

2006

Pinellas County

Disaster Debris Management Plan

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Pinellas County Disaster Debris Management Plan

SECTION I OVERVIEW

A. Purpose

Pinellas County will adhere to the Disaster Debris Management Plan to respond to a natural or man-made debris generating event. This plan is designed to identify agencies and activities that are involved in debris operations to ensure a coordinated response which achieves removal, storage, and final disposition of debris deposited along or immediately adjacent to public rights-of-way in the unincorporated areas of the County.

B. Scope

This Standard Operating Guidelines (SOG) provides organizational structure, guidance, and standardized guidelines for field operations in the clearance, removal, and disposal of debris caused by a major debris-generating event. This SOG shall apply to all Pinellas County departments and agencies.

This SOG is designed to assist Pinellas County staff in implementing and coordinating public and private sector debris removal and disposal operations to maximize cleanup efficiencies. Expedient debris removal and disposal actions will mitigate the threat to the health, safety, and welfare of Pinellas County residents.

C. Enforcement

Any person deviating from the provisions of this guideline may be required, at the discretion of the County Debris Manager, to submit in writing, within five (5) calendar days, an explanation for such deviation. The written explanation will be forwarded to the County Debris Manager for final resolution if required.

SECTION II DEBRIS MANAGEMENT CENTER ORGANIZATION AND STAFF

A. General

The County Debris Management Plan provides the framework to unify the efforts of Utilities, Public Works, other County agencies and departments, local governments, non-governmental and voluntary organizations, and regional and federal partners involved in emergency debris cleanup operations. When properly implemented, the result will be a coordinated and comprehensive effort to reduce debris-related impacts of an emergency or disaster.

The Director of Utilities will be designated as the County Debris Administrator for the duration of the disaster response and recovery operation. The County Debris Administrator will appoint the Director of Solid Waste Operations to be the County Debris Manager responsible for managing all Debris Clearing Operations (Phase I) and Debris Removal and Disposal Operations (Phase II) from a centralized Debris Management Center (DMC) located at the County Solid Waste Department, 3095 114 Ave N, St Petersburg, FL 33716.

The County Debris Manager is responsible for managing debris clearance (Phase I) from emergency evacuation routes, access routes to critical facilities, and all other streets throughout the unincorporated portions of the County and the permanent removal and disposal (Phase II) of all debris deposited along or immediately adjacent to public rights-of-way throughout the unincorporated portion of the County.

The County Debris Manager will provide overall supervision of a joint debris staff made up of personnel from Utilities, Public Works, and Culture, Education and Leisure (DCE&L). The County Debris Manager will be the single point of contact responsible for routine disaster debris removal and disposal operations and interfacing with representatives from other local, County, state, and federal agencies on a daily basis. The

County Debris Administrator will resolve any debris issues between the County and the state pertaining to FEMA policy and regulations.

B. Debris Management Center Organization

The Pinellas County Debris Management Center (DMC) is organized to provide a central location for the coordination and control of all debris management requirements. To accomplish this mission the DMC will require the following positions:

- Debris Manager
- Deputy Debris Manager
- PW Debris Coordinator
- Utilities Debris Coordinator
- DCE&L Debris Coordinator
- Contractor Representative(s)
- Contract Monitors
- Administrative Staff
- Progress Energy Representative

One of the primary functions of this SOG is to clearly delineate a basic organization and assign specific responsibilities. Many issues will arise that are not specifically mentioned in this SOG during the conduct of debris operations. However, responsibilities are sufficiently defined so that unexpected issues can be assigned and resolved efficiently.

C. County Debris Manager

The Director of Solid Waste Operations will function as the County Debris Manager. The County Debris Manager's responsibilities include the following with respect to all debris management activities:

1. Communicating timely information to the County Debris Administrator and EOC staff regarding the status of the debris clearing, removal, and disposal operations.
2. Assuring that the County is represented at all meetings with other government and private agencies involved with the debris cleanup operation.

3. Coordinating with appropriate local, County, state, federal agencies (FEMA, USACE, etc.), and others as appropriate.
4. Developing and implementing a system to rapidly notify appropriate staff as to where and when to report for duty. This system must be kept up-to-date to ensure key staff can readily be reached. The notification system should be maintained in such a manner that notification can be made at any time.
5. Convene emergency debris coordinating meetings.
6. Appoint a Deputy Debris Manager responsible for daily operation control of the DMC.
7. Ensure that the DMC is provided all needed administrative staff support.
8. Provide media relations in coordination with the County's Communications Director.
9. The County Debris Manager will assign a Liaison Officer to the EOC to coordinate and respond to any requests from the EOC staff with regards to debris management activities. Actions will focus on keeping track of Debris Management Zone assignments and progress of the initial debris clearance (Phase I) from emergency evacuation routes and critical facilities. The Liaison Officer will keep the EOC staff informed of any problems encountered or expected

D. Deputy Debris Manager

The County Debris Manager will be supported by a Deputy Debris Manager and joint debris staff made up of personnel from the DPW, Utilities, and DCE&L staff and representatives from other supporting departments and agencies. The joint staff will constitute the daily operating element of the DMC.

The Deputy Debris Manager is responsible for daily operational control of the DMC staff. The Deputy Debris Manager will receive current information on the severity of the disaster from the Liaison Officer located at the County EOC. All requests for debris removal or disposal from the EOC staff will go through the DMC Liaison Officer to the Deputy Debris Manager. Requests for debris removal from public facilities and roadways will be reviewed and approved by the County Debris Manager before being directed to the appropriate DMC Debris Coordinators (DPW, Utilities, and DCE&L) to implement the request.

The Deputy Debris Manager will be kept apprised of the extent of damage and resulting debris and issue directives to the appropriate Debris Coordinators who in turn will notify their agencies to execute the tasking as defined by their department's Standard Operating Guidelines.

The Deputy Debris Manager will ensure that all Contractor debris removal and disposal operations are properly monitored utilizing personnel assigned to the Debris Contractor Oversight Team (DCOT).

The Deputy Debris Manager will keep the County Debris Manager and DMC staff informed on all ongoing debris management operations through, at a minimum, daily meetings and/or reports.

The Deputy Debris Manager will maintain a daily journal and file on all debris related documents and issues.

E. Debris Management Center

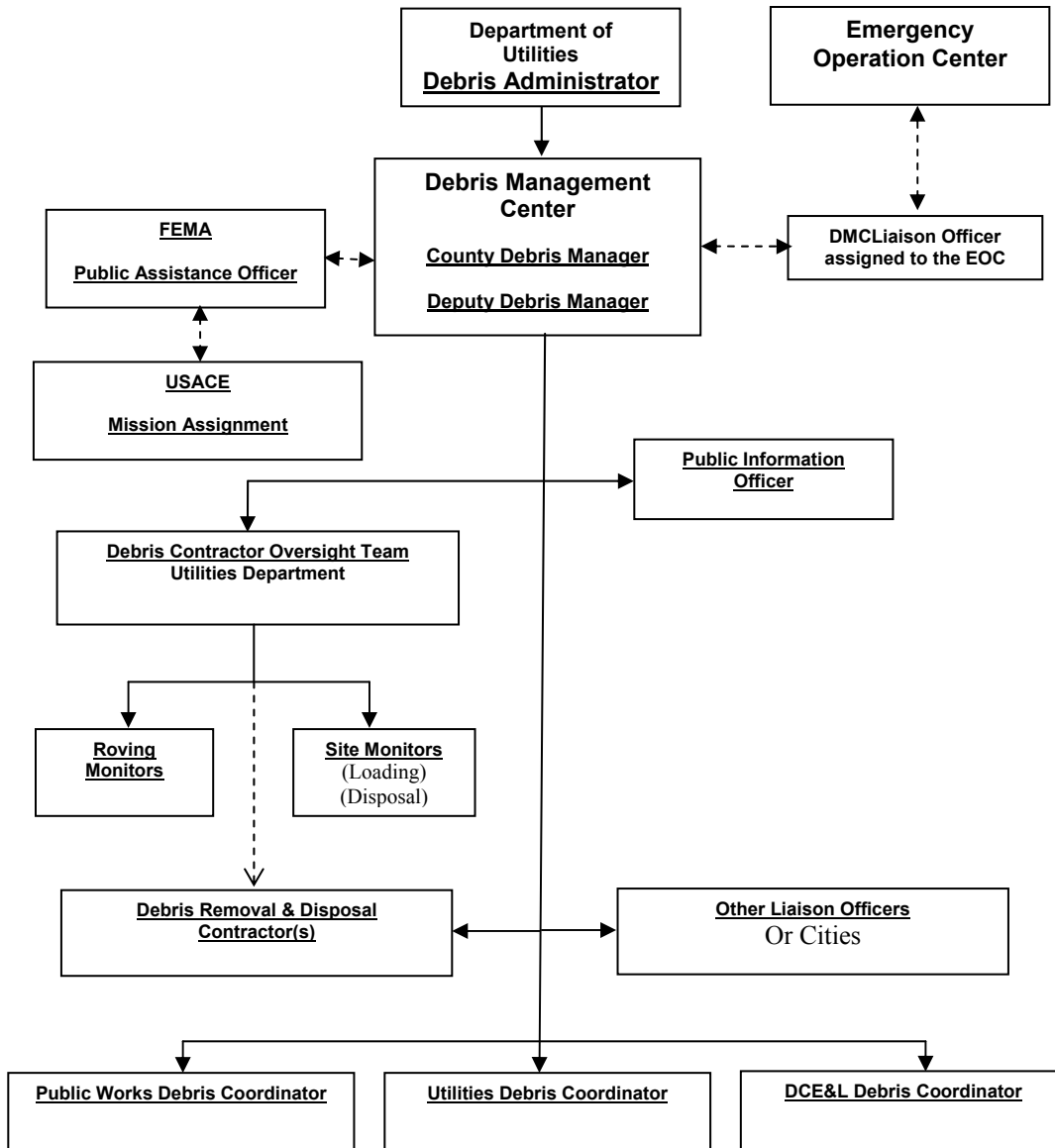
The DMC is organized to provide a central location for the coordination and control of all debris management requirements. The DMC will be located at the County Solid Waste Department, 3095 114 Ave N, St Petersburg, FL 33716.

The DMC organizational diagram shown in Figure 1 on the following page identifies the DMC staff positions required to coordinate the actions necessary to remove and dispose of debris using both County and Contractor assets.

The DMC staff will be under the direction of the Deputy Debris Manager. Staff actions may include the following:

1. Making recommendations for County and Contractor work assignments and priorities based on the County's Debris Management Zones. .
2. Reporting on debris removal and disposal progress, and preparing of status briefings.
3. Providing input to the Director of Communications on debris removal and disposal activities.
4. Coordinating with municipalities on debris issues affecting both the County and municipalities.
5. Coordinating County debris removal and disposal operations with County and state solid waste managers and environmental regulators.
6. Coordinating with the following Federal agencies in the event of a major natural or man-made debris-generating disaster:
 - Federal Emergency Management Agency (FEMA)
 - U.S. Army Corps of Engineers (USACE)
 - Local Office of the Federal Bureau of Investigation (FBI)
 - US Environmental Protection Agency (USEPA)
7. Coordinate with Progress Energy Debris Coordinator and other utility companies (telephone and cable TV) as appropriate to ensure that power lines do not pose a hazard to emergency work crews.
8. Coordinate County debris removal and disposal operations with solid waste managers and environmental regulators from Pinellas County and the state.
9. Coordinate debris removal and disposal of Federal Aid Roads with the State and County.

Figure 1–CountyDebrisManagementCenterOrganization



F. Administrative Support Staff

A minimum of 3-4 personnel with administrative skills are required to handle the routine DMC office procedures. Their primary responsibility will be to:

- Enter debris load ticket information into a Debris Tracking database
- Keep track of citizen complaints against the County's debris removal Contractors.

G. Debris Management Center Liaison Officer

The Debris Management Center Liaison Officer will be located at the County EOC. The liaison officer will be responsible for coordinating with the DMC staff all requests for debris activities initiated by the County EOC staff.

H. Public Information Officer

The Utilities and/or Public Works PIO will serve as the DMC liaison to the Director of Communications. The DMC's PIO will develop a proactive information management plan. Emphasis will be placed on actions that the public can perform to expedite the cleanup process. Flyers, newspapers, radio, 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, County Web postings, and the County's low power AM radio broadcasts.

