

Annex R: Reconstitution/Recovery

Resource Management

Resources from South Portland will be deployed to conduct preliminary damage assessment and assess the condition of transportation routes, neighborhoods, public utilities such as the water system and the electrical distribution system and other city infrastructure components. Each department in the city has their own policies and procedures. The EOC would coordinate their activities.

Damage Assessment

City employees will use a local form that will be submitted to the EOC. A MEMA damage assessment form is online at [and](#) the EOC Manger will designate someone to complete this form after city forms have been completed. Normally this form will not be completed unless there is significant financial damage.

Damage assessment and safety inspections will take place concurrently with, and in support of, other response and recovery activities. These activities will prioritize critical infrastructure and whenever possible, work with sectors/geographic areas utilized for debris management activities.

The municipality will need to carry out an initial damage assessment for resources within the municipality, and detailed safety inspections of municipality resources and other critical resources. The municipality's primary responsibilities will be to:

- Maintain and share situational awareness of damage and repair efforts.
- Document damage claims for FEMA and municipality insurance carriers.

Damage assessment information is required as part of the disaster declaration process. That process includes the following steps:

- Municipality provides an initial damage assessment (IDA) to the county, estimating monetary damages, using the form listed above.
 - If Public Assistance is sought, the assessment includes information on damages to infrastructure, public facilities, and essential facilities (such as school). It will also include estimated costs for debris removal, emergency work and emergency protective actions.
 - If Individual Assistance is sought, the IDA also includes information regarding damages to private residences and businesses.
- Cumberland County submits the IDA to the Maine Emergency Management Agency (MEMA), including information about all damages within the county.
- If thresholds are met, the state and/or FEMA initiate a joint Preliminary Damage Assessment (PDA). In which state and federal staff visit damaged areas and independently assess damages.

Debris Management

Debris removal operations are defined as the “cradle to grave” activities to collect eligible disaster-related debris from the public Right of Way (ROW) and facilities, and transport the debris to a temporary or permanent disposal site.

Debris removal operations typically begin within 2-5 days following a major debris generating event. This allows time for affected citizens to return to their homes, and begin the clean-up process. Residents then place the debris on the public rights-of-way

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for collection.

DEBRIS MANAGEMENT PLAN

RECORD OF CHANGES: The Record of Changes or significant updates to this plan will be tracked in a table format by change number, date of change, plan page reference, a brief description of the change, and name and title of the person making the change.

RECORD OF DISTRIBUTION: The City of South Portland Plan will be distributed to all pertinent municipal departments, to Cumberland County EMA, MEMA, and FEMA.

Plan #	Agency/Department	Representative Name	Signature	Date

SECTION 1.0: OVERVIEW

1.1 Purpose of the Plan

This *Disaster Debris Management Plan* was developed by **the City of South Portland** to:

- Provide a centralized repository of information critical to starting and operating a disaster debris management program (including sites, zone maps, road list, and pre-positioned contracts, etc.)
- Outline the various local government officials and other stakeholders in the debris management process and the key areas of responsibility for each:
- Educate local government officials and other stakeholders on the general scope of debris removal activities;
- Identify important rules, regulations, and guidelines enacted by Federal Emergency Management Agency (FEMA), Maine Emergency Management Agency (MEMA) and other agencies governing the disaster debris removal process;
- Enable a faster recovery process while ensuring cost effectiveness, including qualifying for State and Federal reimbursements;
- Identify key aspects (in the form of checklists and an operations plan) that **the City of South Portland** will need to take prior to and during a disaster event; and

This plan anticipates and plans for debris management needs that may result from any type of disaster event that could create unusual or extensive debris management challenges that may temporarily overwhelm existing solid waste, recycling, and composting programs. The types of disaster events that this plan addresses include natural disasters such as hurricanes, tornados, floods, and earthquakes; animal or human infectious diseases; acts of terrorism; and facility specific chemical spills or fires. Different types of disasters can pose very different debris management challenges depending on the amount, scope, and types of debris generated.

A significant percentage of FEMA disaster relief funds are spent on disaster debris related activities. Beyond the high cost of cleaning up debris after a major disaster, large amounts of debris threaten public health and safety by harboring rodents and disease, creating fire hazards, contaminating water supplies, threatening housing and businesses, and blocking road access for emergency vehicles, vital supply vehicles, and repair equipment. Commencement of clean-up operations improves general sanitation and signals the beginning of recovery and the restoration of public order.

All communities have unique circumstances that affect their response to disaster events. These circumstances include local business/factory base, land use, size of the region, topography, economics, etc. **The City of South Portland** has made an effort to address these unique circumstances during the development of this *Disaster Debris Management Plan*. This focus is necessary in order to respond to the extraordinary demands placed on public and private resources for debris management following a disaster event. The FEMA *Debris Management Action Guide* (FEMA 325) has been adopted by the **City of South**

Portland to define roles, responsibilities, and procedures and provide guidance for development and implementation of all elements involved in managing debris removal operations when the scope and severity of a hazard event overwhelms an individual community’s response capabilities.

The ability to respond appropriately to disaster events depends upon the preparedness of municipalities and the effectiveness of the professionals and volunteers who are immediately available to them. When local response resources become overwhelmed in addressing a disaster event, response managers need to turn to other communities in the county, the State, and the private sector for help. Knowledge of what human and material resources are available and of how to mobilize assistance is an essential part of pre-disaster planning. Pre-disaster planning also identifies the funding protocols that have been established by the Federal and State governments to allow municipalities to access supplemental disaster-response services. These funding protocols often require the presence of trained local officials and contractors who have the skills needed for the monitoring of debris management activities and for timely and accurate reporting.

Training in the fundamentals of the National Incident Management Systems’ (NIMS) Incident Command System (ICS) is of particular importance in ensuring that all first responders, contractors, and public officials are speaking the same language and following the same consistent protocols in responding to an emergency. The organization of people with their particular skills into a working team with a clear chain of command conforms to the guidelines of the ICS. The ICS is a system of organization adopted by communities that allows for an effective and efficient response to emergencies and disasters. It is through the ICS system that additional resources, available to the community; are made known by the community’s Local Emergency Manager (LEM). These additional resources include the resource inventory in the local Comprehensive Emergency Management Plan (CEMP); the mutual aid agreement process with neighboring communities; availability of Red Cross and other shelters; (Community Emergency Response Teams (CERT) and Medical Reserve Corps (MRC) deployments, etc.

1.2 BACKGROUND

Table 1.1: Basic Information Describing the City of South Portland

General Location in State	Cumberland County (Coastal)
Identifying Landmarks	Fort Preble (SMCC), Spring Point Light, Bug Light Park, Millcreek Park, Maine Mall, Portland Jetport.

Topography	Urban /Rural, overall relatively flat at 26 feet elevation.
Total # of Square Miles	14.02 (Land 11.99)
Total # of Miles of Roadways	
Maine DOT	
City or Town	
Population Density (people/square mile)	25,577 / 11.99 = 2133
Maine = 41.3 people/square mile	
Cumberland County=344 people/sq. mi	
City of South Portland =	
Primary Land Uses (in acres)	<u>Percentage of Total Acreage</u>
Residential: 1,938.97	24.7%
Commercial: 2,438.31	31.0%
Industrial: 1,147.00	14.6%
Public/Institutional: 1,271.94	16.2%
Forest: Unknown	
Farm (cropland, pasture, orchard, nursery): Unknown	
Water: 4.31	.05%
Wetlands: 785.71	10.0%
Open Land: 256.94	3.3%
Other: 10.82	0.138%
Total Acres = 7853.99	100%

1.2 Population, Households, and Employment

Table 1.2: U.S. Census Population and Household Data for the City of South Portland

Total Population (2017 estimate)	25,557
Total Number of Households	10,877
Total Number of Housing Units	11,484
Total Number of Occupied Housing Units	10,877
Owner-Occupied	6,632
Renter-Occupied	4,245
Average Owner-Occupied Household Size	2.37
Average Renter-Occupied Household Size	2.03
Vacant Housing Units (seasonal homes) (as a percentage of total units)	6.07

Table 1.3: U.S. Census Employment Data by Industry for the City of South Portland

<https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2016/>

Be aware that these figures are updated annually.

Industry Sector	# of Workers	Percentage of Workers
Retail	2,033	14.3
Educational, health and social	3,680	25.9
Professional, scientific, management, administrative	1,859	13.1
Arts, entertainment, and food services	1,792	12.6
Finance, insurance and real estate	1,247	8.8

Table 1.4: Solid Waste Management Facilities Serving the City of South Portland

Site Name	Site Location	Waste Category	Responsible Organization Type	Responsible Organization Name	Site Phone #
EcoMaine	Scott Street (Westbrook)	Solid	Municipal	EcoMaine	207 773-1738

1.3 PLAN DEVELOPMENT

In 2014, the Maine Emergency Management Agency updated the State Debris Management Annex to the State Comprehensive Emergency Management Plan (CEMP) (*see Appendix 1 for web links to this and other disaster debris management resources referenced in this Plan.*) County and Municipal governments will follow their specific procurement and emergency contracting guidelines, as well as FEMA guidance and the requirements of §2 CFR Part 200.

Development of this plan was undertaken in February 2019 by the South Portland Fire Department, Captain Robb Couture with guidance and materials provided by Cumberland County Emergency Management Agency. The Plan is modeled, with permission, on the Western Region (MA) Homeland Security Advisory Council Disaster Debris Management Plan Template and Appendices Template. The Plan includes content from the 2014 Maine statewide plan.

This plan is an Annex in the City of South Portland’s All Hazards Emergency Operations Plan (AHEOP). The AHEOP is reviewed periodically as needed. This plan went through a process of internal review and approval by local officials and acceptance by regional, state and federal agencies as shown in the table below.

Table 1.5: Plan Review Process

Review Official/Agency	Date of Acceptance/Adoption
Local Emergency Management Director	
Local Fire Chief	

Review Official/Agency	Date of Acceptance/ Adoption
Local Department of Public Works	
City Council	
EcoMaine	
Maine DEP	
MEMA	
FEMA Region 1 Administrator (submitted to FEMA by MEMA staff)	

1.4 ELIGIBILITY FOR DEBRIS REMOVAL

Debris removal is the clearance, removal, and/or disposal of items such as trees, woody debris, sand, mud, silt, gravel, building components and contents, wreckage (including that produced during the conduct of emergency work), vehicles on public property, and personal property. For debris removal to be eligible for reimbursement under FEMA’s Public Assistance (PA) Program, the work must be necessary to:

- Eliminate an immediate threat to lives, public health and safety.
- Eliminate immediate threats of significant damage to improved public or private property when the measures are cost effective.
- Ensure the economic recovery of the affected community to the benefit of the community-at-large.
- Mitigate the risk to life and property by removing substantially damaged structures and associated appurtenances as needed to convert property acquired using FEMA hazard mitigation program funds to uses compatible with open space, recreation, or wetlands management practices.

Improved property is any structure, facility, or item of equipment that was constructed, built, or manufactured. Examples of improved property include buildings, levees, roads and bridges, vehicles and equipment, improved and maintained natural features.

Unimproved property is not eligible for FEMA funding for permanent restoration or for protection by the performance of emergency protective measures. Examples of unimproved property include agricultural land, a hillside or slope, forest, or a natural stream bank.

Examples of *eligible* debris removal activities include:

- Debris removal from a street or highway to allow the safe passage of emergency vehicles.

- Debris removal from roads in private communities, including debris moved to the curb in the community.
- Debris removal from public property to eliminate health and safety hazards.

Examples of *ineligible* debris removal activities include:

- Removal of debris, such as tree limbs and trunks, from natural (unimproved) wilderness areas.
- Removal of pre-disaster sediment from engineered channels.
- Removal of debris from a natural channel unless the debris poses an immediate threat of flooding to improved property from a flood that has a 20% chance of occurring in any one year.

In general, debris on private property is the responsibility of the individual property owner aided by insurance settlements and assistance from volunteer agencies. FEMA assistance is not available to reimburse private property owners for the cost of removing debris from their property. However, if private property owners move disaster-generated debris to the public right-of-way, the costs associated with removing this debris from the right-of-way may be eligible under the Public Assistance Program. State or local government collection and management of disaster-related debris placed at the curb by residents typically is considered an eligible cost. Coordination between FEMA approved right-of-entry work on private property and privately financed removal processes is important in determining eligible expenses. Debris on private property that must be removed to allow continued safe operation of governmental functions or to alleviate an immediate threat is considered an eligible cost. This work must be carefully controlled with regard to extent and duration. Generally, costs that can be directly tied to the performance of eligible work are eligible for FEMA reimbursement. Such costs must be:

- Reasonable and necessary to accomplish the work;
- Compliant with Federal, State and local requirements for procurement; and
- Reduced by all applicable credits, such as insurance proceeds and salvage values.
- Local governments should refer to FEMA guidance for more specifics on what costs are eligible for reimbursement. (*See the FEMA 325 Debris Management Guide V3.1, dates May 4, 2018 may be found at <http://www.fema.gov/media-library/assets/documents/111781>.*)

SECTION 2.0: EMERGENCY ORGANIZATIONS AND RESPONSIBILITIES

2.1 FEDERAL GOVERNMENT

The Federal Response Plan outlines the process under which Federal support may be provided. MEMA is the State contact for Federal emergency assistance. The Governor may request a Presidential Disaster Declaration when local and State response and recovery efforts are unable to adequately cope with the situation. MEMA assembles the

data for such a request working through the County offices and their respective communities.

If an emergency or major disaster declaration is made under the authority of the Disaster Relief Act (Public Law 93-288) as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 101-7-7), assistance is usually provided in the form of financial reimbursement of a portion of the disaster-related costs for approved projects. Debris removal costs incurred by municipalities and the State would be evaluated and if determined eligible would be reimbursed on a cost-sharing basis (normally 75% federal and 25% local; in special individual instances the State may contribute to the local share).

2.1.1 Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency (FEMA) coordinates the response and recovery efforts for all Presidential declared disasters. FEMA provides guidance documents for local governments to be used as a guide for disaster planning and response (*see Appendix 1 for links to FEMA publications associated with debris recovery*). FEMA may provide support to State and local governments during and after emergency events. In catastrophic disasters, FEMA can also provide direct Federal assistance to support municipalities and the State in performing some debris removal activities. The response capability must clearly exceed the resources of local and State efforts. FEMA may also direct other Federal agencies to provide debris removal technical assistance to municipalities and the State. Technical assistance may be provided in contract preparation, bid solicitation, contract management, and debris disposal activities. Municipalities and the State remain responsible for all debris removal activities and are reimbursed for their eligible costs.

Representatives from FEMA may be on site during the response and recovery phases of the debris management cycle if a Presidential disaster has been declared. FEMA staff will provide guidance about debris eligibility and the FEMA reimbursement process. FEMA's primary role will be in the development of project worksheets for the County's debris cleanup operations, a key function of the reimbursement process.

Although not every disaster may qualify for declaration as a Federal emergency or major disaster, all disasters in which debris is a significant component should be conducted as though Federal assistance will be provided. By doing so, the State agencies and local governmental entities will help ensure compliance with FEMA requirements and regulations, minimize delays in obtaining funding, maximize eligible funding, and reduce the potential for problems both during and after disaster operations. Complying with those requirements during non-Federal disasters, as well as training scenarios, will help ensure compliance during a declared event. Particular attention should be focused on these areas of FEMA eligibility: reasonable costs, contracting procedures, debris monitoring, and documentation. Planning requirements for each of these areas are detailed in the Public Assistance Program and Policy Guide (PAPPG) current version dated May 4, 2018 and may be found at <https://www.fema.gov/media-library/assets/documents/111781>.

