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SECTION I – OBJECTIVES

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 responsible for debris operations with respect to executing a coordinated response to a major debris-generating event. Coral Springs Emergency Management recognizes the importance of having a coordinated Plan in place that will contribute to the safety and wellbeing of all residents of the City and the importance of cooperation from the other City departments and agencies identified in this Plan.

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

The City Debris Manager 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 City maintained street rights-of-way throughout the City in consultation with other City departments and State and Federal agencies. This approach will ensure a seamless and efficient cleanup operation.

A City Debris Management Operations Center (DMOC) will operate as a unified organization under direct control of the City Debris Manager. All debris clearing, removal, and disposal operations within the City will be directed and coordinated by a joint DMOC staff located at 2801 Coral Springs Drive.

A. Authority

This Plan is developed, promulgated, and maintained under Emergency Support Function 3 (ESF 3), Public Works to the City Comprehensive Emergency Management Plan (CEMP) dated 2009.

B. Debris Management Plan Key Participants

<table>
<thead>
<tr>
<th>Designated Debris Manager</th>
<th>Streets Superintendent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Information Officers</td>
<td>PIO on Duty</td>
</tr>
<tr>
<td>Liaison Officers</td>
<td>Public Works Division Superintendents</td>
</tr>
<tr>
<td>Safety Officer</td>
<td>Streets Lead Worker</td>
</tr>
<tr>
<td>Operations Chief</td>
<td>Director of Public Works</td>
</tr>
<tr>
<td>Project Management / Engineering</td>
<td>Construction Manager</td>
</tr>
<tr>
<td>Solid Waste Department</td>
<td>Solid Waste Coordinator</td>
</tr>
<tr>
<td>Parks and Recreation</td>
<td>Director of Parks and Recreation</td>
</tr>
</tbody>
</table>
### Table 1 – Key Personnel

<table>
<thead>
<tr>
<th>Department</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning Chief</td>
<td>Public Works Project Technician</td>
</tr>
<tr>
<td>Progress Tracking &amp; Reporting</td>
<td>Public Works Project Technician</td>
</tr>
<tr>
<td>Data &amp; Information Management</td>
<td>Public Works Project Technician</td>
</tr>
<tr>
<td>Technical Specialists</td>
<td>Debris Consultants</td>
</tr>
<tr>
<td>Logistics Chief</td>
<td>IT Director</td>
</tr>
<tr>
<td>Communications</td>
<td>Communications Manager</td>
</tr>
<tr>
<td>Supplies and Equipment</td>
<td>Purchasing Agent</td>
</tr>
<tr>
<td>Contracting and Procurement</td>
<td>Purchasing Agent</td>
</tr>
<tr>
<td>Finance &amp; Administration Chief</td>
<td>Director of Finance/</td>
</tr>
<tr>
<td></td>
<td>Director of Budget</td>
</tr>
<tr>
<td>Contractor Payments / Invoicing</td>
<td>Director of Public Works</td>
</tr>
<tr>
<td>FEMA / FHWA Claims Management</td>
<td>Director of Finance or</td>
</tr>
<tr>
<td></td>
<td>Assignee</td>
</tr>
<tr>
<td>Internal Budget / Accounting Systems</td>
<td>Director of Finance or</td>
</tr>
<tr>
<td></td>
<td>Assignee</td>
</tr>
<tr>
<td>Federal:</td>
<td>Deputy City Manager</td>
</tr>
</tbody>
</table>

### SECTION II – EXPLANATION OF TERMS

Debris is the remains of things destroyed or damaged as a result of natural or technological disasters. Disaster debris may include yard waste, building materials, household items, personal property, hazardous household products, batteries, hazardous chemicals, spoiled food, dead animals, liquids and other materials. 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

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>APWA</td>
<td>American Public Works Association</td>
</tr>
<tr>
<td>BATF</td>
<td>Bureau of Alcohol Tobacco and Firearms</td>
</tr>
<tr>
<td>BOCC</td>
<td>Board of County Commissioners</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>C&amp;D</td>
<td>Construction &amp; Demolition Debris</td>
</tr>
<tr>
<td>CEMP</td>
<td>Comprehensive Emergency Management Plan</td>
</tr>
<tr>
<td>DAT</td>
<td>Debris Assessment Team</td>
</tr>
<tr>
<td>DCOT</td>
<td>Debris Contractor Oversight Team</td>
</tr>
<tr>
<td>DM</td>
<td>Debris Manager (City)</td>
</tr>
<tr>
<td>DMOC</td>
<td>Debris Management Operations Center</td>
</tr>
<tr>
<td>DMS</td>
<td>Debris Management Site (a.k.a. TDSRS)</td>
</tr>
<tr>
<td>DVB</td>
<td>Derelict Vessels/Boats</td>
</tr>
<tr>
<td>DWG</td>
<td>Dirty White Goods</td>
</tr>
<tr>
<td>EOC</td>
<td>Emergency Operations Center</td>
</tr>
<tr>
<td>ESF</td>
<td>Emergency Support Function</td>
</tr>
<tr>
<td>ESF/HQ</td>
<td>Emergency Support Function 3 Headquarters</td>
</tr>
<tr>
<td>EWP</td>
<td>Emergency Watershed Protection (Program)</td>
</tr>
<tr>
<td>FBI</td>
<td>Federal Bureau of Investigation</td>
</tr>
<tr>
<td>FDEP</td>
<td>Florida Department of Environmental Protection</td>
</tr>
<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
</tr>
<tr>
<td>FHP</td>
<td>Florida Highway Patrol</td>
</tr>
<tr>
<td>FDEM</td>
<td>Florida Division of Emergency Management</td>
</tr>
<tr>
<td>GHC</td>
<td>Governor’s Hurricane Conference</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>H&amp;S</td>
<td>Health &amp; Safety</td>
</tr>
<tr>
<td>HHW</td>
<td>Household Hazardous Waste</td>
</tr>
<tr>
<td>IC</td>
<td>Incident Commander</td>
</tr>
<tr>
<td>ICP</td>
<td>Incident Command Post</td>
</tr>
<tr>
<td>ICS</td>
<td>Incident Command Staff</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>NEMA</td>
<td>National Emergency Management Association</td>
</tr>
<tr>
<td>NHC</td>
<td>National Hurricane Conference</td>
</tr>
<tr>
<td>NIMS</td>
<td>National Incident Management System</td>
</tr>
<tr>
<td>NRCS</td>
<td>Natural Resources Conservation Service</td>
</tr>
<tr>
<td>OM</td>
<td>Operations Manager (Consultant)</td>
</tr>
<tr>
<td>PPDR</td>
<td>Private Property Debris Removal</td>
</tr>
<tr>
<td>PIO</td>
<td>Public Information Officer</td>
</tr>
<tr>
<td>PW</td>
<td>Project Worksheet</td>
</tr>
<tr>
<td>QA</td>
<td>Quality Assurance Monitor</td>
</tr>
<tr>
<td>QC</td>
<td>Quality Control</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
</tr>
<tr>
<td>RFP</td>
<td>Request for Proposals</td>
</tr>
<tr>
<td>RFQ</td>
<td>Request for Qualifications</td>
</tr>
<tr>
<td>ROE</td>
<td>Right-Of-Entry</td>
</tr>
<tr>
<td>ROW</td>
<td>Right-Of-Way</td>
</tr>
<tr>
<td>SHPO</td>
<td>State Historic Preservation Officer</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard Operating Procedures</td>
</tr>
<tr>
<td>SWD</td>
<td>Solid Waste Department</td>
</tr>
<tr>
<td>TDSRS</td>
<td>Temporary Debris Storage &amp; Reduction Site</td>
</tr>
<tr>
<td>TPH</td>
<td>Total Petroleum Hydrocarbons</td>
</tr>
</tbody>
</table>
USEPA | United States Environmental Protection Agency
---|---
USACE | US Army Corps of Engineers
WMD | Weapon(s) of Mass Destruction

B. DEFINITIONS

**Burning** – Reduction of woody debris by controlled burning. Woody debris can be reduced in volume by approximately 95% through burning. Air curtain burners are recommended 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. Example: trees, construction and demolition material, personal property.

**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** - Picking up debris and taking it to a temporary storage site or permanent landfill.

**National Response Framework** – A framework 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.

**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 picked up by a designated department such as the Department of Solid Waste or a Contractor. Examples: food, plastics, etc.

**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;
- Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed.
- Also 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: 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 Environmental Protection Agency: 1) Toxic, 2) Flammable, 3) Corrosive and/or 4) Reactive. Examples of household hazardous waste 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 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 City.

**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 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 wood, metals, soils, and construction materials that may have a residual monetary value. Examples of recyclable material are shown below:

- Aluminum cans
- Steel (tin) cans
- Newspaper
- Glass
- Plastic
- Cardboard
- Office paper
- Mixed paper

**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 may be charged accordingly. Also may be used to determine the quantity of debris picked-up and hauled.
**Sweeps/Passes** - The number of times a Contractor passes through a community to collect all disaster-related debris from the rights-of-way. Usually limited to three passes through the community.

**Debris Management Site (DMS)** - A location where debris is temporarily staged until it is sorted, processed, and reduced in volume and/or taken to a final disposal location. Also referred to as temporary debris staging and reduction sites.

**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 related waste such as yard waste, white metals, or household furnishings placed on the curbside. Non-disaster related trash is not eligible for reimbursement under FEMA’s Public Assistance 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 proves oversight to various flood control and navigation projects. The USACE may be tasked by FEMA to manage debris removal and disposal 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, air curtain burning, etc.

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

### 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. The Department of Public Works is the lead agency and has primary responsibility for the restoration of the public infrastructure following a disaster. The Streets Superintendent 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 City’s Emergency Operations Center (EOC) staff. Additionally, the Streets Superintendent is responsible for the removal of debris from all of the City’s 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.

   The Streets Superintendent and the Solid Waste Coordinator, working under the direction of the Director of Public Works, are the staff responsible for overall coordination of the debris management site locations, processing, and final disposal activities within the City. He/she will coordinate 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
A debris-generating event (e.g. hurricane). 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 interlocal 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 the City’s operational capabilities.
- City has pre-event contracts for additional resources to assist with debris management, clearance, collection, staging, processing, and disposal operations.
- 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 Command System (NIMS)

This plan and the Debris Management Operations Center concept support the City’s NIMS organization as shown in Figure 1 below

5. Debris Management Overview

The Emergency Management Coordinator will notify the City Departments and Agencies when notice is warranted of an impending disaster event. Personnel assigned to ESF 3 will establish a presence at the City EOC located at 2801 Coral Springs Drive and await further instructions from the Public Works Director. All ESF 3 staff should be knowledgeable in their specific duties, responsibilities and SOPs identified in the CEMP, and this Plan. ESF 3 will employ an Incident Command Structure for all post disaster situations.

During and/or following the event, the Chief of Police or the Fire Chief will be the City’s ESF 3 Incident Commanders (IC). He/she will be responsible for establishing and staffing the Incident Command Facility at ESF 3 Headquarters. The ESF 3 Public Works Director will exercise daily operational control of the ESF 3 Incident Command Staff (ICS) and:

- Keep the City Manager briefed on the status of the debris clearing, removal, storage, processing and disposal operations.
• Assure that City is represented at meetings with other government and private agencies involved with the debris management operations.

The IC will assign the Public Works Director to the EOC as the Public Works Branch Director with respect to debris removal operations, the ESF 3 Coordinator will have responsibility for coordinating with other EOC assigned personnel, handling debris clearance and cleanup requests involving debris management personnel and equipment, DMS personnel and equipment, and City Parks and Recreation Department personnel and equipment. Actions will also focus on coordination with local utilities, other City, State and Federal resources (e.g., City Police, County Sheriff, Florida Highway Patrol, Federal Emergency Management Agency FEMA, Natural Resources Conservation Service, etc.), reviewing progress and initial debris clearance from public roadways and critical facilities. The ESF 3 Coordinator will keep the EOC representatives informed of cleanup progress and any problems encountered or expected.

The Streets Superintendent is the designated City Debris Manager (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 the Public Works Department, Parks and Recreation Department, other supporting departments, and the City’s Debris Management Consultant. This organization will be referred to as the Debris Management Operations Center (DMOC) staff and will be located at the EOC and/or field office(s).

The figures presented on the following pages represent the ESF 3 Organization based on NIMS required Incident Command System structure.

6. Debris Management Operations Center

The Streets Superintendent is the designated DM for the City and is responsible for emergency debris clearance of essential transportation routes and other critical public facilities. The DM is responsible for locating and staffing a Debris Management Operations Center (DMOC) that provides a physical location where selected City staff 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 the EOC.

The DMOC staff will be under the direction of the City Debris Manager. The City Debris Manager’s actions may include the following:
• Making recommendations for City and private contractor work assignments and priorities.
• Reporting on debris removal and disposal progress, and preparing status briefings.
• Providing input to the City PIO on debris removal and disposal activities for dissemination to the public.
• Coordinating debris issues affecting the City with local municipalities and the County.
• Coordinating City debris removal and disposal operations with City, 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:
  o Federal Emergency Management Agency (FEMA)
  o U.S. Army Corps of Engineers (USACE)
  o Federal Law Enforcement Agencies (FBI, BATF)
  o US Environmental Protection Agency (USEPA)

**Figure 1**
City NIMS Organizational Structure
7. DEBRIS MANAGEMENT COMMAND STAFF

<table>
<thead>
<tr>
<th>Command Staff</th>
<th>Role/Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debris Manager</td>
<td>Coordinates all debris removal and disposal responsibilities</td>
</tr>
<tr>
<td>Public Information Officer</td>
<td>Coordination of press releases, maintenance of contracts with local organizations, the media, drafting public notices.</td>
</tr>
<tr>
<td>Safety Officer</td>
<td>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.</td>
</tr>
<tr>
<td>Liaison Officer</td>
<td>Coordinate and/or attend all meetings with local, State and Federal authorities associated with debris removal and public assistance program activities. Act as the official conduit for information (i.e. changes to eligibility requirements, regulations, etc.) to or from external entities.</td>
</tr>
</tbody>
</table>

Table 2 – Debris Management Command Staff Role/Responsibility
8. Debris Management General Staff

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 City and private contractor assets.

