# IS-241.B
# Decision Making and Problem Solving

## Student Manual

*February 2014*

FEMA

# DECISION MAKING AND PROBLEM SOLVING

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# LESSON 1. COURSE INTRODUCTION

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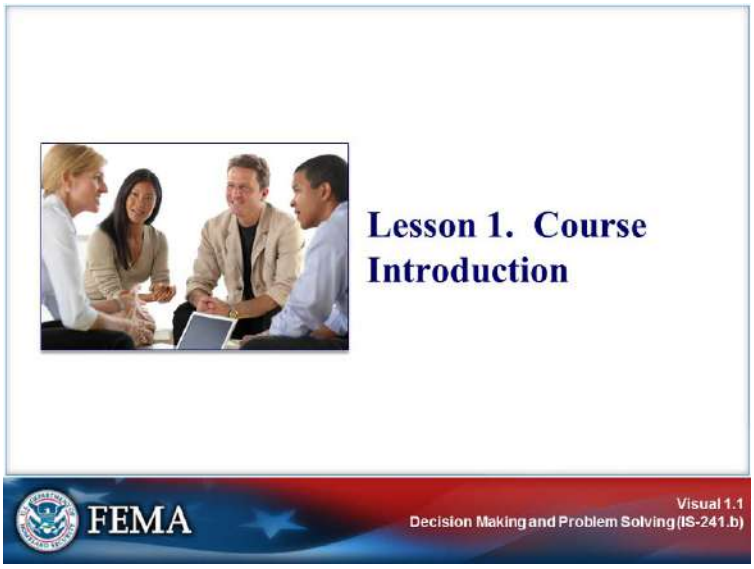
## Lesson 1. Course Introduction

### COURSE OVERVIEW

**Visual 1.1**



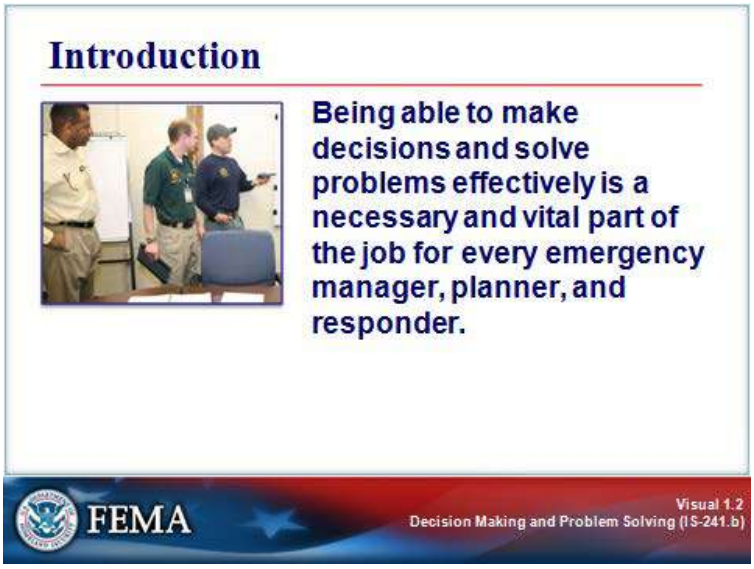

**Key Points:**

This course is designed to improve your decision-making skills. It addresses:

- The decision-making process.
- Decision-making styles.
- Attributes of an effective decision maker.
- Ethical decision making and problem solving.

## COURSE OVERVIEW

### Visual 1.2

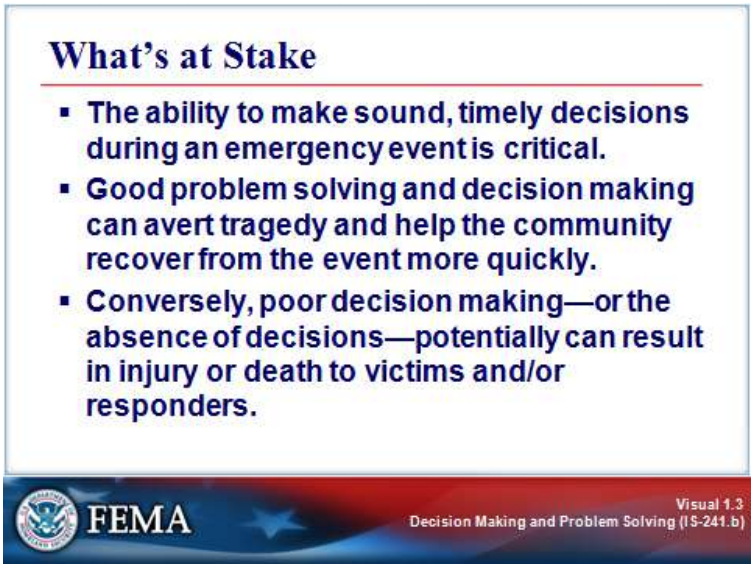



### Key Points:

Being able to make decisions and solve problems effectively is a necessary and vital part of the job for every emergency manager, planner, and responder.

## COURSE OVERVIEW

**Visual 1.3**




**Key Points:**

The ability to make sound, timely decisions during an emergency is critical. Effective decision making can:

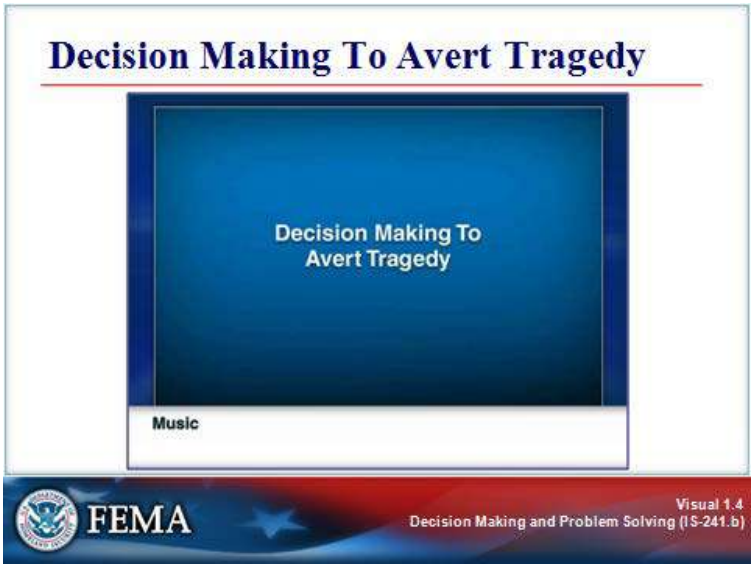
- Avert tragedy.
- Help manage incidents.
- Build community trust and support.
- Help the community recover from an event more quickly.

Conversely, poor decision making—or the absence of decisions—potentially can result in injury or death to victims and/or responders.

## Lesson 1. Course Introduction

### COURSE OVERVIEW

**Visual 1.4**




**Key Points:**

**Video Transcript:**

When U.S. Senator Dianne Feinstein was Mayor of San Francisco from 1978 to 1988, she held department head meetings once a week. One day, the Director of Public Works told her that if an earthquake occurred, the rim around Candlestick Park would come down. His estimate of the cost for strengthening the stadium was $6 million.

To come up with the funding for the retrofit, the city made the decision to take money from other projects.

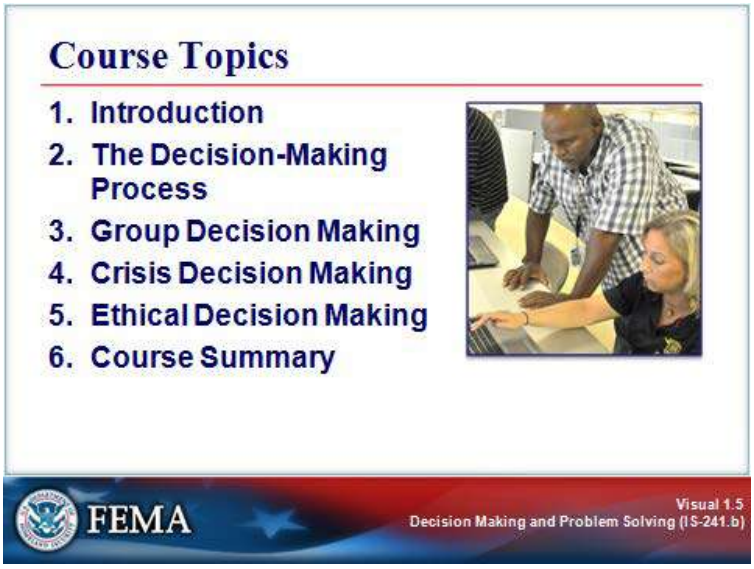
Just as game three of the 1989 World Series baseball championship was set to begin, with a capacity crowd at Candlestick Park, the Loma Prieta earthquake struck the Bay Area.

As Senator Feinstein commented afterwards, “The field rippled. The rim shook. But it held. That was a big learning lesson for me. When you’ve got information that could save lives and property, you’ve got to act.”

The decision by the Mayor and City to prioritize and fund the seismic protection for Candlestick Park was crucial in saving lives. The decision was most effective because it was made well before an actual emergency.

## COURSE OVERVIEW

**Visual 1.5**




**Key Points:**

Decision Making and Problem Solving consists of six lessons. Each lesson is described below.

- **Lesson 1: Course Introduction** provides an overview of the course.
- **Lesson 2: The Decision-Making Process** presents a five-step problem-solving model. The lesson also explores factors that affect decision making.
- **Lesson 3: Group Decision Making** discusses the advantages and limitations of group decision making, as well as ways to make group decision making more effective.
- **Lesson 4: Crisis Decision Making** identifies the challenges associated with, as well as ways to improve, decision making in a crisis.
- **Lesson 5: Ethical Decision Making** focuses on ethical decision making and discusses the components of ethical decision making. The lesson also addresses some common ethical "do's and don'ts."
- **Lesson 6: Course Summary** summarizes key concepts from the entire course.

## COURSE OVERVIEW

**Visual 1.6**

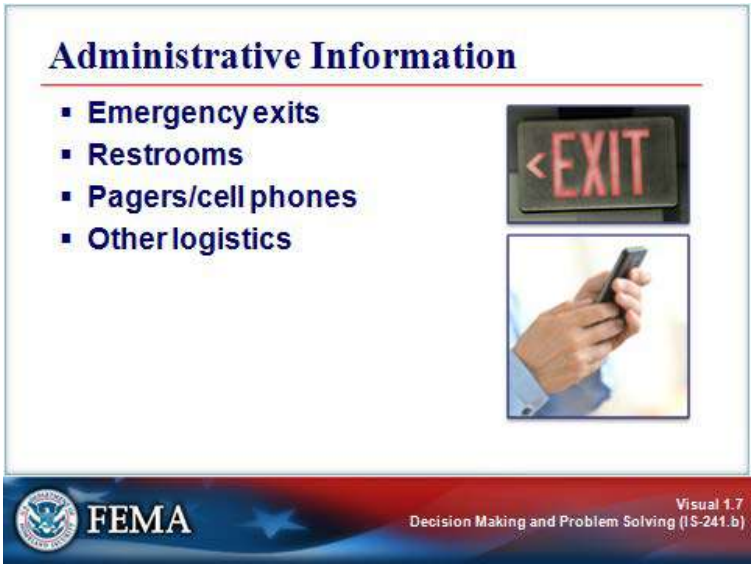

**Key Points:**

You will be given an opportunity to introduce yourself. Please include the following information:

- Name
- Position/organization
- Past experience related to emergency management or community service

## COURSE OVERVIEW

### Visual 1.7




### Key Points:

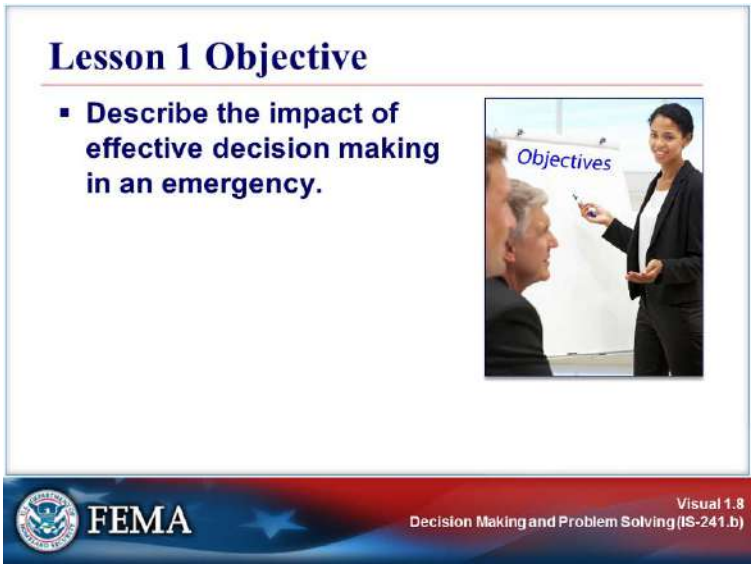
The ability to make sound, timely decisions during an emergency event is critical. Good problem solving and decision making can avert tragedy and help the community recover from the event more quickly. Conversely, poor decision making—or the absence of decisions—potentially can result in injury or death to victims or responders.

But the repercussions don't stop there. Poor decisions in the early stages of an event can make the responders' job more difficult and more dangerous. In addition, they can give rise to much more critical or complex decisions later on—to say nothing of the effect on community relations.

Good decision-making skills are one of your most critical assets as an emergency management professional. This course will help you develop those skills.

## DECISION MAKING IN EMERGENCY MANAGEMENT

### Visual 1.8

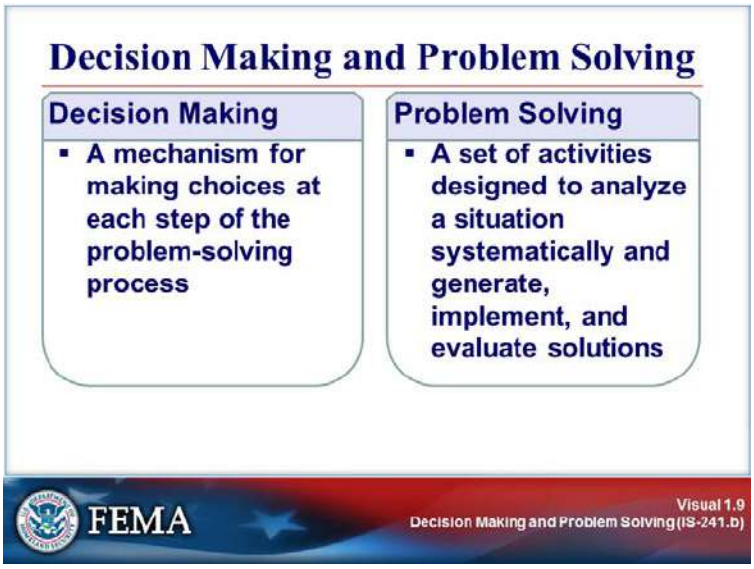



### Key Points:

The objective of Lesson 1 is to describe the impact of effective decision making in an emergency.

## DECISION MAKING IN EMERGENCY MANAGEMENT

**Visual 1.9**




**Key Points:**

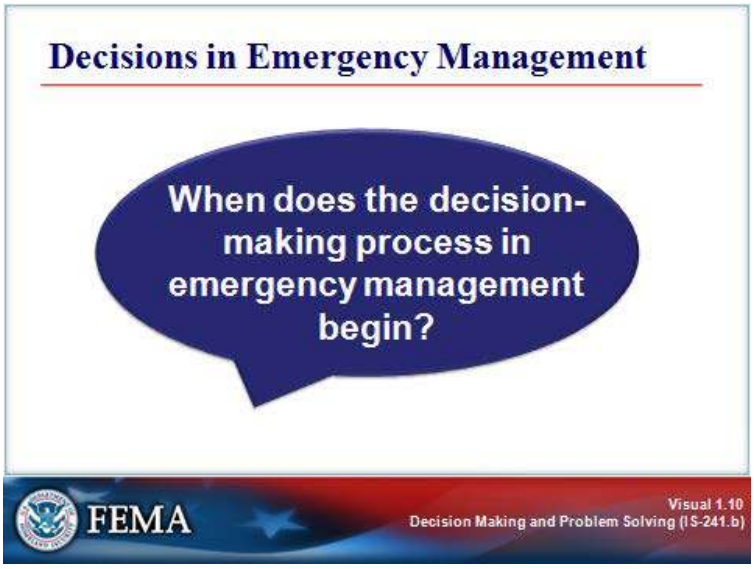
Decision making and problem solving are closely related activities. Very often, if you're doing one you're doing both.

- **Problem solving:** a set of activities designed to analyze a situation systematically and generate, implement, and evaluate solutions.
- **Decision making:** a mechanism for making choices at each step of the problem-solving process.

Decision making is part of problem solving, and decision making occurs at every step of the problem-solving process.

## DECISION MAKING IN EMERGENCY MANAGEMENT

**Visual 1.10**



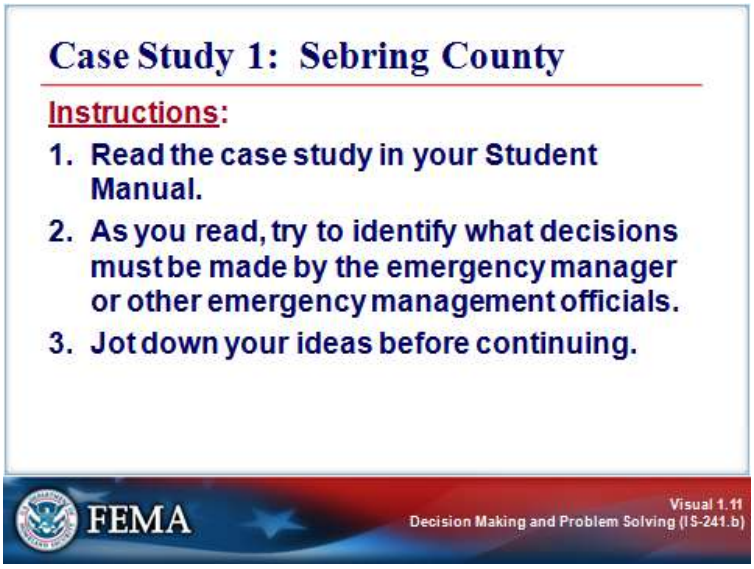

**Key Points:**

**Answer the following discussion question:** When does the decision-making process in emergency management begin?

The two case studies provided on the following pages illustrate the importance of decision making during a crisis.

