RECORD OF DECISION
FOR PROPOSED MASTER PLAN DEVELOPMENT INCLUDING RUNWAY SAFETY AREA ENHANCEMENT/EXTENSION OF RUNWAY 12-30, AND OTHER IMPROVEMENTS AT GARY/CHICAGO INTERNATIONAL AIRPORT GARY, INDIANA

Date: March 2005

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
GREAT LAKES REGION
CHICAGO, ILLINOIS

TABLE OF CONTENTS

TABLE OF EXHIBITS

CHAPTER 1
FEDERAL AGENCY'S DECISIONS

This Record of Decision (ROD) provides final agency determinations and approvals for those Federal actions by the Federal Aviation Administration (FAA or "the Agency"). The Gary/Chicago Airport Authority (Airport Authority) seeks the FAA approval of select projects, which are near-term improvements at Gary/Chicago International Airport (the Airport). The Airport Authority's and FAA's Proposed Actions address the continuing need to improve both the airfield and terminal area facilities at the Airport. These actions will enhance Airport safety by implementing development conforming to current FAA standards with respect to the Runway Safety Areas. In addition, these actions will provide effective and efficient facilities for airport users. These actions will also allow enhancements of the human environment in and around the Airport. The proposed development includes improvements to existing Runway 12-30 to conform to current FAA standards. It also provides improvements to Runway 12-30 to provide additional runway length. Finally, the proposed development provides for expansion of existing passenger terminal and apron, and the analysis of sites adjacent to extended Runway 12-30 to be acquired/reserved for aviation related development.

This ROD approves actions that include, but are not limited to the establishment or modification of existing instrument approach procedures and the installation and/or relocation of navigation aids associated with the Runway 12-30 improvements. The extension of Runway 12-30 to meet current FAA standards requires the Runway 30 localizer (located off the end of Runway 12) be relocated from its existing position 130 feet from the runway end to a location approximately 2,870 feet to the northwest. The extension of Runway 12 and displacement of the Runway 30 landing threshold to the northwest requires the approach lighting system (MALSR) and glide slope on Runway 30 to also be relocated. While instrument approach procedures will be revised, air traffic procedures will not be changed.

The Federal actions, including revision to instrument approach procedures, and associated airport development are described in detail in Chapter 2 of the *Final Environmental Impact Statement (FEIS) for Master Plan Development Including Runway Safety Area Enhancement/Extension of Runway 12-30 and Other Improvements, Gary/Chicago International Airport, Gary, Indiana*. The FEIS is dated October 2004 and was approved October 8, 2004. The proposed development is summarized in Chapter 2 Background of this ROD. The FAA's actions are also summarized in Chapter 3 Agency Actions of this ROD. The Agency's decisions are based on information contained in the FEIS and all other applicable documents available to and considered by FAA, which form the administrative record.

This ROD is issued in accordance with the requirements of the Council on Environmental Quality (CEQ), 40 CFR 1505.2. The principal features include:

- A statement of the Agency's decisions;
- An identification of all alternatives considered by the FAA in reaching its decisions, with a specification of the alternative or alternatives that are considered to be environmentally preferable; and
- The means adopted (mitigation measures) to avoid or minimize environmental harm from the selected alternative.

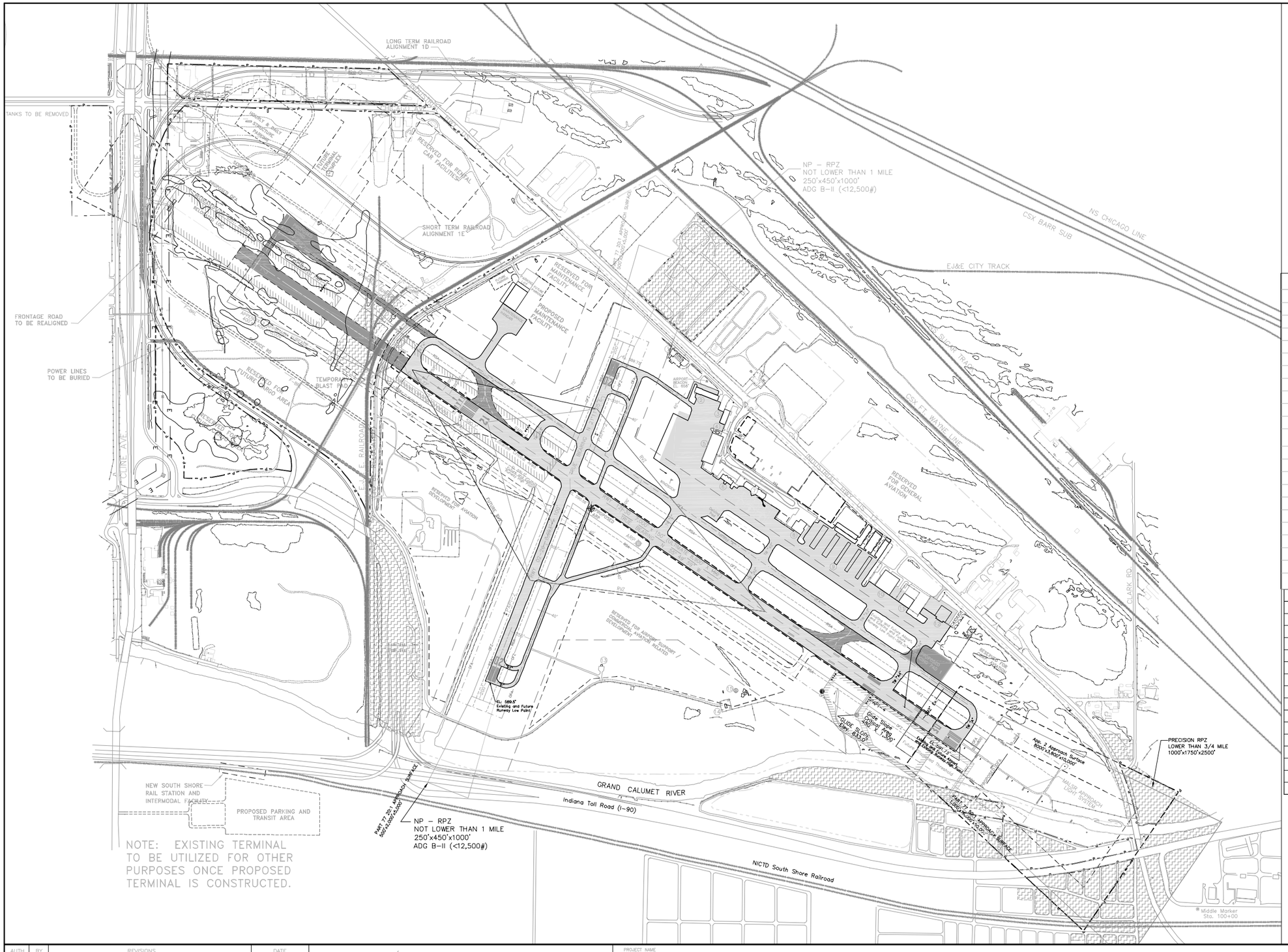
FAA DETERMINATION

Based on a review of the FEIS approved on October 8, 2004 and all applicable information, it is the FAA's final determination that the revised Airport Layout Plan (ALP) that was conditionally approved on October 17, 2001, based on an airspace review, for the proposed improvements to Gary/Chicago International Airport (see Exhibit R-1a) is unconditionally approved in this ROD, with the exception of the following airport improvements shown on the ALP that require future environmental review:

- Construction of the south parallel taxiway to Runway 12-30
- Future cargo area development (aprons, taxiways, auto parking lots, buildings, etc.) south of the end of extended Runway 12
- Future passenger terminal area development (aprons, taxiways, auto parking lots, buildings, etc.) north of the end of extended Runway 12
- Partial dual taxiway north of extended Taxiway A from Taxiway A to the proposed passenger terminal area
- Proposed maintenance facility (Boeing Hangar) expansion

This development, with the exception of the excluded airport improvements, set forth above, is specifically described in Chapters 2, 4, and 5 of this ROD, and was identified in the FEIS as the Proposed Action Alternative. The FAA's unconditional approval of the ALP constitutes its final approval. The FAA notes that the airport sponsor, the Gary/Chicago Airport Authority, has agreed to the various conditions of this approval—in particular, the conditions requiring mitigation measures. The Proposed Action is conditioned upon the Airport Authority's acceptance of responsibility for the existing condition of the property it is acquiring consistent with Federal and State laws and regulations.

In addition, elements of this development are environmentally approved as being eligible for potential Federal financial assistance, based on the Airport Authority's acknowledgement that it will be required to complete environmental testing of soil and groundwater and to complete the remedy, under the supervision, and to the satisfaction of the U.S. EPA and IDEM for all sites intended for the Authority's Proposed Action,



NOTE: EXISTING TERMINAL TO BE UTILIZED FOR OTHER PURPOSES ONCE PROPOSED TERMINAL IS CONSTRUCTED.

MAGNETIC DECLINATION
2° 41' 12" WEST (JULY 1999) WITH
A RATE CHANGE AT 6' 48" WEST PER YEAR

N

0' 500' 1,000'
Scale in Feet

CONSTRUCTION NOTICE REQUIREMENT

To protect operational safety and future development, all proposed construction on the airport must be coordinated by the airport owner with the FAA Airports District Office prior to construction. FAA's review takes approximately 60 days.

LEGEND	Existing	Future
Object Free Area		
Runway Safety Area		
Object Free Zone		
Unpaved Roads		
Roads		
Property Line		
Pavement		
Long Term Pavement		
Runway Protection Zone		
Fence Line		
On–Airport Property Buildings		
RVR		
Windsock		
PAPI		
Airport Reference Point		
RW End Lights		
VASI		
REILS		
Localizer		
Glide Slope		
AWOS		
EASEMENT		

#	BUILDING	HEIGHT
1	FUEL FARM	622' MSL
2	T–HANGAR	610' MSL
3	MAINTENANCE BUILDING	612 MSL
4	ELECTRICAL VAULT	602 MSL
5	HANGAR	627' MSL
6	ARFF	613' MSL
7	TERMINAL	629' MSL
8	CITYLINK AIRLINE HANGAR	616' MSL
9	T–HANGARS	605' MSL
10	GARY JET CENTER (FBO)	620' MSL
11	BURRELL COLOUR	620' MSL
12	FOREIGN TRADE ZONE	639' MSL
13	ATCT	662' MSL
14	RCAG	667' MSL
15	AWOS	629' MSL

FAA'S APPROVAL OF THIS AIRPORT LAYOUT PLAN (ALP) REPRESENTS ACCEPTANCE OF THE GENERAL LOCATION OF FUTURE FACILITIES DEPICTED. DURING THE PRELIMINARY DESIGN PHASE, THE AIRPORT OWNER IS REQUIRED TO RESUBMIT FOR APPROVAL OF THE FINAL LOCATIONS, HEIGHTS AND EXTERIOR FINISHES OF STRUCTURES. FAA'S CONCERNS ARE OBSTRUCTIONS, IMPACT ON ELECTRONIC AIDS AND ADVERSE EFFECTS OF CONTROLLER VIEW OF AIRCRAFT APPROACHES AND GROUND MOVEMENTS, WHICH COULD ADVERSELY AFFECT THE SAFETY, EFFICIENCY OR UTILITY OF THE AIRPORT.

AUTH.	BY	REVISIONS	DATE
	KAR	ADDED RAILROAD ALIGNMENTS & MODIFIED SERVICE ROADS MODIFIED EAST DEICING PAD	03/06/04

pmwork\jobs\30171\techprod\plans\alp
Xrefs: pmwork\jobs\30171\techprod\xref files\base, shade, future

GARY/CHICAGO AIRPORT
Gary, Indiana

PROJECT NAME
MASTER PLAN UPDATE STUDY

EXHIBIT R-1a
Airport Layout Plan

Note: This page is a reproduction of an excerpt of page 3 of the ALP for Gary/Chicago International Airport which was conditionally approved by FAA in a letter dated October 17, 2001

DATE: 06/14/01

DRAWING NO.

except to the extent that such testing and/or remediation has already been completed. For further information on these requirements, see Chapter 8 (pages 8-2 and 8-3); Chapter 10 (page 10-3); and Appendix B (page B-11). In reaching this determination, consideration has been given to 49 U.S.C. 47101 (a)(7), which states that it is the policy of the United States "that airport construction and improvement projects that increase the capacity of facilities to accommodate passenger and cargo traffic be undertaken to the maximum feasible extent so that safety and efficiency increase and delays decrease." Furthermore, the FAA has given careful consideration to: (a) the aviation safety and operational objectives of the project in light of the various aeronautical factors and judgments presented; (b) the needs of Gary/Chicago International Airport as part of the national air transportation system and the airport runway safety area enhancement needs; and (c) the anticipated environmental impacts of the project.

The FAA has carefully considered all reasonable alternatives to the Proposed Action Alternative. Although the "No-Action Alternative" had fewer developmental impacts on environmental resources, such as wetlands, than the preferred alternative, it failed to achieve the purposes and needs for this action. However, the Proposed Action will provide greater noise relief than the No-Action Alternative over the area southeast of the airport in Gary, Indiana, and will provide for an earlier clean up, than currently contemplated, of contaminated soils on land to be acquired for the airport development. Various alternatives, particularly those associated with the railroad relocation and the runway safety area enhancements were examined in detail by the FAA and found to provide comparable levels of safety enhancement as compared to the Proposed Action, but at greater costs and with similar or greater environmental impacts. However, only the Proposed Action fully achieves the purposes and needs to provide sufficient runway length to accommodate current and reasonably anticipated air transportation demand, and brings Runway 12-30 into conformity with current FAA design criteria. The Proposed Action also provides at the current terminal site improvements to existing terminal and apron that are able to accommodate current needs, as well as forecast growth for the 2001 Master Plan low case activity levels. Finally, it provides for the acquisition/reservation of land for long-term development options beyond the 2001 Master Plan low case forecast. For the reasons summarized in this ROD and supported by detailed discussion in the FEIS, the FAA has determined that there is no possible, prudent, feasible, and practicable alternative to the Proposed Action, which is the Agency's preferred alternative.