---

Figure 2
Debris Operations Section Organization Chart
### Operations Section Role/Responsibility

<table>
<thead>
<tr>
<th>Operations Section</th>
<th>Role/Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervision of all tactical operations and coordinate internal and contracted resources</td>
<td>Detailed damage assessments, oversight of project consultants and debris contractors, identification, preparation and restoration of DMS, monitoring of contractor operational plans and implementation</td>
</tr>
<tr>
<td>Streets Supt.</td>
<td></td>
</tr>
<tr>
<td>Solid Waste Contractor</td>
<td>Coordination of all franchise hauler operations.</td>
</tr>
<tr>
<td>Sts Lead Worker</td>
<td>Oversight of DMS locations.</td>
</tr>
</tbody>
</table>

Table 3 – Operations Section Role/Responsibility
b. Debris Planning Section Organization

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

![Debris Planning Section Organization Chart](image-url)
<table>
<thead>
<tr>
<th>Planning Section</th>
<th>Role/Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning Section Role/Responsibility</td>
<td>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 Incident Command Staff</td>
</tr>
<tr>
<td>Progress Tracking &amp; Reporting</td>
<td>Tracks progress of the overall debris removal efforts and prepares reports for Command Staff and the Public Information Office.</td>
</tr>
<tr>
<td>Data, Information Management, Project Worksheets</td>
<td>Reviews and validates data and information generated by consultants and debris contractors, ensures content and completeness for FEMA project worksheet development, and prepares data for eventual audit by internal or external authorities.</td>
</tr>
<tr>
<td>Technical Specialists</td>
<td>Resources assigned to consult on specific problems or perform specific technical tasks e.g. environmental testing, hazardous material handling, etc.</td>
</tr>
</tbody>
</table>

**Table 4 - Planning Section Role/Responsibility**
c. Debris Logistics Section Organization

Figure 4
Debris Logistics Section Organization Chart
<table>
<thead>
<tr>
<th>Logistics Section</th>
<th>Role/Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible for providing facilities, services, equipment and materials</td>
<td>Plan and implement communications strategy, provide, test and distribute communications equipment to City field resources</td>
</tr>
<tr>
<td>Supplies &amp; Equipment</td>
<td>Provide vehicles, equipment and any other ancillary supplies to City field resources</td>
</tr>
<tr>
<td>Contracting &amp; Procurement</td>
<td>RFP, RFQ, scope of work and specifications for debris contracts, contract modifications, equipment purchasing or leasing contracts.</td>
</tr>
</tbody>
</table>
d. Debris Finance & Administration Section

Figure 5
Finance & Administration Section Organization Chart
<table>
<thead>
<tr>
<th>Finance &amp; Administrative Section</th>
<th>Role/Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible for all financial considerations of the debris removal effort</td>
<td>Review and validate invoices generated by consultant and debris contractors, ensure prompt payment of invoices</td>
</tr>
<tr>
<td>Contractor Payments &amp; Invoicing</td>
<td>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, coordinate appeals.</td>
</tr>
<tr>
<td>FEMA Claims Management</td>
<td>Set up accounts, budget systems to pay for and track all debris removal expenses</td>
</tr>
</tbody>
</table>

Table 6 – Finance & Administration Section Role/Responsibility
9. Staffing Assignments and Duties

a. City Debris Manager

The City Debris Manager (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 ESF3 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 City Standard Operating Procedures.

- The DM will coordinate with the Debris Management Team’s operational staff regarding debris operations force account activities.
- The DM will coordinate with the Debris Management Consultant’s Operations Manager (OM) regarding debris operations contracted activities.

The DM or his designee will hold daily (or as needed) status meetings with appropriate ESF3 team members and the OM to discuss ROW, ROE (if applicable) and DMS operations. Attendees may include Debris Contractor, FEMA, other agencies and department personnel as deemed appropriate by the DM. Communications protocols and procedures for ESF3, DM, OM and others will be consistent with the City Comprehensive Emergency Management Plan.

b. Debris Management Consultant

The Debris Management Consultant’s Operations Manager (OM) will provide advice to the DM, and the Incident Command Staff 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 daily reports to the DM.

The OM will supervise the activities of the contracted debris management team when activated. See Attachment 1 “Disaster Debris Program Management – Standard Operating Procedures” for contracted debris management responsibilities and operating procedures.

c. Health & Safety (H&S)

City will have a designated Safety Officer to be provided by ESF 3 Incident Command Staff.
The Debris Management Consultant and the Debris Contractor(s) will each provide a designated Health & Safety (H&S) project professional.

A Training and Safety Program Outline is provided in Attachment 2.

d. Public Information Officer

The EOC Public Information Officer (PIO) will serve as the DM's liaison to Broward County EOC 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, radio and TV public service announcements and social media may be used to obtain the public's cooperation in disaster debris removal and disposal operations (e.g., separating burnable and non-burnable storm debris; segregating household hazardous waste; placing disaster debris at the curbside; keeping debris piles away from fire hydrants, valves and utility services; and segregating recyclable materials). Pickup schedules will be disseminated in the local news media and through the City’s Community Call Center. All available means of public notification should be considered.

e. Debris Drop-Off Sites

The City may designate areas as residential vegetative storm debris drop-off sites (See Coral Springs Standard Operating Procedures for Citizen Drop-Off Sites at Attachment 3).

In order to ensure that only vegetative storm debris is disposed of at the sites, one or two Quality Assurance (QA) monitors, depending on drop-off volume, will be stationed at the drop off sites to document incoming vehicle license plate numbers and, time permitting, the name of the person disposing of debris. The Debris Contractor(s) are subsequently responsible for hauling the debris from the drop-off sites to a DMS location or final disposal location.

f. DMS Operations and Environmental Compliance

The Debris Removal Contractor will provide environmental consulting support related to the monitoring of the DMS locations. This work includes baseline visual site evaluation, baseline soil sampling and analysis, ongoing monitoring of DMS activities, site closure soil sampling and analysis, and preparation of a site closure report for each DMS. A description of DMS operations is provided in Attachment 1.

g. Solid Waste Operations

Depending upon the severity of the event, different areas of the City may be affected less severely. The following provides the assumptions and potential scenarios that are anticipated for solid waste operations following a disaster event.

h. GPS / GIS / Mapping

Debris clearance and removal progress will be tracked and plotted utilizing GIS mapping software. Consultant GIS Personnel will assist City GIS personnel to monitor contractor movement throughout the City to facilitate reporting to ESF3 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 City’s GIS team to facilitate the transference and accuracy of information.

i. State of Florida Division of Emergency Management (FDEM)

Pursuant to standard procedures, State disaster management staff will work directly with FEMA and the ESF3 Incident Command Staff to coordinate policy and guidance necessary to accomplish the recovery efforts according to Federal regulations. The City 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 ESF3 Incident Command Staff to coordinate policy and guidance necessary to accomplish the recovery efforts according to Federal regulations. The City will maintain contact with FEMA’s disaster field office before, during and after a declared disaster.

Incident Command Staff will actively participate in FEMA guidance and documentation revisions impacting all emergency and debris removal efforts. The City will work in conjunction with the Florida Association of Counties and the League of Cities to ensure a public process is conducted.

The DM will identify the State Debris Specialist that is assigned to the City to assist in the coordination and guidance of the debris recovery efforts. The DM will also enlist the assistance of the Mayor’s or Governor’s office as the situation warrants.

k. Coral Springs Fire Department 954-344-1800

- Assure mulch piles at DMS locations do not present as a spontaneous combustion threat.
- Issue bans on open burning based upon assessment of local conditions and ensure dissemination of information to the public.

l. Coral Springs Police Department 954-344-1800

- Assist in monitoring DMS sites to ensure compliance with local traffic regulations.
- Coordinate traffic control at all loading sites and at entrances to and from DMS locations.
- Primary Point of Contact: Police Department at 954-344-1800

m. Utilities

Electric:

Florida Power and Light
954-321-2173
Coordinate with the City Debris Manager 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:**

Water services in the City are facilitated by four providers:

- **City of Coral Springs Water District**
  954-344-1825
  9551 W. Sample Rd.
  From Wiles Road, south to the south side of Royal Palm Boulevard, north of Wiles Road from Riverside Drive east to 441. For water line breaks or sewer problems, call 954-345-2160.

- **Coral Springs Improvement District**
  954-753-0729
  10300 N.W. 11 Manor
  Covers all areas south of Royal Palm Boulevard to the C-14 canal. For water line breaks, call 954-753-0380.

- **North Springs Improvement District**
  954-753-0380
  9700 NW 52 Street
  From Wiles Road north and Riverside Drive west. For water line breaks, call 954-752-0400.

- **Royal Utilities**
  954-344-9106
  8900 N.W. 44 Ct.
  From Wiles Road south to 40 Street; University Dr. from Wiles Road south to 40 Street; University Drive to the west, 81 Terrace to the east. For water line breaks, call 954-341-7565.

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

**Telephone:**

- **AT&T**
  1-888-757-6500

Coordinate with the City Debris Manager 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:**

- **TECO**
  1-877-832-6747
Coordinate with the City Debris Manager with regards to debris removal along gas easements and rights-of-way and damage to cut-off valves, etc.

**Cable/Internet Provider**

Advanced Cable

954-753-0100

Coordinate with the City Debris Manager with regards to debris removal along utility easements and rights-of-way and damage to service cables, junction boxes, etc.

**B. Administration**

All City 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 City 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 City Debris Manager.

As a preventive measure, the Fleet Services Division and Central Stores Division should ensure that additional supplies of tires and tire repair kits are readily available due to the likelihood of debris caused flat tires.

The City Emergency Management Coordinator and City Debris Manager are responsible for the annual review of this Plan in conjunction with the annual update to the 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 workaround 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 Cities. This coordination is especially important with respect to allocation of resources such as DMS locations and final disposal facilities.

**C. Financial Considerations**

The Director of Public Works and the Director of Finance maintain functionality of the City’s work assignment and financial management system. The work assignment and tracking system will 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 Finance
Director will keep copies of the backup documentation gathered from all departments and agencies involved in debris removal, reduction and disposal operations.

The Director of Public Works, assisted by the Director of Finance, will be the lead team for any validation or audits by outside agencies assisted by City Emergency Management Coordinator and others as required.

D. Contracting and Procurement

All contracting and procurement actions pertaining to debris operations will be coordinated with the City Purchasing Department, telephone 954-344-1100

E. Legal

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

The City Attorney’s Office is in City Hall, located at 9530 W. Sample Road. The main telephone number is 954-344-1011

F. Operations

The Streets Superintendent 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 City maintained rights-of-way throughout the City in consultation with other City departments and State and Federal agencies. This approach will ensure a seamless and efficient cleanup operation.

A City Debris Management Center (DMOC) will operate as a unified organization under direct control of the City Debris Manager. All debris clearing, removal, and disposal operations within the City will be directed and coordinated by a joint DMOC staff located in the EOC.

G. Emergency Communications Plan

See the Basic Plan of City Comprehensive Emergency Management Plan (CEMP) Emergency Communications Section.

H. Health and Safety Plan and Procedures

See the Basic Plan of City Comprehensive Emergency Management Plan (CEMP) Health and Safety Section.

I. Training Schedule

The City should conduct debris management training and safety workshops yearly. Examples of training and safety outlines are shown in Attachment 2.
SECTION IV – SITUATION AND ASSUMPTIONS

A. Design Disaster Event Assumptions

1. Assumptions Regarding Responsibility & Performance of Franchise Haulers
   - Broward County Board of County Commissioners declare emergency.
   - Based on the severity of the emergency the City Emergency Management Coordinator will define expectations regarding service level.
   - Emergency Management Coordinator’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 City, the Emergency Management Coordinator’s response will be as needed and may or may not involve the City’s Franchise Hauler.
   - Requests for reimbursement for additional expenses must comply with City instructions as defined at the time.
   - Franchise Hauler rates for additional hours, staffing and equipment will be agreed upon prior to the declared event.
   - Franchise Haulers will not be required to collect hazardous material.

2. Scenario I, Unlikely a Federal/State Emergency will be Declared
   - Relatively minor emergency which does not necessitate the activation of the City’s debris contractor.
   - The Emergency Management Coordinator has the authority to deploy resources as needed and may do so in any portion of the City as required.
   - Franchise Haulers will maintain routes as defined by the Solid Waste Coordinator and/or Debris Manager and will provide additional resources (staffing and equipment) in order to increase collection capability as needed.

3. Scenario II, Likely a Federal/State Emergency will be Declared
   - Emergency which necessitates the activation of the City’s debris management contractor.
   - Franchise Haulers will maintain routes as defined by the Emergency Management Coordinator and will provide additional resources (staffing and equipment) in order to increase collection capability as needed.
   - Franchise Haulers will be responsible for the collection of all containerized debris. The City’s debris contractor, and their designees, will be responsible for all loose vegetative debris.
   - Franchise Haulers will alter or adjust their collection schedules, as required by the City, in order to better coordinate with the collection activities of the City’s debris contractor.

4. Scenario, III, Likely a Federal/State Emergency will be Declared
   - Emergency which necessitates the activation of the City’s debris management contractor and the (temporary) suspension of all Franchise Hauler residential collection activities.
   - Upon direction of the Debris Manager, the Franchise Hauler will assign and devote all available resources to the City in support of its debris management efforts and will be compensated appropriately
B. Franchise Hauler

After a disaster strikes one of the City’s primary solid waste management goals is to get municipal solid waste collection services back to normal as soon as possible. The city’s Franchise hauler will be utilized for municipal solid waste removal, and the debris hauler, will handle all event debris.

C. Forecasted Debris

Emergency situations requiring debris removal may occur at any time. Natural disasters such as tornadoes, flooding, aircraft crashes, thunderstorms, explosions and structure fires, 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 City:

- Natural Hazards – severe weather, ice storms, tornadoes, 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 is based on the City 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: \( Q = H \times C \times V \times B \) where \( Q \) represents the quantity of debris generated, \( H \) represents the average number households, \( C \) (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 three persons per household, the vegetation factor is 1.5, commercial density is 1, and the precipitation factor is 1.3. Thus a hurricane using these standards could generate between 158,085 and 6,296,992 cubic yards of debris. This will result in the City needing between 10 and 391 acres for temporary storage and reduction of debris. See Attachment 4 for the USACE model. The City has identified a number of permitted and potential debris management site locations. The may be viewed at Attachment 5. The sites identified by the city total approximately 305 acres which, per USACE calculations would be able to store approximately 4.9 million yards of debris at a maximum height of 10 feet.
The fact that this Plan is based on a particular size and type of event in no way diminishes the value of the Plan for use in response to other types and categories of events. 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 City’s in-house removal and disposal capabilities;
- The City will contract for additional resources to assist in the debris removal, reduction, and disposal processes;
- Broward 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 City debris capabilities in coordination with the City and Broward County EOC staff.