## CASE STUDY 1: SEBRING COUNTY

### Visual 1.11




### Key Points:

**Case Study 1: Sebring County**

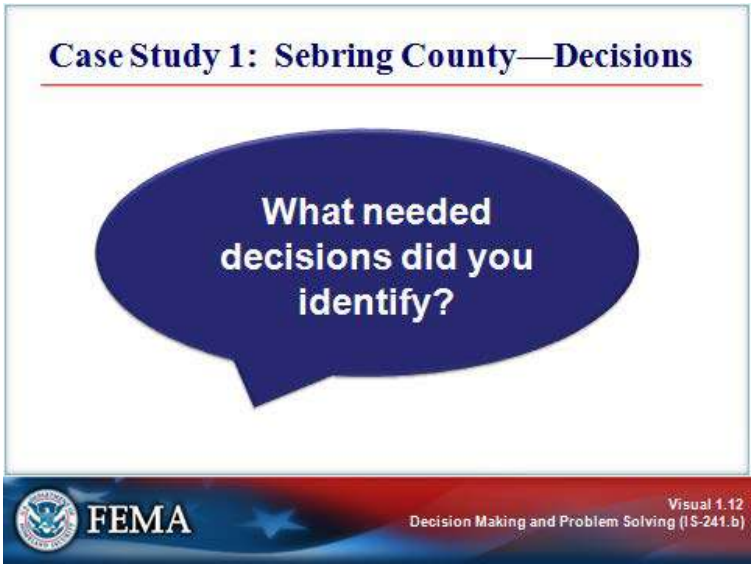
**Background:** Heavy rainstorms have hit, and counties across the entire State are faced with flash flooding to varying degrees. The town of Westfield, located in Sebring County, one of the hardest hit counties in the State, sits high and well away from the river, so flooding is usually not a concern. Last year, a new spillway was built to increase the capacity of the town reservoir to about 44 million gallons. Two towns downstream, Ambry and Gilson, are less than a 5-minute drive from Westfield. Each town has about 2,400 residents, most of them along U.S. Route 270.

**Event Chronology:**

| | |
|---|---|
| Late afternoon | Rain begins, and weather forecasters predict it will be a strong, slow-moving storm that will produce heavy rain. |
| 7:41 p.m. | A flash-flood watch is issued by the National Weather Service. |
| 8:00 p.m. | Heavy rains begin. |
| 9:30 p.m. | The county engineer stations an employee on the dam to watch for and report any problems. The employee sees water pouring a good 2 feet over the spillway. (It was later estimated that the reservoir was holding 65 million gallons during and after the storm.) |
| 11:00 p.m. | Five inches of rain have fallen over the last 3 hours. |
| 12:30 a.m. | The employee sees a section of dirt break away. |
| 1:00 a.m. | When water recedes below the top of the dam, county employees discover that water has eaten around the spillway and is gradually carving away the side of the earthen dam. A first attempt at closing the hole with sandbags fails when the force of the water carries the bags right through. |
| 1:30 a.m. | The Sebring County Emergency Program Manager is now meeting with the mayor of Westfield, the county engineer, the public works director, the fire chief, and the police chief to discuss the situation. |

## CASE STUDY 1: SEBRING COUNTY

**Visual 1.12**

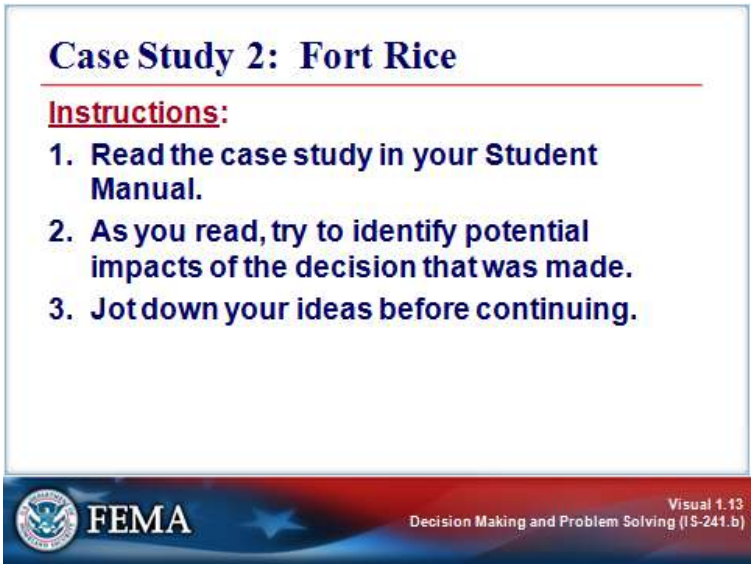



**Key Points:**

What needed decisions did you identify?

CASE STUDY 2: FORT RICE

**Visual 1.13**




**Key Points:**

**Case Study 2: Mandatory or Voluntary Evacuation Scenario**

**Background:** The town of Fort Rice, North Dakota, is located on the western bank of the Missouri River. A farming and ranching community, Fort Rice's residents are known for their tenacity in fighting the weather—and the river—to earn a living.

It has been raining for 12 hours, and the National Weather Service has forecast severe flooding conditions through most of the upper Midwest. The Missouri River and the rivers and streams that feed it are on the rise and are expected to continue to rise over the next several days as the storm is held in place by a large high-pressure area that is currently stationary over the Ohio Valley. Despite the fact that sandbagging crews have been supporting all local levees, severe flooding is a near certainty.

The mayor and all emergency management professionals from Fort Rice have been keeping abreast of the situation since before the rain began. They have been communicating with the local Weather Forecast Office, as well as county and State emergency management personnel. The question on the table at this point is not whether to issue an evacuation order but whether to make the evacuation mandatory.

Historically, farmers and ranchers have been unwilling to evacuate, even when flooding is severe. Most have grown up in the area and are aware of the damage that flooding can cause, but they are also aware of their investment in their land and livestock and will fight to save what they can.

After considerable discussion, the mayor, with the emergency management group's concurrence, makes the decision to activate the Emergency Alert System and issue the evacuation order. But although they decide to word the message strongly, they do not make the evacuation mandatory.

## CASE STUDY 2: FORT RICE

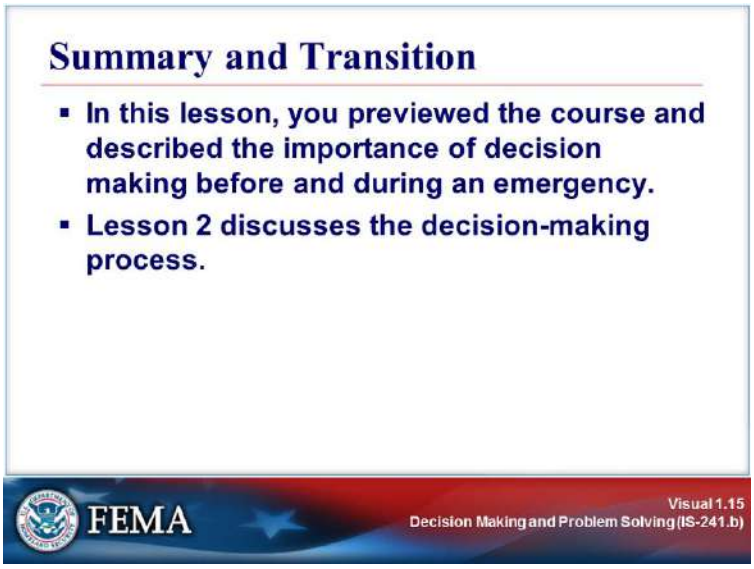
**Visual 1.14**


**Key Points:**

What are the potential impacts of the decision?

## SUMMARY AND TRANSITION

### Visual 1.15




### Key Points:

In this lesson, you previewed the course and described the importance of decision making before and during an emergency.

Lesson 2 discusses the decision-making process.

**Notes**

# LESSON 2. THE DECISION-MAKING PROCESS

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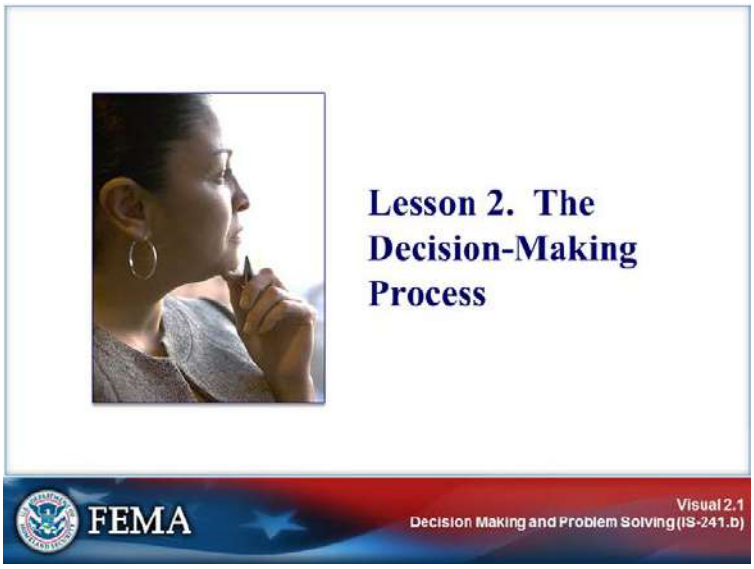
## Lesson 2. The Decision-Making Process

### INTRODUCTION

### Visual 2.1




### Key Points

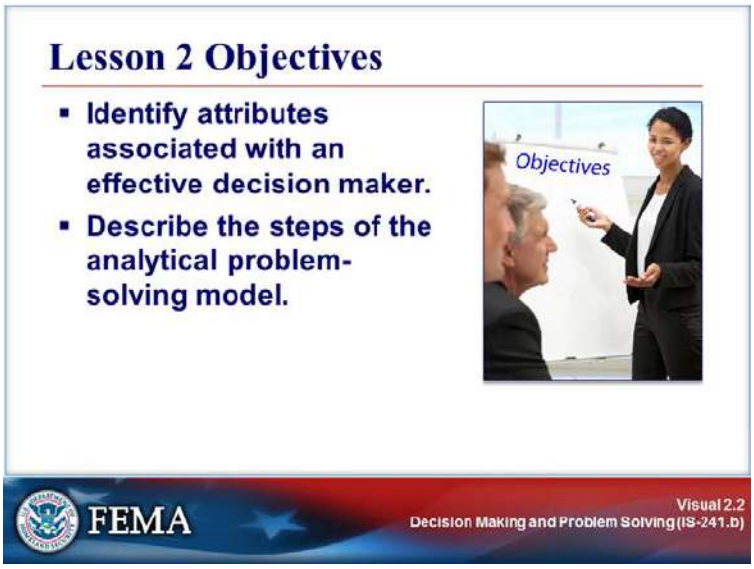
Whether making ordinary day-to-day decisions or critical, time-sensitive decisions in an emergency, using a standard problem-solving model will help ensure that your decisions are rational and logical.

In this lesson, you will learn a five-step, problem-solving model.

## Lesson 2. The Decision-Making Process

### INTRODUCTION

**Visual 2.2**



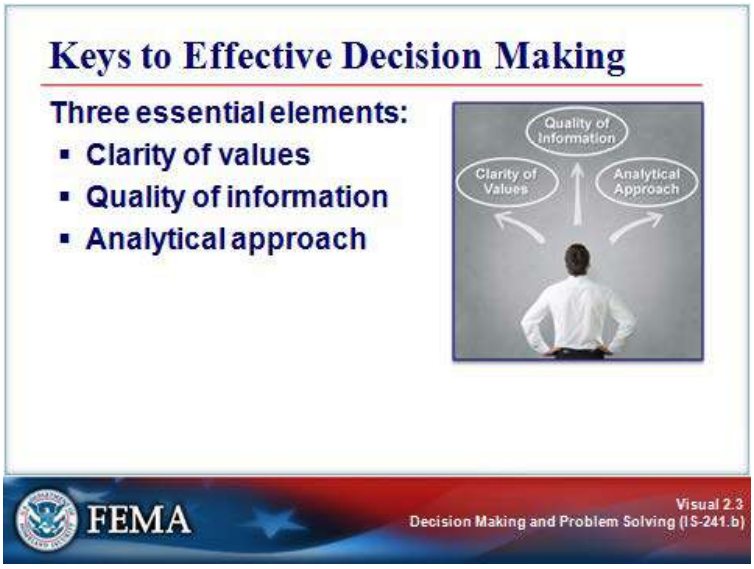

**Key Points**

At the end of this lesson, the participants will be able to:

- Identify attributes associated with an effective decision maker.
- Describe the steps in the analytical problem-solving model.

## KEYS TO EFFECTIVE DECISION MAKING

### Visual 2.3




### Key Points

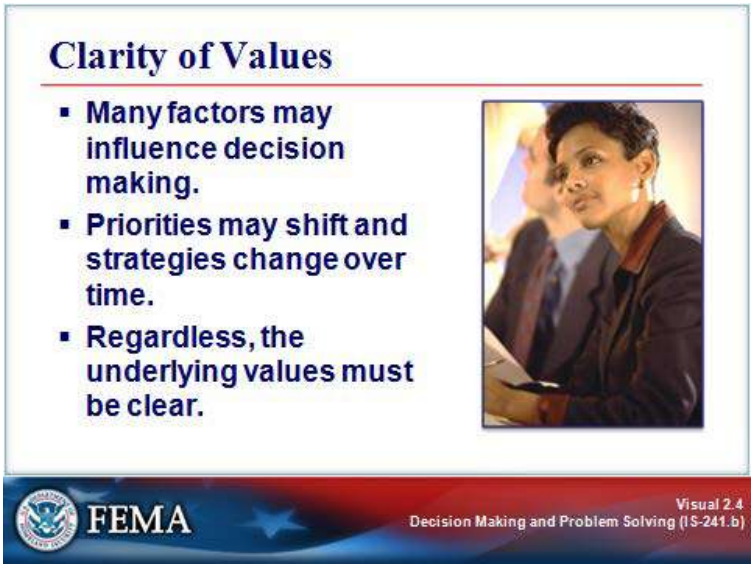
Three key elements are essential for effective decision making:

- Clarity of values
- Quality of information
- Analytical approach

Let's examine what each element entails.

## KEYS TO EFFECTIVE DECISION MAKING

### Visual 2.4




### Key Points

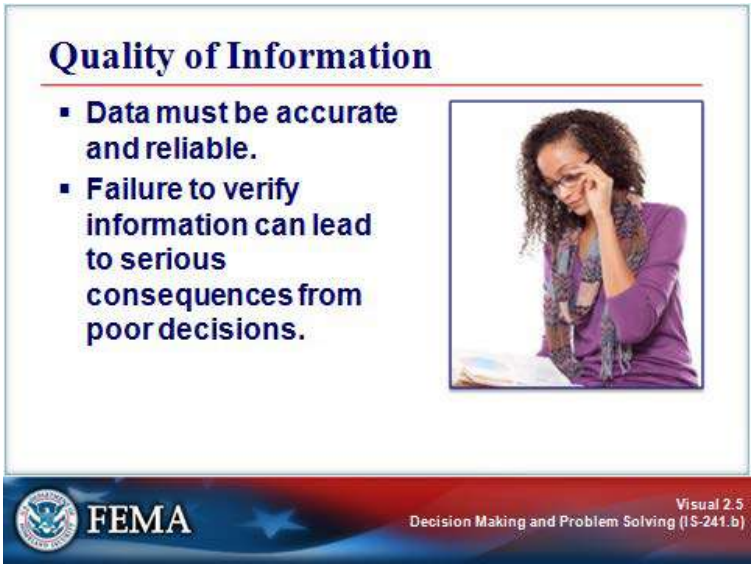
Many factors may influence decision making, including political, safety, financial, environmental, and ethical factors.

Unless you have a clear view of your values—what you want to achieve, preserve, and prevent—and keep them in mind at each step in the process, it can become difficult to balance these factors in a meaningful way.

Although priorities may shift, and how you implement strategies may change over time, the underlying values must be clear.

## KEYS TO EFFECTIVE DECISION MAKING

### Visual 2.5




### Key Points

Data used in decision making must be accurate and reliable. The old standby, "Garbage In = Garbage Out" (GIGO), is especially true in decision making. You can't start with faulty or inadequate information and hope to reach the best decisions.

Failure to verify information can lead to poor decisions—sometimes with serious consequences.

Thoroughly screen the information used in making decisions!

## KEYS TO EFFECTIVE DECISION MAKING

### Visual 2.6

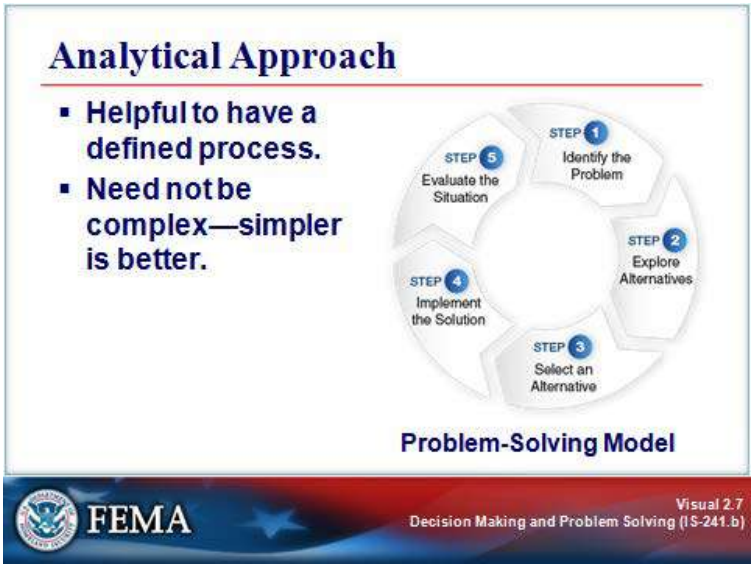

### Key Points

Tips for ensuring quality information:

- **Do your research:** Use the Internet, books, libraries, and people as sources of information. Find out if others have tried to solve this problem or a related problem. Build on lessons learned.
- **Use trusted sources** as the primary sources of information, but talk to secondary sources as well. They can help build a broader picture.
- **Validate your information:** Is it true? Is it accurate? Differentiate fact from rumor.
- **Collate and cross-check** against baseline data and against reports received from other sources. Carefully review conflicting opinions, and reconcile any discrepancies.

## KEYS TO EFFECTIVE DECISION MAKING/ANALYTICAL APPROACH

### Visual 2.7




### Key Points

It is helpful to have a defined process that leads to a solution or a decision. The process needn't be complex—in fact, in many cases simpler is better.

