

The State of South Carolina
Military Department



OFFICE OF THE ADJUTANT GENERAL

ROBERT E. LIVINGSTON, Jr.
MAJOR GENERAL
THE ADJUTANT GENERAL

October 10, 2017

Frank Carson
Public Works Operations Manager
Charleston County
4045 Bridge View Drive
North Charleston, SC 29405

Dear Mr. Carson,

The South Carolina Emergency Management Division (SCEMD) is pleased to inform you that Charleston County's Debris Management Plan was approved by the Federal Emergency Management Agency. SCEMD would like to thank you for submitting your plan. Your dedication is a great asset to the state of South Carolina and its citizens.

Should you have any questions please direct them to Brittany Kelly, Public Assistance Officer at (803) 429-1027.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Stenson".

Kim Stenson
Director

Emergency Management Division
2779 Fish Hatchery Road
West Columbia, South Carolina 29172
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Charleston County Public Works Department

Disaster Debris Management Plan

July 2017

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Attachment 2	Disaster Debris Sites Plan
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***NOTE: This Plan has been written to comply with the Sandy Recovery Improvement Act of 2013 (SRIA), specifically SEC. 428 Public Assistance (PA) Program Alternative Procedures
Revision: June 28, 2015***

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Charleston County

Disaster Debris Management Plan

PREFACE

The State of South Carolina's disaster response system, based on the Federal model, is organized into Emergency Support Functions (ESF). Each of the functions is comprised of multiple agencies or organizations that manage and coordinate specific categories of assistance common to all emergency events. ESF 3 "Public Works and Engineering" provides the primary support function for the restoration of public services, roads, and utilities.

Charleston County Public Works (CCPW) is the lead agency responsible for disaster debris removal on essential transportation routes, and for coordinating the permanent removal and disposal of all debris from public property and rights-of-way and under certain circumstances private property within Charleston County (County) and its included municipalities. This Disaster Debris Management Plan (Plan) provides the steps required to plan, respond, and recover from a disaster event.

CCPW is responsible for emergency debris removal on essential transportation routes as identified in ESF 3, to the County Emergency Operations Plan.

CCPW recognizes the cooperation from other municipal and County departments and agencies identified in this Plan. Your understanding of the importance of having a coordinated Plan in place prior to a natural disaster will contribute to the safety and well-being of all residents of the County. The use of this Plan is applicable to an all-hazards approach

James R. Neal, P.E.
Director, Public Works Department
Charleston County, SC

SECTION I PLAN DEVELOPMENT, OVERVIEW AND OBJECTIVES

This Plan is written to comply with the criteria set forth in Public Law 113-2 Division B- Sandy Recovery Improvement Act of 2013 (SRIA) specifically SEC. 428 Public Assistance (PA) Program Alternative Procedures, June 28, 2015. The Plan has been completed through inter-department and inter-local cooperation including the following entities:

- Charleston County Sheriff Department
- Deputy County Administrator Community Services
- Deputy County Administrator Facilities
- Deputy County Administrator Human Services
 - Emergency Management Department
 - Procurement Department
- Deputy County Administrator Finance
 - Budget Department
- Deputy County Administrator Public Works and Transportation
 - Public Works Department
 - Environmental Management Department
 - Transportation Development
- City of Charleston
- Town of Mt. Pleasant
- City of North Charleston
- Other Municipal Entities listed in Attachment 11

This Plan identifies the actions required to plan for and respond to a natural or man-made debris-generating event. It is designed to identify local, State, and Federal departments and agencies, and external consultants and debris removal contractors responsible for debris operations with respect to executing a coordinated response to a significant debris-generating event (e.g., hurricane, earthquake or tornado). CCPW recognizes the importance of having a coordinated Plan in place that will contribute to the safety and well-being of all residents of the County and the importance of cooperation between County departments, municipalities, and agencies identified in this Plan.

The County Debris Manager (DM) will direct and coordinate Debris Clearing Operations (Phase III) and Debris Removal and Disposal Operations (Phase IV) utilizing personnel and equipment from County departments, mutual aid providers, and private debris removal and disposal contractors.

The County DM will be responsible for coordinating disaster debris operations with respect to the emergency clearance and permanent removal and disposal of debris deposited along or immediately adjacent to rights-of-way throughout the County in consultation with other municipalities, County departments, and State and Federal agencies. This approach will ensure a seamless and efficient cleanup operation.

A County Debris Management Operations Center (DMOC) will operate as a unified organization under direct control of the County DM. All debris clearing, removal, and disposal operations within the County will be directed and coordinated by a joint DMOC staff located at the County ESF 3 Operations Center, 4045 Bridge View Drive, Suite A301, North Charleston, SC.

A. Authority

This Plan is developed, promulgated, and maintained under ESF 3, Public Works and Engineering Services, to the County Emergency Operations Plan (CEOP) 2016. The CEOP

contains the ESF 3 Operations Plan which is provided as Attachment 1.

B. Disaster Debris Management Plan Roster

ESF-3 Incident Commander	Director, Public Works Department
Public Information Officer	ESF 14 Liaison, Communications
EOC Liaison Officer	Administrative Services Division Manager or Designee
Safety Officer	Safety Manager, Public Works Department
Operations and Plans, Deputy Incident Commander	Public Works Operations Manager
Long Term Recovery / Development Services	County Engineer / Deputy County Administrator Human Services
Logistics	Public Works Operations Manager or Designee
Finance / Administration,	Director, Budget Department
Administration / Personnel Management	Administrative Services Division Manager
Debris Manager	Public Works Operations Manager
Environmental Management	Director, Environmental Management
Communications	Public Information Officer Charleston County or Designee
Plans Chief	Operations Support Manager (Public Works Department)
Information Systems Support	Compliance Officer Public Works Department
External Agency Coordinator	Sr. Environmental Engineer, Environmental Management
Damage Assessment Manager	County Engineer Public Works Department
Procurement Manager	Director, Procurement Department
Communications-Message Center	Administrative Services Division Manager or Designee
Applicant Agent	Charleston County Budget Director

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SECTION II EXPLANATION OF TERMS

Disaster debris is the remains of things destroyed or damaged as a result of natural or technological disasters. Some types of debris pose a threat to health, safety, and the environment. A glossary that provides definitions of common terms used herein that are associated with the management of debris and a comprehensive listing of acronyms and abbreviations used in this plan is provided below.

A. LIST OF ACRONYMS

AFP	Application for Payment
APWA	American Public Works Association
C&D	Construction & Demolition Debris
CCEM	Charleston County Environmental Management
CCPW	Charleston County Public Works
CEMP	Comprehensive Emergency Management Plan
CEOP	County Emergency Operations Plan
DCOT	Debris Contractor Oversight Team
DDMP	Disaster Debris Management Plan
DHEC	SC Department of Health and Environmental Control
DM	Debris Manager (County)
DMOC	Debris Management Operations Center
EMD	Emergency Management Department
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ESF	Emergency Support Function
ESF 3/HQ	Emergency Support Function 3 Headquarters
FEMA	Federal Emergency Management Agency
H&S	Health & Safety
HHW	Household Hazardous Waste
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command Staff
MSW	Municipal Solid Waste
NEMA	National Emergency Management Association
NIMS	National Incident Management System
OM	Operations Manager
PA	Public Assistance
PIO	Public Information Officer
PW	Project Worksheet
QA	Quality Assurance
ROE	Right-Of-Entry
ROW	Right-Of-Way
SCDOT	South Carolina Department of Transportation
SCEMD	South Carolina Emergency Management Division
SCHP	South Carolina Highway Patrol
SOP	Standard Operating Procedures
TDAS	Temporary Debris Aggregation Site(s)
TDMS	Temporary Debris Management Site(s)
USACE	United States Army Corps of Engineers

B. DEFINITIONS

Terms defined in this plan are to provide a general overview of disaster debris operations. In all instances, terms defined by State Statute or South Carolina Administrative Code take precedent.

Burning – Reduction of woody debris by controlled burning. Woody debris can be reduced in volume by approximately 95% through burning. Air-curtain burners are most acceptable because they can be operated in a manner to comply with clean-air standards.

Chipping or Mulching - Reducing wood related material by mechanical means into small pieces to be used as mulch or fuel. Woody debris can be reduced in volume by approximately 75%, based on data obtained during reduction operations. The terms “chipping” and “mulching” are often used interchangeably.

Construction, Demolition and Land-Clearing Wastes - Any type of solid waste resulting from land-clearing operations, the construction of new buildings or remodeling structures, or the demolition of any building or structure.

Debris - Scattered items and materials that were broken, destroyed, or displaced by a natural disaster. For example, disaster debris may include yard waste, building materials, household items, personal property, hazardous household products, batteries, hazardous chemicals, spoiled food, dead animals, and other materials.

Debris Clearance - Clearing the major road arteries by pushing debris to the roadside to accommodate emergency traffic.

Debris Contractor Oversight Team – The Debris Contractor Oversight Team (DCOT) is organized to provide oversight of private Debris Contractors involved with debris clearing, removal, and disposal operations. The team consists of Roving Monitors, Load Site Monitors, and Disposal Site Monitors.

Debris Removal - The collection and transport of debris to a temporary storage site, recycling facility, permanent landfill or other approved facility for disposal.

Federal Response Plan – A plan that describes the mechanism and structure by which the Federal government mobilizes resources and conducts activities to address the consequences of any major disaster or emergency that overwhelms the capabilities of State and local governments.

Final Debris Disposal - Placing mixed debris and/or residue from volume reduction operations into an approved landfill or other approved final disposal facility (e.g., waste-to energy facility).

Force Account Labor - In this context, State, tribal or local government employees engaged in debris removal activities within their own jurisdiction.

Garbage - Waste that is normally collected by a designated department such as the Department of Solid Waste or a Contractor. Examples: food, plastics, and other municipal solid waste (MSW).

Hazardous Waste - Any waste or combination of wastes of a solid, liquid, contained gaseous or semisolid form which because of its quantity, concentration, or physical, chemical, or infectious characteristics may:

- Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or
- Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed
- Includes material and products from institutional, commercial, recreational, industrial and agricultural sources that contain certain chemicals with one or more of the following

characteristics, as defined by the Environmental Protection Agency (EPA): 1) Toxic, 2) Flammable, 3) Corrosive; and/or 4) Reactive. Such wastes may include, but are not limited to, those that are persistent in nature, assimilated, or concentrated in tissue or which generate pressure through decomposition, heat, or other means. The term does not include solid or dissolved materials in domestic sewage or solid dissolved materials in irrigation return flows, or industrial discharges, which are point sources subject to State or Federal permits.

Household Hazardous Waste (HHW) - Used or leftover contents of consumer products that contain chemicals with one or more of the following characteristics, as defined by the EPA: 1) Toxic, 2) Flammable, 3) Corrosive and/or 4) Reactive. Examples of HHW include small quantities of normal household cleaning and maintenance products, latex and oil based paint, cleaning solvents, gasoline, oils, swimming pool chemicals, pesticides, and propane gas cylinders.

Hot Spots - Illegal dumpsites that may pose Health and Safety (H&S) threats.

Illegal Dumping - Dumping garbage and rubbish, etc., on open lots is prohibited. No garbage, refuse, abandoned junk, solid waste or other offensive material shall be dumped, thrown onto, or allowed to remain on any lot or space within the County.

Industrial Waste - Any liquid, gaseous, solid, or other waste substance, or a combination thereof resulting from any process of industry, manufacturing, trade, or business or from the development of any natural resources.

Monitoring - Actions taken to ensure that a Debris Contractor complies with the contract scope of work.

Mutual-Aid Agreement - A written understanding between communities, states, or other government entities delineating the process of providing assistance during a disaster or emergency. (See Response and Recovery Directorate Policy Number 9523.6, "Mutual Aid Agreements for Public Assistance", dated August 17, 1999).

Public Information Officer – Public Information Officer (PIO) is responsible for preparing news releases pertaining to the debris cleanup operation.

Recycling - The recovery and reuse of metals, soils, vegetative and construction materials that may have a residual monetary value. Examples of recyclable material are: Aluminum, ferrous metals, non-ferrous metals, old corrugated cardboard, plastics, lumber, etc.

Rights-of-Way - The portions of land over which facilities, such as highways, railroads, or power lines are built. Includes land on both sides of the highway up to the private property line.

Scale/Weigh Station - A scale used to weigh trucks as they enter and leave a landfill. The difference in weight determines the tonnage dumped and a tipping fee may be charged accordingly. Also, may be used to determine the quantity of debris collected and hauled.

Sweeps/Passes - The number of times a Debris Contractor passes through a community to collect all disaster-related debris from the rights-of-way. Usually limited to three passes through the community.

Temporary Debris Aggregation Site (TDAS) – A location in densely populated areas that allows for the relocation of material from a small collection truck to a larger transportation truck. May also be used for brief storage of clean vegetative debris.

Temporary Debris Management Site (TDMS) - A location where debris is temporarily staged until it is sorted, processed, and reduced in volume and/or taken to a permanent landfill.

Tipping Fee - A fee based on weight or volume of debris dumped that is charged by landfills or other waste management facilities to cover their operating and maintenance costs.

Trash - Non-disaster waste such as yard waste, white metals, or household furnishings placed on the curbside. Non-disaster trash is not eligible for reimbursement under FEMA's PA Program. Not synonymous with garbage.

United States Army Corps of Engineers (USACE) – Federal agency responsible for design and management of construction projects for the Army and Air Force, and provides oversight to various flood control and navigation projects. The USACE may be tasked by FEMA to manage debris removal and disposal and private contractor operations.

Volume Reduction Operations - Any of several processes used to reduce the volume of debris brought to a temporary debris storage and reduction site. It includes chipping and mulching of woody debris, shredding and/or baling of metals, reduction of C&D or concrete, recycling, and air curtain incineration, etc.

White Goods - Household appliances such as refrigerators, washers, dryers, and freezers.

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SECTION III *DEBRIS MANAGEMENT*

A. Staff Roles and Responsibilities

1. General

One of the primary functions of this Plan is to clearly delineate a basic organization and assign specific responsibilities. CCPW is the lead agency and has primary responsibility for the restoration of the public infrastructure following a disaster. CCPW is responsible for emergency debris clearance of essential transportation routes and other critical public facilities based upon the Critical Facilities List as determined by the County's Emergency Operations Center (EOC) staff. Additionally, CCPW is responsible for the removal of debris from all County rights-of-way after the initial clearance of debris from essential transportation routes. Debris Contractors may be utilized to assist with either of these primary tasks.

Charleston County Environmental Management (CCEM) is a supporting agency responsible for overall coordination of the Temporary Debris Management Sites (TDMS) and debris staging, processing, and disposal activities within Charleston County. The CCEM Disaster Debris Site Plan is provided as Attachment 2. CCPW will coordinate with and support CCEM in the staging, processing, and disposal of all disaster-related debris from public property.

During the conduct of debris operations, many issues will arise that are not specifically mentioned in this Plan. However, responsibilities are sufficiently defined so that unexpected issues can be assigned and resolved efficiently.

2. Purpose

This Plan provides organizational structure, guidance, and standard operating procedures for the clearance, collection, staging, processing, and disposal of disaster debris following a debris-generating event (e.g. hurricane, earthquake etc.). It is organized to:

- Establish the most efficient and cost-effective methods to address disaster debris operations.
- Expedite disaster debris operational efforts that provide visible signs of response and recovery in order to alleviate the threat to public health, safety and welfare.
- Encourage inter-local and inter-agency relationships by planning and communicating with local, State and Federal agencies involved with disaster debris management operations.
- Oversee and implement private sector debris operations contracts in order to enhance disaster recovery operations.

3. Assumptions

This Plan is based on the following assumptions:

- A major natural disaster that will require the removal of disaster debris from public or private lands and waters will occur at some point in the future.
- The quantity of debris resulting from a major natural disaster will exceed CCPW operational capabilities.
- CCPW has pre-event contracts for additional resources to assist with debris management, clearance, collection, staging, processing, and disposal operations.
- The County has pre-established Inter-Governmental Agreements (IGA), Memorandums of Understanding (MOU), and other legal agreements/arrangements for support for and to

other governmental agencies for debris management, clearance, collection, staging, processing, and disposal.

- The Governor will declare a State of Emergency that will authorize State resources to assist in removal and disposal of disaster-related debris.
- The Governor will request a Presidential Disaster Declaration when the disaster recovery is anticipated to exceed both local and State resources.

4. National Incident Management System (NIMS)

This Plan and the DMOC concept support the County's NIMS organization as shown in Figure 1 below.

5. Debris Management Overview

The EOC will notify County departments and agencies when notice is warranted of an impending disaster event. Personnel assigned to ESF 3 will establish a presence at ESF 3 Headquarters located at the County ESF 3 Operations Center, 4045 Bridge View Drive, Suite A301, North Charleston, SC and await further instructions from the ESF 3 Director. All ESF 3 staff should be knowledgeable in their specific duties, responsibilities and SOPs identified in the CEOP. ESF 3 will employ an Incident Command Structure for all post-disaster situations.

During and/or following the event, the CCPW Director or his designated representative, will be the County ESF 3 Incident Commander (IC). He will be responsible for establishing and staffing the Incident Command Facility at ESF 3 Headquarters. The ESF 3 IC will exercise daily operational control of ESF 3 Incident Command Staff (ICS) and:

- Keep the Charleston County Administrator and other stakeholders briefed on the status of the debris clearing, removal, storage, processing and disposal operations.
- Coordinate with municipal stakeholders regarding their debris collection priorities and support needs. Assure that the County is represented at meetings with other government and private agencies involved with the debris management operations.

The Public Works Operations Manager is the designated County DM. The DM, utilizing an Incident Command Structure, will coordinate the actions necessary to perform debris emergency clearance, collection, storage, processing and disposal operations.

The DM will be supported by a combined debris management staff made up of personnel from CCPW, CCEM, other supporting departments, agencies and municipalities as appropriate, and the County's Debris Management Consultant. This organization will be referred to as DMOC staff and will be located at ESF 3 HQ, the County Maintenance Units, and/or other mobile field office(s).

Figures 1 through 5 on the following pages represent the ESF 3 Organization based on NIMS required Incident Command System structure.

6. Debris Management Operations Center

CCPW is responsible for emergency debris clearance of essential transportation routes and other critical public facilities within the County's geographical boundaries. CCPW is responsible for locating and staffing a DMOC that provides a physical location where selected County, and municipal staff as appropriate, will work to resolve primary debris-related issues that normally arise during debris cleanup operations. The DMOC is organized to provide a central location for the coordination and control of all debris management requirements. The

DMOC will be located at ESF 3 Headquarters, County ESF 3 Operations Center, 4045 Bridge View Drive, Suite A301, North Charleston, SC.

The DMOC staff will be under the direction of the DM. The County DM's actions may include the following:

- Making recommendations for County and private Debris Contractor work assignments and priorities based on the County's Primary Disaster Debris Zones (Primary Zones). Figure 6 contains a map showing the boundaries of the Primary Zones.
- Reporting on debris removal and disposal progress, and preparing status briefings.
- Providing input to the County PIO on debris removal and disposal activities for dissemination to the public.
- Coordinating debris issues affecting the County with local municipalities and adjacent Counties.
- Coordinating County debris removal and disposal operations with County and State solid waste managers, environmental regulators, and other State and Federal agencies as appropriate.
- Coordinating with the following Federal agencies in the event of a major natural or man-made debris-generating disaster:
 - Federal Emergency Management Agency (FEMA)
 - U.S. Army Corps of Engineers (USACE)
 - Federal Law Enforcement Agencies (FBI, BATF)
 - US Environmental Protection Agency (USEPA)

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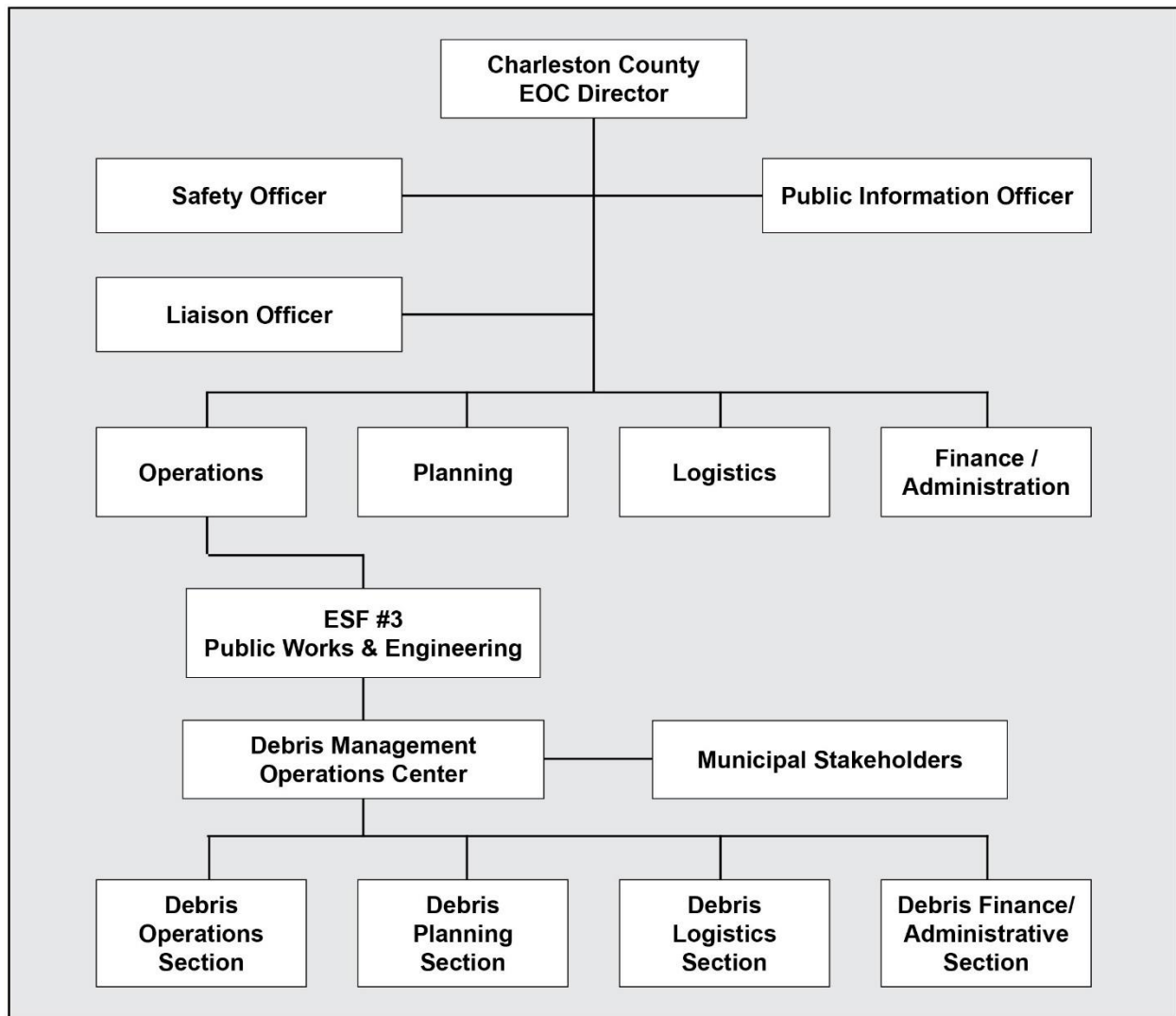


Figure 1 – County NIMS Organization Chart

7. DEBRIS MANAGEMENT COMMAND STAFF

Command Staff	Role/Responsibility
Designated Debris Manager	Coordinates all debris removal and disposal responsibility
Public Information Officer	Coordination of press releases, maintenance of contracts with local organizations, the media, drafting public notices.
Safety Officer	Evaluate contractor plans, routes, equipment, etc. and identify any safety concerns for citizens. Monitor and assess any safety hazards or unsafe conditions to protect worker safety or assist evaluation of eligibility for reimbursement.
Liaison Officer	Coordinate and/or attend all meetings with local, State and Federal authorities associated with debris removal and PA program activities. Act as the official conduit for information (i.e. changes to eligibility requirements, regulations, etc.) to or from external entities.

Table 1 – Debris Management Command Staff Role/Responsibility

8. Debris Management General Staff

a. Debris Operations Section Organization

The DMOC organizational diagram shown in Figure 2 below identifies the DMOC's Debris Operations organization and staff positions required to coordinate the actions necessary to remove and dispose of debris using both County and private contractor assets.

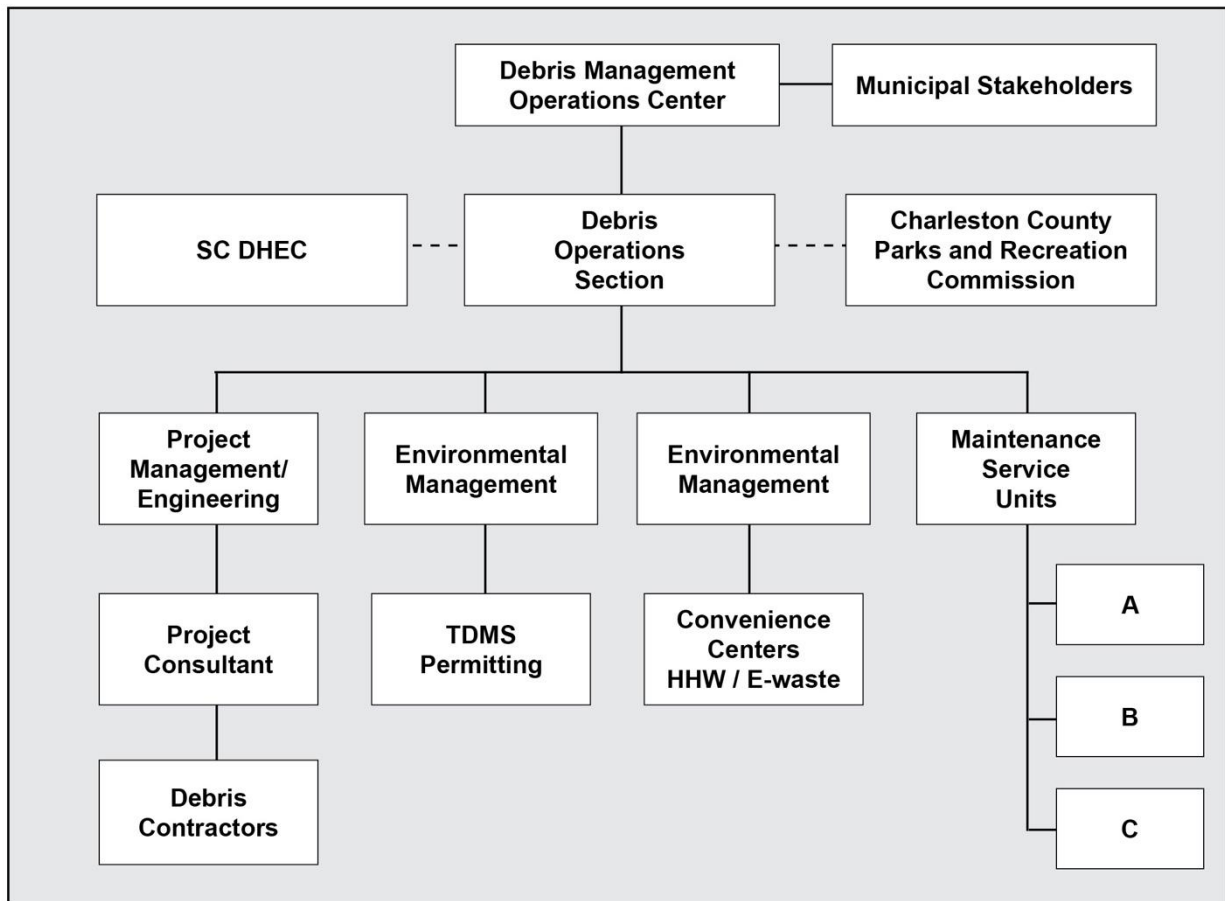


Figure 2–Debris Operations Section Organization Chart

Debris Planning Section (Figure 3); Debris Logistics Section (Figure 4) and Debris Finance / Administrative Section (Figure 5) organizational charts are shown on the following pages. They are organized to comply with NIMS and each supports the overall debris removal and disposal mission.

Operations Section	Role/Responsibility
Supervision of all tactical operations and coordinate internal and contracted resources	
Project Management / Engineering	Detailed damage assessments, oversight of project consultants and Debris Contractors, identification, preparation and restoration of TDMS, monitoring of Debris Contractor operational plans and implementation
Environmental Management	Coordination of TDMS locations and permitting
Environmental Management	Oversight of Convenience Centers.
Maintenance Units	Force account personnel utilized for debris pickup in conjunction with Debris Contractors.