Primary Point of Contact: Communications Department, 30033 Chestnut Street, Clearwater, FL.
Phone: 727-464-4600.

I. Public Works Debris Coordinator

The Public Works Debris Coordinator's responsibilities will include, but not be limited to, the following:

- Coordinate all Public Works debris assignments.
- Coordinate debris clearance from evacuation routes and access to critical facilities and other roadways within the unincorporated portions of the County (Phase I).
- Provide personnel and equipment to assist in the remove and dispose of debris (Phase II) as directed by the County Debris Manager.
- Inform the County Debris Manager of cleanup progress and any problems encountered or expected.

- Maintain a listing of all available Public Work's equipment and staff identified for possible debris removal and disposal missions.
- Coordinate all Public Work's debris assignments approved by the County Debris Manager.
- Ensure that required logistical support is available, including cell phone, transportation, etc.

J. Culture, Education and Leisure Debris Coordinator

The DCE&L Debris Coordinator's responsibilities will include, but not be limited to, the following:

- Coordinate all DCE&L debris assignments.
- Provide personnel and equipment to clear, remove and dispose of debris as directed by the County Debris Manager.
- Provide specialized equipment and trained operators to assist in the clearing and removal of woody vegetation from along critical rights-of-way.
- Ensure that debris removal from parks and recreational facilities is coordinated and approved by the County Debris Manager.
- Inform the County Debris Manager of cleanup progress and any problems encountered or expected.
- Coordinate with the County Debris Manager for the removal, storage, burning, and disposal of debris at debris collection/management sites at DCE&L parks.
- Maintain a listing of all available DCE&L equipment and staff identified for possible debris removal and disposal missions.
- Coordinate all DCE&L debris assignments approved by the County Debris Manager.
- Ensure that required logistical support is available, including cell phone, transportation, etc.

K Utilities Debris Coordinator

The Utilities Debris Coordinator's responsibilities will include, but not be limited to, the following:

- Track debris clearing personnel assignments and progress of the initial debris clearance (Phase I) from emergency evacuation routes and critical facilities.
- Maintain a listing of all available Utilities equipment and staff identified for possible debris clearing and disposal missions.
- Coordinate all Utilities debris assignments approved by the County Debris Manager.
- Ensure that required logistical support is available, including cell phone, transportation, etc.
- Ensure that the County Debris Manager is kept informed of cleanup progress and any problems encountered or expected.

L. Other Agency Liaison Officers

Progress Energy will be requested to designate a representative from their company to work at the DMC to assist with coordinating debris removal efforts between the power company and the County. The Progress Energy Debris Coordinator's responsibilities will include, but not be limited to, the following:

- Coordinating with the County Debris Manager with regards to debris removal along electrical easements and rights-of-way to ensure that all lines are de-energized.

The following agency should provide, if required, a Liaison Officer to the DMC to provide advice and assistance in coordinating specific debris removal and disposal issues:

- Department of Environmental Management
- USACOE

SECTION III RESPONSE

A. General

Ongoing, advanced planning is an important part of a debris removal plan. Preparedness actions taken far in advance of an actual event allow implementation of the plan to occur more easily during an actual event. The following paragraphs define three operational levels.

Operational Level 1 – Alert. During Operational Level 1, the County Debris and County Debris Administrator should do the following:

- Notify essential personnel of change in Operational Levels.
- Review emergency operations plan.
- Check emergency equipment and supplies.
- Conduct radio/cell phone communications checks.
- Extend work shifts of emergency crews.
- Monitor events.

Operational Level 2 – Heightened Alert. During Operational Level 2, the County Debris Administrator and County Debris Manager should do the following:

- Activate the Debris Management Center.
- Notify the EOC that the Debris Management Center has been activated.
- Notify essential personnel of change in Operational Levels. Ask essential personnel to report to DMC.
- Test communications plan.
- Review Debris Management Plan.

Operational Level 3 – Event Imminent or Occurring. During Operational Level 3, the County Debris Administrator and County Debris Manager should do the following:

- Initiate call-up of stand-by and extra (off-duty) personnel.
- Implement Debris Management Plan

B. Damage Assessment Teams

The Building Department is responsible for coordinating impact assessment for all public structures, equipment, and debris clearance requirements immediately following a large-scale disaster. Impact assessments are performed by Damage Assessment Teams (DAT) and used to prioritize impacted areas and resource needs. The teams will be composed of Building Department and Community Development Department personnel.

DAT personnel also need to identify debris impacts on critical roads and make initial estimates of debris quantities as part of their duties. Based on information provided by the DAT, the County Debris Manager will set priorities and will issue urgent assignments to clear debris from at least one lane on all evacuation routes and identified primary and secondary roads to expedite the movement of emergency service vehicles such as fire, police, and medical responders.

DAT personnel will conduct initial zone-by-zone windshield surveys to identify the type of debris and to estimate amounts of debris on the roadways and on private and public property. The results of the windshield surveys will be provided to the DAT Supervisor and to the DMC Liaison Officer located at the EOC.

The County Debris Manager will establish initial priorities for debris clearance based upon the following ranking as provided by the DAT:

1. Extrication of people.
2. Egress for fire, police, and Emergency Operations Center personnel.
3. Ingress to hospitals, jail, and public shelters.
4. Major traffic routes.
5. Major flood drainage ways.
6. Supply distribution points and mutual aid assembly areas.
7. Government facilities.
8. Public Safety communications towers.
9. American Red Cross shelters.
10. Secondary roads.
11. Access for utility restoration.
12. Neighborhood streets.
13. Private property adversely affecting public welfare.

During the debris clearance and removal process, the DMC staff will be responsible for coordinating with the Progress Energy Debris Coordinator and other utility companies (telephone and cable TV) as appropriate to ensure that power lines do not pose a hazard to emergency work crews.

C. Debris Operational Phases

Phase I – Initial Response

The County Debris Manager will assign crews to each of the identified areas to begin the road clearance process. This operation usually occurs during the first 24 to 72 hours following an event. Note that Contractor clearing operations under a time and material contract must be limited to no more than 70 hour to comply with current FEMA guidance.

Based on the feedback received from field personnel, the County Debris Manager will determine if the County's in-house capabilities are sufficient to remove the quantity of debris generated by the event. If the County Debris Manager determines that the quantity of debris generated exceeds the County's capacities to clear, remove and dispose of it, then the County Debris Manager may elect to activate a pre-positioned contract with a qualified Contractor to assist with debris operations. The County Debris Manager will notify the County Procurement Officer to activate the contract.

If a Presidential disaster declaration is made and the County Debris Manager determines that the quantity of debris generated exceeds the County's capabilities to clear, remove and dispose of it, then the County Debris Manager may elect to request Federal assistance for debris removal operations. The County Debris Administrator will submit a request for Federal assistance to the County EOC. The County EOC staff will submit the request to FEMA, who will assign a Mission Assignment to the U.S. Army Corps of Engineers (USACE) to assist in the debris cleanup operation.

The County Debris Manager will identify temporary debris storage and reduction sites (TDSRS) for debris. The County Debris Manager will be assisted with this task by the Public Works Debris Coordinator, the Utilities Debris Coordinator and the DCE&L Debris Coordinator.

The DMC Staff will notify the County EOC of the identified TDSR sites so that the site locations can be communicated to other government agencies and the public.

Phase II – Recovery

Phase II will be implemented within two to five days following a major debris-generating event, and will encompass the processes of debris removal and disposal. This delay is normal and allows time for affected citizens to return to their homes and begin the cleanup process. Debris must be brought to the right-of-way or curb to be eligible for removal at public expense.

The County Debris Manager will be responsible for implementing all Phase II activities with support as required from DPW, Utilities, DCE&L, and private Contractors. All debris removal and disposal operations will be coordinated by the County Debris Manager located at the DMC. Phase II may be quite lengthy as disaster recovery continues until pre-disaster conditions are restored. Requests for additional assistance beyond the County's resources will be submitted to the County EOC for action.

Phase II activities include:

- Activation of pre-positioned contracts.
- Notification to citizens of debris removal procedures.
- Activation of TDSR site locations.
- Removal of debris from rights-of-way and critical public facilities.
- Movement of debris from TDSR site locations to permanent landfills.

SECTION IV RECOVERY

A. General

Recovery operations will begin after primary streets and evacuation routes are cleared by pushing debris from the traveled way to the curb or right-of way. Recovery operations involve the removal and disposal of curbside or right-of-way debris by County crews and Contractor crews. All Contractor operations will be overseen by the Debris Contractor Oversight Team (DCOT). Phase II Debris Removal and Disposal Operations

The County Debris Manager and staff will coordinate debris removal and disposal operations for all unincorporated portions of the County. Phase II operations involve the removal and disposal of curbside debris by County and private Contractor crews. County departments will provide oversight of their own removal operations. Private contractor operations will be overseen by the DCOT contract monitors.

Mixed debris will be collected and hauled from assigned Debris Management Zones to designated TDSR sites or to designated landfill locations. Clean woody debris will be hauled to the nearest designated vegetative TDSR site for eventual grinding or burning. Construction and demolition (C&D) and mixed debris will be hauled to the nearest designated C&D TDSR site for eventual sorting and re-hauling to a designated out of County landfill. A listing of TDSR sites and approved landfill sites can be found at Enclosure 6.

The primary tracking mechanism for all debris loaded, hauled, and disposed of under this Plan will be the Load Ticket, which is shown in Figure 2 located on page 16. Load tickets will be initiated at debris loading sites and closed-out upon drop-off of each load at a TDSR site or permanent landfill, and are to be used to document County force account haulers, County and municipality private Contractor haulers. Load tickets will serve as supporting documentation for private Contractor payment as well as for requests for FEMA reimbursement.

Solid Waste Operations will identify one or more Household Hazardous Waste (HHW) drop-off locations within each of the Debris Management Zones. Residents will be encouraged to separate and transport HHW to pre-identified drop-off points. Private Contractors will be directed to separate HHW at the curb and not haul it to a TDSR site. The Utilities Debris Coordinator will coordinate with local, State and Federal Environmental Protection Agency (USEPA) officials for the collection of eligible industrial or commercial hazardous waste resulting from the disaster and final disposal of all HHW.

Progress Energy and other utility crews will remove and dispose of all utility related debris such as, power transformers, utility poles, cable, and other utility company material.

B. Debris Contractor Oversight Team

The Debris Contractor Oversight Team (DCOT) is responsible for the coordination, oversight, and monitoring of all debris removal and disposal operations performed by County debris removal and disposal Contractors.

The DCOT supervisor and team members will be detailed from County personnel initially. The DCOT team may also be supplemented with contracted inspectors and other personnel as needed.

The DCOT team supervisor will be located at the Debris Management Center (DMC) located at the County Solid Waste Department, 3095 114 Ave N, St Petersburg, FL 33716 and will provide overall supervision of the two field-based monitoring elements as described below.

Specific responsibilities include the following:

- Plan debris management site inspection, quality control, and other Contractor oversight functions.
- Receive and review all debris load tickets that have been verified by a Disposal Site Monitor (see description below).
- Provide verified load tickets to the DMC administrative data entry clerk for entry into the Debris Load Ticket Data Base.
- Make recommendations to the County Debris Manager regarding distribution of municipal and Contractor work assignments and priorities.
- Report on progress and preparation of status briefings.
- Provide input to the County PIO on debris removal and disposal activities and pickup schedules.
- Coordinate the distribution and collection of Right of Entry/Hold Harmless Agreements if directed by the County Debris Manager to remove debris from private property. A Right of Entry/Hold Harmless reproducible form is at page 40
- Develop a Debris Removal and Disposal Monitoring Plan that details how the DCOT will accomplish its mission based on the current debris-generating event. A reproducible example plan is at page 41.

The DCOT Supervisor will oversee the activities of three types of field monitors. The functions and responsibilities of the field monitors are described below.

The DCOT will be responsible for the following:

- Work with the DMC Debris Coordinators to identify a debris reduction site within each debris management zone and a final disposal site and then notify debris Contractor of locations.
- Determine if pre-printed load tickets are already available. If not, the DCOT Supervisor will rush order debris load tickets to be printed. A sample load ticket is shown in Figure 2 below.
- Meet with the Roving Monitors, Load Site Monitors and Disposal Site Monitors to review the terms of any activated contracts, the locations of temporary and final disposal sites, an overview of debris removal operations, and the process of completing debris load tickets.

