

## 16. Irreversible and Irretrievable Commitment of Resources

This chapter describes how to consider irreversible and irretrievable commitment of resources in National Environmental Policy Act (NEPA) reviews. An *irreversible or irretrievable commitment of resources* refers to impacts on or losses to resources that cannot be recovered or reversed. Examples include permanent conversion of wetlands and loss of cultural resources, soils, wildlife, or agricultural production. *Irreversible* is a term that describes the loss of future options. It applies primarily to the impacts of use of nonrenewable resources, such as minerals or cultural resources, or to those factors, such as soil productivity, that are renewable only over long periods of time. *Irretrievable* is a term that applies to the loss of production, harvest, or use of natural resources. For example, if farm land is used for a non-agricultural event, some or all of the agricultural production from an area of farm land is lost irretrievably while the area is temporarily used for another purpose. The production lost is irretrievable, but the action is not irreversible.

As stated in 40 Code of Federal Regulations (CFR) § 1502.16 of the Council on Environmental Quality (CEQ) Regulations, the Federal Aviation Administration (FAA) must identify, as part of the environmental consequences discussion in an Environmental Impact Statement (EIS), any irreversible or irretrievable commitments of resources which would be involved in the proposed action or reasonable alternative(s), should they be implemented. Discussion of irreversible or irretrievable commitments of resources is not required in an Environmental Assessment (EA).

Below are some examples of questions to consider in determining the irreversible or irretrievable commitments of resources that would result from a proposed action or alternative:

- Would natural or human-made resources be expended during implementation of the proposed action or alternative(s)? For instance, consider whether fossil fuels, electricity, or similar resources would be used as a result of the proposed action and alternative(s).
- Would natural resources (such as metals, raw building materials, water, or other materials) be needed in order to construct any structure included in the proposed action or alternative(s)?
- Would biological resources (such as soil or habitat) or cultural resources (such as archeological sites or historic properties) be physically altered or destroyed because of the proposed action or alternative(s)?

Consider irreversible or irretrievable losses in relation to each impact category identified in Chapters 1 through 14 of this Desk Reference. Include a discussion of any identified irreversible or irretrievable commitments of resources in an EIS, either as a stand-alone chapter, or as part of the environmental consequences discussion for each impact category.