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# Standard Guide for Resource Management in Emergency Management and Homeland Security<sup>1</sup>

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## INTRODUCTION

This guide offers a compilation of information intended to increase awareness and offer guidance in the area of resource management. While not binding on any sector, this guide presents ideas on and concepts for what should be included as part of a resource management program. It is a blend of best practices for resource management and is intended to complement existing plans, policies, and procedures; some terminology may differ to convey the meaning to a broad audience. This guide is a product of an interagency task group formed to address the need for consistency in resource management processes nationwide and to assist the U.S. emergency management and homeland security community in conforming to the basic concepts, principles, and policies of the National Incident Management System 2008 (NIMS).<sup>2</sup> This guide was established using the following foundational documents: the National Response Framework (NRF),<sup>3</sup> NFPA 1600<sup>4</sup> and NFPA 1561,<sup>5</sup> NIMS, and the EMAP (Emergency Management Standard by the Emergency Management Accreditation Program).<sup>6</sup>

## 1. Scope

1.1 This guide provides a standard frame of reference for managing resources in conjunction with an incident.

1.2 This guide addresses fundamental terms, references, definitions, and a process model for implementation of resource management plans, policies, and procedures in an incident.

1.3 This guide complements the concepts and principles of NIMS developed by the U.S. Department of Homeland Security (DHS).

1.4 This guide is intended to complement and support the resource sharing goals and objectives of the Emergency Management Assistance Compact (EMAC).<sup>7</sup>

1.5 This guide may be used in conjunction with the NFPA 1600 Standard on Disaster/Emergency Management and Busi-

ness Continuity Programs and NFPA 1561 Standard on Emergency Services Incident Management System.

1.6 This guide may be used by any and all entities having a role in the preparation for, response to, recovery from, and mitigation and prevention of an incident.

1.7 This guide is not intended to address all facets of resource management in the private sector, nor is it intended to provide comprehensive guidance for categorization and typing of all resources that might be used during an incident.

1.8 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

## 2. Referenced Documents

2.1 *The following is a list of fundamental references to understand this guide:*

DHS, NIMS Document, December 22, 2008  
DHS, NIMS Guide NG 0001 National Resource Typing  
Criteria, 2007<sup>8</sup>

<sup>1</sup> This guide is under the jurisdiction of ASTM Committee E54 on Homeland Security Applications and is the direct responsibility of Subcommittee E54.02 on Emergency Preparedness, Training, and Procedures.

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<sup>2</sup> For access to this document, go to [www.fema.gov/emergency/nims/](http://www.fema.gov/emergency/nims/).

<sup>3</sup> For access to this document, go to [www.fema.gov/emergency/nrf/](http://www.fema.gov/emergency/nrf/).

<sup>4</sup> For access to this document, go to [www.nfpa.org/assets/files/pdf/nfpa1600.pdf](http://www.nfpa.org/assets/files/pdf/nfpa1600.pdf).

<sup>5</sup> For access to this document, go to [www.nfpa.org/assets/files/PDF/CodesStandards/TIAErrataFI/TIA1561-02-1.pdf](http://www.nfpa.org/assets/files/PDF/CodesStandards/TIAErrataFI/TIA1561-02-1.pdf).

<sup>6</sup> For access to this document, go to [www.emaponline.org/](http://www.emaponline.org/).

<sup>7</sup> For information on EMAC, go to <http://www.emacweb.org/>.

<sup>8</sup> For access to this document, go to [http://www.fema.gov/pdf/emergency/nims/ng\\_0001.pdf](http://www.fema.gov/pdf/emergency/nims/ng_0001.pdf).