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, and 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 are typically provided utilizing a variety of means, including debris contractors, quality assurance support contractors, City personnel and other personnel on assignment from other departments. The operations are performed under the direction of emergency management in accordance with Federal, State and local laws and guidelines. See Attachment 1 for Debris Management Standard Operating Procedures.

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

- Construction and Demolition Debris
- Clean Vegetative Storm Debris
- Mixed Debris
- Automobiles
- Boats
- Appliances
- Stumps
- Leaning Trees and Hanging Limbs
• Residential Hazardous Waste
• Commercial/Industrial Hazardous 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 debris management and/or disposal sites under the oversight of Quality Assurance (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 management 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.

Private property debris removal (PPDR) and demolition (demo) is more complicated, but consists of obtaining a right-of-entry/hold-harmless agreement that indemnifies the City and the federal government for damages caused by the debris removal and/or demolition operations. for the purposes of debris removal. PPDR and demo may involve, but not be limited to, obtaining and determining utility locations, demolition of condemned structures, removal of debris, removal of hazardous leaning trees and hanging limbs, and removal of hazardous 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

- City Emergency Management Coordinator and others should attend emergency management and disaster debris management conferences and continuing education venues such as the National Hurricane Conference (NCH), the Governor’s Hurricane Conference (GHC), the National Emergency Management Association (NEMA), the American Public Works Association (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., police, fire chief(s), utilities, etc.)
- Designate staff to attend FEMA and State workshops and/or participate in other salient educational opportunities.
- Assign all ESF3 functions to City 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 based upon storm path and category utilizing forecasting 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).
- Attend and participate in exercise training at EOC.
- Conduct annual internal debris management exercise and training.

c. Phase III - Disaster Debris Emergency Clearance Operations

The Public Works Department is the lead agency responsible for coordinating disaster debris assessment for all City 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 City roadways and City public property may be
accomplished using City crews (i.e. Force Account) and equipment, mutual aid providers, and private contractor resources.

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

Emergency Debris Operation’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.

Debris Assessment Teams (DAT), consisting of representatives from the Public Works Streets Division, the Debris Monitoring firm, and the Debris Hauler, will conduct 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:

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
6. Major traffic routes and other critical arterials
7. Egress for fleet, traffic, road and bridge, and designated remote locations
8. Supply Distribution Points and mutual aid assembly areas
9. Government facilities
10. Public safety communications towers and facilities
11. American Red Cross shelters
12. Secondary roads to neighbor collection points
13. Access for utility restoration
14. Neighborhood streets
15. Private property adversely affecting public welfare.

Critical roads have been identified and prioritized for removal of debris after a disaster strikes (See Attachment 6).

During the debris clearance and removal process, Public Works will be responsible to work with Florida Power and Light 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 Debris Manager and the Emergency Management EOC Coordinator will work with 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 forecasting technology, the DM & OM will prioritize debris recovery operations utilizing the following
methodology:

- Establish debris zones
- Prioritize streets/neighborhoods
- Develop routes for debris recovery and removal teams
- City Debris Manager to approve clearance prior to debris recovery teams moving on to next assigned area

The general concept of disaster debris removal operations includes multiple scheduled passes of each affected site, location, or right-of-way conducted by a Debris Contractor pursuant to their contract with the City. 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 Standard Operating Procedures for Phase IV disaster debris recovery operations is provided in Attachment 1. Debris Contractor operations will require QA monitor field personnel for the debris load site, DMS and final disposition locations to oversee Debris Contractor operations.

Under the overall supervision of the DM, the OM will coordinate with QA Supervisors, Operations Supervisors, Debris Contractor Supervisor(s) and others for debris removal and disposal operations for all incorporated portions of the City.

Debris contractors will collect and haul debris from their assigned ROW location to a designated DMS locations or final disposal sites, as appropriate for the type of debris collected.

The Parks and Recreation Department will provide support to Emergency Management with specialized equipment and operators as required. Certain designated City parks may serve as temporary residential drop-off sites for clean vegetative storm debris only. Mixed debris will be hauled to designated C&D sites, designated private landfill sites, or DMS locations. Clean woody debris will be hauled to the nearest designated vegetative DMS for processing.

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.

The City franchise solid waste contractor will pick up municipal garbage according to current procedures, routes, and collection schedules.

The City franchise solid waste contractor collects residential household hazardous waste (HHW) on the first Saturday of each month. Dependent upon the amount of HHW generated, the transfer station may adjust operations to allow collection and delivery of HHW on a more frequent basis. The franchise hauler subsequently disposes of HHW under its contract with the City.

The Debris Contractor will be encouraged to separate HHW at the curb and pick it up as a separate debris stream.

The Debris Contractor and City Debris Manager will coordinate the collection of eligible commercial or industrial hazardous waste from the disaster.
Utility crews; e.g., Florida Power and Light, 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, CFR 44, FEMA 321, 322, 323, 325, and 329 publications, current and applicable FEMA Disaster Specific Guidance (DSG) memorandums, etc.

Responsibilities for financial and reimbursement activities are summarized below:

- **City EOC** – Provides official notification of disaster declaration and EOC activation making related eligible costs reimbursable.
- **Finance** – Establish budgetary codes and accounting infrastructure to pay for disaster related expenditures and accept reimbursements from external agencies.
- **Public Works Project Technician** – 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.
- **Debris Management Consultant** – Track and provide data generated by the debris removal operation. Provide Debris Contractor invoice reconciliation and submits payment recommendations to the City. Develop appeals to Project Worksheets as appropriate.
- **State** – Facilitate document and reimbursement flow between City and Federal agencies.
- **FEMA** – Project Worksheet development (large projects), eligibility determinations, reimbursement.

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

FEMA’s methodology for reimbursing public assistance applicants (e.g. the City) 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 City 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 (those under that do not meet the large project threshold).
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 the 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 Joint 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 via FEMA Guidance Document 322 as described below.

From Guidance Document FEMA 322 - The FEMA appeals process is an opportunity for Applicants to request reconsideration of decisions regarding the provision of assistance. There are two levels of appeal. The first level appeal is to the Regional Director. The second level appeal is to the Assistant Director 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 City. Invoices will be submitted in regular intervals as determined by the City.

The OM will review and reconcile the Debris Contractor invoice(s) and issue a payment recommendation to the City within seven (7) business days of the OM’s receipt of a valid invoice. This will consist of the OM’s recommendation for payment, the Debris Contractor invoice (in a format per ESF3 Finance & Admin direction), and associated load tickets or other backup documentation.

The payment recommendations is reviewed by the DM and the Public Works Director. City fiscal staff, under the direction of the Finance and Admin Chief, review and validate the invoice and issue a check request to Finance for payment to the Debris Contractor. This process shall be completed within 45 days per Florida Statutes governing prompt payment.
C. Debris Contractor Operations

The DM or his authorized representative will be in contact with the firm(s) holding pre-event debris contracts and advise them of impending conditions. The pre-event contract is to provide for a qualified Debris Contractor(s) to remove and lawfully dispose of all disaster generated debris, excepting municipal solid waste and industrial or commercial hazardous waste – depending upon FEMA eligibility of such wastes. Debris removal is limited to incorporated City 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. In addition, the City has passed an ordinance related to debris removal from private roads under specific conditions. A copy of the ordinance is at Attachment 7.

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

The Debris Contractor will make multiple scheduled passes of each site, location, or area affected by the disaster. 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.

The Debris Contractor will operate the DMS made available by the City. 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 is also responsible for the lawful disposal of all debris reduction by-products their operations may generate at a DMS.

The OM will assist the DM by monitoring the Debris Contractor’s performance during debris removal operations. The OM will provide Field Inspection Teams consisting of Debris Management Consultant and potentially other agency personnel. The Field Inspection Teams will monitor all Debris Contractor operations.

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

All HHW should be segregated at curbside for collection by the City’s debris hauler. 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 report any accumulation of HHW at the DMS to the OM staff.

The Debris Contractor will restore the DMS 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.
D. Monitoring Staff and Assignments

1. Loading Site, Debris Management Site and Disposal Site Quality Assurance Monitors

Loading Site, DMS and Disposal Site Quality Assurance Monitors (QAs) will be provided by the Debris Management Consultant. The Loading Site QAs will be assigned to each Debris Contractor loading site. The Loading Site QA will initiate the paper load ticket (see Attachment 8), which verifies the debris collected is eligible under the terms of the debris contract. QAs will be stationed at all DMS locations and final disposal sites for the purpose of verifying the quantity of material being hauled, temporarily stored for processing and disposed by the Debris Contractor through the use of debris load tickets.

The Debris Contractor shall construct and maintain an inspection tower at each DMS location and final disposal site. 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.

A Site QA will be located at each inspection station to verify the load and estimate the volume in cubic yards. The Site QA will estimate the cubic yards of debris in each vehicle entering the DMS location or landfill disposal site and record the estimated quantity on pre-numbered debris load tickets. The Debris Contractor will invoice based on the number of cubic yards of material deposited at the DMS or final disposal site as recorded on the debris load tickets.

The Debris Contractor will be paid based on the number of cubic yards of eligible debris hauled per truckload. Payment for hauling debris will only be approved based upon the debris load tickets corresponding to the Debris Contractor’s invoice.

2. Field Supervisors

A Field Supervisor will be assigned to oversee no more than seven (7) QAs in the field of operations. The Field Supervisors will be responsible for reviewing all Debris Contractor debris removal and disposal operations. They will periodically inspect DMS and final disposal site operations.

Debris collection passes shall be reviewed by the Field Supervisors in order to assure area cleanup. Ideally, first pass will be completed for the majority of the areas in the City before second pass is initiated, third pass, etc.

SECTION VI – DEBRIS MANAGEMENT SITES

A. Site Management

The City recognizes the economic benefits of debris volume reduction and will realize this benefit through the use of local debris management sites for processing clean woody debris. The City will designate vegetative DMS locations for the sole purpose of temporarily staging and reducing clean woody debris through either grinding or burning. All mixed debris will be hauled directly to a permitted landfill.
Private contractors will operate the DMSs made available by the City. The contractor will be responsible for all site setup, site operations, security, rodent control, closeout, and remediation costs at each site. The contractor will also be responsible for the lawful disposal of all by-products of debris reduction that may be generated.

The contractor will restore the DMS as close to the original condition as is practical so that it does not impair future land uses. All sites are to be restored to the satisfaction of the City Debris Manager with the intent of maintaining the utility of each site.

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

While residents will be encouraged to segregate household hazardous waste (HHW) at curbside, small amounts of HHW may be mixed in with material deposited at the DMSs. Therefore, the DMS contractor must be prepared to place any HHW in a separate enclosed and lined area for temporary storage, and must report any accumulation of HHW at the DMS site to the Debris Manager.

- **Site Manager:**
  In order to expedite the implementation of DMS operations, the Contractor must provide personnel on-site prior to a projected disaster event to carry out any activities necessary to assure that the DMS will be ready when needed. Actual preparation of the DMS must begin within 24 hours of receipt of the Notice-to Proceed and the sites must be fully operational not more than 72 hours thereafter.

- **Monitoring Staff and Assignments:**
  DMS Monitors will be provided through consultant support and will be located at DMS and final disposition locations as identified by the DM during the recovery process. The DMS Monitor’s primary function is to ensure that debris load quantities are being properly estimated and recorded on pre-printed load tickets.

- **Safety Personnel:**
  The contractor will be responsible for developing a DMS site safety plan and staff to enforce all safety requirements.

B. DMS Establishment and Operations Planning

1. Permits

The City will select DMSs, which are generally free of significant environmental constraints. Additionally, it will coordinate the DMS selection with the Florida Department of Environmental Protection (DEP) on issues concerning air, water and solid and hazardous waste. The City will secure any necessary permits for the operation of the DMSs. The City will handle all contact with DEP or other State and Federal agencies. The Contractor will refer any contact by these agencies to the City Debris Manager.

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

The Contractor shall be responsible for paying any and all costs associated with violations of law or regulation relative to his/her activities. Such costs might include but are not limited to background checks on sub-contractor personnel who are in contractor camp, site cleanup and/or remediation; fines, administrative or civil penalties; third party claims imposed on the City by any regulatory agency or by any third party as a result of noncompliance with Federal, State, or Local environmental laws and regulations by Contractor, his/her sub contractors, or any other persons, corporations or legal entities retained by the Contractor under this contract.

2. DMS Locations

DMSs will be established based on the volume of storm debris and the magnitude of the event. See Attachment 5 for a list of DMS locations that may be utilized.

3. Site Preparation and Baseline Data:

Unless specifically directed otherwise by the City, site setup must commence as soon as possible after the disaster event has subsided, but no later than 24 hours from the time that the Notice-to-Proceed is issued by the City. All DMSs must be fully operational with 72 hours of the Notice-to-Proceed.

The Contractor must 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 inspection tower(s)
- operations trailer
- all other site improvements necessary for the safe, efficient, economical and environmentally acceptable operation of the sites.

The Contractor must construct berms or provide suitable secondary containment around all non-truck mounted fuel storage tanks, hazardous wastes to prevent runoff of these materials into adjacent ditches and surface waters.

The Contractor must collect and test soil and groundwater samples at each DMS in areas designated for storm water retention, vehicle maintenance, fuel dispensing operations and any areas where hazardous substances and petroleum products are or might be generated, stored or used. Sample locations must be coordinated with the City prior to acquisition. Samples must be tested for Total Petroleum Hydrocarbons (TPH) and Resource Conservation and Recovery Act (RCRA) metals. The Contractor must secure independent laboratory analytical tests for the referenced substances tested and provide the results to the City prior to the commencement of operations at the DMS.
NOTE: Recommend that ASTM E-1527 – 05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process be consulted to determine extent of testing required to establish a DMS baseline.

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

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

The contractor must provide signs at each of DMS in accordance with City specifications and contain the following information:

- Contractor's superintendent's name, address and 24-hour telephone number
- Name of the DMS location
- Name, address and telephone number of the City representative to contact in case of an emergency

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

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

When all DMS preparations are completed, the Contractor must notify the City Debris Manager who will inspect the site and approve the site for commencement of DMS operations.

4. Volume Reduction Methods

It is anticipated that the City will mulch all vegetative storm debris. The debris contractors will process the vegetative debris using tub grinders at each DMS. Reduction operations will start as early as practical following the DMS receiving vegetative storm debris.

The contractor will operate each DMS in an effective and efficient manner for such time as the City Debris Manager deems necessary. DMS may operate on a 12-hour, 7-day shift unless otherwise directed by the City to prevent undue impact on nearby residents.