Public Assistance Grant Program

Under the Public Assistance (PA) Program, which is authorized by the Stafford Act, FEMA awards grants to assist State and local governments and certain Private Nonprofit (PNP) entities with the response to and recovery from disasters. Specifically, the program provides assistance for debris removal, emergency protective measures, and permanent restoration of infrastructure to pre-disaster condition. The Federal share of these expenses typically cannot be less than 75 percent of eligible costs of debris removal, emergency services related to the disaster, and repairing, replacing or restoring damaged public facilities and infrastructure. The program also encourages protection from future damage by providing assistance for hazard mitigation measures during the recovery process. The PA Program encourages planning for disaster recovery, but PA Program funds may not be used for the costs of planning. The costs incurred implementing the plans are eligible for reimbursement only if they meet PA Program eligibility criteria. The Code of Federal Regulations – Title 44 Emergency Management and Assistance (44 CFR) provides procedural requirements for the PA Program operations. These regulations are designed to implement a statute based upon FEMA’s interpretation of the Stafford Act. They govern the PA Program and outline program procedures, eligibility, and funding.

FEMA Incentives

On January 29, 2013, President Obama signed into law the Sandy Recovery Improvement Act of 2013 (P.L. 113-2). This law amends Title IV of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.) (Stafford Act). Specifically, the law adds section 428, which authorizes alternative procedures for the Public Assistance Program under sections 403(a)(3)(A), 406, 407 and 502(a)(5) of the Stafford Act. It also authorizes the Federal Emergency Management Agency (FEMA) to implement the alternative procedures through a pilot program. The pilot program for the alternative procedures that pertain to debris removal is available through June 27, 2019. FEMA will analyze data documented throughout the pilot to assess the procedures’ effectiveness at achieving the goals outlined in the Sandy Recovery Improvement Act. Based on the assessment, FEMA may elect to discontinue the program, extend the pilot for an additional performance period, or issue regulations that would institute the program changes authorized by the law. (*Information on the Alternative Procedures Program may be found in Appendix I.*)

The law identifies the following goals for these procedures:

- Reducing the costs to the Federal Government of providing Public Assistance.
- Increasing flexibility in the administration of such assistance.
- Expediting the provision of assistance to a State, Tribal or local government, or nonprofit owner or operator of a private nonprofit facility.
- Providing financial incentives and disincentives for timely and cost-effective completion of projects with such assistance.

The alternative procedures authorized under the law pertain to debris removal (emergency work) and repair, restoration, and replacement of disaster-damaged public and private nonprofit facilities (permanent work). For debris removal, the law allows for, and FEMA is currently piloting:

- Reimbursing base and overtime wages for the employees of State, Tribal or local governments,
 - or owners or operators of private nonprofit facilities performing or administering debris and wreckage removal; and
- Providing incentives to a State or Tribal or local government to have a debris management plan accepted¹ by the FEMA Administrator and have pre-qualified one or more debris and wreckage removal contractors before the start of the declaration's incident period. (*See Appendix 1 for a link to FEMA's Public Assistance Alternative Procedures Guide for Debris Removal, April 2018*)

FEMA will review debris management plans as described in the Debris Management Plan Job Aid.

The law also authorizes FEMA to make awards for debris removal based on fixed estimates, and to allow sub recipients to use excess funds from those awards for approved purposes. FEMA is not implementing these procedures as part of this pilot. FEMA continues to work to improve debris-estimating methodologies and will consider implementing these procedures in the future.

A. Applicability

In accordance with the law, state, tribal, and local governments, and the owners and operators of certain private nonprofit facilities may participate in the alternative procedures during the pilot performance period. Participation in the pilot program and use of the alternative procedures for debris removal is voluntary. If sub-recipients use any of the alternative procedures, they must sign an acknowledgement regarding these procedures, which FEMA will attach to the Sub-award Application (Project Worksheet).

The alternative procedures for the debris removal pilot program are available to any applicant, upon request, for any major disaster or emergency declared on or after June 28, 2013, and until the end of the pilot program period.

For disasters and emergencies declared on or after June 28, 2014, all of the debris removal alternative procedures can be applied to both small and large projects. Small projects, with the exception of those using the Accelerated Debris Removal--Increased Federal Cost Share (Sliding Scale) alternative procedure, will be processed using the Simplified Procedures authorized by Section 422 of the Stafford Act.

2.1.2 United States Coast Guard (USCG)

USCG may provide Federal coordination for the removal of oil and hazardous materials within the coastal zone of the State. The USCG is also responsible through the Ports and Waterways Safety Act (33 U.S.C. §1221) to keep waterways safe and open. At times, there have been instances where the USCG has been tasked with the actual debris removal in waterways.

2.1.3 United State Army Corps of Engineers (USACE)

The USACE, if tasked through a Federal mission assignment may provide all debris removal operations in a devastated area. The USACE will coordinate with the State, County, or Municipal government to determine the priority needs of the State.

The Federal government may also authorize the USACE to remove debris from publicly maintained commercial harbors, as well as removal of obstructions in navigable waters in emergency situations. The USACE is also a permitting agency for work (dredging) conducted in the navigable waterways. The USACE can provide technical assistance on the debris operations as a whole, as requested by the State.

2.1.4 United States Department of Agriculture, Natural Resources Conservation Service (NRCS) and Animal, Plant and Health Inspection Services (APHIS)

NRCS may provide assistance to public and private landowners for the removal of debris that impacts watersheds, which has caused an imminent threat to life or property. Generally, the NRCS eligible debris is located within channels or in close proximity to a channel. Prior to removing any debris, the applicant must receive approval for the project; otherwise, the project cost would not be eligible.

APHIS Veterinary Services may provide for the removal and burial of diseased animal carcasses.

Coordination for the programs occurs directly with the State agency, County or Municipal government and the NRCS or APHIS personnel.

2.1.5 Environmental Protection Agency (EPA)

The EPA may provide technical assistance and debris removal related to oil contaminated debris or debris consisting of hazardous substances. Whereas the USCG has authority for coastal zones, the EPA's authority is related to inland zones. Coordination occurs between the Federal government and the State Department of Environmental Protection.

2.2 STATE OF MAINE

2.2.1 Governor's Office

Under a gubernatorial State of Emergency Declaration, the Governor normally issues an Executive Order, which directs State agencies to take such actions as may be necessary to assist affected areas in repairing, restoring and protecting public and private facilities and to provide such other emergency assistance as would protect the public health and safety.

Frequently, in the aftermath of a disaster, municipalities and public utilities remove large quantities of debris as part of their efforts to restore services. When a State Emergency is declared, State agencies may be directed to assist in those efforts. However, the approach and strategies in this Plan should be applied to a variety of situations that generate large amounts of debris, whether or not there is a declared State of Emergency.

This section briefly describes the responsibilities of the various state agencies involved in debris management specifically, and emergency management in general. Each County and Municipal government is its own applicant to the FEMA Public Assistance Grant Program (PA) and therefore, each entity is responsible for interfacing with FEMA personnel relevant to their individual projects and costs. However, it is in the State's best interest to provide the necessary technical assistance to County and Municipal governments to ensure costs are reasonable and that regulatory policy and guidance are followed.

2.2.2 Maine Emergency Management Agency

MEMA is a member of the State's Debris Management Team and will provide technical assistance to State agencies, County, and Municipal governments on debris removal operations and FEMA regulations and policies related to the documentation for Federal reimbursement grants. MEMA also provides information to the SEOC to develop policy and if required, rules and regulations.

2.2.2.1 State Emergency Operations Center (SEOC)

The Governor or designee fills the position of the Incident Commander for the entire disaster with representatives from all tasked State agencies performing the supporting roles. The SEOC activates the emergency communications operation plan and notifies the State Debris Management Team of its activation. The SEOC is responsible for policy decisions and will submit the State's request for Federal assistance.

2.2.2.2 State Debris Management Team (DMT)

The State of Maine has determined that a unified command structure will be used during the debris operations, and has developed an organizational chart that reflects the coordination between State agencies that have been designated as the Debris Management Team as well as the lines of coordination with the individual agencies performing actual operations. Members of the Debris Management Team (DMT) include the Maine Department of Transportation, the Maine Department of Agriculture and Forestry (DACF), the Maine Emergency Management Agency (MEMA), the Maine Turnpike Authority (MTA), the Department of Administration and Financial Services – Bureau of General Services (DAFS/BGS) and the Department of Environmental Protection (DEP). These agencies, functioning in their capacity within the Debris Management Team (DMT), will provide the necessary coordination between operations and the State Emergency Operations Center (SEOC). Additional responsibilities of the DMT will be to designate a State Debris Manager, who will provide the unified voice of the Debris Management Team to the SEOC, ensure coordination between State agencies,

Counties and Municipal governments, assess the need for additional resources to achieve operational goals, and provide technical assistance on operations, environmental compliance, and contracting, as requested. The DMT may provide input on policy and decision making to the SEOC, as it relates to the overall debris operations.

The DMT will liaison with FEMA Public Assistance staff and may participate in the preliminary damage assessments, provide information related to statewide debris activities, provide assistance to estimate debris quantities, and forward applicable policy and regulations for the disaster event to the State, County, and Municipal applicants for FEMA PA funding, as requested.

The DMT will coordinate with the SEOC and the State's Public Information Officer to provide information for Maine's residents and businesses on debris removal activities impacting the State roadways, parks, and facilities.

The DMT will ensure that annual training for disaster debris management is available for all State agencies involved in the debris operations process. In addition, the DMT will be responsible for the annual review of the Comprehensive Debris Management Plan and revisions, as necessary.

2.2.3 Maine Department of Transportation (Maine DOT)

A Department of Transportation Statewide Debris Manager has been appointed and is a member of the State DMT. Each Maine DOT Region has appointed a Regional Debris Manager who will be the point of contact for the debris clearance, removal, disposal, and monitoring activities. The Regional Debris Manager will relay information to the Department of Transportation Statewide Debris Manager and will coordinate with County and Municipal governments throughout the debris operations. The Regional Debris Manager will be the point of contact for the Region in rendering mutual aid assistance or coordinating mission assignments. Additional responsibilities include general oversight of force account labor and equipment and debris removal contractors, coordination with internal departments for procurement and contracting needs, and coordination to ensure environmental, historic and cultural compliance. The Regional Debris Manager will ensure that the agency health and safety plans are reviewed with all field staff. The Regional Debris Manager will ensure the collection and retention of disaster related documentation within the specific Maine DOT Region. All documentation will be forwarded to the Department of Transportation Statewide Debris Manager for retention in the project management files.

Cumberland County falls within Region 1 of the Maine DOT.

2.2.4 Maine Department of Agriculture Conservation and Forestry, Bureau of Parks & Lands (DACF)

DACF manages 600,000 acres of State parks, historic sites, public reserved lands, coastal islands, and submerged lands. In addition, DACF also provides some maintenance at

select municipal parks through intergovernmental agreements. For the purposes of this Plan, the focus of the DACF responsibilities will be improved sites primarily located at the 35 State parks and 15 historic sites. A Parks Debris Manager will be the point of contact for the debris clearance, removal, disposal, and monitoring activities. The Parks Debris Manager will coordinate with site-specific facilities crews and provide status of operations to the State DMT, as necessary. DACF will use force account labor and equipment and may use contractors for their debris operations. Additional responsibilities include the coordination with internal departments for procurement and contract needs and to ensure environmental, historic, and cultural site compliance issues. The Parks Debris Manager will ensure that the agency health and safety plans are reviewed with all field staff. The Parks Debris Manager will ensure the collection and retention of disaster related documentation for the debris operations.

2.2.5 Maine Turnpike Authority (MTA)

Maine's Turnpike Authority has functional responsibility for the maintenance and operations of approximately 109 miles of Interstate 95. The MTA Debris Manager will be the point of contact for the debris clearance, removal, and disposal of disaster-generated debris from its roadway. MTA will use a combination of force account labor and equipment and contractors for their debris operations. The Debris Manager will coordinate with its internal departments for procurement and contracting needs, and to ensure environmental, historic, and cultural site compliance issues. The Debris Manager will ensure that the agency health and safety plan is reviewed with all field staff. The MTA Debris Manager will ensure the collection and retention of disaster related documentation for the debris operations.

A map of the Maine Turnpike can be found in Annex B.

2.2.6 Maine Department of Administration and Financial Services– Bureau of General Services (DAFS/BGS)

DAFS/BGS, referred to as BGS, is a member of the State's Debris Management Team. BGS manages the State-owned buildings and facilities and has oversight for the contracts for over- 275 leased buildings throughout the State. BGS Property Management ground crews provide routine maintenance of the State-owned facilities outdoor space, but may also utilize contract debris clearance, removal, and disposal services following a disaster. Depending upon the terms and conditions of the lease agreements, BGS may also be responsible for debris cleanup of outdoor space at leased facilities. When the Debris Management Plan is implemented, the BGS will designate a debris manager to ensure oversight for debris operations and documentation.

2.2.7 Maine Department of Environmental Protection (MDEP)

DEP is a member of the State's Debris Management Team and will provide oversight, regulation, and technical assistance for disposal of disaster generated debris. DEP is responsible for the permitting of all permanent disposal sites and the authorization of disaster debris management sites. DEP is by statute (MRSA Title 38 Section 541), the

designated petroleum spill response agency and will provide post-disaster assessment and cleanup of the materials from land and marine areas. DEP works in cooperation with State, County or Municipal public safety agencies to provide assessment and removal of hazardous materials from land and marine areas (MRSA Section 1318-B). DEP will coordinate with the EPA, as necessary when Federal assistance is required. DEP will ensure the collection and retention of documentation resulting from clean-up operations conducted by the agency.

2.2.8 Maine Historic Preservation Commission (MHPC)

The HPC functions as the State Historic Preservation Office and is responsible for the protection of historic and cultural resources of the State. HPC will coordinate with and provide technical assistance to the State DMT, State agencies, County, and Municipal governments where debris operations may impact a State historic or cultural resource.

2.3 Cumberland County

It is important to remember that in Maine as a home rule state, the counties are limited in their power and authority. Nor do they have the funding or staff to provide an operational role. Cumberland County does have several teams under its jurisdiction to assist municipalities and acts as a resource through all phases of a disaster.

2.4 Municipalities

Due to the governmental structure in Maine where municipalities have primary responsibility for governmental functions under Home Rule, local officials will be the primary authorities initiating and overseeing emergency operations during a hazard event requiring debris management. During a disaster or emergency, local governments may activate their local Emergency Operations Center (EOC). The EOC functions as a designated focal point of coordination and communication activities within the municipality. The EOC will be staffed per the Comprehensive Emergency Management Plan's (CEMP) Incident Command System (ICS).

Disaster debris management is a function of the local disaster response. Response efforts will first be directed to protect lives and property such as evacuation, sheltering, firefighting, search and rescue, utility restoration, and clearing debris from key roads. Local government will be responsible for debris management throughout the lifecycle of the event, to include collecting debris and establishing debris management sites during the ongoing response and recovery phases. Contractors, volunteers and mutual aid from neighboring communities may augment municipal personnel, equipment and resources. A local State of Emergency may be declared when resources are inadequate to cope with an emergency. Local resources must be fully utilized before state resources will be brought into play. MEMA may provide support if requested under such circumstances.

It is advisable that local officials be properly trained in advance of an emergency and that they coordinate their actions through MEMA at the state level and with local and regional officials while the hazard event is ongoing. All local officials should be trained in ICS 100 (Introduction to Incident Command System) and ICS 700 (Introduction to National

Incident Management System) and should regularly participate in training exercises with emergency preparedness officials.