DHS, NIMS Guide NG 0002 National Credentialing Definition and Criteria, 2007<sup>9</sup>

DHS, Resource Typing Documents: FEMA 508-1–FEMA 508-8<sup>10</sup>

DHS, National Response Framework, January 2008

EMAP The Emergency Management Standard, September 2007

NFPA 1561 Standard on Emergency Services Incident Management System, 2008

NFPA 1600 Standard on Disaster/Emergency Management and Business Continuity Programs, 2007

National Volunteer Organizations Active in Disaster (NVOAD), Managing Spontaneous Volunteers in Times of Disaster: The Synergy of Structure and Good Intentions, 2008<sup>11</sup>

### 3. Terminology

#### 3.1 Definitions:

3.1.1 *categorizing resources*—the process of organizing resources by category, kind, and type, including size, capacity, capability, skill, and other characteristics to facilitate more efficient resource ordering among providers and users during an incident.<sup>12</sup> **NIMS 2008**

3.1.2 *entity*—a governmental agency or jurisdiction, private or public company, partnership, nonprofit organization, or other organization that has disaster/emergency management and continuity of operations responsibilities. **NFPA 1600**

3.1.3 *credentialing process*—the objective evaluation and documentation of an individual’s current certification, license, or degree; training and experience; and competence or proficiency to meet applicable standards, provide particular services and/or functions, or perform specific tasks under specific conditions during an incident. **NIMS 2008**

3.1.4 *inventory*—(v) a dynamic accounting of resources available to an entity in order to ensure timely delivery; (n) resources being accounted for in the process.

3.1.5 *mobilization*—processes and procedures used by all entities—Federal, State, tribal, territorial, non-governmental organizations (NGOs), private sector, and local—for activating, assembling, and transporting all resources that have been requested to respond to or support an incident. **NFPA 1600/NIMS 2008**

3.1.6 *agreements*—advance written (preferred) and/or oral arrangements between and among entities that provide a mechanism to share resources and obtain assistance. **NFPA 1600/NIMS 2008**

3.1.7 *resources*—personnel, materiel, and services available or potentially available for assignment or allocation to incident operations or coordination, and for which status is maintained. Resources are categorized by kind and type, and may be used

in operational support or supervisory capacities at an incident.

**NIMS 2008**

*Discussion*—The following definitions are subsets to the term “resources”:

3.1.7.1 *materiel resources*—equipment, apparatus, animals, and supplies used by an entity that generally can be ordered from inventory or can be rapidly produced to meet the needs of the incident. Examples include building materials, household goods, consumables, and commodities needed for subsistence, such as water, food, clothing, ice, shelter, childcare products, medical and fire supplies, etc. (This term is often referred to by various entities within the resource management community as “material resources.”)

3.1.7.2 *personnel resources*—all of the people who are needed to support the incident, including the knowledge, skills, and abilities they possess. Personnel may be full- or part-time, in-house, or outsourced.

3.1.7.3 *services resources*—materiel and personnel resource functions that are assembled to support missions or operational needs. Services can be categorized or typed to facilitate meeting-specific requirements.

3.1.8 *resource management*—(n) an operational process model for identifying, categorizing, ordering, mobilizing, tracking, recovering, and demobilizing resources, as well as a process for reimbursement of resources, as appropriate; (v) application of the process. **NFPA 1600/NIMS 2008**

3.1.9 *resource tracking*—a process to record, account for, monitor, and report the status of resources.

3.1.10 *volunteer*—any individual accepted to perform services by the lead agency (which has authority to accept volunteer services) when the individual performs services without promise, expectation, or receipt of compensation for services performed. Within this guide, the term “volunteer” when referenced solely will be inclusive of affiliated and unaffiliated volunteers and convergent groups. **NIMS 2008**

*Discussion*— The following definitions are subsets to the term “volunteer” as defined and endorsed by the National Volunteer Organizations Active in Disaster (NVOAD):

3.1.10.1 *affiliated volunteers*—volunteers who are attached to a recognized voluntary or nonprofit organization and are trained for specific disaster response activities. Their relationship with the organization precedes the immediate disaster, and they are invited by that organization to become involved in a particular aspect of emergency management. **NVOAD**

3.1.10.2 *unaffiliated volunteers*—also known as spontaneous, emergent, and/or convergent volunteers, individuals who offer to help or self-deploy to assist in emergency situations without fully coordinating their activities with emergency management at the local, State, territorial, tribal, or Federal levels. They are considered “unaffiliated” in that they are acting independently, as individuals, outside of the recognized coordination system of the impacted jurisdiction(s). **NVOAD**

3.1.10.3 *convergent groups*—group of individuals that may have a distinguishable identity, organizational structure, and a collective desire to assist. These groups do not have an

<sup>9</sup> For access to this document, go to [http://www.fema.gov/pdf/emergency/nims/ng\\_0002.pdf](http://www.fema.gov/pdf/emergency/nims/ng_0002.pdf).

