

ICS 300 – Lesson 3: Resource Management

Lesson Overview

The **Resource Management** lesson will discuss the principles of resource management and responsibilities related to resource ordering. The importance of staging areas in the management of resources will be described. This lesson will also discuss demobilization of resources and considerations related to cost-effective resource management.

This lesson should take approximately **60 minutes** to complete. **Remember, you must complete the entire lesson to receive credit.**

Lesson 3 Learning Objectives

By the end of this lesson, you should be able to:

- Discuss the general principles of resource management.
- Describe the responsibilities for resource management shared among the Command and General Staff.
- Describe how resource needs are identified and resources are procured.
- Describe how resources are checked in and tracked on an incident.
- Describe management actions that may result in poor performance.
- Describe the financial procedures that are part of the resource management process.

Principles of Resource Management

The basic resource management principles are:

- Planning
- Organizing
- Supervising

Planning is the management process of:

- Evaluating the situation.
- Determining objectives.
- Selecting a proper strategy.
- Deciding which resources should be used to achieve those objectives in the most efficient and cost-effective manner.

In ICS, resource planning is ongoing, cyclical and directed toward operational periods.

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Organizing is a continuation of the management process after planning, as the Incident Commander and other members of the Command and General Staff group resources into an organization designed to meet incident objectives.

The organization that is depicted in the ICS organization chart illustrates chain of command, delegation of authority, reporting relationships, and coordination responsibilities at the incident.

Supervising is the process of directing and controlling the efforts of resources toward the attainment of specified incident objectives.

Directing the ICS organization hinges on delegation of authority through the ranks of the organization.

Because ICS position assignments are based on knowledge, skills, and abilities critical to the incident rather than on the day-to-day administrative position or rank, the Incident Commander is able to more effectively access and use the knowledge and skills of others.

Controlling involves evaluating the performance of an organization against changing conditions and the Incident Action Plan, making necessary corrections so that incident objectives are accomplished.

Incident Resource Management

At any incident or event, the situation must be assessed and response planned. Resources must be organized, assigned and directed to accomplish the incident objectives. As they work, resources must be managed to adjust to changing conditions.

Managing resources safely and effectively is the most important consideration at an incident. The formalized resource management process in ICS ensures that the management principles translate into practice at the incident.

Role of Management Functions in Resource Management

All five ICS functions play important roles in resource management. In a simplified way, these roles are:

- **Command:** Develops incident objectives, approves resource orders and demobilization.
- **Operations:** Identifies, assigns and supervises resources needed to accomplish the incident objectives.
- **Planning:** Tracks resources, and identifies resource shortages.
- **Logistics:** Orders and supports resources.
- **Finance/Administration:** Pays for resources.

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Resource Management Activities

The incident resource management process includes seven interactive activities:

1. **Determining resource needs:** Answers the question: What tactical and support resources do you need to manage the incident?
2. **Resource ordering:** Answers the questions: Who Can Order? and Where Do You Get It?
3. **Check-in process:** ICS has a simple and effective resource check-in process to establish resource accountability at an incident.
4. **Utilizing resources:** In the ICS, chain of command and unity of command provide the basis for effective resource management and personnel accountability.
5. **Tracking resources:** Tracking resources efficiently is essential for personnel safety, accountability, and fiscal control.
6. **Evaluating resources:** Performance of all resources must be evaluated. Evaluation needs to be ongoing throughout the life of the incident. Reasons for poor performance should be identified and addressed at the incident, whenever possible.
7. **Demobilizing resources:** At all times during an incident, the Incident Commander and General and Command Staff members must determine when assigned resources are no longer required to meet incident objectives.

Determining Resource Needs

As you learned in the video segment, the first activity in the resource management process involves determining resource needs. Determining resource needs can be divided into 5 steps:

1. Conduct assessment and develop incident objectives.
2. Identify strategies.
3. Develop detailed tactics.
4. Assign resources.
5. Evaluate outcomes.

Step 1: Conduct Assessment and Develop Incident Objectives

The first step in determining resource needs is a thorough assessment of the current incident situation and future incident potential. From this assessment, the Incident Commander develops incident objectives, which state what is to be accomplished on the incident.