Table 2 – Operations Section Role/Responsibility

b. Debris Planning Section Organization

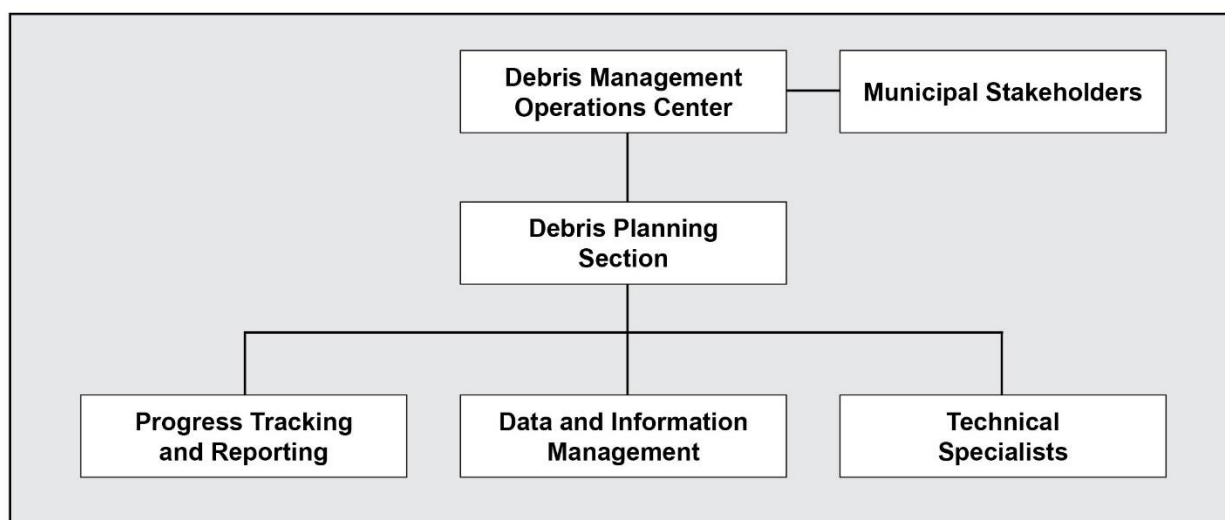


Figure 3–Debris Planning Section Organization Chart

Planning Section	Role/Responsibility
Responsible for the collection, evaluation, dissemination, and use of information about the status of resources and the debris removal effort. Also, provides consultation services for all ICS	
Progress Tracking & Reporting	Tracks progress of the overall debris removal efforts and prepares reports for Command Staff and the Public Information Office.
Data & Information Management	Reviews and validates data and information generated by consultants and Debris Contractors, ensures content and completeness for FEMA and Federal Highway Administration claims, and prepares data for eventual audit by internal or external authorities.
Technical Specialists	Resources assigned to consult on specific problems or perform specific technical tasks e.g. environmental testing, hazardous material handling, etc.

Table 3 - Planning Section Role/Responsibility

c. Debris Logistics Section Organization

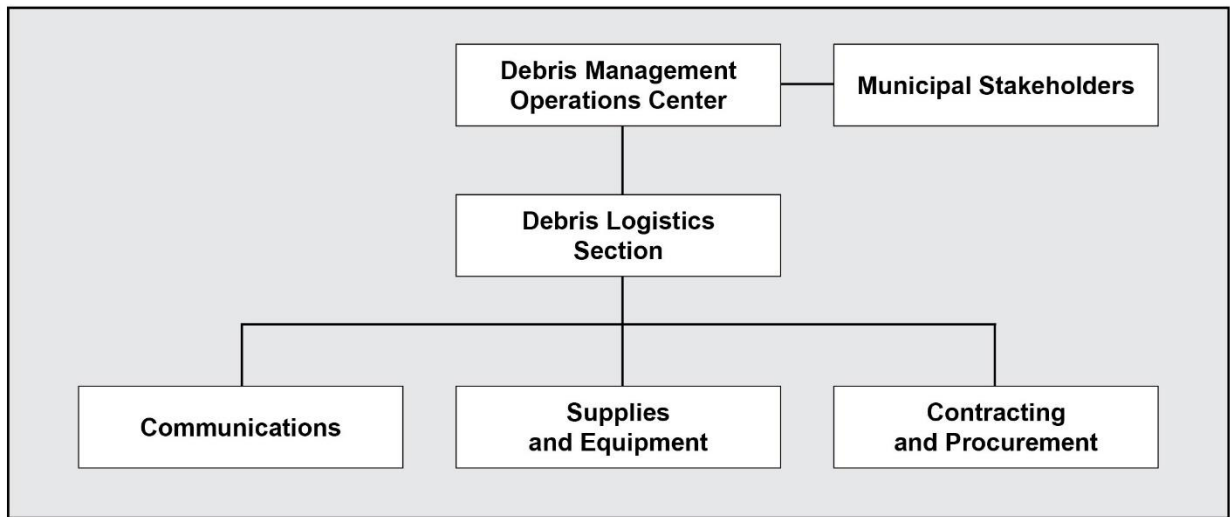


Figure 4–Debris Logistics Section Organization Chart

Logistics Section	Role/Responsibility
Responsible for providing facilities, services, equipment and materials	
Communications	Plan and implement communications strategy, provide, test and distribute communications equipment to County field resources
Supplies & Equipment	Provide vehicles, equipment and any other ancillary supplies to County field resources
Contracting & Procurement	RFP, RFQ, scope of work and specifications for debris contracts, contract modifications, equipment purchasing or leasing contracts.

Table 4 – Logistics Section Role/Responsibility

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d. Debris Finance & Administration Section

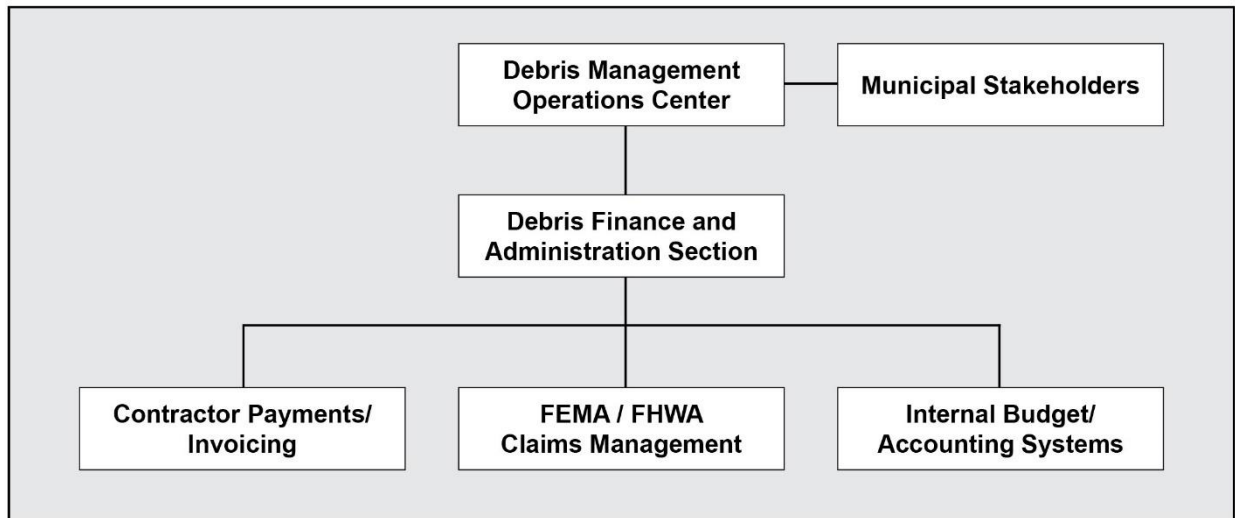


Figure 5–Finance and Administration Section Organization Chart

Finance & Administrative Section	Role/Responsibility
Responsible for all financial considerations of the debris removal effort	
Debris Contractor Payments & Invoicing	Review and validate invoices generated by consultant and Debris Contractors, ensure prompt payment of invoices
FEMA / FHWA Claims Management	Format and submit data for the generation of Project Worksheets and invoices to Federal authorities including supporting documentation (contracts, invoices, load tickets, etc.) Initiate requests for funding and coordinate appeals.
Internal Budget / Accounting Systems	Set up accounts and budget systems to pay for and track all debris removal expenses

Table 5 – Finance & Administration Section Role/Responsibility

9. Staffing Assignments and Duties

a. County Debris Manager

The DM, in coordination with the IC or Deputy IC (Deputy County Administrator for Public Works and Transportation) will activate the Plan. The DM is responsible for daily operational control of the disaster debris management staff. The DM will receive current information on the severity of the disaster from the EOC and ESF 3 damage assessment reports. All requests for debris removal or disposal from the EOC staff will go through the DM. All requests for debris clearing of public facilities and roadways from citizens or other entities will be directed to the DM.

The DM will determine the extent of damage and resulting debris and issue appropriate directives to the appropriate ESF 3 team members, who will, in turn, execute their Team's debris missions as defined in this Plan and CCPW Standard Operating Procedures.

The DM will coordinate with the Debris Management Team's operational staff regarding County and municipal force account activities.

The DM will coordinate with the Debris Management Consultant regarding debris operations contracted activities.

The DM or his designee will hold daily (or as needed) status meetings with appropriate ESF 3 team members and the OM to discuss ROW, ROE and TDMS operations.

Attendees may include Debris Contractor, FEMA, other agencies and department personnel as deemed appropriate by the DM.

Communications protocols and procedures for ESF 3, DM, OM and others are provided in Attachment 4.

b. Debris Management Consultant

The Debris Management Consultant will provide advice to the DM, and ICS with respect to all aspects of debris management following an event.

The OM will keep the DM notified of the Debris Contractor cleanup progress and problems encountered or expected.

The OM will provide a daily report to the DM. OM will also provide monthly summary reports and a final After Action Report to the DM.

The OM will supervise the activities of contracted debris management personnel when activated. See Attachment 3 "Disaster Debris Program Management – Standard Operating Procedures" for contracted debris management responsibilities and operating procedures.

A roster of Debris Management Consultant roles is included as Attachment 5.

c. Health & Safety (H&S)

CCPW will have a designated Safety Officer to be provided by ESF 3 ICS.

The Debris Management Consultant and the Debris Contractor(s) will each provide a designated H&S project professional.

Debris Contractors will be required to provide site specific safety plans for all TDMS and TDAS locations. Additionally, Debris Contractors shall provide traffic control/safety plans for roadways that require special consideration due to vehicular traffic.

A Training and Safety Program Outline is provided in Attachment 6.

d. Public Information Officer

The ESF 3 Public Information Officer (PIO) will serve as the DM's liaison to the EOC's PIO. The PIO will develop a proactive information management plan. Emphasis will be placed on public participation in a safe and efficient cleanup process. Paper flyers, newspapers, social media, radio and TV public service announcements may be used to obtain the public's cooperation in disaster debris disposal operations (e.g., separating burnable and non-burnable storm debris; segregating HHW; placing disaster debris at the curbside; keeping debris piles away from fire hydrants and valves; and segregating recyclable materials). Pickup schedules will be disseminated in the local news and social media and through the County's Emergency Information Number. All available means of public notification should be considered.

e. Maintenance Units

Each maintenance service unit is responsible for collecting and ensuring the accuracy of timesheets, work orders, service requests, invoices, equipment logs, and related paperwork to substantiate all force account work and expenditures. The DM and CCPW maintenance unit managers should work closely with the OM to ensure expenses related to debris load tickets, field monitors, project managers, technical specialists, and project specific equipment and materials are being accurately recorded.

CCPW should maintain adequate logistics and administrative staff to assist with data gathering and documentation activities. Special attention should be given to assisting field crews, supervisors, damage assessment teams, with supplies, clerical support, communications support, data entry and other related duties.

f. Environmental Compliance

The County, while conducting debris removal efforts, will make every effort to comply with applicable environmental regulations. Regulations that may pertain to specific debris removal efforts include the following:

- Clean Air Act
- Clean Water Act
- National Environmental Policy Act
- Coastal Barriers Resources Act
- Resource Conservations & Recovery Act
- Endangered Species Act
- National Historic Preservation Act
- Coastal Zone Management Act
- Fish and Wildlife Coordination Act
- Wild and Scenic Rivers Act
- Executive Orders – 11988, 11990, 12898

Additionally, The Debris Management Consultant will provide environmental consulting support related to the monitoring of the TDMSs and TDASs. This work includes baseline visual site evaluation, baseline soil sampling and analysis if necessary, ongoing monitoring of TDMS activities, site closure soil sampling and analysis if necessary, and preparation of a site closure report for each TDMS. A detailed description of TDMS operations is provided in Attachment 3 - Standard Operating Procedures.

g. CCEM Operations

CCEM manages the collection of recycling and disposal of solid waste at the Bees Ferry Landfill. CCEM provides education and outreach to inform communities about proper solid waste disposal practices and procedures. CCEM has five divisions: Compost, Collections, Landfill, Material Recovery Facility, and Programs. These divisions manage specific tasks, including: collection, disposal, environmental enforcement, recycling and educational programs.

CCEM operates the Bees Ferry Road Landfill, a 312-acre site with designated areas for solid waste and debris brought in by local municipalities. As of March 1, 2017, the Bees Ferry Landfill no longer accepts construction and demolition debris from private or commercial haulers. Tires may still be delivered for \$90 per ton, metal for \$30 per ton and MSW for \$66 per ton.

Location: 1344 Bees Ferry Road, Charleston (West Ashley)

Hours: Monday - Friday 8am - 4pm & Saturday 8am - 3pm

h. GPS / GIS / Mapping

Debris clearance and removal progress will be tracked and plotted utilizing GIS mapping software. Debris Management Consultant GIS personnel will assist CCPW GIS personnel to monitor contractor movement throughout the County to facilitate reporting to ESF 3 staff, EOC staff, outside agencies and the media so that all interested parties can form realistic expectations of when and where debris will be removed.

Technology employed by the Debris Contractor should be compatible with technology employed by the County's GIS team to facilitate the transference and accuracy of information.

Debris Management Consultant will support the County GIS unit to facilitate routing, status mapping, debris pickup locations, etc.

i. South Carolina Emergency Management Division (SCEMD)

Pursuant to standard procedures, State disaster management staff will work directly with FEMA and the ESF 3 ICS to coordinate policy and guidance necessary to accomplish the recovery efforts according to Federal regulations. The County will maintain contact with the State disaster field office before, during and after a declared disaster,

j. Federal Assistance

Pursuant to standard procedures, Federal disaster management staff will work directly with the State and ESF 3 ICS to coordinate policy and guidance necessary to accomplish the recovery efforts according to Federal regulations. The County will maintain contact with FEMA's disaster field office before, during and after a declared disaster.

ICS will actively participate in FEMA guidance and documentation revisions impacting all emergency and debris removal efforts.

The DM will identify the State debris specialist that is assigned to the County to assist in the coordination and guidance of the debris recovery efforts. The DM will also enlist the assistance of the County Council or Governor's office as the situation warrants.

k. Municipal Participation

The County, through MOUs, IGAs, and other legal agreements/arrangements has established relationships with local governmental agencies regarding debris management, collection, clearance, disposal, and other related support services. Municipalities are encouraged to participate in the County's DDMP to provide a cohesive support blanket to residents and others affected. Municipal representatives shall be incorporated where necessary into the DMOC support structure.

Municipal Agencies have been encouraged to identify critical facilities within their jurisdictions as well as potential TMDS and TDAS locations. These sites/locations will be included as an attachment to the County's DDMP and updated annually.

l. Local Fire Department

In the event CCPW determines to burn vegetative storm debris, the following considerations shall be observed:

- Approve TDMSs for use as a burn site(s) in accordance with appropriate local, State, and Federal requirements to ensure safe burning.
- Issue bans on open burning based upon assessment of local conditions and ensure dissemination of information to the public.
- Inspect TDMSs to ensure that the burning operations are in accordance with all appropriate local requirements to ensure safe burning, subject to amendments by DHEC and/or Fire Marshall.
- Primary point of contact will be present at EOC.

m. Local Police Department

- Assist in monitoring TDMSs to ensure compliance with local traffic regulations.
- Coordinate traffic control at all loading sites and at entrances to and from TDMSs as may be necessary.
- Primary point of contact will be present at EOC.

n. Utilities

Electric:

South Carolina Electric & Gas, a SCANA Company

Berkeley Electric Cooperative

Coastal Electric Cooperative

Santee Cooper

Primary point of contacts will be present at EOC.

Coordinate with the DM with regards to debris removal along electrical easements and rights-of-way to ensure that all downed or damaged lines are de-energized.

Water and Wastewater:

Charleston Water System

Mount Pleasant Waterworks

James Island Public Service District

North Charleston Sewer District

Town of Hollywood

Town of Meggett

Town of Ravenel

Coordinate with the DM debris removal and disposal requirements from County owned facilities with regards to water easements and rights-of-way, and damage to cut-off valves, lift stations, etc.

Telecommunications:

AT&T

Time Warner Cable/Charter

Xfinity/Comcast

Coordinate with the DM with regards to debris removal along telephone easements and rights-of-way to ensure that all downed or damaged lines are de-energized.

Natural Gas:

South Carolina Electric & Gas, a SCANA Company

- Primary point of contact will be present at EOC.

Coordinate with the DM with regards to debris removal along gas easements and rights-of-way and damage to cut-off valves, etc.

B. Administration

All County departments will maintain records of personnel, equipment, load tickets, and material resources used to comply with this Plan. Such documentation will then be used to support reimbursement from any State or Federal assistance that may be requested or required. All County departments supporting debris operations will ensure 12-hour staffing capability during implementation of this Plan, if the emergency or disaster requires, or as directed by the County DM. All County departments should ensure that additional supplies of tires and tire repair kits are readily available due to the likelihood of debris caused flat tires.

The County DM is responsible for the annual review of this Plan in conjunction with the annual update to the Comprehensive Emergency Management Plan (CEMP). It will be the responsibility of each tasked department and agency to update its respective portion of the Plan and ensure any limitations and shortfalls are identified and documented, and work-around procedures developed, if necessary.

The review will consider such items as:

- Changes in mission;
- Changes in concept of operations;
- Changes in organization;
- Changes in responsibility;
- Changes in desired contracts;
- Changes in pre-positioned contracts; and
- Changes in priorities.

This Plan also may be updated as necessary to ensure a coordinated response with other municipalities and adjacent Counties. This coordination is especially important with respect to allocation of resources such as TDMSs and disposal facilities.

C. Financial Considerations

Charleston County maintains and utilizes a work management system that can be utilized to record, organize, summarize and present all contracted and force account expenses to FEMA, Mutual Aid partners, and other agencies, in a clear and concise manner to facilitate the creation of Project Worksheets, or other required forms for reimbursement. In all cases, the associated backup documentation will be kept and made available for expense validation and eventual audit by the applicable agencies. The County Budget Office will keep copies of the backup documentation gathered from CCPW, ESF 3 HQ or other departments and agencies involved in debris removal.

The County Budget Office will be the lead organization for any validation or audits by outside agencies assisted by CCPW, the OM, and others as required.

D. Contracting and Procurement

All contracting and procurement actions pertaining to debris operations will be coordinated with the Director of Charleston County Procurement Department. Procurements will be conducted pursuant to County, State and Federal requirements and shall be compliant with 2 CFR and other applicable regulations.

E. Legal

All legal issues pertaining to debris operations will be coordinated with the County Attorney's Office. The County Attorney will provide comprehensive representation and legal advice to County officials and the various County departments.

F. Operations

The County DM will be responsible for coordinating disaster debris operations with respect to the emergency clearance and permanent removal and disposal of debris deposited along or immediately adjacent to County maintained street rights-of-way throughout the County in consultation with other County departments and State and Federal agencies. This approach will ensure a seamless and efficient cleanup operation.

A DMOC will operate as a unified organization under direct control of the County DM. All debris clearing, removal, and disposal operations within the County will be directed and coordinated by a joint DMOC staff located at 4045 Bridge View Drive, Suite A301, North Charleston, SC

G. Emergency Communications Plan

Basic Plan of the CEOP's Emergency Communications Section.

H. Health and Safety Plan and Procedures

The County will utilize its CEOP's Health and Safety Section to implement its H&S procedures for force account personnel. The County's PIO will be responsible for disseminating H&S information that might result from a disaster event to the public at-large.

Procured service providers including Debris Contractors, Franchise Haulers, and Monitoring Firms will be responsible for providing and following their own project specific H&S plans. These safety plans will be inclusive of site specific plans and will address traffic monitoring, flagging and coordination where applicable.

Prior to debris removal commencement and during each day of operations, stakeholders will conduct daily safety briefings to ensure that all parties are aware of potential hazards that may exist.

I. Training Schedule

The County will conduct debris management training workshops yearly. Training workshop agendas are shown below.

The PA Program Workshop will provide hands-on training with the decision-making and administration of the recovery operations, including: FEMA eligibility assessments for response/recovery activities, including contractor operations, grant management, and

coordination with FEMA and State recovery managers with respect to natural disasters and lessons learned from recent terrorist activities.

The Debris Monitoring Workshop will assist the participants in developing a Debris Monitoring Plan and provide guidance for engaging and overseeing the debris monitors responsible for monitoring both natural disaster and man-made debris cleanup operations.

Typical PA Program Workshop Agenda

Registration
Welcome and Introductions
Declarations, Stafford Act and PA Overview
PA Program Eligibility (Applicant, Facility, Emergency & Permanent Work Cost)
Subject Matter Expert Lunch Presentation
Lessons Learned from Prior Disasters
Project Formulation
Review and Closing Remarks

Typical Debris Monitoring Workshop Agenda

Registration
Debris Management Overview on Natural and Man-Made Debris Generating Events
Why the Emphasis on Debris?
Debris Estimating Techniques
Subject Matter Expert Lunch Presentation
Debris Estimating Techniques and Practical Exercise
Contract Monitoring
Practical Exercise
Review and Closing Remarks

Table 6- Training Agendas

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SECTION IV SITUATION AND ASSUMPTIONS

The County has experienced a variety of disasters, Federally declared and undeclared including earthquakes, floods, tornados, and hurricanes. Recent Federally-declared disasters requiring response and debris removal efforts include:

2016 - Hurricane Matthew DR-4286

2015 - Severe Storms and Flooding DR-4241

2004 – Tropical Storm Gaston DR-1547

A. Design Disaster Event Assumptions

1. Assumptions Regarding Municipal Solid Waste (MSW) Operations

- EOC Director declares emergency.
- Based on the severity of the emergency CCEM Director will define expectations regarding service level for garbage, recycling and yard waste collection.
- CCEM Director's expectations may vary from no change in service delivery to total suspension of service delivery or a variation thereof.
- Because the emergency's impact may be felt inconsistently throughout the County, the CCEM Director's response will be as needed and may not involve all participants of the Plan equally.
- Additional Landfill expenses associated with the incident will be documented by CCEM.

2. Scenario I, Unlikely a Federal/State Emergency will be Declared

- Relatively minor emergency which does not necessitate the activation of the County's Debris Contractor.
- The CCPW Director has the authority to deploy resources as needed and may do so in any portion of the County as required.
- MSW Haulers will maintain collection routes and normal business operations.
- Additional Landfill expenses associated with the incident will be documented by CCEM.

3. Scenario II, Likely a Federal/State Emergency will be Declared

- Emergency which necessitates the activation of the County's debris management contractor.
- MSW Haulers will maintain routes as defined by the CCEM Director.
- MSW Haulers will be responsible for the collection of all MSW. The County's Debris Contractor, and their designees, will be responsible for all incident debris.
- MSW Haulers may alter or adjust their collection schedules, as required by the County, in order to better coordinate with the collection activities of the County's Debris Contractor.
- Additional Landfill expenses associated with the incident will be documented by CCEM.

4. Scenario, III, Likely a Federal/State Emergency will be Declared

- Emergency which necessitates the activation of the County's debris management contractor and the (temporary) suspension of all MSW Hauler residential collection activities.
- Additional Landfill expenses associated with the incident will be documented by CCEM.

B. Forecasted Debris

Emergency situations requiring debris removal may occur at any time. Natural disasters such as tornadoes, flooding, aircraft crashes, thunderstorms, explosions, structure fires, and severe icing conditions precipitate a variety of debris that may include, such materials as, trees and other vegetative organic matter, construction materials, appliances, personal property, mud, and sediment.

Man-made disasters such as terrorist attacks may result in a large number of casualties and heavy damage to buildings and basic infrastructure. Crime scene constraints may hinder normal debris operations and contaminated debris may require special handling. These factors will necessitate close coordination with local, State and Federal law enforcement, health, and environmental officials.

This Plan takes an all-hazards approach to identifying and responding to the following hazards that may pose a threat to the County:

- Natural Hazards – severe weather, ice storms, tornadoes, earthquakes, and flooding;
- Human-caused Events and Hazards – urban fires, special events, civil disorder, or transportation accidents; and
- Terrorist Incidents – bomb threats or attacks, sabotage, hijacking, armed insurrection, or Weapons of Mass Destruction (WMD) incidents.

The quantity and type of debris generated, its location, and the size of the area over which it is dispersed will have a direct impact on the type of removal and disposal methods utilized; the associated costs; and the speed with which the problem can be addressed. Further, the quantity and type of debris generated from any particular disaster will be a function of the location and kind of event experienced, as well as its magnitude, duration, and intensity.

This Plan establishes a general framework that can, with minor modifications, be used in any debris-generating event. This Plan addresses the clearing, removal, and disposal of debris generated by the above hazards based on the following assumptions:

- A major natural or man-made disaster that requires the removal of debris from public or private lands and waters could occur at any time;
- The amount of debris resulting from a major natural disaster will exceed the County's in-house removal and disposal capabilities;
- The County will contract for additional resources to assist in the debris removal, reduction, and disposal processes;
- The County will request the State to issue an Emergency Executive Order upon reasonable apprehension of the existence of a public emergency as a prerequisite to requesting emergency or major disaster assistance under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (as amended) to request a Presidential Disaster Declaration; and
- Federal assistance will be requested through the State to supplement County debris capabilities in coordination with the County EOC staff.

Charleston County, SC USACE Debris Estimation Model								
Storm Categories				Category 1	Category 2	Category 3	Category 4	Category 5
				74-95 MPH Winds	96-110 MPH Winds	111-130 MPH Winds	131-155 MPH Winds	155+ MPH Winds
Estimated Debris Quantities								
Charleston, SC				Category 1	Category 2	Category 3	Category 4	Category 5
Population	390,000		H	148,289	148,289	148,289	148,289	148,289
Category Factor			C	2	8	26	50	80
Vegetation			V	1.3	1.3	1.3	1.3	1.3
Commercial Density			B	1.2	1.2	1.2	1.2	1.2
Precipitation			S	1.3	1.3	1.3	1.3	1.3
Q= H(C)(V)(B)(S)			Cubic Yards	601,460	2,405,840	7,818,981	15,036,502	24,058,403
Temporary Debris Management Site Requirements								
1 Acre (ac)		4840						
10 Feet stack height		3.3						
Total volume per acre		16,147						
Q=H(C)(V)(B)(S)			Cubic Yards	601,460.08	2,405,840.30	7,818,980.99	15,036,501.90	24,058,403.04
Acres Required			Acres	37.25	149.00	484.24	931.23	1489.96

Table 7- Debris Estimation Model

This estimate is based on the County being impacted by hurricane force winds. The U.S. Army Corps of Engineers (USACE) Debris Estimating Model is utilized in estimating the impact. The formula for determining the amount of debris is as follows: $Q=H(C)(V)(B)$ where Q represents the quantity of debris generated, H represents the average number of persons per household, C (a standard) represents storm category in cubic yards generated per household, V represents the vegetative characteristic multiplier, B represents the commercial/business/industrial use multiplier and S represents the storm precipitation character.

It is assumed there is an average of 2.63 persons per household, the vegetation factor is 1.3 medium, commercial density is 1.2 medium, and the precipitation factor is 1.3 medium to heavy. Thus a hurricane using these standards could generate between 601,460 and 24,058,403 cubic yards of debris. This will result in the County requiring between 37 and 1490 acres for temporary storage and reduction of debris assuming 10 foot high piles and no buffer.

C. Geographic Area and Disaster Debris Zone Locations

Charleston County is the largest county in South Carolina with approximately 100 miles of coast line and a total land and water area of 1,358 square miles, primarily consisting of low country terrain vulnerable to storm surge and riverine flooding. It is the third most populous county with the population estimated at 390,000 with 16 municipalities and 10 islands. The County ranks first in total property values in excess of \$3.1 billion.

As depicted in Figure 6, the geographic area of the County has been divided into three (3) Primary Disaster Debris Zones (Primary Zones), North, South and Central. The Primary Zones are divided further into debris management zones. Following the disaster and based upon damage debris assessments, path of storm, etc., the County will utilize GIS mapping to manage the disaster debris operations progress by debris management zone.