Communities in which Debris Management Sites (DMS) pre-qualified by MDEP are located are encouraged to enter into Memoranda of Understanding (MOUs) with the local owners of the sites in advance of an emergency. These MOUs should spell out the procedures for activating the site, the circumstances under which the site would be utilized for debris management, and the final condition that the site should be in when the debris management operation is completed.

Local governments are strongly encouraged to enter into mutual aid agreements, such as the Statewide Mutual Aid Agreement, to provide assistance to one another during an emergency or a natural disaster extending beyond the borders of the host community. The agreements should either stipulate reciprocal services or set labor and equipment rates. In order for emergency assistance provided under a mutual aid agreement to be eligible for reimbursement by FEMA, the agreement must be in writing and must be in place before the disaster. (See Annex C for information on Mutual Aid Agreements.)

Record keeping will need to be done and documentation maintained at the municipal level for purposes of applying to FEMA for reimbursement of emergency-related expenses. The municipal applicant must track the debris from “cradle to grave.” If a regional facility is used to store debris, the monitors must identify what trucks are coming from which community and the quantity from each truckload must be documented and tracked from site, to holding area, to final disposal and any other step in between.

The primary authorities involved in debris management at the local level include those listed in the table below. The roles of these local officials are described in the following sections. The table also includes the names and contact information for the individuals in those positions in the City of South Portland.

Table 2.1: Municipal Authorities and Contact Information

Local Authority	Title	Primary Contact Name	Phone	E-mail Address
Chief Elected Officials	Mayor	Kate Lewis	207-767-3201	klewis@southportland.org
Municipal Administration	City Manager	Scott Morelli	207-767-3201	smorelli@southportland.org
Finance Director	Finance Director	Ellen Sanborn	207-767-3201	esanborn@southportland.org
Local Emergency Manager (LEM)	Fire Chief		207-799-3311	pselberg@southportland.org
Board of Health (BOH)	Health Officer		207-799-3311	bskelton@southportland.org
Fire Department	Fire Chief		207-799-3311	pselberg@southportland.org

Local Authority	Title	Primary Contact Name	Phone	E-mail Address
Building Inspector	Code Enforcement	Barbara Skelton	207-767-3201	bskelton@southportland.org
Police Department	Police Chief	Daniel Ahern	207-799-5511	dahern@southportland.org

2.4.1 Chief Elected Officials

A municipality's Chief Elected Officials are responsible for the overall management of the municipality. They are the parties vested with directing the emergency management director to establish an Emergency Operations Center (EOC), if necessary, ensuring that the necessary town resources are made available when needed, and that the public is informed about the progress of emergency operations.

2.4.2 Municipal Administration

The City of South Portland is served by a **City Manager**, who oversees day-to-day operations under the supervision of the municipality's Chief Elected Officials. The **City Manager** may have authority to act on behalf of the municipality if the Chief Elected Officials are not available. The **City Manager** also has the overall responsibility for coordinating the records and may also have responsibility for general public relations, under the direction of the Chief Elected Officials.

A municipality's Finance Director, a key member of the administrative team, will also play a major role in monitoring and tracking costs for reimbursement purposes and for managing reimbursement with state and federal government.

2.4.3 Local Emergency Manager (LEM)

Each municipality in Maine has designated an LEM to take overall responsibility for emergency preparedness and response for their community. For the most part, these are appointed by the municipality's Chief Elected Officials who also hold other positions within the community (often as the Fire Chief). Once the municipality's chief elected or appointed officials declared an emergency, it would be the LEM who would be responsible for establishing and running an EOC; for requesting additional assistance from surrounding communities and from MEMA if the municipality does not have the capacity to respond to a widespread or especially damaging event; and working with and for the designated Public Information Officer to keep the public informed about the status of the emergency situation,

2.4.4 Department of Public Works (DPW)/ Highway Department

The local roads Public Works Department's primary responsibility is to conduct the emergency road clearing activities following a disaster event. Primary arteries leading to critical facilities such as hospitals, shelters and distribution centers will be identified as priorities and cleared as soon as possible. Primary arteries also include evacuation

routes. (See the **City of South Portland Disaster Debris Management Sites Map** and the individual site **Locus Maps** in Annex F for the locations of primary arteries including the roadways to critical facilities and primary, secondary, tertiary, and alternative evacuation routes.) Because of their key role in emergency operations, DPW staff in particular should be trained in ICS 100 and ICS 700 and should regularly participate in training exercises with emergency preparedness officials. DPW staff will also play a role in monitoring and tracking costs of the debris management operations for reimbursement purposes and for ensuring that health and safety procedures are observed in accordance with State and local public health and safety standards.

2.4.5 Fire Department

The Fire Department is responsible for participating in the damage assessment and determining any imminent threat to public health and safety, along with the Building Inspector, and the Police Department. The Fire Chief has authority to send and receive mutual aid automatically under the existing Mutual Aid Agreements without additional written contracts with individual municipalities. In those communities where the LEM is also the Fire Chief, this can provide an additional level of operational efficiency, particularly in the critical first 70 hours of the emergency.

2.4.6 Building Inspector /Code Enforcement Officer

The Building Inspector is responsible for participating in the damage assessment and determining any imminent threat to public safety, along with the Fire Department, and the Police Department.

2.4.7 Police Department

The Police Department is responsible for participating in the damage assessment and determining any imminent threat to public safety, along with, the Fire department, and the Building Inspector. Local police may also be involved in the identification and clean-up of ineligible debris set out in the right-of-way (ROW), particularly targeting private contractors illegally dumping debris in the ROW. They are also responsible for ordering the removal of abandoned vehicles in ROW.

2.5 MUTUAL AID AGREEMENTS

Local governments are strongly encouraged to enter into mutual aid agreements to provide assistance to one another during an emergency or a natural disaster. The agreements should either stipulate reciprocal services or set labor and equipment rates. In order for emergency assistance provided under a mutual aid agreement to be eligible for reimbursement by FEMA, the agreement must be in writing and must be in place before the disaster. Additional requirements for FEMA assistance include:

- Assistance should be directly related to the disaster and meet other FEMA eligibility requirements;
- Mutual Aid Agreement should not be contingent upon federal funding or declaration of disaster by the federal government;
- The eligible applicant receiving aid must request the grant from FEMA.

- The entity providing aid may not apply for a grant directly.
- The applicant must be able to provide documentation that aid was requested, that aid was received and costs incurred by the entity providing aid.

The City of South Portland is a signatory of the following mutual aid agreements:

Cumberland County has automatic mutual aid agreements

(See Annex C for the text of these agreements, a map, and lists of participating municipalities.)

SECTION 3.0: SITUATION AND ASSUMPTIONS

Initial emergency response emphasizes the importance of life saving operations and the clearing of access ways for emergency personnel and equipment by pushing debris to the edge of rights-of-way. The *City of South Portland Disaster Debris Management Plan's* primary focus is on the cleanup that follows. The types and volumes of debris to be cleaned up will depend on the nature of the hazard event, and how it interacts with the terrain and existing land uses throughout the municipality.

The City of South Portland is the 4th largest city in Maine and shares the Port of Portland. On its borders are Portland, Cape Elizabeth, Scarborough and Westbrook. The city is an urban/rural mix with the East end of the city being very rural/suburban with a mix of residential and light commercial use. The West end of the city is more commercial, but is starting to see an influx of residential units in the way of multifamily units. The most significant events to occur regularly are identified primarily as natural hazards such as large snow and windstorms being the most prevalent. Hurricanes, while possible, have been very rare and historically have downgraded due to local sea temperatures. The city is overall very flat and is 26 feet above sea level at its highest. Even with this being the case, the city has had very few flooding issues in the past. The city has a current All Hazards Emergency Operations Plan that is maintained by the Emergency Manager. The city has an Emergency Leadership Team (EMLT) who are trained to staff and operate the EOC.

Maine has experienced few natural or technological disasters that have generated quantities of debris that have exceeded local capacity. Nonetheless, it is vital that the County and its municipalities are prepared for a debris-producing event.

Typically, the two types of storms that create the most debris are ice storms and severe summer storms, including tornados and occasional hurricanes. In Cumberland County, the Ice Storm of 1998, the Patriot's Day Storm of 2007 and most recently the October 2017 wind storm generated the most debris, primarily woody debris. Heavy snowstorms may produce large amounts of fallen tree limbs.

Most non-natural or man-made hazards fall into two general categories: intentional acts and accidental events, although these categories can overlap. Some of the hazards

included in these two categories, as defined by MEMA, consist of intentional acts such as explosive devices, biological and radiological agents, arson and cyberterrorism, and accidental events such as nuclear hazards, infectious disease, invasive species, infrastructure failure, industrial and transportation accidents. Accidental events can arise from human activities such as the manufacture, transportation, storage, and use of hazardous materials. The plan assumes any of these major disasters would overload individual communities' waste management capacity and that the potentially massive volumes of debris and/or infectious or hazardous debris would require special debris management strategies.

As an all hazards plan, this plan recognizes that a wide variety of disaster events could generate very different combinations of different categories of debris and diverse challenges in managing that debris. This plan provides an overall framework for addressing debris management and provides detailed management recommendations for specific types of debris. The plan recognizes that regular waste management approaches may be inadequate following a disaster that generates large amounts of debris and that different approaches may be required in some cases. This section describes the potential types of disasters that could generate large amounts of debris, and the types of debris that would typically be generated by each. The volume of debris to be generated in a Category 2 hurricane is also estimated. The section continues with recommended general debris management approaches across all types of debris, followed by recommendations for managing each specific category of debris, and information about the use and procurement of contracted services for debris management.

3.1 STORMS AND EARTHQUAKES

The quantity and type of debris generated varies widely depending on the kind of disaster event, its location, as well as the event's magnitude, duration, and intensity. Below is a list of the types of hazard events, both natural and man-made, that might be experienced in **the City of South Portland** and the types of damage most commonly associated with each.

3.1.1 Floods

Floods are classified as either *flash floods*, which are the product of heavy, localized precipitation in a short time period over a given location or *general floods*, which are caused by precipitation over a longer time in a particular river basin. There are several local factors that determine the severity of a flood event, including: stream and river basin topography, precipitation and weather patterns, recent soil moisture conditions, amount of impervious surface area, and the degree of vegetative clearing. Floods occur more frequently and are one of the costliest natural hazards in Cumberland County. Numerous types of floods have the potential to affect areas of Cumberland County. The flood types include: Dam Failure/Breach, Flash Flood, Lacustrine (Lake Flooding),

Riverine/Riparian, and Urban Flooding poses a significant threat to life and public health and can cause severe property damage. Flooding causes damage to property due to inundation and erosion. Debris consists of sediments deposited on public and private property, and water damaged materials. Soil, gravel, rock and construction materials may also be eroded by floodwaters.

Coastal flooding, caused by extraordinary high tides, tidal surge during a storm or changes in sea level can also cause erosion and property damage.

Flooding can be caused by many different types of storm events, including hurricanes and tropical storms. One of the costliest floods occurred in April 2007 (the Patriot's Day Storm) costing over \$7 million dollars in damage. Since 1987, federal disasters have been declared for 12 flooding events that have affected Cumberland County.

3.1.2 Severe Summer Storms

Hurricanes or tropical storms have occurred in Maine in 1938, 1944, 1954, 1955, 1960, 1985, 1991, and 1999. Most hurricanes are downgraded to tropical storms before they reach Maine. The damaging forces of hurricanes and tropical storms include high velocity winds (up to 150 miles per hour or higher in gusts), heavy rainfall, storm surge, and wave action. Hurricane debris consists primarily of vegetation, sediments, trees, and personal property and building materials. The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Category 1 and 2 storms are still dangerous, however, and can generate significant quantities of debris. Hurricane Edna in 1954, a Cat 1 storm, was the last hurricane-strength cyclone in Maine, causing damages estimated at \$25,000,000 (crop and property), the equivalent of \$237,498,141.26 in 2019.

3.1.2.1 Tornadoes and Microbursts

Tornadoes are swirling columns of air that typically form in the spring and summer during severe thunderstorm events. In a relatively short period of time and with little or no advance warning, a tornado can attain rotational wind speeds in excess of 250 miles per hour and can cause severe devastation along a path that ranges from a few dozen yards to over a mile in width and can extend for miles in length. The intensity of a tornado is measured by the Fujita Scale of Tornado Intensity, with ratings between F0 (wind of less than 73 mph and light damage) and F5 (winds between 261-318 mph and incredible damage). The path of a tornado may be hard to predict because they can stall or change direction abruptly and may skip across a wide area with several touchdowns. Debris from tornadoes consists of trees, structures, and personal property.

While Cumberland County does have a low probability of tornadoes, there have been several in the County. Maine averages two tornadoes a year and they are usually EF0 or EF1. In 2010, an EF1 tornado struck in Gorham, causing downed trees, power lines,

damage to homes, and the collapse of an old barn. There were no human fatalities or injuries, but two cows died in the barn collapse.

3.1.2.2 Thunderstorms

This category also includes thunderstorm events, and associated storm effects including, heavy rain, hail, lightning, and strong winds. A typical thunderstorm produces periods of heavy rain and can last anywhere from 30 minutes to an hour. Hail is a form of precipitation that occurs when updrafts in thunderstorms carry raindrops upward into extremely cold areas of the atmosphere where they freeze into ice. Lightning is always present in thunderstorms and can strike structures, trees, and individuals, potentially causing fire, injury, and even death. Lightning often strikes outside of heavy rain and may occur as far as 10 miles away from a thunderstorm center, increasing its unpredictability and risk to individuals and property. Microbursts are also referred to as “straight-line winds.” These winds are produced by the downward momentum in the downdraft region of a thunderstorm. Straight-line wind damage pushes debris in the same direction the wind is blowing, as compared to tornado damage, which scatters the debris in a variety of different directions since the winds of a tornado are rotating violently.

Maine averages about 56,760 lightning strikes annually, which is 44th in the country, but based on population (2004 through 2013); we have found our way to # 6 (weighted by population) in lightning deaths in the US.

3.1.3 Ice/Winter Storms

Severe ice and winter storms can pose a significant risk to property and human life because the rain, freezing rain, ice, snow, cold temperatures and blizzard-like winds associated with these storms can disrupt utility service, phone service and make roadways extremely hazardous. Infrastructure and other property are also at risk from severe winter storms and the associated flooding that can occur following heavy snowmelt and ice jams. Power and telephone lines, trees, and telecommunications structures can be damaged by ice, wind, snow, falling trees and tree limbs. Icy road conditions or roads blocked by fallen trees may make it difficult to respond promptly to medical emergencies or fires. Prolonged, extremely cold temperatures can also cause inadequately insulated potable water lines and fire sprinkler pipes to rupture and disrupt the delivery of drinking water and cause extensive property damage.

The term ice storm is used to describe occasions when damaging accumulations of ice are expected during freezing rain situations. Significant accumulations of ice pull down trees and utility lines resulting in loss of power and communication and can complicate the already difficult task of clearing debris from the roadways.

The Ice Storm of 1998, the storm of record, extended over almost three weeks and had far-reaching effects:

- Over half of the state’s population out of power, some for well over two weeks
- Schools, business, transportation systems and government disrupted

- All sixteen Maine Counties declared federal disaster areas
- An unprecedented activation of the Maine National Guard
- Six deaths
- Radio communication systems knocked out
- \$48 million in FEMA-eligible costs to state, county and local governments and infrastructure
- \$6.5 million in grants and loans to individuals and businesses
- Damages to public utilities, to forestry, to private property and industry, amounting to hundreds of millions of dollars

http://www.maine.gov/mema/newsroom/mema_news_display.shtml?id=48008%22#.WN AZpjsrKUK

A blizzard is a severe snowstorm characterized by strong winds and low temperatures. A severe blizzard has winds over 72 km/h (45 mph), near zero visibility, and temperatures of -12°C (10°F) or lower. Blizzards or severe winter storms have resulted in thirteen FEMA declared disasters for Cumberland County since 1998.