Example:

An assessment of an earthen dam determines that the water level must be lowered quickly in order to reduce the danger of flooding. The Incident Commander develops the following objective:

- Reduce water level behind dam 3 feet by 0800 tomorrow.

This is a well-written objective because it is measurable. It will be clear if this objective has been completed, and will be easy to monitor to make sure the timeline is being met.

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Step 2: Identify Strategies

The second step in determining resource needs is to identify strategies to achieve the objectives.

Example:

Objective: Reduce water level behind dam 3 feet by 0800 tomorrow.

Some strategies to meet the above objective might include:

- Increase release rate to 15,000 cfs (cubic feet per second). Implement no later than 1200 today.
- Use pumps to pump water out of the reservoir into the next drainage system.
- Divert inflow away from reservoir and back into original streambed.

The Operations Section Chief will select one, or potentially a combination of these strategies. Identifying a variety of strategies allows the Operations Section Chief flexibility in achieving the objective. The Operations Section Chief can select from any of the strategies, or combine them, in order to meet the original objective.

Step 3: Develop Detailed Tactics

The next step in determining resource needs is to develop detailed tactics that are the instructions to whoever is assigned to carry out the strategy. The instructions include how many and what type of resources will be required to implement the tactic, as well as time lines, etc.

Example:

The Operations Section Chief determines that a combination of the first and third strategies will provide for the most effective tactics:

- Dam manager will increase flow from second and fourth floodgates to a combined rate of 15,000 cfs. Increased flow will begin at 1130 today.
- Diversions on Smith, Powell, Wildcat, and Carson Creeks will be closed no later than 1200 today.

Step 4: Assign Resources

The next step in determining resource needs is to assign resources to each tactic.

Example:

Tactics and assignment of resources:

- Tactic 1: Dam manager will increase flow from second and fourth floodgates to a combined rate of 15,000 cfs. Increased flow will begin at 1130 today. The dam manager alone can accomplish this tactic. No additional resources are required.
- Tactic 2: Diversions on Smith, Powell, Wildcat, and Carson Creeks will be closed no later than 1200 today. The Operations Section Chief assigns two crews of two employees each to this tactic. Crew 1 is assigned the diversions on Smith and Powell Creeks; Crew 2 is assigned the diversions on Wildcat and Carson Creeks. Both Crews are given 4X4 vehicles.

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Step 5: Evaluate Outcomes

The final step in determining resource needs is to evaluate the outcome of the resource assignments. This requires reviewing resource assignments to ensure that there are adequate tactical and support resources available to accomplish the assignment, and that the correct resources are assigned to the appropriate tactic.

While most often inadequate or inappropriate resource assignments are identified during the planning process, sometimes errors are not evident until the implementation of the Incident Action Plan. This is a primary reason why it is important to monitor implementation and make resource adjustments, as necessary.

Example:

Evaluate resource assignment outcomes:

- Dam manager increased flow from second and fourth floodgates to a combined rate of 15,000 cfs. Increased flow began at 1115 today.
- Diversions on Smith, Powell, Wildcat, and Carson Creeks were closed at 1145 today.

Effect of Determining Resource Needs

By following the five-step process to determine resource needs, the organization can be certain that the:

- Objectives meet the response needs of the incident.
- Strategies selected will achieve the objectives.
- Tactics are clear, and achievable with the assigned resources.
- Right number of the right resources are assigned in the right place.

Resource Management and Planning Process

Sound planning to determine resource needs is essential at all stages of an incident. It is particularly critical during the initial stages of an incident. Mistakes made at this point may compound and complicate all further actions.

The planning process is designed to implement the five-step process, described on the previous screens, across all functions in the organization. The formal planning meeting provides a forum for the incident management team to review incident objectives, develop tactics, and identify resources needed to carry them out.

