

9. Land Use

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The compatibility of existing and planned land uses with an aeronautical or aerospace proposal is usually associated with noise impacts, as described in Chapter 11, Noise and Noise-Compatible Land Use. In addition to the impacts of noise on land use compatibility, other potential impacts of Federal Aviation Administration (FAA) actions may also affect land use compatibility (e.g., disruption of communities, relocation, induced socioeconomic impacts, land uses protected under Section 4(f) of the U.S. Department of Transportation [DOT] Act). The impacts on land use, if any, should be analyzed and described under the appropriate impact category with any necessary cross-references to the Land Use section of the National Environmental Policy Act (NEPA) document to avoid duplication.

Section 1502.16(a)(5), *Environmental Consequences*, of the Council on Environmental Quality (CEQ) Regulations requires the discussion of environmental impacts including “[p]ossible conflicts between the proposed action and the objectives of Federal, regional, State, Tribal, and local land use plans, policies and controls for the area concerned.” Where an inconsistency exists, the NEPA document should describe the extent to which the agency would reconcile its action with the plan or law (see Section 1506.2(d) of the CEQ Regulations).

For airport actions, the Land Use section of the environmental document should include documentation to support the required airport sponsor’s assurance under 49 United States Code (U.S.C.) § 47107(a)(10) that appropriate action, including the adoption of zoning laws, has been or will be taken, to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. The assurance must be related to existing and planned land uses.

Under the Airport Improvement Program, the FAA may not approve a grant for an airport development project unless it is satisfied that the project is consistent with plans (existing at the time a project is approved) of public agencies authorized by the state in which the airport is located to plan for the development of the area surrounding the airport (see 49 U.S.C. § 47106(a)(1)).

9.1. Regulatory Setting

Exhibit 9-1 lists the statutes, regulations, and Executive Orders that may be relevant to the proposed project.

Exhibit 9-1. Statutes, Regulations, and Executive Orders Related to Land Use

Statute or Regulations	Location in U.S. Code	Implementing Regulation	Oversight Agency^a	Summary^a
Airport and Airway Improvement Act of 1982, and subsequent amendments	49 U.S.C. § 47107(a)(10)	Not applicable	FAA	AIP funding for an airport development project may not be approved unless the Secretary of Transportation receives written assurance satisfactory to the Secretary that appropriate action, including the adoption of zoning laws, has been or will be taken, to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including the landing and takeoff of aircraft.
Airport Improvement Program	49 U.S.C. § 47106(a)(1)	Not applicable	FAA	AIP funding for an airport development project may not be approved unless the Secretary of Transportation is satisfied that a project is consistent with plans (existing at the time a project is approved) of public agencies for development of the area in which the airport is located.
Airport Safety, Protection of Environment, Criteria for Municipal Solid Waste Landfills	Not applicable	40 CFR § 258.10	EPA	Addresses restrictions on municipal solid waste landfills relative to airports.
State and local regulations	Not applicable	Not applicable	Applicable state or local agency	State and local agencies adopt and implement planning and land use regulations, such as land use plans and zoning laws.

^a AIP = Airport Improvement Program; CFR = Code of Federal Regulations; EPA = U.S. Environmental Protection Agency; FAA = Federal Aviation Administration; U.S.C. = United States Code.

9.1.1. Consultations, Permits, and Other Approvals

Consultation with the state, tribal, or local land use authority for the study area should be done when land use impacts would be involved in the proposed action or alternative(s).

9.2. Affected Environment

For land use, the study area should include any areas that may be affected by the proposed action or alternative(s), including construction-related activities.

To describe the affected environment for land use, the following should be determined:

- *Existing* land uses within the study area, and
- *Planned and future* land uses within the study area.

State, Tribal, and local land use planning agencies may be of assistance in providing land use data and identifying applicable state and/or local land use plans, land management plans, and/or zoning laws which might be relevant to land use in the study area. Local zoning information is often available online. The National Land Cover Database 2019 and aerial/satellite imagery can also provide information for the identification of land uses (note that the National Land Cover

Database includes changes in land cover from 2001 to 2019, and thus may not be accurate for areas that have experienced substantial growth since 2019). Additionally, land use trends can be found using the USGS Historical Topographic Map Explorer¹. As these sources may not be updated regularly, a combination of aerial and satellite imagery and a windshield survey (i.e., on-the-ground observation) will often provide the most accurate existing land use mapping. In rural areas, zoning information may not be available online but may be obtained by calling the local city or county planning department or zoning official. Existing land use data is also needed for the analysis of noise and noise-compatible land use (see Chapter 11 of this Desk Reference), and much of the same data will be required. The NEPA document should identify the entity that owns or is responsible for managing the land in the affected environment.