This ROD completes the approving Agency's thorough and careful environmental review and decision-making process. It is prepared and issued by the Federal agency to announce and document certain Federal actions and decisions are in compliance with the National Environmental Policy Act of 1969 (NEPA) [42 U.S.C. Section 4321, *et seq.*], the implementing regulations of the Council on Environmental Quality (CEQ) [40 CFR Parts 1500-1508] and FAA directives [Order 1050.1E and Order 5050.4A].

A ROD is also used by the FAA to demonstrate and document its compliance with the several procedural and substantive requirements of aeronautical, environmental, programmatic, and related statutes and regulations that apply to FAA decisions and actions on proposed projects. This ROD provides the final Federal determinations and approvals based on environmental analysis and findings in the FEIS.

THIS PAGE INTENTIONALLY LEFT BLANK

CHAPTER 2
BACKGROUND

Gary/Chicago International Airport (the Airport) is owned and operated by the Gary/Chicago Airport Authority (Airport Authority), comprised of four members appointed by the Mayor of Gary. Because of the proximity of the Airport to Downtown Chicago, Illinois (located approximately 25 miles or 35 to 45 minutes driving-time away, as estimated by Airport staff) a 1995 compact between the City of Chicago and the City of Gary established the Chicago/Gary Regional Airport Authority (Regional Airport Authority), which is separate from the Gary/Chicago Airport Authority. The Regional Airport Authority is charged with developing and coordinating plans for airports in Chicago and Gary. The compact also allows for a small percentage of the Passenger Facility Charges (PFCs) collected at Chicago Midway International Airport and Chicago O'Hare International Airport to be used for projects at Gary/Chicago International Airport.[1]

The Gary/Chicago International Airport is located in Lake County, Indiana, and provides commercial air service for the immediate area within the Chicago Metropolitan Area and Northwestern Indiana. To address changing aviation needs at the Airport and changes in FAA airport design standards, the Airport Authority prepared an update to the Airport master plan and completed a railroad relocation study. The master plan and railroad relocation study are Airport Authority planning documents. These studies recommend airport development that is proposed to occur on Airport Authority-owned land, and land or interests in land proposed to be acquired by the Airport Authority. Most of the land to be acquired in fee or easement involves property within the city limits of Gary, Indiana. However, some property interest to be acquired is within the city limits of East Chicago, Indiana. Much of the land is being acquired to allow the Airport to come into conformity with FAA airport design standards. The Airport Authority is also considering acquiring some remnants of these properties and other land for potential long-term aviation development. Additional planning and environmental studies for this development would be done in the future if conditions warrant. However, in the interim a significant portion of this land would be subject to remediation for soil and ground water contamination as part of the remediation of property needed for runway safety area improvements and the extension of Runway 12-30, with continuing remediation expected to be needed in some areas. The need for a new passenger terminal and air cargo facilities is considered possible beyond the 2001 Master Plan low case activity level. Major terminal improvement programs require long lead times for implementation; however, once demand exceeds capacity, an immediate response is needed. By including the acquisition and reservation of land for long-term passenger terminal and cargo facilities, the Airport Authority has been able in the FEIS to assess the environmental condition and requirements of these site areas, allowing any lengthy remediation process to get underway as soon as possible. This ROD does not approve the use of the land acquired for future terminal and cargo facilities. It is recognized that the purpose and need for the actual development of these more extensive infrastructure has not been demonstrated at this time and a separate environmental review will be needed at the time the need is demonstrated.

[1] Gary/Chicago Airport Authority, prepared by HNTB Corporation. *Gary/Chicago Airport Master Plan Update*. Chapter 2. November 2001.

The character of Gary/Chicago International Airport has changed recently. Charter, corporate jet, general aviation and on-demand cargo operators have been the primary users at the Gary/Chicago International Airport during the last decade. Through the years, the Airport has attracted scheduled/charter passenger service. Pan Am Airlines provided flights to and from Florida destinations using Boeing 727-200 aircraft, beginning in 1999 and suspending service in 2002. Casino Express provides periodic charter service to and from Elko, Nevada, using Boeing 737 aircraft. Allegiant Air initiated periodic charter service from Gary/Chicago International Airport to Laughlin, Nevada in 2004 on a bi-monthly basis using an MD-87 aircraft.

After being without frequent air carrier operations for over a year, Southeast Airlines provided regular charter service during most of 2004 as a Federal Aviation Regulations Part 121 supplemental carrier from the Airport to Florida with MD-80 and DC-9 aircraft. In February 2004, it initiated service to St. Petersburg, Florida with four flights per week. Southeast Airlines added a second Florida destination (Orlando) from the Airport in May of 2004, for a total of twelve flights per week. Pace Airlines (doing business as Hooters Air) added a third destination, Myrtle Beach, South Carolina. Boeing 737 and 757 aircraft are used to service four flights per week. During most of the last half of the year there were cumulatively a total of sixteen commercial passenger flights per week to and from the Airport, between Hooters Air and Southeast Airlines. However, in December 2004, after FEIS approval, Southeast Airlines abruptly discontinued service and went out of business.

It should be noted that the purpose and need for the proposed action at the Airport has not been based upon a specific carrier, but rather upon an air carrier profile. The project requirements have not been based specifically upon Pan Am Airlines or Southeast Airlines; however, both airlines fit the general profile on which the low case forecasts were based in the 2001 Airport Master Plan. Planning started prior to Pan Am Airlines discontinuing service and prior to Southeast Airlines starting service. The planning has continued during this volatile time for the aviation industry. The forecasts were reviewed with respect to post September 11, 2001 trends, with the service assumptions found to be reasonable for the EIS planning process because it does not affect the timing and scale of the airport project dealing with the runway improvements. There continues to be a need for the proposed actions at the Airport after the discontinuation of Southeast Airline service when the airline went out of business, as is evidenced by the continued service provided by Hooters Air using Boeing 737 aircraft.

The Boeing Company has its headquarters located in downtown Chicago. All of the corporate aircraft serving the Boeing headquarters are based at the Airport. These aircraft include a Boeing Business Jet (BBJ) - similar to a 737 but equipped for non-stop intercontinental flight, two Challenger 604s – long-range corporate jets, and two Lear 60s that were replaced with Challenger 604s in 2004. Currently, Boeing's BBJ typically makes one to two trips per week. In addition, BBJs operated by Exec Jet and others periodically use the Airport. Current cargo activity, which occurs on demand on an irregular basis, continues to include activity by some of the larger aircraft using the Airport, such as 727s and DC-8 aircraft. In 2003, 2,152,000 pounds (1,076 tons) of cargo was handled at the Airport. In addition, the Airport Authority has agreements

with United Airlines and Spirit Airlines to make its facilities available for a diversion should this be required. This agreement does not limit the size or number of aircraft that would be accommodated.

AIRPORT DESCRIPTION

The Gary/Chicago International Airport is currently classified as a general aviation reliever airport. It has 103 based fixed-wing aircraft and ten based helicopters, and approximately 53,000 annual aircraft operations. The airfield's annual capacity is estimated at 230,000 operations. It is anticipated that the number of annual enplanements at the Airport have exceeded commercial service criteria by the end of CY-2004, allowing for a reclassification as a commercial service primary airport[2]. The Airport is located on approximately 640 acres of land in the City of Gary, Indiana. The Airport is located in northwestern Indiana, just south of Lake Michigan, in Lake County. The Airport is three miles northwest of downtown Gary, Indiana. The City of East Chicago is located northwest of the Airport, and the City of Hammond is located to the southwest. Downtown Chicago, Illinois, is located approximately 25 miles or 35-45 minutes driving-time away, as estimated by Airport staff. The location of the Airport is shown in Exhibit 1-1 of the FEIS.

The Airport property is bordered by the Elgin, Joliet & Eastern (EJ&E) Railway to the west, the Indiana Toll-Road (I-90) to the west and south, the Grand Calumet River to the south and Industrial Highway (formerly US Route 12) to the northeast. These physical boundaries impose constraints upon the development of the Airport's airfield facilities. The existing Airport property line is shown in Exhibit 1-2 in the FEIS.

Access to the Airport is available to the public from multiple directions. From downtown Chicago the north/south access is along I-80/90 and Cline Avenue. From the east and west, access is accomplished via I-90/80/294 and Cline Avenue. From the south and north access is via Cline Avenue.

Existing Airport Facilities

The main physical components of the airfield at the Airport, as they exist in August 2004, are described in the following section. Details of the Airport's runways, taxiways, terminal area, apron areas, cargo facilities, general aviation facilities, navigational aids, airspace and airport traffic control and other support facilities are discussed in this section. Existing Gary/Chicago International Airport facilities are shown in Exhibit 1-5 of the FEIS.

Runways

The existing airfield configuration at the Airport consists of two active runways. Runway 12-30 is the primary runway, with a length of 7,000 feet and a width of 150 feet. The primary runway does not conform to current

[2] Fiscal year 2003 FAA funding classification is based on calendar year 2001 enplanements; Airport enplanements were less than 10,000 during calendar years 2002 and 2003 so the airport will not be classified as commercial service primary for a two year period; however, the airport estimates that 10,000 enplanements were exceeded during calendar year 2004. In the 2004 TAF, the passenger enplanements for 2004 are listed as 17,537, as recorded through October 2004. The Airport is estimating approximately 38,000 annual enplanements through December 2004.

FAA design standards. Because of this, the northwest end of Runway 12-30 is marked with a displaced threshold of 715 feet due primarily to the location of an elevated railroad track (landing threshold 715 feet from physical end of runway pavement due to railroad obstruction). This results in a landing length of 6,285 feet for aircraft landing on Runway 12. The FAA design standard deficiencies for Runway 12-30 are discussed further in this Chapter of the ROD and in Chapter 2, Purpose and Need, of the FEIS. Runway 2-20 serves as a crosswind runway used primarily by light general aviation (GA) aircraft; it has a length of 3,603 feet and a width of 100 feet. There are no displaced thresholds on Runway 2-20.

Both Runways 12-30 and 2-20 are served by full-length parallel taxiways and other connecting taxiways. Parallel Taxiway A is north of Runway 12-30 and is laterally offset from the runway by 392 feet; it has a width of 75 feet. Six taxiways connect parallel Taxiway A to Runway 12-30.

Terminal Building

The existing passenger terminal building is located north of Runway 12-30. The terminal building is a one-level structure (approximately 16,000 square feet) which houses airline ticket counter (approximately 49 linear feet) and related airline office space, a passenger waiting area, a baggage claim area, a concessions area, and a building mechanical area. The building was originally constructed in 1982 and underwent a major renovation in 1999. Detailed statistics on the uses of areas within the existing terminal are included in Chapter 2, Purpose and Need, of the FEIS. The terminal has a single departure lounge, with three aircraft gates (although one of these gates has been rendered unusable due to TSA requirements), and a separate entryway for arriving passengers. There are two passenger loading bridges, with the second bridge added in 2004. The facility is capable of housing two or three regional airlines based on counter space and has facilities for ticketing, baggage and passenger screening. It also houses Enterprise and Hertz Rent-A-Car.

The concrete aircraft parking positions on the terminal ramp were completed in the late 1990s. A 4,800 square-yard deicing pad, with facilities for capturing used glycol, has been built directly in front of the terminal. The deicing pad has two parking positions that allow for simultaneous deicing of aircraft.

The terminal is served by a single-level roadway with public, surface parking lots located to the north of, and adjacent to, the terminal building as shown in Exhibit 1-6 of the FEIS. An 800-space automobile parking lot is located directly in front of the terminal building. In 2004, the Gary/Chicago Airport Authority used local funding to expand this parking lot by approximately 570 spaces to meet the existing passenger parking demands. Expansion of the automobile parking lot was not identified as a need in the 2001 Airport Master Plan and was not anticipated as a part of this EIS study process. Two reasons have been identified as the reasons that automobile parking demand was so high in 2004: longer traveler stays began to occur in 2004 because of the type of service being offered, and the free parking offered at the Airport. This automobile parking expansion project was reviewed independently of the EIS process, and determined to be covered by a categorical exclusion.

In 2004-2005, the terminal building and apron are undergoing an expansion to provide the area needed to meet increased security and baggage handling requirements (an immediate response to post-September 11 requirements) and to relieve crowded conditions experienced during 2004 as a result of overlapping arrival and departure schedules associated with quick turnaround of aircraft. An immediate terminal and aircraft parking apron expansions are proposed to occur to the east of the existing terminal. Up to 15,000 square feet of terminal building expansion is under design and anticipated for construction during 2005; and approximately 1,250 square yards of aircraft parking apron expansion was built in 2004. These terminal building and aircraft parking apron expansions were reviewed independently of the EIS process and determined to be covered by a categorical exclusion. All three expansions (the automobile parking lot, aircraft-parking apron, and terminal building) have been shown on Exhibit 1-6 of the FEIS. Further expansion of the terminal building to meet current operations and needs is presented in the FEIS.

Cargo Facilities

The Airport operates US Customs and has a Foreign Trade Zone designation. The Airport is also part of 8,200 acres of an airport development zone with all tax and investment benefits.[3] In 2003, Gary Jet Center reported 1,076 tons of inbound and outbound air freight activity. This cargo activity occurred in areas used for various aviation-related activities, on an aircraft-parking apron that is approximately 8,600 square yards and using a building that is approximately 17,500 square feet in size.

General Aviation Facilities

There is one fixed base operator (FBO), Gary Jet Center, with a hangar located east of the passenger terminal building. There are also several hangars for both general aviation and corporate aircraft use, located at the Airport. Six of these hangars are t-hangars able to house a total of 56 general aviation aircraft; the remaining hangars are larger corporate hangars. These facilities are shown on Exhibit 1-5 of the FEIS.

Navigation Aids (Navaids)

A number of navigational and landing aids designed to assist pilots serve the Airport. The Airport is equipped with an Instrument Landing System (ILS) approach to Runway 30 with a Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR). Runways 2, 12, and 20 have Runway End Identifier Lights (REILs). All runways are served by Precision Approach Path Indicator (PAPI) lights. The Airport is also served by radio electronic guidance navaids. In addition to the ILS approach to Runway 30, Runway 2 has a Very High Frequency (VHF) Omni-Range (VOR) with Distance Measuring Equipment (VOR/DME) and Global Positioning System (GPS) approach. The VOR approach utilizes the Chicago Heights VOR located approximately nine miles southwest of the Airport. A Non-Directional Beacon (NDB) and GPS approach serve Runway 30. The NDB approach utilizes the Garie NDB, located

[3] Gary/Chicago Airport Authority, prepared by HNTB Corporation. *Gary/Chicago Airport Master Plan Update*. Chapter 3. November 2001.

approximately four miles southeast of the Airport. The Garie NDB also serves as the outer marker for the ILS approach. Runway 20 has a GPS approach.