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Sample Planning Meeting Agenda

Agenda Item	Responsible Party
1 Briefing on situation/resource status.	Planning/Operations Section Chiefs
2 Discuss safety issues.	Safety Officer
3 Set/confirm incident objectives.	Incident Commander
4 Plot control lines & Division boundaries.	Operations Section Chief
5 Specify tactics for each Division/Group.	Operations Section Chief
6 Specify resources needed for each Division/Group.	Operations/Planning Section Chiefs
7 Specify facilities and reporting locations.	Operations/Planning/Logistics Section Chiefs
8 Develop resource order.	Logistics Section Chief
9 Consider communications/medical/transportation plans.	Logistics/Planning Section Chiefs
10 Provide financial update.	Finance/Administration Section Chief
11 Discuss interagency liaison issues.	Liaison Officer
12 Discuss information issues.	Public Information Officer
13 Finalize/approve/implement plan.	Incident Commander/All

Resource Ordering

The second activity in the resource management process involves resource ordering.

Usually, incidents have an initial commitment of resources assigned. As incidents grow in size and/or complexity, more tactical resources may be required and the Incident Commander may augment existing resources with additional personnel and equipment.

As a consequence, additional supervisory personnel may be needed to maintain adequate span of control. Additional support personnel may also be added to ensure adequate planning and logistics. On large and/or complex incidents extending over several operational periods, many resource orders may be executed.

Resource Ordering from the Incident

At any incident, the procedure for ordering additional resources will depend on what parts of the incident's organizational structure have been activated at the time the ordering is done, and the administrative procedures of the responsible agency or agencies.

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The Incident Commander will usually discuss ordering procedures with the Command and General Staff as part of the initial briefing. During the briefing, I will discuss:

- Who within the organization may place an order with Logistics? This authority may be restricted to Section Chiefs and/or Command Staff, or may be delegated further down the chain of command.

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- Which resource requests require Command approval? Ordinarily, on a major incident it is not efficient use of the Incident Commander's time and energy to review and approve all resource orders for routine supplies, food, etc. However, the Incident Commander probably **does** want to review and approve any non-routine requests, especially if they are expensive, require outside agency participation, or have potential political ramifications. An example of this might include a request for National Guard resources to assist in crowd control.
- The need to observe the established resource ordering process. While the temptation to go around the ordering system is often great, especially when there is a real or perceived delay in getting critical resources, doing so simply compounds resource management problems. If the Logistics function is unable to meet the resource needs of the incident, this should be addressed in the normal planning and supervision processes.

Responsibility for Ordering Resources

If the Logistics Section Chief position has been filled, then the Logistics Section Chief has the delegated authority to place the resource order after the order has been approved by the Incident Commander. On larger incidents, where the Logistics Section contains a Supply Unit, the Supply Unit has the authority to place the approved resource order.

Final approval for ordering additional resources, as well as releasing resources from an incident, is the responsibility of the Incident Commander. In addition, the Incident Commander will define who on the incident can place orders with Logistics or the Supply Unit.

The Finance/Administration Section may also play a significant role in resource procurement, especially if the resource request requires a contracted obligation. In addition, cost estimates must be forwarded to the Finance/Administration Section so that they can be included in the ongoing cost summary for the incident.

Ordinarily, in requests involving contracts, the Procurement Unit within the Finance/Administration Section will negotiate the contract, and then the Logistics Section will formally place the order, bringing it into the incident resource management process.

The Resource Order

The Resource Order is used to document resource requests. Most resource orders will be communicated by computer, voice, or FAX from the incident to an agency ordering point. Even though different formats may exist, every resource order should contain the following essential elements of information:

- Incident name.
- Order and/or request number (if known or assigned).
- Date and time of order.
- Quantity, kind, and type. Include special support needs as appropriate.
- Reporting location and contact (specific).
- Requested time of delivery (specific, not simply ASAP).
- Communications system to be used.
- Person/title placing request.
- Callback phone number for clarification or additional information.

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Actions Taken on a Resource Request

Resource order forms also have space to document action taken on a request, including, but not limited to:

- Contacts with sources or potential sources for the resource requests.
- Source for the responding resource.
- Identification of the responding resource (name, id number, transporting company etc.)
- Estimated time of arrival.
- Estimated cost.
- Changes to the order made by Command, or the position placing the order.
- Such detailed information is often critical in tracking resource status through multiple staff changes and operational periods.

