Lesson Overview

This lesson describes environmental assessments (EAs) and environmental impact statements (EISs), and explains when each is required.

Lesson Objectives

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

▪ Describe the key components of an EA and explain when one is required.
▪ Describe the key components of an EIS and explain when one is required.

Environmental Assessments and Environmental Impact Statements

The previous lesson described the statutory exclusions (STATEXs) and categorical exclusions (CATEXs) granted to FEMA under the National Environmental Policy Act (NEPA). Now let's consider the two remaining possible outcomes of the NEPA review process.

Key Points

▪ Actions that are not eligible for STATEX or CATEX must undergo an environmental assessment.

▪ An EA may lead to an environmental impact statement.

▪ While the NEPA review process requires Federal agencies to consider the effects of their actions on the environment, an agency is not necessarily obligated to choose the most environmentally sound alternative.

NEPA Outcomes

As discussed in the previous lesson, there are four possible outcomes of a NEPA review.

▪ The action may qualify as a:
  ▪ **Statutory exclusion** (STATEX)
  ▪ **Categorical exclusion** (CATEX)

▪ If the action does not qualify as a STATEX or CATEX, it will require additional reviews and documentation, consisting of either:
  ▪ An **environmental assessment** (EA), or
  ▪ An **environmental impact statement** (EIS).

In this lesson, we will describe procedures for conducting an environmental assessment and an environmental impact statement.

Pathways to an EA or EIS

The following "If-Then" statements explain the pathways leading to an EA or EIS.

- If the action qualifies as a STATEX or CATEX, then the environmental review process under NEPA is complete.

- If the action does not qualify as a STATEX or CATEX, then an EA is required.
    - If the EA produces a Finding of No Significant Impact (FONSI), then the environmental review is concluded.
    - If the EA cannot result in a FONSI, then a Notice of Intent (NOI) is prepared and the EIS initiated.

- When the EIS is completed, then the environmental review process concludes with a Record of Decision (ROD).

Environmental Assessment

Actions that do not qualify as a STATEX or a CATEX must undergo an environmental assessment.

An EA is a concise document that presents an evaluation of the potential environmental, historical, and societal impact of the proposed project and alternatives.

While EAs need to consider impacts on the human and natural environment, an EA should not provide exhaustive information on any one area. Rather, the EA should provide a full description of a proposed action and a concise analysis of its potential impact.

EA Functions

The main functions of an environmental assessment in the NEPA review process are to:

- Determine if there are no significant impacts or if an EIS must be prepared.
- Document compliance with NEPA when no EIS is required.
- Facilitate preparation of an EIS when one is required.

EA Preparation

Regional program offices are responsible for the documentation of their projects, including EA preparation. The EA may be produced in-house or through contractors, but the Regional Environmental Officer is responsible for final approval.

\While FEMA regulations may dictate when an EA is required, Regional Directors may request the preparation of an environmental assessment at any time to assist planning and decision making.

The average time required to complete an EA is 3 to 6 months, depending on the complexity of the project.

Public Involvement

An EA seeks the input of and coordination with local, State, Tribal, and Federal agencies.

The public in the affected area should be notified so they may become involved in the process and solution.

EA Outcomes

As part of the NEPA review process, the EA can result in two different outcomes:

▪ Finding of No Significant Impact (FONSI). If an EA concludes with a FONSI, the environmental review is concluded.

▪ Notice of Intent (NOI) to prepare an EIS. If a project's adverse impacts cannot be reduced below a significant level, an environmental impact statement is required.

Environmental Impact Statement

An EIS examines a major Federal action that significantly affects the quality of the human and natural environment.

The main difference in documentation between an EA and an EIS is the scale. Although EISs have many of the same components as EAs, the breadth and depth of analysis for an EIS is much greater. An EIS provides a complete evaluation of the action and all feasible alternatives.

EIS Functions

The main functions of an EIS in the NEPA review process are to:

▪ Further examine an action identified by an EA as having significant environmental impact or controversy.

▪ Fully document the impact.

▪ After public review, allow a project to be implemented if it is determined that the benefits outweigh the adverse effects.

▪ Conclude the NEPA review process with a Record of Decision (ROD).

EIS Preparation

When an EA results in a Notice of Intent (NOI) to prepare an EIS, then the following occurs:

- First, the notice is published in the Federal Register.

- During the preparation process, there is extensive public involvement and coordination with local, State, Tribal, and Federal agencies, and interested publics.

The average time required for the completion of an EIS is 12 months or longer. FEMA very seldom funds projects that require an EIS.

An EIS results in a ROD, which concisely explains the reasons for selecting a certain action, the environmental effects of the action, and the proposed mitigation procedures.

Key Components of EAs and EISs

EAs and EISs have key components in common. Each component is outlined below, and will be discussed individually in greater detail.

Component	Purpose
Purpose and Need	- States the problem to be solved. - Guides the development of alternatives.
Alternatives	- Presents possible solutions to the problem. - Determines the affected environment.
Affected Environment	- Specifies characteristics of the physical setting for the proposed action and alternatives. Is essential to determining potential environmental consequences.
Environmental Consequences	- Considers what impacts may happen when the proposed action is put into the affected environment.
Mitigation Measures	- Considers ways to avoid or minimize potential adverse effects.

Purpose and Need

The purpose or goal is general in nature and relates the disaster damage or need to the FEMA program being used. For example:

"The purpose of the proposed action is to help the (applicant) recover from the effects of (disaster description) through the use of (program) funds provided by FEMA."