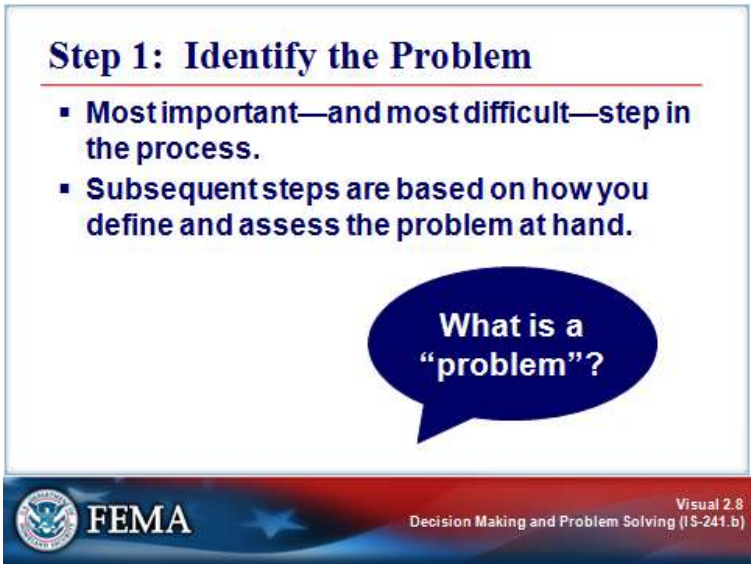
There are many different decision-making models to choose from. A commonly used five-step process is shown on the visual.

Although this process is circular, the steps are not necessarily completed in sequence. For example, knowledge gained during one step might send you back to a prior step before moving forward.

The steps of the process will be described in more detail in this lesson. In addition, there are several detailed job aids at the end of this lesson to aid you in applying the model.

## ANALYTICAL APPROACH

### Visual 2.8




### Key Points

This step is the most important—and most difficult—step in the process. Subsequent steps are based on how you define and assess the problem at hand.

**Answer the question:** What is a "problem"?

**Problem or Solution?**
In carrying out Step 1, distinguish between a problem and its solution. The most common error in problem solving is defining problems in terms of their solutions.

**Here's an example:** Someone might say, "The problem is that we don't have an EOC." The problem, however, is not that there is no EOC.

- The problem is really that the emergency management community cannot coordinate communications adequately during the response phase.
- Establishing an EOC is a solution.

**Delineating the Problem Parameters**
Identifying the problem also involves analyzing the situation to determine the extent of the problem, including:

- What is happening (and is not happening)?
- Who is involved?
- What are the stakes?

## ANALYTICAL APPROACH

### Visual 2.9


### Key Points

This step includes generating alternatives and evaluating them.

**Techniques for Generating Alternatives:** You can generate alternatives through:

- Brainstorming
- Surveys
- Discussion groups

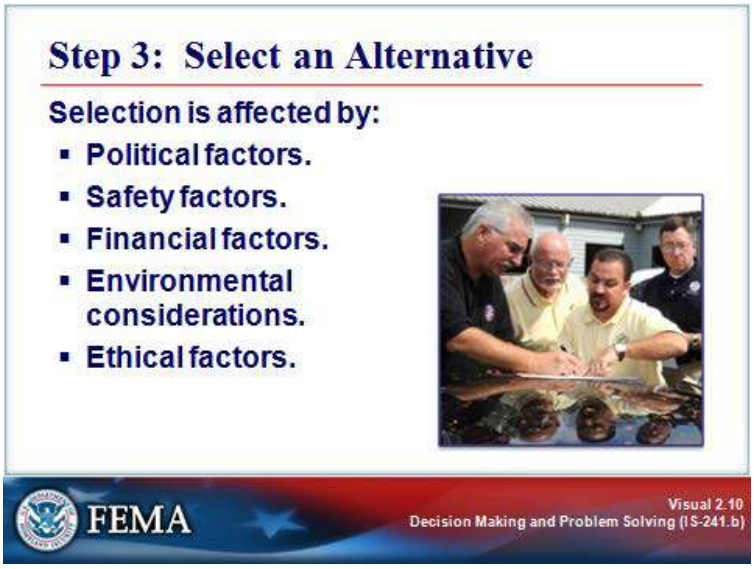
**Criteria for Evaluating Alternatives**

After you have generated alternative solutions, you must have some means of evaluating them. Alternatives should be evaluated using a consistent process.

Another part of evaluation is identifying contingencies—what could go wrong. Think in terms of Murphy's Law ("If anything can go wrong, it will.") and identify what could get in the way of solving the problem you are facing.

## ANALYTICAL APPROACH

### Visual 2.10




### Key Points

After you have evaluated each alternative, select the alternative that comes closest to solving the problem with the most advantages and fewest disadvantages.

Implementing the solution may not be easy. There may be repercussions, and you should complete a reality check to identify and evaluate the possible consequences of implementing the solution. Carefully consider how the solution will be implemented before selecting an alternative.

When selecting an alternative, you will encounter factors that affect your decision making. These factors may include:

- Political factors.
- Safety factors.
- Financial factors.
- Environmental considerations.
- Ethical factors.

Not all of these factors may be readily recognizable. As you examine the situation and apply the problem-solving model, be alert for these potential limits on the solutions that you can implement.

## ANALYTICAL APPROACH

### Visual 2.11

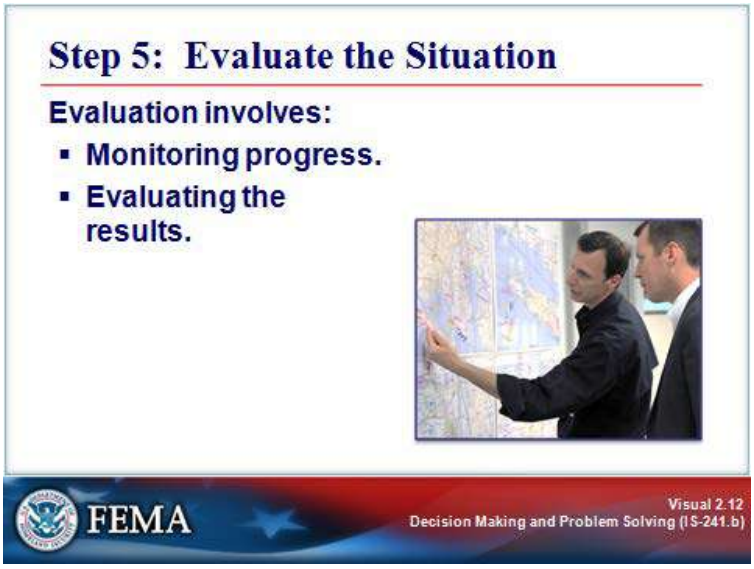

### Key Points

Implementation involves the following:

- Developing an action plan (what steps are needed).
- Determining objectives or measurable targets.
  - Used to monitor progress and establish priorities.
  - Based on analysis of the situation and contingencies.
- Identifying needed resources (people, information, things).
  - What resources do I need?
  - Where will I get them?
  - How long will it take?
  - What can others offer?
  - Are there any special requirements?
- Identifying details of the action plan (who will do what, by when, where, and how, as applicable).
- Using the plan to put the solution in place.

## ANALYTICAL APPROACH

### Visual 2.12




### Key Points

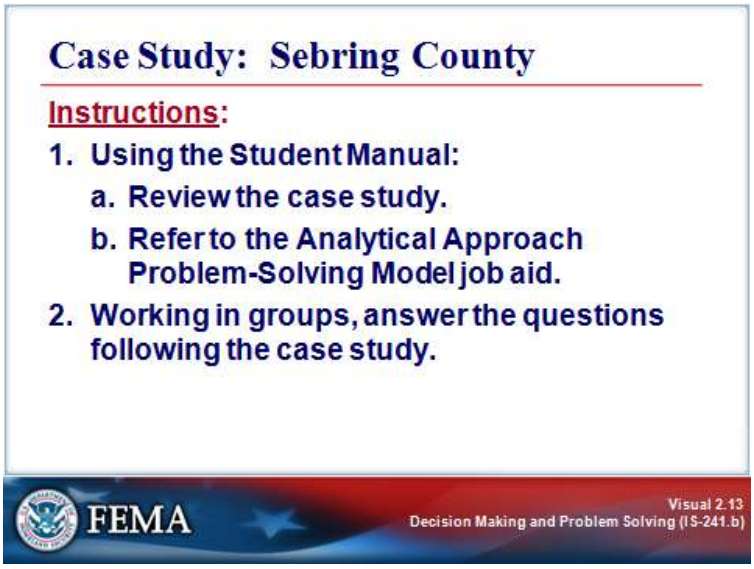
Evaluation involves monitoring progress and evaluating the decision that was made.

During evaluation, identify if the situation has changed, more or fewer resources are required, or a different alternative solution is required. Evaluation is an ongoing process.

In the remainder of this course, we will take a closer look at each of the five steps and how you can apply them to decision making and problem solving in emergencies.

## CASE STUDY: SEBRING COUNTY

### Visual 2.13




### Key Points

This activity will give you an opportunity to follow the steps of the analytical model. Working in groups, follow the steps below to complete this activity:

1. Review the details of the case study in the previous lesson of your Student Manual.

2. Refer to the Analytical Approach Problem-Solving Model job aid at the end of this lesson.

Don't worry if you are not providing all of the details of the full process. The point of this activity is for you to consider how you would use the process.

**CASE STUDY: SEBRING COUNTY**

**Visual 2.13 (Continued)**

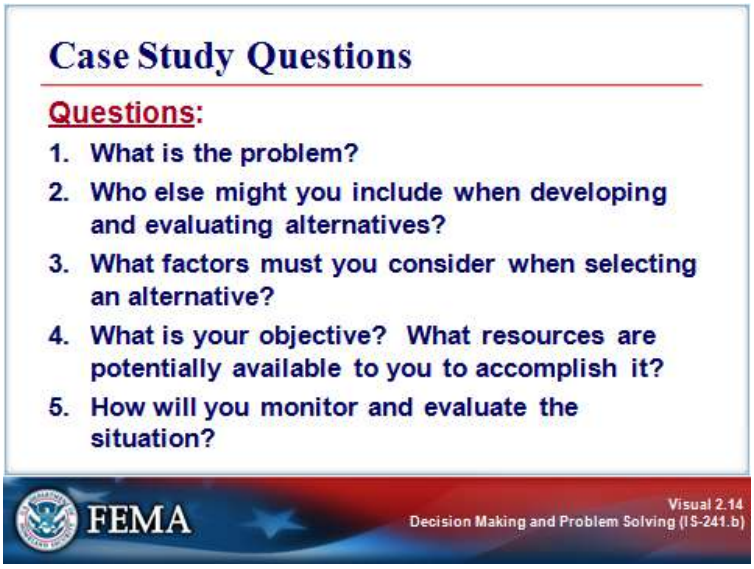
**Background:** Heavy rainstorms have hit, and counties across the entire State are faced with flash flooding to varying degrees. The town of Westfield, located in Sebring County, one of the hardest hit counties in the State, sits high and well away from the river, so flooding is usually not a concern. Last year, a new spillway was built to increase the capacity of the town reservoir to about 44 million gallons. Two towns downstream, Ambry and Gilson, are less than a 5-minute drive from Westfield. Each town has about 2,400 residents, most of them along U.S. Route 270.

**Event Chronology:**

| | |
|---|---|
| Late afternoon | Rain begins, and weather forecasters predict it will be a strong, slow-moving storm that will produce heavy rain. |
| 7:41 p.m. | A flash flood watch is issued by the National Weather Service. |
| 8:00 p.m. | Heavy rains begin. |
| 9:30 p.m. | The county engineer stations an employee on the dam to watch for and report any problems. The employee sees water pouring a good 2 feet over the spillway. (It was later estimated that the reservoir was holding 65 million gallons during and after the storm.) |
| 11:00 p.m. | Five inches of rain have fallen over the last 3 hours. |
| 12:30 a.m. | The employee sees a section of dirt break away. |
| 1:00 a.m. | When water recedes below the top of the dam, county employees discover that water has eaten around the spillway and is gradually carving away the side of the earthen dam. A first attempt at closing the hole with sandbags fails when the force of the water carries the bags right through. |
| 1:30 a.m. | The Sebring County Emergency Program Manager is now meeting with the mayor of Westfield, the county engineer, the public works director, the fire chief, and the police chief to discuss the situation. |

## CASE STUDY: SEBRING COUNTY

### Visual 2.14



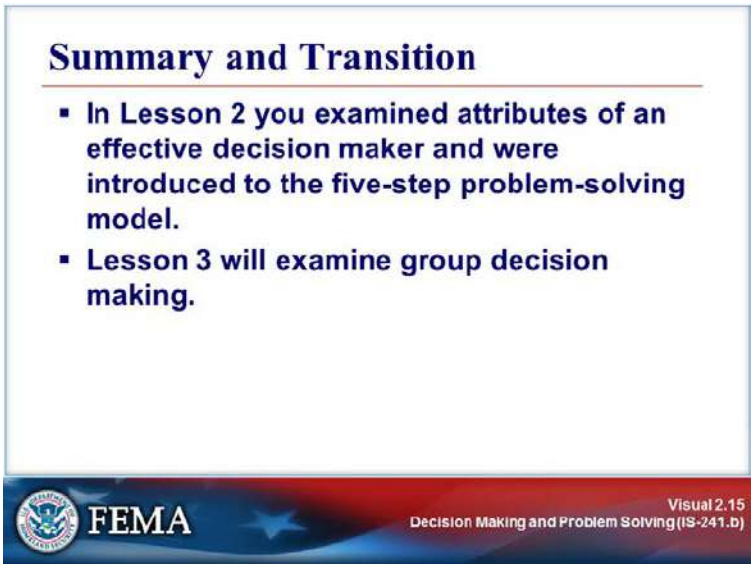

### Key Points

Working in assigned groups, respond to the following questions about the case study.

| | |
|---|---|
| 1. What is the problem? | |
| 2. Who else might you include when developing and evaluating alternatives? | |
| 3. What factors must you consider when selecting an alternative? | |
| 4. What is your objective? What resources are potentially available to you to accomplish it? | |
| 5. How will you monitor and evaluate the situation? | |

## SUMMARY AND TRANSITION

### Visual 2.15




### Key Points

In Lesson 2 you examined attributes of an effective decision maker and were introduced to the five-step problem-solving model.

Lesson 3 will examine group decision making.

# LESSON 3. GROUP DECISION MAKING

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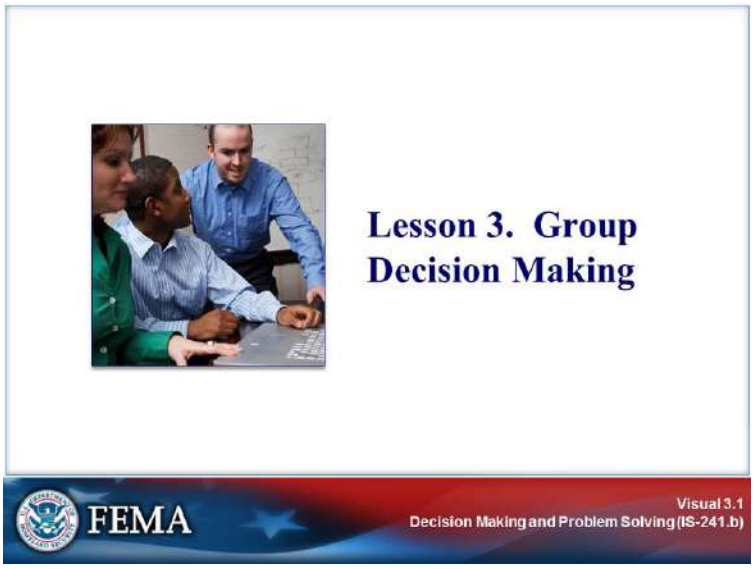
## Lesson 3. Group Decision Making

### INTRODUCTION

**Visual 3.1**




**Key Points**

When time allows, problem solving and decision making can be carried out by a group of people—a team—who have an interest or stake in the outcome.

This lesson will present strategies for effective group decision making.

## Lesson 3. Group Decision Making

### INTRODUCTION

**Visual 3.2**


**Key Points**

At the end of this lesson, the participants will be able to:

- Identify when group decision making is a good approach.
- Describe advantages and limitations of group decision making.
- Identify methods for promoting an effective group decision-making process.

## ADVANTAGES AND LIMITATIONS

### Visual 3.3


### Key Points

Group or team decision making is often a good choice when:

- The situation is complex.
- Consequences are significant.
- Commitment and buy-in are important.
- There is time for deliberation and consensus building.

Use the questions on the following page as a guide when selecting a decision-making approach.

**Visual 3.3 (Continued)**

### Guidance for Selecting a Decision-Making Approach

**Instructions:** Use the questions below as a guide when selecting a decision-making approach.

| Question | Yes | No |
|---|---|---|
| 1. Do you have a reasonable amount of time to make the decision? | | |
| 2. Does the leader have enough expertise to make a good decision? | | |
| 3. Do the potential group members have enough expertise to make a good decision? | | |
| 4. Do the others involved share the organizational goals to be attained by solving the problem? | | |
| 5. Is the decision complex with many possible solutions? | | |
| 6. Is commitment to the decision by other people critical? | | |
| 7. Is the decision likely to cause serious conflict among the people affected by it? | | |
| 8. Will the decision directly impact many agencies, individuals, or community members? | | |
| 9. Will the decision directly impact only a select few? | | |

Analyze your responses using the following key:

- If the response to question 1 is "No," it may be preferable to make the decision individually or in consultation with key players.
- If the response to question 2 is "No," it may be preferable to make the decision through consultation, with a group, or by delegation.
- If the majority of your responses are "Yes," group decision making may be preferable.
- If the majority of your responses are "No," individual decision making may be preferable.

## ADVANTAGES AND LIMITATIONS

### Visual 3.4


### Key Points

Among its advantages, group decision making:

- Generates more favorable outcomes through synergy and shared information.
- Provides a broader perspective and taps a wider range of expertise by representing multiple viewpoints and areas of specialization.
- Taps the creative potential of team members who may come up with alternatives not envisioned by a single individual.
- Allows for discussion to help answer questions and reduce uncertainties for the decision makers.
- Makes use of a wider range of resources in applying the process and implementing the solution.
- Helps build ownership and buy-in among stakeholders.

## ADVANTAGES AND LIMITATIONS

### Visual 3.5


### Key Points

There are also limitations when making decisions as a group. Group decision making:

- Requires adequate time and good leadership to be successful.
- May result in a compromise rather than the optimal solution.
- Can be overly influenced by a vocal few.
- May get bogged down by overanalysis or influenced by haste to be finished.

The following page describes some of the common pitfalls that can create problems for decision-making groups.

## ADVANTAGES AND LIMITATIONS

**Visual 3.5 (Continued)**

### Decision-Making Pitfalls

The pitfalls listed below can create problems for decision making by groups. These pitfalls can reduce the willingness of individuals within the group to:

- Examine alternatives effectively and efficiently.
- Gather or acknowledge contradictory information contrary to the group consensus.
- Be critical of the group consensus.
- Introduce and defend new or different ideas.