3.1.4 Earthquakes

Maine has a steady rate of low magnitude earthquake occurrence (<4.0 and with little damage). No significant amount of motion has been shown for any fault since the last Ice Age, about 20,000 years ago, and geologic evidence demonstrates that many faults have been inactive since the formation of the Appalachians, over 300,000,000 years ago. None of the ancient faults in Maine have been identified as active.

“Most Maine buildings were not constructed to withstand the lateral motion of a significant (magnitude 6 or higher) earthquake. In general, unreinforced brick and masonry structures are especially prone to earthquake damage. Coastal and lakefront structures built on water-saturated, unconsolidated material such as artificial fill may be vulnerable to liquefaction in a severe earthquake. Liquefaction is a loss of cohesion between particles due to lubrication by water during vibration, causing a sudden loss of strength. Most death and injury during earthquakes result from people being struck or trapped by falling debris (NESEC, 1993). Other possible concerns in a severe earthquake emergency would be the disruption of infrastructure facilities, such as road access, gas and oil pipelines, and electricity and water supplies, and the disruption of emergency services such as police, firefighting, ambulance, and hospital services (Ludman and Coch, 1982).”

<http://www.maine.gov/dacf/mgs/hazards/earthquakes/quake.htm>

3.2 INFECTIOUS DISEASES

Infectious diseases may be either animal diseases or human pandemic diseases, each of which results in different infectious and/or medical wastes that require specific management approaches.

3.2.1 Avian Flu

Low Pathogenic Avian Influenza (LPAI) is a respiratory disease of poultry, turkeys, gamebirds and waterfowl. The Atlantic Flyway, a major migratory route, runs close to southern Maine. To date, there have been no cases of avian flu in Maine, but the possibility does exist for the need for culling. Cumberland County has several small poultry farms.

3.2.2 Other Animal Diseases

Infectious animal diseases pose unique debris management challenges, with the key issue being the need to reduce the potential for disease transmission while safely managing diseased carcasses and associated materials. Disposal of animal carcasses may also be an issue in other disasters, especially floods.

3.2.3 Human Pandemic Diseases

A human pandemic disease also would create challenging debris management problems, particularly in terms of managing medical waste and other infectious debris. In such an event, it would be critical to manage infectious wastes separately from regular trash to limit the amount of material that needs to be managed as infectious waste.

3.3 TERRORIST ATTACKS OR FACILITY-BASED DISASTERS

3.3.1 Terrorist Attacks

The nature and amount of debris from a terrorist attack could vary widely depending on the nature of the attack and the target. A terrorism event is by law a crime and the site is considered a crime scene. Debris operations may come under the direction of Federal Law Enforcement Officials who may have little knowledge or experience in debris management, but rather are focused on investigating the scene and gathering evidence. This will likely result in delays in clearing and managing debris.

3.3.2 Facility-Based Disasters

This could include large fires or chemical spills. Release of hazardous chemicals, either through air releases or through release to land or water, could pose health risks to nearby areas. Such a disaster could occur at a fixed facility or while chemicals are being transported along railways or roadways.

3.4 DEBRIS SEPARATION AND DEBRIS TYPES

One key to effective disaster debris management is to separate categories of debris to the maximum extent possible prior to collection. Quick and effective debris separation prior to collection limits the amount of contamination of specific debris types, enabling each category of debris to be managed in the most effective way possible. For example, keeping vegetative debris separate from other types of debris enables it to be chipped for mulch, chipped for use as a fuel for power plants, or made into compost that can be reused. For disasters such as storms that affect large numbers of households and small businesses, debris separation is best achieved at the point of collecting debris at the curb

or as close to the source as possible, rather than trying to separate mixed materials after they have been delivered to collection areas. Once different types of debris become mixed together, it is very difficult to separate them into clean, uncontaminated sub-components. Mixed debris cannot be managed easily except by disposal, and disposal capacity in Maine and throughout the Northeast United States is limited.

Maximizing separation of debris types:

- Is the most environmentally preferable approach and consistent with the Maine Solid Waste regulations
- Limits the amount of material that needs to be disposed of, reducing demand on limited disposal capacity and taking advantage of other capacity for managing debris
- Enables opportunities for more cost-effective diversion of some debris types. Separating debris that has been mixed is extremely difficult and expensive
- Helps to ensure that hazardous products or infectious wastes in particular do not contaminate other debris streams

Maine DEP recognizes that debris separation may not always be possible when different types of debris are mixed together. However, the more that debris can be separated and diverted from the areas limited disposal capacity, this limited capacity can be used for waste that needs to be managed at a landfill or combustion facility, and the capacity can remain available for ongoing waste disposal needs.

3.4.1 Estimating Debris Quantities

Because this plan covers a wide range of potential disaster events that may generate widely different amount and types of debris, the plan does not cover estimating debris quantities for all types of scenarios. However, it is possible to estimate the “worst case” for a major storm event and the amount of space needed to manage that debris, given the size of a municipality and relative density of buildings and vegetation. The estimate of the amount of space needed to manage the debris is used to determine the number of Debris Management Sites (DMS) that are needed. The actual number of sites can vary with the size of each DMS, distance from source, the speed of reduction and the removal urgency.

To forecast a rough estimate of the overall amount of debris that might be expected from a hurricane or similar major storm event, either actual data from a previous disaster event in the state or nearby states is used, the generic modeling developed by the United States Army Corps of Engineers (USACE), or a combination of both. The Army Corps model can be found at <https://dps.sd.gov/application/files/1615/0161/4318/Appendix-A-USACE-Hurricane-Debris-Estimating-Model.pdf>

The factors that go into the USACE hurricane debris-estimating model are:

- Households in your jurisdiction
- Storm category factor (1-5)
- Vegetative cover (light, medium, or heavy)
- Commercial density (light, medium, or heavy)
- Precipitation factor (none/light or medium/heavy)

Example: For a municipality with 10,000 households and medium vegetative and commercial density, a worst-case debris estimate based on this model would be:

10,877	x 8 cubic yards	x 1.3	x 1.2	x 1.3	= 176,468
Households	cat 2-storm	veg cover	com. density	precip.	Cubic yards

The factors that go into the USACE model for estimating the amount of space needed for managing that debris includes:

- Quantity of debris in cubic yards (cy)
- Volume of debris per acre (16,117 cubic yards per acre)
- Factor for area needed for roads and buffers (1.66)

Amount of space needed for managing that debris					
176,468	/	16,117 cy/acre	x 1.66	=	18.18 acres

Includes roads, safety buffers, burn pits, and household hazardous waste

Using the USACE model, Table 3.1 below provides the estimated amount of debris that might be generated, and space needed for management of debris from a worst-case scenario (category 2 hurricane) in the City of South Portland. (See Appendix 3 for more details on the United State Corps of Engineers (USACE) Debris Modeling Methodology.)

Cumberland County					
127,236	x 8 cubic yards	v 1.5	1.2	1.3	= 2,294,021
Households	cat 2	veg	commercial density	precipitation	cy
2,294,021/	16,117	x 1.66	=		228.1 acres
Includes roads, safety buffers, burn pits, and household hazardous waste					

Table 3.1: Debris Estimates for the City of South Portland. (See Appendix 4 for a complete list of municipal estimates.)

			Corps of Engineers Debris Model		
INSERT NAME OF MUNICIPALITY	Population*	Housing units*	Debris Estimate (CY)	DMS Required (acres)	Required
South Portland	25,577	10,877	176,468		18.18

*Data are from the 2015 US Census Quickfacts <https://www.census.gov/quickfacts/table/PST045216/23>

The estimates produced by the USACE model are predicated to have an accuracy of ± 30% (accuracy is limited due to the many variables inherent to the debris removal process). There are additional wastes that are not estimated by this model (i.e. hazardous household waste, white goods, electronic equipment, vehicles, boats, and animal carcasses) that have special management requirements. **Therefore, some additional acreage may be needed to that predicted by the USACE model to account for this additional waste.**

Even a rough estimate of debris generation will enable municipalities to understand what local resources will be needed to manage disaster debris as well as at what point local resources would likely be overwhelmed and state and/or federal assistance required. In addition to having an estimate of the overall amount of debris that may need to be managed, it also is important to anticipate what types of debris may be generated and what management solutions may be needed for these types of debris. Typical categories of debris and their preferred reduction methods are discussed in the next section.

3.4.2 Characterization of Major Types of Debris

Most debris generated from multiple hazards falls into one of the following categories:

- Vegetative Debris – Trees, stumps, limbs, brush, and leaves – generated from all types of storms and floods
- Building Debris – (also referred to as “construction and demolition” or “C&D debris”) Metal, wood, brick and concrete, roofing materials, wallboard, piping, wiring, and other construction materials, some materials may have asbestos – generated from all types of storms, floods, earthquakes, and terrorist attacks
- Other Construction Debris – Road and bridge debris such as asphalt and concrete, telephone poles
- Bulky Waste – Furniture, carpets, mattresses – typically generated in large amounts from major storms and floods

- Appliances and Electronics – (also referred to as “white goods”) Refrigerators, stoves, other appliances, and computers, televisions, and electronics – typically generated from major storms, floods, and earthquakes
- Vehicles – Cars, trucks, boats, other vehicles – can be damaged or moved by major storms. Flooding, may be on roadways or in other less accessible locations
- Household Trash – Household items, spoiled food, packaging – generated in elevated amounts from major storms or floods
- Hazardous Household Waste (HHW) – Oil, pesticides, paints, pool chemicals, other hazardous products used and stored in homes – generated in increased volumes following major storms and floods
- Commercial Hazardous Waste – Hazardous or toxic chemicals used in large amounts by industrial or commercial businesses – generated from facility-specific fires or spills or from major storms, floods, or earthquakes
- Soils and Sediments – High bacterial or toxicity levels may contaminate soils and sediments – generated from floods or major storms that result in flooding or storm surges
- Infectious/Medical Waste – Animal carcasses and associated materials due to an animal disease outbreak or trauma, medical wastes in pandemic event, materials contaminated by sewer backups due to heavy flooding

3.5 MANAGEMENT RECOMMENDATIONS FOR MAJOR TYPES OF DEBRIS

Section 9.6 of the Maine State Debris Management Plan provides an overview of types of debris, recycling, and disposal practices

Overall, debris collection is performed through standard practices where the eligible disaster generated debris is removed and transported to a temporary debris management site (DMS), either to a permanent disposal facility or to a recycling facility. The State of Maine, through legislation of Revised Statute Title 38: Waters and Navigation, Chapter 13: Waste Management has established policy, which protects the health, safety and welfare of its citizens; enhances and maintains the quality of the environment; conserves natural resources and prevents air, water and land pollution; and establishes a coordinated statewide waste reduction, recycling and management program.

The State has also established, through statute (38 MRSA §2101), a solid waste management hierarchy, which is based upon the following priority:

- 1) The reduction of waste generated at the source, including both the amount and toxicity of the waste
- 2) Reuse of waste
- 3) Recycling of waste
- 4) Composting of biodegradable waste

- 5) Waste processing that reduces the volume of waste needing land disposal, including incineration
- 6) Land disposal of waste

The Plan acknowledges the policies and will foster best management practices related to the disaster debris management operations for State agencies and encourage County and Municipal partners to practice said policies.

The Maine Department of Environmental Protection (DEP) will provide the technical assistance necessary to ensure State agencies, Counties, and Municipalities are aware of their appropriate debris disposal options. DEP has technical assistance and response teams available for cleanup of hazardous waste or hazardous materials incidents, which occur as a result of the disaster. State agencies, Counties, and Municipalities shall coordinate with DEP in these instances.

This chapter will discuss the types of debris typically generated as a result of the disaster event, as well as debris types that need special handling. Although a variety of management options may be available for different waste types, DEP strongly encourages, that to the extent practicable, the waste management hierarchy described above be employed in the handling of debris in order to maximize reuse, recycling, composting, and processing before land disposal.

Section 9.7 of the Maine Plan describes debris types and disposal options.

Various types of debris may be encountered during the collection and removal process with some requiring special handling or disposal methods. Typical materials found during operations are discussed below, as well as any special handling or documentation issues required for each. Regardless of the type of debris, the State must know where the material is disposed. The State (DEP) can offer guidance on disposal, but responsibility for proper disposal should rest with the municipality, as in 38 M.R.S.A §1305.1. All disposal records, authorization, and permits shall be maintained in the project management files. A web link can be found in Appendix 1 that accesses the lists of permitted landfills, transfer stations, and universal waste management and recyclers. It is recommended that Agency Debris Managers check with the individual facilities to confirm that they are able to accept particular waste types. Some facilities may have restrictions or limitations on acceptable types and volumes of waste.

1. Vegetative Debris

Typically, the majority of the debris generated is vegetative which is comprised of limbs, branches, trees, shrubs, bushes, and similar woody materials. Vegetative debris can be hauled to a temporary debris management site for storage or processing using mobile equipment. Suitable logs can be processed to produce firewood or sent to sawmills. Processing by grinding or chipping can be used for volume reduction or to produce products such as biomass fuel chips, feedstock for

wood products facilities, mulch, or erosion control mix. Ground or chipped vegetative debris could also be used for alternative daily cover at landfills, or simply disposed of at incineration or landfill facilities if not suitable for some other use. In some cases burning may be used to reduce volume, provided that this has been approved by the DEP, the local fire department or permitting authority, and any other agencies having oversight.

2. Construction and Demolition (C&D) Debris

Structures, which have been damaged as a result of the disaster, can produce materials such as aluminum and wood siding materials, gypsum (wallboard), glass, wood, carpet, metals, and other similar non-hazardous materials. Typically, concrete slabs are not eligible for collection. Wood waste that has been treated or painted has a risk of containing lead or other contaminants, which prevent it from being processed into mulch. In general, C&D materials can be transported to a wood processing facility, transfer station or landfill. Treated wood is required to be transported to a facility authorized to receive this type of material. Although DEP rules allow burning at the property of origin or at transfer stations if they are specifically licensed to burn, the burning of painted wood is discouraged since the presence of lead paint may result in ash being classified as hazardous waste. C&D waste that contains metals, can be sorted and the metals taken to a recycling facility.

If there are concerns and questions on lead contaminated debris then the State, County or Municipal government shall contact DEP for further information.

SPECIAL NOTE: The name C&D debris can be deceptive and does not include materials, which result from a construction / remodeling / renovation process. **For the purposes of this Plan, the term refers to C&D materials, which have become detached from a structure and deposited by the disaster event on roadways, public facility grounds, or residential yards.**

3. Asbestos Containing Material (ACM):

MRSA Title 38, Waters and Navigation, Chapter 12-A defines ACM as any material containing asbestos in quantities equal to or greater than 1% by volume. Suspect asbestos-containing building materials include thermal system insulation, ceiling tile, exterior cementitious siding, rigid panels, attic and wall insulation, vinyl floor tile and resilient floor covering (linoleum). These materials existed primarily in structures constructed prior to 1981. MDEP classifies ACM as a special waste, so it must be handled in accordance with the applicable rules and disposed of at facilities licensed to accept it. When possible, ACM should be segregated from other C&D materials for separate handling and disposal.