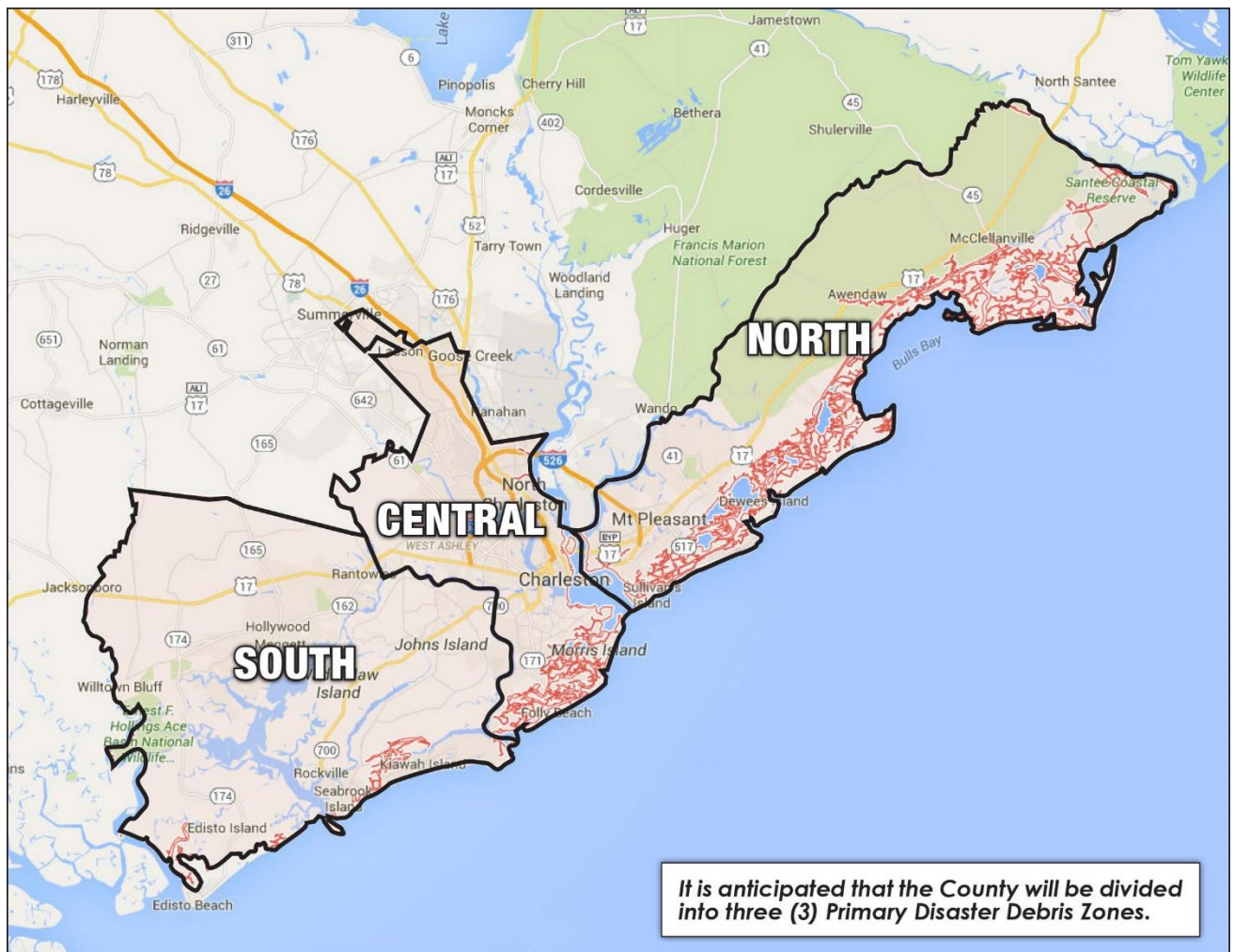


Figure 6 – Charleston County Disaster Debris Zones

The South, Central, and North Primary Disaster Debris Zones have been further divided into debris management zones. Debris management zones will be used to identify, in further detail, areas of operation and debris clearance progress. These zones will also be utilized for planning and routing purposes. Figures 7-9 on the following pages capture the debris management zones by Primary Zone. Larger, user friendly versions of the debris management zones are available by zone, and can be further divided as necessary in areas with high debris and population density. More localized collection zones and/or routes may be established in coordination with municipalities or service districts.

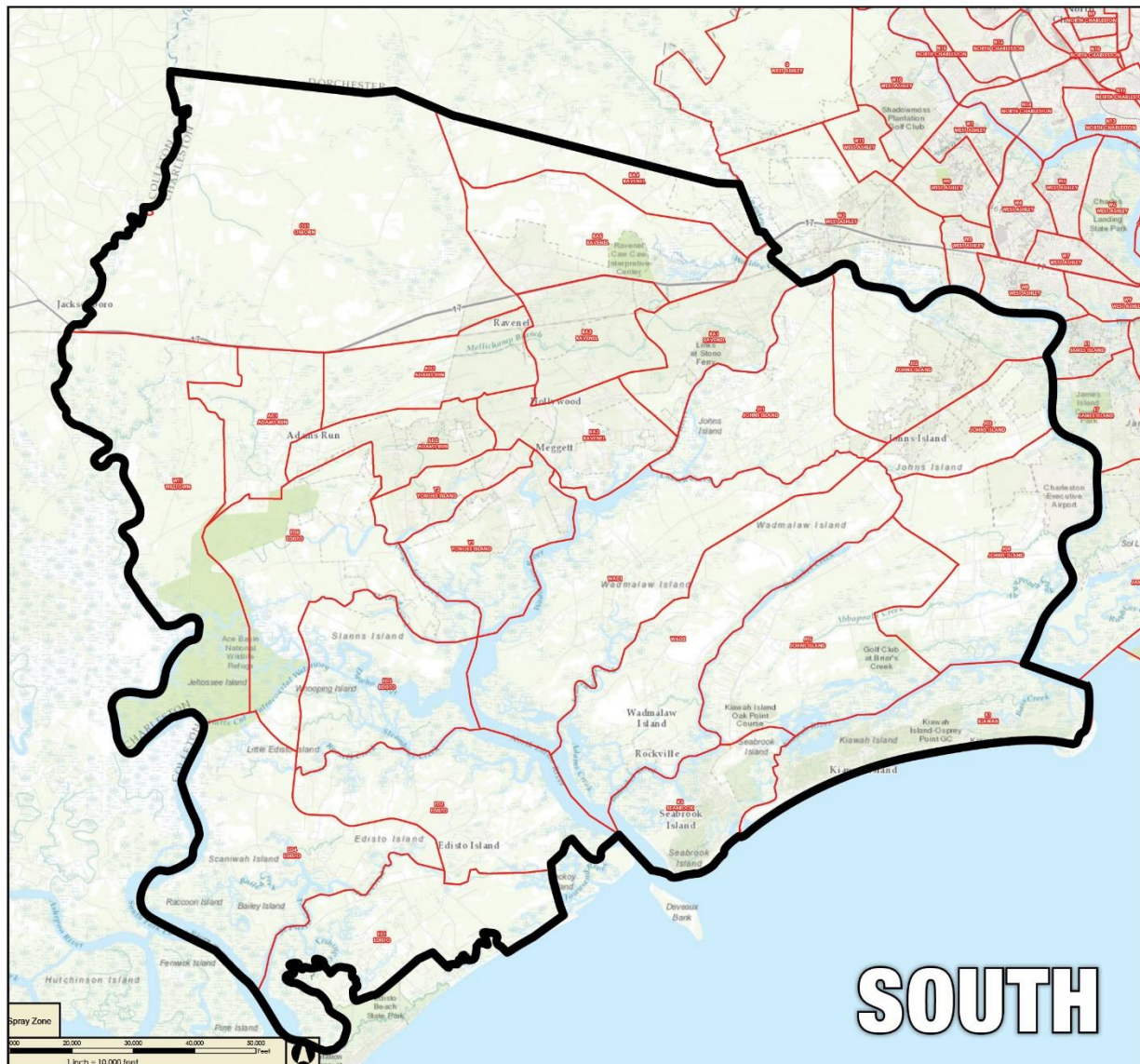


Figure 7- South Primary Zone Divisions

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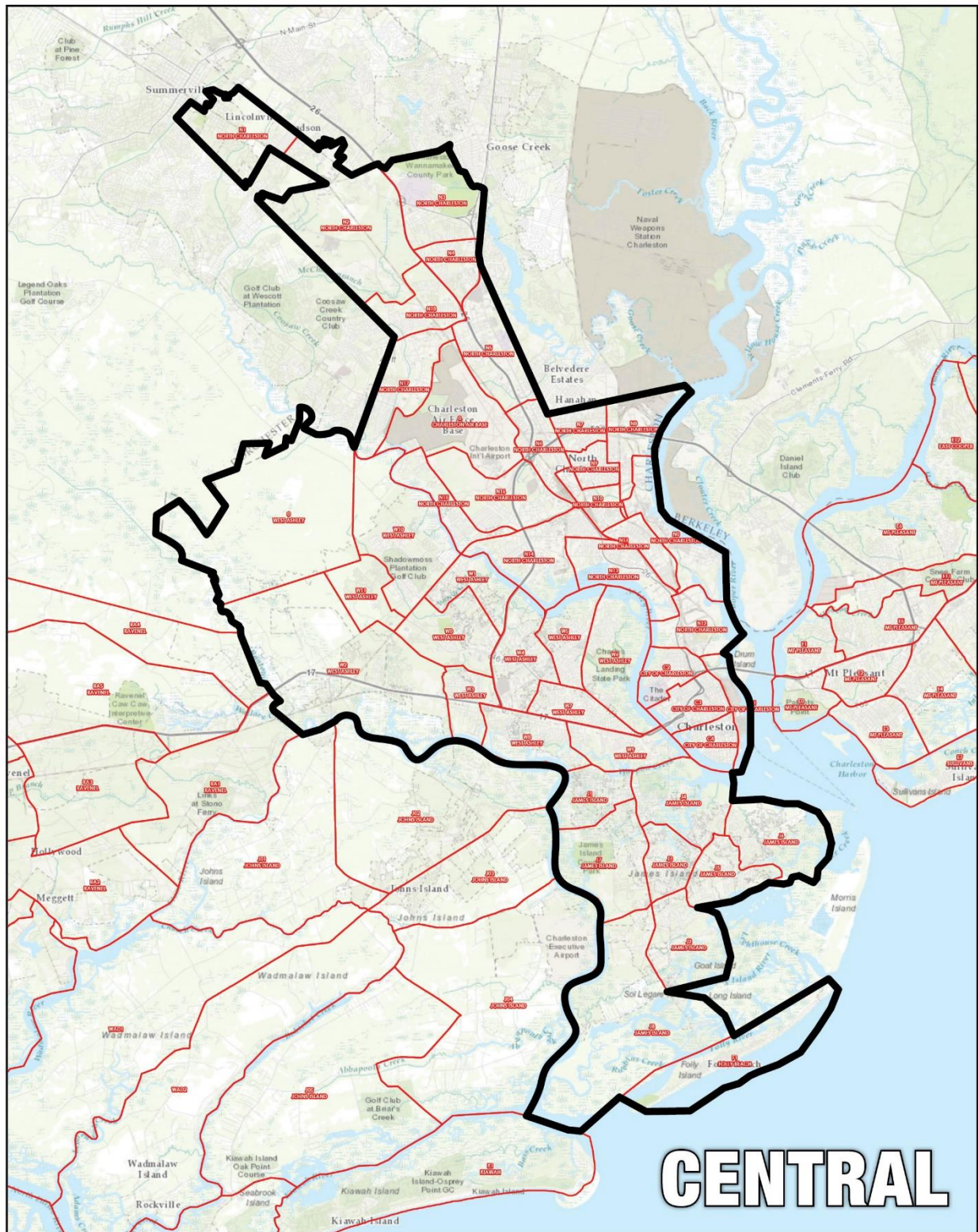


Figure 8- Central Primary Zone Divisions

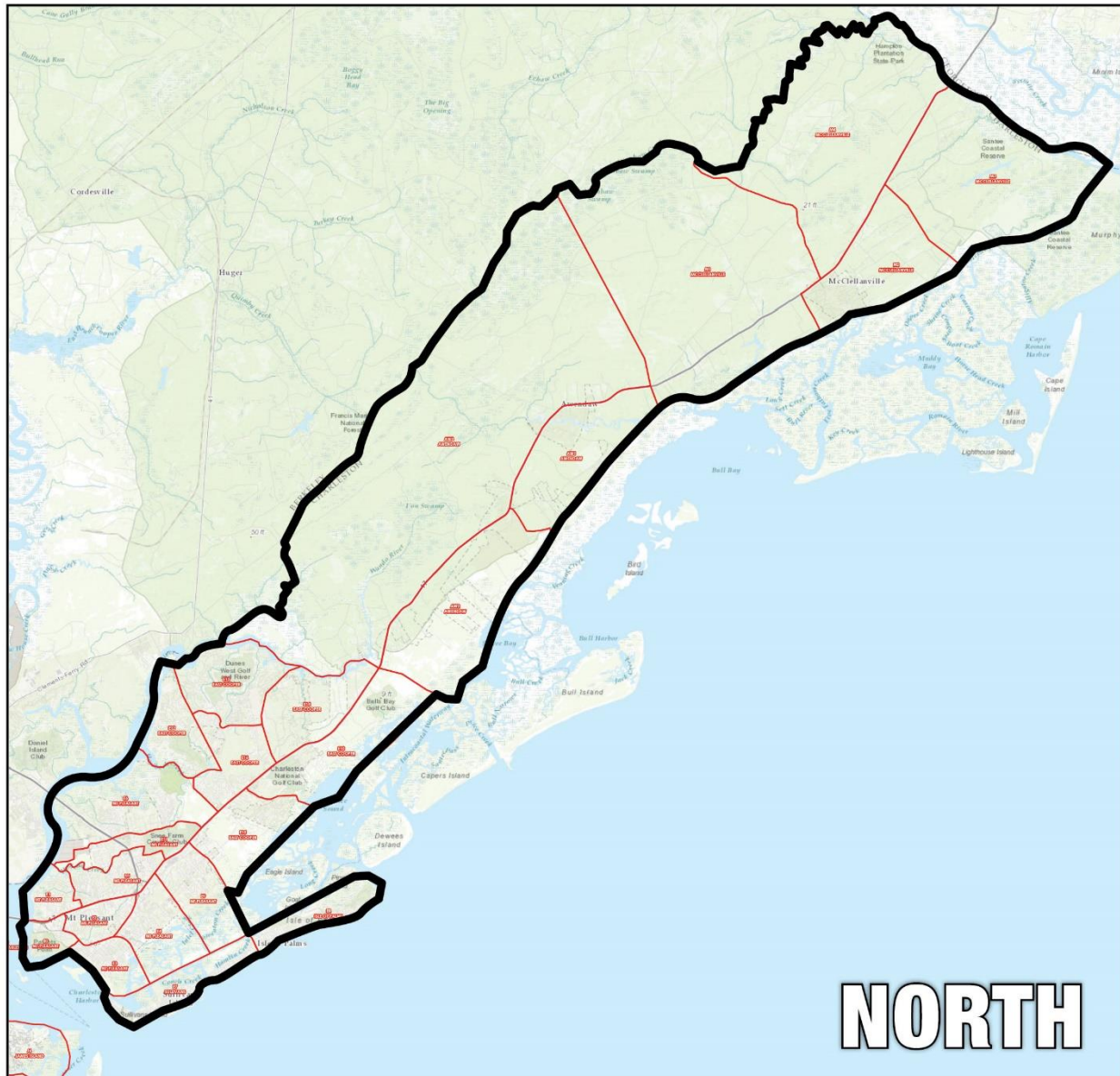


Figure 9- North Primary Zone Divisions

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SECTION V *DEBRIS COLLECTION PLAN*

A. Concept of Operations

Debris management and removal operations consist of a variety of tasks related to assessment, right-of-entry, debris collection, transport, processing, and disposal of debris resulting from a hurricane or other type of disaster. Although there are similarities between events, each event provides its own set of extraordinary challenges. The debris removal and management operations for the areas under CCPW are typically provided utilizing a variety of means, including Debris Contractors, Quality Assurance (QA) support contractors, County personnel and other personnel on assignment from other departments, and in coordination with municipalities and special service districts. The operations are performed under the direction of CCPW in accordance with Federal, State and local laws and guidelines.

Debris can be classified into many subcategories. Some common categories include:

- Construction and Demolition Debris (C&D)
- Clean Vegetative Storm Debris
- Mixed Debris
- Automobiles/Vehicles
- Boats/Derelict Vessels
- Appliances/White Goods
- Stumps
- Leaning Trees and Hazardous Hanging Limbs
- Household Hazardous Waste (HHW)
- Commercial/Industrial Hazardous Waste
- Concrete (Recyclable)
- Sand / Mud / Silt
- Waterway Debris
- Metal (Recyclable)
- Electronic Waste (E-Waste)

B. Disaster Debris Management Phases

1. General

A typical debris removal operation begins with the clearance of debris from critical transportation routes to facilitate the travel of emergency support vehicles to and from critical facilities.

The debris removal operation continues with a series of “passes” in which the debris is collected from the rights-of-way and hauled to a debris reduction and/or disposal site under the oversight of QA monitors. Prior to a truck or trailer hauling storm debris, a truck certification form is completed and a placard issued that depicts the vehicle capacity and other important information. For every load of debris collected and dumped at the debris reduction and disposal sites, a debris load ticket (multi-part copies) is issued by a QA monitor that captures the vehicle placard identification number and other salient information (e.g., date, location, type material, contractor/subcontractor, quantity, etc.) After the first pass has been completed, the second pass is initiated, followed by subsequent passes as may be required. Additional, subtasks include the removal of leaning trees and hanging limbs, and the removal of tree stumps.

Removal of debris from private property is more challenging, but basically consists of obtaining a signed right-of-entry from property owner(s) for the purposes of debris removal

and may involve, but not be limited to, obtaining and determining utility locations, demolition of condemned structures, removal of debris, removal of leaning trees and hanging limbs, and removal of tree stumps.

A key component of debris management operations is record keeping/data management. Listed below are several elements of record keeping and data management along with the purpose of each:

- Time sheets, work orders, or service requests – to document labor, equipment, and materials expended by internal forces assigned to the debris removal effort.
- Truck Certifications and Placards – to document capacity of hauling vehicle, contractor, and subcontractor information.
- Debris Load Tickets – to document date, time, location, type and quantity of debris, contractor/subcontractor and driver.
- Right-of-Entry Forms – to document each property and the actions taken.
- Other types of debris tickets and forms (e.g., leaners and hangers, stumps, boats, etc.). – to document number, location, and type of debris item.
- Database - to document all relevant information obtained from tickets and forms.

2. Phases I through IV

Disaster Preparedness, Response and Recovery Operations can be separated into five (5) phases. These phases include:

- Phase I – Meetings, Exercises, and Continuing Education
- Phase II – Pre-event Planning and Training
- Phase III – Disaster Debris Emergency Clearance Operations
- Phase IV – Disaster Debris Recovery Operations
- Phase V – Financial Reimbursement

a. Phase I – Meetings and Continuing Education

- CCPW, CCEM, and others should attend emergency management and disaster debris management conferences and continuing education venues (e.g., National Hurricane Conference, Governor's Hurricane Conference, NEMA, APWA, etc.).
- Schedule and attend meetings with FEMA and State representatives in order to maintain open lines of communication.
- Schedule and attend meetings with local agencies (e.g., sheriff, fire chief(s), etc.).
- Schedule and attend coordination meetings with municipalities and special service districts.
- Designate staff to attend FEMA and State workshops and/or participate in other salient educational classes.
- Assign all ESF 3 functions to CCPW staff and others.

b. Phase II – Pre-event Planning and Exercise Training

- Review and update Disaster Debris Management Plan.
- Develop disaster debris quantity and damage scenarios utilizing available models.
- Prepare, review, and update GIS layers for critical facilities, key routes, Federal highways, Federal aid roads, State roads, and private roads.
- Coordinate and communicate expectations.

- Conduct annual review meeting with Debris Contractor(s).
- Encourage Franchise Haulers to participate in annual meeting, as well as, any post-event operations meetings.
- Attend and participate in exercise training at EOC and ESF 3 HQ.
- Conduct annual internal exercise and training.
- Review and update contact information with municipalities, special service districts, and other agencies.

c. Phase III - Disaster Debris Emergency Clearance Operations

CCPW is the lead agency responsible for coordinating disaster debris assessment for all County public structures, equipment, and debris clearance immediately following a large-scale disaster in order to prioritize the impacted areas and resource needs. Disaster debris emergency clearance from County roadways and County public property will be accomplished using CCPW crews (i.e. Force Account) and equipment, mutual aid providers, and private contractor resources.

The County will activate its pre-positioned Debris Contractor for emergency road clearance of disaster debris and may utilize time and materials, and/or unit price (per cubic yard) pursuant to the agreement(s) between the County and Debris Contractor. The County will also utilize available County forces to accomplish this task.

CCPW's primary mission is to clear debris from at least one lane on all critical transportation routes to expedite the movement of emergency service vehicles such as fire, police and medical responders, consistent with the prioritized roads list.

The County has been divided into three (3) Debris Zones to control and facilitate disaster debris removal operations. A map of the County outlining each of the Debris Zones is provided in Figure 6.

Debris assessment teams will conduct initial zone by zone drive-by surveys to identify types of debris, estimate quantities of debris on the roadways, and estimate the quantity of storm debris that may be brought to the ROW by residents. Computer modeling and aerial reconnaissance may also be used to estimate storm debris types and quantities anticipated within the affected areas.

Priority for debris clearance will be based upon the following criteria:

Response Priorities

1. Extrication of trapped people.
2. Major flood drainage arteries.
3. Egress for fire and police.
4. Communications.
5. Ingress to hospitals, special care units, and detention facilities.

Recovery Priorities

1. Major traffic routes and other critical arterials.
2. Egress for fleet, traffic, road and bridge, and designated remote locations.
3. Supply Distribution Points and mutual aid assembly areas.
4. Government facilities.

5. Public safety communications towers and facilities.
6. American Red Cross shelters.
7. Secondary roads to neighbor collection points.
8. Access for utility restoration.
9. Neighborhood streets.
10. Private property adversely affecting public welfare.

Critical Facilities and Transit Routes

1. Medical University of South Carolina (MUSC) – All Facilities
2. Roper Hospitals
3. Bon Secours St. Francis Hospital
4. East Cooper Medical Center
5. Main Road between Highway 17 and River Road
6. Maybank Highway between River Road and Folly Road
7. Folly Road between Maybank Highway and Highway 17
8. Sam Rittenburg Blvd between Interstate 26 and Highway 17
9. Isle of Palms Connector
10. Ben Sawyer Blvd
11. Folly Road
12. International Blvd and Michaux Parkway (airport entrance roads)
13. Charleston County Detention Center
14. City Hall (City of Charleston)
15. Town Hall (Town of Mt. Pleasant)
16. City Hall (City of North Charleston)
17. Charleston County Administrative Building (4045 Bridge View Dr.)
18. Charleston County Emergency Management EOC (Palmetto Commerce Pkwy)

During the debris clearance and removal process, CCPW will be responsible to ensure that power lines do not pose a hazard to emergency work crews and to coordinate the response effort with utility companies as appropriate. The DM and CCPW EOC Coordinator will work with utility companies and other agencies to assist with safe and expedient clearance of affected road arteries.

d. Phase IV - Disaster Debris Recovery Operations

Based on debris estimates provided by damage assessment teams and debris generation models, the DM & OM will prioritize debris recovery operations utilizing the following methodology:

- Establish Debris Zones (3 Primary areas);
- Prioritize utilizing geographic boundaries.

The DM and OM, with assistance from QA Monitor Supervisors, will further breakdown debris recovery operations utilizing the following methodology:

- Prioritize streets/neighborhoods within the designated Debris Zones;
- Develop routes for debris recovery and removal teams;
- OM to approve clearance prior to Debris Contractor moving to the next assigned area.

The general concept of disaster debris removal operations includes multiple scheduled passes (e.g., three passes set 3-5 weeks apart) of each affected site, location, or right-of-way conducted by a Debris Contractor pursuant to their contract with the County. This manner of

scheduling debris removal allows residents to return to their properties and bring storm debris to the ROW as recovery progresses.

The Disaster Debris Program Management SOP for Phase IV disaster debris recovery operations is provided in Attachment 3. Debris Contractor operations will require QA monitor field personnel for load site and TDMS to oversee Debris Contractor operations.

Under the overall supervision of the DM, the OM will coordinate with QA Supervisors, Debris Contractor Supervisor(s) and others for debris removal and disposal operations for all portions of the County from ESF 3 HQ or other field offices as required.

Debris Contractors will collect and haul debris from their assigned Debris Zones to designated temporary or final disposal sites, as appropriate for the type of debris collected.

The CCEM will provide support to CCPW as required. Certain designated County Convenience Centers and/or properties may serve as temporary residential drop-off sites for clean vegetative storm debris.

Debris Contractors will be required to obtain a certified scale ticket and/or debris load ticket for each load of debris for payment. The scale tickets/debris load tickets will be the final documentation for invoice payments

MSW contractors will collect municipal garbage according to existing procedures, routes, and collection schedules.

CCEM may identify residential HHW Convenience Center locations within the County. Residents will be required to separate and transport HHW to the pre-identified drop-off sites. Operating days and hours will depend on the severity and/or location of the affected areas.

The Debris Contractor will be encouraged to separate HHW at the curb and haul it to TDMSs for proper temporary storage, packaging, and transport and disposal to a permitted final disposal facility.

The Debris Contractor and CCPW will coordinate the collection of eligible commercial or industrial hazardous waste from the disaster.

Utility crews will handle all utility related debris such as power transformers, utility poles, cable, and other utility company material.

e. Phase V – Financial and Reimbursement Considerations

The DM and OM will assure that current Federal and State regulations are accessible, including but not limited to, 2 CFR and PA Program and Policy Guide FP 104-009-2/January 2016.

Responsibilities for financial and reimbursement activities are summarized below:

- **CC EOC** – Provides official notification of disaster declaration and EOC activation making related eligible costs reimbursable.
- **CC Finance** – Establish budgetary codes and accounting infrastructure to pay for disaster-related expenditures and accept reimbursements from external agencies.
- **CCPW** – Provide accurate accounting of expenses for force account debris removal operations and ensure the OM is providing an accurate accounting of expenses for all contracted debris removal operations. Coordinate with municipalities and special service districts where cooperative force account operations occur.
- **Debris Management Consultant** – Track and provide data generated by the debris removal operation. Provide Debris Contractor invoice reconciliation and applications for payment. Develop appeals to Project Worksheets as appropriate.

- **State** – Facilitate documentation and reimbursement flow between County and Federal agencies.
- **FEMA** – Project Worksheet development, eligibility determinations, reimbursement.

f. Reimbursement Procedures for Filing / Managing Project Worksheets (PWs) and Appeals

FEMA's methodology for reimbursing PA Applicants (e.g. Charleston County) involves writing a number of Project Worksheets to summarize all labor, equipment, materials and contracted costs associated with the preparation, response and recovery for a given federally declared disaster. FEMA officials assigned to work with the County will initiate the Project Worksheets upon receipt of all applicable documentation that validates the eligible costs associated with the debris removal effort.

The Project Worksheets are sub-divided into categories and groupings determined by FEMA guidelines, policy and the discretion of the assigned agents. Applicants may be allowed to write their own Project Worksheets for expenses considered small projects.

Documentation can include timesheets, work orders, service requests, truck certifications, invoices, contracts, pictures, maps, computer spreadsheets, load tickets, or any other documentation considered relevant to the validation of claimed expenses.

Once the required documentation is submitted to FEMA representatives, the Project Worksheets are written and Applicants are given an opportunity to review and discuss any discrepancies or differences between the expected amounts and those declared eligible by FEMA. Project Worksheets that are agreed upon are processed through the FEMA Disaster Field Offices and eventually reimbursed to the Applicants. For those situations where the Applicant disputes the FEMA determinations, the Applicant is given the opportunity to appeal pursuant to the FEMA PA Program and Policy Guide FP 104-009-2/January 2016, Section IV D. Appeals.

Excerpt from IV D. Appeals - FEMA provides the Applicant with two opportunities to request FEMA reconsider a determination. The first appeal is to the FEMA Regional Administrator. If the Applicant disagrees with the first appeal determination, it may submit a second appeal to the Assistant Administrator of the Recovery Directorate at FEMA Headquarters.

Typical appeals involve the following:

- An entity is not an eligible Applicant.
- A facility, an item of work or a project is not eligible for disaster assistance.
- Approved costs are less than the Applicant believes is necessary to complete the work.
- A requested time extension was not granted.
- A portion of the cost claimed for the work is not eligible.
- The Applicant disagrees with the approved Scope of Work on the Project Worksheet.