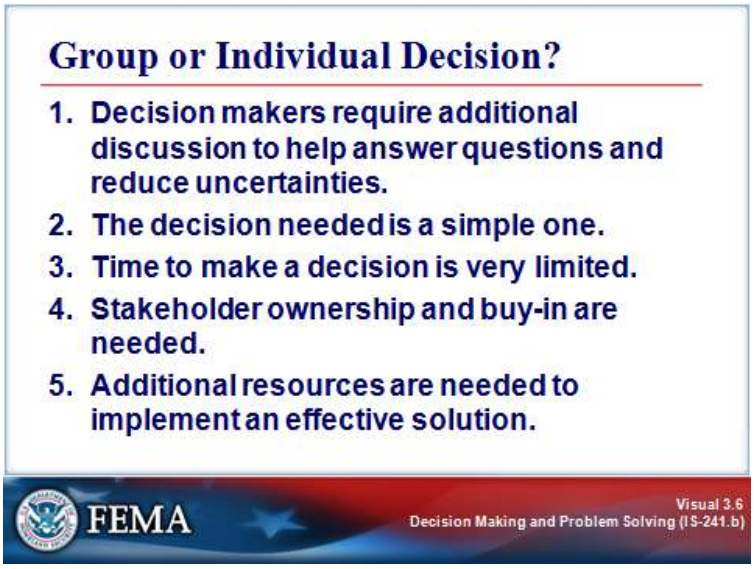
In general, group leaders can avoid these pitfalls through the following actions:

- Encouraging everyone to air objections and doubts and to accept criticism.
- Describing the problem without revealing their own preferred solution.
- Assigning group members to subgroups and asking each subgroup to evaluate the problem.
- Inviting outside experts to challenge the group's decision.
- Asking members to take turns playing devil's advocate.

| | |
|---|---|
| **Lack of Time** | ▪ When group members feel pressured by time, they may fail to gather the information necessary to make a good decision, or to consider all of the information. The result may be a hasty decision that does not consider all alternatives.<br>▪ Groups can help to avoid this issue by slowing down the process, assigning specific research roles to individuals or smaller teams, and ensuring that everyone in the group has added his or her perspective.<br>▪ Voting may be an effective method when time is short, but may polarize the group if members feel their views have not been heard. |
| **Too Much Time** | ▪ Group members may spend so much time gathering and analyzing information that they fail to bring the issue to discussion or come to any conclusion. The additional time spent gathering and analyzing information may not add value to the decision that needs to be made.<br>▪ Groups can help to avoid this issue by facilitating agreement about the critical information needed to make the decision and by bringing the issue to discussion and decision as soon as that information is available. |
| **Vocal Minorities** | ▪ One or a few members of a group may express their opinions so strongly that others hesitate to disagree or add a different perspective. A group leader who begins the discussion with a proposed decision or solution may also limit discussion.<br>▪ Groups can help to avoid this issue by encouraging discussion and consideration of alternate perspectives. |
| **Groupthink** | ▪ Groupthink is a phenomenon that occurs in a cohesive group when members let their need to agree with each other interfere with their ability to think about the decision critically.<br>▪ As with vocal minorities, groups can help to avoid this issue by encouraging discussion and consideration of alternate perspectives. |

## ADVANTAGES AND LIMITATIONS

### Visual 3.6




### Key Points

**Instructions:** Read the statements below and identify in which instances group decision making or individual decision making would be more appropriate.

| Statement | Group | Individual |
|---|---|---|
| 1. Decision makers desire additional discussion to help answer questions and reduce uncertainties. | | |
| 2. The decision needed is a simple one. | | |
| 3. Time to make a decision is very limited. | | |
| 4. Stakeholder ownership and buy-in are needed. | | |
| 5. More resources are needed to implement an effective solution. | | |

## MORE EFFECTIVE GROUP DECISION MAKING

### Visual 3.7


### Key Points

The following practices will make a group's decision-making process more effective:

- Adding diversity.
- Forming smaller groups and working groups.
- Fostering consensus.
- Clarifying member roles.
- Establishing ground rules.

Additional details appear on the following pages.

## MORE EFFECTIVE GROUP DECISION MAKING

### Visual 3.8


### Key Points

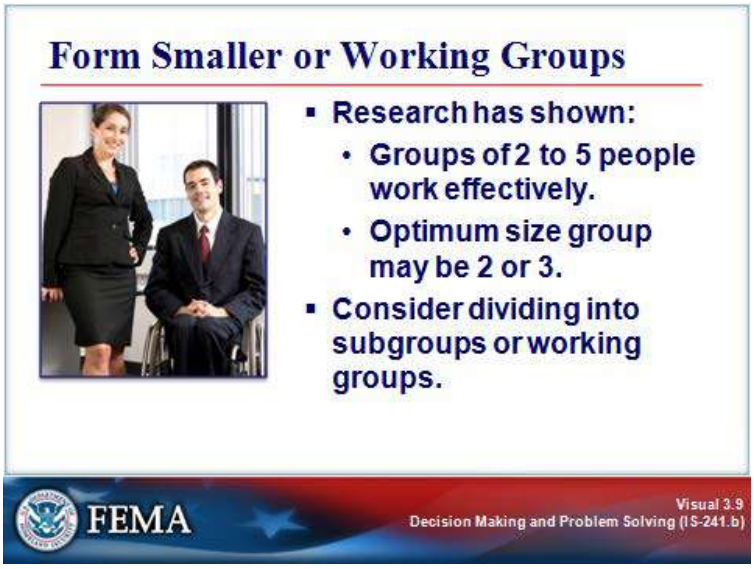
A key characteristic of effective problem-solving groups is their diverse makeup. A group of people with varied backgrounds, knowledge, cultural viewpoints, and areas of expertise can usually generate a wider array of alternatives than a homogeneous group.

When selecting problem-solving group members, include people who:

- Can contribute something to the process.
- Have a stake in (will be impacted by) the outcomes.

## MORE EFFECTIVE GROUP DECISION MAKING

### Visual 3.9




### Key Points

Group size can be a tricky issue. Research has shown that groups of two to five people work effectively, and that the optimum-size group may be two or three people.

The many different specialties and stakeholders in emergency management may quickly lead to an unwieldy group size.

Consider dividing into subgroups or working groups that focus on different aspects of the problem.

## MORE EFFECTIVE GROUP DECISION MAKING

### Visual 3.10


### Key Points

Consensus building means bringing people together to express their ideas, clarify areas of agreement and disagreement, and develop shared resolutions.

It does not mean everyone agrees that a decision is optimal. Rather, it means a decision is reached that everyone can live with; in other words, the decision addresses stakeholders' most important issues.

## MORE EFFECTIVE GROUP DECISION MAKING

### Visual 3.11


### Key Points

You know you've reached consensus when each member can say:

- "My personal views and ideas have been listened to and considered."
- "I have openly listened to and considered the ideas and views of every other group member."
- "I can support this decision and work toward its implementation, even if it was not my choice."

## MORE EFFECTIVE GROUP DECISION MAKING

### Visual 3.12


### Key Points

Some techniques for reaching consensus are described below.

**Techniques for Reaching Consensus**

| Technique | Description |
|---|---|
| Agree on Criteria | Agree on criteria in advance that will be used to decide. This may help narrow options to a manageable field. |
| Avoid Win/Lose Techniques | Avoid win/lose techniques, such as voting or negotiating favors back and forth. However, weighted voting or multivoting (giving each member a set number of weighted votes to cast on multiple options) can be used to narrow options. |
| Expand the Alternatives | Expand the alternatives when an either-or debate is going nowhere. Look for alternatives that are the next most acceptable as ways to break a stalemate. |
| Continue the Discussion | Continue the discussion. Don't encourage members to give in to keep harmony. |

## MORE EFFECTIVE GROUP DECISION MAKING

### Visual 3.13


### Key Points

Collaboration is more effective when stakeholders are from varied backgrounds and perspectives. However, differences may lead to conflicts about power and control.

To foster collaboration among diverse stakeholders, it is important to get agreement on member roles and identify whether:

- All members are equal participants in the collaboration process.
- Members have decision-making authority.
- Members can make commitments for their organizations.

## MORE EFFECTIVE GROUP DECISION MAKING

### Visual 3.14


### Key Points

A simple list of ground rules can make a huge difference in the tone and feeling of a meeting. Examples include:

- Establishing an agenda in advance for each meeting.
- Starting and ending meetings on time.
- Asking members to turn off cell phones, limit side conversations, listen before adding new ideas, and speak respectfully.

Some sample ground rules are listed on the following page.

## MORE EFFECTIVE GROUP DECISION MAKING

**Visual 3.14 (Continued)**

### Sample Collaborative Group Ground Rules

**Confidentiality.** Group members agree not to repeat what other group members have said outside of the meeting without their permission, even to other collaborative group members.

**Play or Pass.** Group members will help maintain forward progress by making decisions in meetings (announced reasonably in advance of meetings to all collaborative group members) with the group members present. Also, group members in attendance at a meeting have the right to pass in a discussion or decision, as long as they still do their part to make the group function.

**Openness.** Group members agree to remain open to other points of view, to all group members, and to the group process and its outcomes.

**Listening.** Group members agree to focus on each speaker rather than prepare their response, as well as allowing for no interruptions.

**Fairness.** Group members are committed to equal access and participation in the group.

**Respect and Conflict.** Group members agree that they may disagree without being disagreeable. Whenever there is conflict that interferes with the group's forward progress or performance, group members will cooperate to address the conflict.

**Commitment to the Group.** Group members will prepare for and attend meetings. They agree that they will begin and end meetings on time. If a group member cannot attend, he or she will send a representative and/or get briefed on what was missed.

**Resources and Competition.** Group members must be willing to make resource contributions to the group's success, including individually (e.g., their skills and talents), organizationally (e.g., providing meeting space for free), and collectively (e.g., working together to obtain resources for the group's work).

**Commitment to Results.** Group members will maintain a commitment to achieving results by working together.

**Assume Good Intent.** Group members agree to assume good intent when interacting in the group and to clarify meaning before jumping to conclusions.

**Commitment To Work and Play Hard Together.** Group members will work hard together, but also have fun and celebrate their successes together.

## STRATEGIES FOR GROUP DECISION MAKING

### Visual 3.15


### Key Points

There is a vast array of strategies that groups can use to enhance their decision-making process. Some examples include:

- Brainstorming.
- Pros and Cons.
- Multivoting (covered on the following page).

**Brainstorming**

The focus of brainstorming is to generate ideas and solutions, not to evaluate them. It requires an environment in which the participants (individuals or group members) are free to think out loud, without criticism. Ground rules for brainstorming should include:

- No criticism of an idea is allowed.
- Strive for the longest list possible. Go for quantity.
- Strive for creativity. Wild and crazy ideas are encouraged.
- Build ("piggyback") on the ideas of others.

**Pros and Cons**

The group lists each option on a separate piece of paper with two columns: Pros and Cons (or Advantages/Disadvantages).

In each column list as many effects and implications as you can think of. If helpful, give each a weight factor from 1 to 5 to indicate its significance. When finished, total the scores and compare the pro and con scores for each option.

## STRATEGIES FOR GROUP DECISION MAKING

### Visual 3.16


### Key Points

**Multivoting**

Multivoting is used to reduce a long list of items to a manageable number by means of a structured series of votes. Each person is given a number of votes to cast, equal to one-third of the total alternatives. (For example, if there are 30 alternatives, each person gets 10 votes.)

An easy way to use multivoting is to list the alternatives on separate sheets of paper and provide self-adhesive colored dots. After each person casts all of his/her votes, the votes are tallied and the items receiving the fewest votes are eliminated. Rounds are repeated until a manageable list is achieved.

## SUMMARY AND TRANSITION

### Visual 3.17


### Key Points

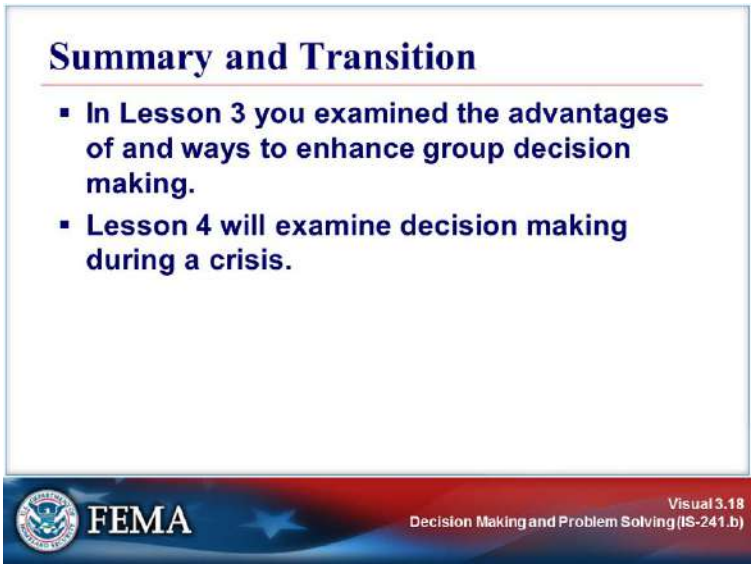
Answer the following questions:

1. What are the advantages of group decision making?

2. What methods can enhance group decision making?

## SUMMARY AND TRANSITION

### Visual 3.18




### Key Points

In Lesson 3 you reviewed the advantages and disadvantages of group decision making and strategies for effective group decision making.

Lesson 4 will describe the context for crisis decision making and present strategies for applying the problem-solving model.

**Notes**

# LESSON 4. CRISIS DECISION MAKING

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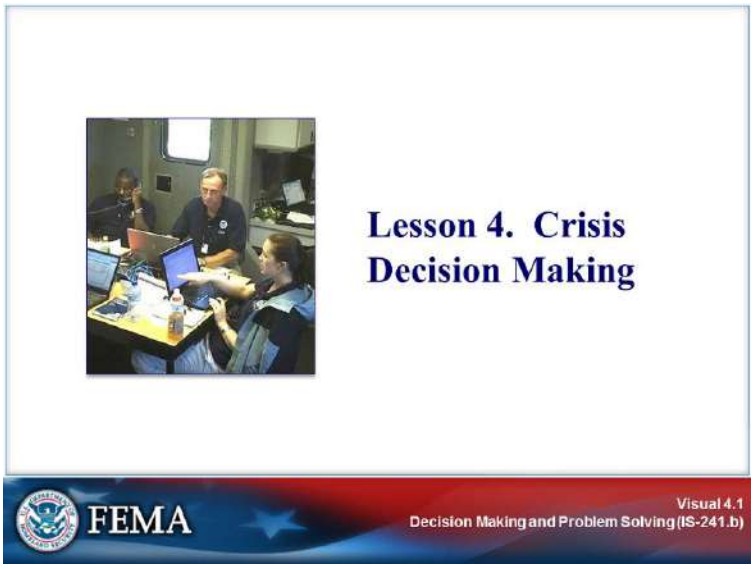
## Lesson 4. Crisis Decision Making

### INTRODUCTION

**Visual 4.1**




**Instructor Notes: Present the following key points.**

In this lesson, you will examine the effects of time pressure and stress on decision making and apply the problem-solving model to a case study.

## Lesson 4. Crisis Decision Making

### INTRODUCTION

**Visual 4.2**

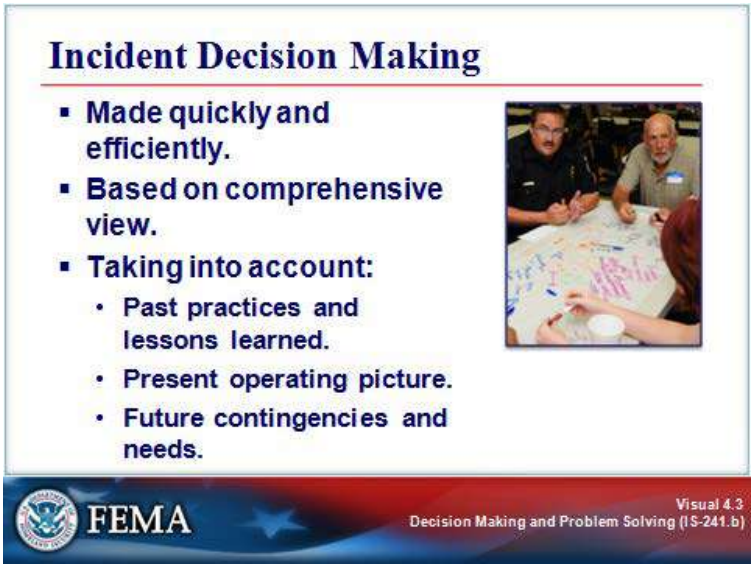

**Instructor Notes: Present the following key points.**

At the end of this lesson, the participants will be able to:

- Identify impediments to effective decision making in a crisis.
- Describe strategies for enhancing crisis decision making.

## DECISION-MAKING REQUIREMENTS

**Visual 4.3**




**Instructor Notes: Present the following key points.**

Decision making in a crisis situation must take place quickly and efficiently and be based on a comprehensive view of the situation.

Effective crisis decisions take into account:

- **Past:** Standard practices, existing plans and protocols, and lessons learned. Good decisions made in planning and preparation will lay the groundwork for incident decision making.
- **Present:** Situational awareness and a common operating picture.
- **Future:** Contingencies and anticipated needs.

## DECISION-MAKING REQUIREMENTS

**Visual 4.4**


**Instructor Notes: Present the following key points.**

Decisions made at all levels must be based on a common operating picture that is achieved through full and up-to-date situational awareness.

A common operating picture supports crisis decision making and provides all appropriate parties the same critical information about the incident, including:

- Current status and evolving situation.
- Availability and location of resources.
- Needed resources.

## IMPEDIMENTS TO CRISIS DECISION MAKING

**Visual 4.5**

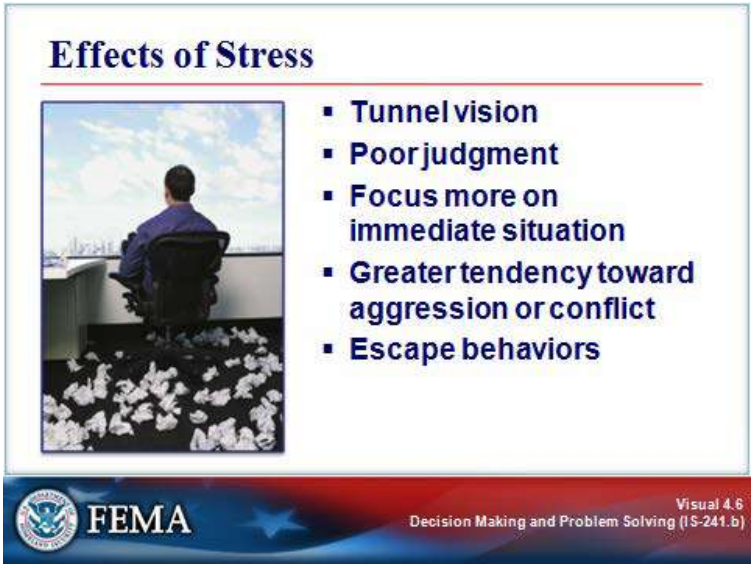

**Instructor Notes: Present the following key points.**

Several factors can impede decision making in an incident, including:

- **Time pressure:** Crises by their nature are dynamic and fast-moving situations. However, making a decision without taking even limited time for analysis can have negative consequences.
- **Problems with information:** Problems may include a lack of information, too much information, or inaccurate or conflicting information.
- **Losing the "Big Picture":** Focusing on insignificant details or tactical objectives may cause emergency management personnel to lose their ability to maintain an awareness of the evolving situation and their ability to make sound decisions.
- **Fatigue:** Sleep deprivation and the resulting fatigue can lead to selective perception, where a person focuses on the most immediate physical setting or needs. A decision maker may miss important factors or ignore discrepancies as his or her ability to take in new information decreases. Fatigue is often combined with high or low blood sugar and overuse of caffeine, which can further impede effective decision making.
- **Conflicting priorities:** When key personnel have conflicting priorities, it can create uncertainty and cause delays in decision making and action planning.
- **Stress:** Stress is a natural response to crisis situations that is heightened by many of the factors already described. Other sources of stress include:
  - Uncertainty.
  - High expectations.
  - Information insufficiency or overload.
  - Conflict.
  - Decision consequences.
  - Traumatic experiences.