Whenever possible, structure demolition should be carried out in accordance with established DEP regulations specific to the demolition and removal of suspect asbestos-containing materials, which requires the removal of ACM by a DEP-

licensed asbestos abatement contractor. Regulations also require that removal notification shall be given to the DEP. ACM can be disposed of at some DEP permitted facilities. An updated list of DEP licensed asbestos contractors and consultants can be found at

<https://www.maine.gov/dep/waste/asbestos/asbestoscontractors.html>

4. Mixed Debris

Mixed debris contains multiple debris types such as vegetative and construction & demolition debris, household goods, etc. All effort shall be made to separate the debris at the collection point or debris management site, if this is not possible, the mixed materials shall be transported to a permitted transfer station, processing facility or municipal solid waste landfill.

5. Household Goods

Furniture and personal items (may also be categorized as C&D materials) damaged by the disaster may be disposed of at a permitted transfer station or licensed landfill.

6. White Goods and Metals

White goods consist of refrigerators, freezers, stoves, washing machines, air conditioning units, and similar types of goods. If the unit is known to contain Freon or other coolants, additional processing is necessary to extract the coolant in accordance with environmental regulation. These “white goods” can be taken to a recycling facility transfer station or landfill. If the white goods are not salvageable (contain rotting food wastes) they must be transported to a municipal solid waste landfill for disposal.

It is important to note that in documenting the collection and disposal of these items, a description of the item (stove, refrigerator) and the serial number on the unit shall be recorded. All documentation associated with the removal of Freon and/or coolants shall be maintained in the project management files.

Metals may come from mobile homes and other structures, which have been damaged by the disaster event. Commonly found metals may be aluminum siding, galvanized sheet metals, and copper piping. Metals can be separated from mixed materials and transported to a recycling facility.

7. Electronic Waste (e-waste) and Universal Waste

Electronic wastes that contain a Cathode Ray Tube (CRT) as found in many televisions and computer monitors may contain substances such as lead and mercury. These materials must be separated from other materials and transported to a consolidation facility or recycling and dismantling facility. MRSA Title 38, Chapter 13 §1306(4) prohibits the disposal of CRTs at municipal solid waste landfills. Many Maine municipalities have collection sites for e-waste as a result of Maine’s product stewardship law. These sites collect e-waste (e.g., televisions,

computer monitors, and desktop printers) from households, schools, small businesses and non-profits, for recycling. DEP has developed a list of municipal collection sites for “universal wastes” (which includes e-waste from households and mercury containing waste such as fluorescent bulbs and lamp ballasts, mercury thermostats, and lead/acid or other rechargeable batteries.). A list of these sites is provided at the web link:

<https://www.maine.gov/dep/waste/hazardouswaste/documents/uwrecyclingcompanies.pdf>

8. Household Hazardous Waste (HHW)

HHW materials consist of such items as pesticides, cleaners, solvents and paint, waste oil, and gasoline in household quantities. These common household items contain chemicals that can create environmental hazards if not handled properly. HHW materials shall be separated at the loading site and safely transported to a household hazardous waste facility or municipal solid waste landfill for proper disposal. In instances where mixed debris loads inadvertently contain HHW and are transported to a temporary debris management site, the materials shall be immediately removed from the load and placed into a separate storage area, which has been prepared for these types of materials. The DMS operator shall transport to the appropriate disposal facility.

9. Hazardous Materials

Hazardous materials consist of those materials regulated by the Environmental Protection Agency (EPA) and the State of Maine, which can be categorized as detrimental to the health of persons exposed. The collection of hazardous materials will be undertaken in accordance with all applicable Federal and State regulations and safety procedures.

It is anticipated that all hazardous materials, which could become problematic as a result of a disaster event will be handled by a hazardous waste contractor service. DEP’s Hazardous Waste Response unit may be contacted if spills occur or if large quantities of hazardous waste are located.

10. Compressed Gas Cylinders

Gases contained within a compressed gas cylinder may be flammable, combustible, explosive, corrosive, poisonous, or inert. The materials must be separated from other materials and transported to a processing facility for reclamation.

11. Munitions and Ordnance

These materials must be handled by trained technicians or law enforcement agencies. The State DMT shall be notified to coordinate with law enforcement on the collection and disposal strategy for the materials.

12. Animal Carcasses

Following a major disaster event, mass animal mortalities may cause significant public health and safety issues. The State of Maine has developed acceptable methods for catastrophic animal carcass disposal. The Code of Maine Rules (CMR) 01-001, Chapter 211 – Rules for the Disposal of Animal Carcasses sets forth the approved methods of disposal as rendering, burial, incineration, composting, in-house composting, landfilling (transport to an approved facility), alkaline hydrolysis, or other methods as approved. The Department of Agriculture, Department of Environmental Protection, Conservation and Forestry, Food and Rural Resources Division can provide technical assistance on these disposal issues.

13. Sand and Sediment

Sand and sediment deposits caused by flooding or storm surge may impact roadways and require removal. Generally, sand will go through a sifting process prior to replacing the materials on a beach or shoreline. Coordination with DEP is necessary to address whether permits are required for the operations

3.6 DEBRIS DISPOSAL AND TRANSFER CAPACITY

38 M.R.S. § 2101, Solid Waste Management Hierarchy, establishes priorities. It is the policy of the State to plan for and implement an integrated approach to solid waste management for solid waste generated in this State and solid waste imported into this State, which must be based on the following order of priority:

- A. Reduction of waste generated at the source, including both amount and toxicity of the waste;
- B. Reuse of waste;
- C. Recycling of waste;
- D. Composting of biodegradable waste;
- E. Waste processing that reduces the volume of waste needing land disposal, including incineration; and
- F. Land disposal of waste

According to the Maine Solid Waste Generation and Disposal Capacity Report: Calendar Year 2015 (January 2017) “the total amount of solid waste generated in Maine in 2015 was 2,475,213 tons (exclusive of solid waste disposed of in generator-owned landfills). This shows a decrease from the total of the 2,770,991 tons of solid waste tonnage generated in 2014. Within that total, the tonnage of Municipal Solid Waste (MSW) decreased only slightly from 2014 to 2015.

According to the same report, “Based on the current operations of the licensed disposal facilities in Maine, the Department projects that disposal capacity for MSW (including C&D) generated in Maine will remain adequate into the near term. This conclusion is based on projections calculated using fill rates and capacity data reported by licensed

facilities in their annual reports on calendar year 2015 activity. Table 4 shows the current and projected available waste-to-energy (WTE) processing and landfill disposal capacity in Maine, by licensed facility, through 2035.

In 2015, Maine’s solid waste disposal facilities included three WTE facilities, seven municipally owned landfills, two state-owned landfills, and one commercially owned landfill.

Given the priorities of 38 M.R.S. § 2101, Solid Waste Management Hierarchy, this debris management plan will keep in mind the diversion of as much material from disposal as possible through recycling, composting and other diversion options. This will limit increased use of valuable limited disposal capacity, preserving it for future use, while ensuring that materials are managed in the most environmentally preferable way. DEP anticipates that large amounts of the following materials would be diverted from disposal:

- vegetative waste (chipped for mulch or fuel for biomass power plants, composted, or, as a last resort, burned by an air curtain burner)
- building materials (asphalt, brick, and concrete crushed on-site or brought to crushing operation; other C&D brought to C&D processor, unless contaminated by asbestos)
- appliances and electronics (delivered to recycling companies)
- vehicles (delivered to metal recyclers)
- hazardous household products (collected separately and delivered for hazardous waste management)

3.7 USE AND PROCUREMENT OF CONTRACTED SERVICES

Depending on the nature and extent of a hazard event, it may be necessary for one or more municipalities to hire private contractors for debris clearance, especially during the first 70 hours of a disaster event. The main reason to use a contractor in a disaster is to assist local governments in the clearing of debris from roads in order to allow access to critical facilities or for evacuations if necessary. During the “70-hour push,” 75% of costs are reimbursable by FEMA and procurement regulations must still be followed; however; contractors can be paid for straight “Time & Materials” during this period rather than by quantity, which is the standard following the first 70-hour critical phase. Federal Highway Administration (FHWA) roads are now eligible for emergency work only under the FEMA Public Assistance program. (*See Annex City of South Portland Road Jurisdiction Map.*)

For some widespread or particularly damaging events, it may be necessary to use contractors for debris management for the entire length of the recovery period. In addition, it is possible that contractors would need to be hired to handle certain types of debris, such as hazardous materials or medical waste, while municipal employees (also known as “force account labor”) manage the other types of debris generated, such as vegetative and C&D waste.

Municipalities and state agencies have four options for purchasing debris management services:

- Mutual aid agreements with other municipalities within the designated counties (e.g. for sharing chipping or grinding equipment may be used to assist with debris management costs). The costs would be reimbursed through the municipality using the shared equipment and requesting the reimbursement.
- Use an existing municipal contractor to provide services (e.g., an existing contract for yard waste collection or chipping and grinding vegetative debris or curbside collection through existing solid waste and recycling contractors) as long as the original contract’s estimated dollar value will not be exceeded.
- Establish new contracts specifically for the purpose of managing the disaster debris, including debris clearing, collecting, transport, monitoring and ensuing debris recycling and disposal

As a condition of eligibility, FEMA requires that any contracted services must be competitively procured in accordance with federal, state, and local purchasing requirements. Contracts should include a scope of work that clearly designates the specific services requested (e.g. specific areas from which the contractor will collect the debris; what their responsibilities will be - collection only; grinding only; collection, chipping, grinding and final management) and should include a schedule for completion of the requested work. Contracts should be bid and billed for on a unit basis (cost per cubic yard) – contracts paid on an hourly basis are generally not reimbursable by FEMA. Any costs incurred must be fully documented in detail. It also is important that there are procedures in place to monitor and oversee contractor performance.

Contracts let during Phase II Removal should complement and reinforce the separation of debris as outlined in Section 3.5. Separating debris as close to the source of debris generation as possible will greatly facilitate later handling for recycling or burning (only with prior written approval from DEP). Collection and hauling contracts need to include terms that encourage debris separation and would penalize contractors for mixing debris. For instance, contract provisions, including payment terms, should reward contractors for collecting separated debris, maintaining debris separation, and delivering separated materials to recycling facilities over disposal facilities.

Contracts for debris site operations should also reinforce debris separation. Provisions should require that different categories of debris are placed in separate

piles and/or that the site can reward or penalize a hauler for delivering separated or mixed debris.

Solid waste recycling facility contracts may allow for the rejection of mixed loads; landfill contracts would allow for the rejection of separated loads of recyclable, compostable, or otherwise divertible materials

Any master contract for a single firm to oversee multiple aspects of the cleanup and various sub-contractors should contain performance language relative to debris separation. Along the same lines, tasks assigned to government agencies during Phase II should emphasize debris separation. For cost recovery purposes, contracts should ensure that debris clearance management activities are done in accordance with state and federal regulations and that costs are properly documented.

3.8 FEMA CONTRACT PROVISIONS

Procurement and Contracting Requirements from p.30 of the PAPPG V3.1 2018: “FEMA provides PA funding for contract costs based on the terms of the contract if the Applicant meets Federal procurement and contracting requirement. This section provides information on Federal procurement and contracting requirements. FEMA’s Procurement Guidance for Recipients and Subrecipients under 2 C.F.R. Part 200(Uniform Rules) provides additional details regarding Federal procurement and contracting requirements.”

Procurement and contracting requirements (PAPPG V.3.1 2018 (Section G)

1. Procurement standards

Applicants must comply with Federal procurement standards as a condition of receiving PA funding for contract costs for eligible work. Federal procurement standards for State and Territorial governments are different than those for Tribal and local governments and PNP’s.

State and Territorial government Applicants must follow the same policies and procedures they would use for procurements with non-Federal funds; comply with 2 CFR 202.322, Procurement of recovered materials; and ensure that every purchase order or other contract include any clauses required by 2 CFR 200.326, Contract provisions.

Non State Applicants (Tribal and local governments and PNP’s) must use their own documented procurement procedures that reflect applicable State, Territorial, Tribal, and local government laws and regulations, provided that the procurements conform to applicable Federal law and standards. This requirement applies to Tribal Governments even when the Tribe is a Recipient.

Tribal and local governments and PNP’s must conduct procurement transactions in a manner that complies with the following Federal standards:

- Provide full and open competition;

- Conduct all necessary affirmative steps to ensure the use of minority business, women's business enterprises, and labor surplus area firms when possible;
- Exclude contractors that develop or draft specifications, requirements, statements of work, or invitations for bids or requests for proposals from competing for such procurements to ensure objective contractor performance and eliminate unfair competitive advantage;
- Maintain written standards of conduct covering conflicts of interest and governing the performance of employees who engage in the selection, award, and administration of contracts; and
- Maintain records sufficient to detail the history of the procurement. These records will include, but are not limited to:
 - Rationale for the method of procurement
 - Selection of contract type
 - Contractor selection or rejection
 - The basis for the contract price

Tribal and local governments and PNP's must use one of the following procurement methods;

- Micro-purchase
- Small purchase procedure
- Sealed bid (formal advertising)
- Competitive proposal

FEMA may reimburse costs incurred under a contract procured through a competitive proposal only when one or more of the following apply:

- The item is only available from a single source;
- The public exigency or emergency for the requirement will not permit a delay resulting from competitive solicitation;
- FEMA or the Recipient expressly authorizes a noncompetitive proposal in response to a written request from the Applicant; or

- After solicitation of a number of sources, competition is determined inadequate

Tribal or local governments and PNO's must perform a cost or price analysis in connection with every procurement action in excess of the simplified acquisition threshold, including contract modifications. The method and degree of analysis depends on the facts surrounding the particular procurement situation. As a starting point, the Applicant must make independent estimates before receiving bids or proposals. Additionally, the Applicant must negotiate profit as a separate element of the price for each contract in which there is no price competition and in all cases where a cost analysis is performed.

FMEA PA staff coordinate with FEMS's Office of Chief Counsel when evaluating whether the Applicant complied with Federal procurement requirements. In the case of non-compliance with Federal procurement requirements, FEMA determines a reasonable cost for the eligible work completed based on all available information and documentation.

2. Contract

FEMA reimburses costs incurred using three types of contract payment obligations: fixed-price, cost-reimbursement, and, to a limited extent, time and materials (T&M). The specific contract types related to each of these are described in FEMA's *Procurement Guidance for Recipients and Subrecipients under 2 C.F.R. Part 200 (Uniform Rules)*.

The Applicant must include required provisions in all contracts awarded and maintain oversight to ensure contractors perform according to the conditions and specifications of the contract and any purchase orders.

FEMA does not reimburse costs incurred under a cost plus a percentage of cost contract or a contract with a percentage of construction cost method.

FEMA advises against the use of T&M contracts and generally limits the use of these contracts to a reasonable time based on the circumstances during which the Applicant could not define a clear scope of work (SOW). T&M contracts do not provide incentives to the contractor for cost control or labor efficiency. Therefore, FEMA may reimburse costs incurred under a T&M contract only if all of the following apply:

- No other contract was suitable;
- The contract has a ceiling price that the contractor exceeds at its own risk; and
- The Applicant provides a high degree of oversight to obtain reasonable assurance that the contractor is using efficient methods and effective cost controls.

The Applicant should define the SOW as soon as possible to enable procurement of a more acceptable type of contract.

Some entities, such as Rural Electrical Cooperatives, provide the materials necessary to restore their facilities and refer to such contracts as Time and Equipment (T&E) contracts.