<sup>10</sup> For access to these documents, go to [www.fema.gov/emergency/nims/rm/rt](http://www.fema.gov/emergency/nims/rm/rt).

<sup>11</sup> For access to this document, go to [www.nvoad.org](http://www.nvoad.org).

<sup>12</sup> For access to the FEMA 508-1 through FEMA 508-8 resources category documents, go to <http://www.fema.gov/emergency/nims/ResourceMngmnt.shtm#item4>.

affiliation with emergency management at the local, State, territorial, tribal, or Federal levels. They are considered “convergent” in that they are self-deployed, acting independently, as a group, outside of the recognized coordination of the impacted jurisdiction(s).

**NVOAD**

#### 4. Summary of Guide

4.1 Emergency management and homeland security practitioners should use this guide as a reference to develop and implement plans, policies, and procedures for the effective and efficient use of resources.

4.2 Documents developed from this guide should be reviewed and revised as necessary based on new mandates and/or guidance or, at a minimum, on the standard ASTM five-year review cycle. The review should consider new and updated requirements and guidance, technologies, and other information or equipment that might have a significant impact on the management of resources.

4.3 This guide describes minimum requirements associated with resource management for the purpose of emergency preparedness, response, and recovery. To provide clarity, this Guide has been divided into two distinct sections:

4.3.1 *Resource Management Preparedness*—Activities that occur prior to an incident. (Reference Section 6, Resource Management Preparedness.)

4.3.2 *Operational Process Model*—Sequential steps associated with resource management during and following an incident. (Reference Section 7, Operational Process Model.)

#### 5. Significance and Use

5.1 Coordination and provision of emergency resources to jurisdictions and people impacted by all types of incidents is a fundamental aspect of emergency management. The ability to identify resource needs, articulate those needs effectively to resource providers, and mobilize the necessary resources from the source to the point of distribution is the essence of disaster assistance. Standardization of terminology and processes will benefit all individuals and entities engaged in emergency-related resource management.

5.2 This guide provides emergency management and homeland security practitioners with a common, structured approach to resource management.

#### 6. Resource Management Preparedness

6.1 Resource management preparedness addresses resource management activities and processes that should be in place prior to an incident to facilitate effective response. There are seven essential elements to resource management preparedness: (1) planning and procedures; (2) resource needs assessment; (3) resources (materiel, personnel, and services); (4) agreements; (5) inventory process; (6) maintenance; and (7) information systems. Each one of the aforementioned elements will be discussed globally to set its context, in addition to suggesting minimum requirements associated with each. However, this Guide does not set a standard for such requirements.

6.1.1 *Planning and Procedures*—The planning process should include identifying resource needs based on the threats

to and vulnerabilities of the jurisdiction and developing alternative strategies to obtain the needed resources. Entities should involve key private and public stakeholders in advising on strategic planning and operations for any resource management program. Further, entities should incorporate unique aspects from their resource management program (for example, managing of personnel and materiel resources and services) into comprehensive preparedness, response, and recovery plans and procedures.

6.1.2 *Resource Needs Assessment*—Entities should determine baseline resource requirements, compare those requirements with available resources, and identify additional resource needs or gaps. A resource needs assessment is based on hazards/threats identified through a comprehensive all-hazard identification and risk assessment (HIRA) process. An assessment of the functions that could be performed by the entities should be conducted and documented. Procedures to obtain such services during an incident should be established through contracts and agreements. To the extent possible, communicate potential resource needs to likely resource providers, including the private sector, to support appropriate planning on their part.

6.1.3 *Resources*—Resources may be conveniently grouped into three fundamental categories: (1) materiel, (2) personnel, and (3) services resources. Alternatively, other categories may be appropriate, such as more specific typing (for example, information resources) or by criticality of need (for example, critical services). Personnel resource management is markedly different from materiel resource management and deserves its own treatment. The following sections provide a standardized guide for materiel resources, personnel resources, and services utilized during an incident. Additionally, it should be recognized that materiel, personnel, and services resources are provided to or requested from four categories of sources: (1) government; (2) private-sector business; (3) NGOs; and (4) donations.

