

6.J CONCEPTUAL MITIGATION MEASURES CONSIDERED IN THE DRAFT EIS

The National Environmental Policy Act (NEPA) of 1969, requires the disclosure of adverse environmental impacts and the consideration of mitigation measures for "any adverse environmental effects which cannot be avoided."¹ The Council on Environmental Quality (CEQ) regulations implement NEPA by requiring the disclosure of mitigation measures in impact statements.² In 40 C.F.R. 1508.20, the CEQ defines "mitigation" to include:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action;
- (b) Minimizing the impacts by limiting the degree or magnitude of the action and its implementation;
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- (e) Compensating for the impact by replacing or providing substitute resources or environments.

In compliance with FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*, Chapter Five, Paragraph 506h, *Mitigation*, this EIS describes the mitigation measures considered or planned to minimize harm from the proposed action. Such mitigation measures include:

- Design and construction actions to avoid or reduce impacts
- Design measures that reduce impacts
- Management actions that reduce impacts during operation of the facility
- Replacement, restoration (reuse, conservation, preservation, etc.), and compensation measures

Pursuant to the NEPA and CEQ directive and FAA Order 1050.1E, this section of the EIS includes conceptual mitigation measures that the FAA would consider as part of the proposed project or alternatives. As the EIS process continued, conceptual mitigation measures were developed for FAA's Preferred Alternative. A discussion of FAA-recommended mitigation measures for the FAA's Preferred Alternative is included in Chapter Eight, *FAA's Preferred Alternative*.

As disclosed in the Draft EIS, the FAA may decide that it will not proceed with Federal actions necessary to a development project unless an airport sponsor commits to implementing specific mitigation measures (i.e., Such an FAA decision ordinarily appears in the Record of Decision (ROD) that follows the Final EIS).

¹ Section 102(2)(C).

² 40 C.F.R. §§ 1502.14(f), 1502.16(h)

The FAA ensures sponsor-compliance with mitigation measures through special conditions that are a part of Federal funding agreements and grant assurances.

The Draft EIS analysis disclosed few potential impacts associated with the runway development alternatives. Conceptual mitigation measures are discussed only for those categories where potential impacts are identified (noise, wetlands, endangered or threatened species, and essential fish habitat). A discussion of recommended mitigation measures for the FAA's Preferred Alternative is disclosed in this EIS in Chapter Eight, *FAA's Preferred Alternative*.

NOISE AND COMPATIBLE LAND USE

As part of the EIS process, the FAA examines noise mitigation measures for noise-sensitive areas inside the 65 Day-Night Average Sound Level (DNL) and higher noise exposure contours. Generally, the need for mitigation increases as noise levels increase and varies according to the sensitivity of the affected land use. Mitigation possibilities are ordinarily developed once the FAA identifies its preferred alternative.

The FAA did not identify a preferred alternative in the Draft EIS;³ therefore the mitigation recommendations discussed in this section are more conceptual in nature. With the identification of an FAA preferred alternative in the Final EIS, more specific mitigation measures are identified and disclosed in Chapter Eight, *FAA's Preferred Alternative*. Specific mitigation measures could include: development of aircraft and airfield operational controls (including voluntary noise abatement procedures); acquisition of aviation easements; acquisition of property; relocation of property; or sound insulation.

For Alternatives B1, B1b, B1c, B5, or D1, all or a portion of, the Hilton (formerly the Wyndham) Fort Lauderdale Airport Hotel and the Dania Boat Sales properties may need to be acquired. Alternatives B4 and D2 may require the acquisition of a portion of the Dania Boat Sales. Alternative C1 would not require the acquisition of any off-airport businesses. Any acquisition or relocation would comply with the Federal *Uniform Relocation Assistance and Real Property Acquisition Policies Act* (49 CFR Part 24).

MITIGATION FOR WETLAND IMPACTS

Regarding wetland impacts, areas of concern include direct and secondary loss of wetland acreage, temporary effects on West Lake Park, and intrusion into the Dania Cut-Off Canal. Direct loss of wetlands attributable to the various runway development alternatives ranges from 0.13 acres to 21.87 acres.