Single- and Multi-Point Resource Ordering

Incident resource orders may be placed with either:

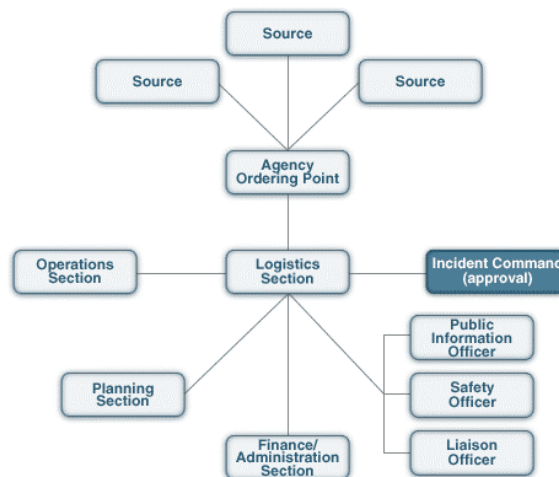
- A single ordering point, or
- Multiple ordering points.

Single-Point Resource Ordering

On smaller incidents, where only one jurisdiction or agency is primarily involved, the resource order is normally prepared at the incident, approved by the Incident Commander, and transmitted from the incident to the jurisdiction or agency ordering point. Methods for placing orders can include:

- Voice (by telephone or radio)
- FAX
- Computer modem or digital display terminal

In single point ordering, the burden of finding the requested resources is placed on the responsible ordering point and not on the incident organization. From the standpoint of incident workload and ordering efficiency, single point ordering is by far the most preferred method.

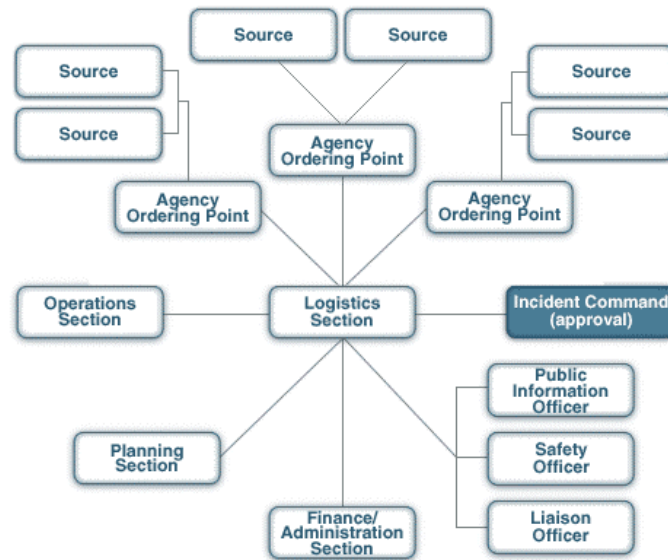


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Multi-Point Resource Ordering

Multi-point ordering is when the incident orders resources from several different ordering points and/or the private sector. Multi-point off-incident resource ordering should be done only when necessary.

Multi-point ordering places a heavier load on incident personnel by requiring them to place orders through two or more ordering points. It also requires tremendous coordination between and among ordering points, and increases the chances of lost or duplicated orders.



Check-In Process

The third activity in the resource management process involves resource check-in. ICS has a simple and effective resource check-in process to establish resource accountability at an incident.

The Resources Unit will establish and conduct the check-in function at designated incident locations. If the Resources Unit has not been activated, the responsibility for ensuring check-in will be with the Incident Commander or Planning Section Chief.

The incident locations where check-in can be done are:

- Incident Base.
- Camp.
- Staging Area.
- Resources Unit at the Incident Command Post.
- Helibase.

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Check-In Procedures

Formal resource check-in may be done on an ICS Check-in List, Form 211. A Check-in Recorder will be assigned to each location where resources will check-in. Check-in Recorders must have an adequate supply of check-in forms, and be briefed on the frequency for reporting check-in information to the Resources Unit.