1. Roving Monitors

The DCOT Supervisor will assign Roving Monitor teams to each Contractor's debris management zone.

Once assigned, Roving Monitors will monitor debris operations on a full-time basis and make unannounced visits to all loading and disposal sites within their assigned debris management zone(s). In addition, Roving Monitors will do the following:

- Assist in the measuring of all Contractor trucks and trailers with the Contractor's representative. Also take photographs of all trucks and trailers.
- Obtain and become familiar with all debris removal and disposal contracts for which they are providing oversight.
- Drive around their assigned debris management zone to observe Contractor operations.
- Periodically measure curbside debris using the estimating formulas in Table 1 below. A reproducible table is at page 32.
- For each loading site visited (in the field and at temporary storage sites), complete a Debris Loading Site Monitoring Checklist .A reproducible checklist is at page 33
- Complete a Debris Disposal Site Monitoring Checklist for every TDSR site visited. A reproducible checklist is at page 34. Ensure that operations are being followed as specified in the applicable Debris Removal and Disposal Contract with respect to County, state, and federal regulations.
- Prepare a daily written report of Contractor activities observed, including photographs of activities and sites visited. The reports will also include all checklists.
- Complete the Stockpiled Debris Field Survey Form at least weekly at all TDSRS to determine estimated quantities of debris stockpiled. A reproducible form is at page 35.

Roving Monitors will submit their written daily reports at the end of each day to the DCOT supervisor. The report will outline their observations with respect to the following:

- Is the Contractor using the site properly with respect to layout and environmental considerations?
- Has the Contractor established lined temporary storage areas for ash, household hazardous wastes, and other materials that can contaminate soil and groundwater?
- Has the Contractor established environmental controls in equipment staging areas, fueling, and equipment repair areas to prevent and mitigate spills of petroleum products and hydraulic fluids?
- Are plastic liners in place under stationary equipment such as generators and mobile lighting plants?
- Has the Contractor established appropriate rodent control measures?
- Are burn sites constructed and operating in accordance with the plans and requirements as stated in the contract?
- Has the Contractor establish procedures to mitigate:
 - Smoke – Are the incineration pits constructed properly and being operated according to the contract statement of work?

- Dust – Are water trucks employed to keep the dust down?
- Noise – Have berms or other noise abatement procedures been employed?
- Traffic – Does the TDSRS have a suitable layout for ingress and egress to help traffic flow?

Reports will also include observations at loading sites, disposal sites, and the locations of any illegal dumping sites.

Table 1 - Debris Estimating Formulas

Estimating Rule of Thumb
<ul style="list-style-type: none"> • 15 trees, 8 inches in diameter = 40 CY • Single wide mobile home = 290 CY • Double wide mobile home = 415 CY • Root system (8'-10' dia.) = One flat bed trailer to move • Treat debris piles as a cube, not a cone, when performing estimates. • Average pace = 2' 6"
Formulas
<p><u>Conversions:</u></p> <ul style="list-style-type: none"> • 27 cubic feet=1 cubic yard • One mile=5280 feet or 1760 yards • Building formula: <p style="padding-left: 40px;">0.2 x total square feet (footprint x number of stories) = _____ Cubic Yards of debris</p> <ul style="list-style-type: none"> • Debris pile formula: <p style="padding-left: 40px;">$\frac{L' \times W' \times H'}{27} = \text{_____ Cubic Yards of debris.}$</p>
Conversion Factors from Cubic Yards to Tons
<ul style="list-style-type: none"> • Mixed Construction & Demolition Debris = 500 LBS/CY or CY x 0.25 = Tons • Yard Vegetation = 300 LBS/CY or CY x 0.15 = Tons • Mulch = 500 LBS/Cy or CY x 0.25 = Tons • Regular Trash = 300 LBS/CY or CY x 0.15 = Tons • Concrete = 2000 LBS/CY or CY x 1.0 = Tons • Sand = 2600 LBS/CY or CY x 1.3 = Tons • Land Clearing (Root balls with dirt) 1500 LBS/CY or CY x 0.75 = Tons

2. Load Site Monitors

The DCOT Supervisor will assign Load Site Monitors to loading site locations.

Load Site Monitors will be responsible for observing and documenting debris removal activities at loading sites in the field and at temporary loading sites. Load Site Monitors will do the following:

- Coordinate with the Contractor’s representative at the DMC to verify the location of the loading sites each day.
- Assist in the measurement each truck at the beginning of debris removal operations. Document the truck dimensions, note the truck number and take a picture of each truck.
- Document the type of debris loaded (e.g., vegetative, construction and demolition, etc.)

- Complete the loading portion (Section 1) of the debris load ticket and sign it. See Figure 2 below.
- Retain a copy of the debris load ticket and give the remaining copies to the truck driver.
- Copies of load tickets retained by the Load Site Monitors will be submitted to the DCOT Supervisor at the end of each day.

3. Disposal Site Monitors

The DCOT Supervisor will assign Disposal Site Monitors to each Disposal Site being used by the County.

Disposal Site Monitors will be responsible for doing the following:

- Report to their assigned locations.
- Estimate the quantity of debris contained in each truck entering the disposal site.
- Obtain copies of the debris load ticket from the truck driver. Complete Section 2 of the debris load ticket. See Figure 2 below.
- Sign the completed ticket and retain a copy. Give the remaining copies to the truck driver.
- Record each load ticket on the Debris Disposal Site Load Tracking Log. A reproducible log is at page 36
- Spot check truck measurements by periodically measuring the dimensions of the trucks after they have unloaded the debris they were hauling.
- Submit copies of the completed, signed load tickets to the DCOT Supervisor at the end of each day.

The DCOT Supervisor will identify DMC Staff person(s) to enter information from the load tickets each day into a load ticket database.

4. Load Ticket Disposition

The Load Ticket will be a 5-part pre-printed form similar to the one shown in Figure 3 below.

For tracking of all debris moved in response to a given event, the following is the disposition of each ticket part:

- Part 1 (White) Load Site Monitor (Turned in daily to the DMC)
- Part 2 (Green) Disposal Site Monitor (Turned in daily to the DMC)
- Part 3 (Canary) Driver or Contractor's on-site representative (Contractor Copy)
- Part 4 (Pink) Driver or Contractor's on-site representative (Contractor Copy)
- Part 5 (Gold) Driver or Contractor's on-site representative (Driver/Subcontractor Copy)

Figure 2 - Pinellas County Load Ticket

DEBRIS LOAD TICKET	
Task Order Number: _____	
County/Municipality Name: _____	
Ticket No.	
Contractor's Name:	
Driver's Name:	
Truck / Trailer Number:	
Measured Bed Capacity in Cubic Yards:	
Departure Date:	Departure Time:
Pickup Site Location (Must be street address or nearest intersection):	
DOT System Road: _____	
Public Access Road: _____	
Federal Highway: _____	
Other: _____	
Type of Debris:	
	Burnable or Grindable (Clean Wood Debris)
	Non-Burnable (Treated Lumber, Metals, C&D)
	Mixed (Burnable and Non-Burnable)
	Other (Define)
Print Name of Loading Site Monitor:	
Signature:	
Debris Management Site Location:	
Arrival Time:	
Estimated Volume of Debris in Truck /Trailer:	
Cubic Yards	
Printed Name of Debris Management Site Monitor:	
Signature:	
Remarks	

At initiation of each load, the Load Site Monitor will fill out all items in Section 1 of the Load Ticket and will retain Part 1 (White Copy). The remaining copies will be given to the driver and carried with the load to the disposal site. The White Copy will be turned into the DMC at the end of each day.

Upon arrival at the disposal site, the driver will give all four copies to the Disposal Site Monitor. The Disposal Site Monitor will complete Section 2 of the Load Ticket and retain Part 2 (Green). Parts 3, 4, and 5 will be given either to the Contractor's on-site representative or to the truck driver for subsequent distribution. The Green Copy will be turned into the DMC at the end of each day.

All trucks will be measured by the Contractor and DMC DCOT Roving Monitors before the operation begins and periodically rechecked throughout the operation.

The 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 upon presentation of Part 4 (Pink) of the Load Ticket with the Contractor's invoice.

Load tickets will also be completed and retained for municipalities, State DOT and County force account vehicles as a primary mechanism for tracking debris quantities deposited at TDSR sites. County load tickets will also be completed for municipal Contractors depositing debris at County TDSR sites.

C. Debris Monitor Training Workshop

The County Debris Manager will be responsible for coordinating an annual and refresher training workshop for all assigned DCOT personnel.

The purpose of the workshop is to review the Debris Management Plan procedures and to ensure that the DCOT operation works smoothly. Items of discussion will include:

- Contractor responsibility
- Mobilization sites
- Logistical support
- Pre-storm mobilization
- Procedures for call-up of Contractor personnel and equipment
- Haul routing
- Contractor vehicle identification and registration
- Debris hauling load ticket administration
- Mobilization and operation of the TDSRS
- Contractor payment request submission, review, and verification
- Special procedures for Household Hazardous Waste
- TDSRS closure requirements

Annual training should be scheduled to take place in April or May, which is before the start of the Hurricane Season.

Refresher training should also be scheduled immediately following any major debris-generating event.

The Debris Manager will also be responsible for coordinating an annual training workshop for DMC Staff to use the GIS Debris Management software.

D. Close-Out for Federally Declared Disasters

When the event becomes a federally declared disaster, the County Debris Manager will need to prepare and submit a claim to the Federal Emergency Management Agency (FEMA) for reimbursement of expenses associated with the response to and recovery from the event.

- The County Debris Manager will request the DMC Staff to generate a cost report from the debris load ticket database.
- The County Debris Manager will request an invoice and associated backup documentation from the debris Contractor.
- The County Debris Manager will assign a DMC Staff person to reconcile the cost report from the debris load ticket database with the Contractor's report.
- The County Debris Manager will determine the appropriate cost of contract debris removal based on the reconciliation.
- The County Debris Manager will provide copies of the reconciled reports and final cost to FEMA.
- The County Debris Manager will assemble payroll records for in-house personnel performing disaster-related debris removal work. The County Debris Manager (or DMC Staff, as assigned) will calculate the number of hours of overtime worked by in-house staff.
- The County Debris Manager will determine the cost (including fringe benefits) of overtime for in-house staff. The County Debris Manager will prepare a summary of in-house staff persons, job title, number of overtime hours worked, pay rate, fringe benefit rate and total overtime cost, and supply this report and accompanying back-up documentation to FEMA.
- The County Debris Manager will assemble a report for in-house equipment usage for disaster-related work. The report will include a description of the equipment, equipment ID number/tag number, operator name, number of hours/miles used, unit cost, and total cost. The County Debris Manager will submit this report and the accompanying backup documentation to FEMA.
- The County Debris Manager will contact the municipal Procurement Officer to obtain a copy of the list of supplies purchased related to the debris removal effort. The County Debris Manager will prepare a report containing a description of the supplies, number of units, unit prices, total cost, and purpose of use. This report will also include supplies removed from pre-existing stockpiles.
- The County Debris Manager will work with FEMA to develop the project worksheet.

SECTION V COMMUNICATIONS

A. Debris Management Center Staff Communications

Under most emergencies/disasters, communications will be primarily by land telephone lines, cellular telephones, or computer; however, the municipality recognizes that as a result of some disasters, such communications may not be operable.

- All members of the debris team will have access to a cell phone. Field personnel and all DMC Staff will use land telephone lines as their primary means of communication.
- If land telephone lines are not operable, DMC Staff and field personnel will try to use cellular telephone service to communicate.
- If cellular telephone service is not operable, DMC Staff and field personnel will try to use land telephone lines to communicate.
- If land lines are not operable, then DMC Staff and field personnel will use “runners” to relay information between the DMC and other operations centers and the field.