The Applicant must file an appeal with the Grantee within 60 days of receipt of notice of the action or decision being appealed.

g. Debris Contractor Invoice / Payment Process and Procedures

The Debris Contractor will submit its invoice(s) for services in either Time & Materials and/or unit price format pursuant to its contract with the County. Invoices will be submitted in regular intervals, and in a specific format, as determined by ESF 3 Finance and Administration and the DM.

The OM will review and reconcile the Debris Contractor invoice(s) and issue an Application for Payment (AFP) to the County of the OM's receipt of the invoice. The AFP will consist of the OM's recommendation for payment, the Debris Contractor invoice (in a format per ESF 3 Finance & Admin direction), and associated load tickets or other backup documentation.

The AFP is reviewed by the DM and the ESF 3 Finance and Admin Chief. County fiscal staff, under the direction of the ESF 3 Finance and Admin Chief, review and validate the invoice and issue a check request for payment to the Debris Contractor. This process shall be completed within 45 days.

C. Contracted Debris Operations

Contracted debris removal and monitoring services may be utilized when the requirement for disaster debris removal exceeds the capability of available County resources. Proactively, the County procures debris removal services from one or more firms specializing in collection, processing and disposal and monitoring of the types of debris that may be generated by a disaster event. The DM or his authorized representative will be in contact with the firm(s) that have pre-event debris contracts and advise them of impending conditions. The pre-event contract is to provide for a qualified contractor to manage all disaster generated debris, excepting MSW – depending upon FEMA eligibility of such wastes. Debris removal is limited to public property and County streets, roads, and other rights-of-way based on the extent of the disaster and includes all debris brought to the edge of the right-of-way by residents within designated Debris Zones.

The contractor, upon Notice to Proceed, will mobilize such personnel and equipment necessary to conduct all debris removal and disposal operations pursuant to their contract. All operations will be subject to review by the DM and OM.

D. Debris Removal Operations

The Debris Contractor will make multiple scheduled passes of each site, location, or area affected by the disaster according to assigned Debris Zones. This manner of debris removal will allow residents to return to their properties and bring all debris to the edge of the ROW adjacent to their property. The number and schedule of passes shall be as directed by the DM. Sufficient time will be scheduled between subsequent passes to accommodate reasonable recovery by residents in the affected areas. Schedules will be provided to the PIO for publication and notification by the news media and other means.

NOTE: Unless specifically directed by the DM for public safety considerations, debris will not be collected from private property, private streets, or gated communities.

The Debris Contractor will operate TDMSs made available by the County and provided by others. The Debris Contractor will be responsible for all site setup (including monitoring towers, sanitation facilities, office trailer, etc.), site operations, rodent control, and closeout and remediation costs. The Debris Contractor will coordinate with the OM and the DM to finalize TDMS layout and determine the need for environmental controls such as: flagging of water bodies to establish mandatory setbacks, erection of silt barriers, and other controls to be determined based on-site characteristics. The Debris Contractor is also responsible for the lawful disposal of all debris reduction by-products their operations may generate at a TDMS and documentation of final disposal location will be provided to the County by the Debris Contractor prior to payment. Approved County TDMS Sites and additional TDMS information is provided in Attachment 2.

The Debris Contractor shall construct and maintain at each TDMS and other disposal sites an inspection tower. The inspection tower will be large enough for three (3) people and have

portable sanitary facilities located nearby. The Debris Contractor will construct the inspection towers to have a complete view of the load bed of each type of equipment utilized to haul debris.

The OM will assist the DM by monitoring the Debris Contractor's performance for debris recovery operations in each Debris Zone. The OM will provide Area Inspection Teams consisting of Debris Management Consultant and CCPW personnel.

The Debris Contractor will keep the OM informed of cleanup progress and any problems encountered or expected.

All HHW should be segregated at curbside. However, small amounts of HHW may be mixed in with material stored at a TDMS. Therefore, the Debris Contractor must be prepared to place any HHW in a separate enclosed and lined area for temporary storage. The Debris Contractor will immediately report any accumulation of HHW at the TDMS to the OM staff. The OM staff will ensure the County's contracted Hazardous Waste Contractor is contacted for proper removal and disposal.

The Debris Contractor will restore the TDMS to its original condition so that it does not impair future land uses. All sites are to be restored to the satisfaction of the DM.

1. Pre-Qualified Debris Contractors

Please refer to Attachment 8, Disaster Debris Hauling Contractors for a complete list of pre-qualified Debris Contractors, as well as contact information for each. These services are procured and subject to change. Therefore, Attachment 8 will be updated when changes are necessary independent of the Disaster Debris Management Plan (DDMP).

E. Monitoring Staff and Assignments

1. Loading Site QA Monitors

Loading Site QA Monitors will be provided by the Debris Management Consultant. The Loading Site QAs will be assigned to each Debris Contractor loading site within designated areas of a Debris Zone. The Loading Site QA will initiate the load ticket via electronic ticket, which verifies the debris collected is eligible under the terms of the debris contract.

2. Disposal Site QA Monitors

Disposal Site QAs will be stationed at all TDMS and landfill disposal sites for the purpose of verifying the quantity of material being hauled and disposed by the Debris Contractor through the use of electronic load tickets. The Disposal Site QA will estimate the quantity of debris in each vehicle entering the TDMS or landfill disposal site and record the estimated quantity on electronic load tickets. The Debris Contractor will invoice based on the quantity of material deposited at the TDMS or landfill as recorded on the debris load tickets.

The Debris Contractor will be paid based upon the type of eligible debris and the quantity calculated per truckload. Form of calculation will vary based upon type of debris removed. Payment for hauling debris will only be approved based upon the debris load tickets corresponding to the Debris Contractor's invoice.

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SECTION VI. TEMPORARY DEBRIS MANAGEMENT SITES

The County recognizes the economic benefits of debris volume reduction and will realize this benefit through the use of local TDMSs for processing debris. Furthermore, the County intends to utilize smaller Temporary Debris Aggregation Sites (TDAS) for managing debris in congested and densely populated areas to more efficiently utilize resources and manage the transport of the debris to the TDMS locations. It is also the intent of the County to encourage municipalities and special service districts to identify at least one acceptable TDMS within the boundaries of each jurisdiction and where applicable (e.g., City of Charleston) to identify multiple acceptable TDAS locations that are established within a zone having a radius of three to five miles as appropriate.

A. Site Management

The County has identified pre-designated vegetative TDMS for the sole purpose of temporarily staging and reducing clean woody debris through grinding and/or burning. Additionally, the County contemplates operating TDMS locations at night to allow haul-out trucks to avoid heavy traffic periods during daylight hours.

Private Debris Contractors will operate the TDMS made available by the County. The Debris Contractor will be responsible for all site setup, site operations, rodent control, closeout, and remediation costs at each site. The Debris Contractor will also be responsible for the lawful disposal of all by-products of debris reduction that may be generated and to provide documentation to the County regarding the final disposition of all such materials.

A County-hired Consultant will conduct baseline assessments of each site prior to utilization by the Debris Contractor. These assessments will be used to restore the TDMS as close to the original condition as is practical by the Debris Contractor so that it does not impair future land uses. All sites are to be restored to the satisfaction of the County DM with the intent of maintaining the utility of each site.

It is important to note that all material deposited at the TDMS will eventually be taken to a properly permitted location for final disposal. Under certain circumstances, the County DM may direct Debris Contractors to bypass TDMS and approve the hauling of debris directly to a properly permitted landfill for disposal.

While residents will be encouraged to segregate HHW at curbside, small amounts of HHW may be inadvertently mixed in with material deposited at the TDMS. Therefore, the TDMS Debris Contractor must be prepared to place any HHW in a separate enclosed and lined area for temporary storage, and will make arrangement to have the HHW removed and properly disposed of at a County approved final disposal location.

➤ Site Manager:

To expedite the implementation of TDMS operations, the Debris Contractor must provide personnel on site prior to a projected disaster event to carry out any activities necessary to assure that the TDMS will be ready when needed. Actual preparation of the TDMS must begin within 24 hours of receipt of the Notice to Proceed and the sites must be fully operational not more than 5 days thereafter.

➤ **Monitoring Staff and Assignments:**

Disposal Site Monitors will be provided by the OM and will be located at both TDMS and final disposal sites as identified by the DM during the recovery process. The Disposal Site Monitor's primary function is to ensure that debris load quantities are being properly estimated and recorded via electronic ticketing.

➤ **Safety Personnel:**

The Debris Contractor will be responsible for developing a H&S plan for the project including a TDMS safety plan and staff to enforce all safety requirements.

B. TDMS and TDAS Establishment and Operations Planning

1. Permits

The County has selected TDMSs and TDASs, which are generally free of known significant environmental constraints. The County will secure any necessary Department of Health and Environmental Control (DHEC) permits and/or provide any necessary notifications for the operation of the TDMSs and TDASs. The County will handle all contact with local, State, and Federal agencies. The Debris Contractor will refer any contact by these agencies to the County DM.

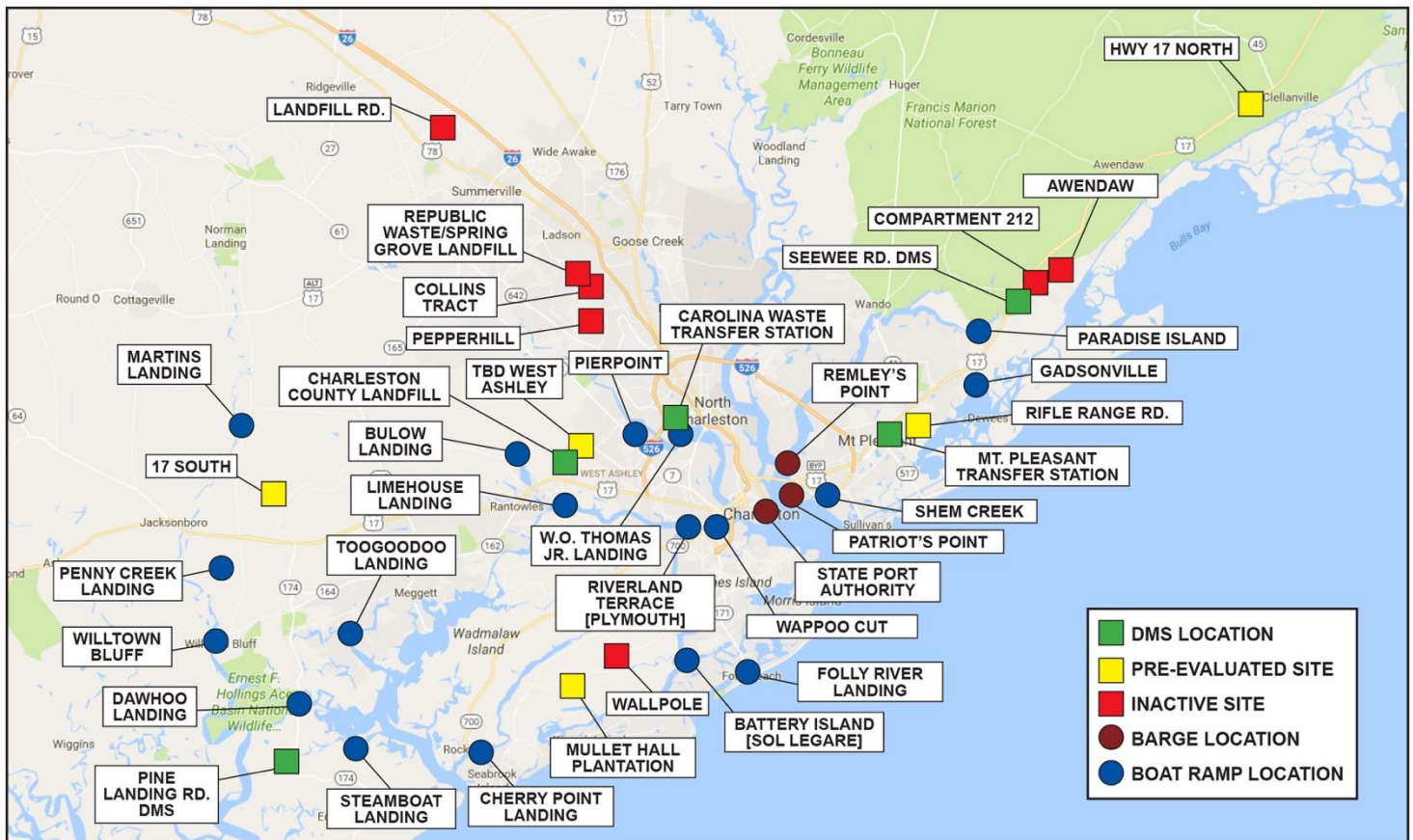
Nonetheless, the Debris Contractor must be aware of, and abide by, the conditions of any guidelines, regulations, agreements, and permits under which he/she must operate. The Debris Contractor is responsible for knowing the applicability and requirements of all applicable environmental laws, regulatory guidance documents, and regulations that could pertain to the operation of the TDMSs and TDASs.

2. Locations and Site Layouts

The County's has identified 13 TDMS locations that are deemed potentially suitable for managing disaster generated debris. Attachment 2 provides additional information regarding TDMS locations. In addition to these TDMS locations, the County is obligating its Debris Contractor to locate and procure additional TDMS locations if they are deemed necessary. The Debris Contractor shall attempt to obtain TDMS locations such that haul distances remain under 15 miles, to maximize debris transport efficiency and turn-around time. The County and the Charleston County Parks and Recreation Commission have a Memorandum of Understanding to provide properties for TDMSs if necessary following an incident. See Attachment 2 for details of the agreement. The County will coordinate with municipalities and special service districts to identify additional TDMS and TDAS locations.

With the exception of Bees Ferry Landfill, the other TDMS locations will require proper traffic monitoring, displays, and flag persons near the entrance and exit.

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TDMS locations are provided in Figure 10.

Figure 10: Charleston County TDMS and Barge Locations

3. Site Preparation and Baseline Data:

Site setup will commence as soon as possible after the disaster event has subsided. All TDMSs must be fully operational with 5 days of the Notice to Proceed.

The Debris Contractor will coordinate with the OM and the DM to finalize TDMS layout and determine the need for environmental controls such as: flagging of water bodies to establish mandatory setbacks, erection of silt barriers, and other to be determined based on-site characteristics.

At the direction of the DM, as determined on a site by site basis, the Debris Contractor will prepare each site for operation by installing the following features:

- perimeter fencing;
- construction entrances including gates;
- built-up aggregate access roads;
- drainage and storm water retention features (where applicable);
- erosion and sediment control fencing;
- construction of an inspection tower;
- operations trailer;

- lined, segregated temporary storage areas for: HHW, fuels, and other materials that can contaminate soil, surface water, and groundwater. Set up plastic liners, when possible, under generators and mobile lighting plants;
- all other site improvements necessary for the safe, efficient, economical and environmentally acceptable operation of the sites.

As stated above, the Debris Contractor will construct suitable secondary containment (to be approved by DM and OM) beneath and surrounding all non-truck mounted fuel storage tanks, petroleum product containers (buckets, drums, etc.), HHW temporary storage areas, and stockpiled ash.

Prior to use of the TDMS, the Debris Contractor will coordinate with the DM and OM regarding the need for any “baseline” and “closure” soil and groundwater sampling. The necessity and details of any such sampling will be determined on a site by site basis. The Debris Contractor shall not collect any samples of environmental media at the TDMS, unless specifically instructed by the DM and OM.

Within the limits of or adjacent to the TDMS there may be existing underground electric, telephone and television cables and conduits, gas, water and sewer utility lines which cannot be located from existing data. It is the responsibility of the Debris Contractor to determine their exact location and to carry out his/her work carefully and skillfully to avoid damage to them. The County may elect to provide this information to Debris Contractor in advance. In any case, Debris Contractor shall ensure the locations of such utility installations are adequately marked and protected.

All temporary utilities including sewage disposal and potable water must be provided by the Debris Contractor.

The Debris Contractor must provide signs at each of the TDMS in accordance with County specifications and contain the following information:

- Debris Contractor's superintendent's name, address and local 24-hour telephone number;
- Name of the TDMS facility;
- Name, address and telephone number of the County representative to contact in case of an emergency.

The Debris Contractor must develop and provide to the County the following materials prior to start-up:

- Site layout plan;
- Proposed operating procedures;
- Site/operations safety plan.

When all TDMS preparations are completed, the Debris Contractor must notify the County DM who will inspect the site and approve the site for commencement of TDMS operations.

4. Volume Reduction Methods

It is anticipated that the County will reduce vegetative storm debris through grinding or burning. Both reduction methods will require approval from DHEC before commencement and one or the other may be preferred depending on locations and climate conditions. Reduction methods may also be limited by restrictions imposed by the property owner or local

regulation. The Debris Contractors will process vegetative debris at each TDMS using horizontal grinders, air curtain incinerators or enclosed burning units. Reduction operations will start as early as practical following a TDMS receiving vegetative storm debris. In addition, the Debris Contractor can reduce C&D and to sort and reduce concrete and masonry if necessary.

The Debris Contractor will operate each TDMS in an effective and efficient manner for such time as the County DM deems necessary. The TDMS may operate on a 24-hour, 7-day basis unless otherwise directed by the County to prevent undue impact on nearby residents.

The Debris Contractor will operate such equipment as is necessary to efficiently reduce by mechanical means all materials deposited at the TDMS. The Debris Contractor will segregate all debris in accordance with the method of processing and potential for recycling and its ultimate disposal. The Debris Contractor must separate and contain all hazardous wastes inadvertently delivered to the TDMS for pick up and disposal by the County's Hazardous Waste Contractor. Any materials such as white goods, asbestos containing materials, and HHW must be segregated, contained, and arrangements made for removal and proper disposal.

The Debris Contractor will staff the TDMS with sufficient personnel to ensure the waste stream segregation and processing operation does not reduce the capacity to remove debris from County ROW in a timely manner. The operation of each TDMS will conform to these specifications and the Debris Contractor must be aware of, and abide by, the conditions of any guidelines, regulations, agreements, and permits under which he/she must operate the TDMS. The Debris Contractor is responsible for all site and worker safety issues.

The Debris Contractor must make every effort to control the nature of the material allowed into the TDMS, with the objective being to have only debris brought to and deposited at the TDMS for which that TDMS has been designated.

The Debris Contractor is responsible for monitoring the temperature of stockpiled mulch at least twice daily to detect hot spots resulting from natural microbial decomposition. Upon finding a hot spot the Debris Contractor must mechanically mix the affected mulch to cool it down and avoid creating a fire hazard. If required, the Debris Contractor shall secure the services of an independent laboratory to sample and test any ash generated from burning prior to its lawful disposal. Copies of all documents pertaining to the disposition of the ash (e.g., analytical results, shipping manifests, certificates of destruction) must be submitted to the County.

The Debris Contractor must operate the TDMS in such manner as to minimize the possibility of infestation by rodents, other vermin and insects and to minimize the potential for attracting birds and wildlife. The Debris Contractor will be responsible for proper and safe application of rodenticide and insecticide as a precautionary tactic to minimize the potential for infestation. However, any such chemical application at the TDMS must first be approved by the DM and OM. Additional applications of such materials shall be made as necessary to eradicate infestations. All sites and work areas will be subject to inspection and monitoring by County H&S personnel.

The Debris Contractor will be considered the owner of all debris brought to a TDMS. The Debris Contractor must remove or arrange for the removal and final disposal of all debris brought to the TDMS. Options include but are not limited to sending the material to an authorized and properly permitted disposal area, recycling facility or resale entity. The Debris Contractor must maintain records for all materials, including processed debris, residue, and hazardous materials, being transported from the TDMS to disposal or recycling facilities. The Debris Contractor must secure an EPA Identification Number prior to the lawful disposal of any ash determined to be hazardous based on analytical results. Copies of this documentation must be provided to the County DM for his/her review.

5. TDMS Closure

The Debris Contractor will be responsible for preparing and closing out a TDMS in accordance with specifications in the Debris Removal and Disposal Contract.

The Debris Contractor must restore all TDMS to their original condition to the extent feasible or to the satisfaction of the DM. Unless otherwise directed by the County, all improvements (e.g., fencing, haul roads, trailers) must be removed. The Debris Contractor must reestablish grades (i.e., roads, and ditches) throughout each TDMS. The Debris Contractor must request and participate in site inspections by the County for final approval of all site closure and restoration activities.

- C. County Landfill / Final Disposal.** The County's landfill may, under certain circumstances, be utilized as a final disposal location for mulch. In addition, the Debris Contractor shall be provided a list of potential C&D facilities and disposal sites to contract with directly for final disposal of mulch and other incident debris. The Debris Contractor may also provide additional final disposal options, subject to County and regulatory agency approval.

Following a large-scale event (e.g., earthquake) the County may utilize the USACE and other approved offshore disposal sites for concrete and other acceptable debris approved for disposal at these offshore locations. The materials will be transported via barges and disposed according to all applicable regulations. Potential barge loading locations are provided in Figure 7.

OM will provide QA monitors at the final disposal locations in order to issue final disposal debris load tickets.

D. Hazardous Waste (HW) / Household Hazardous Waste (HHW) Collection and Disposal

1. Residential Household Hazardous Waste

The CCEM may open up to nine (9) Convenience Center locations where residents may deliver their HHW and electronics. Operating days and hours will depend on the severity and/or location of the affected areas.

Materials that may be accepted include paint, solvents, pool chemicals, hobby and craft supplies, lawn and garden chemicals, computers, stereos, televisions, etc. Collections are for residents only - ***NO chemicals or electronics will be accepted from commercial interests.***

Hazardous Waste and electronics collected by the Debris Contractor will not be accepted at these sites. The Debris Contractor will be responsible for hazardous waste collection, packaging, storage, transport, and final disposal at a permitted facility.

2. Commercial/Industrial Hazardous Waste

The primary responsibility for coordinating emergency response to hazardous materials spills or leaks during a County declared state of emergency rests with Charleston County Fire Rescue – Hazardous Materials Incident Response Team.

Commercial/Industrial hazardous waste generators wishing to dispose of hazardous materials prior to or after a disaster event should contact CCEM for instructions on proper disposal.

E. Recycling

CCEM provides education and outreach to inform communities about proper recycling practices and procedures. CCEM recycling responsibilities include:

- Providing a residential recycling program servicing curbside collection to approximately 120,000 single family homes, with 25 drop site locations, and nine staffed Convenience Centers located primarily in the rural areas of the county. Curbside service occurs every two weeks.
- Providing a commercial business recycling program for qualified Charleston County businesses. Covered by the user fee, the program offers a weekly service (Monday through Friday) utilizing 95-gallon recycling roll carts.
- Providing a multi-family recycling program that is offered to apartment complexes, condominium complexes, and townhome communities. A weekly service is available and recycling roll carts and/or recycling dumpsters may be used on the property for collection of recycling from residents.
- Providing special event recycling equipment and education, including the rental of recycling collection bins.
- Providing school recycling programs and equipment to Charleston County schools in coordination and partnership with Charleston County School District.

CCEM also operates nine (9) Convenience Centers for the drop off of approved materials:

- Recyclables (paper, plastic, aluminum, steel, and paperboard)
- Cardboard
- Used motor oil and filters
- Electronic waste, i.e. computers
- Tires
- Paint
- Household hazardous materials
- Compact florescent light bulbs (CFLs)
- Yard waste
- Car batteries, battery acid and NiCad batteries
- Scrap metal and appliances (refrigerator doors removed)
- Household batteries
- Fluorescent tubes (unbroken)
- Used cooking oil
- Old gasoline and two-stroke mix
- Antifreeze
- Propane tanks (emptied with valves removed)

The Convenience Centers are located at:

13 Romney Street
Charleston, SC 29403

1344 Bees Ferry Road
Charleston, SC 29455

6380 Maxville Road
Awendaw, SC

2844 Highway 174
Edisto, SC

8326 Old Jacksonboro Road
Adams Run in Hollywood, SC

5303 Highway 165
Hollywood, SC

1775 River Road
McClellanville, SC

1558 Liberia Road
Wadmalaw, SC

1716 Signal Point Road
James Island, SC

In addition to residential drop-off centers, the County intends to maximize the reuse and recycling of disaster generated debris collected by its Debris Contractor(s) and force account labor. Debris collected will be segregated at TDMS locations to the greatest extent possible including the separation of metals, concrete, white goods, electronic waste, etc.

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SECTION VII. CONTRACTED SERVICES

The County Purchasing Department manages a centralized procurement system that:

- Purchases all goods and services;
- Disposes of salvage and surplus materials;
- Uses procurement skills and technology that results in high quality and cost-effective services to deliver first class services to the citizens.

The procedures used to implement best practices in the acquisition of commodities and services can be found in the County's Procurement Ordinance and procedures which are consistent with 2 CFR.

The County, through the utilization of a competitive bidding process compliant with Title 2 CFR has in-place contracts with Debris Contractors. The procurement process generally includes a scoring criteria based on contractor qualifications, similar experience with the scope of services, personnel, project approach, and costs. These criteria are used to score bidder proposals and in-person presentations if necessary. The resulting contract(s) are typically for a term of 5-years that include annual extensions which are possible at the discretion of the County. In addition to Debris Contractors, the County contracts consulting and debris monitoring services through similarly compliant methods.

Based on the assumptions outlined in Section IV the County intends to utilize contracted services when the impacts of a disaster event exceed the County's capacity to provide an adequate response. Should such an event occur, the County will activate its' in-place contracts and utilize the full suite of services in the contract's respective scopes. These services may include emergency clearance of critical routes and providing access to critical facilities, general right-of-way and public facility debris removal, waterway debris removal, and debris removal from private property where applicable. Debris removal has been generalized in this context to include the removal, handling, segregation, storage, and ultimately final disposal of managed debris streams. Contracting these services will allow County personnel and resources to focus their efforts on other areas of the recovery process and return to normal courses of operation in an expedited manner.

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SECTION VIII. PRIVATE PROPERTY DEMOLITION AND DEBRIS REMOVAL

A. Private Property Debris Removal and Demolition

Disaster generated debris on non-commercial private property must be moved to the curb or right-of-way of a County maintained street by the property owner before it can be disposed of at public expense. Private contractors hired by the County cannot enter and remove debris from private property without a signed right-of-entry/hold harmless agreement executed by the County and the property owner. Debris on commercial private property should not be placed at the curb and must be removed at the owner's expense.

NOTE: Before a Right-of-Entry/Hold Harmless agreement is implemented the legal responsibility must accrue to the County by the County invoking its policing powers as required to abate an immediate threat to life, public health or safety. County Building Ordinance 1227 details the procedures for removing these threats when nuisance conditions exist on private property. Work performed through this process may become eligible for reimbursement under the FEMA PA Program.

Debris removal and disposal from "gated communities" is the responsibility of the Homeowner's Association. The County may push debris from the roadway to open a single lane within the Gated Community to provide access for fire and medical response units. However, Homeowner's Associations must make arrangements with private contractors to have debris removed and hauled to a legal disposal site.

NOTE: Unless authorized by the DM for immediate public safety concerns, the County or its private contractors will not remove debris from private property, gated communities, or private roads.

Dangerous structures are the responsibility of the owner to demolish and remove at the owner's expense in order to protect the H&S of adjacent residents. However, experience has shown that unsafe structures often will remain in place due to lack of insurance or absentee landlords. Care must be exercised to ensure that the County DM properly identifies structures listed for demolition.

The County DM will coordinate with the State PA Officer, the FEMA PA Officer, and State Historic Preservation Officer regarding:

- Demolition of private structures;
- Removing debris from private property;
- Local law and/or code enforcement requirement;
- Historic and archaeological sites restrictions;

- Qualified environmental contractors to remove hazardous materials such as asbestos and lead-based paint; and
- Execution of Right-of-Entry/Hold Harmless agreements with landowners.

B. Condemnation Criteria and Procedures

The County will comply with its normal condemnation procedures defined in County Building Ordinance 1557 if it assumes the responsibility to demolish structures following a major disaster. This normally requires a building safety official to contact the homeowner and assess and determine building structural integrity.

The normal building safety assessment should be used for the disaster condemnation criteria as well. Typically, any building or structure may be condemned if the building official determines that it represents a hazard to the health and safety of the public or poses a threat to public rights-of-way. Following that determination, the County would then initiate condemnation proceedings.

Owner notification and condemnation hearings should be held in order to give the property owner time to correct the threat without government action. In some cases, liens may be secured in order to enforce the condemnation order. If the County performs the work, executing liens against the property allows the County to recoup the costs of demolition and debris removal from the property owner.

The County's normal procedures that require multiple notices to property owners, condemnation hearings, and liens may be expedited in the event of a catastrophic disaster that causes a high concentration of debris on private property over a widespread area presenting an immediate H&S hazard.