Purpose and Need: Guidelines

The need clearly defines the specific problem being addressed and defining the need is one of the most important steps in the NEPA review process. If the need is not defined correctly, alternatives cannot be adequately identified.

The need should **not:**

- Be in the form of a solution. In other words, the need is not to build a dam, but to reduce damage for a specific area.
- Be stated in a way that unduly limits the range of alternatives that can be considered.

Typically, the basic need for most FEMA projects is to repair or recover from damaged caused by an event (e.g., flood, fire, earthquake, etc.) or to minimize the potential for future damage.

Alternatives

The alternatives section of an EA or EIS describes solutions considered to meet the need or problem.

The alternatives section should clearly describe:

- The no action alternative. (What would happen if no Federal action was taken.)

- At least one other viable alternative. (One that could be used if the proposed alternative became unavailable.)

- The proposed alternative. (The applicant's desired solution to the problem or need.)

- If an EIS, all reasonable alternatives must be included.

Alternatives: Screening

Alternatives that were considered and eliminated should also be briefly listed in the alternatives section. Alternatives are commonly dropped from consideration for the following reasons:

- **Economic** – Is the alternative cost-effective compared to other alternatives?

- **Technical** – Are there any issues that affect the feasibility of an alternative (e.g., geotechnical, hydrologic)?

- **Environmental** – Are there resource issues associated with an alternative that would be too time consuming, costly, or difficult to resolve?

Alternatives: Environmental Impact (Screen 1 of 3)

When considering the environmental impact of included alternatives, the following items **must** be directly addressed in an EA or EIS:

- Floodplains
- Wetlands
- Endangered species
- Cultural resources
    - Historic buildings and structures
    - Archeological sites
- Minority/low-income populations

Even if none of these areas is likely to be affected by a project, the EA or EIS should include a statement to that effect.

Alternatives: Environmental Impact (Screen 2 of 3)

Other resource areas where there is any likelihood of impact should also be considered in the evaluation of alternatives. They include:

- Air quality
- Surface water
- Coastal zones
- Agricultural lands
- Public health and safety
- Hazardous materials

When considering alternatives, the level of analysis should be proportional to the potential level of impact. Eliminating unlikely areas of impact will help keep a project's EA concise.

The laws governing these and other environmental impacts will be considered in later lessons.

Alternatives: Environmental Impact (Screen 3 of 3)

Remember that the NEPA review process does not require a Federal agency to propose or select actions with the least environmental impact.

Rather, agency decision makers can select the solution that best meets the identified need or solves the problem as long as they:

- Assess the consequences of their decision, and
- Share that information with the public.

Affected Environment

The Affected Environment section of an EA or EIS:

- **Defines the Project Setting/Geographic Area.** It is important that this description include sufficient information to allow the FEMA Regional Environmental Officer to make a finding.

- **Includes the Area of Effect.** The total area of potential effect of the proposed action and each alternative action must be included.

Each resource evaluated may have its own area of potential effect. Some resources, like archaeology wetlands, are site specific. Other resources are not directly related to the geographic area, such as air quality or economics.

Environmental Consequences

After the need has been defined, alternatives considered, and the affected environment described, the positive and negative environmental consequences of the proposed action and alternatives are identified. Environmental consequences can be:

- **Quantitative**, such as number of acres of wetlands, or
- **Qualitative**, such as sense of community or quality of life.

An EIS will provide much greater detail and analysis of the environmental consequences than an EA.

Environmental Consequences: Actions and Impact

When evaluating environmental consequences, it is helpful to consider these consequences as cause-and-effect relationships. The proposed action is the cause and any environmental impact is the effect.

For example, assume that the proposed action is a ditch channelization project. The table below summarizes potential causes and effects.

Action/Cause	Impact/Effect
Remove vegetation	- Loss of habitat - Increased sedimentation
Fill wetlands	- Loss of habitat - Loss of wetland functions
Increase water conveyance	- Larger quantities downstream - Suspensions of solids - Shoreline and bed erosion - Changes to aquatic and riparian habitat

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Environmental Mitigation

After the environmental consequences of the alternatives have been identified, the next step is to consider environmental mitigation.

Mitigation measures reduce the environmental impacts that would be caused by the proposed action or alternatives.

Mitigation measures should be considered throughout the NEPA process, but must be addressed in detail in an EIS.

Mitigation: Categories

The four categories of mitigation, in descending order of preference, are:

- **Avoiding** the impact by not taking certain actions or parts of an action.
  - For example, changing a road design to bypass an archeological site.
- **Minimizing** impacts by limiting the degree or magnitude of the action.
  - For example, reducing the footprint of a building.
- **Rectifying** the impact by repairing, rehabilitating, or restoring the affected environment.
  - For example, repairing a stream or wetland after it is affected by a project.
- **Compensating** for the impact by replacing or providing substitute resources or environments.
  - For example, constructing a new wetland or restoring critical habitat.

Public Involvement

Public involvement is required for both an EA and an EIS. The public involvement required for an EIS is more involved and formal.

For an EA:

- Distribution of a draft EA is optional. It is advisable for complex or controversial projects.
- The final EA must be made available to the public.
- The Finding of No Significant Impact (FONSI) must be made available to the public.

For an EIS:

- Public involvement is required during the scoping and development of alternatives.
- A 30-day review period is required for a draft EIS. A 45-day review period is required for a final EIS.
- The Record of Decision must be made available to the public.

Lesson Summary

You have now completed the third lesson in the Environmental Review section of this course. You should be able to:

- Describe the key components of an EA and explain when one is required.
- Describe the key components of an EIS and explain when one is required.