The contractor must operate such equipment as is necessary to efficiently reduce by mechanical means or incineration all materials deposited at the DMS. The Contractor must segregate all debris in accordance with the method of processing and potential for recycling and
its ultimate disposal. The Contractor must separate and contain all hazardous wastes for pick up and disposal by the City's hazardous waste contractor. Combustible garbage shall be separated and contained for pick-up by the City's designated franchise hauler.

The Contractor must staff the DMS with sufficient personnel to ensure the waste stream segregation and processing operation does not reduce the capacity to remove debris from City streets in a timely manner. The operation of each site must conform to these specifications and any permits issued for the DMS. The Contractor is responsible for all site and worker safety issues.

The Debris Tower monitor must make every effort to control the nature of the material allowed into the DMS, with the objective being to have only clean woody debris brought to and deposited in the site. To the extent practicable the Contractor must prevent hazardous materials, C&D materials, and comestible garbage from being brought onto the DMS. The Contractor must segregate hazardous materials and comestible garbage, when discovered, for pick-up and disposal by the City's franchise haulers. All materials brought to the DMS by vehicles under Contractor's control but not accepted at the DMS must be disposed of by the Contractor at an approved landfill, waste to energy plant, or by other legal means of disposal.

The 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 Contractor must mechanically mix the affected mulch to cool it down and avoid creating a fire hazard.

The Contractor must, to the extent practicable, separate hazardous waste and asbestos from all woody and structural debris that is to be further processed, reduced, recycled or burned.

The Contractor must operate the DMS 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 Contractor will be responsible for proper and safe application of rodenticide and insecticide as a precautionary tactic to minimize the potential for infestation. 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 City health and safety personnel.

The Contractor will be considered the owner of all debris brought to a DMS. The Contractor must remove or arrange for the removal and final disposal of all debris brought to the DMS. Options include but are not limited to sending the material to an authorized and properly permitted disposal area, recycling facility or resale entity. The Contractor must maintain records for all materials, including processed debris, residue, and hazardous materials, being transported from the DMS to disposal or recycling facilities.

The Contractor must assume possession of all processed debris and may dispose of such debris in a manner that creates income for the Contractor. Reduction and disposal of the debris is the sole responsibility of the Contractor.

5. DMS Closure

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

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

The Contractor must complete soil and groundwater closure sampling and testing in the areas described in the baseline sampling information. The same tests must be completed as were performed prior to commencing with DMS operations (TPH and RCRA Metals). The analytical results must be provided to the City prior to closure of each DMS. Areas found to be contaminated above the baseline values must be remediated by the Contractor. The Contractor is regarded as the generator of such contaminants for the purposes of Federal environmental statutes.

C. **City Landfill.** The City does not operate a Class 1 landfill; however, there is a solid waste transfer station for residential bulk and yard waste material located at 12600 Wiles Road.

The Debris Contractor shall be provided a list of potential C&D facilities and disposal sites to contract with directly.

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 and Electronic Waste**

Residents may drop off HHW at the City’s solid waste transfer station on the first Saturday of the month. The City has an existing contract through its franchise solid waste hauler for final disposal. In the event of a disaster, the contracted debris hauler would segregate HHW from other debris streams and stored in a lined area. Final disposal will be at an environmentally lawful facility.

Materials 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.**

2. **Commercial/Industrial Hazardous Waste**

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

There is no Hazardous Materials Response Unit or Team located in the City.

For hazardous 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.

E. **Recycling**

Before hauling mulch to a final disposition location, the debris hauling contractor and the City will evaluate accessibility and feasibility of recycling the debris. It is expected that the debris hauler will provide information regarding a potential mulch recycling program as part of an annual debris hauling and disposal plan.
SECTION VII – CONTRACTED SERVICES

The City 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

The Purchasing Department is located in the City Hall building at 9551 West Sample Road, Coral Springs, FL. The City has a contract with a debris removal and disposal firm and another with a debris management (monitoring) firm. Both contracts may be viewed at the Purchasing Department.

SECTION VIII – PRIVATE PROPERTY DEMOLITION AND DEBRIS REMOVAL

A. Private Property Debris Disposal and Demolition

Disaster generated debris private property must be moved to the curb or right-of-way of a City maintained street by the property owner before it can be disposed of at public expense. Private contractors hired by the City cannot enter and remove debris from private property without a signed right-of-entry/hold harmless agreement executed by the City. Debris on commercial private property will 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 local government by the local government invoking its policing powers as required to abate an immediate threat to life, public health or safety. When the local government has acted according to its own laws, ordinances or codes to remedy the immediate threat to life, public health or safety on private property, then the work may become eligible for reimbursement under the FEMA Public Assistance Program.

Debris removal and disposal from “Gated Communities” is the responsibility of the Homeowner’s Association. The City may push debris from the roadway to open up a single lane within the Gated Community to provide access for fire and medical response units. However, under certain conditions the City may authorize debris removal from private roads and gated communities. A copy of the ordinance addressing this activity is at Attachment 7

NOTE: The City or its private contractors will not remove debris from private property, gated communities, or private roads unless directed by the City.

Dangerous structures are the responsibility of the owner to demolish and remove at the owner’s expense in order to protect the health and safety 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 City Debris Manager properly identifies structures listed for demolition.

The City Debris Manager will coordinate with the State Public Assistance Officer, the FEMA Public Assistance 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 City will comply with its normal condemnation procedures 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 City 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 City performs the work, executing liens against the property allows the City to recoup the costs of demolition and debris removal from the property owner.

The City’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 health and safety 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 City will implement standard procedures that apply to its condemnation process. During the planning process, the City legal counsel should 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 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 City 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 health and safety. 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 City to pursue financial compensation if the property owner’s homeowner insurance policy covers demolition and debris removal.

• **Archeological review** outlines the archeological low-impact stipulations for demolition and debris removal activities and highlights the implications for the City 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 City’s legal protection, but also for the public’s health and safety during the demolition and debris removal operations. Photos should also be taken to document that the scope of work was completed.

• **Letter or notice of condemnation** is a document signed by the building official that outlines the specific threat to public safety and health.

• **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 City 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 public health and safety of the neighboring residents. This notice is conspicuously posted on the structure to be demolished.
2. Demolition Permitting

Applicants may have a demolition permitting process in place. The planning staff may want to use those demolition permit requirements during a disaster-related demolition project. 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**, 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 health and safety. Once it has been established that the building is to be demolished and the required processes are underway, a notification to demolish is posted on the building.

3. Inspections

The City 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 City should require that a hazardous materials report be submitted to the State environmental protection agency. 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 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 Public Assistance 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 Public Assistance grant funding for demolition work. The Public Assistance 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;

The Building 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 44 CFR §206.204 for emergency work. Additional information on the general eligibility of demolition of private structures may be found in FEMA DAP9523.4, Demolition of Private Structures.

**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 health and safety 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 Public Assistance 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 Public Assistance Program.

**E. Documentation for Demolition**

In order to receive reimbursement of eligible demolition costs, applicants should provide 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;
- 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 review.
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 Public Assistance staff on a case-by-case basis to demonstrate eligible work performed and compliance with applicable Federal, State, and local laws and regulations.

F. Commercial Property

The removal of debris from commercial property and the demolition of commercial structures are generally not eligible for Public Assistance 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.

SECTION IX – DEBRIS REMOVAL FROM FLOOD CONTROL WORKS

There is a potential for disaster-generated debris to be deposited in canals designed to prevent damage by irregular and unusual rises of water throughout the City. Per FEMA Recovery Division Fact Sheet, RP9580.202, the Natural Resources Conservation Service (NRCS) is the authority for debris removal from flood control works under the Emergency Watershed Protection Program (EWP). However, experience has indicated the funding of the EWP is limited and may not be sufficient if the disaster such as a hurricane impacts a large geographical area. In such a circumstance, FEMA may provide some assistance related to reimbursement of funds required for removal of debris from flood control works.

If removal of debris from the City’s canals is required, the City will contact the NRCS to determine if funding is available. If so, the City will enter into a project agreement with NRCS prior to any work being performed. If funding is not available the City will ask NRCS to provide a written statement to that fact. The City will then seek FEMA’s approval to conduct the work and request reimbursement for the work via Public Assistance funds.

It is important to note that the canals around the city are managed by multiple drainage districts and by themselves qualify as an applicant to receive reimbursement via Public Assistance funds for debris removal. The City will not authorize debris removal from flood control works that fall under other jurisdictional and/or legal authority. A list of drainage districts is at Attachment 9.

SECTION X – PUBLIC INFORMATION PLAN

A. Public Information Officer

A PIO should be assigned to the DMOC to develop a proactive debris information plan. Any dissemination of information should be filtered through the EOC PIO. Emphasis should be placed on actions that the public can perform to expedite the cleanup process.
B. Pre-scripted Information

Flyers, newspapers, radio, City Web site, Social media, and TV public service announcements will be used to encourage public cooperation for such activities as:

- Separating burnable and non-burnable debris;
- Segregating Household Hazardous Waste (HHW);
- Placing disaster debris at the curbside;
- Keeping debris piles away from fire hydrants and valves;
- Reporting locations of illegal dump sites or incidents of illegal dumping;
- Segregating recyclable materials; and disseminate debris route clearing and pickup schedules through the local news media, and Web postings.

SECTION XI – WEAPONS OF MASS DESTRUCTION/ TERRORISM EVENT

The first local emergency responder to arrive at the scene of an emergency situation will implement the Incident Command System (ICS) and serve as the Incident Commander until relieved by a more senior or more qualified individual. The Incident Commander 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 incident command post may be established, and direction and control for the response transitioned to the Incident Commander.

The handling and disposal of debris generated from a Weapons of Mass Destruction (WMD) or terrorism event will exceed City capabilities. Therefore, the Incident Commander 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 DMS location by the Incident Commander 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 specialty 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 City Debris Manager will continue to be the single point of contact for all debris removal and disposal issues within the City following a WMD event. However, coordination will be exercised by the City Debris Manager through the Incident Commander located at the designated Incident Command Post.

In this type of event, the City Debris Manager 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.
Attachment 1

Debris Management Standard Operating Procedures
Coral Springs Debris Management Standard Operating Procedure

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 staff key personnel should be placed on-call for different mobilization schedules and regimens for different categories of storms. Contact information should be compiled and distributed to the local government. Arrangements for communication during and immediately after the hurricane landfall are essential. At a minimum, debris management staff shall have individual cell phones and at least one satellite phone will be available for use. Debris assessment teams should be strategically deployed throughout the City 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 EOC HQ. QA monitors shall be contacted for availability and placed on stand-by for deployment. The Debris Contractor shall prepare to survey the sites and establish a baseline, prior to use.

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

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 City should agree on forms and all equipment and prices prior to the event.

Disaster Debris Management Staff 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. Staff is tasked with environmental oversight of the DMS including permitting issues, daily operations, and final restoration. Daily responsibilities are listed below:

Prepare daily status report that addresses:
  o Number of cubic yards collected the previous day
- By contractor
- By DMS
- 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
  - DMS issues

- 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 payment recommendation to City for payment

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

When paper debris load tickets are used debris monitoring 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 DMS, 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 DMS 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.

- 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.

- 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 - Debris Management 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.

- 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.

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 DMS. QA Supervisors and monitors begin the day at their assigned staging area or DMS.

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 reassignment.

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.

- 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. A copy of a debris load ticket is provided as an attachment.

- 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 debris management staff for data entry.

**Streets Cleared Forms**

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

**DMS Operations**

- The Debris Management Plan provides information on the process to establish locations of DM. The Debris Contractor may also provide additional DMS locations.

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

- 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.

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

- OM and/or debris management staff may operate from a mobile operations command tent, trailer or van.

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

- QA oversight at the DMS 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.
  - Periodic quality control check of debris load tickets.
  - 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 the side of the vehicle (i.e., that
portion that will carry debris), and tandem 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 DMS or other designated location.

- A Truck Certification Team (Cert Team) 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.

**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:
  - Hazardous Stumps - paid as a Hazardous Stump.
  - Stump Debris – paid as storm debris on a unit price 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).
  - Record information on the FEMA Hazardous 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 or 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).
- Record information on the FEMA Hazardous Stump 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.

Leaners and Hangers Operations
- Debris Contractor shall not handle or collect leaners and hangers until authorized by the DM.
- A designated QA monitor will accompany each Debris Contractor leaners and hangers crew. FEMA may also accompany the Debris Contractor crew.
- The 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).
  - 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).
  - Record information on 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.

The DVB QA will:

- GPS locate the derelict vehicles or boats.
- Record information on the debris load ticket.
- Issue load ticket to Debris Contractor 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 City has a HHW collection contract with its franchise hauler. Collections are on the first Saturday of each month and the debris is taken to the City’s waste transfer station. In the even that a disaster causes a wide-spread HHW debris stream the frequency of collection may increase. If residents have failed to do so, contracted disaster debris removal contractors should segregate HHW from the debris streams at the curbside; i.e., no HHW should be hauled to a DMS. The contracted debris removal firm shall create a separate, lined storage location at the DMS for HHW inadvertently delivered to the DMS and notify the DM as soon as practical that HHW has been discovered at the DMS.

Quality Assurance / Health and Safety Training

- The Contractor will train staff and 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 Operation Supervisor to resolve immediately.
Attachment 2

Debris Training and Safety Program Outline
Coral Springs 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 automated system)
- Equipment Usage and Requirements
- Maps and Debris Zones
- Salient FEMA and FHWA 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

The City should conduct debris management training workshops yearly. Training workshop agenda samples are shown below.

The Public Assistance 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 previous disasters.

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.

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Attachment 3

Standard Operating Procedures
For
Citizen Drop-Off Sites
Standard Operating Procedures

For

Citizen Drop-Off Sites

Prepared by:
SOP for Citizen Drop-Off Sites

1. Synopsis

2. Site Hazards

3. Site Planning & Organization

4. Training & Personal Protective Equipment

5. Site Characterization

6. Site Control

7. Site Emergencies
1. Synopsis

This manual is a guidance document for managers responsible for management, health and safety at residential drop-off sites. It assumes a basic understanding of site layout concepts and experience in occupational safety and health.

This manual is intended for local municipal officials and their contractors. It may be used:

- As a planning tool by municipal government or private individuals.
- As a management tool by upper level or field managers.
- As an educational tool to provide an overview of aspects of safety and health protection at residential drop-off sites.
- As a reference document for site personnel who need to review important aspects of health and safety.

This document provides general guidance and should be used as a preliminary basis for developing specific requirements of potential residential drop-off sites. The appropriateness of the information presented should always be evaluated in light of site-specific conditions. Other sources and experienced individuals should be consulted as necessary for the detail needed to design and implement a specific residential drop-off site.