Airspace and Airport Traffic Control

The location of Gary/Chicago International Airport and the demands it places upon the airspace and the airport traffic control (ATC) system affect the ability of aircraft to readily and efficiently land and depart from the Airport. This in turn affects the capacity and accessibility of the Airport.

Regional Airspace: The Gary/Chicago International Airport lies within Class D airspace that extends out five geographic miles from the center of the Airport and up to an altitude of 3,100 feet above MSL. There are three public use general aviation airports within 10 miles of the Gary/Chicago International Airport – Griffith-Merrillville Airport, Lansing Municipal Airport and Hobart Sky Ranch Airport.

This airspace lies at the periphery of and is intersected by the Class B airspace of Chicago O'Hare International Airport. The Class B airspace, which extends on a radius of 25 statute miles from Chicago O'Hare International Airport and up to an altitude of 10,000 feet MSL, partially covers the Gary Class D airspace. As a result, Chicago O'Hare International Airport is the dominant ATC facility for the region. The airspace environment surrounding the Gary/Chicago International Airport is shown in Exhibit 1-7 of the FEIS. There are numerous airports within or adjacent to the O'Hare Class B airspace, including five airports with operating control towers. Chicago O'Hare International Airport and Chicago-Midway International Airport are also two of the busiest airports in the country. This creates a complex and congested ATC environment. As a result, operational controls are used to assist ATC in handling the air traffic demand. ATC personnel coordinate runway usage at O'Hare, Midway, and Gary/Chicago airports, and assign altitude restrictions and flight corridors used to separate air traffic. Three standard arrival routes (STARS) are used to sequence aircraft arriving into Gary/Chicago International Airport. STARS are used by ATC to simplify aircraft routing and clearance delivery; this helps to ensure the smooth flow of IFR traffic into the Chicago area.

To better accommodate the Boeing corporate fleet, including the BBJ now housed and maintained at the Gary/Chicago International Airport, an application has been made to the FAA for the establishment of a Special Instrument Approach Procedure to Runway 12. This new approach procedure would allow Boeing jets, when appropriately equipped and flown by a crew with the appropriate certification, to fly an instrument approach with vertical flight path guidance to Runway 12. This approach would provide increased capability to use the Airport when there are strong southeast winds and marginal weather conditions. The FAA has not yet established minimums for this approach.

Airport Traffic Control Tower: The Airport Traffic Control Tower (ATCT) is located in the southeast quadrant of the Airport (south of Runway 12-30 and east of Runway 2-20). It is operated as a Contract Tower, meaning that the staff members of the ATCT are not employees of the FAA; however, they follow the same standards and utilize the same ATC practices as their FAA counterparts. Through Letters of Agreement

(LOAs), the ATCT coordinates with Chicago Approach Control and provides necessary ATC service to aircraft operating at Gary/Chicago International Airport. The ATCT is a 17-hour tower operating from 5 a.m. to 10 p.m., seven days a week. The visibility from the ATCT to all pertinent areas of the field and the approach paths themselves is unimpeded, with no obvious blind spots or obstructions.

Other Support Facilities

Aircraft Rescue and Fire Fighting Facilities: The Aircraft Rescue and Fire Fighting (ARFF)/Safety Building, located midfield and adjacent to the passenger terminal, houses the ARFF equipment. The west side of this building is a hangar used by the Gary Police Department for two in-service helicopters and related equipment. In addition to the hangar and vehicle bays, the facility also includes offices and lounge areas.

Fuel Storage: Fuel storage is located on the north side of the Airport, east of Runway 20. All fuel tanks are above ground and are owned by the Airport. They include Jet-A fuel, 100LL fuel, diesel fuel and auto fuel. All aircraft fueling operations are handled by the FBO using mobile fuel trucks. The Gary/Chicago Airport Authority uses the other fuels.

Airport Maintenance Facilities: The Airport Maintenance Building is located just east of Runway 20 and stores snow equipment, tractors, mowers, pickup trucks and a snow broom.

RUNWAY SAFETY AREA ENHANCEMENTS – FAA PRIORITY EMPHASIS

FAA's Runway Safety Area Program

The Runway Safety Area (RSA) is an integral part of the airport environment. The RSA dimensions are established in FAA Advisory Circular 150/5300-13, Airport Design, and are intended to significantly reduce the risk and extent of personal injury and aircraft damage in the event an aircraft leaves the runway through an overrun, undershoot, or veer-off. FAA Order 5300.1F, Modifications to Agency Airport Design Construction, and Equipment Standards, does not allow a modification or waiver for RSA standards. Instead, a RSA needing improvement is defined as nonstandard until and unless it is improved to all current standards. Advisory Circular 1500/5300-13, *Airport Design*, was updated by change 7 on October 1, 2002 to be compatible with Orders 5200.8 and 5300.1F and provide new guidance for minimizing the impact of navigational aids on the RSA; change 8 was issued on September 30, 2004 to incorporate recent Engineered Material Arresting System (EMAS) policies into RSA evaluations.

FAA's Runway Safety Area Program, which was initiated on October 1, 1999, established the objective that all RSAs at Federally obligated airports and all RSA at airports certificated under 14 Code of Federal Regulations (CFR) Part 139 shall conform to the standards contained in AC 150/ 5300-13, Airport Design, to the extent practicable. Gary/Chicago International Airport is certificated under Part 139. In the FEIS, the

FAA relied upon the determination it made in 2000 regarding the Runway Safety Area for Runway 12-30 at Gary/Chicago International Airport.[4]

MASTER PLAN/RAILROAD RELOCATION STUDIES

Master Planning Process

Gary/Chicago Airport Authority completed a Master Plan Update in 2001. The Master Plan is a study used to develop and evaluate facility recommendations consistent with an airport's character and activity levels. The Gary/Chicago Master Plan evaluated various airfield alternatives, with emphasis on those that address airport design deficiencies. These are described in more detail in Chapter 2, Purpose and Need, of the FEIS.

Most of the improvements included in the FEIS were identified in the Airport's Master Planning process, though those associated with the railroad relocation were developed in a subsequent railroad relocation study. The Airport Authority prepared an update to the airport master plan to address the changing aviation needs at the Airport and to address non-standard design criteria. This master plan, an Airport Authority planning document, recommends airport development that is proposed to occur on Airport Authority-owned property, or land to be acquired by the Airport Authority within city limits of Gary, Indiana. However, an easement would also be acquired by the Airport Authority for protection of the Runway Protection Zone (RPZ) within the city limits of East Chicago, Indiana. The Airport is anticipated to accommodate aviation demand over approximately the next 16 years. Longer range planning for the Airport, which may include property outside Gary's city limits involving property not owned by the Airport Authority, is not reasonably foreseeable at this time. Additional planning and environmental studies would be done in the future if conditions warrant.

Runway 12-30 is the primary runway, with a length of 7,000 feet and a width of 150 feet. The primary runway does not conform to the current FAA design standards. This results, among other things, in nonstandard Runway Safety Areas. Because of this, the northwest end of Runway 12-30 is marked with a displaced threshold of 715 feet due primarily to the location of an elevated railroad track (landing threshold 715 feet from physical end of runway pavement due to railroad obstruction). This results in a landing length of 6,285 feet for aircraft landing on Runway 12. This affects the utility of the runway and has a similar impact as reducing the effective runway length.

[4] Federal Aviation Administration. *Runway Safety Area (RSA) Determination, Runway 12/30, Gary/Chicago Airport.* September 8, 2000. Included in Appendix B of the FEIS.

There are instances when a runway length of 7,000 feet at Gary/Chicago International Airport limits the load for existing and forecast users of the facility. These instances are described more fully below. There are start-up carriers entering the air carrier market that are using narrow-body aircraft that the mainline carriers have been removing from their fleets. Most of these aircraft are earlier generation aircraft that are Stage 3 compliant but are not as efficient as newer generation aircraft. As a result, these aircraft require more runway length during takeoff than later generation aircraft of the same type.

With the current runway configuration and the presence of the EJ&E Railway, narrow-body aircraft experience further payload capacity constraints. In order for air carrier aircraft to maintain the FAR Part 121 minimum climb gradient in order to clear the rail line in the event of an engine failure, the aircraft must restrict its payload capacity. This factor significantly limits the potential of the Airport to attract and sustain scheduled air passenger and cargo service.

The current runway length of 7,000 feet is insufficient to accommodate the demands of various aircraft types (larger corporate jet aircraft, larger cargo jet aircraft, and larger commercial passenger jet aircraft such as those that were used by passenger air carriers at the Airport or other similar airline operations) based upon the runway length analysis program used during the 2001 Airport Master Plan process, FAA Airport Design Program (v4.2) and the review of post-September 11, 2001 industry trends. Although the existing runway length is capable of accommodating the B727-200 and other C-III aircraft on short-haul routes and/or at lower takeoff weights, the required runway length for a given aircraft on a given day is determined by a combination of factors, including specific aircraft variant type, temperature, engine type, and takeoff weight.

The 2001 Airport Master Plan identified the existing runway length as inadequate to support many forecast aircraft operations under expected conditions at Gary/Chicago International Airport.[5] The 2001 Airport Master Plan identified a preferred runway extension length of 1,900 feet (1,354 feet beyond the 546 feet needed to conform to FAA standards) on the primary Runway 12-30, bringing the total runway length to 8,900 feet. The Airport Layout Plan conditionally approved by the FAA in 2001[6] identifies the need for the relocation of the EJ&E Railway, the extension of the primary runway to the northwest to 8,900 feet, the displacement of the Runway 30 threshold and the implementation of declared distances standards. As shown in Exhibit 2-6 of the FEIS, this results in 8,354 feet of landing distance in both directions, 8,354 feet of accelerate/stop distance on Runway 12 and 8,900 feet of runway length for departures on Runways 12 and 30.

The 2001 Airport Master Plan identified a range of runway lengths for aircraft at maximum takeoff weight. To identify the most appropriate runway length, the current and forecast users of the Airport at anticipated loads and nonstop service have been examined. The Airport's marketing initiatives include efforts to attract

[5] Gary/Chicago Airport Authority, prepared by HNTB Corporation. *Gary/Chicago Airport Master Plan Update*. November 2001.

[6] Federal Aviation Administration. *Conditional Airport Layout Plan Approval, Gary/Chicago Airport, Gary, Indiana.* October 17, 2001.

carriers that generally operate narrow-body large jet aircraft, many with high load factors. During 2004, Southeast Airlines initiated service to Florida using MD-80 aircraft. While Southeast Airlines ceased to operate and went out of business in late 2004, this service was representative of the assumptions that were made during the 2001 Airport Master Plan process to identify the appropriate runway length to support critical operators at the Airport. From the Airport, Florida destinations are 750-1,000 nautical miles and Las Vegas-type destinations are about 1,500 nautical miles. These and numerous other high-demand business destinations fall within the 750-1,500 mile trip length range from Gary/Chicago International Airport. Exhibit 2-7 of the FEIS shows required runway lengths for common aircraft being operated by carriers with a 90% load factor on a hot day on 750, 1,000 and 1,500 nautical mile trip lengths.

As shown in Exhibit 2-7 of the FEIS a minimum of 8,100 to 8,800 feet and up to 8,900 feet would provide air carriers the opportunity to maximize the utility of their aircraft at Gary/Chicago International Airport while providing flexibility in the type of aircraft the carrier could operate from the Airport. In addition to passenger air service, the Airport also serves air cargo operators. The DC8-72F, one of the common and more demanding air cargo aircraft, requires 9,000 feet to operate without load restrictions. A runway length of 8,900 feet nearly meets this requirement, and will only require minimal load restrictions, while also meeting the requirements of multiple passenger carrier aircraft as cited above.

Railroad Relocation Study

Subsequent to the Master Plan, the Gary/Chicago Airport Authority undertook a Railroad Relocation Study. TranSystems Corporation was retained by the Gary/Chicago Airport Authority to study relocation alternatives for the EJ&E Railway. The EJ&E Railway currently operates 8 to 12 trains a day over their line. Their rail route is owned, maintained and dispatched by the EJ&E Railway and their representatives stated that the only acceptable alternatives would have to preserve their ability to control their operation (i.e., not subject to other railroads' movements or dispatching). That provision eliminated some potential reroutes over other railroad facilities. In addition, the Federal Railroad Administration required that any proposed solution accommodate the planned Midwest High Speed Rail system.[7]

Initially, four preliminary alternatives were developed using aerial photography obtained from the Northwest Indiana Regional Planning Commission (NIRPC). Also, known future area plans such as the Four City Consortium Plan to consolidate and move the CSX rail line to the Indiana Harbor Belt Railroad (IHB) were considered in developing alternatives. Frequent contact with, and input from, area railroads was maintained throughout the alternatives development process. Presentation of the four preliminary alternatives led to five new or revised alternatives, which were later reduced to four final alternatives that allow EJ&E Railway varying levels of control over their operations. These final alternatives were developed and reviewed in

[7] Gary/Chicago Airport Authority, prepared by TranSystems Corporation, *Gary/Chicago Airport, Railroad Relocation Study*. May 9, 2003.

cooperation with rail stakeholders. Community and business stakeholders throughout the area were also contacted and input solicited in development of the alternatives.[8]

