

Agency



FLL DEIS
Comments



MAY 21 2007

Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30333

May 14, 2007

Ms. Virginia Lane
FAA Orlando Airports District Office
5950 Hazletine National Drive
Orlando, Florida 32822-0524

Dear Ms. Lane:

This is in response to your Draft Environmental Impact Statement (DEIS) for Development and Extension of Runway 9R/27L and other Associated Projects at Fort Lauderdale-Hollywood International Airport (FLL). We are responding on behalf of the Department of Health and Human Services (DHHS), U.S. Public Health Service.

In general, we believe that this project will enhance safety and will provide positive benefits once the project is completed. However, there are two areas of concern that should be addressed in the Final EIS. Please clarify issues with air quality and the generation of Hazardous Air Pollutants (HAPs). Has the Florida Department of Environmental Protection determined whether or not the FLL itself is required to have an Air Quality Permit based on the stationary sources at the airport?. Are emissions from stationary sources below permitting thresholds or is an air quality permit required? If so, what type of air quality permit does FLL require (i.e., major source, synthetic minor, etc.)? Also, in the evaluation of HAPs, it was not clear if the numbers given for pollutants of concern were based on expected actual emissions or the potential to emit (PTE). This is important since the necessity of an air quality permit is based on PTE, not actual emissions.

We also believe that the FEIS should clearly describe construction mitigation plans which are protective of the environment and public health wherever warranted. These include, but are not limited to the provision of adequate spill prevention, containment, and countermeasures plans; safety plans/procedures, including use of pesticides/herbicides; worker training; ground and surface water contamination (e.g. runoff and erosion control) during construction; and a discussion of Best Management Practices (BMPs) that will be followed.

Thank you for the opportunity to comment on this DEIS. Please furnish us with one copy of the FEIS when it becomes available.

Sincerely yours,

A handwritten signature in cursive script that reads "Paul Joe".

Paul Joe, DO, MPH
Medical Officer
National Center for Environmental Health (F16)
Centers for Disease Control & Prevention



Florida Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

MAY 16 2007

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

May 11, 2007

Ms. Virginia L. Lane, AICP
Orlando Airports District Office
Federal Aviation Administration
5950 Hazeltine National Drive
Orlando, FL 32822-5024

RE: Federal Aviation Administration - Draft Environmental Impact Statement for the Extension of Runway 9R/27L and Associated Airport Projects at Fort Lauderdale-Hollywood International Airport - Broward County, Florida.
SAI # FL200703223172C

Dear Ms. Lane:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16, U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4231, 4331-4335, 4341-4347, as amended, has coordinated a review of the referenced draft environmental impact statement (DEIS).

The Florida Department of Environmental Protection (DEP), Southeast District office has expressed concern in the past for the ongoing contamination assessment and cleanup related issues in various areas of the airport, including the southwest portion of the airport, along I-95. This is within the "Detailed Study Area" depicted on the map labeled 5.A 1-2. The concern is that groundwater shows exceedances of the Maximum Contaminant Levels and Minimum Criteria for solvents. Section 5.E.1.4.2 indicates that only fuel related contamination is of concern, and only lists a few minor reported discharges. This does not seem consistent with DEP databases for the Broward County Aviation Department and other facilities at the airport. In addition, the EPA's CERCLIS database indicates the presence of an active CERCLIS site along the southern boundary of the airport. Please note that some facilities listed on the CERCLIS database have been "achieved," but may still show contamination if those sites are demolished and soils are dug up and moved. Please refer to the enclosed DEP memorandum for further waste cleanup information and recommendations.

The South Florida Water Management District (SFWMD) notes that a modification to Environmental Resource Permit (ERP) No. 06-00339-S will be required from the SFWMD.

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2 .

Staff advises that the FEIS should include this information in the list of federal, state and local permits required for the project. The FEIS should also address secondary impacts to wetlands associated with the proposed runway extension. The applicant has not demonstrated that cumulative wetland impacts associated with the proposed project and other transportation-related projects planned for the area (such as Port Everglades expansion projects) have been or will be adequately addressed. Sufficient mitigation must be provided so that this project and other related projects will not result in unacceptable cumulative impacts to mangrove wetlands within the same drainage basin. Chapter 6-J lists avoidance and reduction of impacts as mitigation measures. Under the SFWMD's ERP criteria, however, reduction and elimination of wetland impacts are not treated as mitigation measures (i.e., the applicant must demonstrate reduction and elimination of wetland impacts before mitigation can be considered). Though the SFWMD recognizes that the runway expansion has been substantially scaled back from the original design, the FEIS should clearly outline the specific modifications and measures that have been incorporated into the project design to reduce and eliminate adverse wetland impacts. Please refer to the enclosed SFWMD memorandum for additional information.

The Florida Department of Transportation (FDOT) advises that any project improvements performed in or adjacent to FDOT right-of-way will require coordination with the District Four Office in Fort Lauderdale. Issuance of permits from FDOT may be required for project activities, either temporary or permanent, located within FDOT right-of-way. All proposed changes to US 1/SR 5, such as the Alternative D1 "tunnel," will require FDOT coordination. The cost of improvements (drainage improvements, lighting improvements for the tunnel, depressing the roadway and reconstructing) may be the responsibility of the permit applicant. Please note that the proposed aircraft glide path dimensions may impact future improvements to I-95 and I-595 in the event elevated reversible lanes and/or transit on elevated structures are considered in the future. Currently, the I-595 PD&E study shows elevated direct connects to and from I-95 in the area of B1 and B1 refinements. Staff requests further discussion on the new glide path criteria and its potential impact on Interstates 95 and 595 (Alternative C1).

In addition, the FDOT Aviation Office in Tallahassee recommends that once the preferred alternative for the runway extension has been chosen, new storm water management facilities utilizing WET PONDS (presumptive design) be avoided in the airside of the airport. According to the FAA Advisory Circular No. 150/5200-33A, "On-airport storm water detention pond should be designed, engineered, constructed, and maintained for a maximum 48-hour detention period for the design storm and remain completely dry between storms." Please see the enclosed FDOT memorandum for further comments and recommendations.

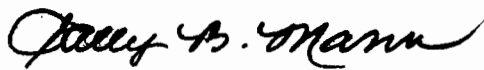
Based on the information contained in the DEIS and the enclosed state agency comments, state has determined that, at this stage, the proposed activity is consistent with the Florida

Ms. Virginia L. Lane, AICP
May 11, 2007
Page 3 of 3

Coastal Management Program (FCMP). The applicant must, however, address the concerns identified by our reviewing agencies prior to project implementation. The state's continued concurrence with the project will be based, in part, on the adequate resolution of issues identified during this and subsequent reviews. The state's final review of the project's consistency with the FCMP will be conducted during the environmental permitting stage.

Thank you for the opportunity to review the proposed project. Should you have any questions regarding this letter, please contact Mr. Christopher Stahl at (850) 245-2169.

Yours sincerely,



Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/cjs
Enclosures

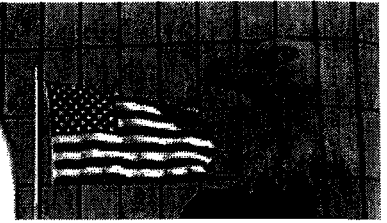
cc: Tim Gray, DEP, Southeast District
Jim Golden, SFWMD
Lisa Stone, FDOT



Florida

Department of Environmental Protection

"More Protection. Less Process"



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Project Information	
Project:	FL200703223172C
Comments Due:	04/24/2007
Letter Due:	05/14/2007
Description:	FEDERAL AVIATION ADMINISTRATION - DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE EXTENSION OF RUNWAY 9R/27L AND ASSOCIATED AIRPORT PROJECTS AT FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT - BROWARD COUNTY, FLORIDA.
Keywords:	FAA - DEIS, RUNWAY 9R/27L AT FT. LAUDERDALE-HOLLYWOOD AIRPORT - BROWARD CO.
CFDA #:	20.106
Agency Comments:	
COMMUNITY AFFAIRS - FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS	
ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	
<p>The DEP Southeast District office has expressed concern in the past for the ongoing contamination assessment and cleanup related issues in various areas of the airport, including the southwest portion of the airport, along I-95. This is within the "Detailed Study Area" depicted on the map labeled 5.A 1-2. The concern is that groundwater shows exceedances of the Maximum Contaminant Levels and Minimum Criteria for solvents. Section 5.E.1.4.2 indicates that only fuel related contamination is of concern, and only lists a few minor reported discharges. This does not seem consistent with DEP databases for the Broward County Aviation Department and other facilities at the airport. In addition, the EPA's CERCLIS database indicates the presence of an active CERCLIS site along the southern boundary of the airport. Please note that some facilities listed on the CERCLIS database have been "achieved," but may still show contamination if those sites are demolished and soils are dug up and moved. Please refer to the enclosed DEP memorandum for further waste cleanup information and recommendations.</p>	
FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION	
NO COMMENT BY JOE WALSH ON 3/26/07.	
STATE - FLORIDA DEPARTMENT OF STATE	
No Comments Received	
TRANSPORTATION - FLORIDA DEPARTMENT OF TRANSPORTATION	
<p>The FDOT advises that any project improvements performed in or adjacent to FDOT right of way will require coordination with the District Four Office in Fort Lauderdale. Issuance of permits from FDOT may be required for project activities, either temporary or permanent, located within FDOT right of way. All proposed changes to US 1/SR 5, such as the Alternative D1 "tunnel," will require FDOT coordination. The cost of improvements (drainage improvements, lighting improvements for tunnel, depressing the roadway and reconstructing) may be the responsibility of the permit applicant. Please note that the proposed aircraft glide path dimensions may impact future improvements to I-95 and I-595 in the event elevated reversible lanes and/or transit on elevated structures are considered in the future. Currently, the I-595 PD&E study shows elevated direct connects to and from I-95 in the area of B1 and B1 refinements. Staff requests further discussion on the new glide path criteria and its potential impact on Interstates 95 and 595 (Alternative C1). In addition, the FDOT Aviation Office in Tallahassee recommends that once the preferred alternative for the runway extension has been chosen, new storm water management facilities utilizing WET PONDS (presumptive design) be avoided in the airside of the airport. According to the</p>	

FAA Advisory Circular No. 150/5200-33A, "On-airport storm water detention pond should be designed, engineered, constructed, and maintained for a maximum 48-hour detention period for the design storm and remain completely dry between storms." Please see the enclosed FDOT memorandum for further comments and recommendations.

SOUTH FLORIDA WMD - SOUTH FLORIDA WATER MANAGEMENT DISTRICT

The SFWMD notes that a modification to Environmental Resource Permit (ERP) No. 06-00339-S will be required from the SFWMD. Staff advises that the FEIS should include this information in the list of federal, state and local permits required for the project. The FEIS should also address secondary impacts to wetlands associated with the proposed runway extension. The applicant has not demonstrated that cumulative wetland impacts associated with the proposed project and other transportation-related projects planned for the area (such as Port Everglades expansion projects) have been or will be adequately addressed. Sufficient mitigation must be provided so that this project and other related projects will not result in unacceptable cumulative impacts to mangrove wetlands within the same drainage basin. Chapter 6-J lists avoidance and reduction of impacts as mitigation measures. Under the SFWMD's ERP criteria, however, reduction and elimination of wetland impacts are not treated as mitigation measures (i.e., the applicant must demonstrate reduction and elimination of wetland impacts before mitigation can be considered). Though the SFWMD recognizes that the runway expansion has been substantially scaled back from the original design, the FEIS should clearly outline the specific modifications and measures that have been incorporated into the project design to reduce and eliminate adverse wetland impacts. Please refer to the enclosed SFWMD memorandum for further comments and recommendations.

SOUTH FL RPC - SOUTH FLORIDA REGIONAL PLANNING COUNCIL

No Comments

BROWARD - BROWARD COUNTY

No comments

For more information or to submit comments, please contact the Clearinghouse Office at:

3900 COMMONWEALTH BOULEVARD, M.S. 47
TALLAHASSEE, FLORIDA 32399-3000
TELEPHONE: (850) 245-2161
FAX: (850) 245-2190

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Memorandum



TO: Chris Stahl, Florida State Clearinghouse

THROUGH: Tim Gray, Southeast District

FROM: Paul Alan Wierzbicki, P.G., Southeast District

DATE: May 4, 2007

SUBJECT: Federal Aviation Administration – Draft Environmental Impact Statement for the Extension of Runway 9R/27L and Associated Airport Projects at Fort Lauderdale-Hollywood International Airport – Broward County, Florida.

SAI #: FL07-3172C

1. The Southeast District has expressed concern in the past for the ongoing contamination assessment and cleanup related issues in various areas of the airport, including the southwest portion of the airport, along I-95. This is within the "Detailed Study Area" as depicted on map labeled 5.A 1-2. The concern is that groundwater shows exceedances of the Maximum Contaminant Levels and Minimum Criteria for solvents. Section 5.E.1.4.2 indicates that only fuel related contamination is of concern, and only lists a few minor reported discharges. This does not seem consistent with Department databases for the Broward County Aviation Department and other facilities at the FLL.

2. Section 5.G.1.1.2. in the list of applicable State statutes and rules governing Waste Program issues fails to reference Chapter 376, Florida Statutes, and Chapter 62-701, Florida Administrative Code (F.A.C.), governing Solid Waste and Chapter 62-780, F.A.C., entitled "Contaminated Site Cleanup Criteria," which became effective on April 17, 2005.

3. Section 5.G.1.3.1. states that there are "no active CERCLIS sites were identified at FLL." This is incorrect. As of April 19, 2007 EPA's CERCLIS database still shows "Sunstream Jet Center," formerly located at 1355 SW 48th Street, EPA ID No. FLD071314033. This site is now located approximately beneath the east-west noise berm along the southern boundary of the FLL and is in an area undergoing active contamination assessment by the Broward County Aviation Department. Also, "Associated Air Services," formerly located at 701 SW 48th St. EPA ID No. FLD046024121 is listed on the CERCLIS database and shows a status of "No Further Remedial Action Planned." The Department concurred with this decision. Please note that some facilities listed on the CERCLIS database have been "achieved," but may still show contamination if those sites are demolished and soils are dug up and moved. There are other confirmed contaminated or

suspect sites within the "Detailed Study Area," but are not within the bounds of the FLL. If Airport development encroaches upon these areas or projects involving dewatering take place that could induce contaminated groundwater movement toward previously uncontaminated or less contaminated areas, or off-property, this could involve additional soil, groundwater or surface water monitoring in those affected areas. Of particular concern to the Department are off-site areas that are currently under active contamination assessment and or / cleanup:

Former Lindsley Lumber (approx. SW corner of I-95 and Griffin Road, now redeveloped)
Former Vision Ease (3301 SW 9th Ave.)
Bonnie's Ravenswood Marina (Ravenswood Rd.) and the Dania Cut-off canal.

4. There are previously identified landfill facilities along the East side of the old US 1 (US 1 had been relocated in the 1980s for other Airport / highway redevelopment efforts.). Management of those old landfill facilities should be overseen by the Broward County Environmental Protection Department. Efforts should be made to research these facilities to determine potential affects of redevelopment posed by building and moving of canals and storm water conveyance structures, dewatering, fill materials, etc.

5. Groundwater monitoring wells and sample points are likely present at and near all alternative areas being considered for the project. Arrangements need to be made to properly abandon (in accordance with Chapter 62-532, Florida Administrative Code) and or replace any wells that may be destroyed or damaged during construction.

6. As referenced in Section 5.E.1, the project area falls within the limits of the Biscayne Aquifer. This is a "sole source" aquifer in this part of Florida. Also, while it does not appear that the project falls within any wellfield protection areas, there may be water production wells (irrigation, potable, or industrial) at the FLL or in close proximity.

7. In the event contamination is detected during construction, the Department and the Broward County Environmental Protection Department, BCEPD (Section 5.3 references an old name for the BCEPD) need to be notified and the project developers may need to address the problem through additional assessment and/or remediation activities. You may wish to include a reference to a Florida Department of Transportation (FDOT) specification entitled "Section 120 Excavation and Embankment -- Subarticle 120-1.2 Unidentified Areas of Contamination of the Standard Specifications for Road and Bridge Construction" in the project's construction contract documents that would require specific actions by the contractor in the event of any hazardous material or suspected contamination issue arises.

8. Depending on the alternative selected, construction projects involving "dewatering" should be discouraged or limited, since there is a potential to spread contamination to previously uncontaminated or less contaminated areas and affect contamination receptors, site workers and the public. Dewatering projects would require permits / approval from the South Florida Water Management District, Water Use Section and coordination with the Broward County Environmental Protection Department.

9. Any land clearing or construction debris must be characterized for proper disposal. Potentially hazardous materials must be properly managed in accordance with Chapter 62-730, F.A.C. In addition, any solid wastes or other non-hazardous debris must be managed in accordance with Chapter 62-701, F.A.C. Department rules and statutes are found on the DEP's Internet Web site: <http://www.dep.state.fl.us/legal/Default.htm>

10. Based on our experience, the accurate identification, characterization and cleanup of sites requires experienced consulting personnel and laboratory support, management commitment of the project developers and their representatives, and will likely be very time-consuming. Early planning to address these issues is essential to meet construction and cleanup (if required) timeframes. Innovative technologies, such as special storm water management systems, engineering controls and institutional controls, such as conditions on water production wells and dewatering restrictions, may be required, depending on the results of environmental assessments.

11. Staging areas, with controlled access, should be planned in order to safely store raw material paints, adhesives, fuels, solvents, lubricating oils, cleaners, degreasers, etc. that will be used during construction and to service construction equipment. All containers need to be properly labeled. The project managers should consider developing written construction Contingency Plans in the event of a natural disaster, spill, fire or environmental release of hazardous materials stored / handled for the project construction (this should be referenced in Section 5.G. as well as Section 6.H.5.)

12. Section 6.E. needs revision, especially with regard to Groundwater Quality. I believe that Section 6.E.1.4.2. incorrectly states that the groundwater in this area are considered G-III. Please refer to Chapter 62-520, F.A.C., for the regulatory requirements (especially Rule 62-520.400, F.A.C.). I was not able to locate Appendix L-11, referenced in Section 6.E.1.

13. All fueling operations (bulk facilities, pipelines, dispensers, valves, appurtenances, etc.) must be constructed, operated and maintained in accordance with the current requirements of Chapter 62-761 or 62-762, F.A.C., as appropriate.

TO: Florida State Clearinghouse

FROM: James J. Golden, AICP, Lead Planner
Environmental Resource Regulation Department

DATE: May 2, 2007

SUBJECT: FAA – Draft Environmental Impact Statement for the Extension of Runway 9R/27L and Associated Airport Projects at Ft. Lauderdale-Hollywood International Airport – Broward County, Florida.
SAI # FL200703223172C

This fourth Draft Environmental Impact Statement (DEIS) was prepared by the Federal Aviation Administration (FAA) to evaluate potential environmental impacts associated with the development and extension of Runway 9R/27L and other airport projects at the Ft. Lauderdale-Hollywood International Airport. This draft is the result of the FAA restarting the Federal Environmental Impact Statement (EIS) review process in 2005.

The following environmental issues should be considered and addressed in formulating the Final Environmental Impact Statement (FEIS) for this project.

1. Page 5 of the Executive Summary does not identify that an Environmental Resource Permit (ERP) modification to Permit No. 06-00339-S will be required from the District. The FEIS should include this information in the list of federal, state and local permits required for the project.
2. The DEIS does not address secondary impacts to wetlands associated with the proposed runway extension. Secondary impacts to adjacent wetlands as a result of the proposed runway expansion should be addressed in the FEIS.
3. The applicant has not demonstrated that cumulative wetland impacts associated with the proposed project and other transportation-related projects planned for the area (such as Port Everglades expansion projects) have been or will be adequately addressed. Specifically, it has not been demonstrated that sufficient mitigation will be provided so that this project and other related projects will not result in unacceptable cumulative impacts to mangrove wetlands within the same drainage basin.
4. Chapter 6-J lists avoidance and reduction of impacts as mitigation measures. However, under the District's ERP criteria, reduction and elimination of wetland

impacts are not treated as mitigation measures (i.e., the applicant must demonstrate reduction and elimination of wetland impacts before mitigation can be considered). The District recognizes that the runway expansion has been substantially scaled back from the original design. The FEIS should clearly outline the specific modifications and measures that have been incorporated into the project design to reduce and eliminate adverse wetland impacts.

5. Page 6.E.2-1 of the DEIS refers to the use of the Uniform Mitigation Assessment Method (UMAM) to determine the amount of mitigation needed to offset adverse impacts to wetlands and other surface waters and to award and deduct mitigation bank credits. However, District staff could not recommend approval of the purchase of credits from a mitigation bank to offset wetland impacts associated with this project, as purchasing credits at the only permitted bank with saltwater wetland credits would mean taking the mitigation to south Miami-Dade County, resulting in a loss of mangrove wetland functions in the project basin. This option would be considered to have an adverse cumulative impact to wetland resources within the basin.
6. The mitigation section presented on Page 6.J-2 of the DEIS states that mitigation credit generated by the permitted West Lake Park mitigation project may be used to offset wetland impacts associated with the airport and Port Everglades projects and that once the FAA has determined a preferred project alternative, mitigation will be discussed with the regulatory agencies and documented in the FEIS. District staff encourages joint coordination with the regulatory agencies to determine suitable mitigation options for the project that would be acceptable to all of the agencies involved.
7. The mitigation section also refers to the duration of the West Lake Park permit. Please note that the District's permit for this project (Permit No. 060401-P) currently has an expiration date of April 14, 2009. If construction of the mitigation project is not completed by that date, the County should request an extension of the permit duration to allow sufficient time for completion of the mitigation construction.

TO: Florida State Clearinghouse

FROM: Christopher Hammel, Intergovernmental Specialist
District Four, Office of Modal Development

DATE: May 9, 2007

SUBJECT: FAA – DEIS, FOR THE EXTENSION OF RUNWAY 9R/27L AND
ASSOCIATED AIRPORT PROJECTS AT FT. LAUDERDALE-
HOLLYWOOD INTERNATIONAL AIRPORT, BROWARD COUNTY,
FLORIDA.
SAI # FL200703223172C

In response to the subject Intergovernmental Coordination and Review request, the Department has the following comments regarding the FAA: Draft Environmental Impact Statement for the extension of runway 9R/27L and associated airport projects at Ft. Lauderdale-Hollywood International Airport, Broward County.