## IMPEDIMENTS TO CRISIS DECISION MAKING

**Visual 4.6**




**Instructor Notes: Present the following key points.**

Stress can be one of the biggest impediments to crisis decision making. Under stress, decision makers are more likely to:

- Get tunnel vision—selective perception due to sensory overload.
- Exhibit poor judgment, such as making hasty decisions or choosing risky alternatives.
- Consider only the immediate situation to the exclusion of long-range considerations.
- Have a greater tendency toward aggression or conflict with other key players.
- Engage in escape behaviors such as under- or overeating, overuse of alcohol, reckless behavior, or self-isolation.

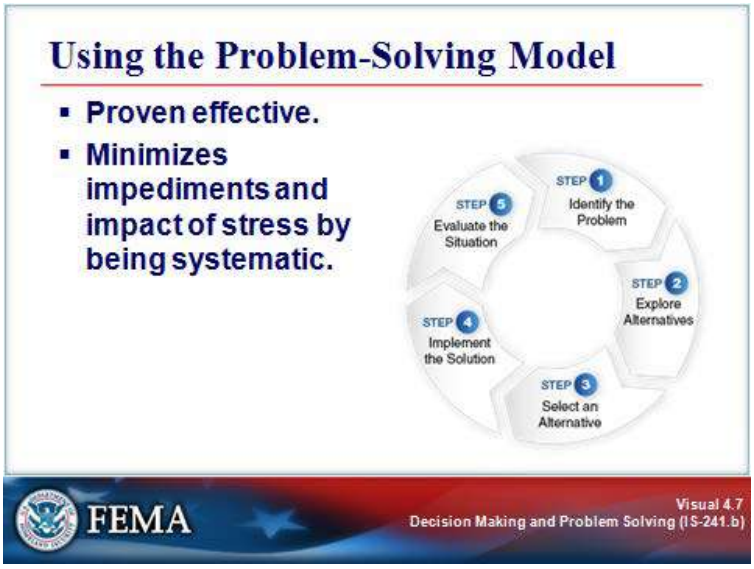
Decision makers under stress also tend to:

- Be less tolerant of ambiguity and thus perhaps make premature decisions.
- Experience a decreased ability to handle difficult tasks and work productively.

An important key to effective decision making in a crisis is being systematic. A good way to be systematic is to use the problem-solving model.

## USING THE PROBLEM-SOLVING MODEL

**Visual 4.7**



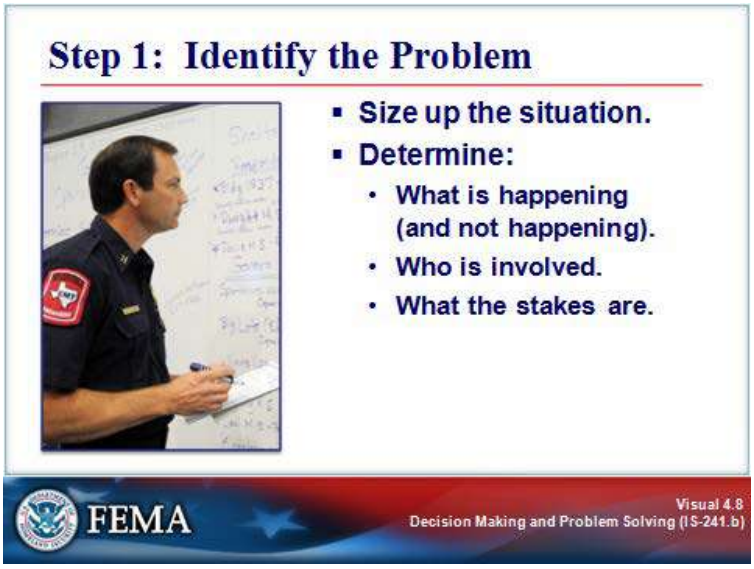

**Instructor Notes: Present the following key points.**

One of the best ways to minimize the impediments to decision making and the impact of stress is to be systematic. Having a problem-solving model, such as the one introduced earlier, has proven effective in emergency situations.

Let's take a closer look at how this model can be applied in a crisis.

## USING THE PROBLEM-SOLVING MODEL

**Visual 4.8**




**Instructor Notes: Present the following key points.**

Determine the situation or condition that will exist in the future and is considered undesirable by members of the organization. In order to identify the problem, you need to size up the situation to make sure that you have the full picture. Size-up involves analyzing the current situation to determine:

- What is happening (and not happening).
- Who is involved.
- What the stakes are.

This information will enable you to identify the problem more accurately.

The questions on the following page will help you to size up the situation.

## USING THE PROBLEM-SOLVING MODEL

**Visual 4.8 (Continued)**

### Size-Up Questions

**What has happened?**

- What initially happened to create the emergency?
- How long has it been since the initial event?
- What may have caused the emergency?
- Do you suspect criminal activity?

**What is happening now?**

- Are there injuries or safety concerns?
- Is immediate intervention needed to save lives?
- What are the risks to emergency responders?
- Are crowds and bystanders at risk?
- Are there routes to gain access to the incident scene?

**What is likely to happen next?**

- Is the situation stable or getting worse?
- Is there a possibility that secondary incidents could occur?
- Are there continuing threats or hazards?
- Can these and any other safety considerations be handled with resources on scene or en route?

**What factors affect the response?**

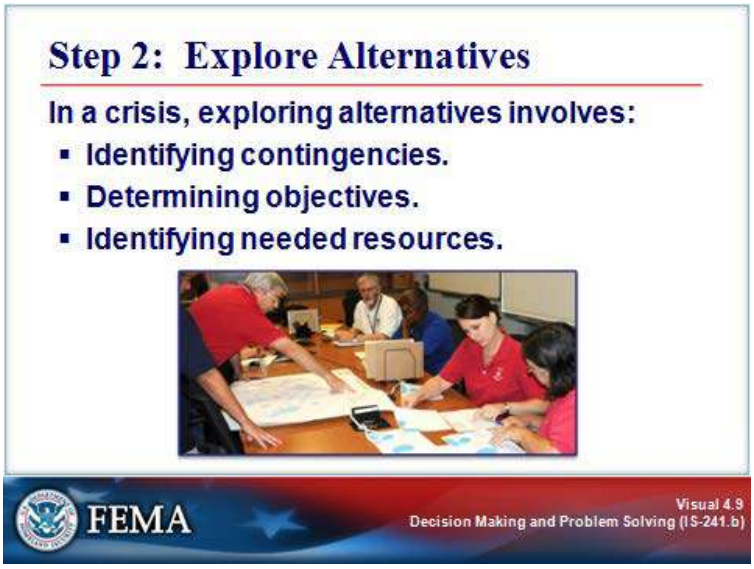
- Is the weather or wind affecting the response?
- Is the time of day a factor? Is it getting dark?
- Are responders familiar with the incident scene or building layout?
- Are there hazardous materials or other dangers near the incident scene?
- Are there security concerns?
- Does evidence need to be preserved?

**What resources are needed and available?**

- What resources will be required?
- Are those resources immediately available or will they be delayed?
- How should the available resources be best deployed now?

## USING THE PROBLEM-SOLVING MODEL

**Visual 4.9**




**Instructor Notes: Present the following key points.**

In a crisis, exploring alternatives involves:

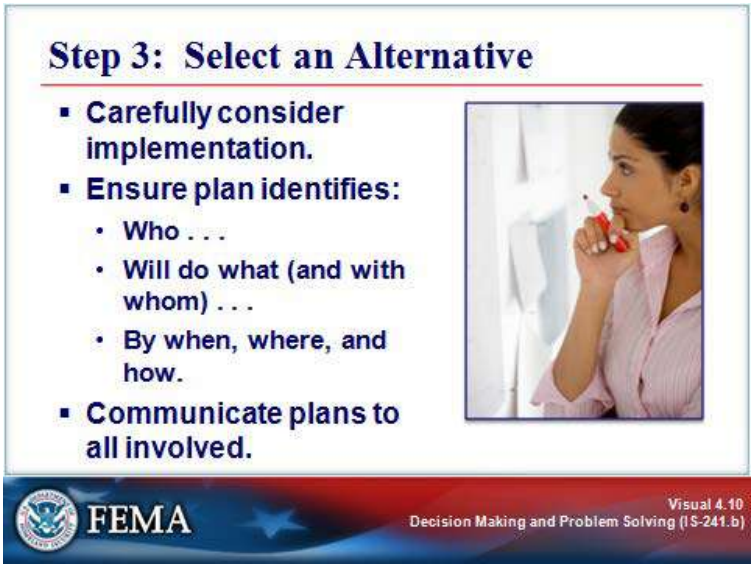
- **Identifying contingencies.** Consider the future and think about all of the things that can get in the way of solving the problem you are facing.
- **Determining objectives.** Develop objectives that clearly state what you need to do to be successful. The objectives will drive the alternative solutions and, ultimately, the solution selected. They should also allow you to monitor progress and help you prioritize how time and resources are allocated.
- **Identifying needed resources.** Identify the people, information (data), and things needed to resolve the problem.

To identify needed resources, determine:

- What resources are needed?
- Where will I get them?
- How long will it take?
- What can others offer?
- Are there any special requirements?

## USING THE PROBLEM-SOLVING MODEL

**Visual 4.10**




**Instructor Notes: Present the following key points.**

There may be repercussions to any solution selected. Carefully consider how the solution will be implemented before selecting an alternative.

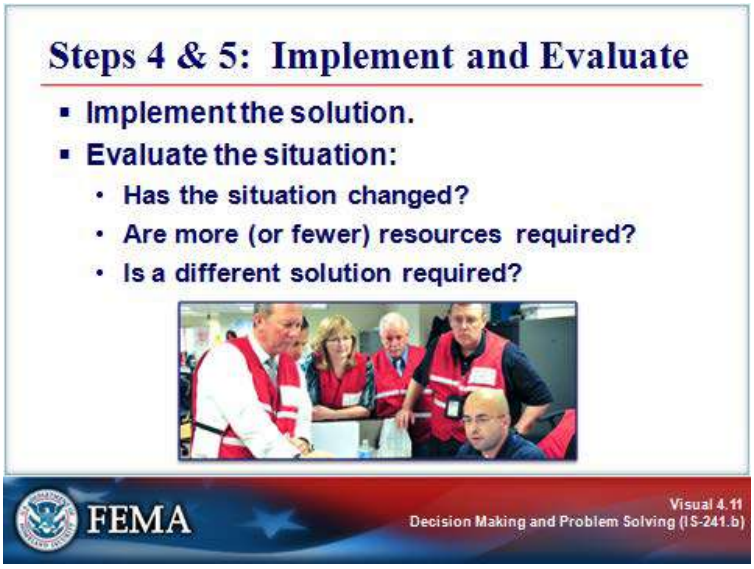
In a crisis, selecting an alternative involves building a plan that states:

- Who
- Will do what (and with whom)
- By when
- Where
- How

Plans need to be communicated to all parties involved.

## USING THE PROBLEM-SOLVING MODEL

**Visual 4.11**




**Instructor Notes: Present the following key points.**

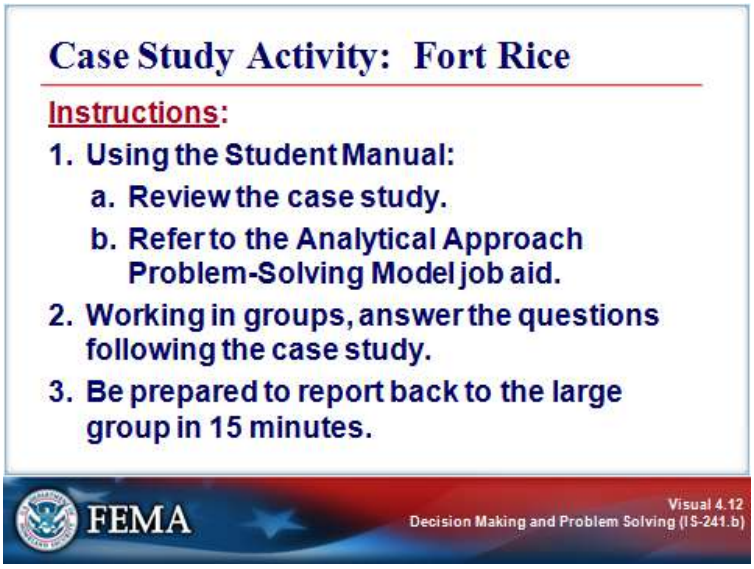
Take action to implement the selected solution.

During evaluation, identify if the situation has changed, more or fewer resources are required, or a different alternative solution is required.

Monitoring the success of a solution is an ongoing process that is critical to fine-tuning a course of action.

## CASE STUDY ACTIVITY: FORT RICE

**Visual 4.12**




**Instructor Notes: Present the following key points.**

**Instructions:** Working in groups, follow the steps below to complete this activity:

1. Review the details of the case study in the previous lesson of your Student Manual.

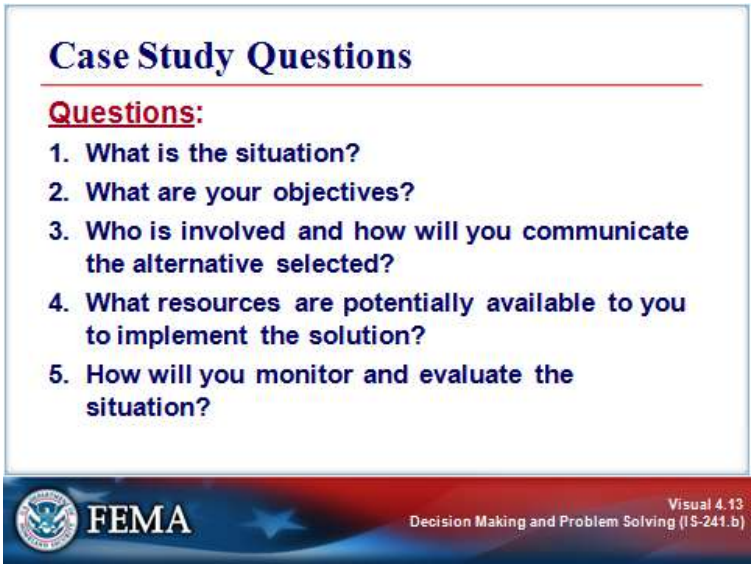
2. Refer to the Analytical Approach Problem-Solving Model job aid introduced in Lesson 2, as needed.

3. Select a spokesperson and be prepared to share your answers in 15 minutes.

Don't worry if you are not providing all of the details of the full process. The point of this activity is for you to consider how you would use the process in a crisis situation.

## CASE STUDY ACTIVITY: FORT RICE

**Visual 4.13**



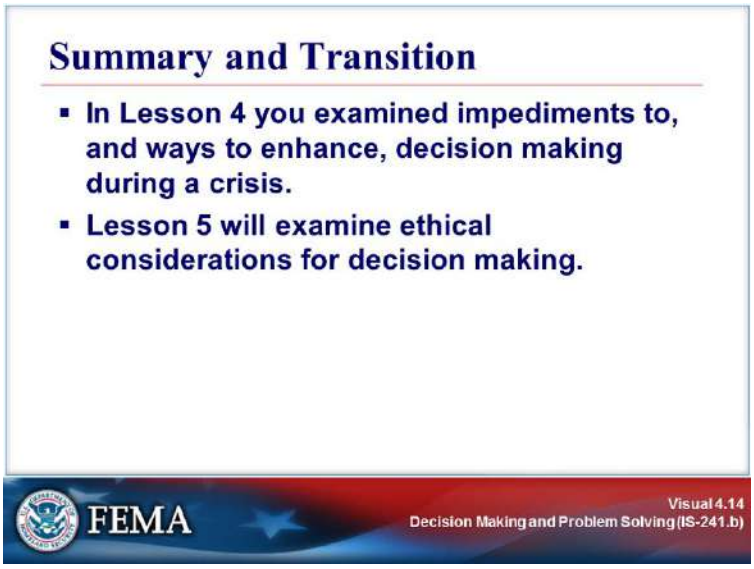

**Instructor Notes: Present the following key points.**

Working in assigned groups, respond to the following questions about the case study.

| | |
|---|---|
| 1. What is the situation? | |
| 2. What are your objectives? | |
| 3. Who is involved and how will you communicate the alternative selected? | |
| 4. What resources are potentially available to you to implement the solution? | |
| 5. How will you monitor and evaluate the situation? | |

## SUMMARY AND TRANSITION

**Visual 4.14**




**Instructor Notes: Present the following key points.**

In Lesson 4 you examined impediments to, and ways to enhance, decision making during a crisis.

Lesson 5 will examine ethical considerations for decision making.