B. Public Communications

The Utilities or Public Works Public Information Officer will:

- Develop press releases about the status of debris clearance and removal operations. Press releases will also contain information for the public about any measures that they can take to facilitate debris clearance and removal operations.
- Coordinate the content and timing of the press releases with the County’s Joint Information Center (JIC) and the press (regular broadcast times).
- Provide accurate status updates about debris clearance and removal operations.
- Work with the DMC staff to assemble debris clearance and removal data and other information requested by the press.

C. Information Technology

- DMC Staff will utilize e-mail to communicate written information.
- DMC Staff will utilize a debris load ticket tracking access database to enter and track debris load ticket information.
- The DMC Staff will track debris locations and clearance/removal operations using the GIS Debris Removal application.

SECTION VI TEMPORARY DEBRIS STORAGE AND REDUCTION SITE FIELD GUIDES

A. Temporary Debris Storage and Reduction (TDSR) Site Setup and Closeout Guide

1. TDSR Site Setup

The topography and soil/substrate conditions should be evaluated to determine best site layout. When planning site preparation, think of ways to make restoration easier. For example, if the local soils are

very thin, the topsoil can be scraped to bedrock and stockpiled in perimeter berms. Upon site closeout, the uncontaminated soil can be spread to preserve the integrity of the tillable soils.

The following site baseline data checklist should be used to evaluate a site before a Contractor begins operations and used during and after to ensure that site conditions are properly documented. A reproducible TDSRS Baseline Data Checklist is at page 37.

2. TDSR Site Baseline Data Checklist

Before Activities Begin

- Take ground or aerial photographs and/ or video.
- Note important features, such as structures, fences, culverts, and landscaping.
- Take random soil samples.
- Take random groundwater samples.
- Take water samples from existing wells.
- Check the site for volatile organic compounds.

After Activities Begin

- Establish groundwater-monitoring wells.
- Take groundwater samples.
- Take spot soil samples at household hazardous waste, ash, and fuel storage areas.

Progressive Updates

- Update videos/photographs.
- Update maps/sketches of site layout.
- Update quality assurance reports, fuel spill reports, etc.

3. TDSR Site Operations

Lined temporary storage areas should be established for ash, household hazardous waste, fuels, and other materials that may contaminate soils and groundwater. Plastic liners should be placed under stationary equipment such as generators and mobile lighting plants. These actions should be included as a requirement in the contract scope of work. If the site is also an equipment storage area, fueling and equipment repair should be monitored to prevent and mitigate spills of petroleum products and hydraulic fluids.

Be aware of and lessen the effects of operations that might irritate occupants of neighboring areas. Establishment of a buffer zone can abate concerns over smoke, dust, noise, and traffic.

Consider on-site traffic patterns and segregate materials based on planned volume reduction methods.

Operations that modify the landscape, such as substrate compaction and over excavation of soils when loading debris for final disposal, will adversely affect landscape restoration.

Debris removal/disposal should be viewed as a multi-staged operation with continuous volume reduction. There should be no significant accumulation of debris at temporary storage sites. Instead, debris should be constantly flowing to burners and grinders, or recycled with the residue and mixed construction and demolition materials going to a landfill.

4. TDSR Site Closeout Inspection

Each TDSRS will eventually be emptied of all material and be restored to its previous condition and use. The Contractor is required to remove and dispose of all mixed debris, construction and demolition debris, and debris residue to approved landfills. Appropriate District inspectors will monitor all closeout activities to ensure that the Contractor complies with the Debris Removal and Disposal Contract. Additional measures may be necessary to meet County, state and federal environmental requirements because of the nature of the TDSRS operation.

5. TDSR Site Closeout Planning

The Contractor must assure the SWA Debris Coordinator that all TDSRS are properly remediate. There will be significant costs associated with this operation as well as close scrutiny by the local press and environmental groups. Site remediation will go smoothly if baseline data collection and site operation procedures are followed.

6. TDSR Site Closeout Steps

1. Contractor responsible for removing all debris from the site.
2. Contractor conducts an environmental assessment with DPW Debris Coordinator and landowner.
3. Contractor develops a remediation plan.
4. Remediation plan reviewed by DPW Debris Coordinator, landowner, and appropriate environmental agency.
5. Remediation plan approved by the appropriate environmental agency.
6. Contractor executes the plan.
7. Contractor obtains acceptance from DPW Debris Coordinator, appropriate environmental agency, and the landowner.

7. TDSR Site Remediation

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

- **Ash.** The monitoring of the ash should consist of chemical testing to determine the suitability of the material for either agricultural use or as a landfill cover material.
- **Soil.** Monitoring of the soils should be by portable inspection methods to determine if any of the soils are contaminated by volatile hydrocarbons. The Contractors may do this if it is determined that hazardous material, such as oil or diesel fuel was spilled on the site. This phase of the monitoring should be done after the stockpiles are removed from the site.

- **Ground Water.** The monitoring of the groundwater should be done to determine the probable effects of rainfall leaching through either the ash areas or the stockpile areas.

8. TDSR Site Closeout Coordination

The Contractor will coordinate the following closeout requirements through the DCOT staff:

- Coordinate with local and State officials responsible for construction, real estate, contracting, project management, and legal counsel regarding requirements and support for implementation of a site remediation plan.
- Establish an independent testing and monitoring program. The Contractor is responsible for environmental restoration of both public and leased sites. The Contractor will also remove all debris from sites for final disposal at landfills prior to closure.
- Reference appropriate and applicable environmental regulations.
- Prioritize site closures.
- Schedule closeout activities.
- Determine separate protocols for ash, soil and water testing.
- Develop decision criteria for certifying satisfactory closure based on limited baseline information.
- Develop administrative procedures and contractual arrangements for closure phase.
- Inform local and State environmental agencies regarding acceptability of program and established requirements.
- Designate approving authority to review and evaluate Contractor closure activities and progress.
- Retain staff during closure phase to develop site-specific remediation for sites, as needed, based on information obtained from the closure checklist shown below.

9. TDSR Site Closure Checklist

- Site number and location.
- Date closure complete.
- Household hazardous waste removed.
- Contractor equipment and temporary structures removed
- Contractor petroleum spills remediated.
- Ash piles removed.
- Comparison of baseline information to conditions after the Contractor has vacated the temporary site.
- Appendices.
 - Closure documents.
 - Contracting status reports.
 - Contract.
 - Testing results.
 - Correspondence.
 - Narrative responses.

A reproducible TDSRS Closure Checklist is at page 38.

10. TDSR Site Closeout

Once a site is no longer needed, it should be closed in accordance with the following guidelines. Closeout or re-approval of a temporary TDSRS should be accomplished within 30 days of receiving the last load of debris

Closeout is not considered complete until the following occurs:

- All processed and unprocessed vegetative material and inert debris shall be removed to a properly approved solid waste management site.
- Tires must be disposed of at a scrap tire collection/processing facility; white goods and other metal scrap should be separated for recycling.
- Burn residues shall be removed to a properly approved solid waste management site or land applied in accordance with these guidelines.
- All other materials, unrecoverable metals, insulation, wall board, plastics, roofing material, painted wood, and other material from demolished buildings that is not inert debris as well as inert debris that is mixed with such materials shall be removed to a properly permitted C & D recycling facility, C & D landfill, or municipal solid waste landfill.

11. TDSR Site Re-approval

Sites that were approved as temporary TDSRS will require re-approval for long-term storage, continuing reduction processing, and permanent disposal if site is not closed out in accordance with guidelines stated here. Sites shall be managed and monitored in accordance with the Health Department requirements and to prevent threats to the environment or public health.

B. Temporary Construction and Demolition Staging / Transfer Site Guide

1. General

The following guidelines should be considered when establishing staging/transfer sites for Construction & Demolition (C&D) and C&D recycling treatment and processing facilities.

These guidelines apply only to sites for staging/transferring C&D storm debris (roof shingles/roofing materials, carpet, insulation, wallboard, treated and painted lumber, etc.). Arrangements should be made to screen out unsuitable materials, such as household garbage, white goods, asbestos containing materials (ACM's), and household hazardous waste.

2. Selecting Temporary Staging / Transferring Sites

Locating sites for staging/transferring C&D waste can be accomplished by evaluating potential sites and by revisit sites used in the past to see if site conditions have changed or if the surrounding areas have changed significantly to alter the use of the site. The following guidelines are presented in locating a site for "staging/transferring" and are considered "minimum standards" for selecting a site for use:

- Sites should be located outside of identifiable or known floodplain and flood prone areas; consult the Flood Insurance Rate Map for the location in your county to verify these areas. Due to heavy rains associated with hurricanes and saturated conditions that result, flooding may occur more frequently than normally expected.
- Unloading areas for incoming C&D debris material should be at a minimum 100 feet from all surface waters of the state. "Waters of the state" includes but is not limited to small creeks, streams, watercourses, ditches that maintain seasonal groundwater levels, ponds, wetlands, etc.
- Storage areas for incoming C&D debris shall be at least 100 feet from the site property boundaries, on-site buildings, structures, and septic tanks with leach fields or at least 250 feet from off-site residential dwellings, commercial or public structures, and potable water supply wells, whichever is greater.
- Materials separated from incoming C&D debris (white goods, scrap metal, etc.) shall be at least 50 feet from site property lines. Other non-transferable C&D wastes (household garbage, larger containers of liquid, household hazardous waste shall be placed in containers and transported to the appropriate facilities as soon as possible.
- Sites that have identified wetlands should be avoided, if possible. If wetlands exist or wetland features appear at a potential site, verification by the local Corps of Engineers office will be necessary to delineate areas of concern. Once areas are delineated, the areas shall be flagged and a 100-foot buffer shall be maintained for all activities on-going at the site.
- Sites bisected by overhead power transmission lines need careful consideration due to large dump body trucks/trailers used to haul debris, and underground utilities need to be identified due to the potential for site disturbance by truck/equipment traffic and possible site grading.
- Sites shall have an attendant(s) during operating hours to minimize the acceptance of unapproved materials and to provide directions to haulers and private citizens bringing in debris.
- Sites should be secure after operating hours to prevent unauthorized access to the site. Temporary measures to limit access to the site could be the use of trucks or equipment to block entry. Gates, cables, or swing pipes should be installed as soon as possible for permanent access control, if a site is to be used longer than two weeks.
- When possible, signs should be installed to inform haulers and the general public on types of waste accepted, hours of operation, and who to contact in case of after hours emergency.
- Final written approval is required to consider any TDSR site to be closed. Closeout of processing/recycling sites shall be within one (1) year of receiving waste. If site operations will be necessary beyond this time frame, permitting of the site by the State may be required. If conditions at the site become injurious to public health and the environment, then the site shall be closed until conditions are corrected or permanently closed. Closeout of sites shall be in accordance with the closeout and restoration of TDSR site guidelines.

3. C&D Treatment and Processing/Recycling Sites

Management of C&D debris and source separated materials to be recycled shall be in accordance with the following additional conditions:

- Contact the County Health Department for information on managing asbestos containing materials (ACM's) or materials that are considered regulated asbestos containing materials.
- Sites should be located outside of identifiable or known floodplain and flood prone areas; consult the Flood Insurance Rate Map for the location in your county to verify these areas. Due to heavy

rains associated with hurricanes and saturated conditions that result, flooding may occur more frequently than normally expected.

- Storage areas for incoming debris should be at a minimum 100 feet from all surface waters of the state. "Waters of the state" includes but is not limited to small creeks, streams, watercourses, ditches that maintain seasonal groundwater levels, ponds, wetlands, etc.
- Storage areas for incoming debris shall be located at least 100 feet from property boundaries and on-site buildings/structures.
- Sites that have identified wetlands should be avoided, if possible. If wetlands exist or wetland features appear at a potential site verification by the local Corps of Engineers office or will be necessary to delineate areas of concern. Once areas are delineated, the areas shall be flagged and a 100-foot buffer shall be maintained for all activities on-going at the site.
- Storage areas for incoming C&D debris shall be at least 100 feet from the site property boundaries, on-site buildings, structures, and septic tanks with leach fields or at least 250 feet from off-site residential dwellings, commercial or public structures, and potable water supply wells, whichever is greater.
- Sites bisected by overhead power transmission lines need careful consideration due to large dump body trucks / trailers used to haul debris and the intense heat generated by the ACB device. Underground utilities need to be identified prior to digging pits for using the ACB device.
- Provisions should be made to prevent unauthorized access to facilities when not open for use. As a temporary measure, access can be secured by blocking drives or entrances with trucks or other equipment when the facilities are closed. Gates, cables, or other more standard types of access control should be installed as soon as possible.
- When possible, post signs with operating hours and information about what types of clean up waste may be accepted. Also include information as to whether only commercial haulers or the general public may deposit waste.
- Final written approval is required to consider any TDSR site to be closed. Closeout of processing / recycling sites shall be within six (6) months of receiving waste. If site operations will be necessary beyond this time frame, permitting of the site by the State may be required. If conditions at the site become injurious to public health and the environment, then the site shall be closed until conditions are corrected or permanently closed.

