

CHAPTER FIVE ENVIRONMENTAL CONSEQUENCES

This chapter presents an assessment of the environmental impacts of the Proposed Action and its alternatives, as well as the No-Build/No-Action Alternative. The following analysis focuses on the existing baseline conditions (1998) and the conditions anticipated to occur in the future (2003), with and without development of the Proposed Action or its alternatives.

ENVIRONMENTAL FACTORS

As required by Federal Aviation Administration Order 1050.1D, *Policies and Procedures for Considering Environmental Impacts*, the following environmental impact factors are normally addressed.

- Noise
- Land Use
- Social Impacts (including Environmental Justice)
- Induced Socioeconomic Impacts (indirect effects)
- Air Quality
- Water Quality
- Department of Transportation Act, Section 4(f)
- Historic, Architectural, Archaeological and Cultural Resources
- Wildlife and Waterfowl
- Endangered and Threatened Species of Flora and Fauna
- Wetlands
- Floodplains
- Coastal Zone Management Program
- Wild and Scenic Rivers
- Farmlands
- Energy Analysis/Natural Resources
- Light Emissions
- Solid Waste Impacts/Hazardous Materials
- Construction Impacts
- Visual Impacts
- Cumulative Impacts

Not all of the standard environmental impact categories will be affected by the alternatives proposed. For example, the air traffic noise abatement procedures evaluated in this EIS, such as changes in flight track/corridor locations would not impact environmental factors relating to the physical environment (biotic communities, endangered species of flora and fauna, water quality, wetlands, floodplains, architecture, prime and unique farmlands, energy supply and natural resources, light emissions, solid and hazardous waste, construction, and surface transportation). The air traffic alternatives are flight related and do not have physical construction implications at the ground level. No construction or other activities relating to construction are evaluated in this EIS. Noise Compatibility Program (NCP) Update measures discussed in this document as mitigation for noise exposure are separate from this EIS in many respects. For example, the Proposed Action in this EIS does not create new impacts in any contour, except in the outer boundary of 65 DNL. This means that home acquisitions planned for the 70 DNL contour level are a result of normal operation of the airport, and not the air traffic procedures being analyzed here. Home acquisition efforts will also require separate environmental analysis prior to the actual removal of homes. The sound insulation program approved in the NCP will be the means of mitigation for those additional homes impacted as a result of the Proposed Action. This sound insulation would be offered to local residents in the 65-70 DNL contours, regardless of the changes in air traffic procedures discussed here.

The categories identified as not locally applicable include the following and are excluded due to the nature of the Proposed Action in this EIS. They are air traffic flight actions that do not involve the physical disturbance of land based resources.

- Water Quality
- Wildlife and Waterfowl
- Endangered and Threatened Species
- Wetlands
- Floodplains
- Coastal Zone Management Program
- Wild and Scenic Rivers
- Farmlands
- Energy Analysis/Natural Resources
- Light Emissions
- Solid Waste Impacts/Hazardous Materials
- Construction Impacts
- Visual Impacts

The following seven categories have the potential to be impacted by the alternatives analyzed and discussed in detail in this EIS:

- Noise
- Land Use

- Social Impacts (including Environmental Justice)
- Induced Socioeconomic Impacts (indirect effects)
- Air Quality
- DOT Section 4(f) (USC Section 303(c)) Lands
- Historic, Architectural, Archaeological, and Cultural Resources

CUMULATIVE IMPACTS

The Council on Environmental Quality (CEQ) defines cumulative impacts as the impacts on the environment, which result from the incremental impacts of the action when added to other past, present, and reasonable foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR 1508.7).

There are no other planned actions outside this EIS analysis that would be added to the implementation of the air traffic noise abatement procedures proposed here. This includes the Severe Weather Alternative Procedure (SWAP) route that is considered an air traffic action that has subsequently proven to have noise abatement value close to the airport. This will be further discussed in Sections 5.1, *Noise* and Section 5.2, *Land Use*. Other development plans, such as the Amtrak railway plan and the *City of Warwick Development Plan*, were considered not far enough along to be assessed. The Proposed Action reduces noise impacts to populations within the 65 DNL and greater and only shifts significance to a few homes. Additionally, mitigation of impacts resulting from this implementation would be accomplished through the 1999 NCP Update.

Based on the CEQ's definition of cumulative impacts, there are none foreseen in this analysis, therefore, no further evaluation of cumulative impacts and their effects are warranted.

DESCRIPTION OF ALTERNATIVES ASSESSED

The following paragraphs provide a description of the baseline condition and the alternatives that were assessed for each of the above-mentioned categories of potential environmental impacts.

Alternative 1: 2003 Baseline Condition (No-Build/No-Action)

The baseline alternative assesses conditions at the airport as they will exist in 2003, based on the application of forecasts of future operations and fleet mix to existing runway utilization, flight tracks, and flight-track utilization. This alternative would involve no physical or procedural changes at the airport.

**Alternative 2:
2003 Air Traffic Actions from the NCP Update**

This alternative proposes to adopt the air traffic noise abatement procedures recommended in the 1999 NCP Update. The air traffic procedures were combined with other NCP measures to further reduce noise impacts. The other NCP measures include ground based noise abatement alternatives, land use alternatives, and program implementation measures. They involve sound barrier constructions, home acquisitions or sound insulation, and management measures such as the establishment of a noise committee for the airport. The implementation of noise abatement measures described in Chapter Two, *Purpose and Need*, would reduce noise exposure overall to the surrounding communities by focusing aircraft noise into predictable corridors that fall over more compatible land uses. This would be accomplished primarily by modifying existing air traffic procedures and would not have a physical impact to the ground environment.

**Alternative 3:
2003 Air Traffic Actions and Increased Utilization of the SWAP Route (Proposed Action)**

This alternative is similar in scope to Alternative 2—implementation of noise abatement measures through air traffic procedures combined with other NCP measures (as described under Alternative 2) to mitigate overall noise in the surrounding communities. In addition to the air traffic noise abatement measures and other NCP mitigation measures, it would also involve the implementation of the proposed increased utilization by jet aircraft of the SWAP route along the east coast when departing for the Baltimore-Washington Airport (BWI).