Although this manual cites federal regulations, it is not a definitive legal document and should not be taken as such. Individuals who are responsible for the health and safety of workers at residential drop-off sites should obtain and comply with the most recent federal, state, and local regulations relevant to these sites, and are urged to consult with OSHA, EPA, and other appropriate federal, state, and local agencies.
2. Site Hazards

Contents

Introduction
Vehicular Traffic
Fire and Smoke
Biological Hazards
Safety Hazards
Electrical Hazards
Heat Stress
Sun Burn
Noise

Introduction

Residential debris drop-off sites pose a multitude of health and safety concerns, any one of which could result in serious injury or death. These hazards are a function of the nature of the site as well as a consequence of the work being performed. They include:

- Vehicular Traffic
- Injury
- Fire and Smoke
- Biological Hazards
- Safety Hazards
- Electrical Hazards
- Heat Stress
- Sun Burn
- Noise

Several factors distinguish a debris drop-off site environment from other debris management reduction and disposal sites. One important factor is the uncontrolled condition of the site. Even high volume, high traffic, commercial debris sites do not endanger human health or safety if they are properly managed. However, improper control of residential drop-off site can result in a severe injury or death to site workers and to the general public.

The combination of all these conditions results in a working environment that is characterized by numerous and varied hazards which:

- May pose an immediate danger to life or health.
- May not be immediately obvious or identifiable.
- May vary according to the location on site.
- May change as site activities progress.

General categories of hazards that may be present at a site are described below. In approaching a site, it is prudent to assume that all these hazards are present until site characterization has shown otherwise. A site health and safety program, as described later in this manual, must provide comprehensive protection against all potential hazards and specific protection against individual known hazards.
Vehicular Traffic
Preventing the likelihood of vehicular injury is a primary concern at residential drop-off sites. Most sites contain a variety of opportunities for injury or death from vehicles during entry/egress, backing-up and mechanical unloading.

Fire and Smoke
The high volumes of combustible vegetative material being collected and stored at a residential drop-off site introduces a significant possibility of fire from carelessness, vandalism or decomposition heat.

Biological Hazards
Biologic hazards that may be present at debris drop-off sites include poisonous plants, insects and animals. Additional concerns with biological hazards may be presented as a component of the materials that are being brought into the site by the residents.

Safety Hazards
Residential debris drop-off sites may contain numerous safety hazards such as:

- Holes or ditches.
- Precariously positioned objects, such as logs and stumps.
- Sharp objects, such as nails, metal shards, and broken glass.
- Slippery surfaces.
- Steep grades.
- Uneven terrain.
- Unstable piles.

Some safety hazards are a function of the work itself. For example, heavy equipment creates an additional hazard for monitors in the vicinity of the operating equipment. Site personnel should constantly look out for potential safety hazards, and should immediately inform their supervisor of any new hazards so that corrective action can be taken.

Electrical Hazards
Overhead power lines, downed electrical wires, and buried cables all pose a danger of shock or electrocution if monitors contact or sever them during site operations. In addition, lightning is a hazard during outdoor operations, particularly for monitors in raised structures or in proximity to mechanical equipment. To eliminate this hazard, weather conditions should be monitored and work should be suspended during electrical storms.

Heat Stress
Heat stress is a major hazard, especially for monitors spending extended periods of time out of doors. In its early stages, heat stress can cause rashes, cramps, discomfort and drowsiness, resulting in impaired functional ability that threatens the safety of both the individual and the residential public. Continued heat stress can eventually lead to heat stroke and even death.

Sun Burn
Sun Burn is another significant hazard to site monitors who may typically spend 12 hours a day in the open during site operations. Supervisors should ensure that effective UV Protection sun block is kept onsite in reasonable quantities; and encourage the regular application by onsite staff.
Noise
Work around vehicular and mechanical equipment often creates excessive noise. The effects of noise can include:

- Workers being startled, annoyed, or distracted.
- Physical damage to the ear, pain, and temporary and/or permanent hearing loss.
- Communication interference that may increase potential hazards due to the inability to warn of danger and the proper safety precautions to be taken.
3. Site Planning and Organization

Contents

Introduction
Organizational Structure
Work Plan
Site Safety Plan
Safety Management and Inspections

Introduction
Adequate planning is the first and the most critical element of residential drop-off site activities. By anticipating and taking steps to prevent potential hazards to health and safety, work at a drop-off site can proceed with minimum risk to workers and the residential public.

Three aspects of planning are discussed below: developing an overall organizational structure for drop-off site operations; establishing a comprehensive Work Plan that considers each specific phase of site operations; and developing and implementing a Site Safety and Health Plan. The organizational structure should identify the personnel needed for the overall operation, establish the chain-of-command, and specify the overall responsibilities of site worker. The Work Plan should establish the objectives of site operations and the logistics and resources required to achieve the goals. The Site Safety Plan should determine the health and safety concerns for each facet of the operation and define the requirements and procedures for site worker and residential public protection.

Planning should be viewed as an ongoing process: the cleanup activities and Site Safety Plan must be continuously adapted to new site conditions and new information. Thus, this chapter is intended to serve as a starting point for planning the response activities at residential drop-off sites.

Organizational Structure
An organizational structure that supports the overall objectives of the project should be developed in the first stage of planning. This structure should:

- Identify a leader who has the authority to direct all activities.
- Identify the other personnel needed for the project, and assign their general functions and responsibilities.
- Show lines of authority, responsibility, and communication.
- Identify the interface with the residential community.

As the project progresses, it may be necessary to modify some organizational aspects of the project, such as personnel responsibilities and authorities, so that individual tasks can be performed as efficiently and safely as possible. Any changes to the overall organizational structure must be recorded in the appropriate parts of the Work or Site Safety Plans that are developed for individual phases or tasks and must be communicated to all parties involved.

Regardless of the size of the effort, all residential drop-off site teams should include a Site Safety and Health Officer (hereinafter referred to as Site Safety Officer in accordance with common usage) responsible for implementing health and safety requirements. Once an organizational system has been developed, all individuals responsible for establishing and enforcing health and safety requirements should be identified and their respective authorities clearly explained to all members of the site team.

One of the most critical elements in worker safety is the attitude of all levels of project management. A strong and visible commitment to worker safety must be present from the beginning of a project. This
initial attitude sets the tone for the entire operation. The Site Safety Officer and the Project Team Leader must have the clear support of senior-level management for establishing, implementing, and enforcing safety programs from the outset of the project. The importance of management's attitude toward safety throughout the project cannot be overemphasized; site personnel are more likely to cooperate with safety programs if they sense a genuine concern on the part of management.

Several organizational factors are indicators of successful worker safety programs. These factors include:

- Strong management commitment to safety, as defined by various actions reflecting management's support and involvement in safety activities.
- Close contact and interaction among workers, supervisors, and management enabling open communication on safety as well as other job-related matters.
- A high level of housekeeping, orderly workplace conditions, and effective environmental quality control.
- Well-developed selection, job placement, and advancement procedures plus other employee support services.
- Training practices emphasizing early indoctrination and follow-up instruction in job safety procedures.
- Added features or variations in conventional safety practices that enhance the effectiveness of those practices.
- Effective disciplinary plan to encourage employees to adhere to safety practices.

Overall, the most effective safety programs are successful in dealing with "people" variables. Open communication among workers, supervisors, and management concerning worksite safety is essential.

The effective management at residential drop-off sites requires a commitment to the health and safety of the general public as well as to the onsite personnel. Prevention and containment of any potentially dangerous effects into the surrounding community should be addressed in the planning stages of a project. Not only must the public be protected, they must also be made aware of the health and safety program and have confidence in it. To accomplish these goals, the Project Team Leader, or Public Information Officer under the supervision of the Project Team Leader, should establish community liaison well before any recovery action is begun, and should be in continuous contact with community leaders.

**Work Plan**

To ensure a safe recovery, a Work Plan describing anticipated activities must be developed before beginning onsite response actions. The Work Plan should be periodically reexamined and updated as new information about site conditions is obtained.

The following steps should be taken in formulating a comprehensive Work Plan:

- Review available information, including:
  - Site records
  - Waste inventories
  - Generator and transporter manifests
  - Previous sampling and monitoring data
  - Site photos
  - State and local environmental and health agency records
- Define work objectives.
- Determine methods for accomplishing the objectives, e.g., sampling plan, inventory, disposal techniques.
- Determine personnel requirements.
- Determine the need for additional training of personnel. Evaluate their current knowledge/skill level against the tasks they will perform and situations they may encounter.
- Determine equipment requirements. Evaluate the need for special equipment or services, such as heavy equipment and operators.
Preparation of the Work Plan requires a multidisciplinary approach, and may therefore require input from all levels of onsite and offsite management.

**Site Safety Plan**

A Site Safety Plan, which establishes policies and procedures to protect workers and the public from the potential hazards posed by a residential drop-off site, must be developed before site activities proceed. The Site Safety Plan must provide measures to minimize accidents and injuries that may occur during normal daily activities or during adverse conditions such as hot or cold weather. This section describes the planning process for health and safety during normal site operations, i.e., non-emergency situations.

Development of a written Site Safety Plan helps ensure that all safety aspects of site operations are thoroughly examined prior to commencing field work. The Site Safety Plan should be modified as needed for every stage of site activity.

Because planning requires information, planning and site characterization should be coordinated. An initial Site Safety Plan should be developed so that the preliminary site assessment can proceed in a safe manner. The information from this assessment can then be used to refine the Site Safety Plan so that further site activities can proceed safely. Plans should be revised whenever new information about site hazards is obtained.

Development of a Site Safety Plan should involve both the offsite and onsite management and be reviewed by occupational and industrial health and safety experts and other appropriate personnel.

At a minimum, the plan should:

- Name key personnel and alternates responsible for site safety.
- Describe the risks associated with each operation conducted.
- Confirm that personnel are adequately trained to perform their job responsibilities and to handle the specific hazardous situations they may encounter.
- Describe the protective clothing and equipment to be worn by personnel during various site operations.
- Describe any site-specific medical surveillance requirements.
- Describe the program for periodic air monitoring, personnel monitoring, and environmental sampling, if needed.
- Describe the actions to be taken to mitigate existing hazards (e.g., wetland encroachment) to make the work environment less hazardous.
- Define site control measures and include a site map.
- Establish possible decontamination procedures for personnel and equipment.
- Set forth the site’s Standard Operating Procedures (SOPs). SOPs are those activities that can be standardized (such as Traffic Patterns), and where a checklist can be used. These procedures should be:
  - Prepared in advance.
  - Based on the best available information, operational principles, and technical guidance.
  - Field-tested by qualified health and safety professionals, and revised as appropriate.
  - Appropriate to the types of risk at that site. Formulated to be easy to understand and practice.
  - Provided in writing to all site personnel, who should be briefed on their use. Included in training programs for site personnel.
- Set forth a Contingency Plan for safe and effective response to emergencies.
Safety Management and Inspections
To ensure that the Site Safety Plan is being followed, the Site Safety Officer should conduct a safety meeting prior to initiating any changing site activity and before and after each work day. The purpose of these safety meetings is to:

- Describe the assigned tasks and their potential hazards.
- Coordinate activities.
- Identify methods and precautions to prevent injuries.
- Plan for emergencies.
- Describe any changes in the Site Safety Plan.
- Get worker feedback on conditions affecting safety and health.
- Get worker feedback on how well the Site Safety Plan is working.

The Site Safety Officer should also conduct frequent inspections of site conditions, facilities, equipment, and activities to determine whether the Site Safety Plan is adequate and being followed.

At a residential drop-off site, risks to workers can change quickly and dramatically when there are changes in:

- Work and other site activities.
- Traffic pattern ingress and egress.
- Volumes of materials entering the site.
- Weather conditions.

In order to make safety inspections effective, the following guidelines should be observed:

- Develop a checklist for each site, listing the items that should be inspected.
- Review the results of these inspections with supervisors and workers.
- Re-inspect any identified problems to ensure that they have been corrected.
- Document all inspections and subsequent follow-up actions. Retain these records until site activities are completed and as long as required by regulatory agencies.

The minimum frequency at which inspections should occur varies with the characteristics of the site and the equipment used on site. Factors that need to be considered are:

- The severity of risk on site.
- Regulatory requirements.
- Operation and maintenance requirements.
- The expected effective lifetime of clothing, equipment, vehicles, and other items.
- Recommendations based on professional judgment, laboratory test results, and field experience.
4. Training & Personal Protective Equipment

Contents

Introduction
Training Program
Personal Protective Equipment (PPE)

Introduction
Anyone who enters a residential drop-off site must recognize and understand the potential hazards to health and safety associated with the cleanup of that site. Personnel actively involved in operations must be thoroughly familiar with programs and procedures contained in the Site Safety Plan and must be trained to work safely in these areas. Visitors to a site must receive adequate training on hazard recognition and on the site’s Standard Operating Procedures to enable them to conduct their visit safely.

The objectives of training programs for employees involved in residential drop-off site activities are:

- To make site workers aware of the potential hazards they may encounter.
- To provide the knowledge and skills necessary to perform the work with minimal risk to site worker health and safety.
- To make site workers aware of the purpose and limitations of safety equipment.
- To ensure that site workers can safely avoid or escape from emergencies.

The level of training provided should be consistent with the worker’s job function and responsibilities. The training program should involve instruction in a wide range of health and safety topics. Hands-on instruction should consist of drills in the field that simulate site activities and conditions. Any training program for working around heavy equipment should also incorporate onsite experience under the direct supervision of trained, experienced personnel.

All training information should be presented in clear, concise language. Particularly important information, such as the Standard Operating Procedures, should be provided in writing.

Training Program
Employees should not engage in field activities until they have been trained to a level commensurate with their job function and responsibilities and with the degree of anticipated hazards.

General site workers, such as equipment operators, general laborers, technicians, and other supervised personnel, should attend training sessions that apply to their individual jobs and responsibilities, as well as training sessions that provide an overview of the site hazards and the means of controlling those hazards. Their training should include instruction in the following subject areas, depending on their individual jobs:

- Site Safety Plan.
- Safe work practices.
- Nature of anticipated hazards.
- Handling emergencies.
- Rules and regulations for vehicle.
- Safe use of field equipment.
- Employee rights and responsibilities.
- Use, care, and limitations of personal protective clothing and equipment.
In addition, general site workers should engage in actual field activities under the direct supervision of a trained, experienced supervisor.