- (1) It does not appear that the proposed airport improvements will have any impacts to any natural (wetlands, endangered species, water quality etc...) or physical (contamination, air, noise, etc...) resources that may be found in the FDOT right of way.
- (2) It does not appear that the proposed airport improvements will have any impacts to any historic or archeological resources that may be found within FDOT right of way.
- (3) Should any part of the project improvements be performed in or adjacent to FDOT right of way, it is required that coordination take place with the District 4 Office in Fort Lauderdale, Florida. Issuance of permits from FDOT may be required for project activities, either temporary or permanent, located within FDOT right of way. Please provide a commitment in the final EIS referencing coordination with FDOT.
- (4) The document refers to the surface transportation system surrounding the airport and that no commutative or secondary impacts are anticipated. Although the level of service may not be impacted, the proposed glide path dimensions may impact future improvements to I-95 and I-595 in the event elevated reversible lanes and/or transit on elevated structures are considered in the future. Currently, the I-595 PD&E study shows elevated direct connects to and from I-95 in the area of B1 and B1 refinements. Will there be restrictions as to the elevation of new structures on the interstate? Will roadway and structure construction be constrained by new glide path criteria? Please provide further discussion on the new glide path criteria and its potential impact on Interstate 95 and 595 (alternative C1).
- (5) Alternative D1 depicts a "tunnel" for FEC and US 1/SR 5. All changes to US 1/SR 5 will require FDOT coordination. The cost of improvements (drainage improvements, lighting

improvements for tunnel, depressing the roadway and reconstructing) may be the responsibility of the permit applicant.

(6) Page 6.H.2-1 Surface Transportation - this section references the Broward Metropolitan Planning Organization Long Range Transportation Plan (LRTP) and the proposed improvements to I-95. Please be advised that improvements to Florida Intrastate Highway System (FIHS), a system of controlled access and limited access facilities that provide for high-speed and high-volume traffic movements to move goods and services throughout the state, may not be found on the MPO LRTP because it is a program funded by the State. These roads are part of the Strategic Intermodal Systems (SIS) and play a role as connectors between SIS facilities (ports, airports, freight facilities). Because FLL and Port Everglades are SIS facilities and additional improvements to these facilities and roadway systems may be independent of LRTP, further coordination with the District 4 SIS coordinator should be scheduled in order to effectively document surface transportation impacts in the FEIS.

(7) According to the FAA Advisory Circular No. 150/5200-33A: Hazardous Wildlife Attractants on or Near Airports, Section 2-3b. (new storm water management facilities), "On-airport storm water detention pond should be designed, engineered, constructed, and maintained for a maximum 48-hour detention period for the design storm and remain completely dry between storms." We recommend that once the preferred alternative for the runway extension has been chosen, new storm water management facilities utilizing WET PONDS (presumptive design) be avoided in the airside of the airport.

The applicant should coordinate with Mrs. Ann Broadwell, District Environmental Administrator, at (954) 777-4325 for any environmental questions pertaining to this project. Please contact Mr. Roger Lalanne, P.E., FDOT District Permits Engineer, at (954) 777-4424 regarding FDOT permitting requirements within State maintained right-of-way. Please contact Mr. Abdul Hatim, Airport Planning Manager, at (850) 414-4504 regarding aviation based questions.

If you have any other questions, please feel free to contact me at (954) 717-2253.

Chris Babb

From: John_Wrublik@fws.gov
Posted At: Thursday, April 05, 2007 9:50 AM
Conversation: Draft EIS for Fort Lauderdale-Hollywood International Airport Improvements
Subject: Draft EIS for Fort Lauderdale-Hollywood International Airport Improvements

April 5, 2007

Virginia Lane
 FAA Orlando Airports District Office
 5950 Hazeltine National Drive
 Orlando, Florida 32822-5024

Service Federal Activity Code:	41420-2007-FA-0701
Date Received:	March 22, 2007
Project:	Runway 9R/27L and Associated Airport Projects at Fort Lauderdale-Hollywood International Airport
County:	Broward

Dear Ms. Lane:

The U.S. Fish and Wildlife Service (Service) has received the draft Environmental Impact Statement (EIS) dated March 2007, for the project referenced above. We offer the following comments on the document.

PROJECT DESCRIPTION

The Broward County Board of County Commissioners (BCBCC) has proposed to conduct improvements to the Fort Lauderdale-Hollywood International Airport in order to address existing and anticipated future airfield capacity and passenger delay issues. The draft EIS presents 8 alternatives to address the project and a "no build" alternative. The BCBCC preferred alternative includes the enlargement of Runway 9R/27L to 8,000 feet by 150 feet, and the construction of a new parallel taxiway located along the north side of Runway 9R/27L. The project is located at the Fort Lauderdale-Hollywood International Airport in Broward County, Florida.

THREATENED AND ENDANGERED SPECIES

The Service has reviewed its Geographic Information System (GIS) database for recorded locations of federally listed threatened and endangered species on or adjacent to this project. The GIS database is a compilation of data received from several sources.

5/7/2007

14

EA01

Wood stork

The project sites are located within the core foraging area (CFA) (within 18.6 miles) of an active breeding colonies of the endangered wood stork (*Mycteria americana*) (located approximately 14 miles northeast of the project site). The Service believes the loss of wetlands within a CFA may reduce foraging opportunities for wood storks. To minimize adverse effects to the wood stork, the Service's *Draft Supplemental Habitat Management Guidelines for the Wood Stork in the South Florida Ecological Services Consultation Area* (Service 2002) recommends the applicant replace wetlands lost due to the action. The compensation plan should include a temporal lag factor, if necessary, to ensure wetlands provided as compensation adequately replace the wetland functions lost due to the project. Moreover, wetlands offered as compensation should be of the same hydroperiod, and located within the CFA of the affected wood stork colony. In some cases, the Service accepts wetlands compensation located outside the CFA of the affected wood stork nesting colony. Specifically, wetland credits purchased from a "Service Approved" mitigation bank located outside the CFA would be acceptable to the Service, provided the impacted wetlands occur within the permitted service area of the bank.

FISH AND WILDLIFE RESOURCES

Wetlands Impacts and Mitigation

Wetlands provide valuable habitat for a variety of fish and wildlife species. According to Table 6.E.2.1 located in Chapter 6 on Page 6.E.2-12 of the draft EIS, all of the proposed alternatives except the no-build alternative will result in impacts to wetlands. Of the remaining 8 alternatives, Alternatives B4 and B1 (the sponsors alternative) would result in the least impacts to wetlands of 0.13 acres and 15.17 acres, respectively. The Service recommends the sponsor adopt an alternative that minimizes the loss of wetlands at the project site to the greatest extent practicable.

The Service notes that Alternative B1 (the sponsors alternative) will require the installation of approach lights and possibly an access road within existing fish and wildlife habitat east of NE 7th Avenue. The installation of the approach light system will result in direct and indirect impacts to fish and wildlife and their habitat. The construction of the approach light system will result in the loss of wetland habitat, and the operation of the lights will cause disturbance to nocturnal fish and wildlife species. Accordingly, we recommend that the approach light system be designed to minimize impacts to fish and wildlife to the greatest extent practicable.

The draft EIS indicates that the project sponsor will be responsible for permitting the project's wetland impacts and providing mitigation to offset these impacts. The draft EIS states (see Chapter 6, Page 6-J.3) that the sponsor may consider conducting mitigation for impacts to wetlands resulting from the project within public lands in West Lake Park. In general, the Service does not support enhancement or restoration of currently protected public lands as mitigation for wetland impacts resulting from state and federally permitted development projects on private lands. We note that undeveloped wetlands and uplands that provide habitat for fish and wildlife are scarce in the project area. Accordingly, the protection of remaining habitat in the region is of paramount importance. We would strongly urge the project sponsor to pursue the enhancement, restoration, and preservation of currently unprotected lands as mitigation for the impacts resulting from the project. There appears to be an opportunity to acquire wetlands immediately adjacent and to the west of West Lake Park in the vicinity of the proposed site for the runway approach lights. We recommend that the project sponsor pursue the acquisition and enhancement of these lands to expand the West Lake Park conservation area.

Thank you for the opportunity to comment. If you have any questions, please contact me at 772-562-3909, extension 282.

Sincerely yours,

John M. Wrublik
U.S. Fish and Wildlife Service
Vero Beach Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960
Phone: 772-562-3909, x-282
Fax: 772-562-4288

LITERATURE CITED

U.S. Fish and Wildlife Service (Service). 2002. Draft Supplemental Habitat Management Guidelines for the Wood Stork in the South Florida Ecological Services Consultation Area. Fish and Wildlife Service, South Florida Ecological Services Office; Vero Beach, Florida.

5/7/2007

16

EA01

Chris Babb

From: Gregory_Hogue@ios.doi.gov
Posted At: Tuesday, May 08, 2007 1:35 PM
Conversation: Draft EIS Extension of Runway 9R/27L and other Associated Airport Projects at Fort Lauderdale Hollywood International Airport
Posted To: FLL EIS Comments
Subject: Draft EIS Extension of Runway 9R/27L and other Associated Airport Projects at Fort Lauderdale Hollywood International Airport

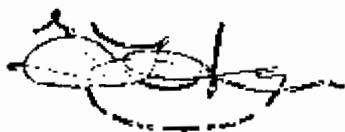
9043.1
ER 07/252

Ms. Virginia Lane
FAA Orlando Airports District Office
5950 Hazeltine National Drive
Orlando, FL 32822

Dear Ms. Lane:

The Department of the Interior has reviewed the subject draft EIS. The U.S. Fish and Wildlife Service, a bureau of the Department, provided you comments on this project dated April 5, 2007. The Department of the Interior has no additional comments to the draft EIS. My contact information is listed below if you should have any questions.

Sincerely,



Gregory Hogue
Regional Environmental Officer
Department of the Interior
Office of Environmental Policy & Compliance
75 Spring St., SW, Rm 1144
Atlanta, GA 30303
404-331-4524 (ofc)
404-331-1736 (FAX)

5/8/2007

17

EA02

Chris Babb

From: Robin Wiebler [Robin.Wiebler@noaa.gov]
Posted At: Thursday, May 17, 2007 9:45 AM
Conversation: DEIS for Development and Extension of Runway 9R/27L
Subject: DEIS for Development and Extension of Runway 9R/27L



FLL.dEIS_FINAL.
pdf (62 KB)



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5511
(727) 824-5317; FAX (727) 824-5300
<http://sero.nmfs.noaa.gov/>

May 17, 2007

F/SER4:JK/pw

Virginia Lane
Environmental Specialist
U.S. Department of Transportation
Federal Aviation Administration
5950 Hazelhine National Drive
Orlando, Florida 32822-5024

Dear Ms. Lane:

NOAA's National Marine Fisheries Service (NMFS) reviewed the draft Environmental Impact Statement (EIS), dated March 21, 2007, for the development and extension of runway 9R/27L and other associated airport projects at the Fort Lauderdale-Hollywood International Airport (FLL). The draft EIS, prepared by the Federal Aviation Administration (FAA), describes the environmental impacts associated with the airport projects proposed by the Broward County Board of County Commissioners (Broward County), which is the owner and operator of FLL. According to the draft EIS, the existing airfield lacks sufficient capacity to accommodate the forecasted demand for its use under acceptable operating conditions. In order to address this need, Broward County has proposed: expansion and elevation of Runway 9R/27L; construction of an outer dual parallel taxiway that would be separated from the proposed north side parallel taxiway by 276 feet; construction of connecting taxiways from the proposed full-length parallel taxiway to existing taxiways; and construction of an Instrument Landing System (ILS) for landings on Runway 9R/27L. Runway 9R/27L would have a Category I ILS, which includes a Medium Intensity Approach Light System (MALSR) with runway alignment indicator lights, a localizer, and a glideslope. The proposed work will also include decommissioning of Runway 13/31 and redevelopment of a terminal gate.

The draft EIS presents an analysis of several on-site and offsite site alternatives, in addition to the no-action alternative. The FAA does not present a preferred alternative in the draft EIS, hence the draft EIS does not include a statement of the overall impact of the proposed actions on essential fish habitat (EFH), as required by 50 CFR Section 600.920(e). However as an indication of what the FAA's preferred alternative might be, Broward County's preferred alternative is presented. Broward County's preferred alternative (Alternative B1c) would impact approximately 15.41 acres of wetlands including 3.05 acres of estuarine emergent vegetation (mangroves), which are designated as EFH. Other alternatives presented (such as Alternative D1) could adversely affect as much as 21.87 acres of wetlands. The airport expansion activities are located in waters of the United States adjacent to the Dania cut-off canal and Atlantic



Intracoastal Waterway (AIWW) in Broward County, Florida. As the nation's federal trustee for the conservation and management of marine, estuarine, and anadromous fishery resources, the following comments and recommendations are provided pursuant to authorities of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Consultation History

By letter dated April 6, 2001, NMFS responded to the draft EIS, dated February 5, 2001, for the expansion of runway 9R/27L. In this letter, NMFS requested that the FAA consult with our office pursuant to 50 CFR Section 600.920 for adverse affects to EFH. By letter dated January 23, 2002, NMFS provide comments on the December 26, 2001, EFH assessment prepared for the expansion of runway 9R/27L. This assessment described impacts to 17.8 acres of mangroves. In this letter, we provided three EFH conservation recommendations: (1) A plan shall be developed and implemented to avoid and/or minimize direct, secondary, and cumulative adverse effects to wetlands; (2) A plan shall be developed for providing full, in-kind compensation for unavoidable adverse impacts to wetlands; and (3) A monitoring plan shall be developed to assess the ecological success of the offsite, compensatory mitigation.

A supplement to the draft EIS was published during February 2002 to update aviation forecasts. NMFS did not find that the supplemental information affected the previously described impacts to EFH and, therefore, NMFS did not provide comments. By letter dated January 13, 2003, NMFS provided comments on the November 2002 second supplement to the draft EIS. This second supplement discussed changes regarding noise impacts and the mitigation of such impacts. Again, NMFS determined that the proposed adverse affects to EFH did not change as a result of the supplemental information and, therefore, we did not provide additional comments. However, in this letter we restated the three EFH conservation recommendations provided earlier.

In 2005, the FAA chose to restart the environmental analysis given Broward County's decision to pursue additional airside and landside planning studies in 2003 and 2004. As a result of these studies, a revised project was developed. In preparation of the present (fourth) draft EIS, the FAA has relied on the recent planning and technical studies completed by Broward County.

Project Area

NMFS staff is familiar with the area and has conducted site visits at FLL, most recently on August 10, 2006. The wetland system at FLL consists of mangroves (red mangroves, white mangroves, black mangroves, and buttonwoods) with various degrees of infestation by Australian pine and Brazilian pepper.

Alternatives

The draft EIS describes 11 offsite alternatives, 18 on-site alternatives, and the no action alternative. The FAA determined that the 11 offsite alternatives were not reasonable and therefore eliminated these alternatives from further evaluation. The FAA determined that six of the on-site alternatives could meet the purpose established for the project.

Impacts to Essential Fish Habitat

Of the six alternatives that the applicant determined would meet the project purpose and need, the impacts to EFH vary from 0.13 to 3.05 acres. An EFH assessment is provided in Section 6.F.1.4 of the draft EIS. Broward County's preferred alternative would directly impact 3.05 acres of mangroves. We acknowledge and appreciate the substantial impact minimization that has occurred since the initial draft EIS review during 2001, which identified over 17 acres of EFH that would be impacted by the project.

The Broward County's preferred alternative (Alternative B1c) includes the following components that would adversely affect EFH:

- Expansion and elevation of Runway 9R/27L to an overall length of 8,000 feet and width of 150 feet and construction of a new full-length parallel taxiway 75 feet wide on the north side of Runway 9R/27L with separation of 400 feet from 9R/27L. This action would adversely affect 2.87 acres of mangroves.
- Installation of runway approach lights and associated access roads. This action would adversely affect 0.38 acres of mangroves.

Authorization of the proposed project will result in the loss of 3.05 acres of habitats designated as EFH by the South Atlantic Fishery Management Council (SAFMC). Federally managed fishery species associated with estuarine emergent vegetation, including mangrove habitat, includes postlarval, juvenile, and adult gray, lane and schoolmaster snappers; juvenile Goliath grouper and mutton snapper; and adult white grunt. These areas play an important role in the ecological function of South Atlantic estuarine ecosystems, particularly in regard to primary production and water quality. Detailed information on the snapper/grouper complex (containing ten families and 73 species) and other federally managed fishery species and their EFH is provided in the 1998 comprehensive amendment to the fishery management plans for the South Atlantic region; the amendment was prepared by the SAFMC as required by the Magnuson-Stevens Act. Mangrove wetlands are also designated by the SAFMC as a Habitat Area of Particular Concern (HAPC), which are subsets of EFH that are rare, particularly susceptible to human-induced degradation, especially important ecologically, or located in an environmentally stressed area.

In addition to these designations by the SAFMC, mangroves in this area provide nursery, foraging, and refuge habitat for other commercially and recreationally important fish and shellfish, such as snook, striped mullet, tarpon, and blue crab, and that the cumulative loss of mangroves has reduced overall fisheries production within the southeast Florida ecosystem. Further, mangroves in the project area indirectly support fishery habitat by controlling runoff and turbidity and by stabilizing sediment, ecological functions essential to supporting adjacent waters of the Dania cut-off canal and AIWW.

Mangrove wetlands directly benefit the fishery resources of the southeast Florida by providing nursery habitat. Further, mangroves are part of a habitat complex that includes seagrass and hard bottom habitats, and this complex supports a diverse community of fish and invertebrates. Mangrove wetlands also provide important water quality maintenance functions, such as pollution uptake (bio-assimilation). Mangroves also stabilize shorelines, attenuate wave action, and produce and export detritus (decaying organic material), which is an important component of

marine and estuarine food chains. The cumulative loss of these habitats has and continues to reduce overall fisheries production within Florida waters. In fact, mangrove forests are one of the world's most threatened tropical ecosystems with global loss exceeding 35 percent, and the current rates of mangrove deforestation are likely to impact severely the function, fisheries productivity, and resilience of reefs (Mumby et. al 2004)¹.

EFH Assessment Information Needs

The draft EIS provides several items required by 50 CFR Section 600.920(e) for an EFH assessment, including a description of the proposed action, an analysis of direct impacts to fishery resources by life history stage, avoidance and minimization to EFH, and alternatives to the proposed action. However additional information is needed in order for NMFS to fully evaluate the proposed work:

- A full assessment of cumulative effects. In this regard, we note that there are a few past, present, and reasonably foreseeable future activities that have been omitted in the cumulative effects discussion (draft EIS, chapter 7), including the proposed U.S. Border Patrol facility (associated with U.S. Army Corps of Engineers permit application number SAJ-2006-3233) that proposes to adversely affect over 4 acres of mangroves. NMFS is concerned that, as a result of cumulative impacts to EFH in Broward County, little to no compensatory mitigation options are available within the affected watershed. Therefore, we recommend that the cumulative effects assessment provide a table of past, present, and reasonably foreseeable EFH impacts that includes a description of how such impacts have been/will be mitigated.
- The FAA's, or lead federal agency's, views regarding the effects of the action on EFH. Although the FAA states that each alternative would not result in a significant impact to EFH, this determination is based on the assumption that the impacts can be mitigated (see next item).
- Compensatory mitigation plan. The draft EIS states that there may be compensatory mitigation options available at West Lake Park associated with the habitat restoration authorized by the Department of the Army via permit number 2002-0072 (IP-LAO), however we are also aware of other projects by the Broward County Board of County Commissioners (such as the Port Everglades Expansion) that propose to use this mitigation as well. The EFH assessment should fully describe how mangrove impacts would be mitigated. (See EFH conservation recommendations for additional information.)
- Unified Mitigation Assessment Method (UMAM) scores. The draft EIS provides UMAM scores for the wetland areas proposed for impact under Broward County's preferred alternative. However, the only way to determine the amount of mitigation necessary to offset 3.05 acres of mangrove wetlands would be to have UMAM scores for the mitigation site, which are not included in the draft EIS. The compensatory mitigation plan should include all necessary UMAM scores to determine that all functional losses can be mitigated.

¹ Mumby P.J., J. E. Alasdair, E. Arias-Gonzalez, K.C. Lindeman, P.G. Blackwell, A. Gall, M.I. Gorczyńska, A.R. Harborne, C.L. Pescod, H. Renken, C.C. Wabnitz, and G. Llewellyn. 2004. Mangroves enhance the biomass of coral reef fish communities in the Caribbean. *Nature* 27: 533-536.

Based on the above discussion of direct and indirect impacts likely to result from the proposed project, NMFS concludes that the potential adverse impacts to EFH and other living marine resources could occur as a result of the proposed work. Section 305(b)(4)(A) of the Magnuson-Stevens Act requires NMFS to provide EFH conservation recommendations when an activity is expected to adversely impact EFH. Based on this requirement, NMFS provides the following:

EFH Conservation Recommendations

1. A plan shall be developed for providing full, in-kind compensation for unavoidable adverse impacts to wetlands. The plan shall address compensation for loss of productivity and habitat functions that occur during the period between elimination/degradation of existing wetlands and establishment of functionally compatible mangrove habitat that would be protected in perpetuity. Execution of the approved mitigation plan shall be a required component of the project.
2. A monitoring plan shall be developed to assess the ecological success of the offsite, compensatory mitigation. Annual monitoring of the mitigation site shall take place for five years following completion of the mitigation project. In the event it is determined that the implemented mitigation measures do not completely offset the destruction of mangrove wetlands, the plan shall include contingency measures, such as additional planting or exotic vegetation removal, in order to provide functionally suitable replacement habitat. The mitigation/monitoring plan shall be forwarded to the NMFS for review and approval prior to initiation of construction.

Thank you for the opportunity to provide comments. Related correspondence should be directed to the attention of Ms. Jocelyn Karazsia at our West Palm Beach office, which is co-located with the US Environmental Protection Agency at USEPA, 400 North Congress Avenue, Suite 120, West Palm Beach, Florida, 33401. She may be reached by telephone at (561) 616-8880, extension 207, or by e-mail at Jocelyn.Karazsia@noaa.gov.

