FEMA will reimburse applicants reasonable costs for extracting, transporting and disposing of eligible stumps and root balls that FEMA, the State and applicant approve in advance using the attached Hazardous Stump Worksheet. FEMA will reimburse applicants for eligible stumps on a per stump basis for stumps larger than 24 inches in diameter (measured two feet from the ground). This recognizes that different equipment may be required to extract, transport and dispose of these sizes of stumps. Stumps with diameters of 24 inches and smaller do not require special equipment to extract, transport and dispose of. Therefore, FEMA will reimburse applicant stumps with diameters of 24 inches and smaller at the unit cost rate for regular debris using the attached Stump Conversion Table. FEMA will not reimburse applicants for stumps and root balls that were not approved in advance.**

**FEMA will reimburse applicants at the unit cost rate (usually cubic yards) for normal debris removal for all stumps, regardless of size, that are 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 these instances, applicants do not incur additional cost to remove these stumps – the equipment is used to pick up “regular” debris can be used to pick up these stumps. If an applicant believes that it will incur additional costs in removing large stumps from the rights-of-way, it should complete He Hazardous Stump Worksheet and present documentation to FEMA in advance for approval.**

**FEMA does not consider stumps with less than 50% of their root ball exposed to be hazardous. Therefore, the removal of these stumps is not eligible for reimbursement. FEMA will reimburse applicants the cost to cut the stump at ground level.**

**This fact sheet clarifies guidance on stumps contained in FEMA 325, dated April 1999.**

# Appendix M

## *DAILY HAUL RECORD*

<b>DAILY REPORT</b>					
Banks County Roads Dept: _____				DATE OF REPORT:	
Truck No.		Location of Work	Local Collection Site Trips	Landfill Trips	Weight Total Tons
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
		DAILY TOTALS			

## LOAD TICKET

<b>B. LOAD TICKET</b>		
<b>TICKET NUMBER:</b>		
<b>CONTRACT NUMBER</b>		
<b>CONTRACTOR</b>		
<b>DATE:</b>		
<b>DEBRIS QUANTITY</b>		
<b>Truck No:</b>	<b>Capacity (CY):</b>	
<b>Load Size (CY):</b>	<b>Tons:</b>	
<b>Truck Driver:</b>		
<b>DEBRIS CLASSIFICATION</b>		
	<b>Burnable</b>	
	<b>Non-Burnable</b>	
	<b>Mixed</b>	
	<b>Other</b>	
<b>LOCATION</b>		
<b>Section/Area:</b>	<b>Dumpsite</b>	
	<b>Time</b>	<b>Inspector</b>
<b>Loading</b>		
<b>Dumping</b>		
<b>Eligibility (Y/N):</b>	Original: [County ] [City][State] Yellow: Contractor Pink: Driver Gold: FEMA	

# Appendix N

## Pre-scripted information for public dissemination

### MEDIA RELEASE

Date:

Point of Contact: Banks County Public Information Officer  
706-677-6800 x 102

Banks County EOC  
706-677-3401

GEMA Public Information Officer  
1-800-879-4362

This news release is designed to inform the general public and to place emphasis on actions the public can perform to expedite the cleanup process by separating burnable and non-burnable debris, segregating household hazardous waste; placing debris at the curbside; keeping debris piles away from fire hydrants and valves, reporting locations of illegal dump sites or incidents of illegal dumping and segregating recyclable materials.

Questions or comments concerning storm debris cleanup efforts should be directed to the County Emergency Management Office at 706-677-3401.

XXXXXXXXXXXXXXXXXXXXXXXXX-E-N-D-XXXXXXXXXXXXXXXXXXXXXXXXX

# Appendix N

Continued

## Pre-scripted information for public dissemination

### MEDIA RELEASE

Date:

Point of Contact: Banks County Public Information Officer  
706-677-6800 x 102

Banks County EOC  
706-677-3401

GEMA Public Information Officer  
1-800-879-4362

This news release is designed to inform the general public of debris pick-up schedules, disposal methods and ongoing actions to comply with State and Federal Environmental Protection Agency (EPA) regulations, disposal procedures for self-help and independent contractors, and restrictions and penalties for creating illegal dumps.

Questions or comments concerning storm debris cleanup efforts should be directed to the County Emergency Management Office at 706-677-3401.

XXXXXXXXXXXXXXXXXXXXXXXXX-E-N-D-XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

# **Appendix O**

## **Grinding Company Vendor Point of Contact**

Banks County would bring in a grinding operation if deemed necessary due to large quantities of stumps, leaves and limbs. Grinding operations will be done at one of the pre-identified Banks County Debris Management Sites. We have contacted two companies for such an event.

Savage Construction Co.  
227 Mt. Creek Lane  
Maysville, Ga. 30358  
706-652-2513  
Contact: Ronny Savage

# Appendix P

## Weight Scales Service Company & Alternate Weight Scales

### Scales

Name of Company: Waste Management Landfill

Name of Company: "Flying J" Truck Stop  
Address: 4855 Maysville Rd. (Hwy 98@I-85)  
Contact person:  
Telephone: 706-335-9163  
Other information:

# **Appendix Q**

## **Georgia Environmental Protection Division**

Georgia Environmental Protection Division  
[www.gaepd.org](http://www.gaepd.org)  
Environmental Permitting  
Solid Waste Landfills

# Appendix R

## Pre-qualified Debris Management Contractors

*Note: County encourages / promotes use of Local Sub-Contractors.*

- DTS, Incorporated  
326 E Darby Road  
Taylors, SC 29687  
Daniel McClaran, Owner  
[info@dts-inc.org](mailto:info@dts-inc.org)  
864-244-5284 Office  
864-895-4807 Fax
- Byrd Brothers Emergency Services, LLC  
5164 Lamm Road  
Wilson, North Carolina 27893  
Jamey Byrd  
[jameybyrd@byrdbrothers.com](mailto:jameybyrd@byrdbrothers.com)  
252-293-4488 Office  
866-932-0333 Toll Free  
252-293-4490 Fax
- DRC Emergency Services, LLC  
740 Museum Drive  
Mobile, Alabama 36608  
Buddy Persons or Catherine Walker  
[bpersons@drcusa.com](mailto:bpersons@drcusa.com)  
[cwalker@drcusa.com](mailto:cwalker@drcusa.com)  
251-343-3581 Office  
251-343-5554 Fax
- TFR Enterprises, Incorporated  
601 Leander Drive  
Leander, Texas 78641  
Tiffany Wilkes, Contract Administrator  
[tiffanyw@tfrinc.com](mailto:tiffanyw@tfrinc.com)  
512-260-3322 Office  
512-528-1942 Fax

End of Document