The planning staff should review the condemnation criteria laws, regulations, legal notices, forms, and procedures before implementing condemnation proceedings.

1. Legal Documentation for Demolition

The County will implement standard procedures that apply to its condemnation process. During the planning process, the County legal counsel will review and update any documents for inclusion within the plan.

The following is a general list of documents that may be included in the plan.

- **Verification of ownership** ensures that the proper site and owner are identified and the owner is aware of the nature of the scheduled building assessment.
- **A right-of-entry form** is signed by the homeowner and allows the building official to enter the property to complete the assessment. It should contain a hold harmless agreement that documents the property owner's promise that he or she will not bring legal action against the County if there is damage or harm done to the property.
- **Building official assessment** is the documentation of the damage to the structure and the description of the threat to public H&S. This assessment should contain the building official's determination as to whether the structure should be condemned and whether it should be repaired or demolished. This may be an official structural assessment.

- **Verification of insurance information** allows the County to pursue financial compensation if the property owner's homeowner insurance policy covers demolition and debris removal.
- **Archaeological review** outlines the archaeological low-impact stipulations for demolition and debris removal activities and highlights the implications for the County if they fail to comply with the guidelines.
- **Environmental review** ensures that adverse impacts to protected environmental resources are minimized or avoided when removing debris from the proposed site. These reviews should be acceptable to the appropriate resource agency. Wetlands and other water resources, hazardous materials, and endangered species habitats are among the resources of most frequent concern. Check to see if the State requires the evaluation or assessment of impacts to natural resources.
- **State Historic Preservation Officer (SHPO) review** confirms that SHPO has been notified and correspondence has been received absolving the area of any historic significance.
- **Photos** that show the disaster-damaged condition of the property prior to the beginning of the demolition work. This is generally one or more labeled pictures that confirm the address and identified scope of work on the property.

If it is determined that a structure needs to be demolished, additional documentation may be required, not only for the County's legal protection, but also for the public's H&S during the demolition and debris removal operations.

- **Letter or notice of condemnation** is a document signed by the building official that outlines the specific threat to public H&S.
- **Notice of demolition** is issued to inform the property owner when the demolition will begin; notices shall be posted so as to provide a reasonable period of time in order for personal property to be removed. The County should attempt to notify the property owner, if not already contacted, through direct mail and local media.
- **Notice of intent to demolish** is normally for the H&S of the neighboring residents. This notice is conspicuously posted on the structure to be demolished.

2. Demolition Permitting

Common requirements for obtaining a demolition permit include a demolition plan, public notification, inspection requirements, and a hazardous waste report.

The demolition strategy may require the following information:

- **Site map**, to scale, showing the site with all structures and other features of interest.
- **Site ingress and egress** showing the fronting streets and planned route for the project. This may also include a movement of traffic strategy. Normal traffic will need to be diverted into other lanes.
- **Site preparation documents** illustrate any pre-demolition work that may be required. Examples include erosion control, vegetation removal, or utility pole adjustments.
- **Staging strategies** show the sequence of events prior to, during, and after demolition of the structure.
- **Hazardous waste handling requirements** detail if contents of the structure require dust suppression or wet demolition. These provisions also describe how hazardous waste or environmentally sensitive materials will be handled or disposed. This includes HHW and

white goods. Asbestos requires specialized removal, handling, and disposal personnel and permits.

Special documents or strategies may be required if the demolition of the building involves shoring, stabilizing structures, or any other special circumstances that may jeopardize another structure or the public's H&S.

Once it has been established that the building is to be demolished and the required processes are underway, a notification to demolish notice is posted on the building.

3. Inspections

The County should conduct regular inspections of demolition sites a few days prior to, the day of, during (occasionally), and upon completion of the operations. Inspectors should take photographs at each site visit for their records. These inspections and verifications generally include the following:

- **Water and sewer/septic tank inspection** to verify the utilities have been terminated and isolated from the proposed sphere of influence during the demolition operations. The inspector should verify that all other utilities have been terminated during the same visit.
- **Occupancy inspection** is conducted immediately prior to demolition to ensure that no one is physically in the building.
- **Open void inspection** is performed if the structure has a basement that is to be filled. This inspection will be conducted once the above-grade structure is gone and the inspector can visually see the entire below-grade excavation.
- **Post-demolition inspection** is completed once the structure is demolished, the debris is removed, and the site graded.

The County may require that a hazardous materials report be submitted to the State EPA or equivalent. This report normally includes a description of any hazardous material that was found in the building, the means and measures to collect it, and the final disposal location of the hazardous waste.

C. Demolition of Private Residential Structures

The following procedures will be implemented should the need arise to enter private property and demolish private structures made unsafe by disasters to eliminate immediate threats to life, public health, and safety. In some cases, the costs of performing demolition of private structures may be eligible for PA grant funding. Typically, the demolition of private structures to eliminate immediate threats is authorized under Section 403(a)(3)(E) of the Stafford Act.

FEMA will consider alternative measures to eliminate threats to life, public health, and safety posed by disaster-damaged unsafe structures, including fencing off unsafe structures and restricting access, when evaluating requests for PA grant funding for demolition work. PA staff must also concur that the demolition of unsafe structures and removal of demolition debris are in the public interest.

The demolition of unsafe privately owned structures and subsequent removal of demolition debris may be eligible when the following conditions are met:

- The structures were damaged and made unsafe by the declared disaster, and are located in the area of the disaster declaration;
- The Applicant certifies that the structures are determined to be unsafe and pose an immediate threat to the public. An unsafe structure is a non-commercial or non-industrial structure that threatens the life, health or safety of the public because the structure is so damaged or structurally unsafe that partial or complete collapse is imminent. This certification may be made by the State or local government's building inspector and may be based on a structural assessment in accordance with local ordinances and building codes;
- The Applicant has demonstrated that it has legal responsibility to perform the demolition. Similar to private property debris removal, the Applicant must demonstrate its authority and legal responsibility to enter private property to perform demolition of unsafe structures. The legal basis for this responsibility must be established by law, ordinance, or code at the time of the disaster and must be relevant to the post-disaster condition representing an immediate threat to life, public health, and safety, and not merely define the Applicant's uniform level of services;
- A legally authorized official has ordered the demolition of unsafe structures and removal of demolition debris;
- The Applicant has indemnified the Federal government and its employees, agents, and contractors from any claims arising from the demolition work; and
- The demolition work is completed within the completion deadlines outlined in PA Program Policy Guide FP104-009-2/January 2016 for emergency work.

Additional information on the general eligibility of demolition of private structures may be found in PA Program Policy Guide FP104-009-2/January 2016.

D. Eligible Demolition Costs

1. Eligible costs associated with the demolition of private structures may include, but are not limited to:

- capping wells;
- pumping and capping septic tanks;
- filling in basements and swimming pools;
- testing and removing hazardous materials from unsafe structures including asbestos and household hazardous wastes;
- securing utilities (electric, phone, water, sewer, etc.);
- securing permits, licenses, and title searches. Fees for permits, licenses, and titles issued directly by the Applicant are not eligible unless it can be demonstrated that the fees are above and beyond administrative costs; and/or
- demolition of disaster-damaged outbuildings such as garages, sheds, and workshops determined to be unsafe.

2. Ineligible costs associated with the demolition of private structures include:

- removal of slabs or foundations, except in very unusual circumstances, such as when disaster-related erosion under slabs on a hillside causes an immediate public H&S threat; and/or
- removal of pads and driveways.

Structures condemned as safety hazards before the disaster are not eligible for demolition and subsequent demolition debris removal under PA grant authority.

Individuals and private organizations (except for eligible Private Non-profits) will not be reimbursed for demolition activities on their own properties under the PA Program.

E. Duplication of Benefits

The County will be responsible for ensuring that homeowners who voluntarily enroll in the private property debris removal and/or demolition programs are not receiving financial benefits from other sources with the intent that those resources are to be utilized to complete a similar scope of services. The County will require homeowners to provide insurance information and forfeit any insurance proceeds that were intended for debris removal and/or demolition.

There might be other funding sources available to homeowners following a declared disaster including services provided through the FEMA Individual Assistance Grant Program. Should homeowners received funding through another program to perform these services, those funds would require forfeiture to the County as well.

F. Documentation for Demolition

In order to receive reimbursement of eligible demolition costs, The County should acquire documentation of applicable legal processes and scopes of work performed, similar to the private property debris removal process described above. Specifically, this includes:

- Rights-of-Entries and Hold Harmless agreements;
- Photos of the structures;
- Structural assessments, or other certifications that the structures are determined to be unsafe or pose an immediate threat to the public, based on local ordinances or building codes;
- Notices of demolition; and
- Documentation of environmental and historic preservation review approval

All documentation should be consistent with the requirements of applicable Federal, State, and local laws and regulations governing demolition of private structures. Additional documentation may be required by PA staff on a case-by-case basis to demonstrate eligible work performed and compliance with applicable Federal, State, and local laws and regulations.

G. Commercial Property

The removal of debris from commercial property and the demolition of commercial structures are generally not eligible for PA grant funding. It is assumed and expected that these commercial enterprises retain insurance that can and will cover the cost of debris removal and/or demolition. However, in some cases as determined by the Federal Coordinating Officer, the removal of debris from private commercial property and/or the demolition of private

commercial structures by a State or local government may be eligible for FEMA reimbursement only when such removal is in the public interest.

Industrial parks, private golf courses, commercial cemeteries, apartments, condominiums, and mobile homes in commercial trailer parks are generally considered commercial property

H. Mobile Home Park Procedures

Higher density situations, specifically mobile home parks, create an extensive amount of mixed debris in a relatively small area. The planning staff should consider the same procedures for individual sites as a basis to be used in mobile home parks but should expect a more intense operation in all accounts of the operation.

The most complex aspect of the operation will be documenting legal responsibility within the parks. Sometimes the mobile home park site is owned, operated, and maintained by one or more parties. The individual homes may be owned by one of those same parties or by the individuals that occupy the structures.

As part of the planning exercise, the planning staff should investigate the legal responsibility for debris issues within the mobile home parks within the County. The County should coordinate the potential private property debris removal and demolition operations with the park owners in order to expedite recovery after an event. Agreements need to be made with respect to the debris collection, location, separation of materials, and the amount of debris expected to be handled.

I. Navigation Hazard Removal Procedures

Damage to publicly-owned marinas caused by a major disaster can include abandoned sunken boats and other debris that may impede navigation. The procedures used for individual sites may be modified for this situation.

The County should coordinate with US Coast Guard, the SC Department of Natural Resources, other local government agencies, legal counsel, marine salvage contractors, commercial divers, and certified surveyors to ensure that navigation hazards are removed safely and efficiently.

The two main challenges with navigation hazards are locating the debris and finding legal owners. Marinas can be inspected visually by a helicopter or boat. Sonar or dive teams may need to be employed for submerged vessels. A location or flotation marker may be helpful in order to keep vessel positions documented. The legal owner's information may be obtained by using the vessel's registration number and marina records.

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SECTION IX. PUBLIC INFORMATION PLAN

A coordinated and efficient public information campaign serves a critical role in a safe and expeditious recovery effort following a disaster event. An effective public information campaign begins long before an event ever occurs and continues until the recovery process is complete. Through various media outlets the County will disseminate information intended to assist residents in preparing for, during, and following a disaster event. For the purposes of this DDMP, focus will be on those activities deemed critical to the debris removal process.

A. Public Information Officer

A PIO or designee will be assigned to the DMOC to coordinate a proactive debris information plan. This plan places emphasis on actions that the public can perform to expedite the debris removal process. The PIO will coordinate with municipalities and other agencies to ensure consistency of information and message.

B. Pre-scripted Information

This plan incorporates the use of pre-scripted information that will be distributed through flyers, newspapers, radio, County web site, and TV public service announcements will be used to encourage public cooperation for such activities as:

- Separating burnable and non-burnable debris;
 - This specifically refers to the separation of organic yard waste, trees, branches, and limbs from other non-organic wastes
- Proper techniques for segregating HHW, Electronic Waste (E-waste), and White Goods;
- Means and methods in which disaster generated debris should be segregated and placed at the curbside. This includes recyclable debris;
- The importance of keeping debris piles away from fire hydrants and valves such as gas and water;
 - This will focus on the potential safety hazards and additional impacts that can occur when mechanized debris removal equipment is not able to see or locate utility connections, junctions, and valves
- Reporting locations of illegal dump sites or incidents of illegal dumping;
 - The County will provide residents with a hotline and web-based portal enabling residents to confidentially report such incidents.
- Debris route clearing and pickup schedules through the local news media, and web postings.

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SECTION X. *WEAPONS OF MASS DESTRUCTION / TERRORISM EVENT*

The first local emergency responder to arrive at the scene of an emergency will implement the Incident Command System (ICS) and serve as the IC until relieved by a more senior or more qualified individual. The IC will establish an Incident Command Post (ICP) and provide an assessment of the situation to local officials, identify response resources required, and direct the on-scene response from the ICP.

For some types of emergency situations, a specific incident scene may not exist in the initial response phase and the EOC may accomplish initial response actions, such as mobilizing personnel and equipment and issuing precautionary warning to the public. As the potential threat becomes clearer and a specific impact site or sites are identified, an ICP may be established, and direction and control for the response transitioned to the IC.

The handling and disposal of debris generated from a Weapons of Mass Destruction (WMD) or terrorism event will exceed County capabilities. Therefore, the IC will implement the Incident Command System and will request immediate State and Federal assistance.

Normally, a WMD or terrorism event will, by its very nature, require all available assets and involve many more State and Federal departments and agencies. The nature of the waste stream as well as whether or not the debris is contaminated will dictate the necessary cleanup and disposal actions. Debris handling considerations that are unique to this type of event include:

- Much of the affected area will likely be a crime scene. Therefore, debris may be directed to a controlled TDMS by the IC or Federal law enforcement officials for further analysis.
- The debris may be contaminated by chemical, biological, or radiological contaminants. If so, the debris will have to be stabilized, neutralized, containerized, etc. before disposal. In such an occurrence, the operations may be under the supervision and direction of a Federal agency and one or more contractors specifically retained by that Federal agency.
- The presence of contamination will influence the need for pretreatment (decontamination), packaging, and transportation.
- The type of contaminant will dictate the required capabilities of the personnel working with the debris. Certain contaminants may preclude deployment of resources that are not properly trained or equipped.

The County DM will continue to be the single point of contact for all debris removal and disposal issues within the County following a WMD event. However, coordination will be exercised by the County DM through the IC located at the designated ICP.

In this type of event, the County DM and the DMOC staff will become supporting elements to the U.S. Army Corps of Engineers, and will operate as requested by the USACE WMD Emergency Response Team.

Attachments

- Attachment 1 Charleston County ESF 3 Operations Plan Excerpt
- Attachment 2 Disaster Debris Sites Plan
- Attachment 3 Disaster Debris Program Management Standard Operating Procedures
- Attachment 4 Communications Protocols and Procedures
- Attachment 5 Debris Monitor Project Team Organization Chart
- Attachment 6 Training and Safety Program Outline
- Attachment 7 SRIA Requirements and Checklist
- Attachment 8 Disaster Debris Hauling Contractors
- Attachment 9 Record of Distribution Form
- Attachment 10 Record of Change Form
- Attachment 11 Municipalities

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**CHARLESTON
COUNTY
GOVERNMENT**

**2016
EMERGENCY
OPERATIONS PLAN**



CHARLESTON
■ COUNTY ■
SOUTH CAROLINA

**EMERGENCY
MANAGEMENT
DEPARTMENT**

ACRONYMS

ARC - American Red Cross

ARES - Amateur Radio Emergency Service

ATC - Air Traffic Control

BOO - Base of Operation

CAP - Civil Air Patrol

CART – County Agricultural Response Team

CAT – Crisis Action Team

CCSO - Charleston County Sheriff's Office

CDC – Consolidated Dispatch Center

CERT – Community Emergency Response Team

CHMO - County Hazard Mitigation Officer

CISD - Critical Incident Stress Debriefing

COE - Corps of Engineers

CP - Command Post

DART – Disaster Animal Response Team

DAT - Damage Assessment Team

DCO - Defense Coordinating Officer

DFO - Disaster Field Office

DHEC - Department of Health and Environmental Control

DMAT - Disaster Medical Assistance Team

DMORT - Disaster Mortuary Operational Readiness Team

DoD - Department of Defense

DOT - Department of Transportation

DSR - Damage Survey Report

DSS - Department of Social Services

DWI - Disaster Welfare Inquiry

EAS - Emergency Alert System

EOC - Emergency Operations Center
EPA - Environmental Protection Agency
EMAC – Emergency Management Assistance Compact
EMD - Emergency Management Department
EPI - Emergency Public Information
ERT - Emergency Response Team
ESF - Emergency Support Function
EWS - Emergency Welfare Service
FAA - Federal Aviation Administration
FCO - Federal Coordinating Officer
FEMA - Federal Emergency Management Agency
FEOC - Field Emergency Operations Center
GAR – Governor's Authorized Representative
HMGP - Hazard Mitigation Grant Program
IAP - Incident Action Plan
IC - Incident Commander
ICS - Incident Command System
IMT - Incident Management Team
ITS - Information Technology Services
JCC – Joint Communication Center
JFO – Joint Field Office
JIC - Joint Information Center
JIS - Joint Information System
LART – Large Animal Response Team
LE - Law Enforcement
LEM - Labor, Equipment, and Materials form
LNO - Liaison Officer
LZ - Landing Zone
MACC - Multi-Agency Command Center

MARS - Military Affiliated Radio System

ME - Medical Examiner

MEOC - Municipal Emergency Operations Centers

MFT - Mass Fatality Team

MOU - Memorandum of Understanding

MRE - Meals, Ready to Eat

NAWAS - National Warning System

NIMS - National Incident Management System

NTSB - National Transportation Safety Board

NVOAD - National Voluntary Organizations Active in Disaster

NWS - National Weather Service

PIO - Public Information Officer

POC - Point of Contact

PSC - Public Service Commission

PWD - Public Works Department

RACES - Radio Amateur Civil Emergency Service

REM - Regional Emergency Manager

SAR - Search and Rescue

SAT - State Assistance Team

SCDA - South Carolina Department of Agriculture

SCDSS - SC Department of Social Services

SCEEP – SC Earthquake Education Program

SCEMD - SC Emergency Management Division

SC EMD LGR Net - SC Emergency Management Division Local Government Radio Net

SCNG - SC National Guard

SCSG – SC State Guard

SCTF-1 - SC Task Force - One

SITREP - Situation Report

SLED - State Law Enforcement Division

SOP - Standard Operating Procedure

TF - Task Force

TVMA - Trident Veterinary Medical Association

USACOE - US Army Corps of Engineers

USAR - Urban Search and Rescue

USCG – US Coast Guard

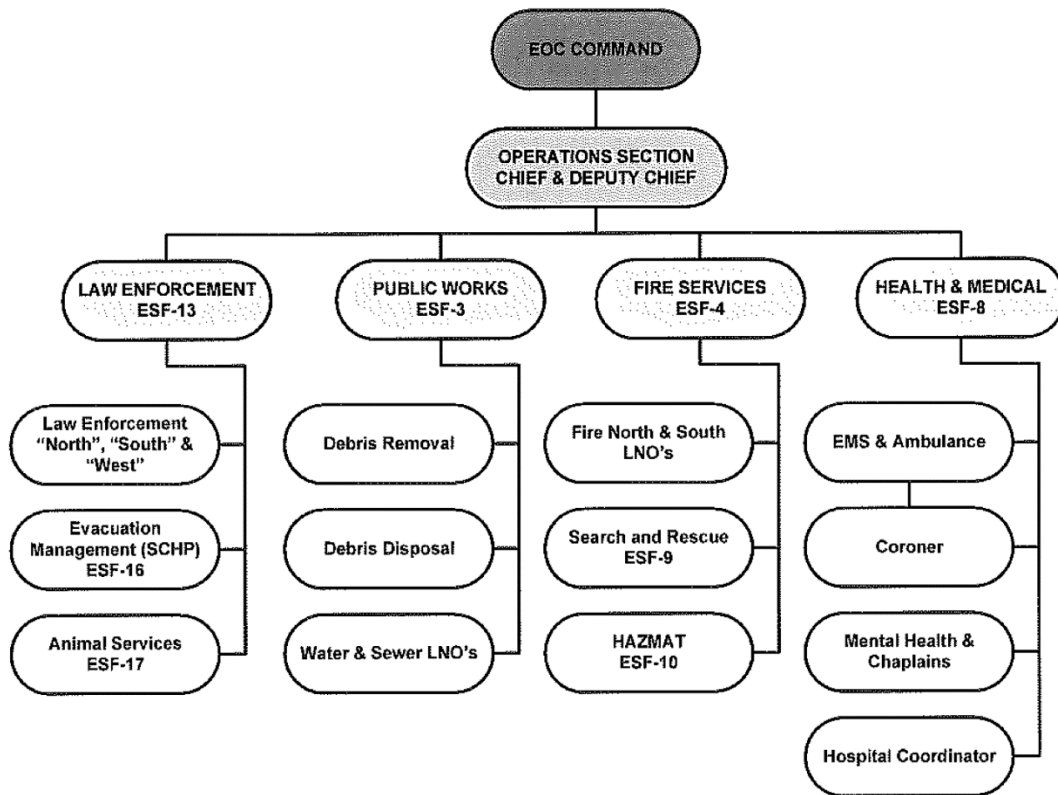
USDA - US Department of Agriculture

VMAT - Veterinary Medical Assistance Team

VOAD - Voluntary Organizations Active in Disasters

VOLTAG - Volunteer Engineer and Architect Technical Assistance Group

VRC – Volunteer Reception Center



ESF-3 – PUBLIC WORKS AND ENGINEERING SERVICES

PRIMARY: Charleston County Public Works Department (PWD)

SUPPORT: Charleston County Environmental Management, Municipal PWDs, Mt. Pleasant Water Works, Charleston Water System, SC Department of Transportation (SCDOT), North Charleston Sewer District, St. Johns Water Company, Isle of Palms Water and Sewer, Folly Beach Public Works, Sullivan's Island Water and Sewer, Kiawah Island Utilities, Seabrook Utilities, SC DHEC-Environmental Quality Control

I. INTRODUCTION

Public Works, for purposes of this ESF, refers to water and sewer services, including an emergency supply of potable water, temporary restoration of water supply systems, and providing water for firefighting. Engineering activities include emergency ice, snow and debris removal; technical expertise regarding the structural safety of damaged bridges and highways.

II. MISSION

- A. To establish policy, procedures, and priorities for the control and restoration of transportation infrastructure, water resources, and sewer facilities and to provide for coordinating immediate and continued engineering resources, construction management, emergency contracting, and expertise following a disaster.
- B. To provide an accurate assessment of damages, losses, and expenditures resulting from an emergency or disaster in order to determine the need for state and/or federal assistance and to conduct safety evaluations to protect the public health and welfare.

III. CONCEPT OF OPERATIONS

- A. The Charleston County Public Works Director is responsible for the coordination of all ESF-3 administrative, management, planning, training, preparedness, mitigation, response, and recovery activities to include developing, coordinating, and maintaining the ESF-3 SOP. All ESF-3 supporting agencies will assist the Public Works Department in the planning and execution of the above. The Public Works Director will appoint the Public Works Service Group Supervisor(s).
- B. The Public Works Service Group Supervisor has the overall responsibility for EOC mission assignments and coordination with the available engineering and construction resources in the county.
- C. Coordination with all supporting and other appropriate departments/agencies and organizations will be performed to ensure continual operational readiness. Each Support Agency's directors of Public Works or Engineering groups is primarily responsible for engineering operations within the limits of their jurisdiction. ESF-12 (Energy & Telecommunications) will coordinate with utility providers.
- D. The combined agencies engineering resources should be considered by the Public Works Service Group Supervisor. They could become an integral part of the Public Works Service resources available for employment in the public interest; with due regard to respective agency needs. All forces will remain under their normal chain of command.

- E. State forces used in support of this ESF will be committed on a mission type basis through the EOC.
- F. County Public Works Department resources, when available, will support the South Carolina DOT operations, and the other contact/support agencies on a mission type basis through the EOC.
- G. Public Works and Engineering Services
 - 1. The Department of Health and Environmental Control will provide overall guidance concerning water supply matters and will provide guidance for sewage treatment and disposal.
 - 2. The Department of Transportation will provide overall guidance concerning structural safety of SC DOT damaged bridges and roads and will provide guidance for the restoration of the transportation infrastructure.
 - 3. ESF-3 will coordinate with SCEMD and other ESF-3 support agencies to assist in providing the restoration of water and sewer services, debris management, water (potable and non-potable) and ice supplies, and engineering activities as required.
 - 4. ESF-3 will cooperate and coordinate with other ESFs to ensure that County and Municipal assets are deployed effectively and in response to appropriate priorities for the protection of the health, safety, and welfare of county citizens.
- H. All ESF-3 personnel will be trained on the principles of the National Incident Management System (NIMS) and integrate those principles into all ESF-3 planning and response operations.

IV. ESF ACTIONS

The emergency operations necessary for the performance of the Public Works and Engineering Services function include but are not limited to:.

- A. Preparedness/Mitigation
 - 1. General
 - a. The Primary agency will be responsible for coordination with the support agencies. The individual support agencies will be responsible for their assigned items.
 - b. Participate in state exercises and conduct, at least annually, an ESF-3 exercise to validate this annex and supporting SOPs.
 - c. Ensure all ESF-3 personnel integrate NIMS principles in all planning. As a minimum, primary action officers for all ESF-3 agencies will complete FEMA's NIMS Awareness Course, or an equivalent course.
 - 2. Public Works and Engineering
 - a. Develop and maintain procedures to implement this plan.

- b. Coordinate those procedures jointly affecting city/county disaster operations with each municipality PWD Director or ESF-3 representative.
 - c. Through coordination with the Charleston County EMD, maintain resource lists, engineering/public works assignments, and alert lists.
 - d. Establish operational needs for restoration of public works service during the emergency.
 - e. Maintain formal agreements and/or working relationships with city, state and federal agencies having mutual engineering/public works emergency responsibilities as necessary.
 - f. Plan engineering, contracting, and procurement assistance for emergency debris, snow or ice clearance, demolition, public works repair, and water supply, and sewer missions.
 - g. Coordinate with municipal, county and state agencies in the development and maintenance of a priority restoration list of all essential facilities and utilities.
 - h. Through coordination with EMD, develop and participate in training and periodic drills and exercises for the engineering/public works service. And train sufficient staff in the use of WEBEOC.
 - i. In conjunction with ESF-19 (Military Support), plan for use of state military resources to support ESF-3 operations.
3. Water and Sewer Facilities
- a. Plan for the provision of water (potable and non-potable) into the disaster area if local supplies become inadequate.
 - b. In coordination with the local emergency management officials, develop policy for conservation, distribution and use of potable and firefighting water.
 - c. Identify and locate chemicals to maintain portability of water supply.
 - d. Include in their individual Standard Operating Guides and Plans an alerting list, to include points-of-contact and telephone numbers, of agencies, counties, municipalities and organizations supporting public works and engineering functions.
 - e. Maintain a current inventory of equipment and supplies, to include points-of-contact and telephone numbers, required to sustain emergency operations, including emergency power generators.
 - f. Develop and maintain listings of commercial and industrial suppliers of services and products, to include points-of-contact and telephone numbers, associated with public works and engineering functions.
-

B. Response

1. Public Works and Engineering

- a. Evaluate available information concerning the nature and extent of the disaster situation and establish a program based on priority lists for the restoration of essential facilities and utilities.
- b. Establish priorities to clear roads and disposal of debris. (sties maintained by Public Works)
- c. Assist in establishing priorities to repair damaged water/sewer systems and coordinate the provision of temporary, alternate or interim sources of emergency power and water/sewer services.
- d. Procure equipment, specialized labor, and transportation to repair or restore public works systems.
- e. Coordinate with ESF-19 (Military Support) for use of state military assets.
- f. Coordinate with ESF-17 (Animal Services) for advice and assistance regarding disposal of debris containing or consisting of animal carcasses that may pose a risk to public health.
- g. Coordinate with ESF-10 (Hazmat) for advice and assistance regarding disposal of hazardous materials.
- h. Coordinate with ESF-9 (Search and rescue) for advice and assistance regarding support to Search and Rescue Operations.
- i. Coordinate with ESF-4 (Fire Fighting) for advice and assistance regarding firefighting water supply.
- j. Maintain labor, equipment and materials forms used for possible reimbursement, if authorized.