6.1.3.1 *Materiel Resources*—Materiel resources can be “typed” by Category, Kind, and Type—these three measures are known as performance capability levels. There are two tiers of resource typing definitions as defined in the DHS, NIMS Guide NG 0001. Tier One resources include the nationally defined FEMA 120 Resource Types. Tier Two resources are defined and inventoried by State, tribal, and local jurisdictions for use in specific intra-state or regional mutual aid assistance. Tier Two resources are those that would not be deployed nationally or are so common that national definitions are not needed. Resources can also be built into mission ready packages using both an entity’s Tier One and Tier Two resources.

6.1.3.2 *Personnel Resources*—Personnel who have a responsibility for preparedness, response, recovery, and/or coordination should be trained to a level that enables them to perform a task safely and effectively. The minimum level of training required for a person is determined by the entity in accordance with municipal, State, and Federal regulations where applicable. Processes should be developed for the certification and credentialing of personnel, including emergency responders and affiliated volunteers. Certification of emergency personnel is the process of ensuring that individuals meet recognized minimum requirements established for their

job title. This process should include verification of qualifications, including the examination of training certificates, if appropriate. Certification is typically done by the entity supplying the resource to an incident, not the receiving entity. The credentialing process should link the certification requirements with identity verification. Additionally, certifying and credentialing procedures should conform to all nationally developed protocols identified in the NIMS document. Refer to DHS, NIMS Guide NG 0002 for credentialing requirements.

**6.1.3.3 Services Resources**—Because there are specific skill sets provided by other entities that are essential to the continuity of vital services, it is important to incorporate these services into preparedness activities to ensure the resources will be both available and accessible during an incident.

**6.1.4 Agreements**—As a preferred best practice, agreements should be in writing and the terms of agreement should be established in advance. Agreements should consider inclusion of the following elements or provisions: roles and responsibilities of individual parties; procedures for requesting resources and providing assistance; procedures, authorities, and rules for payment, reimbursement, and allocation of costs; notification procedures; relationship with other agreements among jurisdictions; workers' compensation; treatment of tort and liability and immunity; recognition of licensure and certifications; maintenance and revision processes; and a termination clause. Commitments (which may be firm or conditional) should be solicited in advance for donations, lending, and pro bono services from the private and public sectors. Additionally, advance contingency contracts may be appropriate under certain circumstances from vendor supply chains.

**6.1.5 Inventory Process**—In the case of emergency management and homeland security needs, resources may be acquired in advance and stockpiled or obtained “just in time” through appropriate agreements. In order to ensure “just in time” delivery of identified items entities should develop procedures for when and where to update agreements and contact lists of vendors/suppliers used to provide resources to ensure timely delivery (see section 7.1.2, Ordering and Acquiring Resources). For stockpiled items, entities should develop dynamic inventory policies, procedures, and explanatory instructions. These policies should be distributed and explained to each person participating in the inventory process. The instructions should include, but are not limited to, when to count items held in stock; what information to record; and what to do when questions arise. Further, inventory instructions should include what procedures to follow when items are located but not listed, or listed but not located, and how to find and record unused items that exist in an unusable condition or are in excess quantity. Information should be provided for disposition and future ordering of assets. Individuals counting the assets should attest to the accuracy of the counts and information. The inventory process should include a reconciliation of the updated vendor/supplier lists and current items held in stock with prior inventory records, with a disposition filed for all discrepancies. These procedures should be followed for all internal and external resources. Inventory of emergency response assets should be conducted at least annually to ensure accurate reflection of response capability.

**6.1.6 Maintenance**—Maintenance and care procedures should be developed for all resources.

**6.1.6.1 Materiel resource maintenance procedures** should document the minimum maintenance schedule, the type of maintenance required, and the expected useful lifespan of the resource.