Sincerely,



/ for

Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

cc: (via electronic mail)
EPA, WPB
FWS, Vero Beach
Broward County
FWC, Tallahassee
FDEP, WPB
SAFMC
F/SER Keys
F/SER3
F/SER47, Karazsia

Chris Babb

From: Chris Babb
Sent: Friday, May 18, 2007 10:52 AM
To: FLL EIS Comments
Subject: FW: Additional Comments (Air) for the Draft EIS at Ft. Lauderdale/Hollywood International Airport (FLL)

Attachments: EIS FtLauderdaleAirport5-07.doc



EIS
lerdaleAirport5-0

"Gray, Tim"
<Tim.Gray@dep.state.fl.us>
05/18/2007 10:30 AM
To
Virginia Lane/ASO/FAA@FAA
cc
Subject
Additional Comments (Air) for the
Draft EIS at Ft.
Lauderdale/Hollywood International
Airport (FLL)

Virginia, these comments are in addition to those comments you have already received from DEP through the Clearinghouse. Thanks,

<<EIS Ft. Lauderdale Airport>>

Timothy A. Gray
Water Resource Management and Environmental Planning Florida Department of Environmental Protection Southeast District 400 North Congress Avenue, Suite 200 West Palm Beach, Florida 33401
(561) 681-6708
SC 226-6708
tim.gray@dep.state.fl.us

----- Message from "Offord, Bruce" <Bruce.Offord@dep.state.fl.us> on Thu,

17 May 2007 20:11:47 -0400 -----

To: "Gray, Tim" <Tim.Gray@dep.state.fl.us>

Subject: EIS Ft. Lauderdale Airport

Tim- Here are my comments. Please send them out as soon as possible.
Thanks, Bruce

<<EIS FtLauderdaleAirport5-07.doc>>
(See attached file: EIS FtLauderdaleAirport5-07.doc)

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EIA 04

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT EIS

The Southeast District Department of Environmental Protection (DEP) Air Program offers the following comments:

Carbon Monoxide (CO) Dispersion Analysis

1. Please provide the CAL3QHC modeling results, including inputs and methodology used, for the worst case intersection of Griffin and U.S. Highway 1.
2. Why was Mobile5a, Attachment G.1 page 64, used for the intersection CO analysis? Mobile6.2 is currently required by DEP and was used for the parking facilities analysis, Attachment G.1 page 38.
3. Chapter 6.B-30 states that future improvements in USEPA emissions standards **would** offset additional emissions caused by increasing numbers of vehicles. This is not always the case. Please clarify.
4. In the final EIS please address CO concerns for the areas in the immediate vicinity of the construction site.

Asbestos

1. Chapter 6.H.5 references the demolition of Wyndham Hotel and the other possible structural changes. Any demolition site preparation activities will require that a notice be sent to the appropriate air program as required by the National Emission Standards for Asbestos, 40 CFR Part 61, Subpart M. If asbestos is present, a licensed asbestos contractor must properly remove it prior to demolition.

Fugitive Dust Control

1. In the final EIS please include a detail fugitive dust control program that is consistent with all relevant Broward and DEP requirements. Measures that may be used to mitigate fugitive dust impacts include the following:
 - Spraying exposed areas with water or other dust suppressants
 - Washing construction vehicles, particularly their wheels and underbodies before they leave the site
 - Minimizing the use of vehicles in unpaved or uncovered areas
 - Regularly cleaning adjacent paved areas to remove dust before it can be re-suspended

Transportation Demand Strategies

1. In order to reduce the number of vehicle trips it is recommended that full consideration be given to actively encourage and promote mass transit use along with car and van pooling by employing a public information and education program.

Implementing designated preferential-parking spaces or charging reduced fares for car and vanpools is encouraged. Assistance for transit, car pooling, and van pooling program development, implementation, and marketing can be obtained at no-cost from South Florida Commuter Services (SFCS). SFCS can be contacted at **1-800-234-RIDE (7433)** or at their web site: www.1800234RIDE.com.

Construction Related Impacts

1. To reduce construction related impacts resulting from emissions of diesel equipment DEP is requesting that full consideration be given to the use of bio-diesel fuel or requiring that only diesel equipment manufactured after 2007 be utilized. Both of these measures will assist in reducing CO and particulate matter emissions.

Chris Babb

From: Chris Babb
Sent: Monday, May 21, 2007 4:30 PM
To: FLL EIS Comments
Subject: FW: Comments to the DEIS
Attachments: DEIS-Comments-IssuesMay-07.doc

From: Hill, Barbara [mailto:BAHILL@broward.org]
Sent: Monday, May 21, 2007 3:01 PM
To: Virginia.Lane@faa.gov
Cc: Henry, Bertha; Mark Perryman; Bielek, Robert; Mgschneiderman@aol.com; Bowers, Debbie; Posadas, Bolfi
Subject: Comments to the DEIS

Virginia:

I have been asked to forward the comments to the DEIS to you. The attached represent the technical comments on the DEIS prepared by Broward County staff. We believe that more effective communication during the development of the DEIS would have minimized the concerns that remain; however, we believe that the Final EIS will address these issues. We appreciate the hard work of the FAA and its team in the preparation of this complex and thorough document.

Please let me know if you need additional information from the County. Thank you.

Barbara M. Hill
Assistant County Attorney
Broward County Attorney's Office
115 South Andrews Avenue
Fort Lauderdale, Florida 33301
Telephone: (954) 357-7600
Telefax: (954) 357-6968

5/23/2007

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FAOS

Fort Lauderdale-Hollywood International Airport

Draft Environmental Impact Statement

Technical Comments and Questions

		Issue	Additional Comments
General Environmental		Wetland Maps	The wetland maps show polygons which appear to be surface waters. We suggest labeling them for clarity.
	Section 5.E.2	Wetland determinations	Please cite the source for the determinations of jurisdictional wetlands.
	Section 5.E.2.2	Existing wetlands	This section references wetlands in the study area as having been altered by previous projects, or as created as mitigation for unavoidable wetland impacts. To our knowledge, W-6 is the only wetland that is a mitigation site.
	Section 5.E.2	Wetland description	W-7 has not existed for at least a year. It was permitted through the Westside Development to be destroyed and mitigated for at W-6.
Exec. Summary	Ex ES-2	Future holding pad	Exhibit ES-2 shows a future holding pad. This area might more appropriately be shown as future terminal ramp for an expanded terminal.
	Ex ES-3	Eliminate west Perimeter Road	On Exhibit ES-3 the runway can be moved west since Perimeter Road has to be closed.
		Future holding pad	Exhibit ES-3 shows a future holding pad. This area might more appropriately be shown as future terminal ramp for an expanded terminal.
	Ex ES-4	9R/27L EMAS below standards	The EMAS on Exhibit ES-4 for 9R/27L appears to be below FAA standards.
		Existing lease	On Exhibit ES-4 the area west of the General Aviation Apron is marked for Future Taxiway Pavement. This area already has a long term lease. We suggest including a discussion of the terms on which the lease may be terminated early, and inclusion of an estimate of the costs

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EMAS

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			of doing so in the alternatives cost analysis.
		Landside to balance additional gates.	Exhibit ES-4 includes long extensions of Terminal 2 and 3 concourses. We suggest an analysis of the sufficiency of landside capacity available to balance the additional gates.
		Terminal Apron - insufficient clearance	On Exhibit ES-4 there appears to be insufficient clearance of the Terminal Apron South of Terminal 4 for aircraft that currently use Terminal 4 (A330 aircraft).
		Need to check engine out departure path	On Exhibit ES-4 please verify the engine out departure path.
		Use of railroad yard	Exhibit ES-4 shows use of existing railroad yard area for airport purposes. Please verify with the railroad that this use is acceptable and include the cost in the alternatives cost analysis.
	Ex ES-5	Move Perimeter Road west	On Exhibit ES-5 Perimeter Road can move further west.
		Perimeter road rerouting - close	On Exhibit ES-5 please verify that the Perimeter Road rerouting is not too close to the runway.
		Future holding pad	On Exhibit ES-5 please explain the future holding pad area west of the terminals.
		Relocation and construction sequencing	On Exhibit ES-6 the highlighted "Relocated Tenant Facilities" cannot be used until after the runway is opened. Please clarify the sequence of events and the available runways at each stage of construction. The exhibit can be read to result in some period during which only one air carrier runway is available at FLL.
		Three "X" in buildings next to relocated tenant facilities	Some of the areas for relocated tenant facilities are covered by existing long term leases, or are designed for drainage. A statement of the conditions under which leases can be terminated early and the cost of doing so would assist the reader in validating cost comparisons.
		Fuel farm	The relocated fuel farm must be on the pipeline. It is not clear where it is to be located. The cost of relocation should be included in the alternatives cost analysis.

EMOS

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Ch. 3	3-9	Section 3.3.1.2 Page 3-10 Paragraph 2	The throughput number of 84 does not match FAA capacity needs study figure of 86. For clarity, please explain the difference.
	3-13	Unlabeled graph	Exhibit 3-2 is not marked with any variables.
	3-15	Capacity	Please explain the source and method for the airfield capacity numbers of 101 and 107 operations. Compare to the actual capacity of the airfield alternative.
	3-17	Clearance requirements	Page 3-17 Paragraph 3 in Section 3.3.2.2 Please confirm that this analysis takes into account Engine-Out requirements.
	3-18	Aircraft winglets	Page 3-18, Paragraph 2 & footnote 16, should specify the aircraft used and state whether the wingspan frontage takes into account winglets.
Ch. 4	4-27	B4 utility	Page 4-27 Table 4-3, B4 runway does not appear adequate unless primarily for use by GA aircraft. Please clarify.
		Runway length	Page 4-27 Table 4-3. Is this length adequate when used as replacement for 9L/27R?
	4-31	RSA standards	Page 4-31 Paragraph 2. Please verify that B4 meets FAA runway safety area standards.
		Runway length	Page 4-31 Please show the declared distances and explain the difference, if any, between total runway length of 7,721 feet and operational lengths.
		Construction phasing	Page 4-31 - Paragraph 4. Please clarify the sequence of events and the available runways at each stage of construction. The DEIS can be read to result in some period during which only one air carrier runway is available at FLL.
	4-36	Holding bay	Page 4-36 Paragraph 5 Section 4.3.2.2 Please explain the need for the holding bay.
	4-38	Capacity calculation	Page 4-38 Section 4.3.2.6 indicates 107 operations per hour. Please explain the difference between this number and the FAA's capacity needs study number of 120 per hour with the preferred alternative.

EMOS

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	4-40	Runway slope	Page 4-40 Section 4.3.3.1 Alternative B4 has a runway at + 0.8 % slope on the eastern half. Please explain the impact of this slope on operations and capacity.
		RSA length	Page 4-40 Section 4.3.3.1 Please explain any differences between FAA's RSA requirements and the proposed RSA for B4 and the relationship of this proposal to the FAA's RSA program.
		Penetrations to TERPs departure surface	Page 4-40 Section 4.3.3.1 penetrations to TERPs departure surface appear to be less than the engine out analysis required by Part 121 and Part 135. Please address engine out analysis.
		Standards	Page 4-40 Footnote 63. Please explain how this meets the Advisory Circular standard
	4-41	Runway 9R landing visibility minimums	Page 4-41 Section 4.3.3.3 indicates Runway 9R would have landing visibility minimums of three-quarters of a mile or greater, in lieu of the standard one-half mile visibility minimums prescribed for Category I ILS. Please explain the difference.
	4-42	Railroad and Florida DOT approvals	Page 4-42 Permanent Impacts Section. Please include indications FAA has from the railroad and Florida DOT that encroachment or relocation of the FES Railway and Florida DOT are feasible and can be approved.
		International terminal	Page 4-42 Section 4.3.3.5 This section indicates redevelopment of Terminal 4 with narrow body gates. T4 is the international terminal and serves aircraft up to the size of the A330. Does this alternative contemplate a new international terminal or a new FIS? If so, are the costs of relocation included in the costs for this alternative?
		Wing span	Page 4-42 Section 4.3.3.5. The redevelopment of Terminal 4 needs to accommodate aircraft with winglets such as the

FMS

			B757-200/300 and international wide body aircraft if it is to remain the international arrival terminal.
		107 ops per hour	Page 4-42 Section 4.3.3.6 Please explain how 107 operations per hour was calculated including assumptions.
	4-43	Master Plan reference	Page 4-43 Section 4.3.3.7 indicates that Alternative B4 uses Option 2B of the Master Plan. Please verify and revise as needed.
	4-48	Engine out and declared distance analysis	Page 4-48 Section 4.3.5.1 Please check the Engine Out analysis and identify declared distances.
		TERPs departure surface	The TERPs analysis only leaves 6,100 ft for all departures on Runway 26. Please confirm and show the impact on the capacity analysis.
		Taxiway A connection	Page 4-48 Section 4.3.5.2 Elevation of the runway is increased to 10' MSL on each end which is higher than taxiway A. In this alternative, how will is the runway/taxiway connection proposed to be made?
	4-49	Relocations	Page 4-49 Section 4.3.5.4 states majority of facilities can be relocated. How and where are these facilities proposed to be located. Please identify the real estate that is proposed to be used for relocations and confirm that the sequence of relocations can be accomplished while maintaining full operations at the airport. The assumption that a majority of the facilities could be relocated to the west side of the airfield and maintain functionality does not appear correct.
	4-50	Relocations	Page 4-50 Section 4-35 Paragraph 2. Please explain the relocation assumptions and the criteria used to determine which tenants require airfield access. It is likely that freight will need to be screened and will need to remain within a SIDA area and not transported through unsecured areas. Explain how the proposed relocation plan accommodates such movements.

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		Capacity calculations.	Page 4-50 Section 4.3.5.5 Please explain how Alternative C1 accommodates 101 operation per hour in all weather conditions.
	4-60	B4 pavement cost	Table 4-6 Pages 4-60 The construction cost estimate for the Alternative B4 runway pavement is \$44,623,713. Please provide detail on this calculation.
	4-62	C1 pavement cost	Table 4-8 Page 4-62 The construction cost estimate for Alternative C1 runway pavement is \$48,192,303. Please provide detail on this calculation.
Vol. 2	Tab. 6.K.1	Operational estimates	Table 6.K.1 Please explain differences between this table and the FAA's Capacity Needs Report.
Ch. 6		Alternatives vs. No action	Table 6.K.1 Alternative B4 Please clarify how the Average Minutes of Delay Per Operation and Benefit Over No Action figures were calculated for both 2012 and 2020. Does this include potential refusals?
		Hotel and FEC relocation cost	Table 6.K.1 In Alternative B4. Please show the cost of hotel and FEC relocation.
		Runway costs	Table 6.K.1 Alternative B4 and C1 please provide the calculations of runway costs.
		Cost estimates	Table 6.K.1 Please provide the calculations for the land acquisition estimate for Alternative C1, including detail on relocation costs.
		Displaced businesses	Table 6.K.1 Secondary Induced and Infrastructure on Alternative C1. This is described as a "positive" outcome but will affect many businesses on the airport who could be left homeless.
Ch. 7	7-7	Concourse A	Page 7-7 Paragraph 2 Please resolve the status of proposed Concourse A. It is not included as part of the proposed project here, and the FAA has not acted on the independent proposal finally submitted last year.
	7-10	Bus and tram fuel	Page 7-10 The DEIS states here that "busses and trams at FLL would eventually be powered by bio diesel fuel." They are now. Please revise.

EMDS

VOL 3		Calculations	Table D.4-1 - The calculation to achieve 80% of the operations during the peak hour uses percentages of aircraft during the peak that do not appear to match the overall percentage of operations by type of aircraft. For example, while large aircraft account for more than 64% of the total operations they are shown as being 53% of the operations during the peak hour. The DEIS equates this to 80% of the fleet at 80% of the useful load, but these do not appear to have a relationship with each other. The B757 will be limited on hot days - probably less than 500m for the 300 and less than 2k for the 200.
Appendix E	E-6	EMAS pad design.	Page E-6 - The proposed reduced length EMAS pad appears to be based on a displaced landing threshold for Runway 27L. Does this meet the RSA standard for Runway 9R if the full length of the runway is available for takeoff? This reduces the overrun area for 9R by the length of the displacement, or applies declared distance to the situation without reduction in TODA. Please clarify.
	E-7	Elevation impacts	Page E-7 - Raising the elevation of Terminal 4 and its associated apron appears to require that a number of gates would be taken out of service for a prolonged period of time and appears to result in a significant difference in elevation of the apron and the entrance roadway system. Please show how drainage, and connection into the remainder of the terminal ramp, location of the FIS, etc. are proposed to be accomplished. Please include a description of the impacts of B4 on Terminal 4 as shown for B1b/c.
	E-17	Acreage for relocation	Page E-17 – The sponsor can identify 40 to 50 acres available for relocation, not 148 acres. Please show the basis for the 148 acre calculation.
	E-35	Runway slope	Table E.2-4 - Please enhance the graphics and text for B4 to show the magnitude of the runway slope.

	E-37	Depiction of MSE walls at runway ends.	Exhibits 4-21 through 4-28 There are no MSE walls east of the Runway 27L threshold for Alternatives B1, B1b or B1c (or D1) although there is a wall shown on the graphics. There is a wall east of the Runway 27L threshold in Alternatives B4 and D2 although there is no wall shown in the graphic. Please revise the graphics.
	E-62	Ph 2: Decommission r/w 13/31	Please clarify the sequence of events and the available runways at each stage of construction. The DEIS can be read to result in some period during which only one air carrier runway is available at FLL.
	E.1 4D	Slope	Please verify.
	5A	Slope	Please verify.
	5B	Slope	Please verify.
	5C	Notes: 1.	Due to presence of the FEC, non-standard departure minimums and/or climb gradient may be required. Please verify.
		Slope	Please verify.
		TERPS penetrations	TERPS penetrations appear to occur. Please verify.
		Drainage	Everything here appears to drain back into the terminal building. Please include the analysis supporting the feasibility of the grades and drainage pattern.
	5D	Slope	Please verify.
	6C	Hilton Hotel.	Please show the costs included for acquisition and relocation of the hotel.
Volume 4	Appendix F-3	Small aircraft	Page F-3 table F-2 Please explain the assumption that the number of small aircraft will increase with static airfield capacity and increasing overall passenger demand. Upgauging would be expected.
	F-4	Small aircraft use of 9R	Page F-4, Paragraph 3 indicates that there is an increase in small and large aircraft operations and states most of these aircraft are unable to use the existing south runway. However small aircraft can currently use the existing short

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EA05

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			south runway. Please explain the allocation of small aircraft among runways in the analysis.
	F-6	600' north for B4	Page F-6 Paragraph 2 Please explain how this applies to the B4 alternative. A 600-foot relocation appears necessary.
		Only for small aircraft	Page F-6 Paragraph 4 the last sentence indicates that the south airfield will be used for both arrivals and departures (i.e. mixed operations). Is this for only for small aircraft?
	F-7	Only for two runway case	Page F-7 Paragraph 1 and 2. Is this premise only for the two runway case.
	F-8	Runway length analysis.	Page F-8 Paragraph 1. This analysis appears inconsistent with the method by which the 80% figure was developed in Appendix D (Table D.4-1) where it was characterized as 80% of the operations in the peak hour rather than 80% of the maximum payload. The 80% of the useful load is not applicable to the discussion regarding Alternative B4, or for departures on Runway 26.
Appendix L - Water Resource	L-1	Storm Water Master Plan	Concerns that the reference Broward county FLL Storm Water Master Plan (7/2001) - Storm water has not been calibrated, verified, and updated to existing condition.
General Comments		Terminal 4 Impacts of Alt. B4	It is not clear what the associated impacts to T4 and its surroundings will be. For example, the drawings provided do not show the change in elevation on the north and east sides of the proposed runway and how drainage will be handled through the terminal ramp area or how the Terminal 4 ramp will be tied into the remainder of the terminal ramp. As a result, the comparative costs of alternatives shown in the DEIS may require adjustments.

EAO5

		Construction sequence for alternatives B4, C1, D1, D2	Although construction sequencing cannot be fully determined at this time, the complexity of constructing these alternatives may significantly affect construction costs and significantly adversely affect airport operations during construction. To provide reasonable construction cost comparisons, and to assess the ability of the airport to operate at full capacity during construction, more detail relating to construction sequencing is required.
		Construction Costs differential between alternatives	Pavement costs appear to vary significantly on a unit cost basis among alternatives. Construction complexity appears to be similar. More detail on the reasons for the variation in similar costs for different alternatives would help validate the cost comparisons.
		Relocation Impact and Cost for alt. C1	The DEIS rests on the assumption that there is sufficient available land for relocation for alternative C1. To build C1 on the proposed schedule would require BCAD to terminate several long term leases and to reprogram currently vacant land already committed for other uses which, in turn, would have to be located elsewhere. A statement of the conditions under which leases can be terminated early and the cost of doing so would assist the reader in validating cost comparisons.



APR 19 2007

FLORIDA DEPARTMENT OF STATE
Kurt S. Browning
Secretary of State
DIVISION OF HISTORICAL RESOURCES

Ms. Virginia Lane
Orlando Airports District Office
Federal Aviation Administration
5950 Hazeltine National Drive
Orlando, Florida 32822-5024

April 13, 2007

RE: DHR Project File No.: 2007-2396, formerly 2005-12090
Received by DHR: March 9, 2007
Federal Aviation Administration (FAA)
Expansion of Area of Potential Effect (APE) and Desktop Survey to the Cultural
Resource Assessment Survey and Desktop Analysis for the Fort Lauderdale-Hollywood
International Airport, Broward County

Dear Ms. Lane:

Our office received and reviewed the above referenced project in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended and *36 CFR Part 800: Protection of Historic Properties* and the *National Environmental Policy Act of 1969*, as amended. The State Historic Preservation Officer is to advise Federal agencies as they identify historic properties (listed or eligible for listing in the *National Register of Historic Places*), assess effects upon them, and consider alternatives to avoid or minimize adverse effects.