The Davis Bacon Act, which requires “prevailing wage” payment to contracted workers based on the local union wage scale defined by the U.S. Department of Labor, does not apply to State, Territorial, Tribal, local government, or PNP contracts for PA-funded projects. However, if the Applicant incorporates prevailing wage rates as part of its normal practice for all contracts regardless of the funding source, then those rates are eligible.

Monitoring of Debris Removal Operations

For FEMA to determine the eligibility of debris removal operations, the Applicant must provide debris types, quantities, deduction methods, and pickup and disposal locations. FEMA requires the Applicant to monitor all contracted debris operations to document this information and ensure that its contractor removes eligible debris. If the Applicant does not monitor contracted debris removal operations, it will jeopardize its PA funding for that work.

The Applicant may use force account resources (including temporary hires), contractors, or a combination of these for monitoring. It is not necessary, or cost-effective, to have Professional Engineers or other certified professionals perform debris monitoring duties. FEMA considers costs unreasonable when associated with the use of staff that are more highly qualified than necessary for the associated work. If the Applicant uses staff with professional qualifications to conduct debris monitoring, it must document the reason it needed staff with those qualifications.

FEMA provides training to the Applicant’s force account debris monitors upon request.

Eligible activities associated with debris monitoring include, but are not limited to:

- Field supervisory oversight
- Monitoring contracted debris removal at both the loading and disposal sites
- Compiling documentation, such as load tickets and monitor reports, to substantiate eligible debris
- Training debris monitors on debris removal operations, monitoring responsibilities and documentation processes, and FEMA debris eligibility criteria

PRE-EVENT CONTRACT REQUIREMENTS

- The State Agency Debris Managers, in coordination with DAFS, will develop standard debris removal and debris
- Monitoring of scopes of work as well as contractor qualification checklists for the purposes of evaluating contractors
- Prequalification of contractors under consideration, but not yet contracted, for debris related projects prior to an event.

Qualification criteria and standards may be based upon:

- Prior experience with disaster debris projects
- Size of firm
- Resources and equipment on hand and capabilities
- References from prior or current clients
- Insurance and bonding
- Price for services (unit based)
- Mobilization/response plan and guarantee
- Disadvantaged Business Enterprise status
- Other criteria as identified by State

Contractors that have been de-barred will not be considered. FEMA maintains a Debris Removal Contractors Registry and the user guide is available at the following website: <https://sam.gov/portal/SAM/##11> The user must register to be able to access the guide.

These pre-event contracts will be solicited by formal Request for Proposals or Request for Qualifications by the DAFS and be in accordance with the State's procurement policies and FEMA and 2 CFR Part 200 procurement requirements, applicable to Federal funding. County and Municipal governments will follow their specific procurement policies, as well as FEMA and 2 CFR Part 200 procurement requirements.

CONTRACT OVERSIGHT AND DOCUMENTATION

The Agency Debris Managers or their designees, provide the necessary contract oversight that allows a thorough review of incoming invoices and shall compile, at a minimum, the supporting documentation as detailed below:

- Bid documents and evaluation criteria
- Contracts and amendments
- Documentation of contracting and procurement process
- Invoices
- Time and Materials logs to support hourly contract rates, as applicable
- Truck Certifications
- Load tickets, disposal tickets, and electronic load ticket summaries (preferably in excel format and sortable)
- Validation forms for stumps, leaners, hangers, damaged trees, photographs
- Monitoring timesheets, receipts for reimbursable items (hotels, rental cars, etc.)

- Other relevant documentation produced from the debris operations

CURRENT DEBRIS REMOVAL AND DEBRIS MONITORING CONTRACTS

The State, as a whole, generally utilizes local contractors whenever feasible. The State, Counties, and Municipalities have in the past coordinated with the Maine Association of General Contractors (AGC) for disaster related services.

Individual State agencies with pre-event contracts retain a copy of that contract in their offices, which is available for review upon request. The Maine Department of Transportation annually establishes an equipment schedule with hourly rates for a wide range of equipment both with and without equipment operators. The Department uses the equipment schedule for various types of work throughout the year, including snow removal and disaster debris removal activities. This schedule can be found at the following web link:

<https://www1.maine.gov/mdot/csd/docs/slrper18corrected.pdf>

The FEMA schedule for equipment rates can be found at https://www.fema.gov/media-library-data/1504646556623-5df6d34cb30e72f6821337472903d310/2017_FEMA_Schedule_of_Equipment_Rates_508_FINAL.pdf

**Be aware that both of these rate schedules may change, and it is advisable to check online for the latest rates*

The contact person for the activating entity should be identified. This person will be in charge of the debris removal operation and will be responsible for setting the schedule.

- The contractor will begin coordination with the activating entity's contact person immediately following notification
- Essential contractor staff with key experience in the "response" phase of disaster events will immediately mobilize in order to participate in initial response actions
- When additional work is required, the contractor will increase the number of staff and equipment for the activating entity to use as needed
- Upon completion of assigned tasks, the contractor is responsible for closing out all related operations, including but not limited to, removing equipment, properly closing any DMSs, restoring any property used by the contractor to its original condition prior to the disaster event; and closing out records and documents to support the activating entity's requests for reimbursement for disaster-related expenses

- The contractor shall be responsible for providing all goods, services, and equipment to support its staff and subcontractors with pre-determined rates
- The contractor shall also be responsible for the health and safety of its workforce

3.9 USE OF FORCE ACCOUNT LABOR

The most immediate source of help with response and recovery in the event of an emergency is a community's own force account labor, materials, and equipment. An applicant employees' labor and an applicant's equipment are called "force account labor" and "force account equipment," respectively. These are within the local authority and are immediately available to respond to an emergency situation requiring debris removal, particularly during the initial 70-hour critical phase. Communities are encouraged to utilize force account labor as their first line of defense, until such time as the debris removal needs exceed local capabilities, at which point mutual aid agreements may be activated, and finally, contract services may be used to get the work done.

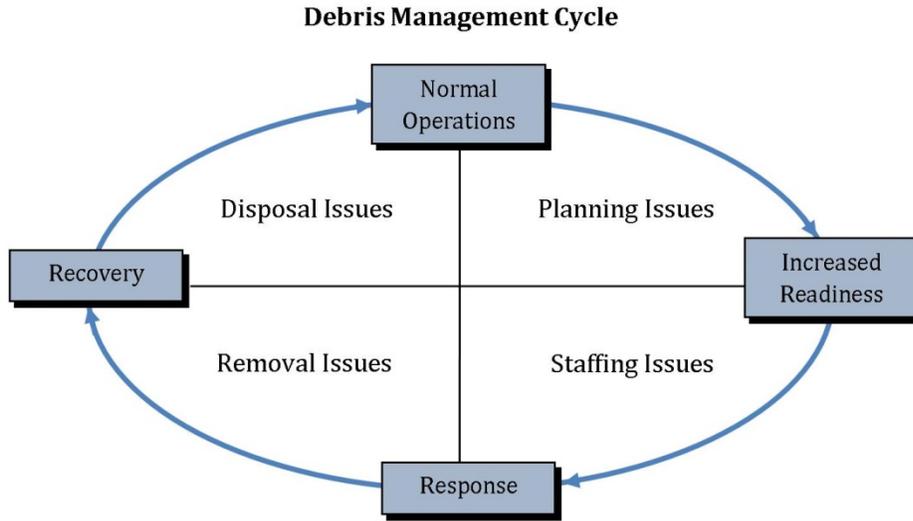
In a Presidentially declared event, eligible work accomplished with an applicant's own labor, equipment, and materials may be funded under the Public Assistance Program. All work done with force account labor and materials must be closely monitored. It is important for the applicant's staff to document hours worked and equipment used to complete the eligible work. Costs must be thoroughly documented by payroll information, equipment logs or usage records, site or location, and other records, such as materials invoices, receipts, payment vouchers, warrants, or work orders. Final payment is based on documentation of your costs.

For debris removal work, overtime labor costs (including benefits) are eligible for permanent employees, reassigned employees, temporary employees, and seasonal employees used during the season of anticipated employment. The cost of straight-time labor (including benefits) of an applicant's permanently employed personnel are eligible in calculating the cost of eligible emergency work, which includes debris removal, under the Public Assistance Pilot Program. Straight time and overtime is determined in accordance with an applicant's pre-disaster policies, which should be applied consistently in both disaster and non-disaster situations. Both straight time and overtime labor costs are eligible for non-budgeted employees assigned specifically to perform emergency work.

Debris monitoring services and hazardous materials management are tasks that are, in most cases, going to need to be handled by specially trained individuals. Activating entities should use force account labor for these tasks only in the event that such knowledgeable individuals are available to them. If not, these tasks might best be undertaken by the statewide contractors who have been chosen in a competitive bidding process designed to procure the services of specialists in these aspects of debris management.

SECTION 4.0: LOCAL GOVERNMENT PLANNING AND RESPONSE

This section outlines the local government’s planning and response to all phases of a disaster event in regards to the debris management cycle. These phases include Normal Operations, Increased Readiness, Response and Recovery. Each phase is unique and necessary to properly plan for and respond to a disaster. A summary of each phase is provided below.



4.1 NORMAL OPERATIONS

Normal Operations is the period of time when communities are not in any serious threat of a disaster event. The Normal Operations phase is the ideal time for local officials to review the protocol for activating contracts for monitoring and debris staging operations, to acquire all necessary permits for Debris Management Sites (DMS) and to review current local ordinances and bylaws for their potential impact on debris removal operations. The Normal Operations period is the ideal time for local officials to re-evaluate the roles and responsibilities of all emergency preparedness staff and how they should coordinate with their partners at the county and state levels in the event of a widespread hazard event. The purpose of this evaluation is to ensure that all appropriate municipal departments maintain the capacity to fulfill their obligation in a timely and effective manner should a disaster strike. The evaluation should also establish road clearance and debris removal priorities in the event of a disaster.

4.1.1 Normal Operations Checklist

- Review and Update Federal and State Road List
- Review and Update Local, County and State Emergency Contact List
- Review and Update Relevant Ordinances/Bylaws, incl. Zoning,
- Review and Update Inter-Municipal Agreements and MOUs
- Review Proposed Debris Management Sites with DEP for Pre-Approval
- Host Communities Enter Into MOUs with DMS Property Owners

- Monitor and Evaluate Debris Management Capacity at Pre-Approved Sites
- Review the **City of South Portland *Disaster Debris Management Plan*** annually, and update as necessary when relevant circumstances have changed
- Train staff and others annually on execution of the **City of South Portland *Disaster Debris Management Plan***
- Review the Municipality's Comprehensive Emergency Management Plan (CEMP)
- Draft Pre-Disaster Media Press Releases

4.2 INCREASED READINESS

The Increased Readiness phase occurs when there is a high probability that a hazard event may impact local communities. This phase calls for municipalities to prepare for a disaster event under the assumption that the threat is imminent. Key personnel and representatives of appropriate outside agencies will be put on alert and will monitor the progress of the event to gauge where and when it might strike the area and with what severity. All participating parties will be briefed of their specific duties. The availability of pre-selected/pre-approved Debris Management Site locations will be evaluated. Alternative locations will be considered by prioritizing potential sites if one or more pre-approved sites are not available. Emergency preparedness officials will put pre-approved contractors on stand-by and request each contractor provide a representative at the local or regional Emergency Operations Center as soon as practicable.

4.2.1 Increased Readiness Checklist

- Download Most Recent Road List and Relevant Documents to a laptop computer, thumb drive, or other portable format
- Alert Key Personnel
- Review Debris Plan with Key Personnel
- Issue Pre-event Media Press Release
- Alert Debris Contractors and Place on Standby

4.3 RESPONSE

The Response phase is the period immediately after the event occurs and a disaster declaration is issued. For contractual and FEMA reimbursement purposes, the response phase is generally defined as the first 70 contractor *working* hours following a storm. (This time frame is subject to change due to severity of the event and other disaster specific circumstances). During this phase, the DOT Highway Division and local highway departments will initiate emergency roadway debris clearing operations. Road clearance priorities are pre-established to ensure access to critical public facilities such as fire stations, police stations, hospitals, emergency supply centers, shelters, and other critical facilities. During this critical phase, access to these facilities may be

accomplished with a “cut and push” approach to debris clearance, with materials to be removed later once access to critical facilities has been provided (*see also Section 5.0 for a discussion of the phases of debris clearance and debris removal*). Plans will need to be activated during this period in order to begin the removal phase. If necessary, time and materials contract services can be employed in the first 70 hours of responding to an emergency.

It is illegal for municipalities to spend money that they do not have. Therefore, when an emergency begins to escalate beyond the resources of a local government, municipal officials begin to consider declaring a state of emergency, which allows them to spend beyond their budget. In addition, by declaring a state of emergency, local officials notify CCEMA that the intensity of the event requires assistance. CCEMA may respond by requesting that MEMA dispatch a field official to begin the Initial Damage Assessment that includes an evaluation of damage indicators that are essential for a Presidential Declared Disaster. For an emergency to escalate into a disaster declaration, the event must meet a threshold of damage determined by a damage indicator that is based on recovery costs. In order to receive the status of a federally declared disaster and thereby qualifying for federal funding, FEMA requires the State to meet a statewide dollar threshold. Because this determination may take time, in the meantime local communities must continue its response and recovery efforts. The initial tool available to communities includes Mutual Aid Agreements (MAA). Costs are only eligible if municipalities charge for mutual aid on a regular basis. Along with the MAAs, each community also has a Comprehensive Emergency Management Plan (CEMP) that contains, among other things, an inventory of each municipality’s resources that could be available in the event of a disaster.

If the local emergency leads to a state declaration, then the Governor may request a federal declaration. Once the Federal government declares a disaster, the local government becomes eligible to apply for FEMA funding and is encouraged to submit a Request for Public Assistance. Upon receipt of this request, FEMA appoints a Public Assistance Coordinator (PAC) to work with each applicant for funding. Private residences and businesses have a different and usually parallel damage assessment process through FEMA’s Individuals and Households Program.

4.3.1 Response Phase Checklist

- Activate Action Plan
- Begin tracking all use of municipal resources, including use of force staff, equipment and materials used to respond to the emergency
- Conduct Damage Assessment and take photos and GPS coordinates
- Declare State of Emergency, If Needed
- Activate Debris Removal Contractors
- Begin Emergency Roadway Debris Clearance
- Notify the Cumberland County Emergency Management Agency (CCEMA) of Contractors Activation
- Prepare Debris Management Sites Based on Concentration and Types of Debris

- Conduct Meetings/Briefings with Key Personnel
- Review Debris Volume and Collection Cost Assessment
- Request Contact Information and Meeting with MEMA Public Assistance Officer
- Issue Media Press Release on Local Government Response
- Work with FEMA's Damage Assessment Team on Project Worksheets, as needed

4.4 RECOVERY

For the purpose of debris management, the Recovery Phase is marked by debris collection and reduction of debris from the public right-of-way (ROW). This work may be done by force account labor or by debris removal contractors, depending on the volume of debris and local capacity. Concurrent to the commencement of ROW debris removal operations, local officials evaluate the need for debris removal on private property, parks, and waterways. They will also confirm that DOT Highway Division and local highway departments are either under way or in the process of initiating programs that address debris removal on the roads for which they are responsible.

The Incident Command System, designed for use by local emergency personnel in an emergency and disaster, requires the activation of the appropriate Emergency Operation Center. It is here that disaster debris management efforts will begin to fold into the larger and more comprehensive response and recovery efforts. Especially important to debris management is the Public Information Officer who has the responsibility of keeping the public informed of response and recovery activities in a coordinated manner.