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# LESSON 5. ETHICAL DECISION MAKING

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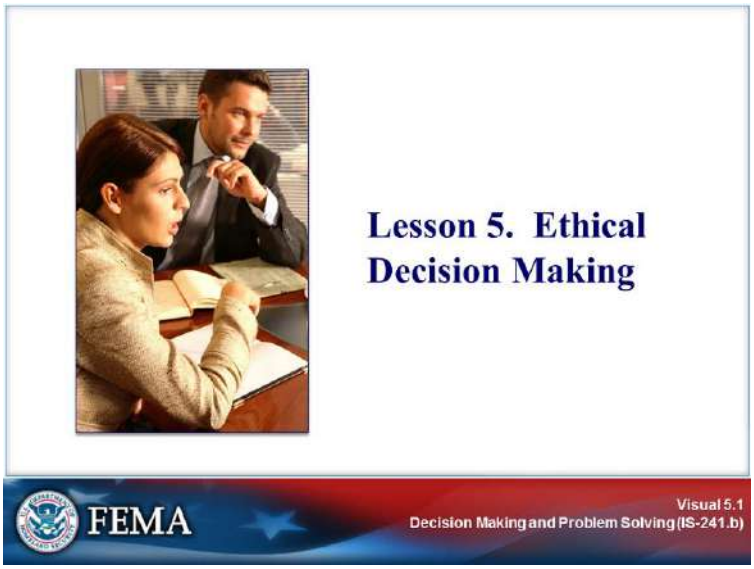
## Lesson 5. Ethical Decision Making

### INTRODUCTION

### Visual 5.1



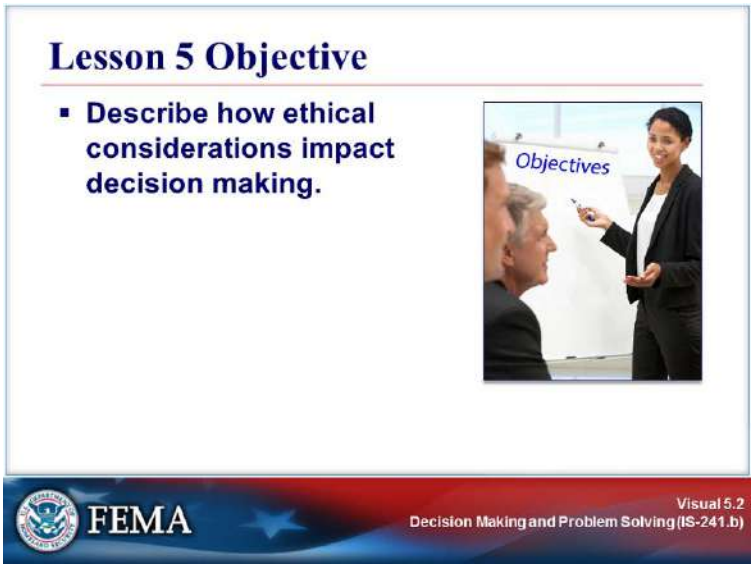

### Key Points

In this lesson, you will explore what it means to make ethical decisions, and consider a framework for approaching ethical situations.

## Lesson 5. Ethical Decision Making

### INTRODUCTION

**Visual 5.2**




**Key Points**

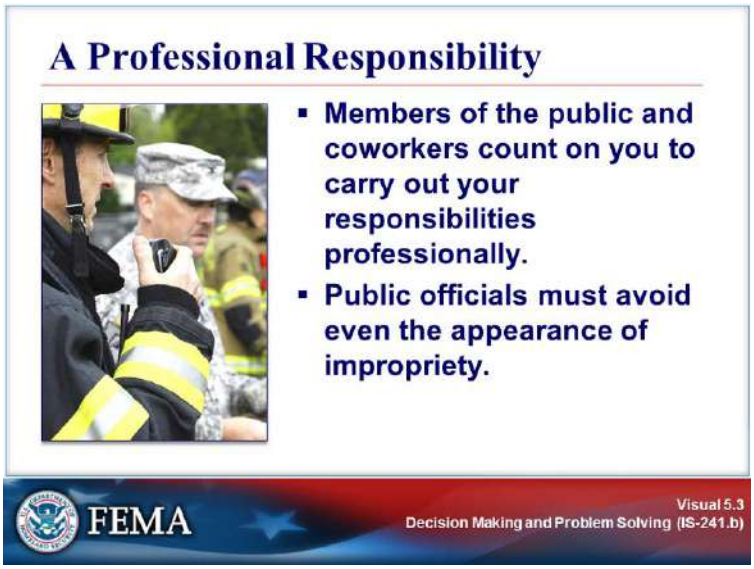
At the end of this lesson, the participants will be able to:

- Describe how ethical considerations impact decision making.

## Lesson 5. Ethical Decision Making

### INTRODUCTION

### Visual 5.3




### Key Points

As an emergency management professional, you represent your organization and your profession. Your actions must instill trust and confidence in those with whom you work and in those who depend on you for assistance. In an emergency, victims and coworkers must be able to count on you to carry out your responsibilities in a professional and fair manner.

**What's at Stake?**

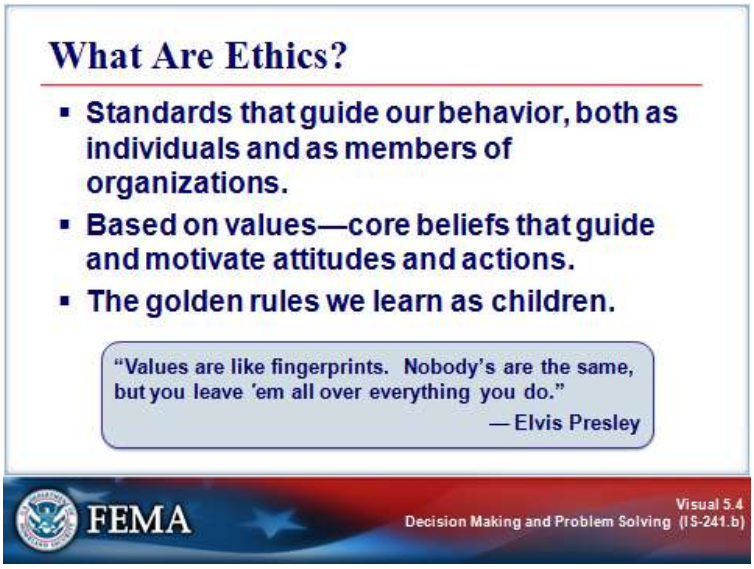
At stake in ethical situations arising from emergencies are the following:

- Your personal reputation,
- Your agency's reputation, and
- Ultimately, the public's trust in local government's ability to do the right thing.

Also, it is not enough to do the right thing. Public officials must avoid even the appearance of impropriety.

## WHAT ARE ETHICS?

### Visual 5.4



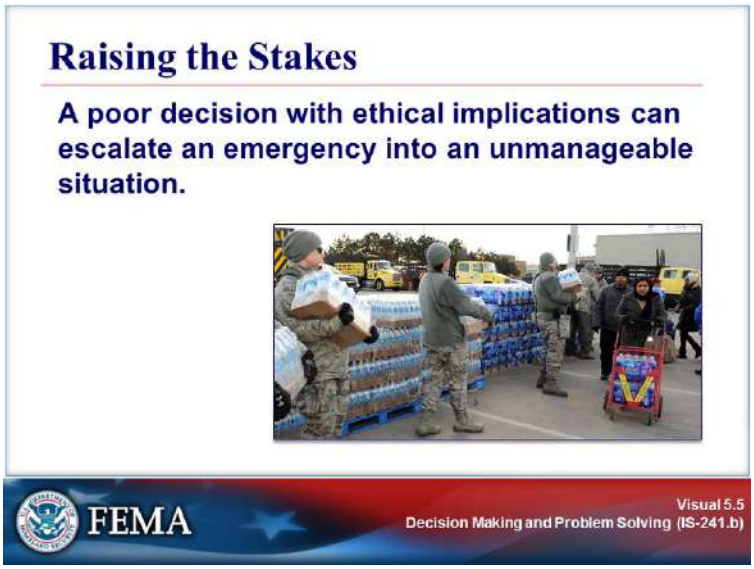

### Key Points

Answer the following discussion question: **What is ethics?**

**Ethics** consist of a set of standards that guide our behavior, both as individuals and as members of organizations. The ethical principles for this discussion are simple standards of right and wrong that we learn as children (the "golden rules"), such as being honest and fair and treating others with respect.

## WHAT ARE ETHICS?

### Visual 5.5



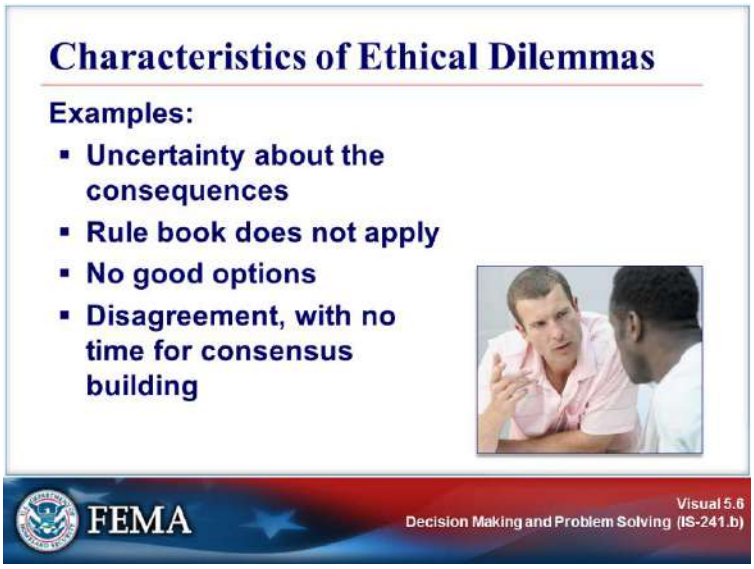

### Key Points

Emergency situations can transform routine decisions into higher profile turning points with serious ethical implications.

A poor decision with ethical implications can escalate an emergency into an unmanageable situation as the emergency response progresses.

## WHAT ARE ETHICS?

### Visual 5.6




### Key Points

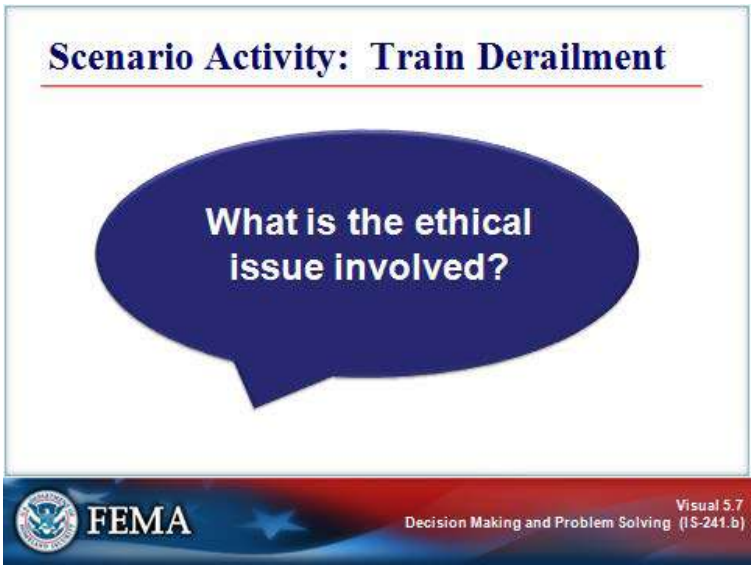
The difference between ordinary decision making and ethical decision making is the nature of the problem to be solved.

The following circumstances are examples of situations where ethical dilemmas often arise:

| Circumstance | Description |
|---|---|
| Uncertainty About the Consequences | Making decisions is difficult when we are uncertain if our actions will work, especially when the decision could cause negative consequences, such as someone being hurt. |
| Rule Book Does Not Apply | Applying rules takes some skill in interpreting the intent. As much as following the rules can be limiting, it is often more difficult to make a tough decision when there is no legal precedent, no clear policy guidance, or no established procedures. |
| No Good Options | When none of the options is a clearly positive choice, decision making is particularly difficult. In this case, the lesser of the two in terms of negative consequences frequently is the better option. |
| Disagreement, With No Time for Consensus Building | Often there is strong disagreement among coworkers, stakeholders, or the community about the best course of action, in conjunction with limited time to build consensus. Ethical decisions may end up being lose/win or lose/lose decisions rather than win/win. |

## SCENARIO ACTIVITY: TRAIN DERAILMENT

### Visual 5.7




### Key Points

**Purpose:**

This activity will provide an opportunity for you to examine some of the ethical issues that can arise during an emergency.

**Instructions:**

1. Read the scenario that follows.
2. Answer the question that appears after the scenario.
3. Be prepared to share your answer with the group.

## SCENARIO ACTIVITY: TRAIN DERAILMENT

**Visual 5.7 (Continued)**

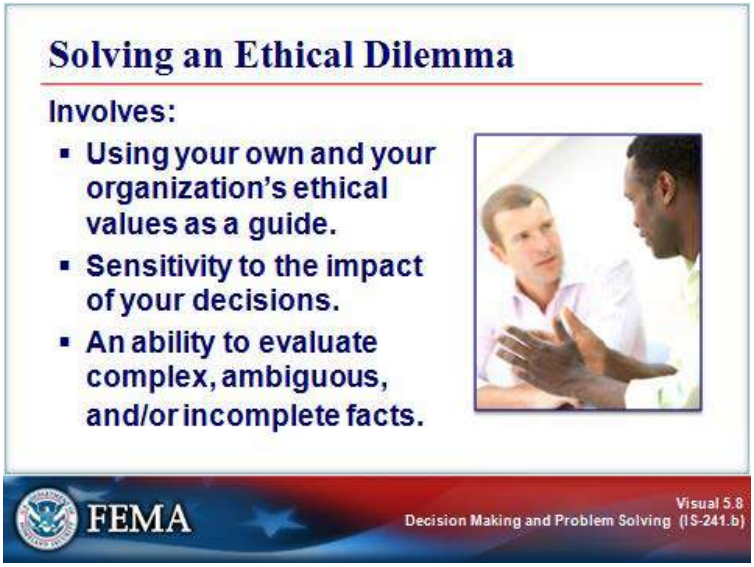
**Scenario: Train Derailment**

On April 17 at 10 a.m., a train carrying 25 propane tankers derailed and began to burn. After an initial evaluation, the incident commander ordered an immediate evacuation of the community, telling evacuees the evacuation was "precautionary" and to expect it to last not more than 2 or 3 hours. After 4 hours, the incident commander, in consultation with Emergency Operations Center personnel and chemical experts, determined that the evacuation should continue until the fire burns out. People who were away from home when the fire started are now returning to the area and want to rescue their pets.

**What are the ethical issues involved in this scenario?**

## COMPONENTS OF ETHICAL DECISION MAKING

### Visual 5.8




### Key Points

Ethical decision making requires being aware of your own and your organization's ethical values, and using those values as a guide when making decisions.

It also involves being sensitive to the impact of your decisions and being able to evaluate complex, ambiguous, and/or incomplete facts.

## COMPONENTS OF ETHICAL DECISION MAKING

### Visual 5.9


### Key Points

Three components of ethical decision making are:

- Commitment,
- Consciousness, and
- Competency.

## COMPONENTS OF ETHICAL DECISION MAKING

### Visual 5.10

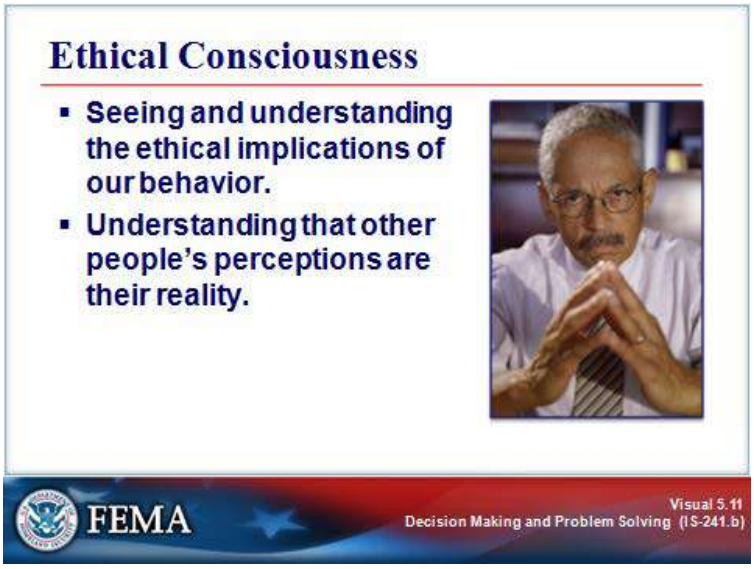

### Key Points

**Ethical commitment** (or motivation) is demonstrating a strong desire to act ethically and to do the right thing, especially when ethical action imposes financial, social, or psychological costs.

For example, evacuating community members in a crisis can be complicated by lack of cooperation. In this case, commitment to the whole community may necessitate allowing persons who are unwilling to evacuate to remain.

## COMPONENTS OF ETHICAL DECISION MAKING

### Visual 5.11




### Key Points

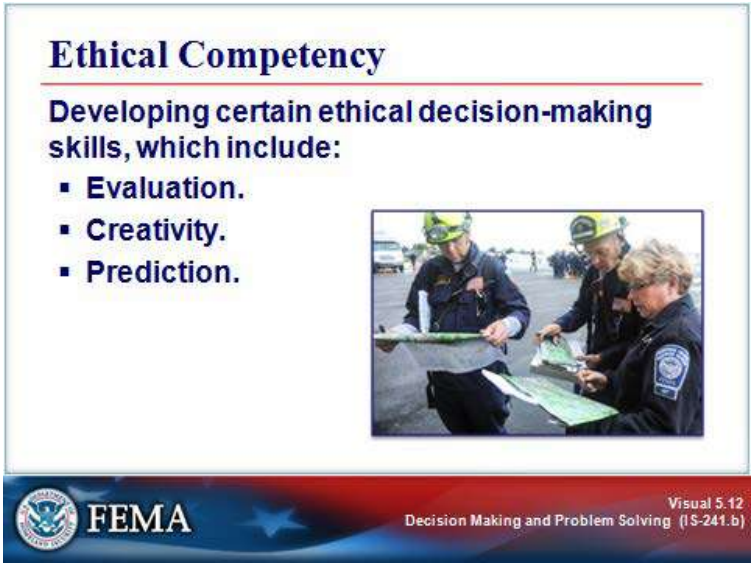
**Ethical consciousness** (or awareness) involves seeing and understanding the ethical implications of our behavior and applying our ethical values to our daily lives.

Understand that people's perceptions are their reality—and so what we understand to be perfectly legal conduct may be perceived by taxpayers as improper or inappropriate.

For example, a decision to prioritize vaccination of public safety and health care workers when supplies are limited may be seen by the public as unethical (however practical). In this case, action could be taken to enhance public awareness.

## COMPONENTS OF ETHICAL DECISION MAKING

### Visual 5.12




### Key Points

**Ethical competency** (or skill) involves being competent in ethical decision-making skills, which include:

- **Evaluation.** The ability to collect and evaluate relevant facts, and knowing when to stop collecting facts and make prudent decisions based on incomplete and ambiguous facts.
- **Creativity.** The capacity to develop resourceful means of accomplishing goals in ways that avoid or minimize ethical problems.
- **Prediction.** The ability to foresee the potential consequences of conduct and assess the likelihood or risk that persons will be helped or harmed by an act.