C. Temporary Vegetative Temporary Debris Storage and Reduction Site Guide

1. General

When preparing temporary facilities for handling debris resulting from the clean up efforts due to hurricane damage, the following guidelines should be considered when establishing Temporary TDSRS.

These guidelines apply only to sites for staging or burning vegetative storm debris (yard waste, trees, limbs, stumps, branches, and untreated or unpainted wood). Arrangements should be made to screen out unsuitable materials.

The two method (s) of managing vegetative and land clearing storm debris is "chipping/grinding" for use in landscape mulch, compost preparation, and industrial boiler fuel or using an "air curtain burner

(ACB)", with the resulting ash being land applied as a liming agent or incorporated into a finished compost product as needed.

2. Chipping and Grinding Sites

Locating sites for chipping/grinding of vegetative and land clearing debris will require a detailed evaluation of potential sites and possible revisits at future dates to see if site conditions have changed or if the surrounding areas have changed significantly to alter the use of the site.

The following guidelines are presented in locating a site for "chipping/grinding" and are considered "minimum standards" for selecting a site for use:

- Sites should be located outside of identifiable or known floodplain and flood prone areas; consult the Flood Insurance Rate Map for the location in your county to verify these areas. Due to heavy rains associated with hurricanes and saturated conditions that result, flooding may occur more frequently than normally expected.
- Storage areas for incoming debris and processed material should be at a minimum 100 feet from all surface waters of the state. "Waters of the state" includes but is not limited to small creeks, streams, watercourses, ditches that maintain seasonal groundwater levels, ponds, wetlands, etc.
- Storage areas for incoming debris and processed material shall be at least 100 feet from the site property boundaries and on-site buildings/structures. Management of processed material shall be in accordance with the guidelines for reducing the potential for spontaneous combustion in compost/mulch piles.
- Storage areas for incoming debris shall be located at least 100 feet from residential dwellings, commercial or public structures, potable water supply wells, and septic tanks with leach fields.
- Sites that have identified wetlands should be avoided, if possible. If wetlands exist or wetland features appear at a potential site, verification by the local Corps of Engineers office will be necessary to delineate areas of concern. Once areas are delineated, the areas shall be flagged and a 100-foot buffer shall be maintained for all activities on-going at the site.
- Sites bisected by overhead power transmission lines need careful consideration due to large dump body trucks/trailers used to haul debris, and underground utilities need to be identified due to the potential for site disturbance by truck/equipment traffic and possible site grading.
- Sites shall have an attendant(s) during operating hours to minimize the acceptance of unapproved materials and to provide directions to haulers and private citizens bringing in debris.
- Sites should be secure after operating hours to prevent unauthorized access to the site. Temporary measures to limit access to the site could be the use of trucks or equipment to block entry. Gates, cables, or swing pipes should be installed as soon as possible for permanent access control, if a site is to be used longer than two weeks. Sites should have adequate access that prohibits traffic from backing onto public rights-of-way or blocking primary and/or secondary roads to the site.
- When possible, signs should be installed to inform haulers and the general public on types of waste accepted, hours of operation, and who to contact in case of an after hours emergency.
- Grinding of clean wood waste such as pallets and segregated non-painted/non-treated dimensional lumber is allowed.
- Final written approval is required to consider any TDSRS to be closed. Closeout of staging and processing sites shall be within six (6) months of receiving waste. If site operations will be necessary beyond this time frame, permitting of the site may be required. If conditions at the site

become injurious to public health and the environment, then the site shall be closed until conditions are corrected or permanently closed. Closeout of sites shall be in accordance with the closeout and restoration guidelines for TDSRS.

D. Air Curtain Burner Site Location and Operations Guide

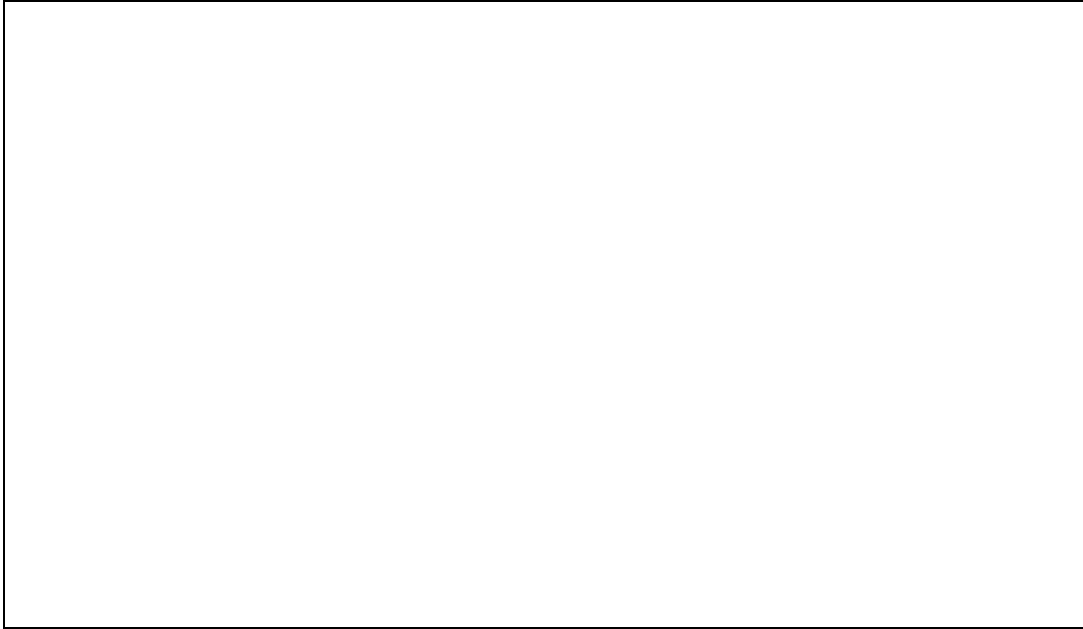
Locating sites that are intended for air curtain burning (ACB) operations is a coordinated effort between the DPW Debris Coordinator and Department of Environmental staff for evaluating the surrounding areas and to reevaluate potential sites used in the past.

The following guidelines are presented for selecting an ACB site and operational requirements once a site is in use:

- Contact the local fire marshal or fire department for input into site selection in order to minimize the potential for fire hazards, other potential problems related to fire fighting that could be presented by the location of the site, and to ensure that adequate fire protection resources are available in the event of an emergency.
- The requirements for ACB device(s), in accordance with Air Quality rules require the following buffers: a minimum of 500 feet from the ACB device to homes, dwellings and other structures and 250 feet from roadways. Contact the County Department of Environmental Management for updates or changes to their requirements.
- Sites should be located outside of identifiable or known floodplain and flood prone areas; consult the Flood Insurance Rate Map for the location in your county to verify these areas. Due to heavy rains associated with hurricanes and saturated conditions that result, flooding may occur more frequently than normally expected. If ACB pit devices are utilized, a minimum two-foot separation to the seasonal high water table is recommended. A larger buffer to the seasonal high water table may be necessary due to on-site soil conditions and topography.
- Storage areas for incoming debris should be at a minimum 100 feet from all surface waters of the state. "Waters of the state" includes but is not limited to small creeks, streams, watercourses, ditches that maintain seasonal groundwater levels, ponds, wetlands, etc.
- Storage areas for incoming debris shall be located at least 100 feet from property boundaries and on-site buildings/structures.
- Air Curtain Burners in use should be located at least 200 feet from on-site storage areas for incoming debris, on-site dwellings and other structures, potable water supply wells, and septic tanks and leaching fields.
- Wood ash stored on-site shall be located at least 200 feet from storage areas for incoming debris, processed mulch or tub grinders (if a grinding site and ACB site is located on the same property). Wood ash shall be wetted prior to removal from the ACB device or earth pit and placed in storage. If the wood ash is to be stored prior to removal from the site, then rewetting may be necessary to minimize airborne emissions.
- Wood ash to be land applied on site or off site shall be managed in accordance with the guidelines for the land application of wood ash from storm debris burn sites. The ash shall be incorporated into the soil by the end of the operational day or sooner if the wood ash becomes dry and airborne.
- Sites that have identified wetlands should be avoided, if possible. If wetlands exist or wetland features appear at a potential site, verification by the local Corps of Engineers office will be

necessary to delineate areas of concern. Once areas are delineated, the areas shall be flagged, and a 100-foot buffer shall be maintained for all activities on-going at the site.

- Sites bisected by overhead power transmission lines need careful consideration due to large dump body trucks/trailers used to haul debris and the intense heat generated by the ACB device. Underground utilities need to be identified prior to digging pits for using the ACB device.
- Provisions should be made to prevent unauthorized access to facilities when not open for use. As a temporary measure, access can be secured by blocking drives or entrances with trucks or other equipment when the facilities are closed. Gates, cables, or other more standard types of access control should be installed as soon as possible.
- When possible, post signs with operating hours and information about what types of clean up waste may be accepted. Also, include information as to whether only commercial haulers or the general public may deposit waste.
- Closeout of air curtain burner sites shall be within six (6) months of receiving waste. If site operations will be necessary beyond this time frame, permitting of the site may be required. If conditions at the site become injurious to public health and the environment, then the site shall be closed until conditions are corrected or permanently closed management sites.



E. - Air Curtain Pit Burners Environmental Guide

1. General

Incineration site inspections will also include an assessment of the environmental controls being used by the Contractor. Environmental controls are essential for all incineration methods, and the following will be monitored. A reproducible Environmental Checklist is at Attachment 1-H.

2. Environmental Checklist

- A setback of at least 1,000 feet should be maintained between the debris piles and the incineration area. Keep at least 1,000 feet between the incineration area and the nearest building. Contractor should use fencing and warning signs to keep the public away from the incineration area.
- The fire should be extinguished approximately two hours before anticipated removal of the ash mound. The ash mound should be removed when it reaches 2 feet below the lip of the incineration pit.
- The incineration area should be placed in an aboveground or below ground pit that is no wider than 8 feet and between 9 and 14 feet deep.
- Above ground incineration pits should be constructed with limestone and reinforced with earth anchors or wire mesh to support the weight of the loaders. There should be a 1-foot impervious layer of clay or limestone on the bottom of the pit to seal the ash from the aquifer.
- The ends of the pits should be sealed with dirt or ash to a height of 4 feet.
- A 12-inch dirt seal should be placed on the lip of the incineration pit area to seal the blower nozzle. The nozzle should be 3 to 6 inches from the end of the pit.
- There should be 1-foot high, unburnable warning stops along the edge of the pit's length to prevent the loader from damaging the lip of the incineration pit.

- ❑ Hazardous or contaminated ignitable material should not be placed in the pit. This is to prevent contained explosions.
- ❑ The airflow should hit the wall of the pit about 2 feet below the top edge of the pit, and the debris should not break the path of the airflow except during dumping.
- ❑ The pit should be no longer than the length of the blower system and the pit should be loaded uniformly along its length.

F. Land Application of Wood Ash from Storm Debris Burn Sites Guide

- Whenever possible, soil test data and waste analysis of the ash should be available to determine appropriate application rate.
- In the absence of test data to indicate agronomic rates, application should be limited to 2 to 4 tons per acre/one time event. If additional applications are necessary, due to the volume of ash generated and time frame in which the ash is generated, then an ash management plan will be needed.
- Ash should be land applied in a similar manner as agricultural limestone.
- Ash should not be land applied during periods of high wind to avoid the ash blowing off the application sites.
- Ash should not be land applied within 25 feet of surface waters or within 5 feet of drainage ways or ditches on sites that are stabilized with vegetation. These distances should be doubled on sites that are not vegetated and the ash should be promptly incorporated into the soil.
- Records should be maintained to indicate where ash is applied and the approximate quantities of ash applied.
- As an option to land application, ash may be managed at a permitted municipal solid waste landfill after cooled to prevent possible fire.
- Assistance in obtaining soil test data and waste analysis of ash should be available through county offices of the Extension Service.