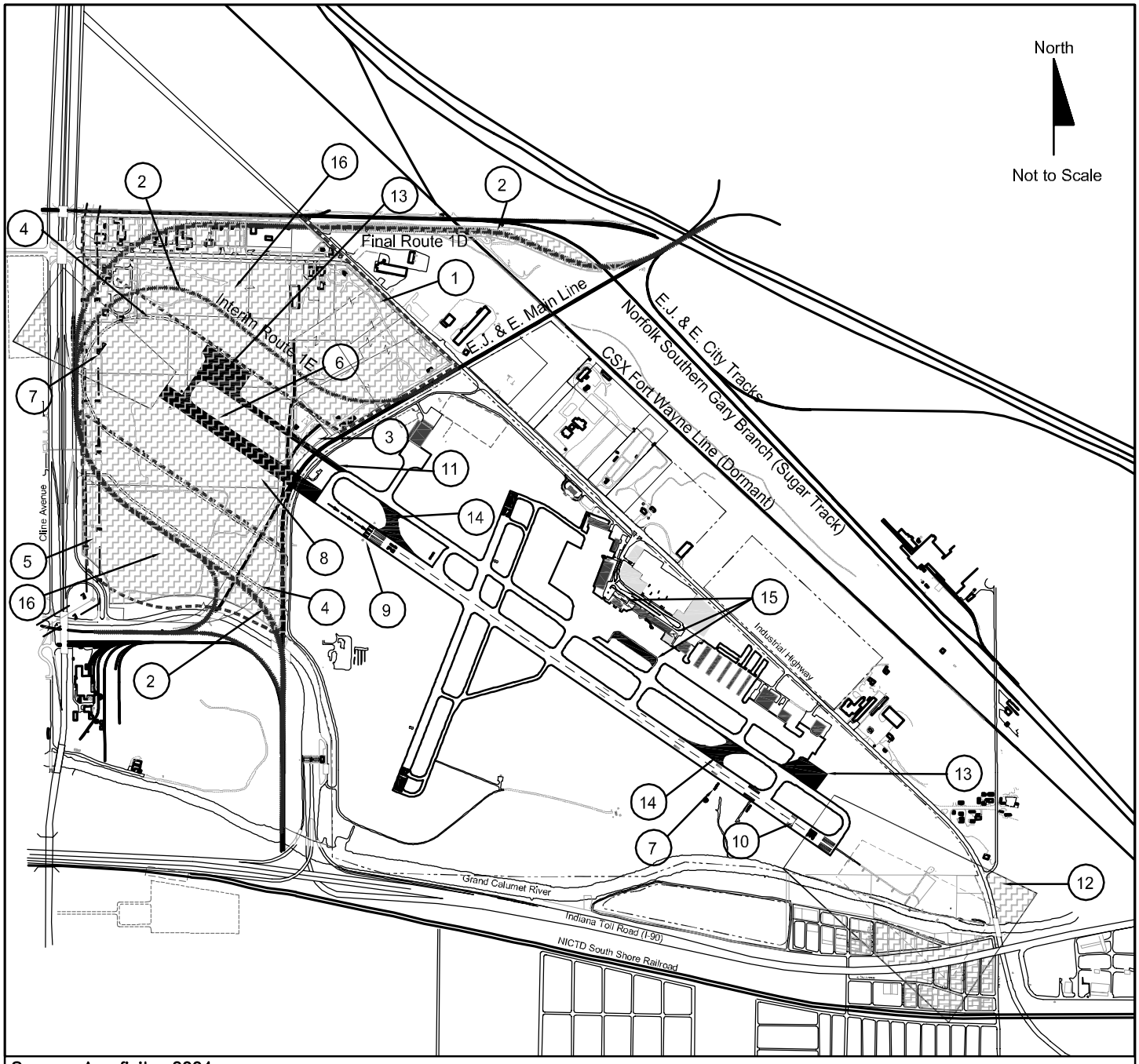
THE PROPOSED IMPROVEMENTS TO GARY/CHICAGO INTERNATIONAL AIRPORT

In order for the Gary/Chicago International Airport to conform to FAA standards and meet the needs of existing and future users, the following Proposed Actions/improvements are being pursued by the Gary/Chicago Airport Authority and are summarized below. Exhibit R-2a shows a composite of the Proposed Action in more detail. The numbering within the project listing below corresponds to the project numbers included on Exhibit R-2a.

- Improvements to existing Runway 12-30 to conform with current FAA Standards, the primary air carrier runway at the Gary/Chicago International Airport: 1) acquire land northwest of the Airport to allow for modifications to runway safety area (RSA); 2) relocate EJ&E Railway, with phased relocation including possible north shift alternative that is under consideration; 3) modify ongoing cleanup activities for compatibility; 4) relocate airside perimeter roadway with security fencing (including addition of southwest access road), with phased relocation; 5) bury transmission line; 6) extend Runway 12 to the northwest (approximately 546 feet by 150 feet); 7) relocate Runway 12-30 navaids; 8) improve/grade RSA for Runway 12 (approximately 1,100 feet); 9) relocate Runway 12 threshold to remove prior displacement; 10) displace Runway 30 threshold using declared distance standards approximately 546 feet to the northwest to improve Runway 30 RSA; 11) extend parallel Taxiway A to new end of Runway 12; and 12) acquire land southeast of the Airport, located within or immediately adjacent to runway protection zone (RPZ). These airside improvements are needed to increase the margin of safety and to conform to FAA standards.

- Improvements to provide additional runway length on Runway 12-30 (proposed to occur simultaneously with and requiring accomplishment of the improvements to conform to FAA standards described above): acquire additional land or rights northwest of existing runway; extend Runway 12-30 to the northwest (up to approximately 1,354 feet by 150 feet); relocate Runway 12 navaids; extend parallel Taxiway A to new end of Runway 12; 13) construct deicing hold pads on Taxiway A at the ends of Runway 12 and Runway 30; 14) develop two high-speed exit taxiways; improve/grade extended Runway 12 safety area (approximately 1,100 feet); and relocate Runway 12 threshold to end of extended runway pavement. These airside improvements will enhance safety for users of the Gary/Chicago International Airport and conform to FAA standards, while providing a facility that effectively and efficiently meets the demands of the existing users and forecast low-growth activity.

[8] Gary/Chicago Airport Authority, prepared by TranSystems Corporation, *Gary/Chicago Airport, Railroad Relocation Study*. May 9, 2003.



Source: Aerofinity, 2004

1 Acquire Land Northwest of Airport
2 Relocate E.J. & E. Railroad Interim and Final Routes (including modification to Cline Avenue frontage road)
3 Modify On-Going Cleanup
4 Relocate Airside Perimeter Road and Southwest Access Road
5 Bury Powerline
6 Extend Runway 12-30
7 Relocate Navaids for Runway 12-30
8 Interim Safety Area Improvements
9 Threshold Improvements Runway 12
10 Displace Runway 30 Threshold using Declared Distance
11 Extend Parallel Taxiway A
12 Acquire Land Southeast of Airport
13 Construct Deicing/ Hold Pads
14 Develop Two High Speed Exit Taxiways
15 Passenger Terminal Expansion at Existing Terminal Site
16 Analysis of Sites for Future Aviation-Related Uses-Passenger Terminal and Air Cargo Facilities

Gary/Chicago International Airport

EXHIBIT R-2a
Proposed Improvements

Revised March 2005

XREFERENCES
FILE NAME : base; : D:\Gary\EIS\Exhibits\ROD\Exhibit R-2a.dwg
MRD\INT : 11-MAR-05, 12:11:21 / ilj

- Expansion of existing passenger terminal and apron to accommodate projected demands, based on reaching specified operation levels as contemplated in the 2001 Master Plan low case forecast. For the Proposed Action: 15) the terminal building expansion will either be an addition of a second story to the east or 1-story expansion both to the east and to west. With an expansion to the west, the terminal building may either encompass the current ARFF facility or require its relocation. The ARFF building relocation is possible but not expected to occur at this time nor is it expected to occur in the foreseeable future.

- Analysis of sites adjacent to extended Runway 12-30 for aviation related development: (16) this is to acquire and/or reserve these areas for the long-term for new passenger terminal and air cargo areas. It is recognized that the purpose and need for the actual development of these more-extensive infrastructure has not been demonstrated at this time. Based on long lead-time for major facility improvements, the Gary/Chicago Airport Authority has identified and reserved areas on their 2001 Airport Layout Plan to locate facilities to accommodate the potential for a higher case activity growth in the areas of air cargo and scheduled air service. An environmental site analysis for these areas was included in the FEIS in order to consider the environmental impacts before the Gary/Chicago Airport Authority decides to acquire and/or reserve these areas for future aviation-related uses. Much of the land purchased/reserved for this use will be remnants of properties purchased for other airport improvement projects. Although a conceptual clean-up plan was developed during the FEIS, the Airport Authority will comply with all Federal, state and local requirements to further explore, evaluate, disclose and remediate or contain soil and groundwater contamination on all sites as a part of the acquisition process, with implementation to occur prior to construction. The actual development of the site would be defined as the need arises and subject to a separate environmental review at that time.

AVIATION ACTIVITY FORECASTS

Three projections for future passenger enplanements and passenger aircraft departures were developed in the 2001 Airport Master Plan: low or base, mid and high case forecasts. On January 3, 2000, the FAA found the low case forecast to be acceptable and approved that forecast for the purposes of planning airport development at Gary/Chicago International Airport for the next five years.[9] The low case forecast assumed the Gary/Chicago International Airport passenger enplanements would increase during the next two decades (from 2000-2020) at the same or a similar rate as forecast by the FAA for domestic scheduled air carriers in its Aerospace Forecast FY 1999-2010. The low case forecast used an estimated annual base of 48,800 enplanements in 2000 (an estimate of Pan Am and Casino Express activities that were expected during that year). The actual enplanements during calendar year 2000 were 24,588. Enplanements at Gary/Chicago International Airport totaled 21,194 passengers during calendar year 2001; 8,275 passengers during 2002; 831 during 2003; with approximately 38,000 expected during 2004. The 2004 FAA Terminal Area Forecast

[9] Federal Aviation Administration, Airport District Office – Pené A. Beversdorf, Assistant Manager; Letter to Nicholas L. Nesta, Project Manager, HNTB Corporation, January 3, 2000.

(TAF) released in January 2005 has been included as Exhibit R-2b[10]. The 2004 TAF forecast for 2005 projects 47,857 enplanements, a similar number as expected as a 2000 base enplanements level in the low case forecast; however, the 2001 Airport Master Plan low case forecast is still greater than the 2004 TAF.

In the short term, the 2004 TAF and 2001 Airport Master Plan low case forecasts for Gary/Chicago International Airport do not match and are not within 10% of each other in the first five-year period nor within 15 % in the 10-year time period as usually is expected by FAA. FAA policy dated May 21, 2002[11], and revised December 23, 2004[12], allows greater differences where forecast activity does not affect the timing or scale of an airport project. The purpose and need in the EIS process is predominantly for safety purposes, i.e., improvements to Runway 12-30 to conform to existing standards and enhance safety, and an extension to serve current users. The forecast activity levels do not affect the timing and scale for most of the Airport project, except for incremental improvements to the existing terminal and apron as various activity levels contemplated by the 2001 Master Plan low case forecast are reached. The new terminal and cargo facilities are beyond the planning horizon contemplated for the 2001 Master Plan low case forecast. Therefore, the FAA agreed to the use of the Master Plan low case forecast for planning and environmental purposes.

On the other hand, the mid case developed for the 2001 Airport Master Plan showed total passenger enplanements for the year 2020 to occur at the level of 825,900 and the total operations of passenger air carrier aircraft were expected to reach 29,388. This is similar to activity levels forecast by the State of Illinois for the proposed South Suburban Airport whose market area overlaps with Gary/Chicago International Airport to a certain extent. However, as explained later in this section, the way FAA's official forecasts are developed for existing airports, the FAA Terminal Area Forecasts (TAF) usually, except for large hubs, takes into account only existing traffic and national economic conditions, with some accommodation of well-documented future commitments by existing and future Airport users. Both Gary/Chicago International Airport and the proposed South Suburban Airport (if built) could attract passengers from the same service areas as Chicago O'Hare International Airport and Chicago Midway International. However, for Gary/Chicago International Airport the number of passengers attracted from O'Hare and Midway service areas is expected to be minimal and not significant when compared to the amount of passengers currently served by those airports. If the South Suburban Airport would be built, it is uncertain if its TAF will meet its expected forecast demand without well-documented future commitments by existing (after opening) and future airport users.

[10] Federal Aviation Administration released the 2004 TAF update in January 2005, subsequent to the publication of the FEIS in October 2004.

[11] Federal Aviation Administration. Memorandum "Review and Approval of Aviation Forecasts." by APP-500. May 31, 2002.

[12] Federal Aviation Administration, Memorandum "Revision to Guidance on Review and Approval of Aviation Forecasts" by APP-1, December 23, 2004.

APO TAF Quick Summary Report

Region State: AGL-IN **LOCID:** GYY Contract Tower

City: GARY **Airport:** GARY/CHICAGO REGIONAL **Based Aircraft:** 92

		Scheduled Enplanements			AIRCRAFT OPERATIONS									
					Itinerant Operations					Local Operations				
Year		Air Carrier	Commuter	Total	Air Carrier*	AT & Comm#	GA	Military	Total	GA	Military	Total	Total OPS	Total Instrument Operations
1994		1386	91	1477	156	1034	16957	399	18546	21172	482	21654	40200	5522
1995		1637	0	1637	227	1711	21668	452	24058	35997	575	36572	60630	6234
1996		1476	0	1476	162	1237	22929	327	24655	36958	431	37389	62044	7483
1997		2178	0	2178	140	508	23731	340	24719	36194	551	36745	61464	7101
1998		1555	0	1555	170	636	26261	173	27240	37401	85	37486	64726	8193
1999		2351	0	2351	231	718	20608	422	21979	27720	412	28132	50111	7067
2000		17537	0	17537	1616	830	20441	480	23367	31281	746	32027	55394	8714
2001		23058	0	23058	1260	766	19352	544	21922	25809	752	26561	48483	8400
2002		11382	0	11382	701	1627	21358	727	24413	25306	1052	26358	50771	8932
2003		942	0	942	316	1002	20708	671	22697	24047	834	24881	47578	8281
2004	*	17537	0	17537	1083	1158	21666	796	24703	21157	1043	22200	46903	8622
2005	*	47857	0	47857	2541	1158	22034	796	26529	21262	1043	22305	48834	10201
2006	*	47857	0	47857	2541	1158	22395	796	26890	21371	1043	22414	49304	10276
2007	*	47857	0	47857	2541	1158	22755	2155	28609	21480	1043	22523	51132	10449
2008	*	47857	0	47857	2541	1158	23116	4057	30872	21589	1043	22632	53504	10664
2009	*	47857	0	47857	2541	1158	23477	4057	31233	21698	1043	22741	53974	10738
2010	*	47857	0	47857	2541	1158	23837	4057	31593	21807	1043	22850	54443	10813
2011	*	47857	0	47857	2541	1158	24198	4057	31954	21916	1043	22959	54913	10887
2012	*	47857	0	47857	2541	1158	24559	4057	32315	22025	1043	23068	55383	10962
2013	*	47857	0	47857	2541	1158	24920	4057	32676	22134	1043	23177	55853	11036
2014	*	47857	0	47857	2541	1158	25280	4057	33036	22243	1043	23286	56322	11110
2015	*	47857	0	47857	2541	1158	25641	4057	33397	22352	1043	23395	56792	11185
2016	*	47857	0	47857	2541	1158	26002	4057	33758	22461	1043	23504	57262	11260
2017	*	47857	0	47857	2541	1158	26362	4057	34118	22570	1043	23613	57731	11334
2018	*	47857	0	47857	2541	1158	26723	4057	34479	22679	1043	23722	58201	11408
2019	*	47857	0	47857	2541	1158	27084	4057	34840	22788	1043	23831	58671	11483
2020	*	47857	0	47857	2541	1158	27445	4057	35201	22898	1043	23941	59142	11558
Forecast GR:		25.9931	0.0	25.9931	13.0457	0.8548	1.6706	11.1654	2.6150	-0.2876	1.3241	-0.2263	1.2881	1.9806

* - This category includes both scheduled and unscheduled air carrier (60 seats or more) operations. Operations may include passenger or cargo aircraft.