2. Water and Sewer Facilities

- a. Establish priorities to repair damaged water/sewer systems and coordinate the provision of temporary, alternate or interim sources of emergency power and water/sewer services.
- b. Evaluate available information concerning the nature and extent of the disaster situation and establish a program based on priority lists, for the restoration of essential facilities and utilities.
- c. Based on available information establish priorities, determine manpower and equipment requirements for the particular incident.
- d. Coordinate with ESF-4 (Fire Fighting) for advice and assistance regarding firefighting water supply.

- e. Maintain labor, equipment and materials forms used for possible reimbursement, if authorized.

C. Recovery

1. Anticipate and plan for arrival of and coordination with FEMA ESF- 3 personnel in the County EOC.
2. Maintain coordination with all supporting agencies and organizations on operational priorities for emergency repair and restoration of critical infrastructure. Coordinate, as needed, for debris management operations on public and private property (where authorized).
3. Continue to monitor restoration operations when and where needed as long as necessary and until all services have been restored.
4. Continue to direct Public Works Department operations.
5. Through coordination with Charleston County EOC, develop long term recovery operations and establish priority of tasks to be accomplished.
6. Develop a stand-down plan for appropriate levels of operations.
7. Provide after action reports, SITREPs, and other documentation as required and evaluate changes to improve operational SOPs.
8. Participate in CISD and other debriefings.
9. Attend critiques as may be held and submit updates for implementation into SOP as may be applicable.
10. Ensure that ESF-3 team members, their agencies, or other tasked organizations, maintain appropriate records of time and costs incurred during the event.

V. RESPONSIBILITIES

- A. General: All ESF-3 primary and support agencies must maintain inventories and procedures to deploy their agency's public works and engineering assets.
 - B. Charleston County Public Works Department
 1. The coordination of all ESF-3 administrative, management, planning, training, preparedness/mitigation, response and recovery activities.
 2. Identify, train, and assign personnel to staff ESF-3 in the EOC.
 3. Notify all ESF-3 supporting agencies upon activation.
 4. Provide all available public works and engineering assets.
 - C. Charleston County Environmental Management
 1. Identify, train, and assign personnel to staff ESF-3 during periods of activation.
-

2. Provide all available Solid Waste assets.
 3. Facilitate temporary burn sites and disposal location in coordination with DHEC and/or other agencies as required.
- D. Municipal Public Works Departments,
1. Identify, train, and assign personnel to staff ESF-3 during periods of activation.
 2. Identify and locate chemicals to maintain portability of water supply.
 3. Include in their individual Standard Operating Guides and Plans an alerting list, to include points-of-contact and telephone numbers, of agencies, counties, municipalities and organizations supporting public works and engineering functions.
 4. Maintain a current inventory of equipment and supplies, to include points-of-contact and telephone numbers, required to sustain emergency operations, including emergency power generators.
 5. Develop and maintain listings of commercial and industrial suppliers of services and products, to include points-of-contact and telephone numbers, associated with public works and engineering functions.
 6. Provide all available public works and engineering assets
- E. Public and Private Water and Sewer facilities
1. Identify, train, and assign personnel to staff ESF-3 during periods of activation.
 2. Identify and locate chemicals to maintain portability of water supply.
 3. Include in their individual Standard Operating Guides and Plans an alerting list, to include points-of-contact and telephone numbers, of agencies, counties, municipalities and organizations supporting public works and engineering functions.
 4. Maintain a current inventory of equipment and supplies, to include points-of-contact and telephone numbers, required to sustain emergency operations, including emergency power generators.
 5. Develop and maintain listings of commercial and industrial suppliers of services and products, to include points-of-contact and telephone numbers, associated with public works and engineering functions.
 6. Provide all available public works and engineering assets
 7. Provide personnel for water testing.
- F. SC Department of Transportation (DOT),
1. Identify, train, and assign personnel to maintain contact with and prepare to
-

execute missions in support of ESF-3 during periods of activation.

2. Identify and locate chemicals to maintain portability of water supply.
3. Include in their individual Standard Operating Guides and Plans an alerting list, to include points-of-contact and telephone numbers, of agencies, counties, municipalities and organizations supporting public works and engineering functions.
4. Maintain a current inventory of equipment and supplies, to include points-of-contact and telephone numbers, required to sustain emergency operations, including emergency power generators.
5. Develop and maintain listings of commercial and industrial suppliers of services and products, to include points-of-contact and telephone numbers, associated with public works and engineering functions.
6. Provide all available public works and engineering assets.
7. Provide legal assistance including eminent domain and emergency demolition or stabilization of damaged structures and facilities.

G. SC DHEC-Environmental Quality Control

1. Identify, train, and assign personnel to maintain contact with and prepare to execute missions in support of ESF-3 during periods of activation.
2. Provide emergency survey, surveillance, sampling, testing, and monitoring of water and sewage pumping, treatment, distribution, and collection systems to ensure public health and safety integrity of such systems.
3. Provide technical assistance concerning the disposal of waste materials, including household hazardous waste and debris containing or consisting of animal carcasses that may pose a risk to public health.

VI. LOCAL, STATE, AND FEDERAL INTERFACE

- A. ESF-3 (Public Works and Engineering) supports Charleston County following a disaster. The SC Budget and Control Board, Office of General Services is the lead state agency and the United States Army Corps of Engineers (USACOE) is the lead federal agency to coordinate support regarding public works issues/needs and a full range of emergency engineering services.
- B. Local ESF-3 will coordinate with State ESF-3 that will coordinate with Federal ESF-3 to obtain federal assistance as required.
- C. Where practical, ESF-12 (Energy and Telecommunications) will assist ESF-3 with the interface of appropriate utility company representatives assigned to recovery operations.

Charleston County Disaster Debris Sites Plan

2016

Revised 3/31/2016

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Charleston County Contact Info:

Robert Lawing
Charleston County Solid Waste
843-766-3834 phone
843-571-1265 fax
Rlawing@charelstoncounty.org

SCDHEC Contact Info:

Wendy M. Boswell
SCDHEC
Lowcountry EQC Region Charleston-
McMillan
1362 McMillan Ave, Ste. 300
North Charleston, SC 29405
843-953-0150 (office)
843-371-0098 (cell)
843-953-0151 (fax)
boswelwm@dhec.sc.gov

SCDHEC Bureau of Air Quality (BAQ)
Columbia
803-898-4115

Cindy Kilpatrick, BAQ
803-898-4118
kilpatcs@dhec.sc.gov

Hollon Stillwell
SCDHEC
Lowcountry EQC Region Charleston-
McMillan
1362 McMillan Ave, Suite 300
North Charleston, SC 29405
843-953-0150 (office)
843-953-0151 (fax)
cookjd@dhec.sc.gov

Bureau of Land & Waste (BLW)
Columbia
803-898-2000

Marty Lindler, BLW
803-898-0456
lindlema@dhec.sc.gov

Pre-evaluated site list

1. West Ashley (Bees Ferry Landfill)- Compost/Grind Only
2. 17 South- Burn and Grind- Pre evaluated August 12, 2010
3. Hwy 17 North PRC Site –MOU received 3/31/2016. Burn and Grind
4. Rifle Range Road - MOU received 3/31/2016. Grind only.
5. Mullet Hall Plantation- MOU received 3/31/2016. Burn and Grind.
6. **TBD** West Ashley Grand Bees Site (Adjacent to Bees Ferry Landfill) – as of 3/31/2016. Grind Only
7. Inactive Sites:
 - a) Awendaw
 - b) Republic Waste- Spring Grove Class 2 Landfill
 - c) Republic Waste-Pepperhill Class 2 Landfill
 - d) John's Island-Walpole Site
 - e) North Charleston-Collins Tract
 - f) Jedburg-Landfill Road
 - g) Awendaw- Compartment 212

Disaster Debris Management Guidelines for Local Governments



Date Year: TBD

In response to the urgent need to remove and dispose of the large amount of debris caused by **TBD: Storm Event Name**, the S.C. Department of Health and Environmental Control (DHEC) is issuing the following debris management guidelines for local governments.

Preference should be given to management of storm related debris at permitted solid waste management facilities. These guidelines are effective for a period of **60** days from today's date. The time frame may be extended if conditions warrant. Please contact DHEC's Bureau of Air Quality (BAQ) at (803) 898-4123, DHEC's Bureau of Land and Waste Management (BLWM) at (803) 898-2000 or the local Bureau of Environmental Health Services Office (see page 4) for more information.

VEGETATIVE DEBRIS MUST BE SEPARATED TO THE GREATEST EXTENT POSSIBLE FROM BUILDING DEBRIS AND MANAGED SEPARATELY.

AUTHORIZATION TO USE THESE GUIDELINES IS GRANTED ONLY TO COUNTY AND/OR MUNICIPAL GOVERNMENT AUTHORITIES.

FEDERAL REIMBURSEMENT: All determinations regarding Federal reimbursement for debris management costs are the sole decision of the Federal Government. Approval under these guidelines does not guarantee that costs will be eligible for Federal reimbursement.

Site Approval Process

1. A county and/or municipal government official responsible for the site selection and operation must notify DHEC's Bureau of Environmental Services (BEHS) Office of the location of each individual debris management site.
2. BEHS will provide the requestor with a copy of these guidelines and a copy of the Storm Debris Management Form. (See the form on pages 5 and 6).
3. The DHEC Regional Office will notify the BLWM Permitting Section and the BAQ if burning is requested for

the site location.

4. The BLWM Permitting staff will record and document the site locations.

Site Closure Process

1. The county and/or municipal government official responsible for the site selection and operation must notify DHEC Regional Office that a site or sites are no longer being utilized for debris management.
2. A BEHS inspector will inspect the site or sites to confirm that all debris has been removed or managed in **accordance with the criteria contained in the Storm Debris Management Form.**
3. A BEHS inspector will notify the BLWM Permitting Section that the site has been inspected and confirm that **all debris has been removed or managed appropriately.**
4. **BLWM Permitting will issue a notice to the responsible county and/or municipal government official stating that the site has been closed appropriately.**

Management of Vegetative Debris

Preference should be given to management of vegetative storm debris at permitted solid waste management facilities. Vegetative debris may be temporarily staged at solid waste convenience centers and at permitted landfill facilities, away from the working face, until time and resources allow for it to be managed properly. DHEC's preferred methods of management of vegetative storm debris are, in order of preference: 1) grind for use as boiler fuel or compost feedstock; 2) disposal at a permitted solid waste landfill; or 3) burning (with BAQ approval).

If vegetative debris is to be handled by **STAGING/GRINDING**:

1. Piles/windrows should be separated by at least 20 feet and may not exceed 200 feet (long) by 30 feet (wide) by 15 feet (high).
2. Piles/windrows should be at least 20 feet from any tree line and 50 feet from the property line or public roadways.
3. Piles/windrows shall be at least 200 feet from any streams, rivers, or other body of water; and 100 feet from any drinking water wells.
4. **Due to safety considerations, grinding operations must be a minimum of 200 feet from any public roadway, residential dwelling, or building not part of the contiguous property on which the grinding is conducted. If grinding equipment is designed and operated so as not to present a flying debris hazard, the distance may be lessened on a case by case basis as determined by DHEC.**
5. **It is recommended that the ground material should be taken to and composted at a DHEC-registered compost site operating within the limits of the registration; marketed as a mulch product; or marketed as**

an industrial fuel. In all cases, the ground material should be taken off of the temporary site within 6 months of the storm.

If vegetative debris is to be handled by BURNING:

1. Burning must be conducted in accordance with all state and local emergency orders.
2. Burning must be performed by or under the supervision of county or municipal authorities at specifically **designated sites.**
3. Tires may not be added to burn piles to enhance the burning.
4. **Active burn piles must be separated by at least 100 feet.**
5. No more than two 45-X-45-foot piles may be actively burning at the same time.
6. Active burn piles must be at least 1,000 feet from the nearest residence or roadway.
7. Prevailing winds must be such that smoke will not create a hazard for neighboring houses, businesses and surrounding roadways.
8. A written approval request form must be submitted to the local BEHS Office indicating where burning is to occur before approval will be given.
9. Adequate water service or fire fighting equipment must be available for protection from uncontrolled fires.
10. Sites must be monitored by responsible party when waste is actively burning at that site.
11. During each day of burning, the S.C. Forestry Commission (SCFC) must be notified by calling **1-800-777- 3473**. Please reference that this is a Disaster Debris Management Site so the SCFC operators understand that this site has been pre-approved.
12. Additionally, DHEC may impose other restrictions or guidelines as it deems necessary.

Disposal of Vegetative Debris, Chipped Vegetative Debris or Ash from Burning of Vegetative Debris

In all cases, removal of the material from a temporary site approved under these guidelines and disposal or use in a permitted facility is the preferred disposal option.

1. Unchipped debris piles should be disposed or burned (with BAQ approval) within 6 months of the storm.
2. Due to the possibility of decomposition related uncontrolled fire, wood chip piles should be removed or burned (with BAQ approval) within 6 months of the storm.
3. Any piles of chipped material that are allowed to compost in place shall comply with all of the requirements for registration and operation as a composting facility as outlined in R.61-107.4 to include a financial assurance mechanism.

4. **Limited quantities of ash from the burning of storm-related materials may be spread thinly around the burn area with prior written approval of the property owner. The owner of any burn site must provide written approval to BEHS authorizing the use of his/her property for the application of wood ash resulting from the burning of storm related vegetative debris.**
5. For wood ash generated by burning in a pit, provided the pit is smaller than 1 acre in size, the ash may remain in place provided the area is brought to existing grade and covered with 1 foot of clean soil. Written approval from the property owner will be necessary. The owner of any burn pit site must provide written approval to BEHS Office authorizing the use of his/her property for the disposal of wood ash resulting from the burning of storm-related vegetative debris. Pits larger than 1 acre will need to have the material removed and properly disposed. Alternate ash disposal requests will be evaluated on a case-by-case basis.
6. Wood chips may be spread on agricultural fields provided they are spread at agronomic rates. Uncomposted (fresh) wood chips make a poor soil amendment. Excess application will strip nutrients from the soil in support of the breakdown of the wood fibers. It is recommended that the sites willing to accept this material be large enough to thinly spread the material, then the material should be disced into the soil. The BEHS Office must be notified of the location of any application site so that the sites can be evaluated to ensure they are of adequate size to allow for proper use of wood chips. The owner of any application site must provide written approval to the BEHS Office authorizing the use of his/her property for the application of wood chips resulting from the grinding of storm-related vegetative debris.

Management of Building Debris

Preference should be given to management of storm-related building debris at permitted solid waste management facilities. Building debris may be temporarily staged at solid waste convenience centers and at permitted landfill facilities, away from the working face, until time and resources allow for it to be managed properly. Waste streams – such as household hazardous materials, electronics and large appliances (white goods) – should be segregated from the building debris and managed properly. DHEC’s preferred methods of management of storm-related building debris are, in order of preference: 1) disposal at permitted solid waste landfill; or 2) burning (may be allowed on a limited case-by-case basis with prior BAQ approval).

In addition to all requirements for burning of vegetative debris listed above, if conditions warrant the use of additional temporary locations other than permitted solid waste management facilities, the following additional guidelines should be followed.

1. It is recommended that the ground building debris be hauled to a DHEC permitted solid waste landfill authorized to receive this type material for disposal and operating within the limits of the facility’s permit. In all cases, the ground waste should be taken off site within 6 months of the storm.
2. Ash from the burning of building debris shall be removed from the temporary site and disposed of **appropriately in a DHEC-permitted solid waste landfill.**

3. Domestic garbage or other types of waste may not be burned.
4. **Efforts to minimize the presence of asphalt shingles and vinyl siding must be made. If debris is known to contain asbestos or other unacceptable materials (e.g. lead-based paint), it must be separated for proper disposal.**

Additionally, DHEC may impose other restrictions or guidelines as it deems necessary.

DHEC's Offices of Land, Air and Water

These offices have personnel who work with debris issues. During office hours, these offices should be contacted for assistance.

DHEC	
DHEC's Bureau of Air Quality 2600 Bull Street, Columbia, SC 29201 (803) 898-4123	DHEC's Bureau of Land and Waste Management 2600 Bull Street, Columbia, SC 29201 (803) 898-2000
DHEC's Bureau of Water 2600 Bull Street, Columbia, SC 29201 (803) 898-4300	
DHEC REGIONAL OFFICES	
Anderson, Oconee <i>Upstate Environmental Quality Control (EQC) – Anderson</i> 220 McGee Road, Anderson, SC 29621 (864) 260-5585 (office) (864) 222-3923 (fax)	Greenwood, Edgefield, Abbeville, McCormick, Saluda, Laurens <i>Upstate EQC – Greenwood</i> 1736 South Main Street, Greenwood, SC 29646 (864) 227-5915 (office) (864) 942-3680 (fax)
Greenville, Pickens <i>Upstate EQC Greenville</i> 200 University Ridge, Greenville, SC 29601 (864) 372-3273 (office) (864) 282-4371 (fax)	Spartanburg, Union, Cherokee <i>Upstate EQC – Spartanburg</i> 151 E. Wood Street Spartanburg, SC 29303 (864) 596-3327 (office) (864) 596-3920 (fax)
Lancaster, Chester, York <i>Midlands EQC – Lancaster</i> 2475 DHEC Road, Lancaster, SC 29720 (803) 285-7461 (office) (803) 285-5594 (fax)	Richland, Lexington, Fairfield, Newberry <i>Midlands EQC – Columbia</i> 8500 Farrow Road, Columbia, SC 29203 (803) 896-0620 (office) (803) 896-0617 (fax)
Aiken, Barnwell, Allendale <i>Midlands EQC – Aiken</i> 206 Beaufort Street, NE Aiken, SC 29801 (803) 642-1637 (office) (803) 643-4027 (fax)	Sumter, Lee, Clarendon, Kershaw <i>Pee Dee EQC – Sumter</i> 105 N. Magnolia Street, Sumter, SC 29150 (803) 778-6548 (office) (803) 934-2938 (fax)
Florence, Darlington, Chesterfield, Marlboro, Dillon, Marion <i>Pee Dee EQC – Florence</i> 145 E. Cheves Street Florence, SC 29506 (843) 661-4825 (office) (843) 661-4858 (fax)	Horry, Georgetown, Williamsburg <i>Pee Dee EQC – Myrtle Beach</i> 927 Shine Avenue, Myrtle Beach, SC 29577 (843) 238-4378 (office) (843) 238-4518 (fax)
Charleston, Berkeley, Dorchester <i>Lowcountry EQC – Charleston</i> McMillan 1362 McMillan Avenue, Suite 300, Charleston, SC 29405 (843) 953-0150 (office) (843) 953-0151 (fax)	Orangeburg, Calhoun, Bamberg <i>Lowcountry EQC – Orangeburg</i> 1550 Carolina Avenue, Orangeburg, SC 29115 (803) 533-5490 (office) (803) 268-5784 (fax)
Beaufort, Colleton, Jasper, Hampton <i>Lowcountry EQC – Beaufort</i> 104 Parker Drive, Beaufort, SC 29906 (843) 846-1030 (office) (843) 846-0604 (fax)	



**Storm Debris Management Form Bureau of Land
and Waste Management**
(PLEASE PRINT ALL INFORMATION)

1. GENERAL SITE INFORMATION

Name of Site:

Street Address:
(Not Mailing Address)

County:

City:

State:

Zip:

Site Telephone Number: ()

E-mail:

Mailing Address:
(If different from above)

City:

State:

Zip:

Tax Map Number:

Size of Property (acres):

Latitude:

Longitude:

2. SITE ACTIVITY AND TYPE(S) OF DEBRIS

1. Proposed Activity (check all that apply): Chipping Burning Storage ONLY

2. Type(s) of Debris to be Managed On-site (check all that apply): Trees and Limbs Building Materials

3. PROPERTY OWNER'S INFORMATION

Name:

Mailing Address:

City:

State:

Zip:

Telephone Number: ()

E-mail:

4. REQUESTOR'S INFORMATION

(The requestor MUST be a city, county or state government/agency or an official contractor of a government entity.)

Name:

Mailing Address:

City:

State:

Zip:

Telephone Number: ()

E-mail:

If you are a contractor, who do you represent?

5. PROPERTY OWNER'S APPROVAL

I, (print full name) _____, agree to allow the above requestor to use my property for the management of storm debris.

Signature:

Date:

6. REQUESTOR'S STATEMENT

I, (print full name) _____, agree to manage this site to insure that it is compliant with the guidance document for the management of storm debris.

Signature:

Date:

FOR DEPARTMENT USE ONLY

INITIAL INSPECTION INFORMATION

This site was inspected to be used for:

Inspection Performed By:

Date:

APPROVAL

This site is approved by (signature of staff) _____ for the management of storm debris generated as a result of (name of storm, if applicable, or type of storm) _____, which occurred on _____.

The debris brought to the above referenced site should be managed within _____ months of the date of the storm, unless an extension is provided by DHEC. **This approval should be kept on-site at all times.**

SITE INSPECTIONS

INSPECTED BY	DATE	INSPECTED BY	DATE

FINAL INSPECTION

Inspection Performed By:

Date:

DHEC 2598 (10/2015) SOUTH CAROLINA OF HEALTH AND ENVIRONMENTAL CONTROL 2/2

West Ashley (Bees Ferry Landfill) - Compost/Grind only

Owner: County of Charleston

Address: 1344 Bees Ferry Road

Contacts: Robert Lawing

Phone: 766-3834

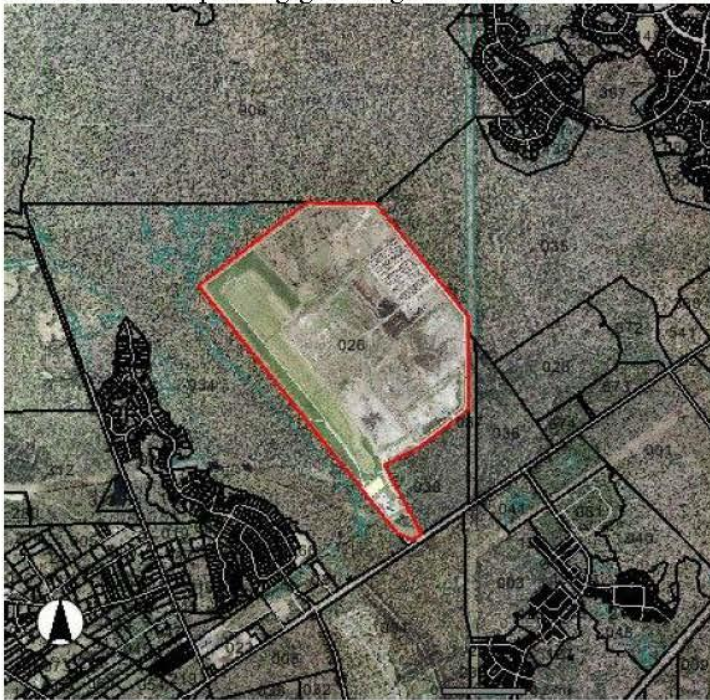
Cell: 906-5288

TMS#: 301-00-00-026

Directions:

1. Head west on McMillan Ave toward Ave E South 0.7 mi
2. Turn left at Rivers Ave 0.3 mi
3. Take the 3rd right onto Cosgrove Ave/SC-7
4. Continue to follow SC-7 4.6 mi
5. Turn right at Ashley River Rd/SC-61 0.6 mi
6. Continue on Paul Cantrell Blvd 0.8 mi
7. Continue on Glenn McConnell Pkwy 2.9 mi
8. Turn left at Bees Ferry Rd. Destination will be on the right 1.7 mi

This site is currently used by Charleston County for landfill and composting. The County is proposing to use the site for composting/grinding after a storm.



Pictures from April 27, 2009



17 South (Pre-evaluated August 12, 2010) - Burn and Grind/Compost

Owner: County of Charleston

Contacts: Robert Lawing

Phone: 766-3834

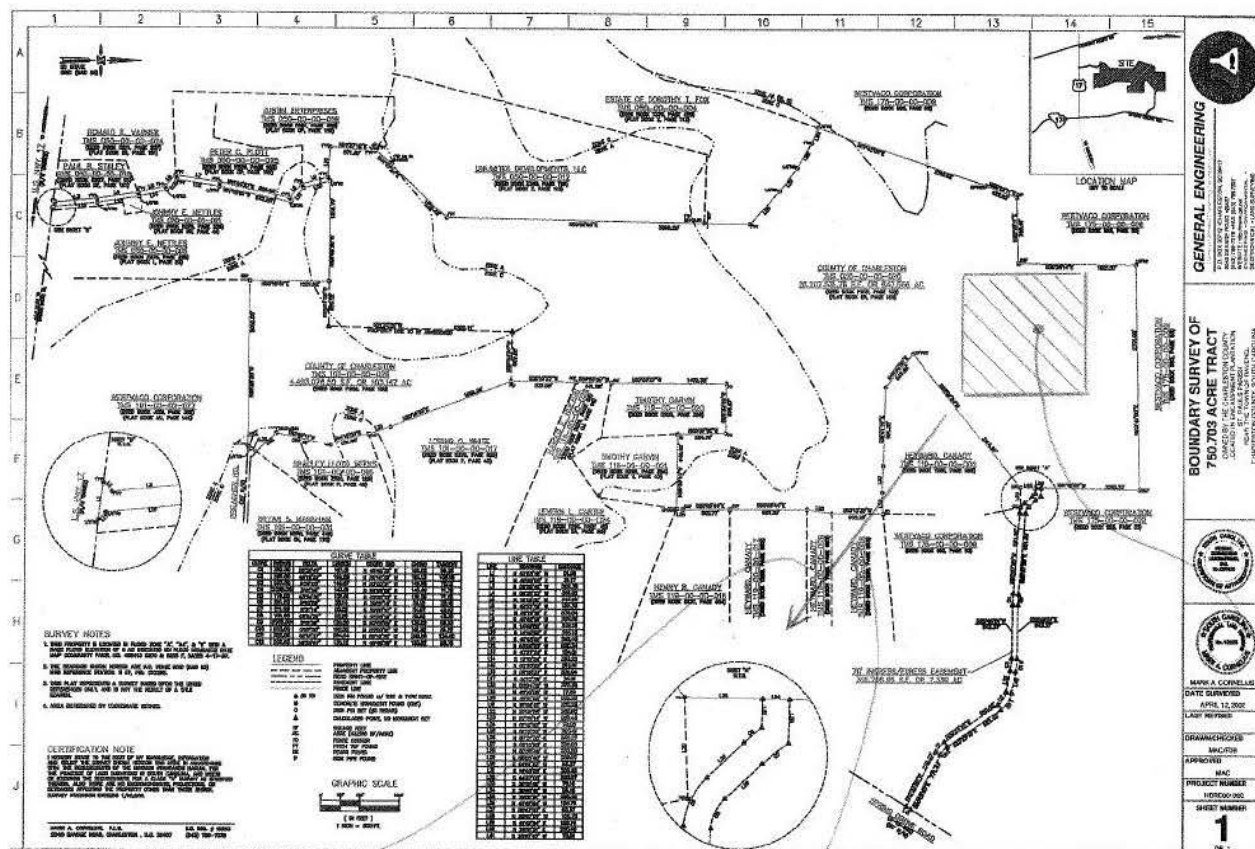
Cell: 906-5288

TMS#: 050-00-00-020 and 101-00-00-028

Burn and Grind/Compost

Directions & Info:

From the intersection of Highway 17 and Highway 165 in Ravenel, go south on Highway 17 for 6.0 miles. Turn right onto Spring Grove Road. Go 2.8 miles and turn left onto a dirt road. There is a tree with three white stripes beside this dirt road. Follow the dirt road for 0.9 miles. At about the 0.8 mile point, you will have gone under some power lines then the entrance to the property is the second left. At the entrance is a stake marked "TRAV PT #1" with orange tape tied around it.



Hwy 17 North PRC Site Under Review – proposed Burn or Grind

site pre-evaluated August 24, 2011 (Memorandum of Understanding (MOU) received (3/31/2016) for Charleston Co Park and Recreation Commission (PRC))

Owner: Charleston County Parks and Recreation

Address/location: corner of Two Pines Rd. and Hwy 17 North, 12 miles North of Doar Rd.

Contact: James Macchia

Phone: 843-762-8091

Cell Phone: 843-343-6694

TMS#744-00-00-001, 545.76 acres

Directions:

1. Merge onto I-526 E to Mt Pleasant
2. Take exit 29 toward Georgetown
3. Merge onto Hungryneck Blvd
4. Turn left at N Hwy-17/US-17 toward Georgetown
5. Access point is approximately 12 miles past Doar Rd. on right
6. Access is gated and unpaved road after Charleston County Parks sign

Site is a future Charleston County Parks and Recreation site with an unpaved road ending approximately 2/3 of the way through the center of the property, from Hwy 17 N. Much of the site is forested with exception of three to four cleared areas directly off the dirt path. Site is suitable for burning and/or chipping, if done in accordance with grinding and burning conditions and requirements.