G. Reducing the Potential for Spontaneous Combustion in Compost or Mulch Piles Guide

- When ground organic debris is put into piles, microorganisms can very quickly begin to decompose the organic materials. The microorganisms generate heat and volatile gases as a result of the decomposition process. Temperatures in these piles can easily rise to more than 160 degrees Fahrenheit. Spontaneous combustion can occur in these situations.
- Spontaneous combustion is more likely to occur in larger piles of debris because of a greater possibility of volatile gases building up in the piles and being ignited by the high temperatures. If wind rows can be maintained 5 feet to 6 feet high and 8 feet to 10 feet wide, volatile gases have a better chance of escaping the piles; and the possibility of spontaneous combustion will be reduced.
- Turning piles when temperatures reach 160 degrees can also reduce the potential for spontaneous combustion. Pile turning provides an opportunity for gases to escape and for the contents of the pile to cool. Adding moisture during turning will increase cooling. Controlling the amount of nitrogen-bearing (green) wastes in piles will also help to reduce the risk of fire. The less nitrogen in the piles the slower the decomposition process and consequently the less heat generated and gases released.

- Large piles should be kept away from wooded areas and structures and should be accessible to fire fighting equipment, if a fire were to occur. Efforts should be made to avoid driving or operating heavy equipment on large piles because the compaction will increase the amount of heat build-up, which could increase the possibility of spontaneous combustion.

H. Reproducible Forms

Full size reproducible forms are contained on the following pages for:

- Debris Estimating Formulas page 32
- Debris Loading Site Monitoring Checklist page 33
- Debris Disposal Site Monitoring Checklist page 34
- Stockpiled Debris Field Survey Form page 35
- Debris Disposal Site Load Tracking Log page 36
- Debris Management Baseline Data Checklist page 37
- Temporary Debris Storage and Reduction Site Closure Checklist page 38
- Environmental Checklist for Air Curtain Pit Burners page 39
- Right of Entry/Hold Harmless Agreement page 40
- Debris Removal and Disposal Monitoring Plan Example page 41

DEBRIS ESTIMATING FORMULAS

Estimating Rule of Thumb
<ul style="list-style-type: none"> • 15 trees, 8 inches in diameter = 40 CY • Single wide mobile home = 290 CY • Double wide mobile home = 415 CY • Root system (8'-10' dia.) = One flat bed trailer to move • Treat debris piles as a cube, not a cone, when performing estimates. • Average pace = 2' 6"
Formulas
<p><u>Conversions:</u></p> <ul style="list-style-type: none"> • 27 cubic feet=1 cubic yard • One mile=5280 feet or 1760 yards • Building formula: <p style="padding-left: 40px;">0.2 x total square feet (footprint x number of stories) = _____ Cubic Yards of debris</p> <ul style="list-style-type: none"> • Debris pile formula: <p style="padding-left: 40px;">$\frac{L' \times W' \times H'}{27} =$ _____ Cubic Yards of debris.</p>
Conversion Factors from Cubic Yards to Tons
<ul style="list-style-type: none"> • Mixed Construction & Demolition Debris = 500 LBS/CY or CY x 0.25 = Tons • Yard Vegetation = 300 LBS/CY or CY x 0.15 = Tons • Mulch = 500 LBS/Cy or CY x 0.25 = Tons • Regular Trash = 300 LBS/CY or CY x 0.15 = Tons • Concrete = 2000 LBS/CY or CY x 1.0 = Tons • Sand = 2600 LBS/CY or CY x 1.3 = Tons • Land Clearing (Root balls with dirt) 1500 LBS/CY or CY x 0.75 = Tons

DEBRIS LOADING SITE MONITORING CHECKLIST

Date: _____
Arrival Time: _____ Departure Time: _____ Weather Conditions: _____
Loading Site Location: _____
(Street address or nearest intersection)

GPS Location: N _____; W _____

Loading Site Monitor's Name _____
(Print Name)

Roving Monitor's Name: _____
(Print Name)

(Signature)

Loading Site

1. Is the Site Monitor filling out the Load Ticket properly? YES NO

If NO explain actions taken:

2. Is the Contractor loading eligible debris from the designated right-of way (approximately 15' from curb)? YES NO

If NO explain actions taken:

3. Is the Contractor loading trucks to capacity? YES NO

If NO explain actions taken:

4. Identify Contractor's truck numbers observed while on site:

_____; _____; _____; _____; _____; _____; _____; _____;
_____; _____; _____; _____; _____; _____; _____; _____

5. Were photographs taken at the loading site? YES NO

If YES list photo log numbers:

_____; _____; _____; _____; _____

General Notes and Comments: (Include observations within the general area as to overall cleanup activities)

_____ (Use reverse side if necessary)

DEBRIS DISPOSAL SITE MONITORING CHECKLIST

Date: _____
Arrival Time: _____ Departure Time: _____ Weather Conditions: _____

Disposal Site Location: _____
(Street address or nearest intersection)

GPS Location: N _____; W _____

Disposal Site Monitor's Name _____
(Print Name)

Roving Monitor's Name: _____
(Print Name)

(Signature)

Disposal Site

1. Is the Disposal Monitor filling out the Load Ticket properly? YES NO
If NO explain actions taken:

2. Is the Disposal Monitor attaching a copy of the Weight Ticket to the Load Ticket?
YES NO

If NO explain actions taken:

3. Are the Contractor's trucks loaded to capacity? YES NO
If NO explain actions taken:

4. Identify Contractor's truck numbers observed while on site:

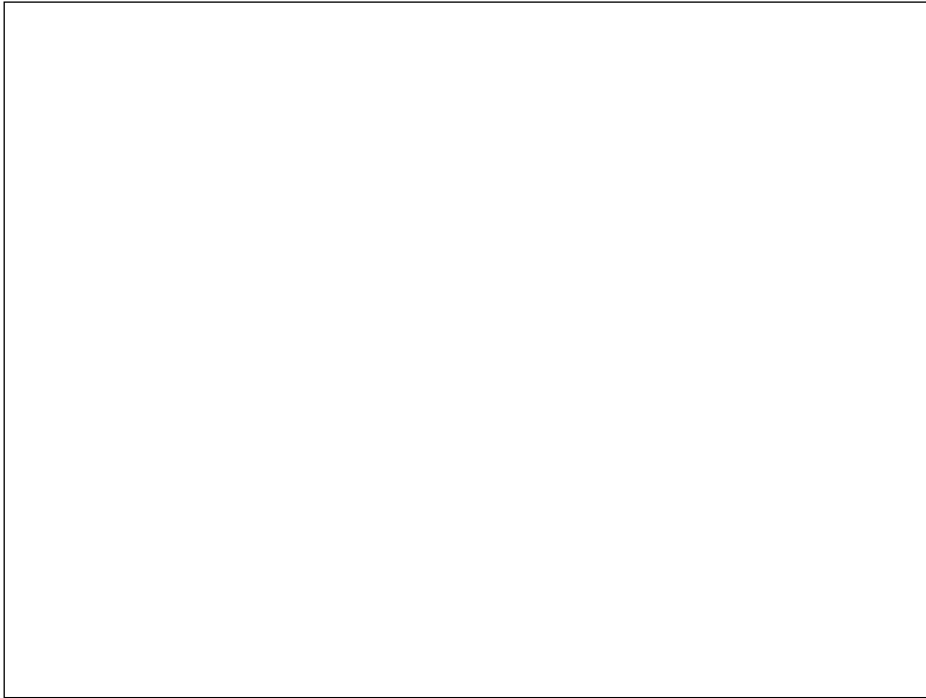
_____; _____; _____; _____; _____; _____; _____; _____;
_____; _____; _____; _____; _____; _____; _____; _____;

5. Were photographs taken at the loading site? YES NO
If YES list photo log numbers: _____; _____; _____; _____;

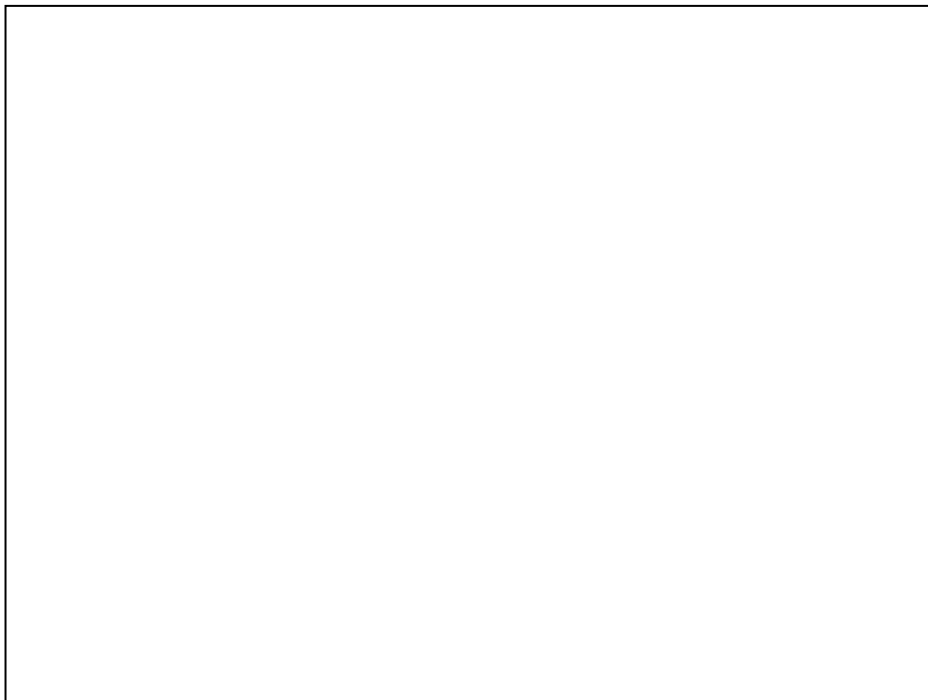
General Notes and Comments: (Include observations of operations at the landfill)

(Use reverse side if necessary)

STOCKPILED DEBRIS FIELD SURVEY FORM



Insert Pictures



DEBRIS DISPOSAL SITE LOAD TRACKING LOG

Debris Disposal Site Load Tracking Log							
Date		Supervisor's Name			Debris Contractor's Site Representative's Name		
Weather: am:				Weather: pm			
Location			Monitor's Name(s)				
Truck No.	Ticket No.	Ticket Owner	Estimated Quantity (CY)	Monitor's Initials	Load Accepted	Load Denied	Remarks

TEMPORARY DEBRIS STORAGE AND REDUCTION SITE BASELINE DATA CHECKLIST

The following site baseline data checklist should be used to evaluate a site before a Contractor begins operations and used during and after to ensure that site conditions are properly documented

Before Activities Begin

- Take ground or aerial photographs and/ or video.
- Note important features, such as structures, fences, culverts, and landscaping.
- Take random soil samples.
- Take random groundwater samples.
- Take water samples from existing wells.
- Check the site for volatile organic compounds.

After Activities Begin

- Establish groundwater-monitoring wells.
- Take groundwater samples.
- Take spot soil samples at household hazardous waste, ash, and fuel storage areas.

Progressive Updates

- Update videos/photographs.
- Update maps/sketches of site layout.
- Update quality assurance reports, fuel spill reports, etc.

TEMPORARY DEBRIS STORAGE AND REDUCTION SITE CLOSURE CHECKLIST

The Contractor must assure the DDM that all TDSRS are properly remediated. There will be significant costs associated with this operation as well as close scrutiny by the local press and environmental groups. Site remediation will go smoothly if baseline data collection and site operation procedures are followed.

- Contractor responsible for removing all debris from the site.
- Contractor conducts an environmental assessment with SWA and landowner.
- Contractor develops a remediation plan.
- Remediation plan reviewed by SWA, landowner, and appropriate environmental agency.
- Remediation plan approved by the appropriate environmental agency.
- Contractor executes the plan.
- Contractor obtains acceptance from SWA, appropriate environmental agency, and the landowner.