**6.1.6.2 Care requirements for personnel resources**, as well as animals who are provided through services resources, should document maximum daily and weekly work schedules, break schedules, minimum food/refreshment requirements, personal protective equipment requirements, and any other considerations necessary to ensure the health and safety of incident responders.

**6.1.6.3 Procedures for maintaining continuity of critical services** should document the terms and conditions of contracts and agreements currently in place, and the lifespan of the services and how they are to be renewed.

**6.1.7 Information Systems**—Entities should make selections on information systems (if applicable) based on their information and coordination needs for resource management. Information systems should provide decision support to the entity by collecting, updating, and processing real-time data. Entities should consider the use of information systems for resource tracking, transportation tracking, inventory management, and/or reporting. Further, the entity should identify redundant systems or develop back-up plans to continue the management of resources in the event the primary information system is disrupted or unavailable.

## 7. Operational Process Model

**7.1** This section addresses an *Operational Process Model* for resource management during an incident. It is intended to define a common way of managing the process in any incident, regardless of the hazard. This portion of the guide describes the minimum requirements associated with the following eight elements: (1) identifying resource requirements; (2) ordering and acquiring resources; (3) mobilization and coordination of resources; (4) clarifying command and control; (5) receipt, tracking, and reporting; (6) logistics support planning; (7) recovering resources/demobilization; and (8) financial and reimbursement concerns.

**7.1.1 Identifying Resource Requirements**—The entity should establish procedures for identifying the immediate and future resource needs and priorities of the incident, including identifying what and how much is needed, where and when it is needed, and who will be receiving or using it based on incident response experience and specific damage assessments. Organizational resources should be categorized as materiel, personnel, or services resources. Resource requirements can be provided from a variety of sources depending on the nature of the emergency and the public and private entities and NGOs operating in the affected areas. Potential resource needs requirements should be communicated in advance of any incident to prospective resource providers to support appropriate planning. The resource needs requirements may be general in nature, indicating nature of resource and potential range in quantity/volume required. Procedures should also include

methods of outreach to and communication with the pre-identified resource provider for assistance with damage assessments.

**7.1.2 Ordering and Acquiring Resources**—The entity should develop written ordering procedures or follow established procurement processes for acquiring needed incident resources. These procedures should be distributed and explained to persons with the authority to request emergency resources. The instructions should include requested quantity; estimated duration of need; location of staging area for delivery of resource(s); recovery data for non-expendable resource(s); the resource provider; and a process for validating resource(s) that were requested. In addition to the public agencies and NGOs, evaluate the full range of modes by which the private sector may provide resources, including donation of goods, pro bono supply of services, lending, contract provision of goods and services, and blended versions of the preceding. Further, facilitate the development of relationships in advance of a crisis by vetting the resource supplier by the program and the program by the supplier with pre-certification programs for suppliers considered; sharing emergency contact information and knowledge of basic capabilities of resource suppliers; and understanding the core competencies of a business that may extend beyond the specific goods and/or services offered to the marketplace and include capabilities (for example, logistics and communications).

**7.1.3 Mobilization and Coordination of Resources**—Mobilization procedures should be developed to activate and dispatch resources to incidents. The entity should establish procedures to ensure that a resource assigned to an incident is available in a timely manner and has the capability to do its intended function. Plans should include the transportation method and anticipated route (primary and alternate), tracking process, and procedures for ensuring a requested resource reaches the intended destination. Mobilization and coordination procedures should also include planned methods and staffing for managing resources offered that were not requested (for example, unsolicited donations and self-deployments of unaffiliated volunteers and convergent groups), and methods of addressing resources that do not make it to their original dispatched location but are still used in the incident response (for example, commandeered resources). Mobilization and coordination procedures may also include equipping, training, or inoculating personnel (or a combination thereof), designating areas for logistical support, and obtaining transportation to deliver resources.

**7.1.4 Clarifying Command and Control**—The entity should develop procedures to document the command and control authority(ies) of all emergency response organizations with respect to pooled or shared resources used during an incident. The objective of this element is to attain and maintain situational awareness of command and control of all resources required to respond to or recover from an incident. This guide does not prescribe the use of a specific command and control structures, but does identify the use of a recognized Incident Management System (IMS) as a best practice.