Completion of the Janus Research desktop investigations provided good overview of the type of potential historic properties within the APE, and the location of areas where additional efforts to conduct a more detailed and evaluative assessment. For example, 500 buildings were identified (mostly residential) in the expanded APE, but there is not enough information to determine whether there is a historic residential district that may be potentially eligible for listing in the *National Register*. As a result, we suggest that FAA:

- Provide a random sampling of the building dates and building styles in and near the APE, furnish photographs of the sample houses/buildings, and key each to a location map of the illustrated houses/buildings.
- Coordinate with this office as to what other additional steps should be taken to complete the historic properties identification and evaluation phase (architectural and archaeological).

As you are aware FAA is also responsible for identifying and contacting consulting parties, according to *36 CFR Part 800: Protection of Historic Properties*. According to *36 CFR Part 800.4 (3) and (4)*, the FAA needs to:

500 S. Bronough Street • Tallahassee, FL 32399-0250 • <http://www.flheritage.com>

<input type="checkbox"/> Director's Office (850) 245-6300 • FAX: 245-6436	<input type="checkbox"/> Archaeological Research (850) 245-6444 • FAX: 245-6452	<input checked="" type="checkbox"/> Historic Preservation (850) 245-6333 • FAX: 245-6437	<input type="checkbox"/> Historical Museums (850) 245-6400 • FAX: 245-6433
<input type="checkbox"/> Southeast Regional Office (561) 416-2115 • FAX: 416-2149	<input type="checkbox"/> Northeast Regional Office (904) 825-5045 • FAX: 825-5044	<input type="checkbox"/> Central Florida Regional Office (813) 272-3843 • FAX: 272-2340	

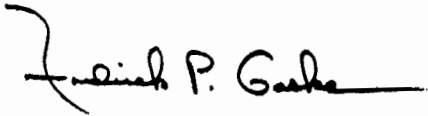
Ms. Lane
April 13, 2007
Page 2

“seek information, as appropriate, from consulting parties, and other individuals and organizations likely to have knowledge of, or concerns with, historic properties in the area, and ... gather information from any Indian tribe ... identified pursuant to 800.3(f) to assist in identifying properties, including those off tribal lands, which may be of religious and cultural significance to them and may be eligible for the National Register, ...”

Please provide this office a list of consulting parties and include a copy of the proposed project description and comments forwarded to them.

We look forward to coordinating additional historic property identification and evaluation efforts with the FAA. If you have any questions, **please contact James Toner, Historic Sites Specialist, by telephone at 850-245-6333, or by electronic mail jtoner@dos.state.fl.us.**

Sincerely,



Frederick P. Gaske, Director, and
State Historic Preservation Officer

XC: Christopher Eck, Broward County
Julie Walls, City of Hollywood
Michael Sizelsky, City of Fort Lauderdale



APR 24 2007

Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450
April 18, 2007

STEPHANIE KOPELOUSOS
SECRETARY

Ms. Virginia Lane
FAA Orlando Airport District Office
5950 Hazeltine National Drive
Orlando, FL 32822-5024

Re: DEIS for the extension of Runway 9R/27L and associated airport projects at Fort Lauderdale-Hollywood International Airport, Broward County, Florida.

Dear Ms. Lane:

We have reviewed the above referenced DEIS for the extension of Runway 9R/27L at the Fort Lauderdale-Hollywood International Airport and offer the following comment/advisory:

According to the FAA Advisory Circular No.150/5200-33A Hazardous Wildlife Attractants on or Near Airports, Section 2-3b. New stormwater management facilities: "On-airport stormwater detention pond should be designed, engineered, constructed, and maintained for a maximum 48-hour detention period for the design storm and remain completely dry between storms." We recommend that once the preferred alternative for the runway extension has been chosen, new stormwater management facilities utilizing WET PONDS (presumptive design) be avoided in the airside of the airport.

We appreciate the opportunity to review the DEIS. Should you have any questions, feel free call me at (850) 414-4504.

Sincerely,

A handwritten signature in cursive script, appearing to read "Abdul Hatim".

Abdul Hatim
Airport Planning Manager

cc: Mr. William J. Ashbaker, P.E., FDOT, State Aviation Manager
Mr. Aaron Smith, FDOT, Airspace and Land Use Manager

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AC 02



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701
(727) 824-5312, FAX (727) 824-5309
<http://sero.nmfs.noaa.gov>

MAY 2 - 2007

F/SER31:AL

Ms. Virginia Lane
Federal Aviation Administration (FAA)
Orlando Airports District Office
5950 Hazeltine National Drive
Orlando, FL 32822-5024

Subject: Draft Environmental Impact Statement (DEIS) for the Fort Lauderdale Hollywood
(FLL) International Airport

Dear Ms. Lane:

This responds to your March 21, 2007, letter announcing the availability of the subject DEIS and request for comments. The National Marine Fisheries Service (NMFS) has reviewed the section of the DEIS concerning impacts to endangered and threatened species. Comments provided herein are technical assistance to the FAA concerning potential effects to endangered and threatened species under NMFS' purview, pursuant to section 7 of the Endangered Species Act (ESA).

The DEIS states that the purpose of the proposed project is to enhance FLL Airport's capacity to accommodate forecasted air traffic through the year 2020; decommission the use of runway 13/31; mitigate noise exposure due to proposed improvements by implementing a runway use plan and residential noise mitigation process; and implement residential noise mitigation initiatives in areas not currently eligible under the Airport Improvement Program to deal with the overall forecasted growth in aircraft operations. The DEIS does not present a Proposed Action, rather it presents a range of alternatives to address the purpose and need of the project.

Five species of sea turtles (loggerhead, green, Kemp's ridley, hawksbill, and leatherback); smalltooth sawfish (*Pristis pectinata*); and Johnson's seagrass (*Halophila johnsonii*) are known to occur in or near the project area. Based on a site visit conducted by NMFS and the FAA on August 10, 2006, NMFS believes the project may impact mangrove habitat utilized by juvenile smalltooth sawfish for refuge. The project area does not contain designated critical habitat for any listed species under our purview.



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AC03

In order to evaluate potential effects to ESA-listed species, NMFS requests a biological assessment (BA) be prepared by the FAA or its designated non-federal representative. The BA should be prepared once a Proposed Action has been determined. Please use NMFS' enclosed *Recommendations for the Contents of Biological Assessments and Biological Evaluations* as a guide during BA preparation. The BA should define the action area; describe the type, frequency, duration, and methods of the proposed construction activities; and analyze the potential direct, indirect, and cumulative effects to protected species that may be present in or near the project area. Requests for ESA section 7 consultation should be sent to David Bernhart at the letterhead address.

If you have any questions, please contact Audra Livergood by telephone (305) 595-8352, or by e-mail Audra.Livergood@noaa.gov.

Sincerely,



David M. Bernhart
Assistant Regional Administrator
for Protected Resources

Enclosure

cc: Jocelyn Karazsia, HCD (West Palm Beach)

File: 1514-22 O.6.FAA
Ref: T/SER/2007/02532

National Marine Fisheries Service
Recommendations for the Contents of
Biological Assessments and Biological Evaluations
O:\FORMS\BA GUIDE-INITGUIDE COMBO .doc

When preparing a Biological Assessment (BA) or Biological Evaluation (BE), keep in mind that the people who read or review this document may not be familiar with the project area or what is proposed by the project. Therefore your BA or BE should present a clear line of reasoning that explains the proposed project and how you determined the effects of the project on each threatened or endangered species, or critical habitat, in the project area. Try to avoid technical jargon not readily understandable to people outside your agency or area of expertise. Remember, this is a **public document**. Some things to consider and, if appropriate, to include in your BA or BE, follow.

1. What is the difference between a Biological Evaluation and a Biological Assessment?

By regulation, a Biological Assessment is prepared for “major construction activities” — defined as “a construction project (or other undertaking having similar physical effects) which is a major Federal action significantly affecting the quality of the human environment (as referred to in the National Environmental Policy Act of 1969 (NEPA) [(42 U.S.C. 4332(2)(C))].” A BA is required if listed species or critical habitat may be present in the action area. A BA also may be recommended for other activities to ensure the agency’s early involvement and increase the chances for resolution during informal consultation. Recommended contents for a BA are described in 50 CFR 402.12(f).

Biological Evaluation is a generic term for all other types of analyses in support of consultations. Although agencies are not required to prepare a Biological Assessment for non-major construction activities, **if a listed species or critical habitat is likely to be affected, the agency must provide the Service with an evaluation on the likely effects of the action.** Often this information is referred to as a BE. The Service uses this documentation along with any other available information to decide if concurrence with the agency’s determination is warranted. Recommended contents are the same as for a BA, as referenced above.

The BAs and BEs should not be confused with Environmental Assessments (EA) or Environmental Impact Statements (EIS) which may be required for NEPA projects. These EAs and EISs are designed to provide an analysis of multiple possible alternative actions on a variety of environmental, cultural, and social resources, and often use different definitions or standards. However, if an EA or EIS contains the information otherwise found in a BE or BA regarding the project and the potential impacts to listed species, it may be submitted in lieu of a BE or BA.

2. What are you proposing to do?

Describe the project. A project description will vary, depending on the complexity of the project. For example, describing the construction or removal of a fixed aid-to-navigation in the Intracoastal Waterway, or the abandonment/dismantling of an oil-producing-platform may be relatively simple, but describing a the extent and amplitude of potential impacts of military training exercises involving different military assets, combinations of weaponry, locations, and seasons would necessarily be more detailed and complex. Include figures and tables if they will help others understand your proposed action and its relationship with the species’ habitat.

How are you (or the project proponent) planning on carrying out the project? What tools or methods may

be used? How will the site be accessed? When will the project begin, and how long will it last?

Describe the “action area” (all areas to be affected directly or indirectly by the Federal action and not merely the immediate areas involved in the action [50 CFR 402.02]). Always include a map (topographic maps are particularly helpful). Provide photographs including aerials, if available. Describe the project area (i.e., topography, vegetation, condition/trend).

Describe current management or activities relevant to the project area. How will your project change the area?

Supporting documents are very helpful. If you have a blasting plan, best management practices document, sawfish/sea turtle/sturgeon conservation construction guidelines, research proposal, NEPA or other planning document or any other documents regarding the project, attach them to the BA or BE.

3. What threatened or endangered species, or critical habitat, may occur in the project area?

A request for a species list may be submitted to the Service, or the Federal action agency or its designated representative may develop the list. If you have information to develop your own lists, the Service should be contacted periodically to ensure that changes in species’ status or additions/deletions to the list are included. Sources of biological information on federally-protected sea turtles, sturgeon, Gulf sturgeon (and Gulf sturgeon critical habitat), and other listed species and candidate species can be found at the following website addresses: NMFS Southeast Regional Office, Protected Resources Division (<http://sero.nmfs.noaa.gov/pr/protres.htm>); NMFS Office of Protected Resources (<http://www.nmfs.noaa.gov/pr/species>); U.S. Fish and Wildlife Service (<http://noflorida.fws.gov/SeaTurtles/seaturtle-info.htm>); <http://www.nmfs.noaa.gov/pr/>; <http://www.sad.usace.army.mil/protected%20resources/turtles.htm>; <http://endangered.fws.gov/wildlife.html#Species>; the Ocean Conservancy (<http://www.ocean.org/main.php3>); the Caribbean Conservation Corporation (<http://www.cccturtle.org/>); Florida Fish and Wildlife Conservation Commission (<http://floridaconservation.org/psm/turtles/turtle.htm>); <http://www.turtles.org>; <http://www.seaturtle.org>; <http://alabama.fws.gov/gs/>; http://obis.env.duke.edu/data/sp_profiles.php; www.mote.org/~colins/Sawfish/SawfishHomePage.html; www.floridasawfish.com; <http://www.flmnh.ufl.edu/fish/Sharks/sawfish/srt/srt.htm>; www.flmnh.ufl.edu/fish/sharks/InNews/sawprop.htm; also, from members of the public or academic community, and from books and various informational booklets. Due to budget constraints and staff shortages, we are only able to provide general, state-wide, or country-wide (territory-wide) species lists.

Use your familiarity with the project area when you develop your species lists. Sometimes a species may occur in the larger regional area near your project, but the habitat necessary to support the species is not in the project area (including areas that may be beyond the immediate project boundaries, but within the area of influence of the project. If, for example, you know that the specific habitat type used by a species does not occur in the project area, it does not need to appear on the species list for the project. However, documentation of your reasoning is helpful for Service biologists or anyone else that may review the document.

4. Have you surveyed for species that are known to occur or have potential habitat in the proposed project area?

The “not known to occur here” approach is a common flaw in many BA/BEs. The operative word here is “known.” Unless adequate surveys have been conducted or adequate information sources have been

referenced, this statement is difficult to interpret. It begs the questions “Have you looked?” and “How have you looked?” Always reference your information sources.

Include a clear description of your survey methods so the reader can have confidence in your results. Answer such questions as:

How intensive was the survey? Did you look for suitable habitat or did you look for individuals? Did the survey cover the entire project area or only part of it? Include maps of areas surveyed if appropriate.

Who did the surveys and when? Was the survey done during the time of year/day when the plant is growing or when the animal can be found (its active period)? Did the survey follow accepted protocols?

If you are not sure how to do a good survey for the species, the Service recommends contacting species experts. Specialized training is required before you can obtain a permit to survey for some species.

Remember that your evaluation of potential impacts from a project does not end if the species is/are not found in the project area. You must still evaluate what effects would be expected to the habitat, even if it is not known to be occupied, because impacts to habitat that may result indirectly in death or injury to individuals of listed species would constitute “take”.

5. Provide background information on the threatened or endangered species in the project area.

Describe the species in terms of overall range and population status. How many populations are known? How many occur in the project area? What part of the population will be affected by this project? Will the population’s viability be affected? What is the current habitat condition and population size and status? Describe related items of past management for the species, such as stocking programs, habitat improvements, or loss of habitat or individuals caused by previous projects.

6. How will the project affect the threatened or endangered species or critical habitat that occur in the project area?

If you believe the project will not affect the species, explain why. Effects analyses must include evaluating whether adverse impacts to species’ habitats, whether designated or not, could indirectly harm or kill listed species.

If you think the project may affect the species, explain what the effects might be. The Endangered Species Act requires you consider all effects when determining if an action funded, permitted, or carried out by a Federal agency may affect listed species. Effects you must consider include direct, indirect, and cumulative effects. Effects include those caused by interrelated and interdependent actions, not just the proposed action. Direct effects are those caused by the action and occur at the same time and place as the action. Indirect effects are caused by the action and are later in time but are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no significant independent utility apart from the action under consideration. Interrelated or interdependent actions can include actions under the jurisdiction of other federal agencies, state agencies, or private parties. Cumulative effects are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal actions subject to consultation.

Describe measures that have or will be taken to avoid or eliminate adverse effects or enhance beneficial

effects to the species. Refer to conversations you had with species experts to achieve these results.

Consider recovery potential if the project area contains historic range for a species.

Evaluate impacts to designated critical habitat areas by reviewing any project effects to the physical or biological features essential to the conservation of the species.

7. What is your decision? The Federal action agency must make a determination of effect.

Quite frequently, effect determinations are not necessarily *wrong*; they simply are not justified in the assessment. The assessment should lead the reviewer through a discussion of effects to a logical, well-supported conclusion. Do not assume that the Service biologist is familiar with the project and/or its location and that there is no need to fully explain the impact the project may have on listed species. If there is little or no connection or rationale provided to lead the reader from the project description to the effect determination, we cannot assume conditions that are not presented in the assessment. Decisions must be justified biologically. The responsibility for making and supporting the determination of effect falls on the Federal action agency; however, the Service cannot merely “rubber stamp” the action agency’s determination and may ask the agency to revisit its decision or provide more data if the conclusion is not adequately supported by biological information.

You have three choices for each listed species or area of critical habitat:

1. “No effect” is the appropriate conclusion when a listed species will not be affected, either because the species will not be present or because the project does not have any elements with the potential to affect the species. “No effect” does not include a *small* effect or an effect that is *unlikely* to occur: if effects are insignificant (in size) or discountable (extremely unlikely), a “may affect, but not likely to adversely affect” determination is appropriate. A “no effect” determination does **not** require written concurrence from the Service and ends ESA consultation requirements unless the project is subsequently modified in such manner that effects may ensue.
2. “May affect - is not likely to adversely affect” (NLAA) means that all effects are either beneficial, insignificant, or discountable. Beneficial effects have concurrent positive effects without any adverse effects to the species or habitat (i.e., there cannot be “balancing,” wherein the benefits of the project would be expected to outweigh the adverse effects - see #3 below). Insignificant effects relate to the magnitude or extent of the impact (i.e., they must be small and would not rise to the level of a take of a species). Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur. A “NLAA” determination by the action agency requires **written** concurrence from the Service.
3. “May affect - is likely to adversely affect” means that all adverse effects cannot be avoided. A combination of beneficial and adverse effects is still “likely to adversely affect,” even if the net effect is neutral or positive. Adverse effects do not qualify as discountable simply because we are not certain they will occur. The probability of occurrence must be extremely small to achieve discountability. Likewise, adverse effects do not meet the definition of insignificant because they are less than major. If the adverse effect can be detected in any way or if it can be meaningfully articulated in a discussion of the results, then it is not insignificant, it is likely to adversely affect. This requires formal consultation with the Service.

A fourth finding is possible for proposed species or proposed critical habitat:

4. “Is likely to jeopardize/destroy or adversely modify proposed species/critical habitat” is the appropriate

conclusion when the action agency identifies situations in which the proposed action is likely to jeopardize a species proposed for listing, or destroy or adversely modify critical habitat proposed for designation. If this conclusion is reached, conference is required.

List the species experts you contacted when preparing the BE or BA but avoid statements that place the responsibility for the decision of "may affect" or "no effect" on the shoulders of the species experts. Remember, this decision is made by the Federal action agency.

Provide supporting documentation, especially any agency reports or data that may not be available to the Service. Include a list of literature cited.

Originally prepared: January 1997
U.S. Fish and Wildlife Service
Arizona Ecological Services Field Office

Revised: January 2006
National Marine Fisheries Service
Protected Resources Division
263 13th Avenue South
St. Petersburg, FL 33701
(727) 824-5312

**OUTLINE EXAMPLE FOR A
BIOLOGICAL ASSESSMENT OR BIOLOGICAL EVALUATION**

Cover Letter - **VERY IMPORTANT** - Include purpose of consultation, project title, and consultation number (if available). A determination needs to be made for each species and for each area of critical habitat. You have three options: 1) a “no effect” determination; 2) request concurrence with an “is not likely to adversely affect” determination; 3) make a “may affect, is likely to adversely affect” determination, and request “formal” consultation. If proposed species or critical habitat are included, state whether the project is likely to result in jeopardy to proposed species, or the destruction or adverse modification of proposed critical habitat. If the critical habitat is divided into units, specify which critical habitat unit(s) will be affected.

Attached to Cover Letter: Biological Assessment or Biological Evaluation document, broken down as follows:

Title: e.g., BA (or BE) for “Project X”; date prepared, and by whom.

A. Project Description - Describe the proposed action and the action area. Be specific and quantify whenever possible.

For Each Species:

1. Description of affected environment (quantify whenever possible)
2. Description of species biology
3. Describe current conditions for each species
 - a. Range-wide
 - b. In the project area
 - c. Cumulative effects of State and private actions in the project area
 - d. Other consultations of the Federal action agency in the area to date
4. Describe critical habitat (if applicable)
5. Fully describe effects of proposed action on each species and/or critical habitat, and species’ response to the proposed action.
 - a. Direct effects
 - b. Indirect effects
 - c. Interrelated and interdependent actions
 - d. Potential incidental take resulting from project activities

Factors to be considered/included/discussed when analyzing the effects of the proposed action on each species and/or critical habitat include: 1) Proximity of the action to the species, management units, or designated critical habitat units; 2) geographic area(s) where the disturbance/action occurs; timing (relationship to sensitive periods of a species’ lifecycle; 3) duration (the effects of a proposed action on listed species or critical habitat depend largely on the duration of its effects); 4) disturbance frequency (the mean number of events per unit of time affects a species differently depending on its recovery rate); 5) disturbance intensity (the effect of the disturbance on a population or species as a function of the population or species’ state after the disturbance); 6) disturbance severity (the effect of a disturbance on a population or species or habitat as a function of recovery rate – i.e., how long will it take to recover)

6. Conservation Measures (protective measures to avoid or minimize effects for each species)
7. Conclusions (effects determination for each species and critical habitat)
8. Literature Cited
9. Lists of Contacts Made/Preparers
10. Maps/Photographs

Guidance on Preparing an Initiation Package for Endangered Species Consultation

This document is intended to provide general guidance on the type and detail of information that should be provided to initiate consultation with U.S. Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service (NMFS). This is not intended to be an exhaustive document as specific projects may require more or less information in order to initiate consultation. Also, note that this contains guidance on the information required to initiate formal consultation procedures with USFWS and/or NMFS.

Additional information needs may be identified during consultation. Texts in italics below are examples. Normal text is guidance. A glossary of terms is appended.

INTRODUCTION

Here is an example of introductory language:

The purpose of this initiation package is to review the proposed [project name] in sufficient detail to determine to what extent the proposed action may affect any of the threatened, endangered, proposed species and designated or proposed critical habitats listed below. In addition, the following information is provided to comply with statutory requirements to use the best scientific and commercial information available when assessing the risks posed to listed and/or proposed species and designated and/or proposed critical habitat by proposed federal actions. This initiation package is prepared in accordance with legal requirements set forth under regulations implementing Section 7 of the Endangered Species Act (50 CFR 402; 16 U.S.C. 1536 (c)).

Threatened, Endangered, Proposed Threatened or Proposed Endangered Species

Example language:

The following listed and proposed species may be affected by the proposed action:

common name (Scientific name) T

common name (Scientific name) E

common name (Scientific name) PT

common name (Scientific name) PE

This list should include all of the species from the species lists you obtained from USFWS and NMFS. If it doesn't, include a brief explanation here and a more detailed explanation in your record to help USFWS, NMFS and future staff understand your thought process for excluding a species from consideration.

Critical Habitat

Example language:

The action addressed within this document falls within Critical Habitat for [identify species].