\# - This category includes both scheduled and unscheduled commuters and air taxi (less than 60 seats) operations. Operations may include passenger or cargo aircraft. Relieves MDW.

Source: Federal Aviation Administration, January 24, 2005.

Exhibit R-2b
2004 TAF for Gary/Chicago International Airport
January 2005

As part of the EIS preparation process, the assumptions of the low case forecasts were revisited in light of post-2001 realities and in light of the potential new users that continue to meet with representatives from the Airport. This review was conducted at a time when air service was being provided by Southeast Airline, a carrier that fit the profile of service that the 2001 Airport Master Plan forecasts were based upon. This review found the low case forecast to still be reasonable for airport planning purposes. Despite the discontinuation of Southeast Airlines service when the airline went out of business, the air carrier profile that was developed during the 2001 Airport Master Plan forecasts is still considered valid, with Hooter Air continuing to offer service using the Boeing 737 and as the Airport Authority continues to talk to other interested air carrier prospects.

Since the FAA's TAF forecasts are reevaluated annually, it is anticipated that in the long term, the future TAF forecasts and the Airport's existing 2001 Airport Master Plan forecast will converge as air carrier and air cargo service is reestablished and/or expanded, and efforts to attract corporate general aviation and military aircraft are successful.[13]

EIS PROCESS

On November 7, 2001, the FAA began the public phase of the environmental process by announcing in the Federal Register its intent to prepare an Environmental Impact Statement (EIS) and by requesting scoping comments.

Pre-scoping briefings were held for the following agencies and interested parties:

- Briefing for Northwestern Indiana Regional Planning Commission's Environmental Management Policy Committee on December 6, 2001
- Briefing for the City of East Chicago on December 27, 2001.
- Briefing for the U.S. Environmental Protection Agency on January 9, 2002.
- Briefing for interested environmental groups on January 9, 2002.

Scoping meetings were held with the general public and with Federal, state, and local agencies on January 15, 2002. See this ROD, Chapter 7, regarding public involvement, and FEIS Appendix A, for a summary of scoping comments.

[13] The new FAA policy document, dated December 23, 2005, has two criteria for assessing the differences in the forecasts – up to ten years 10%, and beyond ten years 15%.

The EIS process included an active Federal process for thorough public involvement. This included:

- Three public information meetings (January 15, 2002, March 4, 2003 and May 25, 2004) have been held with the general public during the course of the preparation of the EIS.
- A community leaders meeting on March 4, 2003.
- Five agency briefings (January 15, 2002; July 19, 2002; February 24, 2003 and October 21, 2003 and June 2, 2004) were held since the initiation of the Scoping process for the EIS.
- Three environmental interest group briefings (July 19, 2002; February 24, 2003 and October 21, 2003) were held since the initiation of the Scoping process for the EIS.
- A coordination meeting with the Indiana Army National Guard on February 24, 2003 to discuss the impact of their proposed project on the Airport, and determine whether there were any potential cumulative impacts.
- A joint environmental interest group and resource agency meeting concerning wetland impacts held on September 9, 2004.

On April 19, 2004, a Notice of Availability for review and comment on the Draft Environmental Impact Statement (DEIS) was published by FAA in the Federal Register. On April 23, 2004, USEPA published a notice in the Federal Register as well starting the official 45-day DEIS comment period.

A public hearing was held on the DEIS on May 25, 2004. It was conducted at the Gary/Chicago International Airport. Copies of the DEIS were mailed to interested parties and made available for review at locations in the area surrounding the Airport. The DEIS evaluated various airside and landside alternatives for meeting the Proposed Action's purpose and need from the Master Plan and Railroad Relocation Study. The initial alternative analysis was conducted to determine the options available to reasonably meet the needs of the users of the Gary/Chicago International Airport. A full range of alternatives was analyzed and the alternatives that did not meet the purpose and need were rejected for further consideration. The remaining alternatives, in addition to the No Action Alternative, were fully assessed in the DEIS.

The EIS analyzed potential environmental consequence of the Proposed Action and reasonable alternatives in 2007, the date by which the Proposed Action could be implemented. As discussed in detail in Chapters 1 and 6 of this ROD, specific aviation activity levels and associated environmental impacts were not considered to be reasonably foreseeable at this time following the year 2007. Accordingly, that date was set as the end of the planning horizon for the Proposed Action evaluated in the EIS. Although it is speculative, the DEIS presented possible activity levels. The DEIS also presented the possibility that, due to funding constraints, all of the development proposed and its associated mitigation could take longer than 2007 but that the impacts disclosed for 2007 shows the total impacts that could be expected if it took longer to implement the Proposed Action, then these impacts would be spread over a longer period of time. This ROD only approves projects proposed to be completed in this timeframe. When activity levels increase to

warrant the additional projects contemplated in the Airport Master Plan, there will be additional environmental review and appropriate documentation.

A number of comments were received on the DEIS through the public hearing and workshops, oral testimony, and written comments. Additionally, there were 64 comments received from commenters on the DEIS. See Appendices A, J, and K, of the FEIS document to review the public information program materials and agency/public comments.

The FEIS was approved by the FAA on October 8, 2004, and released to the public on October 15, 2004. The FEIS addressed areas of public concern by way of clarifications to the DEIS text and specific responses to public and agency comments. Appendices J and K of the FEIS contain a compilation of comments and responses on the DEIS, which were received from the public and government agencies during the hearing as well as through the mail. On October 22, 2004, pursuant to 40 CFR 1506.10, the U.S. Environmental Protection Agency (USEPA) published a notice of the availability of the approved FEIS in the Federal Register. Three public agencies submitted written comments for agency consideration. No public comments were submitted on the FEIS. The FAA has considered all comments received on the FEIS. Those comments are found in Appendix A and have been responded to in Appendices B and C of this ROD.

CHAPTER 3
AGENCY ACTIONS

An Environmental Impact Statement (EIS) is an environmental document prepared by the Federal agency responsible for approving a proposed Federal Action that evaluates that action and reasonable alternatives, in compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA) and its implementing regulations. For major Federal actions in which the Federal Government, as an owner, plans and develops a Federal facility, the scope of decisions and alternatives considered by the sponsoring Federal agency is wide-ranging and comprehensive. However, where the sponsor is not the Federal Government, but is a local government or private applicant, the Federal agency role is necessarily more limited with great weight given to the preferences of the local sponsor.

Therefore, with the Proposed Action sought by the Airport Authority, the FAA is considering alternatives, including the no action alternative and other reasonable alternatives, for carrying out elements of the Airport Authority's development plan. Chapter 3 of the FEIS discusses the alternatives considered, and Chapter 5 of this ROD summarizes them. In general the FAA is being requested to approve the proposed near-term improvements as identified on the Airport Layout Plan (ALP), revise the instrument approaches as needed to support these improvements, and to allow for the use of Federal funds or Passenger Facility Charges (PFCs) for the implementation of these improvements. The specific proposed major Federal actions with regard to these development proposals are:

- Based on a review of the FEIS approved on October 8, 2004 and all applicable information, it is the FAA's final determination that the revised Airport Layout Plan (ALP) that was conditionally approved on October 17, 2001, for proposed improvements to Gary/Chicago International Airport is unconditionally approved in this ROD, with the exception of the airport improvements listed in Chapter 1 of this ROD that require future environmental processing. This development, with the exception of the excluded airport improvements, is specifically described in Chapters 2, 4, and 5 of this ROD, and was identified in the FEIS as the Proposed Action Alternative. The unconditional approval of the ALP constitutes final approval. The FAA notes that the airport sponsor, the Gary/Chicago Airport Authority, has agreed to the various conditions of this approval—in particular, the conditions requiring mitigation measures, discussed in more detail in Chapter 1 and Chapter 6 of this ROD. This includes an airspace review/determination that the development proposed is appropriate from an airspace utilization and safety perspective based on aeronautical studies considering effects on the safe and efficient use of airspace by aircraft and the safety of persons and property on the ground conducted pursuant to the process under the standards and criteria of 14 CFR Parts 77 and 157 (49 U.S.C. Section 40103 and Section 40113, respectively).

- Federal environmental approval necessary to proceed with processing of application(s) for Federal funding for those development items qualifying under the Airport and Airway Improvement Act as amended, and recodified at 49 USC § 47101 et. seq. and/or an approval to impose and use Passenger Facility Charge revenues.

- Federal environmental approval necessary for installation and/or relocation, certification and operation of navigation aids and revisions of associated Standard Instrument Approach Procedures (SIAP)

- FAA review and issuance of findings on requests for conversion of airport property, "Federally obligated land" for the non-aviation related development that is part of the Proposed Projects. Airport land becomes Federally obligated when an airport owner accepts FAA grants. Before conversion of airport property for non-aviation use, the FAA must grant a land release.

The EIS has been prepared in accordance with FAA Orders 1050.1, Policies and Procedures for Assessing Environmental Impacts[1] and 5050.4, Airport Environmental Handbook[2] and Council of Environmental Quality (CEQ) Regulations (40 CFR Parts 1500-1508) that implement the procedural provisions of NEPA.

The necessary Federal determinations and requested approvals are summarized below:

A. Environmental approval under existing or future FAA criteria of project eligibility for Federal grant-in-aid funds (49 U.S.C. §47101 et seq.) and/or Passenger Facility Charges (49 U.S.C. §40117), that include the following elements, subject to the conditions set forth under "FAA Determination" in Chapter 1 as well as the restrictions set forth in Paragraph 583.b of FAA Order 5100.38B ("the AIP Handbook"):

    1. Land Acquisition
    2. Site Preparation
    3. Runway Extension, Taxiway, and Runway Safety Area Construction
    4. Landside Development, including Roadways
    5. Certain Navigational Aids
    6. Relocation of the EJ&E Railroad
    7. Terminal Facility Improvements
    8. Environmental Mitigation, as contained in Chapter 6 of this ROD

B. Unconditional approval of the revised Airport Layout Plan (ALP) for the projects summarized in Exhibit 2-1 of the FEIS, which constitute the proposed development.

[1] Federal Aviation Administration, Order 1050.1E, *Environmental Impacts: Policies and Procedures*, June 8, 2004.
[2] Federal Aviation Administration, Order 5050.4A, *Airport Environmental Handbook*, October 8, 1985.

C. Determination and actions, through the aeronautical study process of any off-airport obstacles that might be obstructions to the navigable airspace under the standards and criteria of 14 CFR Part 77.

D. Evaluate the appropriateness of proposals for on-airport development from an airspace utilization and safety perspective based on aeronautical studies conducted pursuant to the processes under the standards and criteria of 14 CFR Part 157.

E. Establishment or modification of existing instrument approach procedures by the National Flight Procedures Office for aircraft using instrument approaches to Runway 30.

F. Certification that the proposed air facility is reasonably necessary for use in air commerce or for national defense purposes under 14 CFR Part 169 and 49 U.S.C. Section 44502 (b).

G. Determination that the proposed safety improvements and extension to the existing runway conform to FAA design criteria. Approval of protocols for maintaining coordination among sponsor offices, construction personnel, and appropriate FAA program offices, as required ensuring safety during construction.

H. Determination that air quality impacts associated with the proposed safety improvements and extension to the existing runway conform to the State Implementation Plan under the Clean Air Act, as amended (Section 176 (c)(1) codified at 42 U.S.C. Section 7506 and 40 CFR Part 93).

I. FAA determination that there would be no undue burden (unusual circumstances) barring the sponsor from obtaining a Section 404 permit for filling of wetlands.

J. FAA determination that there would be no undue burden (unusual circumstances) barring the sponsor from obtaining a permit for filling/modification of the 100-year floodplain.

K. FAA determination that there would be no undue burden (unusual circumstances) barring the sponsor from obtaining a National Pollution Discharge Elimination System (NPDES) permit for stormwater and wastewater discharges.

L. Environmental approval for the release and transfer/exchange of identified portions of airport and EJ&E Railroad land to allow the relocation of the EJ&E railroad to allow the demolition of a portion of the existing railroad that is needed for the safety improvements and extension of the existing runway and associated facilities.

M. FAA determination that there are no historical/archaeological properties affected.

N. FAA determination that the Federal actions associated with the proposed development are consistent with the Indiana Coastal Zone Management Program.

CHAPTER 4
PURPOSE AND NEED

The identification of a Proposed Action's purpose and need is the primary foundation for the identification of reasonable alternatives and the evaluation of the impacts of the development. In exercising its authority and in the public interest, the Federal Aviation Administration (FAA) considers assigning, maintaining and enhancing safety and security as its highest priority [49 U.S.C. 40101(d)]. This is the FAA's first consideration in evaluating the purpose and need for any proposed airport improvements.