State, local, or regional planning documents, including general plans, area plans, master plans, specific plans, or historic preservation overlay zones can provide data regarding planned future land uses in the study area. Note that multiple jurisdictions may propagate plans for areas surrounding and including the site at multiple levels of government ranging from municipalities to the state. For federal lands, the federal agency managing the land may have adopted a land use plan identifying planned land uses. Some planned land uses described in these sources may be reasonably foreseeable, whereas others may be remote and speculative (see Chapter 15, Cumulative Impacts, of this Desk Reference for a discussion of past, present, and reasonably foreseeable future actions).

9.3. Environmental Consequences

Conflicts may occur when the proposed action or alternative(s) creates impacts that are incompatible with existing and/or future planned uses in the study area. The impacts of the proposed action and alternative(s) on land use, if any, should be analyzed and described under the appropriate impact category with any necessary cross-references to the Land Use section of the NEPA document to avoid duplication. Where land use impacts are not discussed under other impact categories, the discussion of those impacts should be presented within the Land Use section. For example, a change in runway configuration (e.g., runway extension) may require relocation of the Runway Protection Zone (RPZ) into a residential area with the result that houses may need to be acquired to ensure land use compatibility within the RPZ. The Land Use section may also identify any encumbrances, such as easements, on land within the study area and how those have the potential to be impacted by the proposed action and alternative(s). The Land Use section should also include an assessment of indirect impacts to land use in the region in the project vicinity as a result of the Proposed Action (e.g., growth, development).

The compatibility of land uses in the vicinity of an airport may also need to be assessed to ensure those uses do not adversely affect safe aircraft operations. Examples of such land uses that may adversely affect those operations include municipal landfills (40 CFR § 258.10), wildlife refuges, wetland mitigation that may attract wildlife species hazardous to aviation, and unrestricted height zoning. The presence of any of these land uses within the distances referenced by FAA Advisory Circular 150/5200-33, *Hazardous Wildlife Attractants on or Near Airports*, should be disclosed in this section. In addition, this section should note if a Wildlife Hazard Management Plan (WHMP) was prepared.

As discussed earlier, Section 1506.2(d) of the CEQ Regulations requires that NEPA documents discuss any inconsistency with approved state and/or local plan(s) and law(s) (whether or not

¹ The USGS Historical Topographic Map Explorer can be accessed at the following website:
<https://livingatlas.arcgis.com/topoexplorer/index.html>

federally-sanctioned). Where an inconsistency exists, the statement should describe the extent to which the FAA would reconcile its proposed action with the plan or law.

For airport actions, the NEPA document must include a letter from the public agency authorized by the state to plan for the area surrounding the airport that states the proposed action is consistent with existing land use plans (see 49 U.S.C. § 47106(a)(1)). For airport actions, the NEPA document must also show that appropriate action, including the adoption of zoning laws, has been or will be taken to the extent reasonable, to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations (see 49 U.S.C. § 47107(a)(10)).

9.3.1. Significance Determination

The FAA has not established a significance threshold for land use, and the FAA has not provided specific factors to consider in making a significance determination for land use in Exhibit 4-1 of FAA Order 1050.1. The determination that significant impacts exist in the land use impact category is normally dependent on the significance of other impact categories. Section 11.3 of this Desk Reference provides guidance on land use impacts in relation to aircraft noise. If the proposal would result in other impacts that have land use ramifications, for example, disruption of communities, relocation, and induced socioeconomic impacts, the impacts on land use should be analyzed in these contexts and described accordingly under the appropriate impact category with any necessary cross-references to the Land Use section to avoid duplication. While the NEPA document must include a discussion regarding consistency with state and/or local plans, an inconsistency by itself does not automatically result in a significant impact.

9.4. Mitigation

Mitigation activities proposed to address land use impacts would normally be discussed under the appropriate impact category and cross-referenced to the Land Use section of the NEPA document. Examples of potential measures to mitigate impacts related to land use include:

- working with affected business and/or landowners to appropriately redress construction/operation-related damage to landowner's property (including access restrictions);
- changing site design;
- phasing a project to be consistent with planned development in the area; and
- relocating development away from non-compatible land uses (e.g., landfills, wildlife refuges, wetland mitigation).
- creating or revising a Wildlife Hazard Management Plan