CONSULTATION TO DATE

“Consultation” under the ESA consists of discussions between the action agency, the applicant (if any), and USFWS and/or NMFS. It is the sharing of information about the proposed action and related actions, the species and environments affected, and means of achieving project purposes while conserving the species and their habitats. Under the ESA, consultation can be either informal or formal. Both processes are similar, but informal consultation may result in formal consultation if there is a likelihood of unavoidable take. Formal consultation has statutory timeframes and other requirements (such as the submission of the information in this package and a written biological opinion by USFWS or NMFS).

Summarize any consultation that has occurred thus far. Identify when consultation was requested (if not concurrent with this document). Be sure to summarize meetings, site visits and correspondence that were important to the decision-making process.

DESCRIPTION OF THE PROPOSED ACTION

The purpose of this section is to provide a clear and concise description of the proposed activity and any interrelated or interdependent actions.

The following information is necessary for the consultation process on an action:

1. The action agency proposing the action.
2. The authority(ies) the action agency will use to undertake, approve, or fund the action.
3. The applicant, if any.
4. The action to be authorized, funded, or carried out.
5. The location of the action.
5. When the action will occur, and how long it will last.
6. How the action will be carried out
7. The purpose of the action.
8. Any interrelated or interdependent actions, or that none exist to the best of your knowledge.

Describe and specify: **WHO** is going to do the action and under what authority, include the name and office of the action agency and the name and address of the applicant; **WHAT** the project or action is; **WHERE** the project is (refer to attached maps); **WHEN** the action is going to take place, including time line and implementation schedules; **HOW** the action will be accomplished, including the various activities that comprise the whole action, the methods, and the types of equipment used; **WHY** the action is proposed, including its purpose and need; and **WHAT OTHER** interrelated and interdependent actions are known. This combination of actions are what is being consulted on for the 7(a)(2) analysis.

Include a clear description of all conservation measures and project mitigation such as avoidance measures, seasonal restrictions, compensation, restoration/creation (on-site and in-kind, off-site and in-kind, on-site and out-of-kind, off-site and out-of-kind), and use of mitigation or conservation banks.

Here are some examples of commonly overlooked items to include in your project description:

- Type of project
- Project location
- Project footprint
- Avoidance areas
- Start and end times
- Construction access
- Staging/laydown areas
- Construction equipment and techniques
- Habitat status on site
- Habitat between work areas and endangered species locations
- Permanent vs. temporary impacts

Surrounding land-use
Hydrology and drainage patterns
Duration of “temporary” impacts
Prevailing winds and expected seasonal shifts
Restoration areas
Conservation measures
Compensation and set-asides
Bank ratios and amounts
Mitigation: what kind and who is responsible?
Dust, erosion, and sedimentation controls
Whether the project is growth-inducing or facilitates growth
Whether the project is part of a larger project or plan
What permits will need to be obtained

Action Area

Describe all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. This includes any interrelated and interdependent actions. Remember that the action area is not based simply on the Federal action and should not be limited to the location of the Federal action. The same applies to the applicant’s action. The action area is defined by measurable or detectable changes in land, air and water, or to other measurable factors that may elicit a response in the species or critical habitat.

To determine the action area, we recommend that you first break the action down into its components (*e.g.*, vegetation clearing, construction of cofferdams, storage areas, borrow areas, operations, maintenance, etc.) to assess the potential impacts resulting from each component.

Determine the impacts that are expected to result from each component. For example, instream actions may mobilize sediments that travel downstream as increased turbidity and then settle out as sediments on the stream substrate. Sound levels from machinery may be detectable hundreds of feet, thousands of feet, or even miles away. Use these distances when delineating the extent of your action area. Note: don’t forget to subsequently reconstruct the action to assess the combined stressors of the components. You may find that some stressors are synergistically minimized or avoided, whereas other stressors may increase.

Finally, describe the action area, including features and habitat types. Include photographs and an area map as well as a vicinity map. The vicinity map for terrestrial projects should be at a 1:24,000 scale with the USGS quad name included.

SPECIES ACCOUNTS AND STATUS OF THE SPECIES IN THE ACTION AREA

Provide local information on affected individuals and populations, such as presence, numbers, life history, etc. Identify which threats to the species’ persistence identified at the time of listing are likely to be present in the action area. Identify any additional threats that are likely to be present in the action area.

If the species has a distribution that is constrained by limiting factors, identify where in the action area factors are present that could support the species and where they are absent or limiting. For example, if a species is limited to a narrow thermal range and a narrow humidity range, show where in the action area

the temperatures are sufficient to support the species, where the humidity is sufficient to support the species, and where those areas overlap.

Include aspects of the species' biology that relate to the impact of the action, such as sensitivity to or tolerance of: noise, light, heat, cold, inundation, smoke, sediments, dust, etc. For example, if the species is sensitive to loud sounds or vibration, and your project involves loud tools or equipment, reference that aspect of their biology. Include citations for all sources of information

Describe habitat use in terms of breeding, feeding, and sheltering. Describe habitat condition and habitat designations such as: critical habitat (provide unit name or number, if applicable), essential habitat, important habitat, recovery area, recovery unit (provide unit name or number, if applicable). Also discuss habitat use patterns, including seasonal use and migration (if relevant), and identify habitat needs.

Identify and quantify the listed-species habitat remaining in the action area. GIS layers are useful here, as are land ownership patterns--especially local land trusts and open space designations.

Identify any recovery plan implementation that is occurring in the action area, especially priority one action items from recovery plans.

Include survey information. For all monitoring and survey reports, please clearly identify how it was done, when, where, and by whom. If survey protocols were followed, reference the name and date of the protocol. If survey protocols were modified, provide an explanation of how the surveying occurred and the reasoning for modifying the protocol.

Keep it relevant. It is unnecessary to discuss biology that is totally unrelated to project impacts--*e.g.*, discussion of pelage color, teat number, and number of digits fore and aft when the project is a seasonal wetland establishment.

Utilize the best scientific and commercial information available. Use and cite recent publications/journal articles/agency data and technical reports. Include local information, relative to the action area, views of recognized experts, results from recent studies, and information on life history, population dynamics, trends and distribution. Reference field notes, unpublished data, research in progress, etc.

Things to consider:

Existing threats to species

Fragmentation

Urban growth area

Drainage patterns

Information on local sightings and populations

Population trends

Home range and dispersal

Sensitivity of endangered species to: dust, noise, heat, desiccation, etc.

Trap stress/mortality

Predators

ENVIRONMENTAL BASELINE AND CUMULATIVE EFFECTS

Provide information on past, present and future state, local, private, or tribal activities in the action area: specifically, the positive or negative impacts those activities have had on the species or habitat in the area in terms of abundance, reproduction, distribution, diversity, and habitat quality or function. Include the impacts of past and present federal actions as well. Don't forget to describe the impacts of past existence and operation of the action under consultation (for continuing actions).

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area. Future Federal actions that are unrelated (*i.e.*, not interrelated or interdependent) to the proposed action are not considered in this analysis because they will be subject to separate consultation pursuant to section 7 of the Act. (Note: Cumulative effects under ESA are ***not*** the same as the definition under NEPA. Be careful not to mix them up.) Describe the impacts of these cumulative effects in terms of abundance, reproduction, distribution, diversity, and habitat quality or function.

Present all known and relative effects to population, *e.g.*, fish stocking, fishing, hunting, other recreation, illegal collecting, private wells, development, grazing, local trust programs, etc. Include impacts to the listed and proposed species in the area that you know are occurring and that are unrelated to your action-- *e.g.*, road kills from off-road vehicle use, poaching, trespass, etc.

EFFECTS OF THE ACTION

The purpose of this section is to document your analysis of the potential impacts the proposed action will have on species and/or critical habitats. This analysis has two possible conclusions for listed species and designated critical habitat:

(1) May Affect, Not Likely to Adversely Affect – the appropriate conclusion when effects on a listed species are expected to be *discountable, insignificant, or completely beneficial*.

Beneficial effects – contemporaneous positive effects without any adverse effects

Insignificant effects – relate to the size of the impact and should never reach the scale where take would occur.

Discountable effects – those that are extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur.

(2) May Affect, Likely to Adversely Affect – the appropriate finding if *any* adverse effect may occur to listed species or critical habitat as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial.

A finding of “may affect” is the primary trigger for initiating section 7 consultation. Further analysis leads to one of the two conclusions above. In the case of a determination that an action is “not likely to adversely affect” a species or critical habitat, you can request USFWS and/or NMFS concurrence with this determination and consultation can be concluded upon receipt of our concurrence. Determinations of “likely to adversely affect” require further consultation between the action agency and USFWS and NMFS. These consultations typically lead to the preparation of a biological opinion, although they can also lead to incorporation of additional protective measures that render the project “not likely to adversely affect” listed species or designated critical habitat. Any actions that are likely to result in the incidental take of a listed species are automatically considered “likely to adversely affect.”

In the case of proposed species or proposed critical habitat, the possible conclusions are:

Species

Likely to Jeopardize the Continued Existence

Not Likely to Jeopardize the Continued Existence

Critical Habitat

Likely to Destroy or Adversely Modify

Not Likely to Destroy or Adversely Modify

The effects analysis includes assessment of:

Direct and indirect effects (stressors) of Federal action

Direct and indirect effects (stressors) of applicant’s action

Direct and indirect effects (stressors) of interrelated or interdependent actions

Direct and indirect effects (stressors) of conservation and minimization measures

Remember: Direct and indirect effects under ESA are **not** the same as direct and indirect effects under NEPA. Be careful not to mix them up. Under ESA, direct effects are those that are caused by the action(s) and occur at the time of the action(s), and indirect effects are those that are caused by the action(s) and are later in time, but are still reasonably certain to occur.

Based on the various components of your action that you used to determine the extent of the action area, this analysis assesses the potential stressors resulting from each component and predicts the likely responses species and critical habitat will have. Note: don't forget to subsequently reconstruct the action to assess the combined stressors of the components. You may find that some stressors are synergistically minimized or avoided, whereas other stressors may increase.

Describe the stressors that are expected to result from each component. For example, instream actions may mobilize sediments that travel downstream as increased turbidity and then settle out as sediments on the stream substrate. Sound levels from machinery may be detectable hundreds of feet, thousands of feet, or even miles away. Describe these stressors in terms of their intensity, frequency, and duration.

Once you have determined the expected stressors resulting from an activity, the next step is to assess the overlap between those stressors and individuals of the species or components of critical habitat. The purpose of determining this overlap is to accurately and completely assess the potential exposure of species and habitat to the stressors resulting from the action. This exposure is the necessary precursor to any possible response those species and habitat may have. Your conclusions of "not likely to adversely affect" or "likely to adversely affect" are based in large part on this response.

To determine exposure, here is a basic set of questions you might answer:

- What are the specific stressors causing the exposure
- Where the exposure to the stressors would occur
- When the exposure to stressors would occur
- How long the exposure to stressors would occur
- What is the frequency of exposure to stressor
- What is the intensity of exposure to stressor
- How many individuals would be exposed
- Which populations those individuals represent
- What life stage would be exposed

For critical habitat, the questions would be similar but would focus on constituent elements of critical habitat.

Remember that exposure to a stressor is not always direct. For example, in some cases individuals of a species may be directly exposed to the sediment mobilized during construction. However, in other cases, individuals of the species would be exposed indirectly when sediment mobilized during construction settles out in downstream areas, rendering those areas unusable for later spawning or foraging.

Here are some examples of stressors you should address:

Exposure to abiotic factors affecting land, air, or water

Exposure to biotic factors affecting species behavior

Spatial or temporal changes in primary constituent elements of critical habitat

Loss or gain of habitat--direct and indirect

Fragmentation of habitat

Loss or gain of forage and/or foraging potential

Loss or gain of shelter/cover

Loss or gain of access through adjacent habitat/loss of corridors determine the potential response or range of responses the exposed individuals or components of critical habitat will have to those levels and types of exposure.

This is where the use of the best scientific and commercial information available becomes crucial. Your analysis must take this information into consideration and the resulting document must reflect the use of this information and your reasoning and inference based on that information. Bear in mind that this analysis may not be the final word on the expected responses as further consultation with USFWS or NMFS may refine this analysis.

Be sure to describe the expected responses clearly and focus your analysis towards determining if any of the possible responses will result in the death or injury of individuals, reduced reproductive success or capacity, or the temporary or permanent blockage or destruction of biologically significant habitats (*e.g.*, foraging, spawning, or lekking grounds; migratory corridors, etc.). Any of these above responses are likely to qualify as adverse effects. If the available information indicates that no observable response is expected from the levels and types of exposure, the action may be unlikely to adversely affect a species or critical habitat. However, remember that no observable response may actually mask an invisible internal response such as increased stress hormone levels, elevated heart rate, etc. Depending on the fitness of the exposed individual and the surrounding environment (including other threats), these “invisible” responses may lead to more serious consequences. We recommend working with your NMFS or USFWS contact to determine the appropriate conclusion.

Don't forget to consider:

Individual responses based on the species biology and sensitivity to exposure

The combined effects of existing threats and new exposure

The combined effects of limiting factors and new exposure

Disrupted reproduction and/or loss of reproduction

Exposure and response of species and critical habitat to interrelated and interdependent actions

Understanding and avoiding the common flaws in developing an effect determination will save you considerable time. These common flaws are: the “Displacement” Approach (*i.e.*, the species will move out of the way; there are plenty of places for them to go); the “Not Known to Occur Here” Approach (*i.e.*, looking at survey results, or lack of results, instead of the Recovery Plan for the species); the “We’ll Tell You Later” Approach (*i.e.*, if we find any, then we’ll let you know and that is when we will consult); or the “Leap of Faith” Approach (*i.e.*, the agency wants the USFWS or NMFS to accept a determination based on trust, rather than the best scientific and commercially available information.). Sticking to flawed determinations will cost everyone time, money, and aggravation.

Analysis of alternate actions

This analysis is required for actions that involve preparation of an EIS. For all other actions, a summary of alternatives discussed in other environmental documents is useful.

OTHER RELEVANT INFORMATION

Provide any other relevant available information the action, the affected listed species, or critical habitat. This could include local research, studies on the species that have preliminary results, and scientific and commercial information on aspects of the project.

CONCLUSION

This is where you put your overall effect determination after you have analyzed the exposure and response of species and habitat to the stressors resulting from the proposed action and interrelated or interdependent actions. Effect determinations must be based on a sound reasoning from exposure to response and must be consistent with types of actions in the project description, the biology in the species accounts, the habitat status and condition, changes to the existing environment, and the best scientific and commercial information available.

Again, the two potential conclusions for **listed species** are:

Not likely to adversely affect species

Likely to adversely affect species

The two potential conclusions for **designated critical habitat** are:

Not likely to adversely affect critical habitat

Likely to adversely affect critical habitat

The two potential conclusions for **proposed species** are:

Not likely to jeopardize species

Likely to adversely jeopardize species

The potential conclusions for **proposed critical habitat** are, under informal and formal consultation respectively:

Not likely to adversely affect species

Likely to adversely affect species

Not likely to destroy or adversely modify critical habitat

Likely to destroy or adversely modify critical habitat

Include the basis for the conclusion, such as discussion of any specific measures or features of the project that support the conclusion and discussion of species expected response, status, biology, or baseline conditions that also support conclusion.

If you make a "no effect" determination, it doesn't need to be in the assessment, but you might have to defend it. Keep the documentation for your administrative record.

LIST OF DOCUMENTS

Provide a list of the documents that have bearing on the project or the consultation, this includes relevant reports, including any environmental impact statements, environmental assessment, or biological assessment prepared for the project. Include all planning documents as well as the documents prepared in conformance with state environmental laws

IMPORTANT NOTE: Each of these documents must be provided with the initiation package consultation for the Services to be able to proceed with formal consultation.

LITERATURE CITED

We are all charged with using the best scientific and commercial information available. To demonstrate you did this, it is a good idea to keep copies of search requests in your record. If you used a personal communication as a reference, include the contact information (name, address, phone number, affiliation) in your record.

LIST OF CONTACTS/CONTRIBUTORS/PREPARERS

Please include contact information for contributors and preparers as well as local experts contacted for species or habitat information.

GLOSSARY

Action Area - all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.

Beneficial Effects – contemporaneous positive effects without any adverse effects.

Cumulative Effects – are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur in the action area of the Federal action subject to consultation.

Discountable Effects – those that are extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur.

Effects of the Action – refers to the direct and *indirect effects* of an action on the species or critical habitat, together with the effects of other activities that are *interrelated* or *interdependent* with that action, that will be added to the environmental baseline.

Environmental Baseline – includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions that are contemporaneous with the consultation in process.

Indirect Effects - Indirect effects are those that are caused by the action(s) and are later in time, but are still reasonably certain to occur.

Insignificant Effects – relate to the size of the impact and should never reach the scale where take would occur.

Interdependent Actions - Interdependent actions are those that have no significant independent utility apart from the action that is under consideration, *i.e.* other actions would not occur “but for” this action.

Interrelated Actions - Interrelated actions are those that are part of a larger action and depend on the larger action for their justification, *i.e.* this action would not occur “but for” a larger action.

Likely to Jeopardize the Continued Existence of – to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.

May Affect, Likely to Adversely Affect – the appropriate finding if any adverse effect may occur to listed species or critical habitat as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial. Requires that a biological opinion be prepared by the Service.

May Affect, Not Likely to Adversely Affect – the appropriate conclusion when effects on a listed species are expected to be *discountable*, *insignificant*, or completely *beneficial*. Requires written concurrence from the Service.

No Effect – the appropriate conclusion when a listed species will not be affected, either because the species will not be present or because the project does not have any elements with the potential to affect the species. A “no effect” determination does **not** require written concurrence from the Service and ends ESA consultation requirements. Action agency should document their reasoning for this conclusion in their file.



ENVIRONMENTAL PROTECTION DEPARTMENT - Air Quality Division
Mailing Address: 115 South Andrews Avenue, Room A-240 • Fort Lauderdale, Florida 33301
954-519-1220 • FAX 954-519-1495

May 18, 2007

Ms. Virginia Lane, Project Manager
Federal Aviation Administration
Orlando Airports District Office
5950 Hazaltine National Drive, Suite: 400
Orlando, Florida 32822-5024

RE: Comments on the DRAFT Environmental Impact Statement, March 2007, for the Fort Lauderdale-Hollywood International Airport Expansion project.

Dear Ms. Lane:

Thank you for providing us the opportunity to review the DRAFT Environmental Impact Statement for the Fort Lauderdale-Hollywood International Airport Expansion project. After reviewing the report, we agree with the methodology and procedure used but we still have the following comments:

1. On Table 6.B-10- Maximum Criteria Pollutant Design Concentration, page 6.B-16, Volume 2 of 5, Section 6.B.2.4 you indicated you will provide information regarding the dispersion analysis for the construction phase of the project for the FAA's preferred alternative in the Final EIS but did not indicate the years of analysis. Our comments of June 14 and December 22, 2005 recommended dispersion analysis be performed for the current year, build out year and five years after build out and for the most detrimental construction year(s) to the traffic.
2. On Appendix G - Air Quality - Methodology and Procedure, you did not indicate you will include dispersion analysis for construction equipment and HAPs as recommended by EPD.
3. There is no pollution prevention plan for the construction phase and operation phase of the project, as recommended by EPD. As we noted in our comments of June 14, and December 22, 2005, respectively, emissions reduction by pollution prevention measures can offset increased emissions generated by the expansion project. Also, pollution prevention will not only benefit the air quality of Broward County, it will also have a positive effect on the public perception of the expansion project.

Broward County Board of County Commissioners
Josephus Eggleston, Jr. • Sue Gunzburger • Kristin D. Jacobs • Ken Keechil • Ilene Lieberman • Stacy Ritter • John E. Rodstrom, Jr. • Diana Wasserman-Rubin • Lois Wexler
www.broward.org

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Fort Lauderdale – Hollywood International Airport Expansion
May 18, 2007

Continued

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4. On page G.1.B.5 of volume 4 of 5 you stated that FAA determined that the health effects to persons living in the vicinity of the airport could not be applied in meaningful way when the HAP evaluation would be limited to a single source in local area. We recommended the screening level assessment of air toxic inhalation risks associated with the airport be performed to obtain screening level cancer risks.

If you have any questions, please do not hesitate to call me at 954-519-1220.

Sincerely,



Daniela Banu
Director, Air Quality Division

cc: Bruce Offord, SEDEP, Air Section
Bolfi Posadas, Broward County Aviation Department
Paul Wagner, EPA Region IV

AC04



Florida Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

MAY 16 2007

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

May 11, 2007

Ms. Virginia L. Lane, AICP
Orlando Airports District Office
Federal Aviation Administration
5950 Hazeltine National Drive
Orlando, FL 32822-5024

RE: Federal Aviation Administration - Draft Environmental Impact Statement for the Extension of Runway 9R/27L and Associated Airport Projects at Fort Lauderdale-Hollywood International Airport - Broward County, Florida.
SAI # FL200703223172C

Dear Ms. Lane:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16, U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4231, 4331-4335, 4341-4347, as amended, has coordinated a review of the referenced draft environmental impact statement (DEIS).

The Florida Department of Environmental Protection (DEP), Southeast District office has expressed concern in the past for the ongoing contamination assessment and cleanup related issues in various areas of the airport, including the southwest portion of the airport, along I-95. This is within the "Detailed Study Area" depicted on the map labeled 5.A 1-2. The concern is that groundwater shows exceedances of the Maximum Contaminant Levels and Minimum Criteria for solvents. Section 5.E.1.4.2 indicates that only fuel related contamination is of concern, and only lists a few minor reported discharges. This does not seem consistent with DEP databases for the Broward County Aviation Department and other facilities at the airport. In addition, the EPA's CERCLIS database indicates the presence of an active CERCLIS site along the southern boundary of the airport. Please note that some facilities listed on the CERCLIS database have been "achieved," but may still show contamination if those sites are demolished and soils are dug up and moved. Please refer to the enclosed DEP memorandum for further waste cleanup information and recommendations.

The South Florida Water Management District (SFWMD) notes that a modification to Environmental Resource Permit (ERP) No. 06-00339-S will be required from the SFWMD.