## COMPONENTS OF ETHICAL DECISION MAKING

### Visual 5.13


### Key Points

Keep these "do's" in mind:

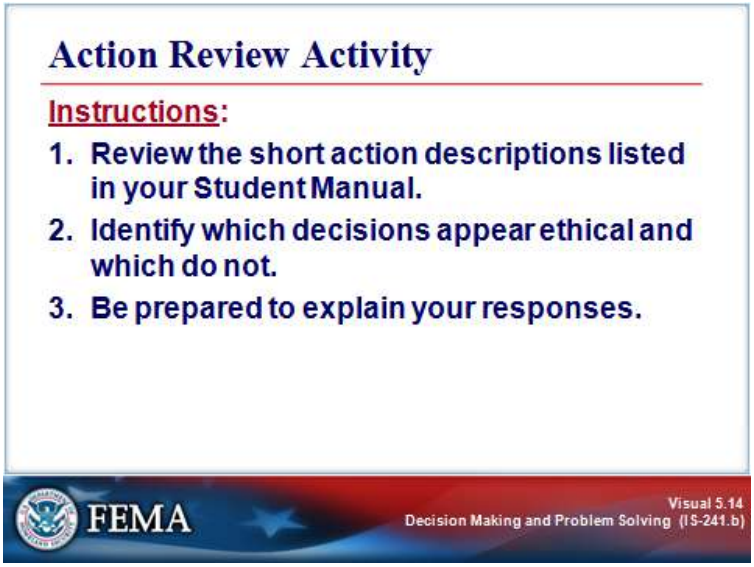
- Place the law and ethical principles above private gain.
- Act impartially. Do not show favoritism to one group (e.g., victims or contractors) over another. Two aids in acting impartially include making sure that all affected parties receive full disclosure, and seeking prior authorization before taking action.
- Protect and conserve agency property. This standard applies both to your actions and to the actions that you should take if you observe fraud, waste, or abuse.
- Put forth an honest effort in everything even remotely connected to your official position.
- Avoid even the appearance of ethical violations. Take the extra step of making sure that your actions (even if they are above-board) could not be seen as unethical. Think about how your actions would read on the front page of the newspaper.

The following "don'ts" address specific ethical challenges in a crisis or emergency situation.

- Don't use your position to seek personal gain. Examples of seeking personal gain would include:
  - Soliciting gifts.
  - Making official decisions that benefit you financially.
  - Using inside information gained through your position to benefit you and/or your family.
  - Using agency time or property (e.g., a phone or car) for personal reasons.
  - Using your official position or accepting compensation to endorse a product.
- Don't exceed your authority or make promises.

## ACTION REVIEW ACTIVITY

### Visual 5.14



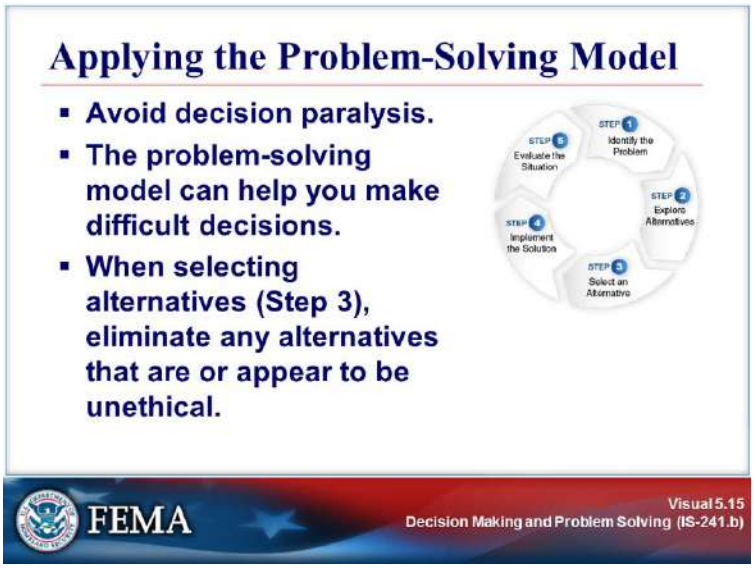

### Key Points

Read the statements below and indicate which of the actions appear ethical and which do not.

| Action Descriptions | Appears Ethical | Appears Unethical |
|---|---|---|
| 1. Providing more information to one group of evacuees than to another group. | | |
| 2. Involving the community in advance concerning decisions about evacuation priorities. | | |
| 3. Assigning a decision about a potential contract to another person in the organization when one of your relatives owns one of the bidding companies. | | |
| 4. Using inside information gained through your position to benefit yourself or your family. | | |

## APPLYING THE PROBLEM-SOLVING MODEL

**Visual 5.15**




**Instructor Notes: Present the following key points.**

Ethical dilemmas can be paralyzing—it is dangerous to get tied up in knots and stop making decisions entirely.

Using the problem-solving model can help you make difficult decisions. Think for a moment about the problem-solving model discussed in Lesson 2 and reexamine it in light of what you've just learned about ethics

In using the problem-solving model, when selecting an alternative (Step 3), you should eliminate any alternatives that are unethical—or that give the appearance of being unethical.

## ETHICAL CONSIDERATIONS

### Visual 5.16


### Key Points

When applying the model to ethical situations, be sure to consider:

- Who is affected.
- What is at stake.
- Stakeholder needs and values.
- Your values and those of your organization.
- All ethical perspectives that apply.

A list of questions that will help you apply the process to ethical situations is included on the following page.

## ETHICAL CONSIDERATIONS

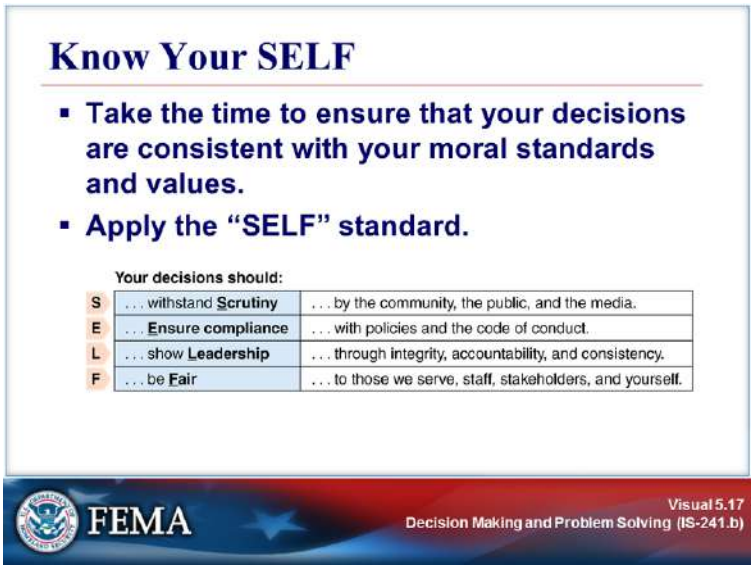
**Visual 5.16 (Continued)**

**Questions To Ask When Applying the Problem-Solving Model to Ethical Situations**

| Step | Ethical Considerations | Questions To Ask |
|---|---|---|
| 1. Identify the problem. | ▪ Identify the situation, who is affected, and what is at stake. | ▪ What is happening? What could happen if action is not taken?<br>▪ Who is affected? How?<br>▪ What do the different parties have at stake? Do some parties have a greater stake (or more to lose)? |
| 2. Explore alternatives. | ▪ Collect all the facts.<br>▪ Consult experts.<br>▪ Consider stakeholder needs/values. | ▪ What are the relevant facts needed to make the decision?<br>▪ What facts are unknown?<br>▪ What are the experts advising? Why?<br>▪ What are the needs of all stakeholders?<br>▪ How do the different stakeholders view the situation? |
| 2. Explore alternatives (continued). | ▪ Evaluate alternative actions from various ethical perspectives. | ▪ What are the options for acting?<br>▪ Have all the relevant persons and groups been consulted in the time available?<br>▪ How do these alternatives look over the long run as well as the short run?<br>▪ Think of the wisest person you know. What would he or she do in this situation? |
| 3. Select an alternative. | ▪ Make a decision and test it. | ▪ How does your decision measure up against values such as honesty, fairness, equality, respecting the dignity of others, respecting people's rights, and recognizing the needs of the most vulnerable community members? |
| 4. Implement the solution.<br>5. Evaluate the solution. | ▪ Act, assess, and learn for the future. | ▪ What have we learned from this situation? |

## ETHICAL CONSIDERATIONS

### Visual 5.17




### Key Points

Ethical decision making requires taking the time needed to make sure that your decisions are consistent with your moral standards and values. One way to ensure that you are making ethical decisions consistently is to apply the "SELF" standard. This process can help to uncover small inconsistencies that can undermine personal integrity.

**Applying the SELF Standard: Questions To Ask**

| Decisions Should: | Ask Yourself: |
|---|---|
| **S:** Withstand **S**crutiny | ▪ Will I be proud of my decision?<br>▪ Will my decision reflect honesty, integrity, fairness, and truthfulness? |
| **E:** **E**nsure Compliance | ▪ Will my decision or conduct comply with the law?<br>▪ Will my decision or conduct create value?<br>▪ Will my decision or conduct reflect and promote the core values of my organization? |
| **L:** Show **L**eadership | ▪ Am I being pressured or unduly influenced by others?<br>▪ Am I being driven by my emotions?<br>▪ Have I filtered out my ego needs and self-interests?<br>▪ Are there other alternatives I should consider? |
| **F:** Be **F**air | ▪ Will my decision be judged fair now and in the future?<br>▪ Have I considered the needs and interests of those who might be affected by my decision or conduct?<br>▪ What will be the consequences of my decision?<br>▪ Who could be harmed by my decision?<br>▪ Who will benefit from my decision? |

## ETHICAL CONSIDERATIONS

### Visual 5.18

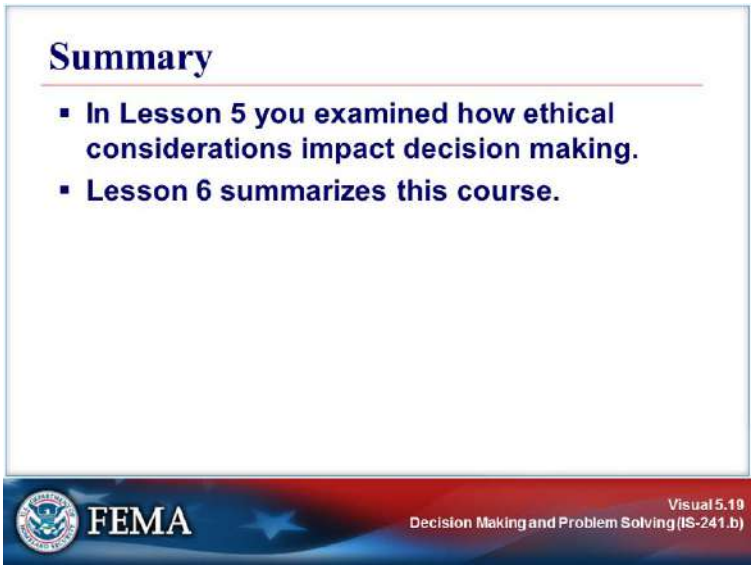

### Key Points

A simple way to apply the scrutiny test to your decision is to ask yourself:

- Could I explain my decision to Mom?
- How well will sleep?
- What's the likely headline?

## SUMMARY AND TRANSITION

### Visual 5.19




### Key Points

In Lesson 5, you examined ethical decision making and problem solving. Lesson 6 summarizes this course.

**Online Training:**

- IS-33.13: FEMA Initial Ethics Orientation 2013 (http://training.fema.gov/EMIWeb/IS/courseOverview.aspx?code=is-33.13)

**For More Information:**


- Alsott, J. D. The Search for Honor: An Inquiry into the Factors That Influence the Ethics of Federal Acquisition. In J. A. Petrick, W. M. Claunch, & R. F. Scherer (Eds.), *Institutionalizing Organizational Ethics Programs: Contemporary Perspectives* (pp. 182-194). Dayton, OH: Wright State University, 1991.
- Atwood, D. J. Living up to the Public Trust. *Defense Issues*, Vol. 5, 1990, p. 1.
- Crawford, S. J., III. Wind and Well-Learned Lessons. *Defense,* Vol. 90, July-August 1990, p. 15.
- Josephson, M. *Making Ethical Decisions.* The Josephson Institute of Ethics, 1992, 1993.
- Karp, H. B. & Abramms, B. Doing the Right Thing. *Training and Development,* August 1992, pp. 37-41.
- Executive Order 12731, Principles of Ethical Conduct for Government Officers and Employees. *Federal Register,* Vol. 55, No. 203, October 19, 1990.
- Government Ethics Center of the Joseph and Edna Josephson Institute of Ethics. *Ethics at the IRS: A Quest for the Highest Standards.* (Internal Revenue Service Management Training Program: Workshop and Resource Materials). Marina Del Rey, CA, 1991.

**SUMMARY AND TRANSITION**

**Visual 5.19 (Continued)**

**For More Information (Continued)**


- Jennings, B. & Arras, J. Ethical Guidance for Public Health Emergency Preparedness and Response: Highlighting Ethics and Values in a Vital Public Health Service. Ethics Subcommittee, Advisory Committee to the Director, Centers for Disease Control and Prevention, October 30, 2008.
- Roberts, M. & Renzo, E. G. Ethical Considerations in Community Disaster Planning. In Phillips, S. J. & Knebel, A. (Eds.), Mass Medical Care with Scarce Resources: A Community Planning Guide (Chapter 2). AHRQ Publication No. 07-0001. Rockville, MD: Agency for Healthcare Research and Quality, 2007.

# LESSON 6. COURSE SUMMARY

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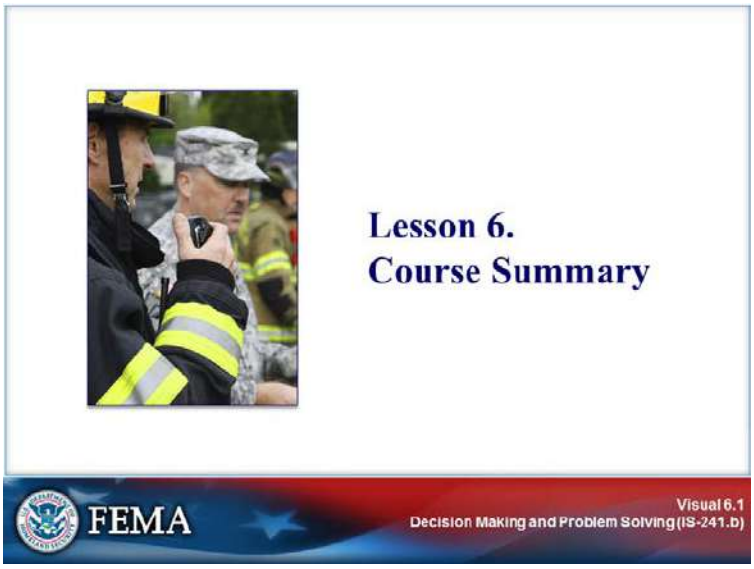
## Lesson 6. Course Summary

### INTRODUCTION

**Visual 6.1**



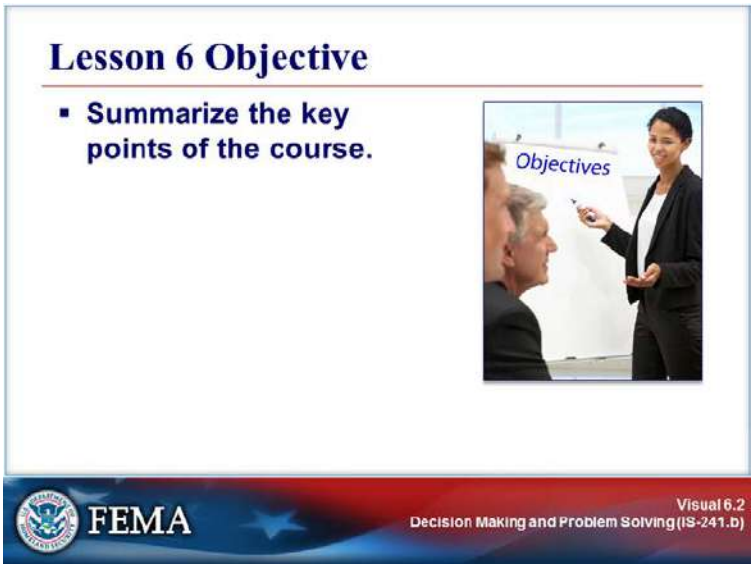

**Key Points**

This lesson will summarize the key points of the course.

## Lesson 6. Course Summary

### INTRODUCTION

**Visual 6.2**

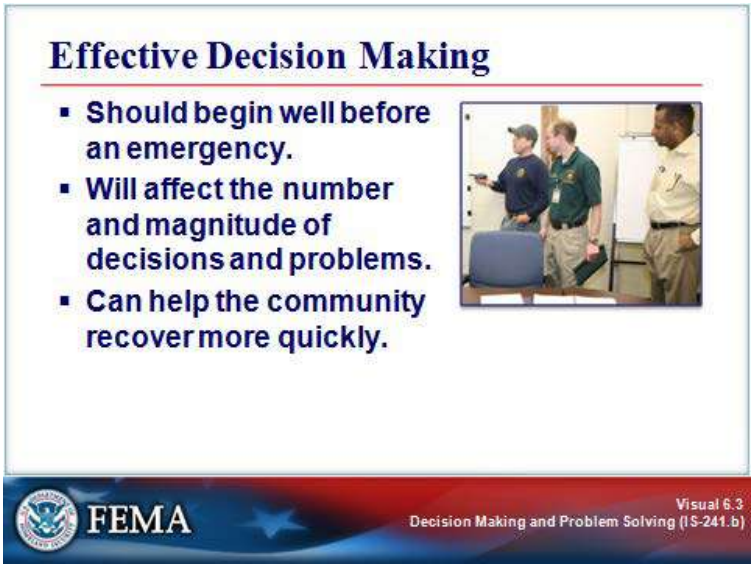



**Key Points**

At the end of this lesson, the participants will be able to summarize the key points of the course.

## EFFECTIVE DECISION MAKING

### Visual 6.3




### Key Points

The ability to make sound, timely decisions prior to and during an emergency is critical.

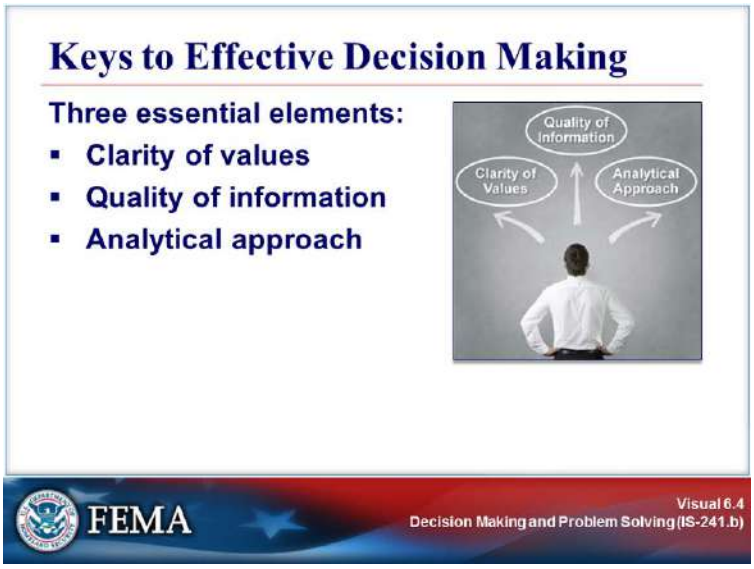
Effective decision making can:

- Avert tragedy.
- Help manage incidents.
- Build community trust and support.
- Help the community recover from an event more quickly.