The following checklist should be used to document site closure activities

- Site number and location.
- Date closure complete.
- Household hazardous waste removed.
- Contractor equipment and temporary structures removed
- Contractor petroleum spills remediated.
- Ash piles removed.
- Comparison of baseline information to conditions after the Contractor has vacated the temporary site.
- Appendices.
 - Closure documents.
 - Contracting status reports.
 - Contract.
 - Testing results.
 - Correspondence.
 - Narrative responses.

ENVIRONMENTAL CHECKLIST FOR AIR CURTAIN PIT BURNERS

Incineration site inspections will also include an assessment of the environmental controls being used by the Contractor. Environmental controls are essential for all incineration methods, and the following will be monitored. See Attachment 1- Forms: 1-e for a reproducible checklist.

- A setback of at least 1,000 feet should be maintained between the debris piles and the incineration area. Keep at least 1,000 feet between the incineration area and the nearest building. Contractor should use fencing and warning signs to keep the public away from the incineration area.
- The fire should be extinguished approximately two hours before anticipated removal of the ash mound. The ash mound should be removed when it reaches 2 feet below the lip of the incineration pit.
- The incineration area should be placed in an aboveground or below ground pit that is no wider than 8 feet and between 9 and 14 feet deep.
- Above ground incineration pits should be constructed with limestone and reinforced with earth anchors or wire mesh to support the weight of the loaders. There should be a 1-foot impervious layer of clay or limestone on the bottom of the pit to seal the ash from the aquifer.
- The ends of the pits should be sealed with dirt or ash to a height of 4 feet.
- A 12-inch dirt seal should be placed on the lip of the incineration pit area to seal the blower nozzle. The nozzle should be 3 to 6 inches from the end of the pit.
- There should be 1-foot high, unburnable warning stops along the edge of the pit's length to prevent the loader from damaging the lip of the incineration pit.
- Hazardous or contaminated ignitable material should not be placed in the pit. This is to prevent contained explosions.
- The airflow should hit the wall of the pit about 2 feet below the top edge of the pit, and the debris should not break the path of the airflow except during dumping.
- The pit should be no longer than the length of the blower system and the pit should be loaded uniformly along its length.

RIGHT OF ENTRY / HOLD HARMLESS AGREEMENT

RIGHT OF ENTRY PERMIT NO. _____ **DATE** _____

PROPERTY ADDRESS / DESCRIPTION

NAME (OWNER'S OR OWNER'S AUTHORIZED AGENT)

RIGHT OF ENTRY: I certify that I am the owner or the owner's authorized agent of the above-described property. I grant freely and without coercion the right of access and entry to said property to representatives of the Federal Emergency Management Agency (FEMA), the U.S. Army Corps of Engineers (USACE) and the USDA Forest Service to inspect the property for purposes of determining whether disaster-generated debris is eligible for removal under FEMA'S programs and to monitor that removal, and to (eligible applicant) _____, its agents, contractors and subcontractors for the purpose of removing and/or clearing that disaster-generated debris from that property.

HOLD HARMLESS: I understand that this permit is not an obligation upon the government to perform debris removal. I agree to hold harmless the United States Government, FEMA, USACE, the USDA Forest Service, (eligible applicant) _____ and any of their agencies, agents, contractors, and subcontractors, for damages of any type whatsoever, either to the above-described property, or to persons situated thereon. I release, discharge, and waive any action, either legal or equitable, that might arise by reason of any action of the above entities while removing disaster-generated debris from the property. I will mark sewer lines, septic tanks, water lines and utilities located on the property.

DUPLICATION OF BENEFITS: Most homeowner's insurance policies have coverage to pay for removal of storm-generated debris. I understand that federal law (42 U.S. C. 5155 *et seq.*) requires me to reimburse (eligible applicant) _____ the cost of removing the storm- generated debris to the extent covered in my insurance policy. I also understand that I must provide a copy of the proof/statement of loss from my insurance company to (eligible applicant) _____. If I have received payment, or when I receive payment, for debris removal from my insurance company or any other source, I agree to notify and send payment and proof/statement of loss to (eligible applicant) _____. I understand that all disaster-related funding, including that for debris removal from private property, is subject to audit.

SWORN & ATTESTED
All owners/agents must sign below.

WITNESSED:

Printed Name: _____

Printed Name: _____

Signature: _____

Signature: _____

Name of Insurance Co. Policy No. _____

**DEBRIS REMOVAL AND DISPOSAL MONITORING PLAN
EXAMPLE**

GENERAL

Pinellas County has entered into a contract with _____
for the purpose of:

Removing vegetative debris from city rights-of-way and temporary debris staging sites and hauling the vegetative debris to a temporary debris volume reduction site.

Setting up and operating one (1) debris volume reduction site located at _____.

Hauling chips/mulch from the debris volume reduction site to _____ Landfill or a location of the Debris Manager's choosing.

Pinellas County will be responsible for monitoring the Contractor's debris removal and disposal activities using municipal and _____ personnel to prepare Debris Load Tickets and contract oversight.

PURPOSE

The purpose of this plan is to outline the monitoring responsibilities of the municipality's Debris Contract Oversight Team personnel. This plan is subject to revision based on changing conditions.

MONITORING OPERATIONS

The Contractor will be responsible for removing all eligible vegetative debris from municipal street rights-of-way and hauling limbs, branches, and yard wastes to designated TDSR sites at _____.

Tree trunks greater than 2 feet in diameter and root balls will be hauled directly to the _____ TDSRS.

Monitoring activities will be controlled by the Debris Manager from the Debris Management Center located at (ADD LOCATION). Phone number for the Debris Manager is (ADD PHONE NUMBER). Day to day operations and contracting problems/questions should be directed to _____.

The Contract Oversight Team monitor's work day is expected to be from 7am – 7pm with one (1) hour for lunch or maximum of 12hours/day seven (7) days per week.

Monitors will be responsible for initiating Debris Load Tickets at Contractor debris loading sites and estimating and recording the quantity of debris, in cubic yards, of Contractor vehicles entering the temporary TDSR sites on County Load Tickets.

DEBRIS LOADING SITES MONITORS

The debris loading site monitors will complete Section 1 of the load ticket. The monitor will keep one copy and give the remaining copies to the truck driver. The monitor's copy will be turned into the Debris Manager or designated representative on a daily basis. Load ticket information will be entered into a database by DMC personnel.

TEMPORARY DEBRIS STORAGE AND REDUCTION SITE MONITORS

The temporary TDSRS monitors will record the estimated quantity, in cubic yards, on Section 2 of the load ticket. The monitor will keep one copy and give the remaining copies to the truck driver. The monitor's copy will be turned into the Debris Manager or designated representative on a daily basis. Load ticket information will be entered into a database by DMC personnel.

Monitors will be located at the entrance to the TDSRS where the inspection tower is located. They will be responsible for estimating and recording the cubic yards of debris in Section 2 of the Load Ticket for all incoming Contractor's debris hauling vehicles. A copy of the Load Ticket is shown below.

COMPLETING THE LOAD TICKET

- The disposal site monitor will be stationed in the inspection tower and make an estimate of the quantity of debris contained in the truck or trailer in cubic yards. Each truck or trailer will have the measured hauling capacity in cubic yards recorded on the side of the truck or trailer. That number should be validated with the quantity stated in Section 1.
- The disposal site monitor will indicate the name and the arrival time of the truck and indicate the type of debris in the truck.
- The disposal site monitor will record the estimated volume, in cubic yards, on the load ticket in the Estimated Debris Quantity block of material contained within the bed of the truck or trailer. The monitor will print and sign his/her name in the designated block. .
- The disposal site monitor will retain one copy of the load ticket and give the remaining copies to the truck driver. The disposal site monitor's copy will be turned into the County Debris Manager or his representative at the end of each day. These are controlled forms and cannot be lost since they will be used to verify the amount of money paid to the Debris reduction site Contractor and to the debris hauling Contractor.

PINELLAS COUNTY DEBRIS LOAD TICKET	
Municipality Name: _____	
FDOT District Number: _____	
County Highway _____	
Ticket No. 00001	
Contractor's Name:	
Driver's Name:	
Truck / Trailer Number:	
Measured Bed Capacity in Cubic Yards:	
Departure Date:	Departure Time:
Pickup Site Location (Must be street address or nearest intersection): County _____ Road: _____ _____	
Federal Aid Road: _____	
Municipal Road: _____	
Other: _____	
Type of Debris:	
<input type="checkbox"/>	Burnable (Clean Wood Debris)
<input type="checkbox"/>	Non-Burnable (Treated Lumber, Metals, C&D)
<input type="checkbox"/>	Mixed (Burnable and Non-Burnable)
<input type="checkbox"/>	Other (Define)
Print Name of Loading Site Monitor:	
Signature:	
Debris Disposal Site Location:	
Arrival Time:	
Estimated Quantity of Debris in Truck /Trailer:	
Cubic Yards	
Printed Name of Disposal Site Monitor:	
Signature:	
Remarks	

- An example of a Truck/Trailer Estimating Table and Truck Capacity Table are shown below.

TRUCK/TRAILER ESTIMATING TABLE

Truck/Trailer Size - CY	100 % CY	90 % CY	85 % CY	80 % CY	75 % CY
Note: Truck/Trailer without a tailgate is rated at 85 % of capacity to start.					

TRUCK CAPACITY TABLE

Truck Number	Driver	Model	License #	Capacity in CY

List Vehicle Numbers, Drivers Name, Model, License Number and Measured Capacity of Truck / Trailer Bed In Cubic Yards.

NOTE: Contract Oversight Team members must measure and photograph every truck and trailer used by the contractor to move debris. This should be done jointly with the contractor’s representative before debris removal operations begin.

Individual logs arriving at the TDSRS will be estimated using the Cubic Yard table below and recorded in the Estimated Debris Quantity block. Individual tree trunks arriving at the site will also be recorded in the Debris Type block as - Other: LOGS

LOG ESTIMATING TABLE

Trunk Diameter in Feet	Length in Feet	Cubic Yards	Length in Feet	Cubic Yards	Length in Feet	Cubic Yards	Length in Feet	Cubic Yards
2 - 3	5-8	2	8-12	3	12-16	4	16-20	5
3 - 4	5-8	4	8-12	6	12-16	7	16-20	9
4- 5	5-8	6	8-12	9	12-16	12	16-20	15
5 -6	5-8	8	8-12	13	12-16	17	16-20	21
6 -7	5-8	11	8-12	17	12-16	23	16-20	29

MONITORING STAFF ASSIGNMENTS

Monitoring assignments and personnel names should be recorded in the following table.

Monitoring Site	Municipality	Monitoring Contractor

TRAINING

All assigned monitors will attend a 2 hour training session starting at 8am on **(ADD DATE and LOCATION)** _____. Alternate training date is _____, same time and location.

VII. DEBRIS CONTRACT OVERSIGHT TEAM STANDARD OPERATING GUIDELINES

Instructions: This is a sample guideline that can be modified to meet the needs of the County or municipality. Blank spaces are provided to be filled in by the County or municipality based on your current organization and personnel. Portions that do not apply should be deleted.

DEBRIS CONTRACT OVERSIGHT TEAM STANDARD OPERATING GUIDELINES

A. DEBRIS REMOVAL AND DISPOSAL OPERATIONS

1. General

The Debris Manager and staff will coordinate debris removal and disposal operations for all portions of the _____. Phase II operations involve the removal and disposal of curbside debris by _____, and contractor crews. All contractor removal operations will be overseen by the Debris Contractor Oversight Team (DCOT). An organization chart is at Figure 1 below.

Mixed debris will be collected and hauled from assigned Debris Control Zones to designated Temporary Debris Storage and Reduction (TDSR) sites or to designated landfill locations. Clean woody debris will be hauled to the nearest designated vegetative Debris Management Site for eventual burning or grinding.

_____ franchise garbage contractors will continue to pickup refuse in accordance with current procedures, routes, and removal schedules. They will not haul disaster debris unless expressly authorized by the Debris Manager.

2. Accounting Documentation

The primary tracking and accounting mechanism for all debris loaded, hauled, and disposed of will be the Load Ticket, which is shown on Figure 2 below. Load tickets will be initiated at pickup and closed-out upon drop-off of each load, and are to be used by both _____ and contracted haulers. Load tickets will serve as supporting documentation for contractor payment as well as for requests for Federal assistance or reimbursement.