TMS#744-00-00-001



Revised 8/25/2015



Rifle Range Rd – proposed Grind Site

site pre-evaluated August 24, 2011 (Memorandum of Understanding (MOU) received (3/31/2016) for Charleston Co Park and Recreation Commission (PRC))

Owner: Town of Mt. Pleasant/Charleston County Parks and Recreation Commission

Address/location: access rd. left of 2628 Rifle Range Rd, Mt. Pleasant, SC

Contact: James Macchia

Phone: 843-762-8091

Cell Phone: 843-343-6694

TMS#: 578-00-00-064, 92.35 acres

578-00-00-065, 87.14 acres

Directions:

1. Head west on McMillan Ave. toward Noisette Blvd.
2. Turn left onto Spruill Ave/State Rd. 10-32
3. Turn right onto I-2 E/Downtown Charleston
4. Merge onto I-26 E
5. Take exit 220, merge onto US-17 N. Septima Clark Expy toward Mt. Pleasant/Georgetown, continue to follow US-17N
6. Turn right onto S.C. 517 S/Isle of Palms Con
7. Turn left onto Rifle Range Rd./State Rd. S-19-51,
8. Access road on the left before residence 2628 Rifle Range Rd., Mt. Pleasant, SC

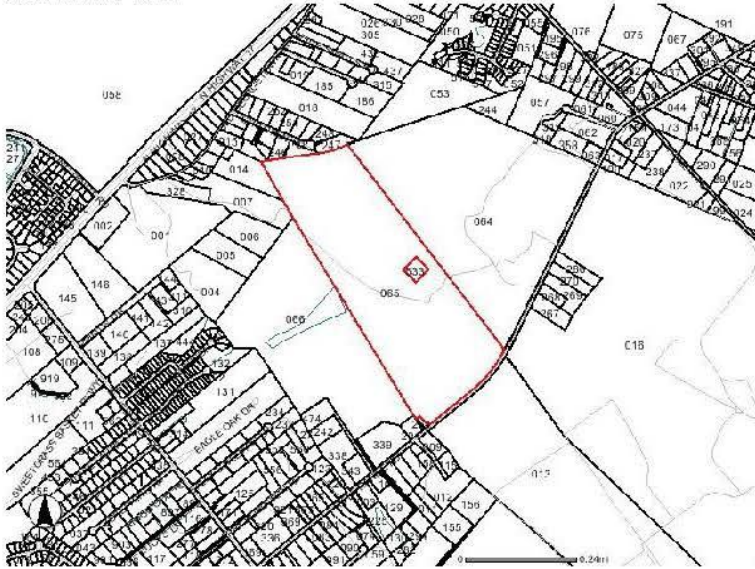
Both properties (TMS#578-00-00-064 & 578-00-00-065) are suitable for grinding only. Most of the two properties are wooded with exception of a cleared pasture area on TMS#578-00-00-064. Distance requirements, for burning debris, cannot be met from the clearing.

578-00-00-064





578-00-00-065



Mullet Hall Plantation –Burn & Grind Only

site pre-evaluated September 1, 2011 (Memorandum of Understanding (MOU) received (3/31/2016) for Charleston Co Park and Recreation Commission (PRC))

Owner: Charleston County Parks and Recreation

Contact: James Macchia

Phone: 843-762-8091

Cell Phone: 843-343-6694

TMS #: 212-00-00-003, 747.15 acres

Directions from Region 7 EQC office @ 1362 McMillan Ave., North Charleston, SC

1. West on McMillan Ave. toward Noisette Blvd.
2. Turn left onto Rivers Ave.
3. Right onto SC Hwy 7/Cosgrove Ave., continue to follow SC - 7 S
4. Keep left at the fork.
5. Continue onto Old Towne Rd.
6. Continue onto SC 171 S/St. Andrews Blvd
7. Turn right onto Wesley Dr.
8. Continue onto Folly Rd.
9. Slight right onto SC 700W/Maybank Hwy.
10. Turn left onto River Rd/State Rd. S-10-91.
11. Turn left onto Blackground Rd.
12. Charleston County Parks and Recreation access road gated entry into Mullet Hall Plantation (approximately 0.25 miles) on the right.

Site is a future Charleston County Parks and Recreation site with an unpaved road. Much of the site is open and Charleston County has a few sheltered areas on site. If the site is needed for burning or grinding, debris will be placed in a clearing on the property where distance requirements are achievable. Site is suitable for burning and grinding, if done in accordance with requirements.

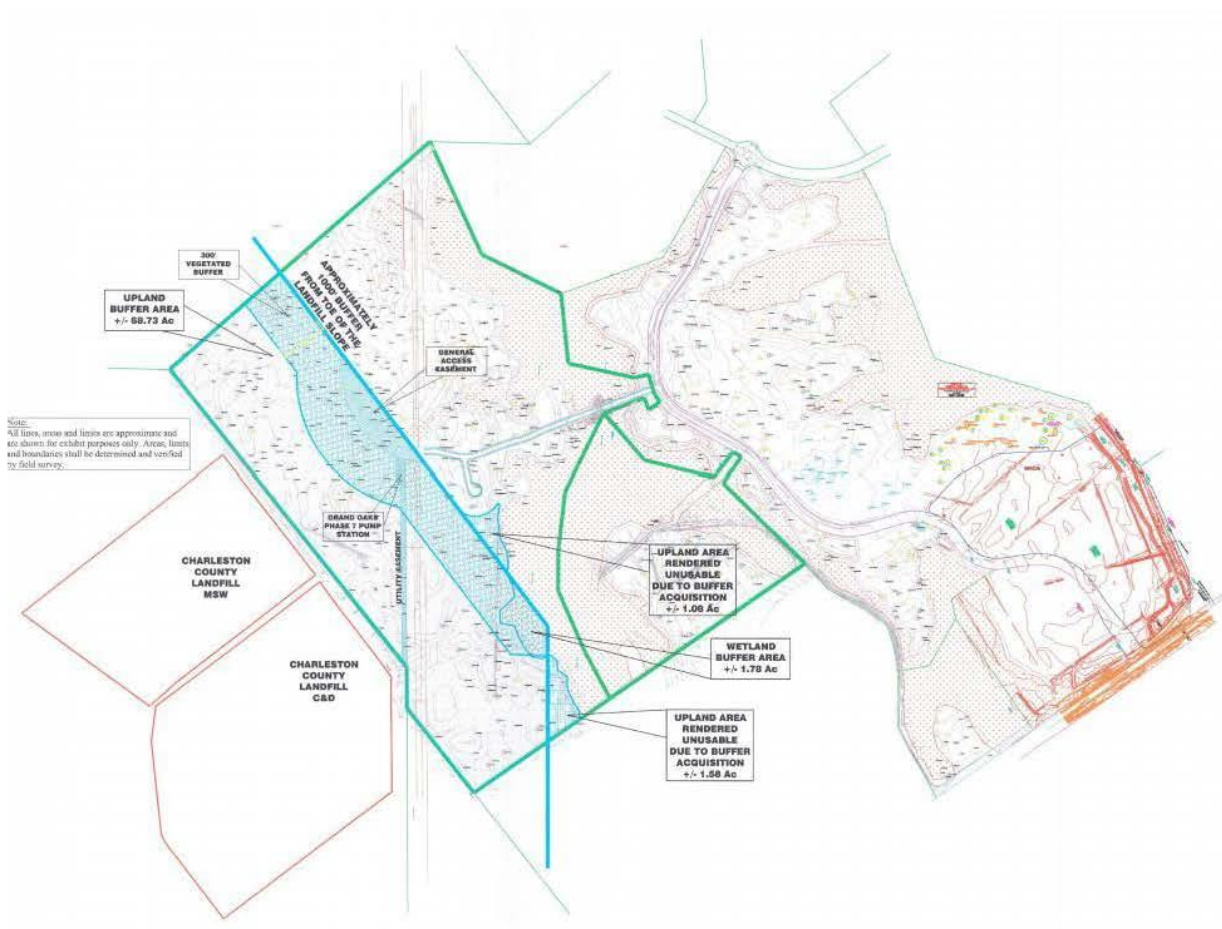


TBD - West Ashley Grand Bees Site (Adjacent to Bees Ferry Landfill) - Pre Evaluated on 03/18/2014
This is a proposed Grind Only site. Charleston County has not purchased the land as of 03/31/2016

Contact: Robert Lawing, Charleston County
Office: 843-571-0929
Cell Phone: 843-906-5288

TMS 301-00-00-035

Directions: Facility will send this information to the Department once point of entry is determined.



INACTIVE SITES

Robert Lawing indicated that the following sites are no longer considered for the receipt of disaster debris for grinding or burning. Information regarding the following sites will be maintained for future reference in this information set:

Awendaw – Not Pre-evaluated (County needs to provide more information)

Owner: King Tract LLC, George Bullwinkle
Address: Seewee Rd., Bullwinkle/Nexsun Pruet
Contact: Gary McClellan
Phone: 202-7623; 202-7614
TMS# 744-00-00-001, 730-00-00-008, 625-00-00-007
Compost; Burning unknown

Not enough information provided to make a determination.

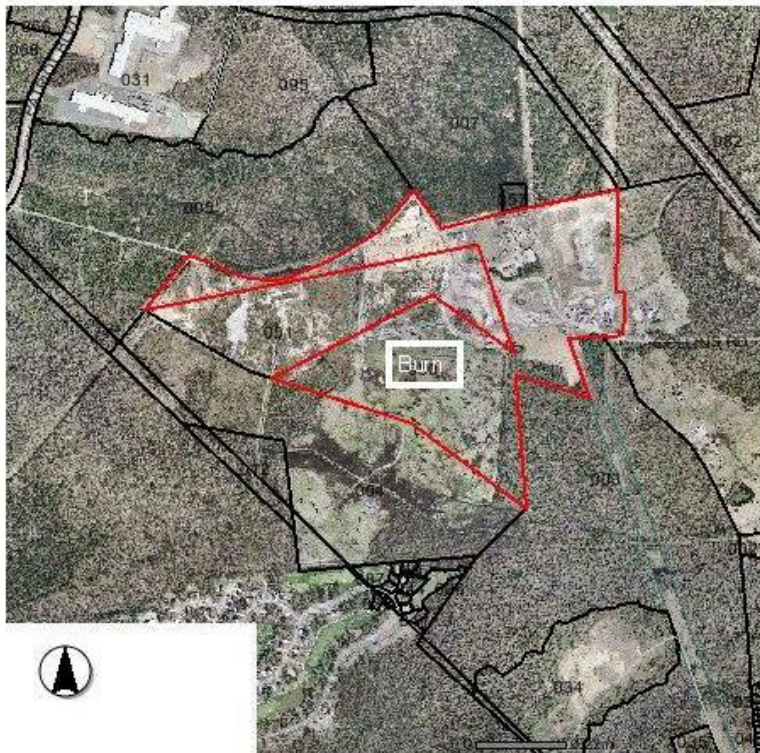
North Charleston (Republic Waste/Spring Grove Landfill) **Burn and Grind/Compost pre-evaluated on September 29, 2009 (no contract, will not accept disaster debris any longer 5/6/11)**

Owner: Republic Services
Address: 7625 Collins Road
Contact: Eric Sears
Phone:
Cell: 2961685
TMS# 393-00-00-050

Directions:

1. Head west on McMillan Ave toward Ave E South 0.7 mi
2. Turn left at Rivers Ave 0.2 mi
3. Take the 1st right onto Dorchester Rd 0.6 mi
4. Turn right to merge onto I-26 W toward Columbia 6.5 mi
5. Take exit 209B-A for Ashley Phosphate Rd/US-52 toward Moncks Corner/Goose Creek 0.3 mi
6. Take exit 209B for Ashley Phosphate Rd 0.2 mi
7. Merge onto Northwoods Blvd 66 ft
8. Turn left at Ashley Phosphate Rd 1.0 mi
9. Turn right at Spartan Blvd N 1.8 mi
10. Continue on Collins Rd. Continue driving on Collins Rd (You will pass red-roofed Republic Waste building on right and landfill on left). Once you are past the working cells of the landfill, take a left onto dirt road and it will wind its way into open field.

Site was pre-evaluated with Jeff Forslund of Republic Services on September 29, 2009. Charleston County is proposing to burn and grind/compost at this site (see map below). The County must keep in mind that the burn site on the adjacent Collins Tract must be at least 1000 feet from the burn site on the Republic Waste site.



Pepperhill C&D/Industrial Landfill pre-evaluated on April 29, 2009 **Compost/Grind only (no contract, will not accept disaster debris any longer 5/6/11, per conversation w/ R. Lawing)**

Owner: Republic Services

Address: Pepperhill

Contact: Eric Sears

Phone:

Cell: 296-1685

TMS# 181-00-00-005

Directions:

1. Head west on McMillan Ave toward Ave E South 0.7 mi
2. Turn left at Rivers Ave 0.2 mi
3. Take the 1st right onto Dorchester Rd 0.6 mi
4. Turn right to merge onto I-26 W toward Columbia 6.5 mi
5. Take exit 209B-A for Ashley Phosphate Rd/US-52 toward Moncks Corner/Goose Creek 0.3 mi
6. Take exit 209B for Ashley Phosphate Rd 0.2 mi
7. Merge onto Northwoods Blvd 66 ft
8. Turn left at Ashley Phosphate Rd 2.5 mi
9. Turn left at Fennell Rd 0.2 mi

Site was pre-evaluated on April 29, 2009 with Brian Allinger of Fennel Container. The County is proposing to use the site for composting/grinding after a storm.

Pictures from April 29, 2009



Johns Island (Walpole Site) pre-evaluated on April 27, 2009 **Compost/Grind only** (8/24/11, Mr. Lawing indicated this location no longer under contract for Disaster Debris)

Owner: Gene Walpole

Address: Canal Bridge Road, Johns Island, SC

Contact: Gene Walpole

Phone: 559-0338/559-6024

Cell: 708-0525

TMS# 258-00-00-007

Directions:

1. Head west on McMillan Ave toward Ave E South 0.7 mi
2. Turn left at Rivers Ave 0.3 mi
3. Take the 3rd right onto Cosgrove Ave/SC-7
4. Continue to follow SC-7 2.8 mi
5. Slight left at Old Towne Rd/SC-171
6. Continue to follow SC-171 3.2 mi
7. Turn right at Wesley Dr 0.3 mi
8. Slight right at Folly Rd Blvd/SC-171 1.0 mi
9. Turn right at Maybank Hwy/SC-700 4.2 mi
10. Turn left at River Rd. Destination will be on the right (Turn right on Canal Bridge Rd) 6 mi

Charleston County is proposing to burn and grind/compost at this site (see map below). Proposed burn site is located too close to adjacent property that contains buildings (greenhouses). **Burning is not permissible.**



Pictures from April 27, 2009



North Charleston (Collins Tract) pre-evaluated on September 29, 2009 Burn and Grind/Compost (8/24/2011, Chas. Co. waiting on lease agreement or contract from property owner.)

Owner: Robert O. Collins

Address: 9625 Collins Road

Contact: Stuart Yates

Phone: 514-7509

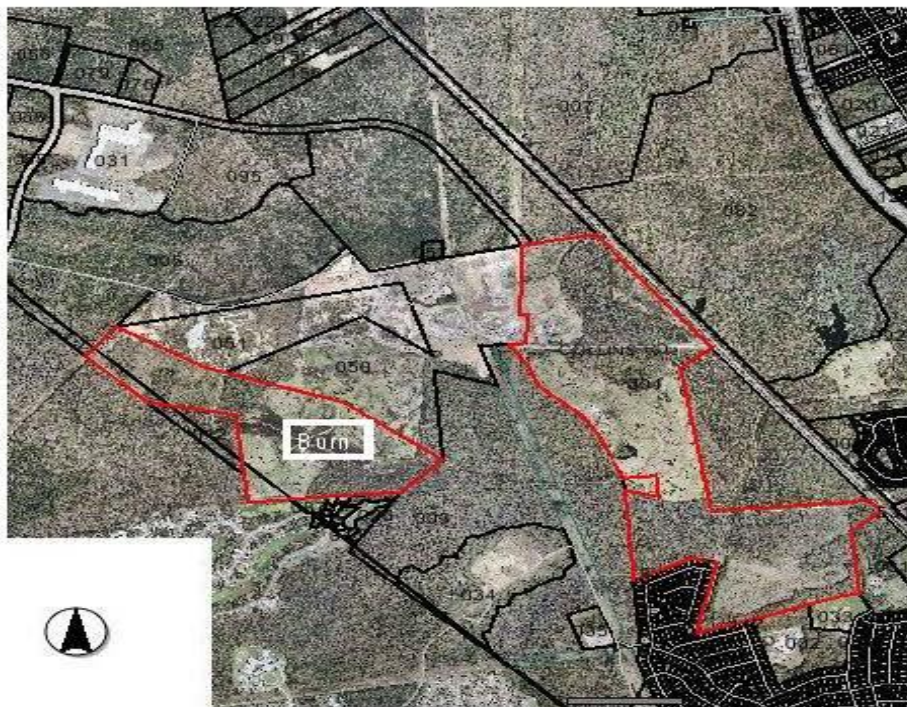
Cell: 744-8278

TMS# 393-00-00-004

Directions:

Follow directions provided for North Charleston Site (Republic Waste/Spring Grove Landfill). The area where Charleston County is proposing to burn and grind/compost is adjacent to the Republic Waste site (see map below); the Collins Tract site is closer to Ashley Phosphate Road.

Site was pre-evaluated with Jeff Forslund of Republic Services on September 29, 2009. The County must keep in mind that the burn site on the Collins Tract must be at least 1000 feet from the burn site on the Republic Waste site. And, the burn site on Collins Tract must be at least 1000 feet away from nearby neighborhoods.



Jedburg (Landfill Road) Burn and Grind/Compost (8/24/11 Mr. Lawing stated that the site is no longer under contract.)

Owner: Fennell Holdings
Address: 237 Landfill Road
Contact: Scott Fennell
Phone: 576-1100
Cell: 723-0009/297-0000
TMS# 122-00-00-054

Directions:

1. Head west on McMillan Ave toward Ave E South 0.7 mi
2. Turn left at Rivers Ave 0.2 mi
3. Take the 1st right onto Dorchester Rd 0.6 mi
4. Turn right to merge onto I-26 W toward Columbia 20.8 mi
5. Take exit 194 for Rd 16 0.2 mi
6. Turn left at Jedburg Rd (signs for Rd 16) 1.2 mi
7. Take the 3rd left onto Landfill Rd/FAA Dr 0.2 mi

Site was pre-evaluated with Scott Fennell. The County must keep in mind that the burn site must be at least 1000 feet nearby homes, roads, and the adjacent FAA site.

Awendaw (Compartment 212) Compost/Grind only (8/24/11 Mr. Lawing stated that the site is not under contract.)

Owner: USDA

Address: Forest Service Road 5157

Contacts: Orlando Sutton/Amy Fore

Phone: 843-561-4086

Cell: 803-561-4086

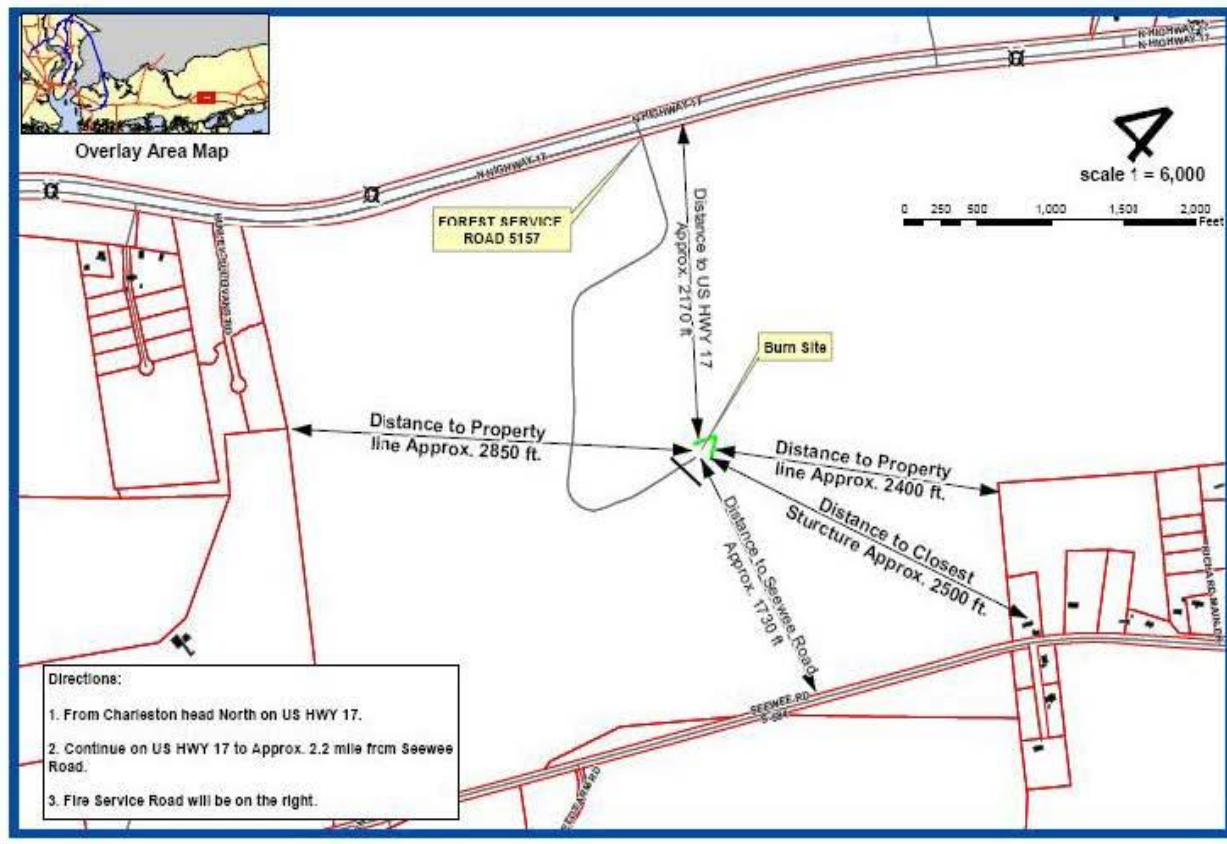
Directions:

1. Merge onto I-526 E to Mt Pleasant
2. Take exit 29 toward Georgetown 0.7 mi
3. Merge onto Hungryneck Blvd 43 ft
4. Turn left at N Hwy-17/US-17 Drive about 14.0 mi
5. Look for Seewee Road on the right.
6. Approximately 3.0 miles after Seewee Road, there will be an unmarked, gated Forest Service Road 5157 on the right (third unmarked, gated road before Seewee Visitors Center).
7. Site will be approximately 2170 feet back.

Site was pre-evaluated on Oct. 12, 2009 at 1415 hours. Because the site is heavily wooded, maps provided by the county are used to ensure distances are met.

Picture from Oct. 12, 2009







**MEMORANDUM OF UNDERSTANDING
BETWEEN CHARLESTON COUNTY PARK AND
RECREATION COMMISSION AND
THE COUNTY OF CHARLESTON**

This Memorandum of Understanding (MOU) made this 16th day of March, 2016 between the Charleston County Park and Recreation Commission (CCPRC) and the County of Charleston for use of CCPRC property to be mutually agreed as temporary debris storage and reduction sites for debris in the event that a natural disaster strikes the area to protect public health and safety.

Whereas, Charleston County is requesting use of CCPRC property for use as temporary debris storage and reduction sites for debris in the event that a natural disaster strikes the area outlined in this Memorandum of Understanding (MOU);

In consideration of the mutual covenants, terms and conditions herein, the parties hereto agree;

1. Following the occurrence of a natural disaster CCPRC will coordinate the use of the CCPRC properties.
2. County agrees to use and occupy the properties strictly for the following:

Use(s) include collection, piling, reduction by chipping and/or burning and temporary storage (such temporary storage not to exceed the term of this MOU and any renewal thereof) of disaster debris. Such debris will be limited to: trees, portions of trees, stumps, limbs, leaves; wooden building structure debris and other building structure debris, if approved by the South Carolina Department of Health and Environmental Control (hereinafter "DHEC"); no household putrescible waste will be permitted to be dumped, stored or burned on sites.
3. The County shall have the right to post signs at the entrance no larger than 4' by 8' which shall state the limited use of sites as set forth in Section 2.
4. This MOU shall commence on the date this document is signed and terminate five (5) years later. At the expiration of this Memorandum of Understanding, this MOU may be renewed by mutual agreement of the parties in one year increments. The parties must agree to the extension in writing upon annual review.
5. The County shall, at County's expense, make all necessary renovations, improvements, and additions (including, but not limited to, any reasonably necessary maintenance of drainage ditches) which shall bring each of the

Properties to a condition satisfactory to provide the services as required by County. Any permanent additions or improvements shall be the property of the CCPRC upon the termination of the MOU.

6. County shall not assign or allow another party to utilize any portion of the Properties without the CCPRC's consent, provided however, that this shall not prohibit County from allowing third parties (including, but not limited to the National Guard, the Reserves, FEMA, the Red Cross, etc.) to conduct recovery operations on sites during any emergency period after a natural disaster.

The above limitation of assignment and allowing another party to utilize the Properties notwithstanding, this section shall not be construed to limit the County's right to contract with third parties for the management of the properties as a temporary debris storage and reduction site, and CCPRC expressly agree that County may, contract with a third party for the management of the Properties.

7. Specific locations within each site are to be designated following a jointly conducted damage assessment to determine the areas with the least potential for impact, and having the right of ingress and egress over pre-existing roads which may include designated locations at the following locations:

- i. Johns Island park site/Mullet Hall
 - ii. Edisto park site
 - iii. Folly Beach County Park (per conversation with City of Folly Beach)
 - iv. Rifle Range Road park site (owned jointly with the Town of Mt. Pleasant)
 - v. Two Pines/McClellanville park site
- Points of entry will be established at the time of use.

8. The County agrees that controlled access will be maintained at sites, and any sites used by the public will be staffed during hours of operation.
9. The County agrees to comply promptly with any and all applicable Federal, State or local laws, ordinances, rules policies and regulations including, but not limited to, those of the local fire marshal and DHEC pertaining to use and occupancy of the Properties; and County shall have sole responsibility for any financial expenditures necessary to maintain compliance with same.
10. The County agrees that sites will be prepared for use by CCPRC by clearing all debris resulting from the disaster, and then returned to the same condition following the use of the property.
 - i. Remove ash as required by DHEC;
 - ii. Remove non-burnable and other remaining debris which can be removed using one pass through with a six (6) inch rake;
 - iii. Remove tree stumps, trees and other large non-burnable debris unless CCPRC permits it to be left; and

- iv. Replace topsoil.
 - v. Any property or incidentals damaged during the course of this MOU shall be repaired or replaced to the satisfaction of CCPRC and Charleston County.
11. The County shall be responsible for all utilities which it (or its agent) uses or consumes at the Properties. In the event that County and CCPRC share a utility meter they shall divide the bill equitably based on each Party's approximate usage as determined with reference to CCPRC' expenditures for any such utility in the twelve (12) months preceding the year of this MOU.
 12. The County (or its agent) shall maintain and keep in force continuously throughout the use of the Properties as a temporary debris storage and reduction site, at its own expense, general liability insurance with a Single Limit of not less than \$1,000,000.00 and an unlimited aggregate. The County shall, provide proof of coverage above to CCPRC, in the form of a certificate of insurance or similar, upon commencement of this MOU, again immediately upon use of Properties, and every year annually henceforth during the term of this MOU.
 13. All persons whomsoever, and all property of every kind which may be on the Properties during the term hereof (whether the person(s) or property of the County, its agents, employees, or third parties), shall be thereon at sole risk of County or its agent(s), and all persons entering upon or bringing their property onto the Properties are hereby charged with notice that they must look only to the County for payment of claims for damages and/or suits for, or by reason of, any injury, injuries or death to any person or persons, or loss of or damage to property of any kind whatsoever resulting from any cause or causes whatsoever while in or upon the Properties or any part thereof, or occasioned by any occupancy or use of the Properties or any activity carried on by County, its agents or servants or invitees or guests, or clients, in connection therewith.
 14. The Properties are hereby subject to all applicable zoning ordinances and laws as may now exist or hereinafter be enacted.
 15. The County shall not have the authority to create any liens for labor or material in or upon the Properties, and all persons contracting with the County for any erection, installation, alteration or repair of any improvements on the Properties and all material men, contractors, mechanics and laborers are hereby charged with notice that they must look only to the County for any labor or materials furnished in such connection, and CCPRC will not be responsible therefor.
 16. Termination:
 - i. Termination for Convenience of the County

If either the Charleston County Park and Recreation Commission or Charleston County determines to cancel this MOU, at least sixty (60) days prior notice shall be given in writing. If a natural disaster should occur

within the sixty (60) day prior notice period, the County may still exercise its option to utilize the temporary debris storage and reduction site.

ii. Termination for Non-Appropriation of Funds

If either the Charleston County or CCPRC determine to terminate this MOU, at least sixty (60) days prior notice shall be given in writing, in the event that sufficient appropriation of funds from any source (whether a Federal, State, County or other source) are not made or sufficient funds are otherwise unavailable.

iii. Termination for Default

If CCPRC refuses or fails to perform their obligations under this MOU or any separable part thereof in a timely manner and in accordance with the terms and conditions of this MOU, or otherwise fail, to comply with any of the terms and conditions of this MOU deemed to be material, such refusal or failure shall be deemed a default under this MOU.