Poor decisions in the early stages of an event can make the responders' job more difficult and more dangerous. In addition, making poor decisions early in an emergency situation can give rise to much more critical or complex decisions later on—to say nothing of the effect on community relations.

## EFFECTIVE DECISION MAKING

### Visual 6.4




### Key Points

Three key elements are essential for effective decision making:

- Clarity of values
- Quality of information
- Analytical approach

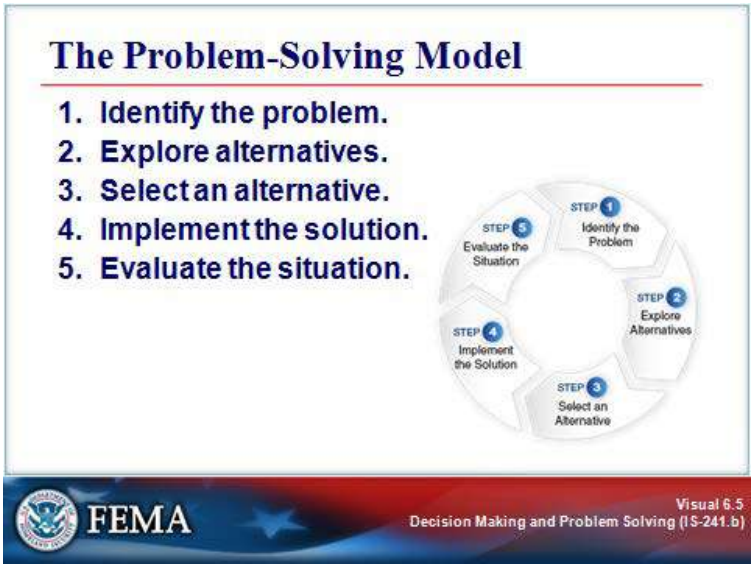
**Clarity of Values:** Unless you have a clear view of your values—what you want to achieve, preserve, and prevent—and keep them in mind at each step in the process, it can become difficult to balance the many factors that influence decision making in a meaningful way.

**Quality of Information:** Data used in decision making must be accurate and reliable. Failure to verify information can lead to poor decisions—sometimes with serious consequences.

**Analytical Approach:** It is helpful to have a defined process that leads to a solution or a decision. This course introduced a commonly used five-step model.

## THE PROBLEM-SOLVING MODEL

### Visual 6.5




### Key Points

The problem-solving model presented in this course contains five steps.

1. **Identify the problem.** This step includes delineating the problem parameters such as:
   - What is happening (and not happening)?
   - Who is involved?
   - What are the stakes?

2. **Explore alternatives.** This step includes two parts:
   - Generating alternatives through techniques such as brainstorming, surveys, or discussion groups.
   - Evaluating alternatives using a consistent process.

3. **Select an alternative.** Select the alternative that comes closest to solving the problem with the most advantages and fewest disadvantages.

4. **Implement the solution.** This step includes five parts:
   - Developing an action plan.
   - Determining objectives or measurable targets.
   - Identifying needed resources.
   - Building a plan.
   - Implementing the plan.

5. **Evaluate the situation.** This step includes two parts:
   - Monitoring progress.
   - Evaluating the results.

## GROUP/TEAM DECISION MAKING

### Visual 6.6


### Key Points

Group or team decision making is often a good choice when:

- The situation is complex.
- Consequences are significant.
- Commitment and buy-in are important.
- There is time for deliberation and consensus building.

Among its advantages, group decision making:

- Generates more favorable outcomes through synergy and shared information.
- Provides a broader perspective and taps a wider range of expertise by representing multiple viewpoints and areas of specialization.
- Taps the creative potential of team members who may come up with alternatives not envisioned by a single individual.
- Allows for discussion to help answer questions and reduce uncertainties for the decision makers.
- Makes use of a wider range of resources in applying the process and implementing the solution.
- Helps build ownership and buy-in by stakeholders.

## GROUP/TEAM DECISION MAKING

### Visual 6.7


### Key Points

The following practices will make a group's decision-making process more effective:

- Adding diversity.
- Forming smaller groups and working groups.
- Fostering consensus.
- Clarifying member roles.
- Establishing ground rules.

## CRISIS DECISION MAKING

### Visual 6.8


### Key Points

Decision making in a crisis situation must take place quickly and efficiently and be based on a comprehensive view of the situation.

Several factors can impede decision making in an incident, including:

- Time pressure.
- Problems with information.
- Losing the "big picture."
- Fatigue.
- Conflicting priorities.
- Stress.

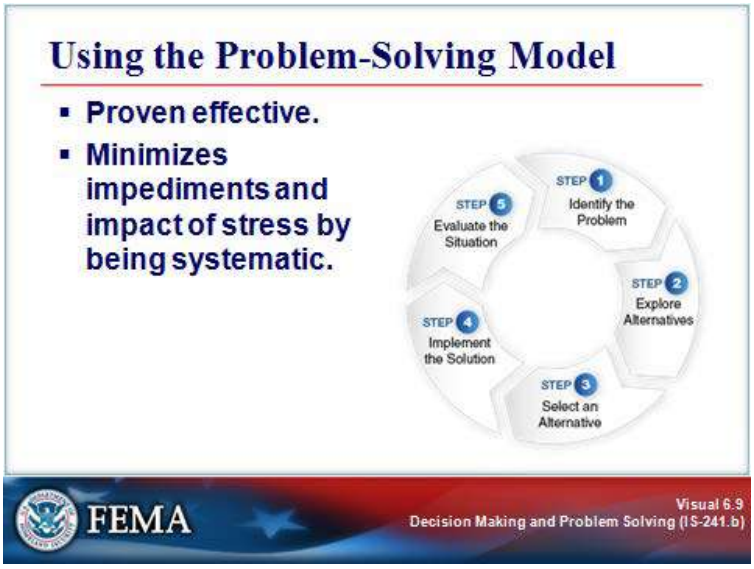
Decisions made at all levels must be based on a common operating picture that is achieved through full and up-to-date situational awareness.

A common operating picture supports crisis decision making and provides all appropriate parties the same critical information about the incident, including:

- Current status and evolving situation.
- Availability and location of resources.
- Needed resources.

## USING THE PROBLEM-SOLVING MODEL

### Visual 6.9




### Key Points

One of the best ways to minimize the impediments to decision making and the impact of stress is to be systematic.

Using a problem-solving model has proven effective in emergency situations.

## ETHICAL DECISION MAKING

### Visual 6.10


### Key Points

Ethical dilemmas often arise when:

- There is uncertainty about the circumstances.
- The rule book does not apply.
- There are no good options.
- Disagreement about the best course of action exists, with no time for consensus building.

Ethical decision making has three components:

- Commitment or motivation.
- Consciousness or awareness.
- Competency or skill.

## ETHICAL DECISION MAKING

### Visual 6.11


### Key Points

Ethics consist of a set of standards that guide our behavior, both as individuals and as members of organizations.

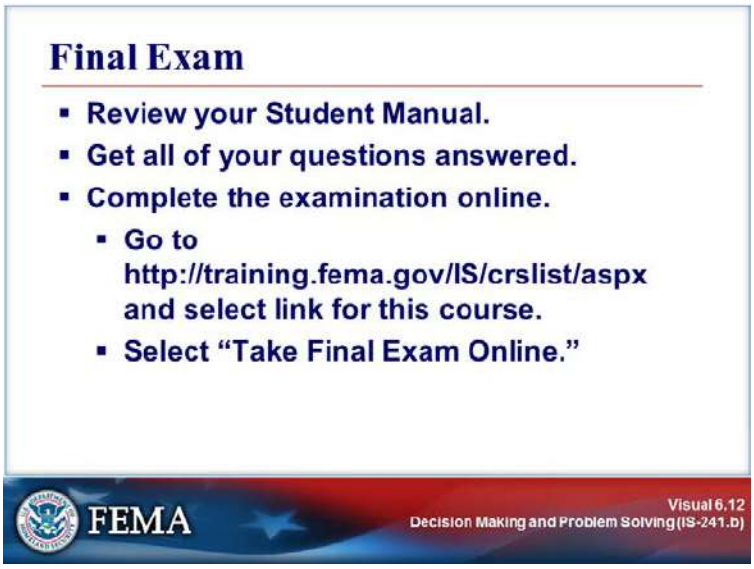
The visual lists common ethical do's and don'ts.

The application of ethics to the problem-solving model takes place primarily in Step 3, selecting alternatives, by eliminating any alternatives that are unethical or give the appearance of being so.

## Lesson 6. Course Summary

**FINAL EXAM**

**Visual 6.12**




**Key Points**

Complete the final exam and course evaluation forms.

Exam Instructions:

1. Take a few moments to review your Student Manual and identify any questions.
2. Make sure that you get all of your questions answered prior to beginning the exam.
3. Go to http://training.fema.gov/IS/crslist.aspx and select the link for this course (IS-241.b).
4. Select "Take Final Exam Online."
5. You must submit the exam online to receive a certificate of completion.

When taking the online examination:

- Read each item carefully.
- Select your answer.
- Check your work and complete the course registration form on the last page of the online examination.

You may refer to the Student Manual while completing the exam.

After taking the exam, you will receive an email message with a link to your electronic certificate.

# JOB AID: ANALYTICAL APPROACH PROBLEM-SOLVING MODEL

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# Job Aid: Analytical Approach Problem-Solving Model

This job aid presents a detailed description of the analytical approach process, including checklists and worksheets. This analytical approach process involves five steps:

- Step 1: Identify the problem.
- Step 2: Explore alternatives.
- Step 3: Select an alternative.
- Step 4: Implement the solution.
- Step 5: Evaluate the situation.


## Step 1. Identify the Problem

Problem identification is undoubtedly the most important and the most difficult step in the process. All subsequent steps will be based on how you define and assess the problem at hand.

### What Is a "Problem"?

A problem is a situation or condition of people or the organization that will exist in the future, and that is considered undesirable by members of the organization.

### Problem or Solution?

In carrying out Step 1, you must distinguish between a problem and its solution. The most common error in problem solving is defining problems in terms of their solutions. Sometimes people think that they are articulating problems when actually they are stating a potential solution.

Here's an example: Someone might say, "The problem is that we don't have an EOC." The problem, however, is not that there is no EOC. The problem is really that the emergency management community cannot coordinate communications adequately during the response phase. Establishing an EOC is a solution.

### Delineating the Problem Parameters

Identifying the problem also involves analyzing the situation to determine the extent of the problem. Problem parameters include:

- What is happening (and is not happening)?
- Who is involved?
- What are the stakes?

The checklist on the following pages presents a set of questions that can help you define a problem accurately.

## Checklist for Identifying, Defining, and Analyzing Problems

| Question | | |
|---|---|---|
| 1. Is this a new problem? | Yes ☐ | No ☐ |
| 2. Is the problem clearly and precisely stated? | Yes ☐ | No ☐ |
| 3. What assumptions am I making about the problem? Are they true? | Yes ☐ | No ☐ |
| 4. What would happen if nothing was done about this problem? | | |
| 5. Can the problem be restated in other terms? If yes, how? | Yes ☐ | No ☐ |
| 6. What data are known that bear on the problem? | | |

## Checklist for Identifying, Defining, and Analyzing Problems (Continued)

| Question | | |
|---|---|---|
| 7. Is the information accurate? | Yes ☐ | No ☐ |
| 8. Are there any precedents or rules about other procedures that apply to the problem? If so, what precedents or rules apply? | Yes ☐ | No ☐ |
| 9. What additional facts are needed to analyze the problem? (List.) | | |
| 10. Is it possible to interpret the facts differently? How would that affect the problem's solution? | Yes ☐ | No ☐ |
| 11. Do I have to make this decision, or does someone else? If this decision is someone else's to make, whose is it? | Yes ☐ | No ☐ |

## Step 2. Explore Alternatives

The second step in the decision-making process is to explore alternative solutions to the problem identified in Step 1. This step really consists of two parts:

- Generating alternatives
- Evaluating alternatives

### Techniques for Generating Alternatives

- **Brainstorming** can be done individually or in a group. Brainstorming requires an environment in which the participants (individuals or group members) are free to "think out loud." Participants blurt out as many ideas as possible within a specified time period. No evaluation of ideas is permitted so as to encourage the free flow of creative ideas. These ideas are recorded. When the specified time period ends, then evaluation of the ideas begins.

- **Surveys** economically tap the ideas of a large group of respondents. Surveys present respondents with the problem and a series of alternative solutions.

- **Discussion groups** should consist of those who are directly involved in decision making. In generating alternatives, the group members should:

  - Be comprehensive.
  - Avoid initial judgments (as in brainstorming).
  - Focus on the problem, not on the personalities of the people involved in the decision-making process. (But be sensitive to the impact of personalities on the process.)

### Criteria for Evaluating Alternatives

After you have generated alternative solutions, you must have some means of evaluating them. The table on the following page lists criteria by which you can evaluate alternatives.

Another part of evaluation is identifying contingencies—what could go wrong. Think in terms of Murphy's Law ("If anything can go wrong, it will.") and identify what could get in the way of solving the problem you are facing.

## Criteria for Evaluating Alternatives

| Step | Questions To Ask |
|---|---|
| 1. Identify Constraints | Do any of the following factors serve as a limitation on this solution?<br>▪ Technical (limited equipment or technology)<br>▪ Political (legal restrictions or ordinances)<br>▪ Economic (cost or capital restrictions)<br>▪ Social (restrictions imposed by organized groups with special interests)<br>▪ Human resources (limited ability of relevant people to understand or initiate certain actions)<br>▪ Time (requirements that a solution be found within a prescribed time period, thereby eliminating consideration of long-range solutions) |
| 2. Determine Appropriateness | Does this solution fit the circumstances? |
| 3. Verify Adequacy | Will this option make enough of a difference to be worth doing? |
| 4. Evaluate Effectiveness | Will this option meet the objective? |
| 5. Evaluate Efficiency | What is the cost/benefit ratio of this option? |
| 6. Determine Side Effects | What are the ramifications of this option? |

## Step 3. Select an Alternative

The third step in the problem-solving model is to select one of the alternatives explored in Step 2 for implementation. Selecting an alternative is a critical step in the problem-solving process. After you have evaluated each alternative, one should stand out as coming closest to solving the problem with the most advantages and fewest disadvantages.

Implementing the solution may not be easy, however. There may be repercussions, and you should complete a reality check to identify and evaluate the possible consequences of implementing the solution. Carefully consider how the solution will be implemented before selecting an alternative.

When selecting an alternative, you will encounter factors that affect your decision making. These factors may include:

- Political factors.
- Safety factors.
- Financial factors.
- Environmental considerations.
- Ethical factors.

Not all of these factors may be readily recognizable. As you examine the situation and apply the problem-solving model, be alert for these potential limits on the solutions that you can implement.

## Selecting Alternatives: Best Solutions

| **Solution:** |
|---|
| **Limiting Factors:** |
| Political: |
| Safety: |
| Financial: |
| Environmental: |
| Ethical: |
| Other: |

| **Solution:** |
|---|
| **Limiting Factors:** |
| Political: |
| Safety: |
| Financial: |
| Environmental: |
| Ethical: |
| Other: |

| **Solution:** |
|---|
| **Limiting Factors:** |
| Political: |
| Safety: |
| Financial: |
| Environmental: |
| Ethical: |
| Other: |

If you have more than one clear solution, can any be combined?

## Step 4. Implement the Solution

The fourth step involves five subparts.

- **Develop an action plan.** Implementation requires a series of steps to:
  - Articulate who has to do what, with what resources, by what time, and toward what goal.
  - Identify who must know about the decision.

  The Action Planning Checklist on the following page will help you to plan the details needed for implementation.

- **Determine objectives.** Objectives are measurable targets that are:
  - Used to monitor progress and establish priorities.
  - Based on analysis of the situation and contingencies.

- **Identify needed resources.** Resources include people, information (data), and things. Ask yourself:
  - What resources do I need?
  - Where will I get them?
  - How long will it take?
  - What can others offer?
  - Are there any special requirements?

- **Build a plan.** Your plan should state:
  - Who …
  - Will do what (and with whom) …
  - By when
  - Where
  - How

  Remember: Communicate the plan to all parties involved!

- **Implement the plan.** Use the action plan to put the decision in place.

## Action Planning Checklist

Use the following questions to help you develop any details needed to plan for implementation of the decision.

| **Question** |
|---|
| 1. Will the decision be implemented as it stands or will it have to be modified?<br>☐ As it stands<br>☐ With modifications (list) |
| 2. Does the decision fit the problem and conditions specified earlier? Yes ☐ No ☐ |
| 3. Is this action still the best option? Yes ☐ No ☐<br>If no, what has changed? |
| 4. What are the side effects of this decision? |
| 5. Who is responsible for taking action? |

## Action Planning Checklist (Continued)

| Question |
|---|
| 6. Are the specific targets to be accomplished and the techniques for accomplishing them defined? Yes ☐ No ☐<br>If no, what targets and techniques require further definition? |
| 7. What specific activities must take place to implement this decision? In what sequence? |
| 8. What resources will be needed to implement this decision? |
| 9. What is the schedule or timetable for implementation of each step in the action plan? |

## Step 5. Evaluate the Situation

Evaluation involves two parts, as described below:

- **Monitoring progress.** Ask:
  - Has the situation changed?
  - Are more (or fewer) resources required?
  - Is a different alternative solution required?

  Monitoring the success and results of a decision is an ongoing process that is critical to fine tuning a course of action.

- **Evaluating the results.** Use the following checklist to help you evaluate the decision.

### Evaluation Checklist

Use the questions below as a guide for evaluating the results of your decision making.

| Question | Yes | No |
|---|---|---|
| 1. How will you know if the proposed decision has worked?<br><br>Is it measurable? If yes, how? | ☐ | ☐ |
| 2. Do the decision and the action plan make use of existing channels of communication to generate feedback? | ☐ | ☐ |
| 3. Will the feedback test the effectiveness of the decision? | ☐ | ☐ |
| 4. Will the feedback be sufficient to reflect changing circumstances and conditions that might occasion the need to modify the plan? | ☐ | ☐ |
| 5. Is the solution achieving its purpose? | ☐ | ☐ |
| 6. Is timely information generated so that it can be supplied to operational, administrative, and policy units in the jurisdiction? | ☐ | ☐ |

**Notes**