Below is a summary of the analysis done in Chapter 2 of the FEIS that examines the needs of existing and future users of the Gary/Chicago International Airport. This analysis serves to determine the purpose of the Proposed Actions by the Gary/Chicago Airport Authority and the Federal Aviation Administration to meet the following needs:

- The need to improve the existing Runway 12-30 to increase the operating margin of safety and comply with current FAA standards.
- The need to provide the runway length to meet the requirements of current and future users especially in warm weather.
- The need to expand the terminal building size to accommodate the current and expected number of Gary/Chicago International Airport airline passengers based on the low case forecast.
- The need to acquire/reserve and remediate as necessary site areas designated for future aviation users beyond the activity levels contemplated in the 2001 Master Plan low case forecast. This is because of the long lead-time needed for remediation where known contaminated conditions exist.

The Need to Improve the Existing Runway 12-30 to Increase the Operating Margin of Safety and Comply with Current FAA Standards

The Gary/Chicago International Airport has a number of airfield shortcomings described in Chapter 2 of the FEIS. The most significant of these is that existing runway safety areas for Runway 12-30 must be upgraded in order to comply with the FAA's mandate for Runway Safety Areas (RSAs) to comply with the standards outlined in FAA Advisory Circular 150/5300-13. A detailed discussion of the FAA's determination regarding the Runway Safety Areas at the Airport is found in Chapter 1, Section 1.3, and Appendix B of the FEIS. There is a need to improve the existing runway to increase the operating margin of safety and comply with current FAA standards. The principle purpose of the Proposed Action is to comply with current safety standards on existing Runway 12-30, as the dimensional standards pertaining to runways and runway-related separations are essential to provide adequate clearance from potential hazards that could impact the routine movement of aircraft at the Airport. These standards relate to dimensions for runway width, obstacle free zones, and RSAs. Also addressed are the dimensional criteria for shoulders and blast pads.

The standard RSA for runways serving Airport Reference Code (ARC) C-III aircraft, the critical design aircraft for Gary/Chicago International Airport as discussed in Chapter 1, Introduction, of the FEIS, is 500 feet wide along the entire runway length, and extending 1,000 feet beyond each runway end. In its September 8, 2000 RSA determination, the FAA stated that Runway 12-30 did not meet the current standards for RSAs contained in FAA Advisory Circular 150/5300-13.[1] FAA Advisory Circular (AC) 150/5300-13, Airport Design, defines a Runway Safety Area as a cleared and graded area capable of supporting snow removal equipment, Aircraft Rescue and Fire Fighting equipment, and the passage of an aircraft without causing structural damage. The advisory circular further states that the area should contain no objects unless they are essential to airport operations; if these necessary objects are greater than three inches in height, they need to be mounted on frangible bases.[2]

Because of the obstructions created by the EJ&E Railway on the northwest end of the runway, Runway 12 has a 715-foot displaced threshold. The displacement of the Runway 12 threshold does not provide a Runway Safety Area that meets FAA requirements. The relocation of the EJ&E Railroad would allow for both the removal of the displaced threshold on Runway 12 and for the development of a Runway Safety Area that meets the current FAA standards. This is discussed in further detail in Chapter 2 of the FEIS.

Exhibit 2-2 of the FEIS depicts the RSA and other obstruction free areas for Runway 12-30 at Gary/Chicago International Airport. As the usable runway end moves on a runway, the RPZ also moves. The Gary/Chicago Airport Authority is seeking positive control of the future RPZ locations, to ensure compatible uses within this area.

The Need to Provide Additional Runway Length

The Gary/Chicago International Airport has a number of runway length shortcomings. The current and future air carrier and cargo operators need more than a full 7,000-foot runway to operate efficiently and safely with the appropriate load factors and to the destinations desired. A secondary purpose of the Proposed Action is to provide takeoff and landing capabilities for cost-effective travel by Airport Reference Code C-III aircraft within a 1,500-mile range from Gary/Chicago International Airport. There is especially a need to provide the runway length to meet the requirements of current and future users in warm weather.

It should be noted that the purpose and need for additional runway length at the Airport has not been based upon a specific carrier, but rather upon an air carrier profile. The project requirements have not been based specifically upon Pan Am Airlines or Southeast Airlines; however, both airlines fit the general profile on which the low case forecasts were based in the 2001 Airport Master Plan. Planning started prior to Pan Am Airlines discontinuing service and prior to Southeast Airlines starting service at the Airport. The planning has

[1] Federal Aviation Administration. *Runway Safety Area (RSA) Determination, Runway 12/30, Gary/Chicago Airport.* September 8, 2000.

[2] Federal Aviation Administration. *FAA Advisory Circular 150/5300-13, Airport Design, Chapter 3, Paragraph 305.a.(3) and (4)*. October 1, 2002.

continued during this volatile time for the aviation industry. The forecasts were reviewed with respect to post September 11, 2001 trends, with the service assumptions found to be reasonable for the EIS planning process. Further, in accordance with the re-evaluation criteria cited in FAA Order 1050.1E, there continues to be a need for the proposed actions at the Airport after the discontinuation of Southeast Airline service when the airline went out of business, as is evidenced by the continued service provided by Hooters Air using Boeing 737 aircraft. As required in FAA Order 1050.1E, the proposed action continues to conform to plans or projects as cited in the FEIS and there are no substantial changes in the proposed action that are relevant to environmental concerns; data and analyses contained in the FEIS are still substantially valid and there are no significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts; and pertinent conditions and requirements (all) of the FEIS have, or will be, met in the current action[3].

The nationwide post-September 11, 2001 trends were also reviewed with regard to local trends and issues. The aircraft anticipated to serve Gary/Chicago International Airport are consistent with the national trend mentioned earlier–namely, aircraft the mainline carriers are currently removing from service. Due to their low-cost and market availability, the earlier-generation, Stage 3 compliant, single-aisle, narrow-body aircraft are increasingly being operated by start-up airlines on point-to-point routes. The charter companies currently serving Gary/Chicago International Airport, and those carriers that are currently in discussion with the airport, operate aircraft such as the MD-88, 737-200, and 727-200. The routes these aircraft serve, and are anticipated to serve, include Las Vegas, Orlando and Raleigh-Durham. These destinations are consistent with previous service provided by carriers at Gary/Chicago International Airport and market analysis conducted by the Airport Authority.

Based on runway length analysis and preliminary discussions with these airlines, the current runway length of 7,000 feet is insufficient to safely and efficiently operate these types of aircraft to the destinations mentioned above with adequate load factors. For example, a Boeing 727-200 operating from Gary/Chicago International Airport to Orlando (1,000 nautical mile stage length) would require approximately 8,800 feet of runway during takeoff. Similarly, a 737-200 operating from Gary/Chicago International Airport to Las Vegas (1,500 nautical mile stage length) would require a runway length of 8,900 feet. Both of these examples assume a 90% load factor and fit the air carrier profile identified in the 2001 Airport Master Plan, which has been validated as still appropriate for planning purposes post September 11, 2001.

In addition to the limitations presented by the 7,000-foot runway length, the presence of the railroad embankment further limits the available runway length and consequently the maximum takeoff weight of the aircraft. Prior to any flight, pilots must calculate the minimum climb gradient in the event an engine loses power during the most critical phase of takeoff. This most critical phase is defined as the point during takeoff when the aircraft cannot be stopped on the runway and the pilot must continue with the takeoff with one

[3] Federal Aviation Administration. *FAA Order 1050.1E, Environmental Impacts: Policies and Procedures, Chapter 5, Paragraph 515*. June 8, 2004.

engine inoperative. The FAA prescribes the minimum climb gradient in Federal Aviation Regulation (FAR) Part 121. The climb gradient varies depending on whether the aircraft has two, three or four engines. When calculating the minimum climb gradient, the most critical aircraft is the two-engine aircraft.

Presently, the location of the EJ&E Railway penetrates the minimum climb gradient for a two-engine aircraft with one engine inoperative during takeoff. As a result of this, air carriers operating twin-engine jet aircraft (like the 737 and MD-80) would have to significantly reduce payload in order to maintain an adequate climb gradient during takeoff. In effect, this reduces the utility of the runway and has a similar impact as reducing the effective runway length.

With the current runway configuration and the presence of the EJ&E Railway, narrow-body aircraft experience further payload capacity constraints. In order for air carrier aircraft to maintain the FAR Part 121 minimum climb gradient in order to clear the rail line in the event of an engine failure, the aircraft must restrict its payload capacity. This factor significantly limits the potential of Gary/Chicago International Airport to attract and sustain scheduled air passenger and cargo service.

The 2001 Airport Master Plan identified the existing runway length as inadequate to support many forecast aircraft operations under expected conditions at Gary/Chicago International Airport.[4] The 2001 Airport Master Plan identified a preferred runway extension length of 1,900 feet (1,354 feet beyond the 546 feet needed to conform to FAA standards) on the primary Runway 12-30, bringing the total runway length to 8,900 feet. The Airport Layout Plan conditionally approved by the FAA in 2001 identifies the need for the relocation of the EJ&E Railway, the extension of the primary runway to the northwest to 8,900 feet, the displacement of the Runway 30 threshold and the implementation of declared distances standards. As shown in Exhibit 2-6 of the FEIS, this results in 8,354 feet of landing distance in both directions, 8,354 feet of accelerate/stop distance on Runway 12 and 8,900 feet of runway length for departures on Runways 12 and 30.

The Need to Expand the Existing Terminal Building and Apron Size to Meet the Needs of Airline Passengers

Based on current user needs, the low case forecast operations, and anticipated passenger and aircraft activity at the Airport and other factors, the existing terminal building and apron at the Airport are not sufficiently sized to handle the current and expected number of passengers under either the low case or TAF forecast enplanements levels. However, the forecast activity levels do not affect the timing and scale for most of the Airport project except for incremental improvements to the existing terminal and apron as various activity levels contemplated by the 2001 Master Plan low case forecast are reached. Therefore, the FAA agreed to the use of the Master Plan low case forecast for planning and environmental purposes. The operations and functional space analyses are summarized in Exhibits 2-8 and 2-10 of the FEIS. The

[4] Gary/Chicago Airport Authority, prepared by HNTB Corporation. *Gary/Chicago Airport Master Plan Update*. November 2001.

purpose of the Proposed Action is to provide a passenger terminal to meet the needs of current airline passengers and passengers that may be attracted to the Gary/Chicago International Airport based on the low case forecast. In fact, expansion of the terminal is needed based on current activity levels. It was determined in 2004 that insufficient room exists for passenger activity levels generated by one air carrier operator, if quick-turnaround service is desired, with this condition to worsen with the forecast growth that is expected under either the low case forecasts or TAF projections. In addition to the operational and functional space analyses developed during the Airport's 2001 Master Planning process, it was found that there were other factors that raised other shortcomings in the existing landside facilities (terminal building/apron), some of which have been addressed outside this EIS because of immediate need and independent utility. These include the expansion in 2004 (using local funds) of the existing 800-space automobile parking lot by approximately 400 spaces. In 2004-2005, the terminal building and apron are also undergoing an expansion to provide the area needed to meet increased security and baggage handling requirements (an immediate response to post-September 11 requirements) and to relieve crowded conditions experienced during 2004 as a result of overlapping arrival and departure schedules associated with quick turnaround of aircraft. An immediate terminal and aircraft parking apron expansions are proposed to occur to the east of the existing terminal. Up to 15,000 square feet of terminal building expansion is under design and anticipated for construction during 2005; and approximately 1,250 square yards of aircraft parking apron expansion was built in 2004. Categorical exclusion determinations were made outside of this environmental review for these terminal building and aircraft parking apron expansions because they had independent utility and were not dependent on the Proposed Action. Exhibit 2-10 of the FEIS translates the forecast enplaned passengers into typical terminal building facility requirements. Additional terminal building facilities would be needed to accommodate the forecast level of enplaned passengers, which would also aid the airport in supporting any diversions per their agreements with United Airlines and Spirit Airline. The total estimated square footage for the terminal building shown is Exhibit 2-10 of the FEIS is in addition to the added 15,000 square feet of space to be added in 2005.

The Need to Acquire/Reserve and Remediate As Necessary Site Areas Designated for Future Aviation Users

The 2001 Airport Master Plan identifies the need for new passenger terminal and air cargo facility development in the foreseeable future but likely beyond the 20-year low case forecast.[5] To plan the infrastructure for the mid and high forecast the 2001 Airport Master Plan identified the need to reserve sites for new passenger terminal facilities and air cargo facilities.

Major terminal improvement programs require long lead times for implementation; however, once demand exceeds capacity, an immediate response is needed. In fact, some expansion of the existing terminal building described above is to accommodate current needs and the low case forecast. Gary/Chicago

[5] Gary/Chicago Airport Authority, prepared by HNTB Corporation. *Gary/Chicago Airport Master Plan Update*. Chapter 7. November 2001.

International Airport would outgrow the existing terminal area site, however, with growth occurring beyond the low case forecast rate due to its constrained location.

Likewise, the existing airport cargo facilities could accommodate moderate growth in cargo activity; however, again the Gary/Chicago Airport Authority has deemed it prudent to plan the infrastructure for the mid and high forecast growth potential for cargo activities as the current cargo area is too constrained to accommodate those activity levels.

The areas adjacent to the extended runway are identified in the 2001 Airport Master Plan as having the potential to accommodate these new development areas and the Master Plan determined them to be the best use of space after reviewing various potential locations. However, the contaminated condition of much of the land necessitates a long lead-time for environmental remediation and acquisition before the land would be available for subsequent use. Other potential locations were considered in the Airport Master Plan and sites on the Airport or contiguous to the acquisition area were again reviewed in the EIS process, but were rejected due to constrained size, access limitations, floodplains/wetlands, and/or hazardous wastes and debris.

The purpose of the Proposed Action is to preserve flexibility and land use compatibility for a future passenger terminal and/or future cargo facility to serve the users of the Gary/Chicago International Airport for potential long-term aviation uses. The Gary/Chicago Airport Authority has identified a need to acquire/reserve and remediate as necessary sites designated for future aviation related uses for the Gary/Chicago International Airport adjacent to the extended Runway 12-30. By including the acquisition and reservation of land for long-term passenger terminal and cargo facilities, the Airport Authority has been able in the FEIS to assess the environmental condition and requirements of these site areas, allowing any lengthy remediation process to get underway as soon as possible. This ROD does not approve the use of the land acquired for future terminal and cargo facilities. It is recognized that the purpose and need for the actual development of these more extensive infrastructure has not been demonstrated at this time and a separate environmental review will be needed at the time the need is demonstrated.