A Disaster Specific Guidance (DSG) is a policy statement issued by FEMA in response to a specific post-event situation or need in a state or region. Each DSG is issued a number and is generally referred to along with their numerical identification. These guidance documents typically relate to the authorization of private property cleanup, cleanup and payment of stump removal, or notification of large projects. Local officials should be aware of any new DSG that are issued by FEMA following an event.

Following is a general checklist of the activities to be undertaken by the local government during this critical phase of the debris management cycle, which can take up to six months to complete from opening the DMS and beginning to collect debris through to the closure of the sites following processing and transfer of all wastes collected. Local officials will need to continue to be involved in the overall supervision of the effort and coordination with external agencies.

4.4.1 Recovery Phase Checklist

- Continue to track all resources used
- Open Debris Management Sites
- Prioritize Roads/Areas for Debris Clearance

- Issue Press Release About Segregation of Wastes
- Begin ROW Debris Removal
- Establish a system for and initiate continuous monitoring of debris removal operations
- Coordinate with External Agencies such as DOT
- Initiate discussions with FEMA Debris Team
- Obtain FEMA Guidance For Private Property Debris Removal
- Issue Press Release(s) About ROW Cleanup
- Maintain and Evaluate Progress of ROW Cleanup
- Work with Contractors to Document All Debris-Related Work and Costs
- Open Additional Debris Staging Sites as Necessary
- Open Residential Drop-off Stations if Needed
- Conduct Regular Meetings with FEMA Debris Team to Ensure Strong Coordination and Address Any Operational Problems
- If Approved, Begin Debris Removal from Private Property
- Begin ROW Leaners/Hangers Program
- Initiate Haul-out of Reduced Debris from Debris Management Sites To Final Disposal Locations
- Complete All Debris Recovery Activities
- Identify Ineligible Debris on ROW
- Finalize the Disposal of Reduced Debris
- Notify DEP of Intent to Close Debris Management Sites
- Issue Press Release About Planned Closing of Debris Management Sites
- Closeout and Remediate Debris Management Sites
- Conduct Project Closeout Meetings with FEMA Debris Team and External Agencies
- Obtain Final Written Approval from DEP for Site Closure

SECTION 5.0: CITY OF SOUTH PORTLAND PLAN CONCEPT OF OPERATIONS

Immediately following a major disaster, disaster assessment teams will be active in the impacted area(s) to estimate the quantity and type of debris and assist in prioritizing debris removal activities. The debris management task can be divided into two major phases that overlap with general emergency planning phases.

Phase I - Debris Clearance

During the first 70 hours after the disaster, debris activities emphasize clearing key roads for emergency access by pushing debris to the edge of the right-of-way, rather than restoring roads to pre-event conditions. (*See Annex B for the City of South Portland Road Jurisdiction Map.*) This phase is generally concurrent with the response phase of emergency planning. Although Phase I is not the primary focus of the Debris Plan, it is a crucial time for organizing the majority of the tasks outlined in the plan.

Close coordination with utility companies on debris clearance will expedite clearance of utility-impacted debris and restoration of services. Without close coordination with utility companies, debris clearance and utility restoration may work at cross-purposes, adversely affecting both functions. Good coordination will also yield improved damage and debris assessments and more accurate work scheduling. Contact information for the utility companies serving the residents of **the City of South Portland** is included below:

Table 5.1: Utility Companies Serving the City of South Portland

Utility Company	Primary Contact Name	Phone	E-mail Address
Central Maine Power			
Unitil			
Portland Water District			
South Portland Water Resource Protection	Brad Weeks, Director	767-3201	bweeks@southportland.org

Debris clearance should also incorporate up-front debris sorting and separation whenever possible. State contractors are available to assist in the early phase of the debris management process, but local officials may also need to rely more on local force account labor, mutual aid assistance, and/or local contractors during this critical phase depending on the specific conditions immediately following a hazard event.

Phase II - Debris Removal

This phase entails the actual management and removal of accumulated debris. Depending on the severity of the disaster and the amount of debris, Phase II may last just a few weeks or could take up to six months. Although in the past, some debris removal operations have taken a year or more, such a lengthy process is discouraged by state and local officials and could present significant problems for the DMS owners. Phase II may involve reassessment of debris quantities, operations of debris management areas, public education, and debris separation,

collection, storage, recycling, and disposal activities. Debris removal may begin during the emergency planning response phase and will constitute a major part of the recovery phase. Debris removal activities may vary widely depending on whether the disaster event impacts a specific location (e.g., a farm with a disease outbreak) or whether it impacts a widespread area (e.g., a hurricane) and will vary widely depending on the types of debris generated.

This Disaster Debris Plan provides an organizational structure and general principles for managing debris operations for both phases of the cleanup. This section describes the basic elements of the Debris Plan. These elements include debris management coordination; public information and outreach strategies; identification of DMS; recommended practices for debris collection and removal; monitoring of debris operations; and DMS closure.

5.1 DEBRIS MANAGEMENT COORDINATION

Local officials should contact CCEMA early in the recovery process as soon as they have determined that the scale and/or scope of the hazard event exceed their capacity to respond and will require help from other communities under Mutual Aid Agreements and from state agencies. *(See Section 2.0 for a review of the roles and responsibilities of the various federal, state, county and municipal agencies and officials in the debris management process.)*

5.2 PUBLIC INFORMATION

Communicating with the public in times of emergency is challenging. Public messaging must be clear, timely and coordinated so that neighboring jurisdictions are not giving contradictory information. There is no one homogenous “public,” rather, communities are composed of diverse populations and demographic groups. Among these groups are:

- Elderly people
- Segments of the population with limited digital access to cable or the internet
- People (often younger demographics) who are accustomed to using social media
- Rural populations
- People living in poverty or with few resources
- People living without support systems
- Immigrants who have limited English speaking ability
- Deaf people who use American Sign Language
- Cultural groups who do not watch or listen to the same media as the general population

There is no one-communication tool that can reach all these public stakeholders, so it is necessary to employ multiple different communications modes that are technologically integrated (“seamless”) for the delivery of emergency warning messages. The following is a list of communication modes that can be used to relay information to the public during emergencies:

- Public alert systems
- Mass media (also known as traditional media—television, radio, newspapers, reverse notification systems, etc.) *(See Annex D for a list of Media Resources Serving the City of South Portland)*

- Social media (web- and mobile-based technologies, such as Twitter, Facebook or other sites)

Public alert systems differ from community to community, but in each case would be activated by the local Emergency Management Director in conjunction with the Emergency Operations Center (EOC) team. Under the ICS, a Public Information Officer (PIO) should be designated as part of the EOC team and they should have primary responsibility for compiling and issuing all alerts to the public.

Press releases should be issued by local authorities using some or all of these modes of communication at several key points in the debris management process immediately before, during, and after a hazard event. (*See Annex E for sample press releases and media contact information.*) The first press release should come during the Increased Readiness Phase, to let the public know of the imminent danger posed by the hazard event and the ongoing preparations to respond to protect the public safety. During the Response Phase immediately after the event occurs and a disaster declaration is issued, another press release should inform the public of the status of the emergency operations being undertaken by local officials. During the Recovery Phase it may be necessary to issue several press releases, depending on how long the debris collection and management phase continues to operate. At the beginning of the Recovery Phase, the public should be informed of the initiation of the curbside debris collection process and given specific details on what materials can be picked up, where they should be located, how they should be segregated, and when the pick-ups will occur.

As debris collection proceeds, it may be necessary to send out additional press releases informing the public of changes in the protocols being followed in terms of what types of materials can be collected, the schedule for pick-ups, etc. Residents should also be notified via multiple outreach channels of special collection events for specific materials so that these collections can collect as much material as possible and operate as efficiently as possible, including debris removal on private property if that is approved by FEMA. In the event that DMS are to be utilized by the public, public education should also provide details about how these sites will operate and where they are located. If the debris collection and removal process has been ongoing for several months, it might be helpful to provide a status update, so the public understands how the project is proceeding. Finally, the Public Information Officer should issue a press release announcing the planned closing of debris management sites when the debris collection and removal process has concluded.

5.3 DEBRIS MANAGEMENT SITES (DMS)

A debris management site (DMS) is a temporary location for storing, and/or processing (including recycling and volume reduction) of disaster debris prior to consolidating and shipping to a facility for recycling, composting or disposal. Debris management sites are important in supporting initial debris clearance activities, as well as more efficiently coordinating final debris management. Activation of pre-certified regional sites would be coordinated by local

Emergency Management Directors (EMD) and other local officials. Debris management sites are only intended for use during a disaster event and State of Emergency and associated debris management activities. Any temporary DMS may be approved on case by case basis by DEP. In normal circumstances, without a declared State of Emergency, these types of operations would typically require extensive solid waste permitting and site assignment processes. Permits may be required from the following local and state agencies for regular operations of the debris management sites: Board of Health – waste site assignments, transfer stations assignments, waste hauling, burials, condemnation; DEP; Building Inspector – demolition permits; Zoning Board of Appeals – special permits or variances; Conservation Commission – emergency permits to work in wetlands/streams; and Fire Department – removal of buried tanks and other gas/oil tanks.

Locating effective debris management sites requires evaluating a wide range of factors, including parcel size, topography, and ownership, in addition to past uses of the land and its proximity to residences, water supplies and wetlands. **The City of South Portland** has pre-selected two sites to be used for debris management in the event that a hazard impacts multiple communities and the volume of debris exceeds the local capacity for management. Those sites are: **South Portland Public Services and Wainwright Sports Complex**.

The map on the following page shows the location and distribution of these sites in **the City of South Portland** as well as critical facilities, evacuation routes, historic districts and environmental constraints. Table 5.2 provides detailed information regarding each of these sites. (See also Annex F for DMS Site Selection Worksheets and site plans for each of the sites.) The site selection process was conducted using the criteria below from the 2014 State of Maine All Hazards Disaster Debris Management Plan.

Where possible sites generally should not be:

- within an identifiable or known floodplain and flood prone areas;
- within 250 feet of a private drinking water supply;
- within 500 feet of a public drinking water supply;
- within 100 feet of a surface water body;
- within 250 feet of a residential dwelling;
- within an endangered species habitat or historic site; and
- debris storage areas should be at least 100 feet from property lines

Where possible, storage and management sites should be:

- owned or controlled by municipal or state government;
- large enough to accept and store large quantities of debris;
- have easy access, including being near the area of debris generation, be easy to enter and exit, and be near transportation arteries;
- be ready to use as management areas without extensive site modifications

Table 5.2: CITY OF SOUTH PORTLAND DEBRIS MANAGEMENT SITES

Site ID	Site Name	Location	Total Acres	Useable Acres	Debris Volume (cy)*	Type of Debris/Site	Owner	Contact Person	Contact Info	Notes
1	Transfer Station	929 Highland Avenue	98	4	64,000	All	City	City of South Portland Director of Public Works	767-3201	
2	Wainwright Sports Complex	125 Gary L Maietta Drive	66	27	432,000	All	City	City of South Portland Parks and Recreation Director	767-3201	

*Debris volume is estimated based on an assumption of up to 16,000 cubic yards/acre and only 40 percent of the site available for debris storage.

While these siting criteria may not always be feasible and should not be viewed as requirements, debris management sites should be chosen with these criteria in mind to prevent public health, nuisance, and environmental impacts. Other issues to take into account when establishing debris management areas include:

- Sites with 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.
- It may be necessary to test the soil, groundwater and/or surface water at a proposed management area prior to receipt of debris to know whether contaminants at the site simply represent pre-existing conditions or are due to the operation of the management site.
- Use of inactive or capped landfills as debris sites, while highly unlikely, eliminates the burn option due to explosion potential from methane in landfill gas. Closed landfill sites also may be poor sites due to the potential to damage the landfill cap. DEP does not want these sites to turn into default disposal sites operating without a valid site assignment or permit, which is a potential risk when debris is brought to a closed landfill site as a management area.
- DMSs should not be established in environmentally or historically sensitive areas such as wetlands, critical animal and plant habitats, sole source aquifers, freshwater well fields, historic districts, or archeological sites. If an environmental or historic preservation concern is found, the potential site should be ranked lower than others. However, if use of such areas is unavoidable, the State and local environmental and historic preservation requirements must be followed.

Operationally, debris management sites provide a location for trucks to haul to, or the public to self-haul, disaster debris where it can be stored pending transportation to recycling or disposal facilities, or it can be chipped on site into a truck to document/measure quantity, crushed, or burned on site, or some combination of these activities. Debris management sites also will be used to consolidate debris into larger trucks and/or rail cars for shipment to recycling, composting, or disposal facilities. The combination of activities that may occur at a given site will be a function of the type of debris managed (*see Section 3.3*) and the characteristics of the site. The sites should be operated in such a way to maintain separation of pre-sorted debris, control access to the site, and minimize nuisance conditions (i.e., noise, dust, and odor) and other environmental impacts.

Debris management sites may be of different sizes and have different siting criteria depending on the type and volume of materials they are intended to handle. For example, sites that will need to accept large amounts of vegetative waste and building debris (the two largest debris streams in most disaster events) would need to be large sites with flat open areas that could accommodate large amounts of debris. Such sites would likely need to operate for a long period of time before they can be fully cleared out and closed. On the other hand, some sites may be used for smaller volume debris streams such as white goods (appliances), electronics, and hazardous household products and may be able to be operated at smaller sites such as local departments of Public Works facilities, transfer stations, or recycling centers (*see the map above for the locations of*

these local facilities). In addition, sites can be designated for use primarily as staging areas for the separation and subsequent transfer of wastes to other facilities, and these would only need to be open for the short term during the first 70 hours of debris collection and removal.

Reviewing the specific sites in **Table 5.2**, it is important to note that the sites are designated for different uses, depending on their site characteristics. (*See also Annex F for detailed worksheet, locus maps, and site maps for each of these sites.*) The sites have been assessed for environmental and historic preservation issues and details of any issues identified are included on the maps, data tables, and worksheets for each applicable site (*see the Debris Management Site Map Annex F and, Table 5.2*). Environmental constraints potentially affecting the sites have been assessed using the following information:

- Permanently protected open space
- Prime farmland soils
- Wetlands
- Floodplains
- Priority Habitat of Rare Species

Sites are under multiple types of ownership, including private, non-profit, municipality, etc. Regardless of the ownership model, site owners would in every hazard incident be contacted early in the Response phase or Increased Readiness Phase to determine if conditions were appropriate for the site to be used for debris management. The two sites represent a total usable acreage for debris management of approximately 37 acres. Information and site plans for each identified DMS must be submitted to DEP for pre-certification. The sites must be approved by DEP on (*see DEP's pre-certification letter approving the DMS in Annex I*).

5.4 DEBRIS COLLECTION AND REMOVAL

This Debris Plan requires the following debris removal and disposal operations be established:

- Divert as much material from disposal as possible through recycling, composting and other legitimate diversion options
- Utilize volume reduction techniques to improve debris management efficiencies and minimize impacts on landfill capacities
- Chip debris on site into a truck wherever possible to ensure proper documentation and measurement of debris quantities by municipality
- Consider alternative technologies for managing portions of the debris waste stream, in-state or out-of-state (i.e., biomass facilities)
- Use only approved DMS for processing debris for recycling and disposal

5.4.1 Mobilization/Demobilization

When a major disaster occurs or is imminent, the activating entity will contact the approved contractor advising them of the entity's intent to activate the contract. Once the contract is activated, the following steps will take place:

- The contractor will begin coordination with the activating entity immediately following notification
- Essential contractor staff with key experience in the "response" phase of disaster events will immediately mobilize in order to participate in initial response actions
- When additional debris clearance and removal work is required, the contractor will increase the number of staff and equipment for the activating entity to use as needed
- Upon completion of assigned tasks, the contractor is responsible for closing out all related operations, including but not limited to, removing equipment, properly closing any DMSs, and restoring any property used by the Contractor to its original condition prior to the disaster event

5.4.2 Equipment/Supplies Mobilization

The contractor will prepare key equipment needed for the debris management response and, if needed, transport that equipment to the affected area. The contractor will also contact key vendors (e.g. construction trailer vendors, etc.) to expedite provision of field equipment that will be required for an extended debris management assignment. This shall include all equipment required to support and supply the contractor's staff (including all subcontractors). Equipment should be prepared for mobilization prior to the contract being activated.