The avoidance and minimization of impacts to wetlands was considered by Broward County in the development of the Airport Sponsor's Proposed Project and for the runway development alternatives assessed in this EIS. In December 2003, the

³ The FAA is required by regulation to identify its preferred alternative in the Final EIS if it was not identified in the Draft EIS. See 40 Code of Federal Regulations (CFR) 1502.14(e) and Paragraph 506e of FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*.

Broward County Commission approved a modified south runway expansion which was to stay within the confines of 7th Avenue on the east side of the Airport. This configuration avoids impacts to the wetlands located to the east of 7th Avenue. This reduced the overall impacts to wetlands by approximately five acres as compared to the previous proposed project considered in earlier NEPA documents.⁴ In particular, this configuration greatly reduces impacts to Wetland 25 from approximately 14 acres to less than one-half acre.

In addition, runway development alternatives B1, B1b, B1c, B5, and D1 include a shortened approach light system that complies with FAA design standards. This configuration further minimizes impacts to wetlands as compared to a standard approach light system. The shortened approach light system reduces wetland impacts by 0.57 acres and avoids permanent impacts to West Lake Park. Broward County committed to the use of a shortened runway approach light system for the Airport Sponsor's Proposed Project.⁵

The runway approach light system would require the installation of cables in the vicinity of the Dania Cut-Off Canal. These cables are proposed to be installed through directional drilling under the Dania Cut-Off Canal or a comparable method. This technique places the cables below the bottom of the canal, which avoids impacts to the canal bottom and avoids impacts to the aquatic habitat adjacent to, and within the canal.

The construction of new or modified existing access roads varies for each runway development alternative. These roads would provide access to the approach light system for maintenance. Construction of these roads has the potential to impede the underlying flow of water. For the purposes of determining direct impacts, the maximum width assigned for these roads is 25 feet, with the length of the access roads varying by alternative. The access roads would be designed with sufficient cross-road culverts to allow tidal waters to flow freely. The culvert arrangement would avoid creating measurable secondary hydrologic impacts on the surrounding wetlands. Design and construction options to further reduce potential impacts would be evaluated during the permit process.

The FAA has developed conceptual wetland mitigation during this EIS process based on input from, and in coordination with, the U.S. Army Corps of Engineers (USACE), the South Florida Water Management District (SFWMD), and the U.S. EPA. It will be the Airport Sponsor's responsibility to apply for permits required by these regulatory agencies for the preferred alternative. Broward County has obtained permits from the South Florida Water Management District (SFWMD) and the USACE that allow for habitat restoration and enhancement within West Lake Park. Chapter Eight, *FAA's Preferred Alternative*, discusses a conceptual mitigation plan

⁴ The *Supplemental Draft Environmental Impact Statement Proposed Expansion of Runway 9R-27L Fort Lauderdale-Hollywood International Airport, February 2002*, identified that permanent impacts to approximately 21 acres of wetlands would occur as a result of the Proposed Project.

⁵ See Appendix E, *Airfield Planning, Design, & Constructability Review*, Section E.1.5, *NAVAID Facilities*.

for potential impacts to wetlands as a result of implementation of the FAA's Preferred Alternative. The conceptual mitigation plan proposes to establish mitigation credits at West Lake Park to mitigate for potential wetland impacts.

Mitigation for Impacts to Endangered and Threatened Species and Essential Fish Habitat

Potential impacts to four species of concern – smalltooth sawfish, West Indian manatee, Johnson's seagrass, and the Florida burrowing owl – were considered with the various runway development alternatives (*See Section 6.F.1, Fish, Wildlife, and Plants*). Coordination with the National Marine Fisheries Service, the U.S. Fish and Wildlife Services, and the Florida Fish and Wildlife Conservation Commission was conducted throughout the EIS process, to identify and document potential impacts and mitigation opportunities. The results of this agency coordination is provided in Chapter Eight, *FAA's Preferred Alternative*, and documented in Appendix M, *Biological Resources*.