Information collected at check-in is used for tracking, resource assignment, and financial purposes, and includes:

- Date and time of check-in.
- Name of resource.
- Home base.
- Departure point.
- Order # and position filled (for personnel).
- Crew Leader name and personnel manifest (for crews).
- Other qualifications.
- Travel method.

Utilizing Resources

The fourth activity in the resource management process involves utilizing resources. In the ICS, there is both a chain of command (the organization) and a unity of command (each person reports to only one supervisor). These two factors provide the basis for effective resource management and personnel accountability.

Supervisory personnel direct, guide, monitor and evaluate the efforts of subordinates toward attaining specific objectives. A designated supervisor or leader, whether they are tactical resources assigned to the Operations Section, or personnel assigned to support the overall operation, always directs resources. All positions have the delegated authority of the position.

Resource Assignments

Incoming resources will initially be assigned in one of the following ways at an incident:

- Assignment of tactical resources to the incident base or camps is often done when the tactical resources are not scheduled for use during the current operational period. For resources that have traveled some distance, the assignment to the base or camps, in an out-of-service status, allows briefings and a rest period prior to taking on an active assignment in the next operational period.
- Personnel assigned to management or support positions may be ordered to fill specific organizational assignments. These resources will report to their designated check-in location, which will usually be the Resources Unit at the Incident Command Post, the Incident Base, or another designated facility.
- On fast moving or rapidly expanding incidents, tactical resources are often assigned to report immediately to Divisions or Groups to support the current Incident Action Plan. In these situations, the tactical resources must always report in with a designated Division or Group Supervisor. Formal check-in can take place later after resources are placed in staging areas or are out-of-service.
- Incoming tactical resources may be assigned to Staging Areas for one of three reasons:

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1. Resources will be assigned during the current operational period.
2. Resources are needed to provide a reserve force for contingencies.
3. Single resources are sent to a Staging Area to be formed into Task Forces and/or Strike Teams prior to assignment.

The Operations Section Chief will decide what number, kind, and type of resources will be kept in Staging Areas. This decision is based on creating adequate reserves to meet expected contingencies.

After checking into a Staging Area, single resources will often be formed into Task Forces or Strike Teams for use on active assignments. These assignments may continue for the duration of the incident, or they may change based on incident needs. Task Forces and Strike Teams formed at the incident should always be disassembled prior to release from the incident. In order to ensure proper accountability, resources should leave the incident with the same resource designations they had upon arrival.

Tracking Resources

The fifth activity in the resource management process involves tracking resources. Tracking resources efficiently is essential for personnel safety, accountability, and fiscal control. A large percentage of accidents, injuries, and line of duty deaths on incidents can be directly attributed to the failure to track resources effectively.

Resource tracking responsibilities are shared between the:

- **Planning Section**, which is responsible for tracking all resources assigned to the incident and their status (assigned, available, out of service).
- **Operations Section**, which is responsible for tracking the movement of resources within the Operations Section itself.

There are many resource-tracking systems, ranging from simple status sheets to sophisticated computer-based systems. Regardless of the system used, it must account for the overall status of resources at the incident, as well as the movement of Operations resources into and out of the incident "hot zone."

Evaluating Resources

The sixth activity in the resource management process involves evaluating resources. While some poor performance is due to the lack of motivation on the part of assigned personnel, it is more likely that management actions have produced or contributed to the problem. Management actions which may cause poor performance include:

- Unrealistic or poorly defined incident objectives, strategies or tactics.
- The wrong resource was allocated for the assignment.
- There are inadequate tactical resources or logistical support for the assignment.
- The resource is not trained or equipped to carry out the assignment.
- Conflicting agency policies or procedures prevent the resource from carrying out the assignment.

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Sometimes the reason for lack of performance can be identified and addressed at the incident. Other times it may be necessary to either change the objective or replace the resource and address the issue through the Liaison Officer and/or agency training and policy. Failure at the tactical level is likely to reflect a failure to appropriately manage the resource during the planning process. Evaluation needs to go on constantly and corrections made as necessary throughout the life of the incident.

Demobilizing Resources

The seventh and final activity in the resource management process involves demobilizing resources. At all times during an incident, the Incident Commander and General and Command Staff members must determine when assigned resources are no longer required to meet incident objectives. Signs that the incident may be winding down include:

- More resources are spending more time in staging.
- Excess resources are identified during the planning process.
- Incident objectives have been accomplished.