Some site workers who may be exposed to unique hazards or who may occasionally supervise others should receive additional training in the following subject areas:

- Site surveillance.
- Site Safety Plan development.
- Safe use of specialized equipment.
- Topics specific to identified site activities.

Onsite management and supervisors, such as Project Team Leaders, who are responsible for directing others, should receive the same training as the general site workers for whom they are responsible, as well as additional training to enhance their ability to provide guidance and make informed decisions. This additional training should include:

- Management of residential drop-off site operations.
- Management of the site work zones
- How to communicate with the press and local community.

Health and safety staff with specific responsibilities for health and safety guidance on site should be familiar with the training provided to general site workers and their supervisors, and should receive advanced training in health and safety issues, policies, and techniques.

Visitors to the site (including elected and appointed officials, reporters, senior-level management, and other interested parties) must also receive a briefing on safety.

**Personal Protective Equipment (PPE)**

It is the responsibility of onsite management to make every attempt to provide a hazard free environment to site staff. Any staff member encountering hazardous conditions must be protected against any potential hazards. The purpose of PPE is to shield or isolate individuals from physical, biological, or other hazards that may be present on the site.

PPE is designed to protect:

- Eyes
- Face
- Head
- Ears
- Feet
- Hands
- Arms
- Torso

PPE includes a variety of devices and garments to protect site workers from injuries such as

- Safety glasses
- Hard hats
- Safety shoes
- Gloves
- High visibility garments
- Earplugs
- Sun Block
PPE Responsibilities:

Site Manager

Responsible for:
- Issuing and administering the PPE program and making sure that it satisfies all applicable federal, state and local requirements.
- Identifying hazards to the eyes, head, hands and feet and prescribing appropriate PPE.
- Ensuring that employees receive training on PPE use.

Supervisors

Responsible for:
- Knowing the hazards in their areas that require PPE.
- Assuring that safe operations are maintained within their departments to prevent injuries to the eyes, face, head, hands and feet.
- Enforcing PPE use in the areas in which it’s required.

Staff

Responsible for:
- Using PPE when required.
- Properly store and maintain PPE.
- Employees must provide and wear shirts, long pants and construction grade safety toed boots with a defined heel at a minimum. Loose clothing or jewelry (especially rings) should not be worn.

Eye and Face Protection

All site staff working in designated work should be required to wear ANSI approved safety glasses to help prevent eye and face injuries, including those resulting from flying particles, liquid chemicals, acids or caustic liquids, or light radiation.

Employees, whose vision requires the use of corrective lenses in spectacles, shall be protected by goggles or spectacles of one of the following types:

- Spectacles whose protective lenses provide optical correction;
- Goggles/Oversized safety glasses designed to fit over corrective spectacles without disturbing the adjustment of the spectacles;
- Goggles that incorporate corrective lenses mounted behind the protective lenses.

All managers and supervisors are responsible for ensuring employees under their charge are in compliance with policy.

All employees required to eye protection must routinely inspect and properly care for their safety eyewear.

Head Protection

All site staff working in designated work should be required to wear ANSI Type I approved hard hats to help prevent head injuries, including those resulting from falling objects, bumping the head against a fixed object, or electrical shock.
All managers and supervisors are responsible for ensuring employees under their charge are in compliance with policy.

All employees are responsible for wearing project provided hard hats to comply with policy.

All hard hat components should be inspected daily for signs of dents, cracks, penetration and any damage due to impact, rough treatment, or wear. In addition to everyday wear and tear.

**Foot Protection**

All site staff working in designated work should be required to wear ANSI approved safety shoes to help prevent foot injuries, ankle injuries, slips, and falls.

All employees who are required to wear safety shoe/boots are responsible for purchasing and wearing safety shoes/boots to comply with policy.

Supervisors are responsible for informing new employees who are assigned to the designated work areas of the safety shoe policy and the procedures for obtaining them. The new site staff member is responsible for reporting to his/her first day of work wearing approved safety shoes.

**Hand Protection**

All site staff working in areas that may contain hand hazards should be required to wear appropriate gloves. Only gloves that are designated for the particular task will be worn. To prevent employees from getting caught on equipment.

Employees performing the following work should be required to wear physical protective gloves such as leather or heavy canvas:

- General site activities & debris handling, working with tools, etc.

Employees performing the following work should be required to wear cut resistant gloves such as paw guard or gloves made with high tech fibers to resist cuts:

- Cutting with a knife or handling sharp objects.

All managers and supervisors are responsible for ensuring employees under their charge are in compliance with policy.

All employees who perform job tasks requiring hand protection are responsible for wearing company provided gloves to comply with policy.

**Safety Vests**

All site staff working on any site that requires working within a roadways right-of-way are required to wear orange safety vests.

Orange vests must be worn due to the fact that the reflective strips can be seen even under adverse conditions.

All managers and supervisors are responsible for ensuring employees under their charge are in compliance with policy.

All staff members required to wear safety vests must routinely inspect and properly care for their vests.
Cleaning and Maintenance

It is important that all PPE be kept clean and properly maintained by the site staff to whom it is assigned. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. PPE is to be inspected, cleaned, and maintained by staff at regular intervals as part of their normal job duties so that the PPE provides the requisite protection. Supervisors are responsible for ensuring compliance with cleaning responsibilities by the employees. If a piece of PPE is in need of repair or replacement it is the responsibility of the staff member to bring it to the immediate attention of the Site Safety Officer. It is against work rules to use PPE that is in disrepair or not able to perform its intended function.
5. Site Characterization

Contents

Introduction
Onsite Survey
Information Documentation
Hazard Assessment
Environmental Assessment

Introduction
Site characterization provides the information needed to identify site hazards and to select vehicular transit methods. The more accurate, detailed, and comprehensive the information available about a site, the more traffic patterns can be tailored to the actual traffic volume anticipated at the site.

The person with primary responsibility for site characterization and assessment is the Project Team Leader. In addition, outside experts, such as environmental engineers may be needed to accurately and fully interpret all the available information on site conditions.

Site characterization generally proceeds in three phases:

- Prior to site entry, conduct offsite characterization: gather information about potential sites, anticipated volumes and local traffic patterns and possible bottlenecks.
- Next, conduct onsite surveys of potential sites.
- Once the site has been determined safe for commencement of activities, perform ongoing monitoring to provide a continuous source of information about site conditions.

It is important to recognize that site characterization is a continuous process. At each phase of site characterization, information should be obtained and evaluated to define any hazards that the site may pose and any environmental concerns that may exist. This assessment can then be used to develop a safety and health plan for the next phase of work. In addition to the formal information gathering that takes place during the phases of site characterization described here, all site personnel should be constantly alert for new information about site conditions.

The sections below detail the three phases of site characterization and provide a general guide which should be adapted to meet the specific situation. Within each phase of information gathering, the most appropriate sequence of steps should be determined, particularly if there are time or budget considerations that limit the scope of the work. Wherever possible, all information sources should be pursued.

Onsite Survey
The purpose of an onsite survey is to verify and supplement information from the offsite characterization. Priorities should be established for environmental assessment and site activities after careful evaluation of probable conditions. Because team members may be entering a largely unknown environment, caution and conservative actions are appropriate. The composition of the entry team depends on the site characteristics but should always consist of at least two persons. Upon entering the site, entry personnel should:

- Note any safety hazards. Consider:
  - Conditions of site structures.
  - Obstacles to entry and exit.
- Terrain homogeneity.
- Terrain stability.

- Note land features.
- Note the presence of any potential naturally occurring skin irritants or dermatitis-inducing agents, for example:
  - Poison ivy.
  - Poison oak.
  - Poison sumac.

- Collect samples:
  - Drainage ditches.
  - Soil (surface and subsurface).
  - Streams and ponds.
  - Ground water

**Information Documentation**

Proper documentation and document control are important for ensuring accurate communication; ensuring the quality of the data collected and providing the rationale for safety decisions. Documentation can be accomplished by recording information pertinent to field activities, sample analysis, and site conditions in one of several ways, including:

- Logbooks.
- Field data records.
- Graphs.
- Photographs.
- Assessment Documents.

These documents should be controlled to ensure that they are all accounted for when the project is completed. The task of document control should be assigned to one individual on the project team and should include the following responsibilities:

- Listing each document in a document inventory.
- Collecting all documents at the end of each work day.
- Filing all documents in a central file at the completion of the project.

Field personnel should record all site activities and observations in a field logbook with the date clearly recorded on each page. Entries should be made during or just after completing a task to ensure thoroughness and accuracy. Digital photographs can be an accurate, objective addition to a field worker's written observations. For each photograph taken, the following information should be recorded in the field logbook:

- Date, time, and name of the drop-off site.
- Name of the staff member taking the photo.
- Location of the subject within the site.
- General compass direction of the orientation of the photograph.
- General description of the subject.
6. Site Control

Contents
Introduction
Site Map
Site Preparation
Site Work Zones
Site Security
Traffic Control
Safe Work Practices
Resident Identification Requirements

Introduction
The purpose of site control is to minimize potential contamination of workers, protect the public from the site's hazards, and prevent vandalism. Site control is especially important in emergency situations. This chapter describes the basic components of a program to control the activities and movements of people and equipment at a hazardous waste site.

Several site control procedures can be implemented to reduce worker and public exposure to chemical, physical, biologic, and safety hazards:

- Compile a site map.
- Prepare the site for subsequent activities.
- Establish work zones.
- Establish site security measures.
- Enforce safe work practices.

The degree of site control necessary depends on site characteristics, site size, and the surrounding community. The site control program should be established in the planning stages of a project and modified based on new information and site assessments. The appropriate sequence for implementing these measures should be determined on a site specific basis.

Site Map
A site map showing topographic features, drainage, and the location of buildings is helpful in:

- Planning activities.
- Assigning personnel.
- Identifying ingress and egress routes.
- Identifying areas of the site that require possible use of personal protective equipment.
- Supplementing the daily safety and health briefings of the field teams.

The map should be updated throughout the course of site operations to reflect:

- Accidents.
- Changes in site activities.
- Emergencies.
- Hazards not previously identified.
Site Preparation
Time and effort must be spent in preparing a site for the cleanup activity to ensure that response operations go smoothly and that worker safety is protected.

- Construct roadways to provide ease of access and a sound roadbed for heavy equipment and vehicles.
- Arrange traffic flow patterns to ensure safe and efficient operations.
- Eliminate physical hazards from the work area as much as possible, including:
  - Ignition sources in flammable woody areas.
  - Exposed or ungrounded electrical wiring and low overhead wiring that may entangle equipment.
  - Sharp or protruding edges, such as glass, nails, and torn metal, which can puncture clothing and equipment and inflict wounds.
  - Debris, holes, loose steps or flooring, protruding objects, slippery surfaces, or unsecured railings, which can cause falls, slips, and trips.
  - Debris and weeds that obstruct visibility.
- Install skid-resistant strips and other anti-skid devices on slippery surfaces.
- Provide adequate illumination for work activities.
- Install all wiring and electrical equipment in accordance with the National Electric Code.

Site Security
Site security is necessary to:

- Prevent the exposure of unauthorized, unprotected people to site hazards.
- Avoid the increased hazards from vandals or persons seeking to abandon other wastes on the site.
- Prevent theft.
- Avoid interference with safe working procedures.

To maintain site security during working hours:

- Maintain security at Access Control Points.
- Establish an identification system to identify authorized persons and limitations to their approved activities.
- Assign responsibility for enforcing authority for entry and exit requirements.
- Erect a fence or other physical barrier around the site.
- If the site is not fenced, post signs around the perimeter.

Traffic Control
Below is an example site traffic control pattern. As can be seen in the layout it is recommended that the site have one or more flagmen at both the entrance and exit (ingress and egress) to the site for the safety of the residents entering the site.
It is also highly recommended that there be one or more flagmen stationed at the unloading area to assist residents with backing of their vehicles/trailers, and with exiting the unloading area.

**Safe Work Practices**

To maintain a strong safety awareness and enforce safe procedures at a site, a list of standing orders should be developed which state the practices that must always be followed on site. Sample standing orders are given to ensure that everyone who enters the site is aware of these orders and that a high degree of familiarity with their content is maintained, the list should be:

- Distributed to everyone who enters the site.
- Posted conspicuously at the Command Post.
- Posted conspicuously at the entrance Access Control Points.
- Reviewed by the Field Team Leader or Project Team Leader with the field crew at the beginning of each workday. In this way, personnel are immediately informed of any new standing orders resulting from a change in site conditions or work activities.

Daily safety meetings should be held for all employees.

Working with tools and heavy equipment is a major hazard at sites. Injuries can result from equipment hitting or running over personnel, impacts from flying objects and burns from hot objects. The following precautions will help preclude injuries due to such hazards:

- Train personnel in proper operating procedures.
- Install adequate onsite roads, signs and lights.
- Install appropriate equipment guards and engineering controls on tools and equipment. These include rollover protective structures, seat belts, emergency shutoff in case of rollover, and backup warning lights and signals.
- Use equipment and tools that are intrinsically safe and not capable of sparking, and pneumatically and hydraulically driven equipment.
- Where portable electric tools and appliances can be used, use three-wire grounded extension cords to prevent electric shocks.
• In hydraulic power tools, use fire-resistant fluid that is capable of retaining its operating characteristics at the most extreme temperatures.
• At the start of each workday, inspect brakes, hydraulic lines, light signals, fire extinguishers, fluid levels, steering, and splash protection.
• Keep all non-essential people out of the work area.
• Prohibit loose-fitting clothing or loose long hair around moving machinery.
• Keep cabs free of all non-essential items and secure all loose items.
• Do not exceed the rated load capacity of a vehicle.
• Instruct equipment operators to report to their supervisor(s) any abnormalities such as equipment failure, oozing liquids, unusual odors, etc.
• When an equipment operator must negotiate in tight quarters, provide a second person to ensure adequate clearance.
• Have a signalman direct backing as necessary.
• Refuel in safe areas. Do not fuel engines while vehicle is running.
• Prohibit ignition sources near a fuel area.
• Lower all blades and buckets to the ground and set parking brakes before shutting off the vehicle.
• Implement an ongoing maintenance program for all tools and equipment. Inspect all tools and moving equipment regularly to ensure that parts are secured and intact with no evidence of cracks or areas of weakness, that the equipment turns smoothly with no evidence of wobble, and that it is operating according to manufacturer's specifications. Promptly repair or replace any defective items. Keep maintenance and repair logs.
• Store tools in clean, secure areas so that they will not be damaged, lost, or stolen.