CHAPTER 5
ALTERNATIVES ANALYSIS

The Federal Aviation Administration (FAA) considered alternatives consistent with relevant environmental statutes and regulations, but has also been mindful of its statutory charter to encourage the development of civil aeronautics and safety of air commerce in the United States (49 U.S.C. 40104). FAA has also considered the congressional policy declaration that airport construction and improvement projects that increase the capacity of facilities to accommodate passenger and cargo traffic be undertaken to the maximum feasible extent so that safety and efficiency increase and delays decrease [49 U.S.C. 47101(a)(7)].

One effort associated with FAA's mission that affects Gary/Chicago International Airport, and specifically these proposed improvements, is the initiation of FAA's Runway Safety Area Program on October 1, 1999. This program establishes the objective that all Runway Safety Areas (RSAs) at Federally obligated airports and all RSAs at airports certificated under 14 Code of Federal Regulations (CFR) Part 139 shall conform, to the extent practicable, to the standards contained in AC 150/5300-13, *Airport Design*. Advisory Circular 1500/5300-13, *Airport Design*, was updated by change 7 on October 1, 2002 to be compatible with Orders 5200.8 and 5300.1F and provide new guidance for minimizing the impact of navigational aids on the RSA; change 8 was issued on September 30, 2004 to incorporate recent Engineered Material Arresting System (EMAS) policies into RSA evaluations. The Airport is both a Federally obligated airport and is certificated under Part 139. The Airport's RSAs on Runway 12-30 do not meet these FAA airport design standards – they are too small, contain unnecessary objects, and do not meet grading or construction requirements. This is summarized in Chapter 1 of this ROD and discussed in detail in Section 1.3 of the FEIS. Any RSA at the Airport that does not meet FAA standards reduces the margin of safety in the event of an aircraft excursion from the runway surface during takeoff and landing operations.

While the FAA does not have the authority to control or direct the actions and decisions of the Gary/Chicago Airport Authority relative to planning for these proposed improvements, the Agency does have the authority to withhold project approval, including Federal funding and the other Federal actions discussed in this ROD. It is from this perspective that the various alternatives were considered in terms of evaluating and comparing their impacts to determine whether there was an alternative superior to that proposed by the Airport Authority, or whether the Airport Authority's proposal would cause impacts warranting disapproval of the Federal actions discussed in this ROD, including the withholding of Federal funds for the project.

The 2001 Master Plan Update preceded, and the Railroad Relocation Study was conducted concurrently with the NEPA planning process. However, alternatives considered within the Master Plan and Railroad Relocation Study were reviewed independently by the FAA within the NEPA process. The FEIS alternatives evaluation utilized a three-phase evaluation process that concentrated on assessing alternatives that met the purpose and need for the proposed project.

For the purposes of the alternatives analysis, five different areas of improvement have been identified for analysis. Within these five areas of improvements there are various connected actions that are considered contingent to the Proposed Action; that is, they would not occur without the implementation of the Proposed Action. The five areas for improvement are:

- Improvements to Conform to Current FAA Standards
- Improvements to Provide Additional Runway Length
- Railroad Relocation (considered part of Improvements to Conform to Current FAA Standards but reviewed separately during alternatives analysis process)
- Existing Terminal Facility Expansion
- Acquisition and Reservation of Areas for Passenger Terminal and Cargo Facilities

In determining the best way to meet the needs identified in Chapter 2 of this ROD and described in more detail in Chapter 2 of the FEIS, the FAA identified numerous alternatives to the Airport Authority's proposal. The FAA generated alternatives, on its own and through the use of the Airport Authority's Master Planning process and the Railroad Relocation Study for the Gary/Chicago International Airport. The FAA through the EIS process completed a thorough and objective review of reasonable alternatives to Gary/Chicago International Airport's Proposed Action. CEQ regulations require that an agency look at "reasonable" alternatives. [1] In addition, 49 U.S.C. 47106(c)(1)(C) requires, as a condition to granting Federal funds, analysis of "possible and prudent" alternatives for a Proposed Action when significant impacts would occur. With those standards in mind, the FAA did not evaluate airside or landside alternatives in detail if they did not meet the project purpose and need. However, during this exploration of alternatives, all reasonable, feasible, prudent and practicable alternatives were carefully examined.

The alternatives analysis process was conducted in three levels as is a common practice and as identified below:

- Level 1, Purpose and Need – A level 1 analysis was performed to determine which alternatives met the purpose and need criteria as described in Chapter 2, Purpose and Need, of the FEIS. Alternatives that did not meet the purpose and need criteria for the project, other than the No Action Alternative, were not considered further in the FEIS.

- Level 2, Constructability and Cost – The level 2 analysis considered the constructability and relative costs for implementing an alternative. Constructability issues considered factors such as land acquisition, extent of earthwork required, necessity to relocate aviation-related facilities, and impact to ongoing airport operations. Cost was evaluated based on preliminary cost estimates or as compared to other alternatives. Those alternatives that met the second level criteria were retained for evaluation in level 3.

[1] Council on Environmental Quality – 40 CFR 1502.14.

- Level 3, Environmental Impacts – The environmental impacts evaluated in level 3 focused on resource categories having measurable impact to threshold criteria defined in *FAA Order 5050.4, Airport Environmental Handbook*. Major known environmental issues in the airport area were identified and considered, including wetlands, habitat, water resources, and site contamination. Those alternatives that remained after the level 3 evaluation were considered in detail in Chapter 5, Environmental Consequences, of the FEIS.

This process resulted in the evaluation of a wide range of other alternatives. However, numerous alternatives were considered, evaluated and subsequently eliminated for a variety of reasons as discussed above and in more detail in Chapter 3 of the FEIS. After analyzing each of the alternatives for the five areas of improvement, the FAA determined that there were only two alternatives in each of five areas that needed to be subjected to thorough and detailed environmental analysis in the FEIS. The only exception was the analysis of alternatives for the railroad relocation that had in addition to the No Action alternative a phased alternative in the DEIS, with a phased and split alternative in the FEIS. Further analysis of these two alternatives in each of the five areas determined the Agency's preferred alternative in the FEIS.

ALTERNATIVES ENVIRONMENTALLY ASSESSED IN THE EIS

Improvements to Conform to Current FAA Standards

Two of the eight alternatives studied (see Exhibit R-5a of this ROD) were carried forward for detailed study in the FEIS: no action and improvements to Existing Runway 12-30, as described below.

The No Action alternative would mean no expansion of the Airport boundaries and no changes to the runway or shortening the existing runway to provide FAA standard RSAs. This alternative does not meet the purpose and need, but has been retained per CEQ requirements.

Improving Runway 12-30 involves acquiring land northwest of the airport to allow for modification to the RSA and other necessary improvements; extending Runway 12-30 approximately 546 feet to the northwest and using declared distance relocating Runway 30 threshold approximately 546 feet to the northwest resulting in approximately 7,546 feet of runway pavement, with 7,000 feet available for landings on Runway 12 and 30 and accelerate stop distance on Runway 12 and approximately 7,546 feet available for all other operations; establishing FAA standard RSAs on both ends of the runway; relocating the necessary navaids to ultimate location shown on the ALP except for the PAPI-4s and REILs on Runway 12, which would be relocated to serve the approximately 546-foot extended runway; and removing/relocating the needed obstructions including the EJ&E Railway, powerline and perimeter road. In addition, modifications would

EXHIBIT R-5a
Airside Alternatives to Conform to Current FAA Standards Analysis Matrix

Level	Criteria	Off-Site Alternatives		On-Site Alternatives					
		Alternative Modes of Transportation	Alternative Airports	No-Action	Install EMAS	Improve Runway 12-30 on north end	Improve Runway 12-30 on south end	Realign Runway 12-30	Replace Runway 12-30
1	**Purpose and Need**								
	Remedy dimensional constraints: Runway Safety Area and runway protection zone	No	No	No	No	Yes	No	Yes	Yes
	Maintain at least existing runway length	No	No	No	No	Yes	No	Yes	Yes
	Continue to Next Level?	**No**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**Yes**
2	**Constructability and Cost**								
	Meet FAA standards			No		Yes		Yes	Yes
	Land acquisition requirements			No		Yes		Yes	Yes
	Railroad relocation requirements			No		Difficult		Difficult	Difficult
	Roadway relocation requirements			No		No		Yes	Yes
	Earthwork and drainage issues			No		No		Difficult	Difficult
	Relocation of aviation facilities			No		No		No	Yes
	Maintenance of airport operations			Shorter runway		Some disruption		No	Some disruption
	Cost effectiveness			Minimal		Lowest development cost		Greater cost than improve existing runway	Greater cost than improve existing runway
	Continue to Next Level?			**Yes**		**Yes**		**Yes**	**Yes**
3	**Environmental**								
	Avoid or minimize social impacts			Yes		Yes		No	No
	Avoid or minimize environmental impacts			Yes		Yes		No	No
	Wetland impacts			No		Yes		Yes	Yes
	Floodplain impacts			No		No		Yes	Yes
	Potential hazardous waste or contamination			No		Yes		Yes	Yes
	Analyze in Chapter 5.0?			**Yes**		**Yes**		**No**	**No**

Source: Aerofinity, Inc., July 2003.

be made, as necessary, to the ongoing clean-up activities off the runway end (Conservation Chemical site and pipeline from MIDCO II) to ensure compatibility with the runway improvements. The Gary/Chicago Airport Authority prefers this airside alternative to conform to current FAA standards.

Improvements to Provide Additional Runway Length

Two of the seven alternatives studied (see exhibit R-5b of this ROD) were carried forward for detailed study in the FEIS: No Action and extending Runway 12-30 on the north end, as described below.

The No Action alternative would mean no change to provide more than a 7,000-foot runway. This alternative does not meet the purpose and need, but has been retained per CEQ requirements.

Improving Runway 12-30 involves the extension of Runway 12-30 to the northwest for a total runway length of 8,900 feet with FAA standard RSAs on both ends of the runway, relocation of the Runway 12 navaids and removing/relocating any obstructions as necessary. The improvements to extend existing Runway 12-30 would occur simultaneously with and/or require the accomplishment of the improvements to conform Runway 12-30 to current FAA standards described earlier in this chapter. The Gary/Chicago Airport Authority prefers this airside alternative to provide additional runway length.

EJ&E Railway Relocation

Four of eleven alternatives studied (see Exhibit R-5c of this ROD) were carried forward for detailed study in the FEIS: the No Action and a railway relocation that loops to the west end of the extended runway (with an interim and a split final route under study) were being carried forward for detailed environmental study. The railway relocation was reviewed environmentally as one of the projects needed to conform to current FAA standards.

The No-Action alternative would mean no changes to the runway but continuing to operate it as a nonstandard facility that does not meet current FAA standards. This alternative does not meet the purpose and need, but has been retained per CEQ requirements.

The preferred routing for the relocation of the EJ&E Railway is referred to as Route 1D, although a refined version is also included as Route 1D North Shift. In addition, an interim phase for the relocation of the preferred route has been identified, Route 1E. The FEIS examined the interim phase, Route 1E; the preferred route, Route 1D; and the refined preferred route, Route 1D North Shift, so that the Gary/Chicago Airport Authority may proceed with any of these routes, as funding, railroad agreements, soil/groundwater remediation and land acquisition allow. Under Route 1E and both Route 1D and Route 1D North Shift, the area off the northwest end of the existing Runway 12-30 will be cleared of obstructions and will allow for the improvement of the RSA and Runway Object Free Area (ROFA) in compliance with the FAA design standards. The Gary/Chicago Airport Authority prefers Route 1D or Route 1D North Shift, with an interim

EXHIBIT R-5b
Airside Alternatives to Provide Additional Runway Length Analysis Matrix

		Off-Site Alternatives		On-Site Alternatives				
Level	**Criteria**	**Alternative Modes of Transportation**	**Alternative Airports**	**No-Action**	**Extend Runway 12-30 on north end**	**Extend Runway 12-30 on south end**	**Realign Runway 12-30**	**Replace Runway 12-30**
1	**Purpose and Need**							
	Remedy dimensional constraints: Runway Safety Area and runway protection zone	No	No	No	Yes	No	Yes	Yes
	Runway length to accommodate existing and projected critical aircraft users	No	No	No	Yes	No	Yes	Yes
	Continue to Next Level?	**No**	**No**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
2	**Constructability and Cost**							
	Meet FAA standards			No	Yes		Yes	Yes
	Land acquisition requirements			No	Yes		Yes	Yes
	Railroad relocation requirements			No	Difficult		Difficult	Difficult
	Roadway relocation requirements			No	No		Yes	Yes
	Earthwork and drainage issues			No	No		Difficult	Difficult
	Relocation of aviation facilities			No	No		No	Yes
	Maintenance of airport operations			Shorter runway	Some disruption		No	Some disruption
	Cost effectiveness			Minimal	Lowest development cost		Greater cost than improve existing runway	Greater cost than improve existing runway
	Continue to Next Level?			**Yes**	**Yes**		**Yes**	**Yes**
3	**Environmental**							
	Avoid or minimize social impacts			Yes	Yes		No	No
	Avoid or minimize environmental impacts			Yes	Yes		No	No
	Wetland impacts			No	Yes		Yes	Yes
	Floodplain impacts			No	No		Yes	Yes
	Potential hazardous waste or contamination			No	Yes		Yes	Yes
	Analyze in Chapter 5.0?			**Yes**	**Yes**		**No**	**No**

Source: Aerofinity, Inc., July 2003.