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AC05

Staff advises that the FEIS should include this information in the list of federal, state and local permits required for the project. The FEIS should also address secondary impacts to wetlands associated with the proposed runway extension. The applicant has not demonstrated that cumulative wetland impacts associated with the proposed project and other transportation-related projects planned for the area (such as Port Everglades expansion projects) have been or will be adequately addressed. Sufficient mitigation must be provided so that this project and other related projects will not result in unacceptable cumulative impacts to mangrove wetlands within the same drainage basin. Chapter 6-J lists avoidance and reduction of impacts as mitigation measures. Under the SFWMD's ERP criteria, however, reduction and elimination of wetland impacts are not treated as mitigation measures (i.e., the applicant must demonstrate reduction and elimination of wetland impacts before mitigation can be considered). Though the SFWMD recognizes that the runway expansion has been substantially scaled back from the original design, the FEIS should clearly outline the specific modifications and measures that have been incorporated into the project design to reduce and eliminate adverse wetland impacts. Please refer to the enclosed SFWMD memorandum for additional information.

The Florida Department of Transportation (FDOT) advises that any project improvements performed in or adjacent to FDOT right-of-way will require coordination with the District Four Office in Fort Lauderdale. Issuance of permits from FDOT may be required for project activities, either temporary or permanent, located within FDOT right-of-way. All proposed changes to US 1/SR 5, such as the Alternative D1 "tunnel," will require FDOT coordination. The cost of improvements (drainage improvements, lighting improvements for the tunnel, depressing the roadway and reconstructing) may be the responsibility of the permit applicant. Please note that the proposed aircraft glide path dimensions may impact future improvements to I-95 and I-595 in the event elevated reversible lanes and/or transit on elevated structures are considered in the future. Currently, the I-595 PD&E study shows elevated direct connects to and from I-95 in the area of B1 and B1 refinements. Staff requests further discussion on the new glide path criteria and its potential impact on Interstates 95 and 595 (Alternative C1).

In addition, the FDOT Aviation Office in Tallahassee recommends that once the preferred alternative for the runway extension has been chosen, new storm water management facilities utilizing WET PONDS (presumptive design) be avoided in the airside of the airport. According to the FAA Advisory Circular No. 150/5200-33A, "On-airport storm water detention pond should be designed, engineered, constructed, and maintained for a maximum 48-hour detention period for the design storm and remain completely dry between storms." Please see the enclosed FDOT memorandum for further comments and recommendations.

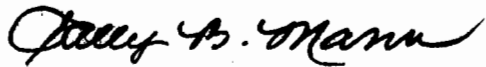
Based on the information contained in the DEIS and the enclosed state agency comments, state has determined that, at this stage, the proposed activity is consistent with the Florida

Ms. Virginia L. Lane, AICP
May 11, 2007
Page 3 of 3

Coastal Management Program (FCMP). The applicant must, however, address the concerns identified by our reviewing agencies prior to project implementation. The state's continued concurrence with the project will be based, in part, on the adequate resolution of issues identified during this and subsequent reviews. The state's final review of the project's consistency with the FCMP will be conducted during the environmental permitting stage.

Thank you for the opportunity to review the proposed project. Should you have any questions regarding this letter, please contact Mr. Christopher Stahl at (850) 245-2169.

Yours sincerely,



Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/cjs
Enclosures

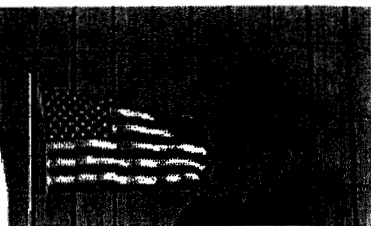
cc: Tim Gray, DEP, Southeast District
Jim Golden, SFWMD
Lisa Stone, FDOT



Florida

Department of Environmental Protection

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Project Information	
Project:	FL200703223172C
Comments Due:	04/24/2007
Letter Due:	05/14/2007
Description:	FEDERAL AVIATION ADMINISTRATION - DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE EXTENSION OF RUNWAY 9R/27L AND ASSOCIATED AIRPORT PROJECTS AT FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT - BROWARD COUNTY, FLORIDA.
Keywords:	FAA - DEIS, RUNWAY 9R/27L AT FT. LAUDERDALE-HOLLYWOOD AIRPORT - BROWARD CO.
CFDA #:	20.106
Agency Comments:	
COMMUNITY AFFAIRS - FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS	
ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	
<p>The DEP Southeast District office has expressed concern in the past for the ongoing contamination assessment and cleanup related issues in various areas of the airport, including the southwest portion of the airport, along I-95. This is within the "Detailed Study Area" depicted on the map labeled 5.A 1-2. The concern is that groundwater shows exceedances of the Maximum Contaminant Levels and Minimum Criteria for solvents. Section 5.E.1.4.2 indicates that only fuel related contamination is of concern, and only lists a few minor reported discharges. This does not seem consistent with DEP databases for the Broward County Aviation Department and other facilities at the airport. In addition, the EPA's CERCLIS database indicates the presence of an active CERCLIS site along the southern boundary of the airport. Please note that some facilities listed on the CERCLIS database have been "achieved," but may still show contamination if those sites are demolished and soils are dug up and moved. Please refer to the enclosed DEP memorandum for further waste cleanup information and recommendations.</p>	
FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION	
NO COMMENT BY JOE WALSH ON 3/26/07.	
STATE - FLORIDA DEPARTMENT OF STATE	
No Comments Received	
TRANSPORTATION - FLORIDA DEPARTMENT OF TRANSPORTATION	
<p>The FDOT advises that any project improvements performed in or adjacent to FDOT right of way will require coordination with the District Four Office in Fort Lauderdale. Issuance of permits from FDOT may be required for project activities, either temporary or permanent, located within FDOT right of way. All proposed changes to US 1/SR 5, such as the Alternative D1 "tunnel," will require FDOT coordination. The cost of improvements (drainage improvements, lighting improvements for tunnel, depressing the roadway and reconstructing) may be the responsibility of the permit applicant. Please note that the proposed aircraft glide path dimensions may impact future improvements to I-95 and I-595 in the event elevated reversible lanes and/or transit on elevated structures are considered in the future. Currently, the I-595 PD&E study shows elevated direct connects to and from I-95 in the area of B1 and B1 refinements. Staff requests further discussion on the new glide path criteria and its potential impact on Interstates 95 and 595 (Alternative C1). In addition, the FDOT Aviation Office in Tallahassee recommends that once the preferred alternative for the runway extension has been chosen, new storm water management facilities utilizing WET PONDS (presumptive design) be avoided in the airside of the airport. According to the</p>	

FAA Advisory Circular No. 150/5200-33A, "On-airport storm water detention pond should be designed, engineered, constructed, and maintained for a maximum 48-hour detention period for the design storm and remain completely dry between storms." Please see the enclosed FDOT memorandum for further comments and recommendations.

SOUTH FLORIDA WMD - SOUTH FLORIDA WATER MANAGEMENT DISTRICT

The SFWMD notes that a modification to Environmental Resource Permit (ERP) No. 06-00339-S will be required from the SFWMD. Staff advises that the FEIS should include this information in the list of federal, state and local permits required for the project. The FEIS should also address secondary impacts to wetlands associated with the proposed runway extension. The applicant has not demonstrated that cumulative wetland impacts associated with the proposed project and other transportation-related projects planned for the area (such as Port Everglades expansion projects) have been or will be adequately addressed. Sufficient mitigation must be provided so that this project and other related projects will not result in unacceptable cumulative impacts to mangrove wetlands within the same drainage basin. Chapter 6-J lists avoidance and reduction of impacts as mitigation measures. Under the SFWMD's ERP criteria, however, reduction and elimination of wetland impacts are not treated as mitigation measures (i.e., the applicant must demonstrate reduction and elimination of wetland impacts before mitigation can be considered). Though the SFWMD recognizes that the runway expansion has been substantially scaled back from the original design, the FEIS should clearly outline the specific modifications and measures that have been incorporated into the project design to reduce and eliminate adverse wetland impacts. Please refer to the enclosed SFWMD memorandum for further comments and recommendations.

SOUTH FL RPC - SOUTH FLORIDA REGIONAL PLANNING COUNCIL

No Comments

BROWARD - BROWARD COUNTY

No comments

For more information or to submit comments, please contact the Clearinghouse Office at:

3900 COMMONWEALTH BOULEVARD, M.S. 47
TALLAHASSEE, FLORIDA 32399-3000
TELEPHONE: (850) 245-2161
FAX: (850) 245-2190

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Memorandum



TO: Chris Stahl, Florida State Clearinghouse

THROUGH: Tim Gray, Southeast District

FROM: Paul Alan Wierzbicki, P.G., Southeast District

DATE: May 4, 2007

SUBJECT: Federal Aviation Administration - Draft Environmental Impact Statement for the Extension of Runway 9R/27L and Associated Airport Projects at Fort Lauderdale-Hollywood International Airport - Broward County, Florida.

SAI #: FL07-3172C

1. The Southeast District has expressed concern in the past for the ongoing contamination assessment and cleanup related issues in various areas of the airport, including the southwest portion of the airport, along I-95. This is within the "Detailed Study Area" as depicted on map labeled 5.A 1-2. The concern is that groundwater shows exceedances of the Maximum Contaminant Levels and Minimum Criteria for solvents. Section 5.E.1.4.2 indicates that only fuel related contamination is of concern, and only lists a few minor reported discharges. This does not seem consistent with Department databases for the Broward County Aviation Department and other facilities at the FLL.

2. Section 5.G.1.1.2. in the list of applicable State statutes and rules governing Waste Program issues fails to reference Chapter 376, Florida Statutes, and Chapter 62-701, Florida Administrative Code (F.A.C.), governing Solid Waste and Chapter 62-780, F.A.C., entitled "Contaminated Site Cleanup Criteria," which became effective on April 17, 2005.

3. Section 5.G.1.3.1. states that there are "no active CERCLIS sites were identified at FLL." This is incorrect. As of April 19, 2007 EPA's CERCLIS database still shows "Sunstream Jet Center," formerly located at 1355 SW 48th Street, EPA ID No. FLD071314033. This site is now located approximately beneath the east-west noise berm along the southern boundary of the FLL and is in an area undergoing active contamination assessment by the Broward County Aviation Department. Also, "Associated Air Services," formerly located at 701 SW 48th St. EPA ID No. FLD046024121 is listed on the CERCLIS database and shows a status of "No Further Remedial Action Planned." The Department concurred with this decision. Please note that some facilities listed on the CERCLIS database have been "achieved," but may still show contamination if those sites are demolished and soils are dug up and moved. There are other confirmed contaminated or

suspect sites within the "Detailed Study Area," but are not within the bounds of the FLL. If Airport development encroaches upon these areas or projects involving dewatering take place that could induce contaminated groundwater movement toward previously uncontaminated or less contaminated areas, or off-property, this could involve additional soil, groundwater or surface water monitoring in those affected areas. Of particular concern to the Department are off-site areas that are currently under active contamination assessment and or / cleanup:

Former Lindsley Lumber (approx. SW corner of I-95 and Griffin Road, now redeveloped)
Former Vision Ease (3301 SW 9th Ave.)
Bonnie's Ravenswood Marina (Ravenswood Rd.) and the Dania Cut-off canal.

4. There are previously identified landfill facilities along the East side of the old US 1 (US 1 had been relocated in the 1980s for other Airport / highway redevelopment efforts.). Management of those old landfill facilities should be overseen by the Broward County Environmental Protection Department. Efforts should be made to research these facilities to determine potential affects of redevelopment posed by building and moving of canals and storm water conveyance structures, dewatering, fill materials, etc.
5. Groundwater monitoring wells and sample points are likely present at and near all alternative areas being considered for the project. Arrangements need to be made to properly abandon (in accordance with Chapter 62-532, Florida Administrative Code) and or replace any wells that may be destroyed or damaged during construction.
6. As referenced in Section 5.E.1, the project area falls within the limits of the Biscayne Aquifer. This is a "sole source" aquifer in this part of Florida. Also, while it does not appear that the project falls within any wellfield protection areas, there may be water production wells (irrigation, potable, or industrial) at the FLL or in close proximity.
7. In the event contamination is detected during construction, the Department and the Broward County Environmental Protection Department, BCEPD (Section 5.3 references an old name for the BCEPD) need to be notified and the project developers may need to address the problem through additional assessment and/or remediation activities. You may wish to include a reference to a Florida Department of Transportation (FDOT) specification entitled "Section 120 Excavation and Embankment -- Subarticle 120-1.2 Unidentified Areas of Contamination of the Standard Specifications for Road and Bridge Construction" in the project's construction contract documents that would require specific actions by the contractor in the event of any hazardous material or suspected contamination issue arises.

8. Depending on the alternative selected, construction projects involving "dewatering" should be discouraged or limited, since there is a potential to spread contamination to previously uncontaminated or less contaminated areas and affect contamination receptors, site workers and the public. Dewatering projects would require permits / approval from the South Florida Water Management District, Water Use Section and coordination with the Broward County Environmental Protection Department.

9. Any land clearing or construction debris must be characterized for proper disposal. Potentially hazardous materials must be properly managed in accordance with Chapter 62-730, F.A.C. In addition, any solid wastes or other non-hazardous debris must be managed in accordance with Chapter 62-701, F.A.C. Department rules and statutes are found on the DEP's Internet Web site: <http://www.dep.state.fl.us/legal/Default.htm>

10. Based on our experience, the accurate identification, characterization and cleanup of sites requires experienced consulting personnel and laboratory support, management commitment of the project developers and their representatives, and will likely be very time-consuming. Early planning to address these issues is essential to meet construction and cleanup (if required) timeframes. Innovative technologies, such as special storm water management systems, engineering controls and institutional controls, such as conditions on water production wells and dewatering restrictions, may be required, depending on the results of environmental assessments.

11. Staging areas, with controlled access, should be planned in order to safely store raw material paints, adhesives, fuels, solvents, lubricating oils, cleaners, degreasers, etc. that will be used during construction and to service construction equipment. All containers need to be properly labeled. The project managers should consider developing written construction Contingency Plans in the event of a natural disaster, spill, fire or environmental release of hazardous materials stored / handled for the project construction (this should be referenced in Section 5.G. as well as Section 6.H.5.)

12. Section 6.E. needs revision, especially with regard to Groundwater Quality. I believe that Section 6.E.1.4.2. incorrectly states that the groundwater in this area are considered G-III. Please refer to Chapter 62-520, F.A.C., for the regulatory requirements (especially Rule 62-520.400, F.A.C.). I was not able to locate Appendix L-11, referenced in Section 6.E.1.

13. All fueling operations (bulk facilities, pipelines, dispensers, valves, appurtenances, etc.) must be constructed, operated and maintained in accordance with the current requirements of Chapter 62-761 or 62-762, F.A.C., as appropriate.

TO: Florida State Clearinghouse

FROM: James J. Golden, AICP, Lead Planner
Environmental Resource Regulation Department

DATE: May 2, 2007

SUBJECT: FAA – Draft Environmental Impact Statement for the Extension of Runway 9R/27L and Associated Airport Projects at Ft. Lauderdale-Hollywood International Airport – Broward County, Florida.
SAI # FL200703223172C

This fourth Draft Environmental Impact Statement (DEIS) was prepared by the Federal Aviation Administration (FAA) to evaluate potential environmental impacts associated with the development and extension of Runway 9R/27L and other airport projects at the Ft. Lauderdale-Hollywood International Airport. This draft is the result of the FAA restarting the Federal Environmental Impact Statement (EIS) review process in 2005.

The following environmental issues should be considered and addressed in formulating the Final Environmental Impact Statement (FEIS) for this project.

1. Page 5 of the Executive Summary does not identify that an Environmental Resource Permit (ERP) modification to Permit No. 06-00339-S will be required from the District. The FEIS should include this information in the list of federal, state and local permits required for the project.
2. The DEIS does not address secondary impacts to wetlands associated with the proposed runway extension. Secondary impacts to adjacent wetlands as a result of the proposed runway expansion should be addressed in the FEIS.
3. The applicant has not demonstrated that cumulative wetland impacts associated with the proposed project and other transportation-related projects planned for the area (such as Port Everglades expansion projects) have been or will be adequately addressed. Specifically, it has not been demonstrated that sufficient mitigation will be provided so that this project and other related projects will not result in unacceptable cumulative impacts to mangrove wetlands within the same drainage basin.
4. Chapter 6-J lists avoidance and reduction of impacts as mitigation measures. However, under the District's ERP criteria, reduction and elimination of wetland

impacts are not treated as mitigation measures (i.e., the applicant must demonstrate reduction and elimination of wetland impacts before mitigation can be considered). The District recognizes that the runway expansion has been substantially scaled back from the original design. The FEIS should clearly outline the specific modifications and measures that have been incorporated into the project design to reduce and eliminate adverse wetland impacts.

5. Page 6.E.2-1 of the DEIS refers to the use of the Uniform Mitigation Assessment Method (UMAM) to determine the amount of mitigation needed to offset adverse impacts to wetlands and other surface waters and to award and deduct mitigation bank credits. However, District staff could not recommend approval of the purchase of credits from a mitigation bank to offset wetland impacts associated with this project, as purchasing credits at the only permitted bank with saltwater wetland credits would mean taking the mitigation to south Miami-Dade County, resulting in a loss of mangrove wetland functions in the project basin. This option would be considered to have an adverse cumulative impact to wetland resources within the basin.
6. The mitigation section presented on Page 6.J-2 of the DEIS states that mitigation credit generated by the permitted West Lake Park mitigation project may be used to offset wetland impacts associated with the airport and Port Everglades projects and that once the FAA has determined a preferred project alternative, mitigation will be discussed with the regulatory agencies and documented in the FEIS. District staff encourages joint coordination with the regulatory agencies to determine suitable mitigation options for the project that would be acceptable to all of the agencies involved.
7. The mitigation section also refers to the duration of the West Lake Park permit. Please note that the District's permit for this project (Permit No. 060401-P) currently has an expiration date of April 14, 2009. If construction of the mitigation project is not completed by that date, the County should request an extension of the permit duration to allow sufficient time for completion of the mitigation construction.

TO: Florida State Clearinghouse

FROM: Christopher Hammel, Intergovernmental Specialist
District Four, Office of Modal Development

DATE: May 9, 2007

SUBJECT: FAA – DEIS, FOR THE EXTENSION OF RUNWAY 9R/27L AND
ASSOCIATED AIRPORT PROJECTS AT FT. LAUDERDALE-
HOLLYWOOD INTERNATIONAL AIRPORT, BROWARD COUNTY,
FLORIDA.
SAI # FL200703223172C

In response to the subject Intergovernmental Coordination and Review request, the Department has the following comments regarding the FAA: Draft Environmental Impact Statement for the extension of runway 9R/27L and associated airport projects at Ft. Lauderdale-Hollywood International Airport, Broward County.

- (1) It does not appear that the proposed airport improvements will have any impacts to any natural (wetlands, endangered species, water quality etc...) or physical (contamination, air, noise, etc...) resources that may be found in the FDOT right of way.
- (2) It does not appear that the proposed airport improvements will have any impacts to any historic or archeological resources that may be found within FDOT right of way.
- (3) Should any part of the project improvements be performed in or adjacent to FDOT right of way, it is required that coordination take place with the District 4 Office in Fort Lauderdale, Florida. Issuance of permits from FDOT may be required for project activities, either temporary or permanent, located within FDOT right of way. Please provide a commitment in the final EIS referencing coordination with FDOT.
- (4) The document refers to the surface transportation system surrounding the airport and that no commutative or secondary impacts are anticipated. Although the level of service may not be impacted, the proposed glide path dimensions may impact future improvements to I-95 and I-595 in the event elevated reversible lanes and/or transit on elevated structures are considered in the future. Currently, the I-595 PD&E study shows elevated direct connects to and from I-95 in the area of B1 and B1 refinements. Will there be restrictions as to the elevation of new structures on the interstate? Will roadway and structure construction be constrained by new glide path criteria? Please provide further discussion on the new glide path criteria and its potential impact on Interstate 95 and 595 (alternative C1).
- (5) Alternative D1 depicts a "tunnel" for FEC and US 1/SR 5. All changes to US 1/SR 5 will require FDOT coordination. The cost of improvements (drainage improvements, lighting

Memorandum

May 9, 2007

Page 2 of 2

improvements for tunnel, depressing the roadway and reconstructing) may be the responsibility of the permit applicant.

(6) Page 6.H.2-1 Surface Transportation - this section references the Broward Metropolitan Planning Organization Long Range Transportation Plan (LRTP) and the proposed improvements to I-95. Please be advised that improvements to Florida Intrastate Highway System (FIHS), a system of controlled access and limited access facilities that provide for high-speed and high-volume traffic movements to move goods and services throughout the state, may not be found on the MPO LRTP because it is a program funded by the State. These roads are part of the Strategic Intermodal Systems (SIS) and play a role as connectors between SIS facilities (ports, airports, freight facilities). Because FLL and Port Everglades are SIS facilities and additional improvements to these facilities and roadway systems may be independent of LRTP, further coordination with the District 4 SIS coordinator should be scheduled in order to effectively document surface transportation impacts in the FEIS.

(7) According to the FAA Advisory Circular No. 150/5200-33A: Hazardous Wildlife Attractants on or Near Airports, Section 2-3b. (new storm water management facilities), "On-airport storm water detention pond should be designed, engineered, constructed, and maintained for a maximum 48-hour detention period for the design storm and remain completely dry between storms." We recommend that once the preferred alternative for the runway extension has been chosen, new storm water management facilities utilizing WET PONDS (presumptive design) be avoided in the airside of the airport.

The applicant should coordinate with Mrs. Ann Broadwell, District Environmental Administrator, at (954) 777-4325 for any environmental questions pertaining to this project. Please contact Mr. Roger Lalanne, P.E., FDOT District Permits Engineer, at (954) 777-4424 regarding FDOT permitting requirements within State maintained right-of-way. Please contact Mr. Abdul Hatim, Airport Planning Manager, at (850) 414-4504 regarding aviation based questions.

If you have any other questions, please feel free to contact me at (954) 717-2253.