B. DEBRIS CONTRACTOR OVERSIGHT TEAM

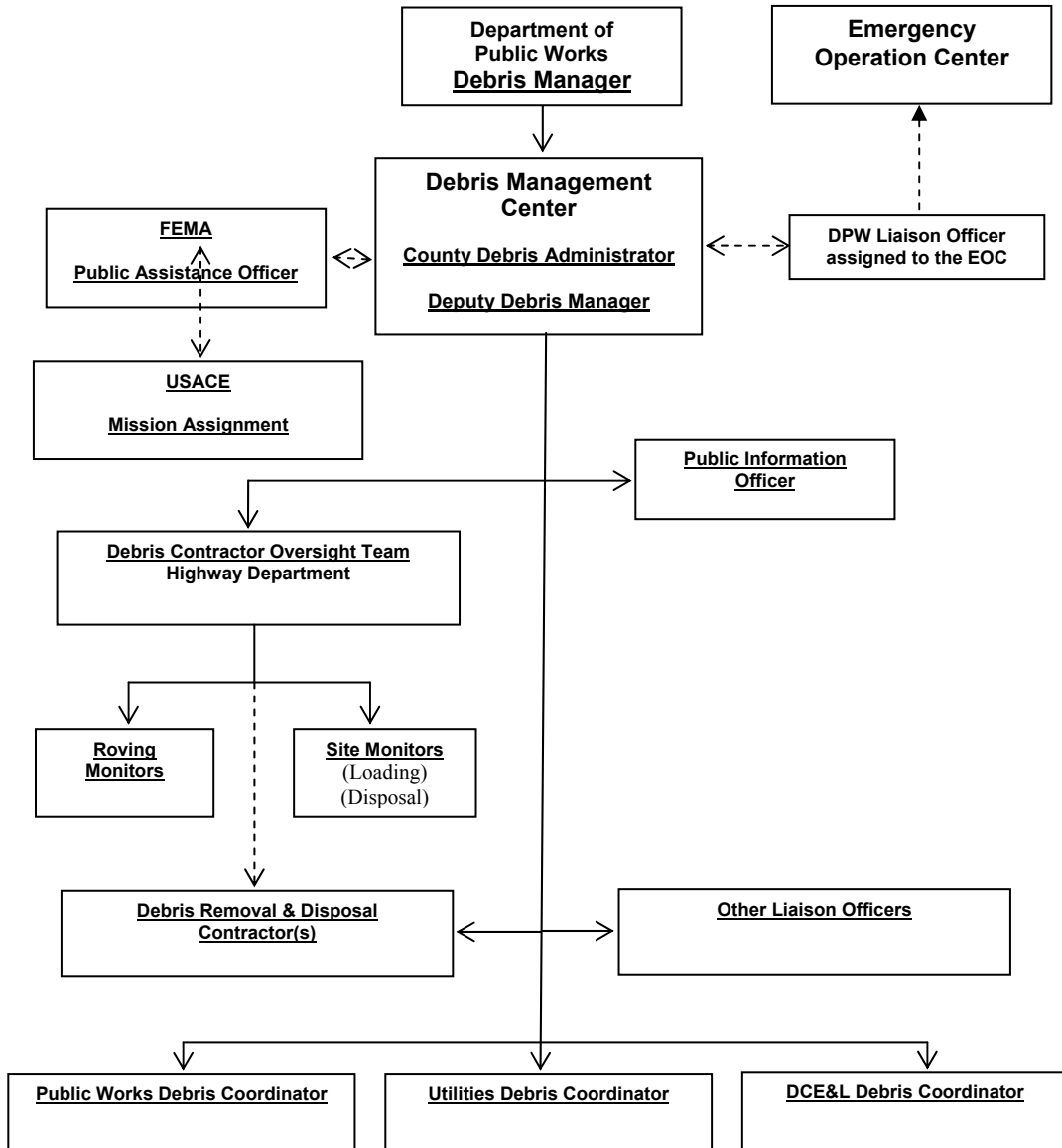
1. General

The Debris Contractor Oversight Team (DCOT) is responsible for the coordination, oversight, and monitoring of all debris removal and disposal operations performed by _____ debris removal and disposal contractors.

The DCOT supervisor and team members will be detailed from _____ and _____, as well as from the _____. The DCOT team may also be supplemented with contracted inspectors and other personnel as needed.

Figure 1

**Debris Management Center Organization
Debris Contractor Oversight Team**



The DCOT team supervisor will be located at the Debris Management Center (DMC) and will provide overall supervision of the two field-based monitoring elements as described below. The DMC is located at _____. Specific responsibilities include the following:

- Planning, Debris Management Site inspection, quality control, and other contractor oversight functions.
- Receiving and reviewing all debris load tickets that have been verified by a Disposal Site Monitor (see description below).
- Making recommendations to the Debris Manager regarding distribution of _____ and Contractor work assignments and priorities.
- Reporting on progress and preparation of status briefings.
- Providing input to the DMC PIO on debris removal and disposal activities and pickup schedules.

The DCOT Supervisor will oversee the activities of two types of field-based inspection teams. The functions and responsibilities of the field inspectors are described in the following sections.

a. Roving Monitors

Teams of Roving Monitors will be assigned to a specific Debris Control Zones or to a specific contractor depending upon the distribution of work assignments. Their mission is to act as the “eyes and ears” for the Debris Manager and DCOT Supervisor to ensure that all contract requirements, including safety, are properly implemented and enforced.

Staff to fulfill the Roving Monitor positions will be provided by DPW from _____ and/or _____ personnel. Roving Monitors will have the authority to monitor contractor operations and to report back to the DCOT Supervisor. Roving Monitors may request contract compliance, but do not have the authority to otherwise direct contractor operations or to modify the contract scope of work.

The following actions will be initiated immediately after a debris-generating disaster:

- The Debris Manager will establish two-person roving monitor teams with their own transportation and communications.
- Roving Monitor teams will be assigned to each contractor’s debris removal and disposal zone.

Once assigned, Roving Monitors will monitor debris operations on a full-time basis and make unannounced visits to all loading and disposal sites within their assigned debris management zone(s). In addition, Roving Monitors are responsible to do the following:

- Obtain and become familiar with all debris removal and disposal contracts for which they are providing oversight.
- Observe all phases of debris management operation, to include loading sites, Debris Management Sites, and final landfill sites.

- Complete a Debris Loading Site Monitoring Checklist (Attachment 1) for every site visited.
- Complete a Debris Disposal Site Monitoring Checklist (Attachment 2) for every Debris Management Site visited. Ensure that operations are being followed as specified in the applicable Debris Removal and Disposal Contract with respect to local, state, and federal regulations.
- Complete the Stockpiled Debris Field Survey Form (Attachment 3) at least weekly at all temporary Debris Management Sites to determine estimated quantities of debris stockpiled.
- Periodically measure curbside debris using the estimating formulas at Attachment 4.
- Prepare a daily written report of all contractor activities observed to include photographs and the aforementioned checklists.

Roving Monitors will also submit daily written reports to the DCOT supervisor outlining their observations with respect to the following:

- Is the Contractor using the site properly with respect to layout and environmental considerations?
- Has the Contractor established lined temporary storage areas for ash, household hazardous wastes, and other materials that can contaminate soil and groundwater?
- Has the Contractor established environmental controls in equipment staging areas, fueling, and equipment repair areas to prevent and mitigate spills of petroleum products and hydraulic fluids?
- Are plastic liners in place under stationary equipment such as generators and mobile lighting plants?
- Has the Contractor established appropriate rodent control measures?
- Are burn sites constructed and operating in accordance with the plans and requirements as stated in the contract?
- Has the Contractor establish procedures to mitigate:

Smoke – Are the incineration pits constructed properly and being operated according to the contract statement of work?

Dust – Are water trucks employed to keep the dust down?

Noise – Have berms or other noise abatement procedures been employed?

Traffic – Does the Debris Management Site have a suitable layout for ingress and egress to help traffic flow?

Roving Monitor's reports will also include observations at loading sites, disposal sites, and the locations of any illegal dumping sites.

b. Load Site Monitors

Load Site Monitors will be stationed at designated contractor loading sites.

Load Site Monitor positions will be staffed from DPW Parking Regulations Enforcement and supplemented by DCRA Code Enforcement personnel depending on the magnitude of the debris-generating event.

Load Site Monitors will be assigned to each Contractor loading site within designated Debris Control Zones. The Load Site Monitors' primary function is to verify that debris being picked up is eligible under the terms of the contract. They will initiate and sign load tickets (Figure 1 below) as verification that the debris being picked up is eligible.

The primary tracking mechanism for all debris loaded, hauled, and disposed of will be the Load Ticket, which is shown on Figure 2 below. Load tickets will be initiated at pickup and closed-out upon drop-off of each load, and are to be used by both and contracted haulers.

c. Disposal Site Monitors

Disposal Site Monitors will be staffed by personnel and supplemented by personnel depending on the magnitude of the debris-generating event. The Disposal Site Monitors will be stationed at all temporary Debris Management Sites and landfill disposal sites for the purpose of verifying the quantity of material being hauled by the contractor.

The Disposal Site Monitor will estimate the cubic yards of debris in each truck entering the temporary Debris Management Site or landfill disposal site and will record the estimated quantity on pre-numbered debris load tickets (Figure 2 below). The Contractor will only be paid based on the number of cubic yards of material deposited at the disposal site as recorded on the debris load tickets.

The Disposal Site Monitor will be responsible for completing and signing each load ticket and returning DCOT copies to the DCOT Supervisor. In addition, Disposal Site Monitors will maintain a daily Debris Disposal Site Load Tracking Log, (Attachment 5), which will also be returned to the DCOT at the end of each day.

At each temporary Debris Management Sites and landfill disposal site, the contractor will be required to construct and maintain a monitoring station tower for use by the Disposal Site Monitor. The Contractor will construct the monitoring station towers of pressure treated wood with a floor elevation that affords the Disposal Site Monitor a complete view of the load bed of each piece of equipment being utilized to haul debris. The Contractor will also provide each site with chairs, table, and portable sanitary facilities

DEBRIS LOAD TICKET	
Task Order Number: _____	
County/Municipality Name: _____	
Ticket No.	
Contractor's Name:	
Driver's Name:	
Truck / Trailer Number:	
Measured Bed Capacity in Cubic Yards:	
Departure Date:	Departure Time:
Pickup Site Location (Must be street address or nearest intersection):	
DOT System Road: _____	
Public Access Road: _____	
Federal Highway: _____	
Other: _____	
Type of Debris:	
	Burnable or Grindable (Clean Wood Debris)
	Non-Burnable (Treated Lumber, Metals, C&D)
	Mixed (Burnable and Non-Burnable)
	Other (Define)
Print Name of Loading Site Monitor:	
Signature:	
Debris Management Site Location:	
Arrival Time:	
Estimated Volume of Debris in Truck /Trailer:	
Cubic Yards	
Printed Name of Debris Management Site Monitor:	
Signature:	
Remarks	

2. Annual Training Workshop

The Debris Manager will be responsible for coordinating an annual training workshop for all assigned DCOT personnel.

The purpose of the workshop is to review the Debris Management Plan procedures and to ensure that the DCOT operation works smoothly. Items of discussion will include:

- Contractor responsibility
- Mobilization sites
- Logistical support
- Pre-storm mobilization
- Procedures for call-up of Contractor personnel and equipment
- Haul routing
- Contractor vehicle identification and registration
- Debris hauling load ticket administration
- Mobilization and operation of the TDSR sites
- Contractor payment request submission, review, and verification
- Special procedures for Household Hazardous Waste
- Debris management site closure requirements

This training will be scheduled to take place in April or May, which is before the start of the Hurricane Season.

LIST OF FIGURES

Figure 1: Debris Management Center Organization Chart

Figure 1: Load Ticket Sample

LIST OF ATTACHMENTS

Attachment 1: Debris Loading Site Monitoring Checklist

Attachment 2: Debris Disposal Site Monitoring Checklist

Attachment 3: Stockpiled Debris Field Survey Form

Attachment 4: Debris Estimating Formulas

Attachment 5: Debris Disposal Site Load Tracking Log