**7.1.5 Receipt, Tracking, and Reporting Procedures**—The entity should develop procedures that include instructions for all personnel charged with the receipt of resources and explain how resources are to be tracked continuously from mobilization through demobilization. All personnel engaged in resource management should be trained in these procedures.

**7.1.6 Logistics Support Planning**—Planning for logistical support for the movement of resources is an integral part of resource management. Logistics functions include facilities management, materials management, property management, transportation management, and customer coordination.

**7.1.6.1 Facilities Management**—The entity should ensure that facilities are effective and equipped for the mobilization, handling, storage, movement, or distribution of resources. The details of the locations, accessibility, capacity, strengths, and weaknesses of these facilities should be documented and kept current.

**7.1.6.2 Materiel Management Procedures**—The entity should create a process that maintains visibility/awareness over assets/resources acquired for response operations from acquisition through delivery, transfer, disposal, or return to system.

**7.1.6.3 Property Management Procedures**—The entity should establish a process for accountability, inventory, and disposition of physical property. *Accountability* is concerned with maintenance of formal records on particular items, such as identification data, value, quantities, balances, and property transactions. *Inventory* addresses the records that show the location, condition, and quantity of items on hand. *Disposal* deals with the proper transfer of property when it is no longer needed.

**7.1.6.4 Transportation Management Procedures**—The entity should develop a process for securing “request-to-delivery” transportation of resources from source to distribution, transfer, and final disposition.

**7.1.6.5 Customer Coordination Procedures**—Plans and procedures should be established for coordinating interface with customers on the status of resources from request to delivery.

**7.1.7 Recovering Resources/Demobilization**—The planning and preparation for the demobilization process should begin during this phase of initial resource mobilization. The entity should develop procedures for recovering both non-expendable and expendable resources. Recovery procedures should include accounting information sufficient to meet the demands of reimbursing agencies. Elements of these procedures may include replenishment and resupply, maintenance and repair, and other actions to either return the resources to full-mission capability or dispose of them.

**7.1.7.1 Non-expendable Resources**, such as personnel and durable equipment, should be fully accounted for from source, through mobilization and employment at the incident site, and again when they are demobilized and returned to the entity that issued them. Procedures developed for the demobilization of non-expendable resources should include the method of transportation for the resource and the procedure for ensuring that the requested resource reaches its intended destination. In addition, accommodations to restore resources to fully functional capability should be addressed through a resupply

process. For personnel resources, adequate rest and recuperation time at appropriate facilities should be provided, as well as addressing occupational health and mental health issues.

7.1.7.2 *Expendable Resources* are defined as those resources that are consumable or the cost of recovery exceeds the value of the item considered for recovery, such as water, ice, food, fuel, and other one-time-use supplies. Expendable resources should be accounted for by the issuing and requesting entity. Restocking of resources is also the responsibility of the issuing entity and should take place following any distribution or issuance of the resource. Disposal of expendable resources is the responsibility of the requesting entity and may require a disposal plan to address any special handling and disposition in accordance with established regulations and policies.

7.1.8 *Finance and Reimbursement*—To ensure timely reimbursement, entities should develop financial and administrative procedures to support involvement before, during, and after an incident. Procedures should include mechanisms for collecting bills, validating cost, and managing funding from external sources.

## 8. Keywords

8.1 credentialing; emergency management; emergency response resources; homeland security; resource management; resource typing

## APPENDIX

### (Nonmandatory Information)

#### X1. CROSSWALKS APPENDIX

National Incident Management System	Table X1.1
National Response Framework	Table X1.2
NIMS Guide 0001L Resource Typing and NIMS Guide 0002: Credentialing	Table X1.3
Homeland Security Presidential Directive – 5: Management of Domestic Incidents	Table X1.4
Homeland Security Presidential Directive – 8: National Preparedness	Table X1.5
NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity	Table X1.6
NFPA 1561: Standard on Emergency Services and Incident Management	Table X1.7
EMAP Emergency Management Standards	Table X1.8
Managing Spontaneous Volunteers in Times of Disaster: The Synergy of Structure and Good Intentions	Table X1.9