5.4.3 Initial Debris Clearance

As requested by the activating entity, the contractor will clear debris from designated roadways, utility corridors, other transportation infrastructure, and any other critical infrastructure. This task shall only include the debris clearance necessary to restore transportation services, utility service, and other critical services and does not include debris removal and disposal. During the first 70 hours following the event, these services are provided at an hourly rate.

5.4.4 Work Scheduling

The activating entity's designated debris manager will schedule and assign priorities for debris management work on a daily basis for the local force account labor and/or debris management and monitoring contractor(s). No debris management work shall be conducted without the presence of a monitor.

5.4.5 Right of Way Collection

As requested by the activating entity, the contractor shall collect and transport eligible debris from affected rights of way to temporary DMSs or final disposal sites, as directed by the activating entity. Eligible debris includes all applicable types of debris and disaster related debris placed along the right of way by residents.

5.4.6 Debris Management Site Operation

The following are the requirements of the state contract for Debris Management Services in regard to DMS operation:

- The contractor is responsible for providing all staff and equipment, including scales if requested, to operate the DMS as directed by the activating entity Under the direction of the City of South Portland.
- The contractor is responsible for identifying end markets for debris. Where end markets are not available, the contractor is responsible for identifying disposal outlets and associated tipping fees.
- All debris management activities, including end destinations, are subject to the approval of the activating entity.
- All DMS operations must be conducted in accordance with the Maine Debris Plan and the *City of South Portland Disaster Debris Management Plan*.
- Unless specifically otherwise requested by the activating entity, no ineligible debris shall be accepted and managed by the contractor.
- The contractor will be required to manage all categories of debris as requested by the activating entity.
- The activating entity will reimburse the contractor for tipping fees at final recycling or disposal facilities. Prior to final disposal, the contractor will provide to the activating entity three bids for final recycling or waste disposal facilities. If the contractor receives a payment for materials, that payment shall be returned to the activating entity.

(See Appendix 5 for the Contract User Guide for the Disaster Debris Management Services Statewide Contract.)

5.4.7 Health and Safety Requirements

The purpose of the *Disaster Debris Management Plan* and DEP and labor regulations is to protect the health and safety of the public in general, and the workers engaged in debris management in particular. Contractors are responsible for the health and safety of their workforce. DMSs are sited to separate them from residences and other public uses to minimize public health impacts and all debris collection must be done in accordance with applicable state, federal and local laws and regulations. Debris is segregated to separate out potentially hazardous materials and infectious wastes and only specially trained entities are charged with managing those wastes to prevent toxic contamination and transmission of disease agents. Health and safety measures to be included in DMS management may include the use of Personal Protective Equipment (PPE), silt fences, dust control measures, and insect/pest control measures. Careful monitoring ensures that only eligible wastes are stored or processed at DMSs.

To avoid the potential fires affecting public health and safety, mulch and chip piles should not exceed 18 feet in height, 50 feet in width or 350 feet in length, in accordance with the National Fire Protection Association. Piles should be subdivided by fire lanes at least 25 feet wide around each pile. These piles should not be compacted. The local fire department shall be notified upon commencement of debris management site activities.

5.4.8 Environmental Considerations and Other Regulatory Requirements

Similar to the health and safety requirements cited above, the *Disaster Debris Management Plan* and DEP and Maine CDC regulations are designed specifically to take environmental and historical preservation considerations into account. DMS are sited to separate them from public water supplies, surface water bodies, floodplains, Drinking Water Zone II recharge areas (<https://www.maine.gov/dep/waste/drinkingwater/documents/factsfiguresld2073.pdf>), prime farmland soils, permanently protected open space, and areas of critical environmental concern, to the greatest extent possible. The segregation and separate management of potentially hazardous or infectious debris also minimizes potential environmental and other impacts. Historic points and districts as identified by the Maine Historic Preservation Commission (MHPC) should be avoided or impacts minimized when they are located on or near DMSs. If an environmental or historic preservation concern is present, a potential site should be ranked lower than other available sites. All debris collection must be done in accordance with applicable state, federal, and local laws and regulations and the DMS operations are closely monitored to ensure that appropriate regulations are complied with.

5.4.9 Debris Removal on Private Property

In general, debris on private property is the responsibility of the individual property owner aided by insurance settlements and assistance from volunteer agencies. FEMA assistance is not available to reimburse private property owners for the cost of removing debris from their property; however, state or local government collection and management of disaster-related debris placed at the curb by residents may be considered an eligible cost under certain circumstances as outlined below. Municipalities should determine whether private property owners will be permitted to self-haul their debris to a DMS or other drop-off center.

FEMA will issue Disaster Specific Guidance for debris removal on private properties. Eligibility will be determined on a case-by-case basis following an event. In order for FEMA to make an eligibility determination, the following events must occur:

- FEMA must determine that the damage poses a threat to the health and safety of the community at large and that the scale and cost associated with the debris removal operation exceed the municipality's financial ability to bear.
- The municipality demonstrates that it has the legal authority to enter private property and gated communities and accept the responsibility to abate all hazards, regardless of whether or not a Federal Disaster Declaration is made.
- The municipality attains a signed Right-of-Entry (ROE) form holding the Federal government harmless from any damages caused to private property. (*An example of this form can be found in Annex H.*) Municipalities may execute ROE forms prior to a disaster under the condition that the ROE does not reference a particular event or disaster number.

Municipalities may undertake private property debris removal (PPDR) and demolition in extreme cases where public health, life, safety, and the economic recovery of the community-at-large are at risk based on the outcome of the damage assessment. In a situation where PPDR and/or demolition is necessary, contractors and local officials will work with private property owners in accordance with the 2017 Public Assistance and Policy PAPPG V3.1. This document

sets forth the FEMA eligibility criteria and requirements for private property debris removal and demolition.

5.5 MONITORING OF DEBRIS OPERATIONS

Monitoring debris removal operations requires comprehensive observation and documentation by the applicant of debris removal work performed from the point of debris collection to final disposal, also known as “cradle to grave” monitoring. Failure to document eligible work and costs may jeopardize Public Assistance grants. In Federally declared disasters, FEMA periodically validates the applicant’s monitoring efforts to ensure that eligible debris is being removed and processed efficiently.

No debris management work shall be conducted without the presence of a debris monitor. Municipalities can use force account resources, contractors, or a combination of both to monitor debris removal operations. FEMA encourages applicants to use their own employees to monitor debris removal operations. The applicant’s employees are the most familiar with the jurisdiction and know the priorities of the applicant’s debris management plan. Force account employee costs are reimbursed based on the Public Assistance Program’s labor cost policies for emergency work.

In some cases, the monitoring task is outsourced to a contractor. As with any contractual arrangement, the applicant must ensure that the contractor is meeting the performance requirements of the contract. If a contractor is hired to perform a monitoring task, the applicant is required to ensure that the hired contractor performs satisfactorily. The contractor is responsible for ensuring that all firms and personnel engaged in these operational activities perform in an environmentally responsible manner that complies with the State of Maine All Hazards Disaster Debris Management Plan, and conforms with all applicable state and federal laws, regulations, policies and procedures. The contractor is also responsible for maximizing potential federal reimbursement for disaster debris management expenditures under FEMA Public Assistance (PA) Programs, if applicable. When the debris-monitoring contract is activated, the debris management contractor must use the load tickets provided by the monitoring contractor. If the debris-monitoring contract is not activated, the debris management contractor must use a load ticket that meets FEMA requirements in terms of the information collected for each load. (*See Appendix 5 for the Contract User Guide for the Disaster Debris Monitoring Services.*)

The primary role for debris monitors is to document the location and amount of debris collected. The key elements of information that are needed to verify the contractor’s scope of work and determine eligibility are the:

- Type of debris collected
- Amount of debris collected
- Original collection location

From this information, the applicant can document eligible location and work completed. Monitors should be located at the initial collection locations, the DMSs, and the final disposal locations. The debris monitor’s roles and responsibilities in the field include:

- Measure and certify truck capacities (recertify on a regular basis)
- Complete and physically control load tickets (in monitoring towers and the field)
- Validate hazardous trees, including hangers, leaners, and stumps (use appropriate documentation forms)
- Ensure that trucks are accurately credited for their load
- Ensure that trucks are not artificially loaded to maximize reimbursement (e.g., debris is wetted, debris is fluffed - not compacted)
- Ensure that hazardous waste is not mixed in with loads
- Ensure that all debris is removed from trucks at the DMS
- Report to project manager if improper equipment is mobilized and used
- Report to project manager if contractor personnel safety standards are not followed
- Report to project manager if general public safety standards are not followed
- Report to project manager if completion schedules are not on target
- Ensure that only debris specified in the scope of work is collected and identify work as potentially eligible or ineligible
- Monitor site development and restoration of the DMS
- Ensure daily loads meet permit requirements
- Ensure that work stops immediately in an area where human remains or potential archeological deposits are discovered
- Report to project manager if debris removal work does not comply with all local ordinances as well as State and Federal regulations

The municipality is responsible for ensuring that debris removal work (either force account or contract) being funded under the Public Assistance Program is eligible in accordance with Public Assistance Program criteria. Additional documentation requirements depend on how the debris is collected and processed. The following describes methods and systems to monitor and document work completed by force account resources and/or contractors.

5.5.1 Debris Monitor Reports

The debris monitoring report is important for monitoring time-and-materials contracts that may be used during the response phase of the operations. Monitoring documentation for time-and-materials contracts includes:

- Actual labor hours worked
- Actual equipment hours operated
- Type and specification of equipment used

All project information must be entered into the Grants Portal <https://grantee.fema.gov/> once a disaster is declared (see a schematic of the disaster grants process in Appendix 7).

5.5.2 Truck Certification List

A truck certification list allows the monitor to identify the truck itself and its hauling capacity in a standardized manner. It is important to know the truck hauling capacity since debris, specifically vegetative debris, is often hauled and billed by volume. The standard list of requirements includes:

- Size of hauling bed in cubic yards
- License plate number
- Truck identification number assigned by the owner
- Short physical description of the truck

Monitors may need to be trained to measure truck capacities for certification purposes. Recertification of the hauling trucks on a random and periodic basis should be implemented for contract compliance and reimbursement considerations.

5.5.3 Load Ticket System

The term “load ticket” refers to the primary debris-tracking document. A load ticket system tracks the debris from the original collection point to the DMS or landfill. By positioning debris monitors at each point of the operations (collection, DMS, and/or final disposition), the eligible scope of work can be properly documented. This is how the applicant documents and tracks the debris from the initial collection location to the DMS and final disposal location. If the applicant uses a contract hauler, this ticket often verifies hauling activities and is used for billing purposes. Traditionally, load tickets have been carbon paper tickets with at least four copies generated for one load of debris, however, more advanced computer-based systems tracking tools are now being used in the field to reduce human error and expedite funding. Regardless of which type of system is used, the same type of information is gathered. The sample load ticket below illustrates the type of information to be collected and maintained by each monitor, as well as the driver and/or contractor.

The better the field documentation provided in support of an application to FEMA for grant funds under the Public Assistance Pilot Program, the more likely the costs of debris removal will be found to be eligible. Types of documentation that could be provided in addition to the standard logs include photos at each stage of the debris management process, detailed location information, and careful accounting of the chain of custody of the debris from “cradle to grave.”

Preprinted ticket number	Monitor Ticket Responsibilities	
Load Ticket Information	Collection Point	DMS or Landfill
Contract number	Contracts may be identified	
Prime contractor’s name		
Date	X	
Truck number	X	
Truck driver’s name	X	
Vegetation	X	
Construction & Demolition	X	
White Goods	X	
Household Hazardous Waste	X	
Other (required to be described applicable)	X	
Load Location	GPS or address	

Loading date/time (departure from collection location)	X	
Loading Site Monitor name/signature	X	
Truck capacity in cubic yards or tons		X
Load Size, either cubic yards (percent of actual)		X
Unloading location		X
Unloading date/time (arrival at disposal)		X
Unloading site monitor name/signature		X

5.6 DEBRIS MANAGEMENT SITE CLOSURE

Debris management areas should only be operated as long as it is necessary to store and process disaster debris that cannot be handled by the existing solid waste management infrastructure. These are only intended to operate as temporary management areas, not as ongoing solid waste facilities. Debris is expected to be processed and removed from management areas as quickly as possible so that debris can be safely managed, and the site expeditiously returned to its previous use. Once this activity is completed, debris management areas must be properly closed. Otherwise, they may be subject to DEP enforcement.

Final written approval is required from the DEP solid waste section chief in the region the site is located to consider any debris management site to be properly closed. The management site operator should contact the appropriate DEP regional office to discuss what is necessary for site closure and should again notify the regional office when closure is deemed complete. Depending on the amount of debris generated by a disaster, closure of processing and recycling sites shall generally be within six (6) months of first receiving waste. If site operations will be necessary beyond this time frame, permitting of the site by the Solid Waste Section may be required.

DMSs should meet the following guidelines to ensure proper closure:

- Within 90 days of completing processing at a chip site, all chips and mulch shall be removed for beneficial uses, unless DEP approves storage of these materials at the site for a longer period. All other recyclable materials should be sent to a recycling facility prior to closure.
- Unprocessed wood wastes at a chip site, or other materials that cannot be diverted from disposal, must be removed and sent to an appropriate disposal site prior to closure.
- Prior to closure of the storage site, all remaining debris, equipment, and other materials must be removed and delivered to a proper disposal or recycling facility and the site should be restored to its original condition to the maximum extent possible.
- At closeout, final testing of soil, water, and air quality should be compared to original conditions.
 - Areas that were only used to stage vegetative debris, or ash from burning solely vegetative debris, will not require any environmental sampling after the debris or ash is removed unless there is reason to believe that the area may have become

contaminated (e.g., significant visible staining or known contaminant releases in the area).

- Areas that were used to stage mixed debris, or ash from burning mixed debris, will normally require environmental sampling after the debris or ash is removed unless there is reason to believe that no contamination occurred.
- When environmental sampling for soils and groundwater is needed, it should typically include at least one soil sample and one groundwater monitoring well in areas showing significant visible staining or areas believed to be impacted by the staged waste or ash. Unless otherwise approved by DEP, these samples should normally be analyzed for total RCRA (Resource Conservation and Recovery Act) metals, volatile organic compounds and semi-volatile organic compounds using approved EPA methods. DEP may also require other approaches to conducting environmental sampling at management areas on a case-by-case basis.

The following are the requirements of the state contract for Debris Management Services in regard to DMS closure:

- The contractor will be responsible for closing the DMS and returning it to its pre-disaster condition. This shall include removing all debris from the site, cleaning up any contamination from debris management activities, and removing all equipment and temporary structures or site alterations.
- The contractor will prepare and maintain before and after documentation to demonstrate that the DMS was properly closed. This documentation shall include, but is not limited to, photographs, soil sampling, and water sampling.
- The contractor will obtain written approval from the activating entity that the site is properly closed and has been returned to its pre-disaster condition.