In the event of a default under Paragraph this (C), County shall have the right forthwith to terminate this MOU in whole or in part, by written notice to the CCPRC. In the event of such default, the sixty (60) days advance notice period for termination is waived, and CCPRC shall not be entitled to any costs or damages resulting from any termination under this Paragraph (iii).

AGREEMENT

OWNER

David Bennett 2016.03.21 10:53:02
-04'00'

Charleston County Park and
Recreation Commission

(SIGNATURE)

(DATE)

K. Burtman 3/16/16

County of Charleston

(SIGNATURE)

(DATE)

Attachment 3: Disaster Debris Program Management STANDARD OPERATING PROCEDURES

Prior to Landfall (Transition from Phase II to Phase III)

At the earliest possible time before landfall of a predicted hurricane, the Debris Management Consultant's debris management staff (DMS) key personnel should be placed on-call for different mobilization schedules and regimens for different categories of storms. Contact information for the DMS should be compiled and distributed to the local government (see Attachment 7). Arrangements for communication during and immediately after the hurricane landfall are essential. At a minimum, DMS shall have individual cell phones and at least one satellite phone will be available for use. Debris assessment spotters should be strategically deployed throughout the County and use the same damage assessment key for categorizing damage and debris.

The Debris Contractor(s) shall be contacted and placed on stand-by status. Depending upon the forecast path and category of the storm, they may be requested to report to ESF HQ.

QA monitors shall be contacted for availability and placed on stand-by for deployment.

The environmental team responsible for monitoring the Temporary Debris Storage and Reduction Sites (TDSRSs) shall prepare to survey the sites and establish a baseline, prior to use by the Debris Contractor(s).

Disaster Debris Operations Management: Daily Operations Phase III and Phase IV

For Phase III - TIME AND MATERIALS PERIOD APPLY THE FOLLOWING:

- ❖ Scan and enter data from Time and Materials forms and Equipment Certification forms that have been completed by the QA Monitors in the field, into the database.
 - Prepare reconciliation report for contract management and debris contractors.
 - File copies of the reconciled reports for contract management and FEMA.
 - File copies of the Equipment Certification forms: (Master binder, FEMA binder)

Please note: Time and Materials forms and Equipment Certification forms are used for a limited duration at the beginning of an event. These documents are to be entered daily and reconciled with the appropriate contract unit price categories. Ideally Debris Contractors and the County should agree on forms and all equipment and prices prior to the event.

Attachment 3: Disaster Debris Program Management STANDARD OPERATING PROCEDURES

Disaster Debris Management Staff (DMS) Responsibilities and Duties (Phase III and IV)

Responsible for communicating with the ESF #3 Director and others in local government, managing the debris contract(s), communicating with the Debris Contractor(s), and state and federal representatives and providing reports, summaries, and analysis of daily activities associated with the debris operation. The DMS is tasked with environmental oversight of the TDSRS(s) including permitting issues, daily operations, and final restoration. Daily responsibilities are listed below:

- ❖ Prepare daily status report that addresses:
 - Number of cubic yards collected the previous day
 - By contractor
 - By TDSRS
 - By local government forces
 - By franchise hauler
 - At community drop offs
 - Total cubic yards collected to date
- ❖ Locations where debris was collected (or 100% cleared) by debris crews for the previous day.
 - GIS Maps
 - GPS and reverse geo-code addresses
 - Parks, government agencies, public facilities
- ❖ Status updates from debris contractors, by phone or arranged meeting.
 - Number of trucks and crews operating that day
 - Issues or problems
 - Complaint referrals
 - Damage referrals or updates
 - Monitoring issues
 - TDSRS issues
 - Overall status of geographic area
- ❖ Daily briefings to the DM and/or the local government staff as required.
- ❖ Weekly (daily if appropriate) reconciliation of Debris Contractor(s) time and materials and load ticket invoices.
 - Review invoice and backup with Debris Contractor
 - Reconcile invoice with database records
 - Provide AFP to County for payment

Attachment 3: Disaster Debris Program Management STANDARD OPERATING PROCEDURES

Based upon the storm category, up to 3 teams (or shifts) could be used to provide DMS services. Responsibilities include data management, document management, quality assurance (QA), quality control (QC), data assimilation, database management, and reports. The DMS and local government will task a second and possibly a third shift of DMS staff with data entry of the debris load tickets, forms, and other pertinent documentation.

When paper debris load tickets are used DMS staff will:

- ❖ Scan and enter data from the debris load tickets.
 - Document any inaccuracies, missing data, and other issues with information entered on tickets for Operations Supervisor for immediate resolution.
 - Provide summary reports of cubic yards by TDSRS, contractor, and local government forces.
- ❖ Scan and enter data from the stump and log tickets.
 - Document any inaccuracies, missing data, and other issues with the information entered on tickets for Operations Supervisor for immediate resolution.
 - Provide summary report of stumps by measurement category, by TDSRS, and contractor.
- ❖ Sort and file the debris load tickets in numbered sequence.
 - QA/QC load ticket (e.g., legibility, completeness, etc.)
- ❖ Scan truck certifications or re-certifications into database.
 - Generate daily log of certified trucks by number and cubic yards.
 - Back check daily load tickets with truck certification summary log.
 - File copies of certifications and list of certified truck lists in appropriate binders. (Master binder, FEMA binder)

Quality Assurance.

- Review truck numbers listed on debris load tickets with list of certified trucks.
 - Compare cubic yardages for each truck with certified cubic yardage.
 - Document any discrepancies for Operations Supervisor.
 - Back check all truck certification cubic yardage calculations.
- ❖ Prepare list of streets cleared or areas worked from the debris load tickets and/or debris clearing logs completed by monitors.

Attachment 3: Disaster Debris Program Management STANDARD OPERATING PROCEDURES

- ❖ Daily attendance logs are turned in by QA Supervisors for data entry. An attendance report is to be prepared each day. The report and originals are to be filed and retained as part of the documentation for reimbursement.
- ❖ Complaint Tracking
Track all incoming complaints and serve as liaison with the City Call Center.
- ❖ Debris Complaints
DMS staff will enter incoming debris complaints into the database and compile a list sorted by contractor area for distribution by the debris management team.

As complaints are resolved, enter the data and mark the complaint as resolved. Track the number of open complaints and coordinate with the contractor on expected date of resolution. Forward updates and resolution status to City Call Center.

- ❖ Damage Complaints
Designate a staff person to administer all damage complaints. Depending on the number and severity of complaints this could be the same person handling debris complaints.

DMS staff will enter incoming damage complaints into database and compile a list sorted by contractor area for distribution to designated damage resolution staff.

Damage resolution staff will contact property owner, visit the site, photograph damage, take a statement, and contact the appropriate debris contractor. This person(s) will be responsible for the complaint through its resolution. Status updates will be entered into the database including the final resolution.

Attachment 3: Disaster Debris Program Management STANDARD OPERATING PROCEDURES

Right-of-Way (ROW) Quality Assurance Monitoring Operations (Phase IV)

Responsibilities include debris load monitoring, load estimating, truck certifications, stump measurement, time and materials record keeping, quality assurance, and general oversight of the TDSRS. QA Supervisors and monitors begin the day at their assigned staging area or TDSRS.

❖ Attendance Reports

QA Supervisors log out their ticket booklets and are also responsible for the daily attendance with each monitor signing in and out each day. Monitors are to denote their field position, for example, QA monitor, disposal site monitor, exit tower monitor, and the hours worked by position held.

At the end of each day, the QA Supervisor turns in the attendance sheet to the OM for data entry.

❖ Ticket Assignment

QA Supervisors are responsible for tracking the tickets assigned to the QA monitors. A log is kept listing the pre-numbered tickets each QA monitor receives. These logs are to be given to the OM at the end of each day for data entry.

At the end of the project or at the end of a monitor's employment, any remaining unused tickets must be returned to the QA supervisor for re-assignment.

❖ Crew Assignment

QA Supervisors are responsible for assigning a QA monitor to each debris crew. The QA supervisor or operations supervisor will coordinate with the debris contractor to ensure sufficient monitors are available for any given day.

❖ QA Load Site Monitoring of Debris Crews

Throughout their shift, each QA monitor will observe their assigned crew to ensure that the debris collected meets the FEMA eligibility guidelines. Monitors will issue a debris load ticket to only their assigned crews and only for the debris placed on the right of way.

Monitors will not issue a debris load ticket for materials collected on agricultural lands, private property or commercial property, unless otherwise instructed by the local government.

Attachment 3: Disaster Debris Program Management STANDARD OPERATING PROCEDURES

Any issues or problems in the field are to be reported to the QA Supervisor. Examples may include recurring problems with a specific crew cherry picking, entering private property, or leaving their assigned area to collect debris.

The QA Monitor is responsible for delivering copies of the debris load tickets to the QA Supervisor each day. This includes all voided tickets.

The QA Supervisor is responsible for delivering the completed and voided tickets and empty ticket booklets to the DMS staff for data entry.

- ❖ **Streets Cleared Forms**

The QA Monitor is responsible for tracking all streets cleared and/or areas worked throughout the day.

The QA Supervisor is to deliver these forms to the DMS staff for data entry.

- ❖ **Monitor Ticket Log**

The QA Monitor will keep a daily log noting the ticket number, truck number, street address or the nearest intersection and departure time of each load.

The QA Supervisor will deliver the log sheets to the Operations Supervisor for filing in a central location.

- ❖ **TDSRS Operations**

Figure 6 of the Debris Management Plan provides pre-approved locations of TDSRSs. The Debris Contractor may also provide additional TDSRS locations.

Pursuant to its contract with the City the Debris Contractor will be responsible for management of the TDSRS and disaster debris once the debris has been authorized for placement at the TDSRS.

Debris Contractor will maintain incoming disaster debris into separate manageable sections based on type (e.g., vegetative, C&D, Mixed, etc.) and also maintain an area for containment of HHW should it be collected inadvertently.

DMS will perform environmental compliance audits / inspections of each TDSRS and review the Debris Contractor proposed site layout plan for debris placement.

Attachment 3: Disaster Debris Program Management STANDARD OPERATING PROCEDURES

OM and/or DMS will operate from a mobile operations command tent, trailer or van.

The OM and/or QA TDSRS Supervisor will oversee the Debris Contractor TDSRS operations and approve the placement of the TDSRS entrance and exit towers. Each TDSRS shall have 1 QA Supervisor and 2 QA Tower monitors, but could vary depending upon activity at site.

DMS QA oversight at the TDSRS will consist of:

- Periodic quality control check of debris load tickets.
- Maintenance of a daily log/journal, which reflects any incidents that occur on site and records the name and affiliation of all visitors to the site.
- Incoming debris load classification and quantity load calls
- Minimize staging of equipment and crews from the site.
- Daily activities report summary (i.e., number of tickets, total quantity).
- H&S oversight.

❖ Truck Certification

To haul and dispose of disaster debris a Debris Contractor vehicle must be certified and have a corresponding truck placard affixed to both sides of the side of the vehicle (i.e., that portion that will carry debris), and tandem DC vehicles will receive a certification and placard for each unit that carries debris.

The DM will designate a site(s) for truck certification to occur. This site may be a TDSRS and/or a TMD Service Unit.

DMS will provide a Truck Certification Team (Cert Team) that will certify Debris Contractor vehicles at designated sites and designated times.

The Cert Team will:

- Oversee truck certification site activities
- Measure Debris Contractor vehicles using a decimal measuring tape and calculate cubic yardage capacity.
- Photograph vehicle with digital camera.
- Complete and issue Truck Certification Form with corresponding Truck Placard.
- Manifest a copy of all completed Truck Certification Forms to the DM and provide input into database files.
- Perform random quality control checks of Debris Contractor vehicle capacity to placard.

Attachment 3: Disaster Debris Program Management STANDARD OPERATING PROCEDURES

❖ Stump Operations

Debris Contractor shall not handle or collect stumps until authorized by the DM.

A designated QA Stump monitor (Stump QA) will accompany each Debris Contractor stump crew. FEMA may also accompany the Debris Contractor stump crew.

There are two (2) types of stumps:

1. Hazardous Stumps - paid as a Hazardous Stump.
2. Stump Debris – paid as storm debris on a cubic yard basis.

Hazardous Stumps shall be handled pursuant to FEMA Recovery Policy RP9523.11 “Hazardous Stump Extraction and Removal Eligibility”. Generally a stump is considered a Hazardous Stump if it has a diameter greater than 24 inches and it is generated from within the right-of-way.

For Hazardous Stumps the Stump QA will:

- GPS locate each stump.
- Measure stump with forester’s tape which provides a diameter measurement in tenths of a foot (decimal).
- Mark the stump with spray paint (color designated by FEMA, e.g., orange).
- Record information on the FEMA Stump Worksheet and the debris load ticket.
- Issue load ticket to Debris Contractor once the vehicle is full of stumps.

Stump Debris consists of all stumps that are not Hazardous Stumps and may include but not be limited to stumps less than 24 inches, stumps greater than 24 inches that have been placed in the ROW.

For Stump Debris the Stump QA will:

- GPS locate each stump.
- Measure stump with forester’s tape which provides a diameter measurement in tenths of a foot (decimal).
- Mark the stump with spray paint (use different color than that designated by FEMA, e.g., blue).
- Record information on the Stump Debris Worksheet and the debris load ticket.
- Use FEMA Stump Conversion Table for calculating the cubic yards of the stump based upon diameter of the stump.
- Issue load ticket to Debris Contractor once the vehicle is full of stumps.

Attachment 3: Disaster Debris Program Management STANDARD OPERATING PROCEDURES

❖ Leaners and Hangers Operations

Debris Contractor shall not handle or collect leaners and hangers until authorized by the DM.

A designated QA monitor (L&H QA) will accompany each Debris Contractor leaners and hangers crew. FEMA may also accompany the Debris Contractor crew.

The L&H QA will

- GPS locate each leaner and each tree with hangers.
- Measure leaner with forester's tape which provides a diameter measurement in tenths of a foot (decimal).
- Mark the leaner with spray paint (use color designated by FEMA, e.g., yellow).
- Record information on the Leaners and Hangers Worksheet and the debris load ticket.
- Issue load ticket to Debris Contractor once the vehicle is full.

❖ Dirty White Goods (DWG) Operations

Debris Contractor shall not handle or collect dirty white goods and appliances until authorized by the DM.

A designated QA monitor (DWG QA) will accompany each Debris Contractor DWG crew. FEMA may also accompany the DC crew.

The DWG QA will

- GPS locate the appliance(s).
- Mark the appliance (use color designated by FEMA, e.g., yellow).
- Record information on the Dirty White Goods Worksheet and the debris load ticket.
- Issue load ticket to Debris Contractor once the vehicle is full.

❖ Derelict Vehicles, Boats (DVB) Operations

Debris Contractor shall not handle or collect derelict vehicles or boats until authorized by the DM.

A designated derelict vehicles or boats QA monitor (DVB QA) will accompany each Debris Contractor DVB crew. FEMA may also accompany the Debris Contractor crew.

Attachment 3: Disaster Debris Program Management STANDARD OPERATING PROCEDURES

The DVB QA will

- GPS locate the derelict vehicles or boats.
- Mark the derelict vehicles or boats (use color designated by FEMA, e.g., yellow).
- Record information on the Derelict Vehicles / Boats Worksheet and the debris load ticket.
- Issue load ticket to DC once the vehicle is full.

❖ Hand Load Operations

Hand Loads shall be handled pursuant to FEMA Recovery Policy RP9523.12 “Debris Operations – Hand-Loaded Trucks and Trailers”. Trucks and trailers loaded physically by hand, instead of by means of mechanical equipment resulting in a reasonable level of compaction, will be limited to a maximum 50% load call. Hand Load crews may be utilized to collect in areas not accessible to equipment loading.

❖ Hazardous Materials Protocols

The primary responsibility for coordinating hazardous materials during a City declared state of emergency rests with Cocont Creek Fire Department.

Contact: Fire Rescue – Hazardous Materials Incident Response Team (HMRT)

For hazardous waste material releases, referrals should be made to the ESF #10 coordinator at the state EOC (850) 921-0223 or the State Warning Point at (800)320-0519.

DMS will assist with coordination of information regarding locations of Hazardous Materials. Upon discovery of Hazardous Waste, the DMS will notify ESF #10 and other agencies as appropriate (e.g., CCPW, FDEP).

For Household Hazardous Waste (HHW) residents will be asked to separate and segregate all HHW from all other debris and is to be placed edge of the public right-of-way for proper disposal by the City's professional hazardous waste response team.

DMS will encourage the Debris Contractor to separate HHW at the curb and haul it to the City's contracted Hazardous Waste Contractor for packaging, storage, transport, and disposal at the City's contracted rates.

Attachment 3: Disaster Debris Program Management STANDARD OPERATING PROCEDURES

The Debris Contractor and CCPW, assisted by the DMS, will coordinate the collection of eligible commercial or industrial hazardous waste from the disaster.

FPL and other utility crews will handle all utility related debris such as power transformers, utility poles, cable, and other utility company material.

❖ Quality Assurance / Health and Safety Training

DMS will train staff consistent with the outline provided in Attachment 5.

DMS QA/QC staff will review incoming information daily and immediately note any inaccuracies, missing data, anomalies, and other issues with information entered on tickets or logs for the Operations Supervisor to resolve immediately.

Attachment 4: Communications Protocols and Procedures

This section will provide guidance for communication and reporting the status of the debris recovery operations, and coordinating and communicating between the County, CCPW, PIO, DM, OM, DMS, the Debris Contractors, QA monitors, the media, and the public at large.

The IC will communicate directly with the County Administrator and/or other City Managers.

The DM communicates directly to the IC. Daily status reports will be provided by 1400 hours.

The OM will communicate directly to the DM. Daily status reports will be provided by 1400 hours.

The PIO will communicate directly to the DM and IC. The PIO will also communicate and coordinate with other public information representatives and media.

The County and debris management staff will receive requests for assistance, requests for information, and storm debris related complaints via the following sources:

- Call Center at ESF 3
- Franchise Haulers
- County Commissioners
- Direct calls to DMS at ESF HQ

The OM will operate a call center (or information center) to assimilate the information received from each source, eliminate duplicate information, and provide a resolution.

The County is responsible for general communication to the public regarding the storm debris removal process and overall recovery effort. The primary means of disseminating this information shall be via newsprint, TV, radio, social media and the web.

In an effort to further educate the public on the debris removal process, the County should consider developing an on-going education program, which provides information year-round and builds public understanding of the storm debris removal process. Get the information out while you are assured that residents still have power and cable.

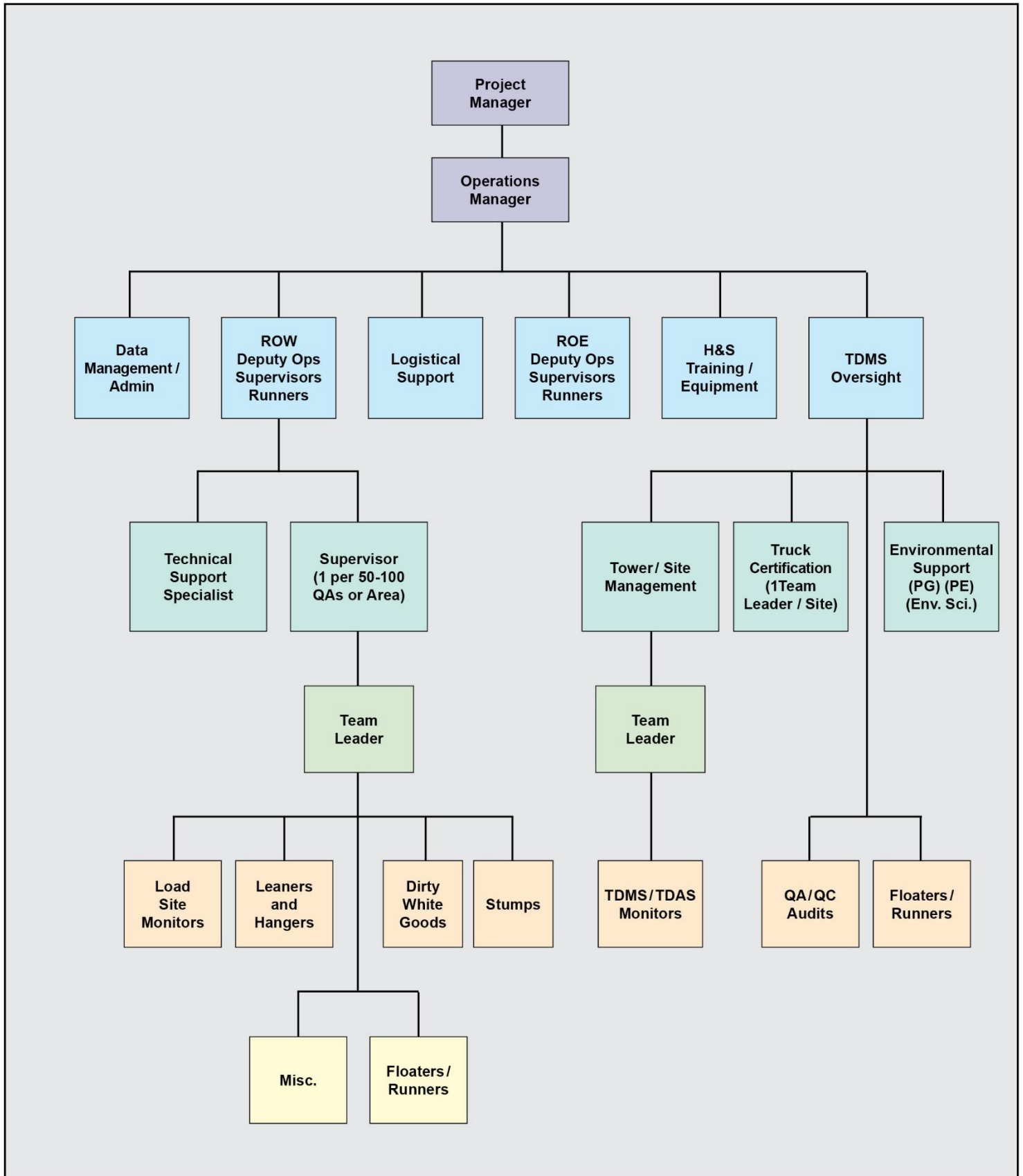
Attachment 4: Communications Protocols and Procedures

The public information program components would describe the following:

- Responsibility for each aspect of operations—residents for clearing materials from their property, contractors/franchise haulers for collecting the materials, and the County for issue resolution.
- Provide a schedule and status GIS map on the web.
- How to deal with HW and HHW.
- What material is eligible or being collected through the debris removal process
- Where the material needs to be placed for collection or where the resident can take it if it isn't eligible for curbside collection;
- How the material must be prepared/separated in order to be collected (e.g., vegetative storm debris separate from C&D, etc.);
- Public announcements regarding use of heavy equipment in community;
- When to expect the material to be collected (i.e., issue frequent public announcements so residents know where the County is picking up and when to reduce the number of customer calls).

Informing the public of a collection approach in advance minimizes confusion and improves participation. A year round education program also promotes a better understanding of the debris removal process and a basis of expectations for elected officials.

Attachment 5: Debris Management Team Organization



ATTACHMENT 6: TRAINING AND SAFETY PROGRAM

OUTLINE Overview of Operations and Objectives

- Most Important Points (Health and Safety, Integrity, Promptness, and Professionalism)
- Storm Debris Operations Photographic Presentation
- Monitoring Objectives (Verify, Document, Quantify, Quality Assurance)
- Project Team Organization and Roles

Quality Assurance Training

- Communication Protocols and SOPs
- Responsibilities and Duties (Review Scope and explain job requirements)
- Intensive Data Capture Methods (paper load ticket and HaulPass™)
- Equipment Usage and Requirements
- Maps and Debris Zones
- Salient FEMA and SCEMD Requirements
- Regulatory Agency Interaction Protocols
- Daily Reports, Logs, and Timesheets
- Quality Control Procedures and Expectations

Health and Safety Training

- Describe H&S Requirements of Debris Recovery Operations
- Describe Debris Activities and H&S Expectations
- Discuss Health And Safety Plan, Communication Protocols and SOPs
- Overview of Health and Safety Considerations
- Identify Debris Monitoring Hazards
 - Operational Hazards
 - Damaged Infrastructure and Secondary Collapse
 - Slip, Trip and Fall / Uneven Terrain
 - Fires and Explosions
 - Electrical
 - Equipment
 - Heavy Equipment
 - Vehicle Traffic – Roadside and Debris Site
 - Health Hazards
 - Chemical and Biological
 - Debris Smoke and Dust
 - Asbestos
 - Noise
 - Personal Hygiene
 - Environmental Hazards
 - Adverse Weather
 - Heat and Cold Stress
 - Vegetation, Insects, and Animals
- Engineering Controls, Work Practices and Personal Protective Equipment

Attachment 7: Debris Management Plan Checklist

Yes	No	Plan Requirements	Comment
X		Overview – Does the plan describe the purpose and objectives?	Preface
X		Incidents and Assumptions – Does the plan provide information on the types and anticipated quantities of debris that will be generated from various types and sizes of incidents?	Section IV
X		Debris Collection and Removal – Does the plan have a debris collection strategy? Does the plan discuss the methods that will be used to remove debris and establish priorities for clearance and removal? Does the plan outline the roles and responsibilities of the various functions involved (Public Works, Finance, and Solid Waste Departments, etc.)?	Sections III and V
X		Debris Removal on Private Property – Does the plan address the authority and processes for private property debris removal?	Section VIII
X		Public Information – Does the plan include a public information strategy to ensure that residents receive accurate and timely information about debris operations?	Section IX
X		Health and Safety Requirements – Does the plan describe how workers and the public will be protected and discuss the specific measures for adherence to safety rules and procedures?	Section III, Attachment 3 and Attachment 6
X		Environmental Considerations and Other Regulatory Requirements – Does the plan identify all debris operations that will trigger compliance with environmental and historic preservation laws and how compliance will be attained?	Section III, VI and VIII
X		Debris Management Sites and Disposal Locations – Does the plan identify where the disaster debris will be segregated, reduced, and disposed or whether debris will be hauled to a recycler?	Section VI and Attachment 2
X		Use and Force Account or Contracted Resources and Procurement – Does the plan define the types of work force account labor will accomplish and the types of debris operations that will be contracted? Does the plan describe the process and procedure for acquiring competitively procured contracted services? Does the jurisdiction identify debris contractors that it has prequalified?	Section III and VII and Attachment 8
X		Monitoring of Debris Operations – Does the plan describe how debris removal contractors will be monitored and who will monitor at pickup sites, Debris Management Sites / Temporary Debris Storage and Reduction Sites, and final disposal?	Chapter 4 and Appendix D

Attachment 8: Stand-by Disaster Debris Contractors (July 2017)

Current contracts. To be reviewed and revised upon contract expiration.

1. AshBritt Environmental
565 East Hillsboro Blvd.
Deerfield Beach, FL 33441

2. Crowder Gulf
5435 Business Parkway
Theodore, AL 36582

Attachment 9: Record of Distribution Form

RECORD OF DISTRIBUTION FORM

Charleston County, South Carolina

Disaster Debris Management Plan

Distribution Date	Type of Distribution	To	From	Purpose

Attachment 10: Record of Change Form

RECORD OF CHANGE FORM

Charleston County, South Carolina

Disaster Debris Management Plan

Original Plan Date:	March 2017
Revision Date:	
Revision Date:	
Revision Date:	
Revision Date:	
Revision Date:	
Revision Date:	
Revision Date:	
Revision Date:	
Revision Date:	

Attachment 11: Municipalities Within Charleston, South Carolina

City of Charleston
City of Folly Beach
City of North Charleston
City of Isle of Palms
Town of Awendaw
Town of Hollywood
Town of James Island
Town of Kiawah Island
Town of Lincolnville
Town of McClellanville
Town of Meggett
Town of Mount Pleasant
Town of Ravenel
Town of Rockville
Town of Seabrook Island
Town of Sullivan's Island