**Resident Identification Requirements**

Access to the site shall be provided to all residential members of the community. Proof of residency should be verified utilizing a recognized means of identification, such as a utility bill or driver’s license. Utilization of the residential drop-off site should be restricted to non-commercial, residential members of the community.
7. Site Emergencies

Contents

Introduction
Planning
Personnel
Training
Emergency Recognition and Prevention
Site Mapping
Safe Distances
Medical Treatment/First Aid
Notification
Follow-Up
Documentation

Introduction

The nature of work at residential drop-off sites makes injuries a continual possibility, no matter how infrequently they may actually occur. Injuries happen quickly and unexpectedly and may require immediate response. At a residential drop-off site, an emergency may be as limited as a worker experiencing heat stress, or as vast as a debris pile fire which may threaten the local community.

Causes of Emergencies at Hazardous Waste Sites:

Worker-Related
- Minor accidents (slips, trips, falls).
- Exposure to unauthorized compounds brought to site during drop-off process.
- Medical problems (host stress, heat stroke, aggravation of pre-existing conditions).
- Physical injury (injuries from hot or flying objects, loose clothing entangling in machinery, serious falls, vehicle accidents).
- Electrical (burns, shock, electrocution).

Waste-Related
- Fire.
- Injury from thorns.
- Pile collapse
- Discovery of dangerous materials.

Site emergencies are characterized by their potential for complexity, Hazards may potentiate one another. Personnel attempting to assist an injured worker may themselves become the victim. This variability means that advance planning, including anticipation of different emergency scenarios and thorough preparation for contingencies, is essential to protect worker and community health and safety.

Planning

When an emergency occurs, decisive action is required. Rapidly made choices may have far-reaching, long-term consequences. Delays of minutes can create life-threatening situations. Personnel must be ready to immediately respond; equipment must be on hand and in good working order. In order to handle emergencies effectively, planning is essential. For this purpose, a Contingency Plan should be developed.
A Contingency Plan is a written document that sets forth policies and procedures for responding to site emergencies. It should incorporate the following:

- **Personnel:**
  - Roles.
  - Lines of authority.
  - Training.
- **Site:**
  - Mapping.
  - Security and control.
  - Refuges.
- **Medical/first aid.**
- **Equipment.**
- **Emergency procedures.**
- **Documentation.**
- **Reporting.**

Overall, a Contingency Plan should:

- Be designed as a discrete section of the Site Safety Plan.
- Be compatible and integrated with the disaster, fire, and emergency plans of local, state, and federal agencies.
- Be reviewed periodically in response to new or changing site conditions or information.

**Personnel**

The Contingency Plan should identify all individuals and teams who will participate in emergency response and define their roles. All personnel, whether directly involved in emergency response or not, should know their own responsibilities in an emergency. They must also know the names of those in authority, and the extent of that authority.

**Leader**

- In an emergency situation, one person must be able to assume total control and decision making on site. This leader must:
  - Be identified in the emergency response plan. This person may be, for example, the Project Team Leader, Site Safety Officer, or Site Team Leader.
  - Be backed up by a specified alternate(s).
  - Have the authority to resolve all disputes about health and safety requirements and precautions.
  - Be authorized to seek and purchase supplies as necessary.
  - Have control over activities of everyone entering the site, for example, municipal representatives, fire departments, and police.
  - Have the clear support of management.

**Teams**

Although individuals (e.g., the Site Safety Officer) may perform certain tasks in emergencies, in most cases teams provide greater efficiency and safety. Teams composed of onsite personnel may be created for specific emergency purposes, such as CPR and first aid.

**Training**

Since immediate, informed response is essential in an emergency, all site personnel must have some level of emergency training. Any training program should:
• Relate directly to site-specific, anticipated situations.
• Be brief and repeated often.
• Be realistic and practical.
• Provide an opportunity for special skills to be practiced.
• Ensure that training records are maintained in a training logbook.

Everyone entering the site must be made aware of the hazards and of hazardous actions which are forbidden or should be avoided (e.g., smoking). They must also know what to do in case of an emergency.

Personnel without defined emergency response roles should receive a level of training that includes at a minimum:

• Hazard recognition.
• Standard Operating Procedures.
• Signaling an emergency: how to summon help, what information to give and who to give it to.
• Egress routes and refuges.
• The person or station to report to when an alarm sounds.

Onsite emergency personnel, who have emergency roles in addition to their ordinary duties, must have a thorough understanding of emergency response. Training should be directly related to their specific roles and should include subjects such as:

• Emergency chain-of-command.
• Communication methods and signals.
• How to call for help.
• Emergency equipment and its use.
• Handling of injured personnel.
• Offsite support and how to use it.

These personnel should obtain certification in first aid and CPR, and practice treatment techniques regularly, with an emphasis on:

• Recognizing and treating physical injuries.
• Recognizing and treating heat and cold stress.

**Emergency Recognition and Prevention**

On a day-to-day basis, individual personnel should be constantly alert for indicators of potentially hazardous situations and for signs and symptoms in themselves and others that warn of hazardous conditions. Rapid recognition of dangerous situations can avert an emergency. Before daily work begins, regular meetings should be held. After daily work assignments, a debriefing session should be held to review work accomplished and problems observed.

**Site Mapping**

Detailed information about the site is essential for advance planning. For this purpose, a site map is a valuable tool. It serves as a graphic record of the locations and types of hazards, a reference source, and a method of documentation. This map can be a duplicate of the one developed for the Site Safety Plan, but it should focus on potential areas where emergencies may develop. The map can be used to mark changes in personnel deployment, hazard areas, and equipment locations. The map should highlight:

• Hazard areas.
• Site terrain: topography, buildings, barriers.
• Ingress and egress routes.
• Site accessibility.
• Work crew locations.
• Changes (e.g., work activities, vandalism, accidents).

The map can be used for planning and training. It can serve as a basis for developing potential emergency scenarios and alternative response strategies.

When an emergency occurs, the problem areas should be pinpointed on the map. Pertinent information such as weather and wind conditions, temperature, and forecast should be added. The map can then be used to design the emergency plan, e.g., to define zones and identify emergency first aid stations. When using the map for such purposes, the accuracy of the data obtained and the potential for over or underestimating a hazard should be considered.

Even if the emergency develops so fast that the map cannot be used for on-the-spot planning, prior familiarity with it will aid in making informed decisions.

Notification
Response operations usually follow a sequence that starts with the notification of trouble and continues through the preparation of equipment and personnel for the next emergency.

Alert personnel to the emergency:

• Notify personnel.
• Stop work activities if necessary.
• Lower background noise in order to speed communication.
• Begin emergency procedures.

Notify onsite emergency response personnel about the emergency and include essential information:

• What happened.
• Where it happened.
• Whom it happened to.
• When it happened.
• How it happened.
• The extent of damage.
• What aid is needed.

Follow-Up
Before normal site activities are resumed, personnel must be fully prepared and equipped to handle another emergency.

• Notify appropriate government agencies as required. For example, OSHA must be notified if there have been any fatalities or five or more hospitalizations.
• Restock all equipment and supplies. Replace or repair damaged equipment. Clean and refuel equipment for future use.
• Review and revise all aspects of the Contingency Plan according to new site conditions and lessons learned from the emergency response. When reviewing the information, consider typical questions such as:
  - Cause: What caused the emergency?
  - Prevention: Was it preventable? If so, how?
- Procedures: Were inadequate or incorrect orders given or actions taken? Were these the result of bad judgment, wrong or insufficient information, or poor procedures? Can procedures or training be improved?
- Site profile: How does the incident affect the site profile? How are other site activities affected?
- Community: How is community safety affected?
- Liability: Who is liable for damage payments?

**Documentation**

The Project Team Leader should initiate the investigation and documentation of the incident. This is important in all cases, but especially so when the incident has resulted in personal injury, onsite property damage, or damage to the surrounding environment. Documentation may be used to help avert recurrences, for assessment of liability by insurance companies, and for review by government agencies. Methods of documenting can include a written transcript made during the emergency or a bound field book with notes. The document must be:

- **Accurate**: All information must be recorded objectively.
- **Authentic**: A chain-of-custody procedure should be used. Each person making an entry must date and sign the document. Keep the number of documenters to a minimum (to avoid confusion and because they may have to give testimony at hearings or in court). Nothing should be erased. If details change or revisions are needed, the person making the notation should mark a horizontal line through the old material and initial the change.
- **Complete**: At a minimum, the following should be included:
  - Chronological history of the incident.
  - Facts about the incident and when they became available.
  - Title and names of personnel; composition of teams.
  - Actions: decisions made and by whom; orders given: to whom, by whom, and when; and actions taken: who did what, when, where, and how.
  - History of all injuries or illnesses during or as a result of the emergency.
Generic Site Safety Plan

Provided here is a generic plan based on a plan developed by the U.S. Coast Guard for responding to hazardous chemical releases. This generic plan can be adapted for designing a Site Safety Plan for residential drop-off site operations. It is not all inclusive and should only be used as a guide, not a standard.

A. SITE DESCRIPTION

Date _______________ Location _______________________________________________________

Hazards __________________________________________________________________________

Area affected _______________________________________________________________________

___________________________________________________________________________________

Topography ________________________________________________________________________

Additional information __________________________________________________________________

___________________________________________________________________________________

___________________________________________________________________________________

B. ONSITE ORGANIZATION AND COORDINATION - The following personnel are designated to carry out the stated job functions on site. (Note: One person may carry out more than one job function.)

PROJECT TEAM LEADER _____________________________________________________________

SITE SAFETY OFFICER _______________________________________________________________

PUBLIC INFORMATION OFFICER _______________________________________________________

RECORDKEEPER _____________________________________________________________________

SITE TEAM LEADERS ________________________________________________________________

____________________________________________________________________________________

SITE TEAM MEMBERS _______________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

All personnel arriving or departing the site should log in and out with the Record-keeper. All activities on site must be cleared through the Project Team Leader.

U.S. Coast Guard. Policy Guidance for Response to Hazardous Chemical Releases, USCG Pollution Response COMDTINSTM6465.30 (modified)
C. SITE CONTROL

(Name of individual) ______ has been designated to coordinate access control and security on site.

The site Command Post and staging area have been established at ________________________________

____________________________________________________________________________________

Ingress and egress points have been established at __________________________________________

____________________________________________________________________________________

The following hazards are expected on site: ________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

D. SITE SAFETY AND HEALTH PLAN

1. ______ (name) ______ is the designated Site Safety Officer and is directly responsible to the Project Team Leader for safety recommendations on site.

2. Emergency Medical Care

_________ (names of qualified personnel) ______ are the qualified First Aid/CPR on site.

(medical facility name) ______ at ______ (address) ______, located ___ minutes from this location, the potential hazards, and the substances involved. A map of alternative routes to this facility is available at (normally Command Post).

Local ambulance service is available from _________________ at phone______________.

Their response time is ______ minutes.

First-aid equipment is available on site at the following locations:

First-aid kit/AED unit _________________________

List of emergency phone numbers:

<table>
<thead>
<tr>
<th>Agency/Facility</th>
<th>Phone</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td></td>
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</tr>
</tbody>
</table>
Attachment 4

USACE Debris Estimation Model
# Coral Springs, FL USACE Debris Estimation Model

## Storm Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>74-95 MPH Winds</td>
</tr>
<tr>
<td>2</td>
<td>96-110 MPH Winds</td>
</tr>
<tr>
<td>3</td>
<td>111-130 MPH Winds</td>
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<tr>
<td>4</td>
<td>131-155 MPH Winds</td>
</tr>
<tr>
<td>5</td>
<td>155+ MPH Winds</td>
</tr>
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</table>

## Estimated Debris Quantities

<table>
<thead>
<tr>
<th>Coral Springs, FL</th>
<th>Population (2010 Census)</th>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
<th>Category 4</th>
<th>Category 5</th>
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<tr>
<td></td>
<td>121,604</td>
<td>H 40,535</td>
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<table>
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<th>Factor</th>
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<th>Category 1</th>
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<th>Category 3</th>
<th>Category 4</th>
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<tbody>
<tr>
<td>Category Factor</td>
<td>C 2</td>
<td>8</td>
<td>26</td>
<td>50</td>
<td>80</td>
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</tr>
<tr>
<td>Vegetation</td>
<td>V 1.5</td>
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<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
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</tr>
<tr>
<td>Commercial Density</td>
<td>B 1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Precipitation</td>
<td>S 1.3</td>
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<td>1.3</td>
<td>1.3</td>
<td></td>
</tr>
</tbody>
</table>

\[
Q = H(C)(V)(B)(S) \\
\]

### Cubic Yards

- Category 1: 158,085.20
- Category 2: 632,340.80
- Category 3: 2,046,522.40
- Category 4: 3,935,620.00
- Category 5: 6,296,992.00

## Debris Reduction Site Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Acre (ac)</td>
<td>4840 Sq. Yards</td>
</tr>
<tr>
<td>10 Feet stack height</td>
<td>3.3 Sq. Yards</td>
</tr>
<tr>
<td>Total volume per acre</td>
<td>16,147</td>
</tr>
</tbody>
</table>

\[
Q = H(C)(V)(B)(S) \\
\]

### Cubic Yards

- Category 1: 157,424.80
- Category 2: 629,699.20
- Category 3: 2,046,522.40
- Category 4: 3,935,620.00
- Category 5: 6,296,992.00

### Acres Required

- Category 1: 9.77 Acres
- Category 2: 39.07 Acres
- Category 3: 126.98 Acres
- Category 4: 244.19 Acres
- Category 5: 390.70 Acres

Note: H = Number of Households assuming 3 persons per household, C = Category Factor; i.e., CAT 3 Storm produces 26 CY per household, V = Vegetation Factor (in this case heavy), B = Commercial Density Factor (in this case light) and S = Precipitation Factor (in this case, heavy)
Attachment 5

Debris Management Site Locations
Army Corp of Engineers acreage estimate to temporarily store hurricane debris by storm category
Properties needed for use as Debris Management Sites (assumes unprocessed pile ten feet high)
An asterisk (*) indicates pre-approval by FDEP.