Excess resources must be released in a timely manner to reduce incident-related costs, and to “free up” resources for other assignments.

Resource Efficiency

On every incident, resource mobilization follows a predictable course compared to the lifecycle of the incident itself.

Initially, the incident may build faster than resources can get there. Eventually, the resources catch up to the incident, and begin to control it. Ultimately, the incident declines, and resources exceed the needs of the incident.

Process of Demobilization

The process of demobilizing resources generally begins at the Operations Section level, where the need for continued tactical resources will be determined. When tactical resources are no longer needed, other parts of the organization can also be reduced.

On single agency and/or smaller incidents, the planning and process of demobilization may be quite simple and will not require a formal written demobilization plan or a Demobilization Unit to prepare it.

On larger incidents, the planning for demobilization should begin almost immediately, and certainly well in advance of when demobilization actually takes place.

Even at the most basic level, demobilization should take into account two factors:

1. **Safety:** Organizations should watch for “first in, last out” syndrome. Resources that were first on scene should be considered for early release. They should also be evaluated for fatigue and the distance they will need to travel to their home base prior to release.

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2. **Cost:** Expensive resources should be monitored carefully to ensure that they are released as soon as they are no longer needed, or if their task can be accomplished in a more cost effective manner.

Demobilization Plan

On large incidents, a Demobilization Unit within the Planning Section should be established early in the life of the incident. This is especially true when there are personnel and tactical resources from several jurisdictions or agencies, and where there has been a good integration of multi-jurisdiction or agency personnel into the incident organization. A written demobilization plan is essential on larger incidents.

As soon as a determination is made that the need for a resource no longer exists, the appropriate Section Chief should be notified. In coordination with the Operations Section, the Demobilization Unit, may recommend release priorities for the Incident Commander's approval based upon continuing needs both on and off the incident.

Key Resource Management Considerations

Safety, personnel accountability, managerial control, adequate reserves, and cost are all key considerations that must be taken into account when managing incident resources.

A basic principle of resource management is that resource actions at all levels of the organization must be conducted in a safe manner. This includes ensuring the safety of:

- Responders to the incident;
- Persons injured or threatened by the incident;
- Volunteers assisting at the incident;
- News media and the general public who are on scene observing the incident.

Current laws, liability issues, and future trends will continue to place additional emphasis on personnel safety.

ICS provides a unity of command structure that allows supervisors at every level to know exactly who is assigned and where they are assigned. If the management process is followed, and the principles of ICS maintained, personnel accountability can be maintained at all times.

ICS has a built-in process that allows resource managers at all levels to constantly assess performance and the adequacy of current action plans. If necessary, strategies and actions used to achieve objectives can and must be modified at any time. Information exchange is encouraged across the organization. Direction is always through the chain of command.

Assignment of resources to the Incident Base, Camps, and Staging Areas provides the means to maintain adequate reserves. Reserves can always be increased or decreased in Staging Areas to meet anticipated demands.

Incident-related costs must always be a major consideration. The Incident Commander must ensure that objectives are being achieved through cost-effective strategy selection, and selection of the right kind and right number of resources.

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The Finance/Administration Section's Cost Unit has the responsibility to:

- Obtain and record all cost information,
- Prepare incident cost summaries,
- Prepare resource use cost estimates for planning, and
- Make recommendations for cost savings.

The Cost Unit can assist the Incident Commander in ensuring a cost-effective approach to incident resource management, and should be activated on any large or prolonged incident.

Resource managers must be constantly aware that the decisions they make regarding the use of personnel and equipment resources will not only affect the timely and satisfactory conclusion of the incident, but also may have significant cost implications.

Lesson Summary

You have completed the **Resource Management** lesson. This lesson discussed the stages of resource management and responsibilities related to resource ordering. The importance of staging areas in the management of resources was described. This lesson will also discussed demobilization of resources and considerations related to cost-effective resource management.

The next lesson will describe the purposes and advantages of Unified Command.