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AC05



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

May 17, 2007

Ms. Virginia Lane
Federal Aviation Administration
Orlando Airports District Office
5950 Hazeltine National Drive
Orlando, FL 32822-5024

**SUBJ: EPA NEPA Comments on FAA's DEIS for "Fort Lauderdale
Hollywood International Airport" (FLL); Broward County, FL;
CEQ #20070115; ERP #FAA-E51052-FL**

Dear Ms. Lane:

The U.S. Environmental Protection Agency (EPA) has reviewed the referenced FAA DEIS on the proposed expansion of FLL in accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. EPA has participated in the FAA scoping meeting and site visit on February 23, 2005, and provided follow-up scoping comments in a letter dated March 25, 2005. More recently, our South Florida Office (SFO) participated in a conference call coordinated by FAA contractor to assess project wetlands.

The FAA's NEPA documentation of the expansion of FLL has a considerable history. This included a previous DEIS, a supplement to that DEIS and one or more Environmental Assessments (EAs) on specific airport expansion projects. EPA provided written NEPA comments on these documents. However, the Broward County Board of Commissioners' (Sponsor) proposal to expand FLL continued to evolve to the present proposal addressed by this 2007 "restart" DEIS. Other projects not under FAA's federal lead but nevertheless related to the overall airport expansion have also proceeded, such as a proposed automated people mover from FLL to the adjacent Port Everglades Harbor terminal.

Airport Description

As documented in the DEIS (pg. ES-8), FAA considers FLL a congested airport (long delay times for aircraft departures) that would require additional capacity by 2013. Such delays are not only a passenger inconvenience and an airline expense, they also affect the operation of other interconnected airports in the FAA network. From an EPA perspective, such delays contribute to additional air emissions as aircraft wait in queues before takeoff, and also waste fuel energy. For the No Action Alternative, delay times at FLL are projected to be 10.7 minutes in 2012 and 26.2 minutes in 2020 (pg. ES-31), compared to the Sponsor's preferred range within 6-10 minutes (pg. ES-9). Consistent with the "Vision 100" statute to streamline the review of such FAA-designated congested

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airports, FAA has developed an FLL Steamlining Memorandum of Understanding (MOU) with EPA and other appropriate agencies to better coordinate this EIS review.

The FLL footprint includes a 9,000-ft long by 150-ft wide primary “north” runway (9L/27R), a 5,276-ft long by 100-ft wide “south” runway (9R/27L), and an intersecting 6,930-ft long by 150-ft wide crosswind runway (13/31). Onsite expansion of these runways or construction of new ones presents several off-airport physical constraints adjacent to airport property. These include US 1 and the FEC Railroad (eastward); I-95, the CSX Railroad and Dania Cut-off Canal (westward); I-595 (northward); and residential areas (southward and elsewhere).

Sponsor’s Proposed Project

Alternative B1c is the Sponsor’s Proposed Project, which is being addressed by FAA in this DEIS and may or may not be selected as FAA’s preferred alternative in the Final EIS (FEIS). It proposes to extend the south runway (9R/27L) eastward toward the Atlantic Ocean to a total of 8,000 ft in length (+2,724-ft extension) by 150 ft in width (+50-ft extension). This runway extension would require construction of a “runway/taxiway bridge” to span US 1 and the FEC Railroad. To provide adequate clearance (34.74 ft minimum) over this transportation corridor, the runway would need to be elevated 45 ft MSL on the east end (27L) and 8 ft MSL on the west end (9R). Because the runway would be inoperable during construction, a parallel taxiway just north of the south runway would serve as an interim runway. Various other project modifications are also proposed, including terminal redevelopment, decommissioning of the crosswind runway, use of Engineering Materials Arresting Systems (EMAS) at each end of the runway to reduce the standard size of Runway Safety Areas (RSAs), and the partial or total removal of the Wyndham Hotel to further allow for RSA FAA compliance. The earliest expected implementation of B1c would be 2012, such that the analysis design years are 2012 and 2020.

Alternative B1c modifications are structurally the same as Alternative B1b, but B1c incorporates operational mitigative measures (flight tracks, etc.) that are currently in effect and established through long-standing Interlocal Agreements between local groups and the Sponsor to help mitigate noise. However, for a more equitable comparison of alternatives (such as for noise exposure), use of B1b data may be more appropriate than B1c since the other alternatives do not have the advantage of B1c operational mitigation. Despite the difficulty in comparing B1c to other alternatives, EPA conceptually supports the use of operational mitigation acceptable to FAA in combination with land use mitigation (home acquisition) to help mitigate aircraft noise within the 65+ DNL contours. We understand (pg. 5.C.4-1) that FAA will fully consider these measures but was not party to their development nor is legally bound by them.

Alternatives

In addition to the Sponsor’s Proposed Project, we appreciate that FAA and the Sponsor have provided a full range of on-airport alternatives. These numerous

action or development alternatives were refined over time and grouped into “like” design categories. These are designated as B Alternatives (South Airfield Alternatives), C Alternatives (North Airfield Alternatives), D Alternatives (combined South and North Airfield Alternatives) and E Alternatives (Crosswind Alternatives). Several alternatives within these groups and all of the E Alternatives were considered but rejected for various reasons discussed in the DEIS. The eight development alternatives carried forward for full analysis either propose extension of the south runway over US 1 and the FEC Railroad (B1, B1b, B1c & B5), replace the south runway with a new runway just north (B4) or just south (B5) of the existing south runway, add a dependent north runway parallel to the existing north runway (C1), or combine two of these proposals (D1&D2). These alternatives would create independent and/or dependent runways of commercial airline length to reduce delay times and provide greater FLL capacity to a varying degree. In addition to runway modifications, all alternatives also involve other airport modifications, notably terminal redevelopment. Some alternatives also require connected actions such as road and business relocations. FAA did not select a federal preferred alternative in the DEIS.

Impacts & Data Needs

EPA’s primary concerns with the proposed FLL expansion is the addition of aircraft noise exposure to existing and new populations and the fact that the project is currently out of compliance with the air dispersion modeling results for the new daily 24-hour National Ambient Air Quality Standard (NAAQS) for PM_{2.5} promulgated in October 2006 (revised from 65 ug/m³ to 35 ug/m³). For noise, all alternatives would elevate some of these residents significantly within the 65+ DNL contours (by +1.5 DNL or greater) as well as significantly within the 60 DNL contour (by +3.0 DNL or greater). In addition to the current noncompliance for PM_{2.5}, long-term air quality at FLL may also be of concern. Although project delay time reductions should minimize air emissions from aircraft at FLL in the short term, it is less certain if predicted increased operations would not increase overall air emissions in the long term. Hazardous Air Pollutants (HAPs) emissions from various on-airport mobile and stationary sources as well as offsite mobile sources related to the airport could also have increasing health impacts for on-airport and off-airport populations. Also, with the exception of Alternative B4 (0.13 ac), predicted wetland impacts are noteworthy (not insignificant) for the remaining action alternatives (15.17–21.87 acre range). These wetland impacts should be further minimized and offsite mitigation coordinated with the U.S. Army Corps of Engineers.

Because noise exposure to nearby residents is one of our primary concerns with this proposal, we note that the design of a few of the presented alternatives (C1, B4 & B1c) may expose these residents to relatively less aircraft noise. Although EPA has not selected these as preferred alternatives, we suggest that FAA and the Sponsor consider them or their modifications from a noise minimization perspective, along with the other presented alternatives, during the development of the FEIS. However, even these three alternatives have disadvantages in terms of noise exposure (benefits are confounded by some negatives) and large numbers of remaining residents would still be exposed to and/or their exposure significantly increased by aircraft noise. Accordingly, EPA

requests that operational and land use mitigation are applied to even these alternatives if selected. Our observations (primarily for noise exposure) for these three alternatives are provided in the enclosed *Detailed Comments*.

The five-volume DEIS is extensive in many aspects. As examples, we appreciate that a HAPs inventory was prepared for FLL (App. G.1.B), that Chapter 7 was dedicated entirely to cumulative impacts, and that the long history of the FLL expansion was well documented (pg. 1-1). However, information in certain areas was not noticed in the DEIS. Some of the informational areas where data or clarity are needed in the FEIS include:

- * Terminal Redevelopment – Discussion on the impacts and extent of the proposed terminal redevelopment (which would provide infrastructure for additional gates at FLL) for each alternative, as well as clarity on the associated NEPA documentation for terminal actions (i.e., brief summary of previous FLL NEPA documents or discussion if the present EIS is intended to consolidate and supersede such previous documents).
- * Significant Noise Increases – Addition of tabular 2020 significant noise increase data for residents within the 65+ DNL contours (+1.5 DNL criterion) or within the 60 DNL contour (+3.0 DNL criterion) to complement existing 2012 data in Table 6.C.1-31.
- * New Noise Exposures – Documentation of the net number of people that would be newly exposed (or no longer exposed) to the 65+ DNL contours for each action alternative compared to the No Action for 2012 and 2020.
- * Wetland Mitigation Plan – Inclusion of at least a draft detailed wetland mitigation plan. Proposed mitigation at West Lake Park may also be difficult due to considerable private land holdings such that alternate sites should also be considered in the Plan. The Plan should also be reviewed under the Joint State/Federal Mitigation Bank Review Team (MBRT) process.
- * PM_{2.5} Compliance – FEIS discussion on the predicted PM_{2.5} NAAQS violations and the mitigation measures or approach that will be taken to resolve them.
- * Construction Emissions – Presentation of construction emissions data for the preferred alternative (as proposed for the FEIS on page ES-20 of DEIS), and preferably for all development alternatives for better comparability.

In addition to these data needs, we also suggest supplemental HAPs information to complement the provided inventory of air toxics sources. While an inventory of air toxics sources and emissions is helpful, it is only a part of the information needed to adequately evaluate the potential impacts of HAP emissions. We would suggest that concentrations across the airport and in the surrounding community be assessed and

toxicity information be incorporated in order to assess the potential risks associated with emissions of HAPs from airport-related activities under the various alternatives.

Impact Minimization & Mitigation

If the project is pursued as the Sponsor's Proposed Project or as another presented alternative, the FEIS should further discuss impact avoidance, minimization and mitigation. Such mitigation would help balance airport impacts against the benefits to the airport from the proposed expansion.

The mitigation discussed in Section 6.J (pg. 6.J-1) was general. For noise, this reportedly was because FAA had not identified a preferred alternative in the DEIS, although some mitigative concepts were provided. The DEIS (pg. ES-27) suggests that FAA mitigation commitments will be provided in the FAA ROD. EPA recommends that mitigative measures for noise and other impacts should already be well-addressed by the Sponsor in concert with FAA in the FEIS, with commitments preferably already made. These commitments could then be finalized in the FAA ROD. The EIS should fully address mitigation of project impacts and not leave mitigation to the voluntary Part 150 Program.

Two specific EPA areas of project impact concern are noise and air quality. Our recommendations for minimizing and mitigating these impacts are as follows:

Noise: EPA requests considerable mitigation for aircraft noise exposure including operational mitigation (flight tracks avoiding residences to the extent safe and approved by FAA) and land use mitigation (primarily home acquisitions from willing sellers). Specifically, EPA recommends that the FEIS discuss the implementation of the following prioritized types of land use noise mitigation:

- * Acquisition of all homes from willing sellers that are located within the 70+ DNL contours;
- * Acquisition of all remaining homes from willing sellers that are located within the 65+ DNL contours and are significantly elevated (using the +1.5 DNL criterion);
- * Acquisition of all remaining homes from willing sellers that are located within the 65+ DNL contours, or sound-proofing those homes at the option of the residents;
- * Consideration of sound-proofing all homes at the option of the residents that are located within the 60 DNL contour and are significantly elevated (using the +3.0 DNL criterion).

Air Quality: In addition to requiring compliance with the revised NAAQS for PM_{2.5}, we recommend consideration of the following programs or approaches that could be used to minimize or mitigate the air quality impacts from airport emissions (EPA Region 4 technical assistance available through Dale Aspy at 404/562-9041):

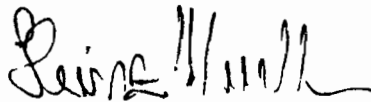
- * Electrification of all contact gates and ground support equipment (GSE), especially for terminal redevelopment;
- * Use of auxiliary power units (APU) by aircraft at gates;
- * Use of alternative fuels (such as compressed natural gas: CNG), electricity and diesel retrofits for airport shuttle buses and other on-airport vehicles;
- * Use of reduced idling practices, cleaner fuels (such as biodiesel), and emission retrofits for diesel construction equipment used by FAA contractors;
- * Use of more recent concepts such as "cell phone waiting areas" to minimize circling or idling traffic for passenger pick-ups;
- * Use of other innovative approaches to avoid or minimize emissions from mobile and stationary sources associated with airports and its traffic;
- * Promotion (e.g., airport practices and signage) of increased awareness of greenhouse gases (GHG) relative to their effects on climate change and their reduction through energy conservation, alternative fuels and biofuels use, and reduced vehicular mileage and fuel strategies.

EPA DEIS Rating

EPA rates this DEIS as "EC-2" (Environmental Concerns, additional information requested in the FEIS). We base this rating on our comments provided in this letter and enclosure.

We appreciate FAA's coordination of this project with us. Should you have overall questions on our comments, feel free to coordinate with Chris Hoberg of my staff at 404/562-9619 or hoberg.chris@epa.gov. Also, air quality issues may be directly addressed to Brenda Johnson of our Air, Pesticides and Toxics Management Division (APTMD: 404/562-9037 or johnson.brenda@epa.gov), air toxics issues to Dr. Ken Mitchell (APTMD: 404/562-9065 or mitchell.ken@epa.gov), and wetland issues to Ron Miedema (SFO: 561-616-8867 or miedema.ron@epa.gov).

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosure – *Detailed Comments*

DETAILED COMMENTS

This enclosure provides additional EPA comments on our two primary impact concerns (noise and air quality) as well as wetlands, water quality, alternatives, environmental justice, induced impacts, cumulative impacts as well as various other comments.

NOISE

Noise Minimization Alternatives

Because noise exposure to nearby residents is our primary concern with this proposal, we note that the design of a few of the presented alternatives (C1, B4 & B1c) may expose these residents to relatively less aircraft noise. Although EPA has not selected these as preferred alternatives, we suggest that FAA and the Sponsor consider them or their modifications from a noise minimization perspective, along with the other presented alternatives, during the development of the FEIS. However, even these three alternatives have disadvantages in terms of noise exposure (benefits are confounded by some negatives) and large numbers of remaining residents would still be exposed to and/or their exposure significantly increased by aircraft noise. Accordingly, EPA requests that operational and land use mitigation are applied to even these alternatives if selected. We offer the following observations (primarily for noise exposure) on C1, B4 and B1c:

* Alternative C1 – C1 incorporates the least number of people within the 65+ DNL contours for both 2012 (71 people) and 2020 (717 people) for all the action alternatives, as well as exposing the least number of people with significant increases for 2012 in the 65+ DNL contours (33 people) and the second lowest number within the 60 DNL contour (1,134 people). This may be because C1 does not develop the south runway near southern residents and instead proposes another northern runway parallel to the primary north runway. Capacity increases and delay reductions are reasonable, although delay times would only be reduced to 5.0 minutes for 2020.

* Alternative B4 – B4 offers reduced overall and significantly increased noise exposure compared to most other alternatives for 2012 (973 people) and 2020 (1,492 people). This may be because B4 proposes a new southern runway 340 ft north of the existing south runway such that it is further removed from southern residents. However, while B4 considerably reduces the number of exposures for 2020 compared to the No Action (1,492 vs. 1,772 people), it performs much worse than the No Action for 2012 (973 vs. 33). It is somewhat unclear why so many more people (940) would be exposed for 2012 in essentially the same south runway corridor as the No Action (the FEIS should discuss this). B4 would also impact the lowest number of wetland acreage (0.13 ac) of all the action alternatives. Capacity increases and delay reductions are reasonable, although delay times would only be reduced to 4.7 minutes for 2020.

* Alternative B1c – B1c has the advantage of incorporating existing operational mitigative measures for 2012 that are not applied to other alternatives. This resulted in the overall noise exposures being the second lowest of all alternatives (285 people) in 2012; however, without such mitigation in 2020, exposures are the highest of all alternatives for 2020 (2,472 people). However, the number of people exposed to significant increases for 2012 within the 65+ DNL contours are the second lowest for all alternatives (263 people), which also may be related to the existing operational mitigative measures, and the lowest within the 60 DNL contour (693 people). Capacity increases and delay reductions are reasonable, although delay times for 2012 (3.9 min) are the highest of all action alternatives and unexpectedly higher than for 2020 (3.1 min). The FEIS should discuss why delay times for 2012 are greater than for 2020 when the number of operations are expected to increase in 2020.

Noise Data Needs

The FEIS should provide the following noise data or discussion:

* Noise Significance Data (Table 6.C.1-31) – EPA much appreciates inclusion of 2012 data for significant increases in noise levels in the 65+ DNL contours (using the +1.5 DNL criterion) and the 60 DNL contour (using the +3.0 DNL criterion). However, no comparable data were found for the 2020 design year. The FEIS should provide such 2020 data or discuss why such data were apparently not provided.

* Exhibit 6.C.1-19 – Table 6.C.1-31 shows that C1 would significantly increase (+3.0 DNL or greater) the noise levels of 1,134 people in the 60 DNL contour for 2012. However, an examination of the residential land use (yellow) in Exhibit 6.C.1-19 does not suggest that such a large number of residents are living in the 60 DNL contour. As such, the figure and data do not support each other. The data and figure should be verified in the FEIS.

* New Noise Exposures – EPA requests documentation of the net number of people that would be newly exposed (or no longer exposed) to the 65+ DNL contours for each action alternative compared to the No Action for 2012 and 2020.

* Noise Exposure Data (Table ES-1) – No 2012 data for noise exposure (or delay times) were provided on Table ES-1 for D1 and D2. Footnote 5 explains that data were not provided for 2012 since D1 “...would not be fully operational by 2012.” For purposes of alternatives comparison, however, it is unclear why exposure data (and delay times) could not have been predicted as they were for other alternatives. The FEIS should discuss this and potentially provide data (which could still be qualified with footnote 5). Alternatives cannot be successfully compared with such estimates.

AIR QUALITY

We offer the following air quality comments on NAAQS and air toxics (HAPs). EPA appreciates that a HAPs inventory was provided in the DEIS.

NAAQS

* Section 5.B.1.4 (pg. 5.B-9) – We disagree with the last sentence of this section that indicates that EPA considers the rates of increase of NO_x and VOC emissions in determining the likelihood of ozone formation on a project level. EPA considers the rates of these precursor emissions in photochemical modeling to assess the impact of ozone formation and compliance with our NAAQS. However, we do not have standards based on the emission rates of the precursors to determine compliance. We recommend that this sentence be revised to more clearly discuss how and where the process used in the above referenced statement has been used in the past to identify compliance problems or concerns.

* Section 5.B.2.2.1 & Table 5.B-7 (pp. 5.B-12, 13 & 14)

a) *PM_{2.5} 24-hour NAAQS Revision* – The fine particulate (PM_{2.5}) daily (24-hour) NAAQS was revised in October 2006 from 65 ug/m³ to 35 ug/m³. Modeled concentrations in Table 5.B-7 indicate violations of the 24-hour PM_{2.5} NAAQS for all scenarios that were modeled. The FEIS should discuss these violations and the mitigation measures or approach that will be taken to resolve them.

b) *Sulfur Dioxide (SO₂) NAAQS* – This section and table presents modeling results for the 24-hour and annual SO₂ NAAQS. However, modeling results are not discussed or presented for the 3-hour SO₂ NAAQS. The FEIS should discuss this omission.

c) *Receptors* – The section indicates that of the 161 receptors used in the “sensitivity analysis”, only four receptors (i.e., receptors 188, T13, 57 & 45) showing the highest results were used in the final modeling. The FEIS should include a summary discussion on what the sensitivity modeling involved and what is meant by the “highest results.”

Also, dispersion modeling results from several other receptors (i.e., G10, R2, T4, T9, T114, 117 & 118) were presented in Table 5.B-7, which is assumed to represent final modeling. It is unclear why these receptors differed from the four receptors mentioned above and if higher modeling results were modeled.

d) *Sensitivity Analysis* – This section or elsewhere in the FEIS should include a discussion on the sensitivity analysis and present the modeling results from that analysis for each of the five years modeled. As presented, it is unclear why the receptors chosen are adequate for representing the final modeling or what year was modeled for the final results. The connection between the sensitivity and final modeling is unclear.

* Section 5.B.2.2.1 & 5.B.3 – Given comment “a” above, the last sentence in these sections should be revised. The highest concentration would not be associated with the nitrogen oxides (NO_x) concentration for receptor T13 and compliance with the PM_{2.5} daily 24-hour NAAQS was not demonstrated.

* Tables 5.B-7 & 5.B-8 (pp. 5.B-13 & 5.B-15) – The DEIS does not discuss how and where the background data for the air quality monitor were obtained and developed for use as background concentrations for the dispersion modeling results. If possible, the names and identification number for the air quality monitors used to develop data in Tables 5.B-7 and 5.B-8 should be provided.

* Section 5.B.3 – The source of the State Implementation Plan (SIP) regional budgets was not presented in Section 5.B.3.

* Table 6.B-2 (pg. 6.B-5) – The FEIS should state that the “Relevant CAA Thresholds” provided in Table 6.B-2 are from the General Conformity *de minimis* thresholds.

* Table 6.B-10 (pg. 6.B-16) – It is unclear what level of background concentrations are used in the modeling results presented in Table 6.B-10.

It is also unclear how the modeling concentrations for PM_{2.5} are all below 35 ug/m³ and thus in compliance with the PM_{2.5} 24-hour NAAQS in Table B.6-10. Our uncertainty stems from the data presented in Table 5.B-7, which were all above this NAAQS and the 24-hour background concentration was 35 ug/m³. The section lists the background concentrations and discusses the monitors used and how these data were developed for the various NAAQS.

Furthermore, the three-hour SO₂ NAAQS was not mentioned in Table 6.B-10 and Section 6.B.2.4.

* Tables 6.B-13 & 6.B-14 (pp. 6.B-20 & 6.B-22) – Several footnotes in the tables with modeling results in Chapter 6 indicate that background concentrations were projected for future conditions in Tables 6.B-13, 6.B-14 and other similar tables in Section 6.B. It is unclear how background concentrations are projected. This is not a standard approach that is used in dispersion modeling. A discussion of the rationale for this approach and methodology should be provided in the FEIS.