<table>
<thead>
<tr>
<th>Storm Category</th>
<th>Estimated cubic yards generated</th>
<th>Acres Required</th>
<th>Sites Available</th>
<th>Acreage per site</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>158,085.20</td>
<td>9.77</td>
<td>SPORTSPLEX*</td>
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</tr>
<tr>
<td></td>
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<td>CLEVELAND CLINIC PROPERTY*</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
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<tr>
<td>2</td>
<td>632,340.80</td>
<td>39.07</td>
<td>SPORTSPLEX*</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CLEVELAND CLINIC PROPERTY*</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ST. ANDREW CHURCH PROPERTY*</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BC NORTH TRANSFER STATION*</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BC SW REGIONAL LANDFILL*</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>62</td>
</tr>
<tr>
<td>3</td>
<td>2,046,522.40</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td></td>
<td></td>
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<td>BC SOUTH BROWARD RESOURCE RECOVERY ASH MONOFILL*</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BROWARD COUNTY CENTRAL RESIDENTIAL DROP-OFF CENTER*</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td>PLANTATION HERITAGE PARK*</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C.B. SMITH PARK*</td>
<td>8.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BRIAN PICCOLO PARK*</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CS JAYCEE PARK</td>
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<table>
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<th>Estimated cubic yards generated</th>
<th>Acres Required</th>
<th>Sites Available</th>
<th>Acreage per site</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>3,935,620</td>
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<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CLEVELAND CLINIC PROPERTY*</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>ST. ANDREW PROPERTY*</td>
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<td>BC SW REGIONAL LANDFILL*</td>
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</tr>
<tr>
<td>Site Name</td>
<td>Distance (miles)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>------------------</td>
<td></td>
<td></td>
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<tr>
<td>RESIDENTIAL DROP-OFF CENTER*</td>
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<td>PLANTATION HERITAGE PARK*</td>
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<td></td>
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</tr>
<tr>
<td>C.B. SMITH PARK*</td>
<td>8.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS JAYCEE PARK</td>
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<td>BETTI STRADLING PARK</td>
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<table>
<thead>
<tr>
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<th>Distance (miles)</th>
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<tbody>
<tr>
<td>SPORTSPLEX*</td>
<td>7</td>
</tr>
<tr>
<td>CLEVELAND CLINIC PROPERTY*</td>
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</tr>
<tr>
<td>ST ANDREW PROPERTY*</td>
<td>10</td>
</tr>
<tr>
<td>BC NORTH TRANSFER STATION*</td>
<td>10</td>
</tr>
<tr>
<td>BC SW REGIONAL LANDFILL*</td>
<td>30</td>
</tr>
<tr>
<td>BC SOUTH BROWARD RESOURCE RECOVERY ASH MONOFILL*</td>
<td>18</td>
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<tr>
<td>BROWARD COUNTY CENTRAL RESIDENTIAL DROP-OFF CENTER*</td>
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<tr>
<td>C.B. SMITH PARK*</td>
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<tr>
<td>BRIAN PICCOLO PARK*</td>
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<td>CS JAYCEE PARK</td>
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<td>FERN GLEN PARK</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>304.83</strong></td>
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Attachment 6

Critical Roadways
Attachment 7

Coral Springs Ordinance 2012-101
ORDINANCE NO. 2012-101

AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF CORAL SPRINGS, FLORIDA AMENDING SECTION 8-37, OF THE CODE OF ORDINANCES OF THE CITY OF CORAL SPRINGS, FLORIDA, ENTITLED "NATURAL DISASTER DEBRIS REMOVAL FROM PRIVATE COMMUNITIES" TO CLARIFY STANDARDS FOR THE REMOVAL OF DEBRIS FROM PRIVATE COMMUNITIES FOLLOWING A DISASTER; REQUIRING PRIVATE COMMUNITIES WITH ENTRANCE GATES TO OPEN GATES WHEN A HURRICANE WARNING IS ISSUED; PROVIDING FOR CODIFICATION; PROVIDING FOR SEVERABILITY AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Coral Springs (City) is a political subdivision located within the State of Florida and often subject to major or catastrophic storm events and natural disasters potentially including those of human origin; and

WHEREAS, such events and disasters may on occasion cause the City or specific geographical areas within the City to experience widespread damage and destruction; and

WHEREAS, if the damage is significant and widespread, there will be a substantial benefit to the City's recovery plan to remove debris in order to restore emergency services, utilities and protect life and property; and

WHEREAS, it may be difficult if not impossible for private property communities of the City to clear property quickly and effectively; and

WHEREAS, it is the City's duty, under certain terms and conditions, to clear and remove debris which will cause significant and immediate harm to the health, safety and welfare of the residents of the City; and

WHEREAS, in the case of an emergency, emergency personnel may need immediate access to a private community;

NOW THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF CORAL SPRINGS, FLORIDA:

SECTION 1. Section 8-37 of the City of Coral Springs, Florida Code is hereby amended to read as follows:
Sec. 8-37 Debris removal from private communities.

(a) Intent and purpose. The primary mission of the city will be to protect lives and property, restore governmental services and clear public streets. Depending on the magnitude of the disaster and after accomplishment of the primary mission, resources may be available to the city that may not be available to private communities. The intent and purpose of this part is to establish a process by which the city may evaluate and, if necessary, remove debris from private communities in the event of an immediate threat to life, public health and safety after a significant disaster. While the city recognizes that, as a general proposition, the removal of debris from private communities is the responsibility of the private community, there are occasions when, because of the magnitude of the disaster and the threat posed to life, health, and safety, there may be a compelling need to remove debris from private communities as described in this part.

(b) Definitions. As used in this part, the following terms shall have the following meanings, unless the context clearly otherwise requires:

(1) "Access properties" means access to the properties depicted on the map entitled "City of Coral Springs Roadway Classification Map", as it may be amended from time to time, maintained by and in the custody of the city public works department, and incorporated herein as if fully set forth verbatim. Access shall be provided if: (1) the city is undertaking to clear and push debris and (2) it is reasonably possible with respect to the equipment used to provide access under the circumstances. The City of Coral Springs Roadway Classification Map represents the best efforts of the city to set forth a complete listing; however, due to the nature of the roadway system and the historical problems relating to documentation and memorialization of roadways and rights-of-way, the listing may not be all inclusive.

(2) "Debris" shall include, but is not limited to, displaced, broken, or discarded building and construction materials, garbage, vegetative matter and spoiled or ruined household goods or materials.

(3) "Private community" includes all private streets, roads, and roadways contained therein that are not owned or controlled by a governmental entity.

(c) Private communities. The city shall remove debris from private communities when such debris is determined to pose an immediate threat to the health, safety and welfare of the community. The City of Coral Springs City Manager or his designee shall determine whether there is an immediate threat to the
public health, safety, and welfare sufficient to warrant removal of said debris on private streets in accordance with any one (1) of the following standards:

(1) There is a significant likelihood that rescue vehicles will be significantly hindered from rendering emergency services to residential and commercial property should the debris be allowed to remain in place absent city removal.

(2) The type of debris is such that it may reasonably cause disease, illness, or sickness which could injure or adversely affect the health, safety, or general welfare of those residing and working in the area if it is allowed to remain.

(3) The clearing is necessary to effectuate orderly and expeditious restoration of city-wide utility services including, but not limited to, power, water, sewer, and telephone.

(4) The debris removal is determined by the City of Coral Springs City Manager or his designee be dangerous or hazardous as being required to eliminate immediate threats or significant damage to improved public or private property.

(5) The debris prevents garbage collection thereby creating a public health hazard.

(6) The debris contains contaminants which have a reasonable likelihood of leeching into the soil and/or aquifer of the city.

(7) The debris has a substantial negative impact in preventing or adversely affecting emergency repairs to buildings and/or property.

(8) The debris presents a reasonable danger of being transported by wind and/or water into the surrounding areas of the county and thereby increasing the cost of recovery and removal.

(9) The debris poses a significant likelihood of, if left over time, producing mold which would be injurious to public health.

(10) The presence of the debris significantly adversely impacts the city's recovery efforts.

(11) The debris significantly interferes with drainage or water runoff, so as to be a significant hazard in the event of significant rainfall and
removal of the debris is required to eliminate immediate threats of significant damage to improved public and private property.

(12) The sheer volume of the debris is such that it is impractical and unreasonable to remove in an orderly and efficient manner absent action by the city.

(13) The type, extent and nature of the debris is such that it would cause much greater damage if the debris was not removed immediately.

(14) The clearing of the debris is necessary to ensure the economic recovery of the affected community to the benefit of the community-at-large.

(15) Commercial or other specific areas will be cleared if, in the opinion of the city manager, the clearance will aid the city's recovery operations or aid the health, safety, or welfare of the residents of the city and in the public interest. The City acknowledges that commercial property debris removal is generally ineligible for reimbursement unless determined to be in the public interest and subject to the other private property provisions defined in FEMA's Disaster Assistance Policy for Debris Removal from Private Property, as amended from time to time.

(d) Waiver. With regard to eligibility for federal funding, the Federal Emergency Management Agency (FEMA) may waive the requirement for the city to establish the criteria listed in Code section 8-37(c) as a condition precedent to city action depending on the severity of the situation.

(e) Indemnification and hold harmless. Prior to removal of debris by the city as contemplated herein in private communities, or clearance by the city of private communities as provided herein, the private property owner(s) and/or private community associations and/or governance boards shall indemnify and hold harmless, to the maximum extent permitted by law, the federal; state, and local government and all employees, officers and agents of the federal, state, and local government connected with the rendering of such service.

(f) Emergency roadway clearance. Nothing herein shall preclude a first response by the city to clear and push debris from all roadways (both public and private) including access properties necessary for the movement of emergency vehicles including police, fire and ambulance within the first seventy (70) hours after a disaster declaration.

(g) Private property. Nothing herein shall require the city to remove debris from private communities other than the private roadways identified above except where the severity of the situation is of such magnitude or the debris is so
widespread that it is determined by the city manager to be a significant
immediate threat to the health, safety and welfare of the city and in the
overriding public interest of the city to remove debris from such areas.

(h) In the event of a hurricane warning, all private communities with entrance gates
are hereby required to have the gates open and remain open, until otherwise
determined by the Chief of Police or his designee, to allow for access in the case
of an emergency. This in no way obligates the city to remove any debris except
pursuant to the provisions of this section.

SECTION 2. CODIFICATION. It is the intention of the City Commission of the City of
Coral Springs that the provisions of this Ordinance shall become and be made a part of the City
of Coral Springs Code, and that the word "ordinance" may be changed to "section", "article", or
other appropriate word or phrase and the sections of this Ordinance may be renumbered or
relettered to accomplish such intention; providing, however, that Sections 2, 3, and 4 shall not be
codified.

SECTION 3. SEVERABILITY. If any provision of this Ordinance or the application
thereof to any person or circumstance is held invalid, it is the intent of the Board that the
invalidity shall not affect other provisions or applications of this Ordinance which can be given
effect without the invalid provision of application, and to this end the provisions of this
Ordinance are declared severable.

(the balance of this page intentionally left blank)
SECTION 4. Effective Date. This Ordinance shall become effective upon the approval of the City Commission.

PUBLISHED the 21 day of March 2012.

PASSED FIRST READING the 3 day of April 2012.

PASSED SECOND READING the 17 day of April 2012.

CITY OF CORAL SPRINGS FLORIDA

ROY GOLD, MAYOR

ATTEST:

JOSEPHINE CHAVEZ, CRM, CITY CLERK

Unanimous ✓

Motion/2nd

Mayor Gold Yes No

Vice Mayor Powers

Commissioner Boccard

Commissioner Bruck

Commissioner Vignola
Attachment 8

Debris Load Tickets
ATTACHMENT 8: Debris Load Tickets

Debris Load Tickets

Traditionally, load tickets have been carbon paper tickets with multiple copies generated for one load of debris. FEMA 325, Debris Management Guide stipulates that “More advanced tools have been developed and used in the field to reduce human error and expedite funding.” Debris load tickets are necessary for potential reimbursement from FEMA to the local government. Regardless of the type of recording system (paper or electronic) utilized the following are the minimum load ticket data elements required for FEMA reimbursement.

<table>
<thead>
<tr>
<th>Load Ticket Information</th>
<th>Monitor Ticket Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preprinted ticket number</td>
<td>NOT APPLICABLE</td>
</tr>
<tr>
<td>Contract number</td>
<td>Contracts may be identified by a number or name</td>
</tr>
<tr>
<td>Prime contractor's name</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>Truck number</td>
<td>X</td>
</tr>
<tr>
<td>Truck driver's name</td>
<td>X</td>
</tr>
<tr>
<td>Vegetation</td>
<td>X</td>
</tr>
<tr>
<td>Construction &amp; Demolition</td>
<td>X</td>
</tr>
<tr>
<td>White Goods</td>
<td>X</td>
</tr>
<tr>
<td>Household Hazardous Waste</td>
<td>X</td>
</tr>
<tr>
<td>Other (required to be described applicable)</td>
<td>X</td>
</tr>
<tr>
<td>Load Location</td>
<td>GPS or address preferred</td>
</tr>
<tr>
<td>Loading date/time (departure from collection location)</td>
<td>X</td>
</tr>
<tr>
<td>Loading Site Monitor name/signature</td>
<td>X</td>
</tr>
<tr>
<td>Truck capacity in cubic yards or tons</td>
<td>X</td>
</tr>
<tr>
<td>Load Size, either cubic yards (percent of actual) or</td>
<td>X</td>
</tr>
<tr>
<td>Unloading location</td>
<td>X</td>
</tr>
<tr>
<td>Unloading date/time (arrival at disposal site)</td>
<td>X</td>
</tr>
<tr>
<td>Unloading site monitor name/signature</td>
<td>X</td>
</tr>
</tbody>
</table>

It is critical that the debris load ticket is legibly written and that all the information fields are completed. The Loading Site QA Monitor is responsible for completing the contractor name, truck driver name, the certified cubic yards, the pick-up location and type of road (City, federal, or municipal), the type of debris, the departure time and date, and monitor signature. The Loading Site QA Monitor keeps a copy and gives the driver all other copies. The driver takes the load to the DMS and gives the remaining copies to the DMS QA Monitor. The QA Monitor estimates the cubic yardage of the load, completes the ticket and retains a copy, then gives the driver a copy. The debris contractor typically has its own staff at the tower who collects the remaining copies; otherwise tickets will be retained by the Disposal Site QA Monitor for
collection by the Debris Contractor.

Tickets should be reviewed by the Disposal Site QA Monitor for quality assurance purposes and if an issue arises, the Disposal Site QA Monitor will note the Loading Site QA Monitor’s name and provide the information to the QA Supervisor (although this isn’t always possible due to the large numbers of trucks entering the DMS). A second quality assurance phase is conducted during data entry at the end of the day (or overnight) and Disposal Site QA Monitor staff can provide the Operations Supervisor / QA Supervisors with details concerning any missing information. Timely feedback to field staff prevents future problems.

Because both day and night shifts may be operating, the debris tickets need to reflect AM and PM or utilize a 24 hour clock method to note time. The debris tickets can include a simple check box for AM / PM or monitors need to understand how to express the 24 hour clock.
Attachment 9

Drainage Districts