Also, it is unclear why the four receptors (i.e., 188, T13, 57 & 45) were chosen for modeling in the 2012 assessment and how they related to the receptors presented in the base year modeling receptors in Chapter 5. Those receptors appear to represent worst case conditions.

* EPA Methodology (Sec. 6.B.2.1: Future Conditions, pg. 6.B-2) – It is indicated in the second paragraph that the construction emissions inventory will be prepared based on EPA approved methodology. The paragraph continues by noting this methodology for non-road equipment uses Microsoft Office Excel 2003. Similarly, the first paragraph on page 22 of Appendix G.1 (Sec. 3.2.1: Emissions Inventory Computer Models and Spreadsheets) also notes that the methodology for construction emissions used Microsoft Office Excel 2003. Furthermore, page 48 of Appendix G.1 notes the use of EPA emission factors for non-road engines manufactured in 2006 or later. These were used in combination with EPA's Emission Inventory Preparation-Volume 4. These data were

loaded into an Excel spreadsheet. For clarity, it is suggested that the above references to EPA approved methodology be revised to include this information. We also wish to note that another EPA approved methodology is the EPA NONROAD2004 model, and suggest that in the future, FAA and its applicants consider using the NONROAD model.

* Florida DEP (App. G.1, Sec. 1.3: pg. 4) – The first sentence in the complete paragraph refers to "The EPD maintains a network of air quality monitoring stations located across Broward, Miami-Dade, and Palm Beach Counties." This statement was also made on page 55 of Appendix G.1. However, it is the Florida Department of Environmental Protection (FDEP) that coordinates monitoring with local air quality agencies in Broward, Miami-Dade and Palm Beach Counties.

* AERMOD Model – The air dispersion modeling is based on the AERMOD model which is incorporated in the EDMS model. It is unclear how the inputs for the AERMOD model were developed. The FEIS should contain a discussion on how the inputs for each of the AERMOD processors were developed. A list of the options chosen to run those processors should be presented. Items that should be discussed should include, but are not limited to, the meteorological data, surface characteristics (albedo, Bowen ratio, surface roughness), landuse, topography, etc.

* Conformity – The DC Circuit recently vacated certain aspects of EPA's phase 1 rule implementing the 8-hour ozone NAAQS. South Coast Air Quality Management District v. EPA, 472 F.3d 882 (D.C. Cir. 2006). EPA and other parties are seeking rehearing from the court on several aspects of the decision, including conformity. The final position adopted by the DC Circuit could have implications for any action taken with respect to conformity programs in areas that were 1-hour nonattainment or maintenance at the time of revocation of the 1-hour standard.

* Emission Retrofits – To help minimize construction emissions, we recommend the use of reduced idling practices, cleaner fuels, and emission retrofits for construction equipment used by FAA contractors whenever feasible. FAA may wish to discuss this further with EPA Region 4 (Dale Aspy at 404/562-9041).

* Climate Change – In light of the recent Supreme Court ruling that EPA should consider greenhouse gas (GHG) emissions, it is suggested that FAA begin to consider the disclosure of project carbon dioxide (CO₂) emissions as well as their climate change effects in the development of FAA airport NEPA documentation.

Air Toxics (HAPs)

* HAPs Sources (pg. 5.B-9) – The first paragraph in Section 5.B.2 lists sources that were evaluated for the inventory used in the EIS. Other stationary sources should also be considered if they exist at FLL, such as incinerators and any others that emit criteria pollutants or HAPs.

* GSE/APU Emissions (pg. 6.B-6) – The last paragraph indicates that the greatest

overall emission contribution comes from ground support equipment/auxiliary power unit (GSE/APU) operations, which represent 84% of total emissions in 2012. This does not seem to agree with the information in Table 6.B-3, which suggests a much lower contribution from GSE/APU operations. There appears to be similar disagreement between the text and tables for other alternatives in this section as well.

* Surface Coating Operations (Sec. G.1.3.2.5.2: G.1 - pg. 47) – It is noted that surface coating operations were modeled as a volume source. If the operations were controlled appropriately, there would be a point source at some elevation above the operations, many of which would occur in spray booths.

* Alternatives D1 & D2 (pg. G.1.B-25) – The 2012 HAP Emission Inventory tables conclude with Alternative C1. Will Alternatives D1 and D2 be included in the FEIS?

* Decreased Emissions Rationale (App. G.1.B: Table L.B.1) – In this table, each of the alternatives is analyzed for its projected HAP emissions from each of five sources (aircraft, motor vehicles, GSE, stationary sources, APU). It would be helpful for the reader if the FEIS explained why GSE, stationary source, and APU emissions are projected to decline under each of the construction alternatives (despite the fact that the proposed changes to the airport runway system would not seem to affect the use of these types of sources, other than possibly increasing their operation as the use of the airport increases).

Similarly, in Table L.B.1, emissions from motor vehicles increase from 2005 Existing Condition to the 2012 No Action Condition and further to the 2020 No Action Condition. It would be helpful for the reader if the FEIS explained why the emissions associated with different alternatives for 2012 and 2020 are so much lower than their No Action comparative values.

* Airport Data Comparisons (Sec. G.1.B.1.0: 3rd para.) – Has FAA tried to ensure consistency of methodology with other inventories in the area?

* Fraction Sources (Sec. G.1.B.1.1: 1st para., 3rd sentence) – The FEIS should identify the sources of the fractions. Also, it would be helpful to define “speciation profile” for the lay public reader.

* EPA Speciation Profile Information (Sec. G.1.B.1.1: 2nd para., 1st sentence) – Please rewrite this sentence as “Most of the information on HAP speciation profiles that was used in the assessment was obtained as a result of EPA’s effort to develop guidelines and regulations ...”

* Aircraft HAPs Data (Sec. G.1.B.1.1 – 2nd para., 2nd sentence) – We suggest concluding this sentence with “...technical difficulty in developing new data.” It is contrary to recent evidence to suggest that airports are not significant sources of HAPs.

* Speciation Profiles (Sec. G.1.B.1.1.2) – We suggest the first sentence be rewritten to read “Speciation profiles applied to criteria pollutant emissions from on-road vehicles, ground support equipment (GSE), and other non-road vehicles (mobile sources) are for engines running on gasoline and diesel fuel. This assessment did not consider the use of alternative fuel, such as biodiesel and compressed natural gas (CNG). Greater use of these fuels would decrease...”

* CAA Citations (Sec. G.1.B.1.3) – This section on regulatory background should include a discussion of Clean Air Act (CAA) authorities for mobile sources, such as Sections 202(l), 202(a)(1) and 211(c)(1).

* Health Effects (Sec. G.1.B.1.4 – 3rd para.) – EPA would avoid statements suggesting that health effects cannot be assessed in a meaningful way when evaluations are limited to a single source in a local area. The single source in this case consists of the airplanes, ground service equipment, auxiliary power units, mobile ground sources, paint shops, fueling operations, other stationary sources associated with the airport, etc. The airport is, in effect, a small city which impacts air toxics concentrations which are local in nature. EPA, in fact, does evaluate single sources under the residual risk assessments program.

* NEIs (Sec. G.1.B.2.1.1) – The documentation that the DEIS cites is the 1999 National Emissions Inventory (NEI) as opposed to the 2005 NEI. Work on the 2005 NEI is just beginning.

* Airport HAPs (Sec. G.1.B.2.2) – Please rewrite the first sentence as “The HAP evaluation for the FLL DEIS considers only airport-related sources. These sources emit a subset of the 189 substances...”

* Emission Factors (Tables G.1.B-5 through G.1.B-6) – These are tables of emission factors, not speciation profiles.

* Aircraft Fleet Mix (Sec. G.1.B.3.2 – 1st para.) – If the number of 4-stroke versus 2-stroke engines are impacted by changes in the types of aircraft in the fleet, this could change the speciation profiles defined for the GSE.

* Attachment G.1.B-1 (HAP characteristics)

+ *Butadiene (3rd sentence)* – Butadiene is not found in the fuel itself. We suggest adding, “U.S. EPA has determined that 1,3-butadiene is carcinogenic to humans by inhalation and that the lymphohematopoietic system is considered to be the target organ for cancer in humans.”

+ *Formaldehyde* – To be consistent with information presented in other sections, this section should mention that formaldehyde is considered a probable human carcinogen by EPA, based on evidence of nasal squamous cell carcinomas in animals.

- + *Lead* – Please strike the sentences “The connection between these effects and exposure to low levels of lead is uncertain” and “There is inadequate evidence to clearly determine lead’s carcinogenicity in humans.” Also add the sentence “EPA has determined that lead is a probable human carcinogen” and a sentence that notes that lead continues to be used in aviation fuel.
- + *Xylene* – Note that xylene is also found in evaporative emissions.

WETLANDS

* UMAM Functional Loss (Sec. 6.E.2.3: Analyses of Wetland Impacts) – Throughout this section of the DEIS, the Uniform Mitigation Assessment Method (UMAM) functional loss is referred to in acres. Under the UMAM process, impacts to wetland areas are characterized in loss of functional units. The DEIS states that redevelopment of Runway 9R/27L to the east (pg. 6.E.2-7) would impact 6.09 acres of W-17 and would result in a UMAM functional loss of 2.44 acres. According to the UMAM data sheets (Appendix M) impacts to 6.09 acres of W-17 would result in a UMAM functional loss of 2.15 units. The only way to determine the amount of mitigation necessary to offset 6.09 acres of W-17 would be to have UMAM scores for the mitigation site, which are not included in the DEIS. In addition, the FEIS needs to include UMAM functional losses associated with the secondary impacts to wetlands caused by the project. The FEIS should provide these data.

* Wetland Mitigation Plan (Sec. ES.7.2: Wetland Impacts and Sec. 6.J.: Mitigation for Wetland Impacts) – The FEIS should include a detailed mitigation plan (at least in draft form). Reference is made to mitigation being conducted at West Lake Park to offset wetland impacts for this and future projects within Broward County. EPA believes the mitigation plan should be reviewed using the Joint State/Federal MBRT process. To date, the MBRT has not been requested to review the West Lake Park Mitigation Plan. In addition, the West Lake Park Mitigation Site contains numerous land holdings that are in private ownership which may make this site unacceptable for mitigation purposes. The FEIS should therefore address mitigation alternatives in addition to what was proposed in the DEIS.

* Drawings for Runway Approach Light System (Appendix M: Biological Resources – Description of the Installation of the Runway Approach Light System Associated with the Expansion of Runway 9R/27L) – EPA requests that the FEIS include overview and cross sectional drawings of the proposed runway approach light system and associated infrastructure. We also request that the overview drawings illustrate the direct and secondary wetland impacts associated with this phase of the project.

WATER QUALITY

* Stormwater Runoff Management – With the addition of extended or new runways, impervious surfaces will increase at FLL due to the project, and vary among alternatives (page 6.E.1-10 indicates that a decrease in pervious surfaces ranged from 0.51% – 4.95% by alternative). The stormwater plan for FLL should be amended to consider the

expected increases in stormwater runoff and the water quality of the runoff (incidental fuel spills, oil and grease, fertilizer, pesticides, etc. Runoff should be routed to retention/detention ponds rather than wetlands, particularly the mangroves located east of the runways for the B alternatives. Such retention/detention ponds, however, should be designed to avoid becoming attractants to birds and other wildlife, which could affect potential aircraft-wildlife strikes at FLL (e.g., covered or underground pond designs might be used). Coordination with the State of Florida NPDES Permit Program is advised.

* Sole Source Aquifer – Page 6.E.1-9 indicates that the Biscayne Aquifer (a sole source aquifer) is only 4-5 feet below the surface at FLL. However, the DEIS indicates that the airport is in a saltwater intrusion area such that Aquifer water is non-potable there.

While saltwater intrusion at FLL is likely, it should be noted that salinity can be treated to drinking or gray water levels if necessary. Beyond salinity, however, the Aquifer should not be further polluted with other contaminants by the proposed expansion or by the existing airport, such as fuel from incidental spills. Appropriate measures such as the above stormwater plan and containment basins (e.g., associated with any surface fuel storage tanks) should therefore be applied to insure no additional contamination of the Biscayne Aquifer. This is particularly true if there are any wellhead protection areas in the vicinity that are sources of public drinking water supplies (the FEIS should discuss this).

ALTERNATIVES

Terminal Redevelopment

All development alternatives propose terminal redevelopment. Such redevelopment was mentioned but not well developed in the Executive Summary (pg. ES-3) or Chapter 2 (pg. 2-2). Terminal redevelopment in terms of the number of contact gates was also addressed for each runway alternative in Chapter 4. Finally, Appendix D.2 also addresses “Future Terminal gate Demand/Capacity Assessment” by discussing various options to terminal redevelopment (including number of contact gates) by runway expansion alternatives.

The impacts and extent of such terminal redevelopment, which would provide infrastructure for additional gates at FLL, is unclear. As examples, page 4-39 suggests that B1 would only require a few additional gates while page 2-2 suggests that the Master Plan Update (MPU) references 78-84 gates and page 4-39 suggests that FAA has projected a need for 67-77 gates for 2020. It is also unclear how many of these gates would be new compared to the existing condition. Table D.2-1 in Appendix D.2 presents a range from 47-69 gates for 2012 and 54-77 gates for 2020. Regarding impacts, it is unclear if terminal redevelopment impacts were also lumped into the “summary of analysis” for the runway alternatives (Table ES-1) or were not addressed in the DEIS.

Regarding NEPA documentation for terminal development, the DEIS (pg. 4-39) references terminal elements that were discussed in previous FLL NEPA documentation. Since the present DEIS is a restart EIS, we suggest that any tiering from previous documents be avoided, or at least brief summaries be provided in the pending FEIS to update any aspects for clarity. This is particularly true if any Environmental Assessments (EAs) are referenced since they receive less public review than an EIS.

Overall, the FEIS text should further address terminal redevelopment. This information should include how many concourses, gates, and other terminal elements would be needed for each alternative and if they would be new or just redeveloped. Terminal construction and operation impacts should also be disclosed and dissected by alternative if previously lumped into runway alternatives. Regarding NEPA, the FEIS should briefly summarize previous NEPA documents addressing terminal redevelopment or clarify that the present EIS is intended to consolidate and supersede such previous documents.

ENVIRONMENTAL JUSTICE (EJ)

The EJ demographics analysis (pg. 6.H.1-6) indicates that there are more minorities in Broward County (48.8%) than in the FLL study area (36%) and low-income populations are comparable but slightly greater for the study area (11.4% vs. 10.8%). The DEIS also compares all the development alternatives against the No Action for 2012 and 2020. In general, project impacts by alternatives would be much the same for minorities and low-income population percentages. However, to further place these data into perspective, we suggest that overall percentages for counties adjacent to Broward as well as the State of Florida also be provided in the FEIS.

Noise exposure was considered the main potential impact area for EJ communities. However, based on the analysis, it appears that project impacts would be reasonably evenly distributed on area demographics. Nevertheless, it should be noted that all demographics would generally be exposed to overall more aircraft noise, including significant elevations in the 65+ DNL contours and 60 DNL contour, due to the presented alternatives when compared to the No Action.

INDUCED IMPACTS

Transportation impacts were reviewed in the DEIS in terms of potentially being induced by the proposed FLL expansion. Page 6.H.2-1 suggests that study intersections near FLL would need to be improved with or without the project due to "general growth in traffic".

The expectation of continued growth in Broward County seems reasonable. However, it can also be assumed that an expanded FLL could facilitate this growth (in terms of airport traffic) due to airport public convenience (terminal redevelopment, reduced flight departure delay times, additional flights/gates, etc.) which could translate into additional enplanements (flights taken that otherwise might not have been to avoid airport delays). As such, increases in traffic congestion at the considered airport intersections could also be expedited due to the project. While the effects of such induced impacts would be

minimized if intersectional improvements would correspondingly be expedited due to need, certain impacts such as increased traffic noise, may not be mitigated.

CUMULATIVE IMPACTS

We appreciate the dedication of an entire chapter on cumulative impacts in the DEIS. The on-airport and off-airport project list and descriptions are extensive.

The analysis could have been improved if those projects that cumulatively affected the same resources as the proposed FLL expansion, would have been identified (i.e., primarily noise, air quality and water quality impacts on air, waters of U.S. and land resources). This could have been accomplished as a tabular summary (projects with common impacts/resources listed) or the common impacts/resources could have been identified and listed at the end of each project description. The level of impact could have been qualitative or quantitative (data provided if available and easily accessible). Overall, a cumulative impacts section should attempt to demonstrate how the proposed project, together with other local existing and reasonably foreseeable projects, would cumulatively affect common resources in the area.

The DEIS conclusion for this chapter (pg. 7-37) essentially indicates that cumulative impacts are not significant. It should be noted, however, that the cumulative impacts of the incremental increase of impacts associated with expanding a project (such as the proposed FLL expansion) in a built-out area (such as Fort Lauderdale) are typically greater than for such an expansion in a less developed area due to the existing impacts already present in a built-out area. Although the DEIS suggests that additional operations and enplanements at FLL would occur with or without the project, the resultant consequences in either case would be an overall cumulative increase in noise and other impacts in the area.

OTHER COMMENTS

* Mitigation Costs – We appreciate that line item funding was provided for each alternative (e.g., B1: pg. 4-58). However, monies for mitigation are not itemized. While we understand that mitigation and Sponsor commitments may still have been unclear at the DEIS stage, we suggest that a cost estimate or cap (e.g., percentage of project costs) for mitigation be provided in the FEIS.

* Part 150 Study – Page 5.C.3-1 states that “[t]he impacts of that Part 150 Study on this EIS is unclear at this time.” However, we are pleased to note that a status discussion of the FAR Part 150 Noise Compatibility Study for FLL is provided in the *Cumulative Impacts* chapter (pg. 7-8).

The FEIS should coordinate the Part 150 Study with the noise mitigation plans for this EIS. However, the EIS should fully address mitigation of project impacts and not leave mitigation to the voluntary Part 150 Program. The Part 150 Program is intended to

mitigate any leftover homes that may still be exposed to noise within the 65+ DNL contours from previous FLL projects.

* Sloped Runway with Runway/Taxiway Bridge – B1, B1b, B1c, B5 and D1 require a “runway/taxiway bridge” that spans US 1 and FEC Railroad. While this is no longer unprecedented in the eastern US, it does involve tunnel driving for US 1 travelers, which may be unusual for local drivers as well as tourists in Florida. This would be particularly true when aircraft are landing on or rolling over the runway bridge and if the designated touchdown point is located directly over US 1. Although EPA defers to FAA for airport safety, we offer that if runway/taxiway alternatives are pursued, designing the aircraft touchdown point directly over US 1 should be avoided to reduce potential driver startle (visual and noise). Providing a screen to visually block aircraft on the bridge from a US 1 driver’s view should also be considered if it does not interfere with aircraft safety. Also, to allow for clearance over the US1/FEC Railroad corridor, it is noted that runways for alternatives requiring a runway/taxiway bridge would be sloped (i.e., a differentially elevated runway: 8 ft MSL west end vs. 45 ft MSL east end). Although we again defer to FAA, a sloped runway may be problematic for normal operations and also limit payload capacity (pg. 6.C.1-11) for takeoffs toward the east.

* Fatal Flaws – Alternatives were screened in the DEIS using fatal flaw scenarios which included runway intersection with I-95. It is therefore unclear why intersection with US 1 and the FEC Railroad (which were proposed for bridging for most B Alternatives) was not also considered a fatal flaw for potential alternatives.

* Runway Length – The resultant runway length of B1’s runway extension is the longest of all the alternatives (8,600 ft). Although EPA will defer to the Sponsor/FAA in this regard, 8,600 ft may not be needed (based on other alternatives) and presumably also advances the runway further eastward toward mangrove wetlands that may be affected by runway runoff if stormwater is not managed (see *Stormwater Runoff Management* above).

* RPZ Landscape – All or parts of the Wyndham Hotel would be removed for B1 and other B alternatives to eliminate structures within the Runway Protection Zone (RPZ). However, we note from Figure ES-2 that I-95 would still be within the RPZ for B1 (I-95 is also in the RPZ of other B, C and D Alternatives). While I-95 is presumably at-grade near FLL, do FAA regulations permit a congested corridor like an interstate highway to be within the RPZ? Landing aircraft that overshoot the end of the runway and enter the RPZ would not be compatible with I-95 traffic. EPA will defer to FAA regarding airport safety.

* Apparent Typos

+ *Page 5.C.4-1*: The referenced “8,100 ft runway” for the Sponsor’s Proposed Project should presumably be “8,000 ft”.

+ *Page 6.C.1-51*: Table 6.C.1-31 is titled “Noise impacts between the 60

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and 65 DNL Noise Exposure Contours – 2012 Alternatives”. It provides data columns for housing units and populations affected by a “1.5 dB Increase” and a “3.0 dB Increase”. The columns in the FEIS should clarify that the 1.5 dB increase would only apply to the 65+ DNL contours and the 3.0 dB increase would apply only to the 60 DNL contour. As such, the title might read “Number of housing units and populations affected by significant increases in noise impacts within the 60 DNL Noise Exposure Contour (+3.0 dB or greater) and the 65+ DNL Contours (+1.5 dB and greater) – 2012 Alternatives”.

+ *Page 6.C.1-97*: Table 6.C.1-65 lists incompatible land uses for 2020 by alternative. Since B1c is the same as B1b for 2020 (no more Interlocal Agreements by 2020), the “Alternative B1b” listing might be changed to “Alternative B1b/B1c” to indicate this, rather than not including B1c on this table.

+ *Page 7-1* – The *Cumulative Impacts* chapter has numerous spacing errors where parts of words were separated and attached to other words, such as “...withinw hich cumulativei mpacts would occur.”

+ *Appendix G.1* – Several pages (39, 40, 42, 43, 53, 54) are missing from the DEIS. Some of these pages deal with mobile and stationary sources and the location of dispersion receptors. Also in Appendix G.1, the first sentence in the second full paragraph on page 4 should read “Miami-Dade” not “Miami-Dad.”

* Glossary of Terms – We suggest that “throughput” and “avigation easement” be added to the Glossary; that “RPZ”, “RSA” and “EMAS” be added to the List of Acronyms in addition to already being defined in the Glossary; and that “SWPPP” be added to the List of Acronyms and Glossary. Other additions may also be appropriate for the general public.