EXHIBIT R-5c
Rail Alternatives Analysis Matrix

Level	Criteria	No-Action	CSX Porter Branch to Chase Street (Initial Alt 1)	IHB-Dune Park Branch to east End of Kirk Yard (Initial Alt 2)	Whiting Branch - IHB Main Line (Initial Alt 3)	Cline Ave/ BOCT Bar Subdiv. (New Alt 1) Final Route 1D	Cline Ave/BOCT Bar Subdivision (new Alt 1) Route 1D North Shift	Cline Ave/ BOCT Bar Subdiv. (New Alt 1) Interim Route 1E	NICTD-South Shore Alignment (New Alt 2)	Chicago Steel Company Alignment (New Alt 3)	Combination Tunnel/ Trench under runway both single and double track (Initial and New Alt 4)	Multi-modal Facility Center (New Alt 5)
1	**Purpose and Need**											
	Remedy dimensional constraints: Runway Safety Area and runway protection zone	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Alternative accepted by E.J.&E. Railway as possible to implement	Yes	No	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes
	Allows EJ&E to maintain competitive market position for itself and customers	Yes	No	No	No	Yes	Yes - Pending CSX Response	Yes	Yes	No	Yes	Yes
	Allows EJ&E to maintain control of all train movements upon selected alternative (Train Dispatching)	Yes	No	No	No	Yes	Yes - Pending CSX Response	Yes	Yes	No	Yes	Yes
	Runway length to accommodate existing and projected critical aircraft users	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Alternative will not preclude development of 8,900 ft runway	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Continue to Next Level?	**Yes**	**No**	**No**	**No**	**Yes**	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
	If no, primary reason:		Chase Street not acceptable routing	No -- route too circuitous and would cause reconfiguration of EJ&E Kirk Yard	No -- required trackage rights from IHB and NS, EJ&E would lose dispatch control	Screen for Level 2	Screen for Level 2	Screen for Level 2	Screen for Level 2	No -- route too circuitous and costly. Segment of route dispatched by CSX. EJ&E exposed to increased highway crossings liability	Screen for Level 2	Screen for Level 2
2	**Constructability and Cost**											
	Cost effectiveness	None				Yes	Yes	Yes	Mid-range		High	High
	Constructability concerns	No				Additional Grade Crossing Exposure	Lessens number of required railroad bridges	None	Alignment under NICTD Bridge		Unknown environmental impact of below grade water table	Commits airport to long-term investments
	Allows for future airport growth	No				Yes	Yes	No	Yes		Yes	Yes
	Provides route for future high speed rail through adjacent area	No				Yes	Yes	Yes	Yes		Yes	Yes
	Reduce risk exposure to all stakeholder railroads affected by selected alternative					No	No	No	No		Yes	Yes
	Compatibility with Four Cities Consortium Plans	No				No - Requires Fly-over at Ivanhoe Interlocking	No - Requires Fly-over at Ivanhoe Interlocking	No - Requires Fly-over at Ivanhoe Interlocking	No - Requires Fly-over at Ivanhoe Interlocking		Unknown - May Require Fly-over at Ivanhoe Interlocking	Unknown - May requires Fly-over at Ivanhoe Interlocking
	Continue to Next Level?	**Yes**				**Yes**	**Yes**	**Yes**	**Yes**		**No**	**No**
	If yes, provide latest cost estimate					$22.6M	Savings from fewer railroad bridges may be offset by switches and signals pending railroad agreements $22.6M	$10M	$26.5M		No -- Extremely High Cost of Project. Further study led to Alternative #5	No -- unknown environmental impact of below grate water table
3	**Environmental**											
	Avoids or minimizes social impacts	Yes				Yes	Yes	Yes	Acquisition of additional homes may be required			
	Avoids or minimizes environmental impacts	Yes				Yes	Fewer wetland impacts than southern location Route 1D	Yes	Proximity to protected areas raised as an issue, mitigation anticipated to increase cost			
	Analyze in Chapter 5?	**Yes**				**Yes**	**Yes**	**Yes**	**No**			

Source: TranSystems Corporation, Aerofinity, Inc., May 2003, with updated information for Route 1D/1E, 2004.

Route 1E proposed if there is a lack of funding availability. As part of the alternative 1D North Shift, the Airport Authority is still in discussions with another railroad that may allow the use of part of its right of way for a portion of the route. This would reduce the need to purchase several businesses for the railroad relocation.

Existing Terminal Facility Expansion

Two of the three alternatives studied (see Exhibit R-5d) were carried forward for detailed study in the FEIS: No Action and expand existing terminal.

In comparing terminal expansion to development of a new terminal, cost and time greatly influence the decision regarding timing for relocation. In this case, where the existing terminal site has the ability to accommodate current needs, as well as the forecast growth for the 2001 Master Plan low-case activity level, it makes more sense to invest in an expansion of the existing terminal building and to continue to make use of the facility that exists until such time as the demand clearly dictates a move to a new site. This is particularly true given the fact that there are no known environmental impediments to an expansion of the existing terminal facility.

Accordingly, the immediate development of a new terminal facility has been eliminated from further consideration at this time. However, the selection of and reservation of a site for the longer-term future was considered in the "acquisition/reservation of land for long-term development options" section of the alternatives analysis in the FEIS. The alternatives for no action and expansion of the existing terminal building were recommended for further more detailed evaluation under the FEIS. The expansion of the existing terminal is the preferred alternative of the Gary/Chicago Airport Authority.

EXHIBIT R-5d
Existing Terminal Alternatives Matrix

Level	Criteria	No Action	Expand Existing Terminal	Develop New Terminal
1	Purpose and Need			
	Provide facility commensurate with forecast-level of passenger enplanements	No	Yes	Yes
	Continue to Next Level?	Yes	Yes	Yes
2	Constructability and Cost			
	Land acquisition requirements	No	No	Yes
	New access roadway requirements	No	No	Yes
	Earthwork and drainage issues	No	Minimal	Yes
	Relocation of aviation facilities	No	No	Yes
	Maintenance of airport operations	Yes	Yes	Yes
	Cost effectiveness	Yes	Incremental expansion -- more cost effective	Costly option for near-term
	Continue to Next Level?	Yes	Yes	No
3	Environmental			
	Avoid or minimize social impacts	Yes	Yes	
	Avoid or minimize environmental impacts	Yes	Yes	
	Wetland impacts	No	No	
	Floodplain impacts	No	No	
	Potential hazardous waste or contamination	No	No	
	Analyze in Chapter 5.0?	Yes	Yes	

Source: Aerofinity, Inc., March 2003.

Acquisition/Reservation of Land for Long-term Development Options

Two of the five alternatives studied (see Exhibit R-5e of this ROD) were carried forward for detailed study in the FEIS: No Action and plan for new terminal area northwest/new cargo facility southwest of the new end of Runway 12.

The No Action alternative and new terminal area northwest/new cargo facility southwest alternative were reviewed under level 3. Impacts of these alternatives are included in Exhibit R-5e. In both cases there were no substantial environmental issues that preclude further detailed study during the EIS, although there are some environmental impacts for further study as shown in Exhibit R-5e. The Gary/Chicago International Airport Authority preferred alternative is to actively reserve the areas identified for the potential long-term development shown on the 2001 Airport Layout Plan by proceeding with the assembly of this area and identifying any environmental issues of concern. Acquisition of this land is prudent at this time because of the long lead time required for potential remediation, where known cases of contamination exist.

EXHIBIT R-5e
Alternatives Evaluated for Acquisition/Reservation of Land for Long-Term Development Options

Level	Criteria	No Action	Expand Existing Terminal to Meet Long-Term Passenger Demand	Plan for New Cargo Facility within Existing Airport Property	Plan for New Terminal NW/ New Cargo SW of New End of Runway 12	Plan for New Cargo Facility NW/ New Terminal SW of New End of Runway 12
1	Purpose and Need					
	Secure sites to allow for long-term facility development at airport as needed	No	No	Yes	Yes	Yes
	Continue to Next Level?	Yes	No	Yes	Yes	Yes
2	Constructability and Cost					
	Land acquisition requirements	No		No	Yes	Yes
	New access roadway requirements	No		Yes	Yes	Yes
	Earthwork and drainage issues	No		Yes	Yes	Yes
	Relocation of aviation facilities	No		Yes	No	No
	Maintenance of airport operations	Yes		Yes	Yes	Yes
	Cost effectiveness	Yes		No	Yes	Less, constrained area/ poor access
	Continue to Next Level?	Yes		No	Yes	No
3	Environmental					
	Avoid or minimize social impacts	Yes			Yes	
	Avoid or minimize environmental impacts	Yes			Yes	
	Wetland impacts	No			Yes	
	Floodplain impacts	No			Yes	
	Potential hazardous waste or contamination	No			No	
	Analyze in Chapter 5.0?	Yes			Yes	

ALTERNATIVES ENVIRONMENTALLY ASSESSED IN THE FEIS

Under the National Environmental Policy Act of 1969 (NEPA), the FAA has a responsibility to explore and objectively evaluate all prudent, feasible, reasonable, and practical alternatives, including those not within the jurisdiction of the Federal agencies. For major Federal actions in which the Federal Government, as a proprietor, plans and develops a Federal facility, the scope of alternatives considered by the sponsoring Federal agency is wide ranging and comprehensive. However, where the sponsor is not the Federal Government, but is a local government or private applicant, the Federal agency role is necessarily more limited with substantial weight given to the preferences of the local sponsor.

The FAA considered the possibility of no airfield improvements at Gary/Chicago International Airport over the 16-year planning horizon. Although the No-Action Alternative would be the least disruptive in terms of development impacts, it would not enhance safety at the airport and thus would not achieve the purposes and needs for the Proposed Action. However, the FAA is required by law to subject this alternative to detailed environmental analysis. This alternative (No-Action) was therefore retained for analysis through the EIS process under all environmental impact categories. Although not always prudent, the No-Action Alternative is discussed as a potential alternative and serves as a baseline for the assessment of future conditions.

As part of the EIS process, FAA independently reviewed the Master Plan and Gary/Chicago Airport Rail Relocation Study and determined that the sponsor's proposed action was an acceptable solution to meet the purpose and need of the project. To ensure consideration of all reasonable alternatives and to fulfill the purpose and need of enhancing the human environment, the FAA then considered various configurations for the railroad relocation, runway safety area improvements and runway extension.

CHAPTER 6
MAJOR IMPACTS AND MITIGATION

In accordance with 40 CFR 1505.3, the Federal Aviation Administration (FAA) will take appropriate steps, as described in this Record of Decision (ROD), through Federal funding grant assurances and conditions, and Airport Layout Plan approvals, to ensure that the mitigation actions described herein are implemented during project development. The FAA will have oversight responsibility for implementation of the mitigation measures and will assist other Federal and state resource agencies as necessary to monitor the implementation of these mitigation measures to insure they are carried out as project commitments. The approvals contained in this ROD are specifically conditioned upon full implementation of these mitigation measures. These mitigation actions will be made the subject of a special condition included in related future grants to the Gary/Chicago Airport Authority. A detailed environmental analysis of the potential environmental impacts resulting from the implementation of the selected alternative was undertaken as part of the FEIS. The study period examined was 2007. The year 2007 is projected to be the first year that the railroad will be relocated and current operational restrictions removed. Development that is not reasonably foreseeable at this time and not approved within this ROD, but which may become ripe at a later date, will be subject to appropriate environmental review at that time.

IMPACTS AND MITIGATION

This chapter of the ROD includes a summary of mitigation measures, which are discussed more fully in the FEIS, Chapter 5, for each environmental impact category. A summary table of the 2007 impacts, Table R-6a, is included at the end of this chapter. The primary responsibility for implementation of the mitigation measures lies with the Gary/Chicago Airport Authority. The FAA will have oversight responsibility and conditions this approval upon implementation of that mitigation and will further condition any grant agreements upon implementation of the mitigation measures by the Airport Authority. Mitigation measures for those impact categories where mitigation measures are necessary to avoid or minimize significant environmental impacts, as well as identified or adopted monitoring and enforcement programs, are summarized below. The FAA finds that all practical means to avoid or minimize environmental harm have been adopted, through appropriate mitigation planning, in accordance with all applicable environmental laws, regulations, and statutes.

Noise/Land Use /Direct and Induced Impacts and Mitigation

Impacts

The implementation of the proposed development would result in lesser noise impacts than the No-Action Alternative. This decrease in noise impact is most prominent in the southeastern portion of the contours after extension of the runway and shifting the runway to the northwest. The most recent version of the Integrated Noise Model (INM), version 6.1, was used in preparing the Gary/Chicago International Airport noise contours. Based on this analysis, described in Section 5.1 of the FEIS, approximately 22 housing

units and 44 people would be located within the 65+ DNL noise contour in 2007 with the Proposed Action, compared to 36 housing units and 72 people in the 65 + DNL noise contour in 2007 without the Proposed Action, and the 71 housing units and 142 people within the 65 + DNL noise contour in 2000. There are no noise-sensitive facilities in the 65+ DNL noise contour either currently or in the future with the Proposed Action. Of the 22 housing units in the 2007 Proposed Action 65+ DNL noise contour, none would be newly impacted compared to the 2007 no-action alternative 65+ DNL noise contour. There would not be any significant noise impacts from airport operations.

The Proposed Action would not result in any increase in automotive airport traffic. There would not be any significant noise impacts from highway traffic. Existing noise levels in the proximity of the railway lines ranged between 78 and 86 dBA. Based on Federal Transit Administration (FTA) noise guidelines, future noise levels increases attributed to railway operations would be minimal and would not exceed FTA impact criteria. There would not be any significant impacts from railway operations.

While the Gary/Chicago International Airport is located adjacent to low-income and minority populations, the Proposed Action will not significantly impact these populations. Noise impacts will likely lessen, as the noise contours shift northwest, and away from populated areas. Additionally, any relocation from the acquisition area southeast of Runway 12-30 associated with the Proposed Action is strictly on a voluntary basis, and will comply with all Federal and state requirements, including the benefits set out in the Uniform Relocation Assistance Act. There are no residential land uses in the acquisition area northwest of Runway 12-30, where the acquisition process may not be voluntary. Consequently, the minority and low income populations do not receive disproportionately high and adverse impacts as a result of the Proposed Action. There was public outreach as a part of the EIS process, with representatives from the acquisition area in attendance. Additionally, the Proposed Action will have secondary economic benefits that will likely serve to offset impacts to affected individuals and communities. The communities of Gary and East Chicago have experienced dramatic economic changes that have occurred in other urban cities, such as community disinvestment, loss of manufacturing due to technological improvements and foreign competition, and the growth of suburban development. This has resulted in relatively high poverty rates, unemployment and low incomes. The expansion of the Gary/Chicago International Airport can be anticipated to create new business opportunities and markets in the area. A larger work force will be employed at and near the Gary/Chicago International Airport as a result of its expansion, which will create new jobs for local residents. This growth in employment will help increase incomes and raise the overall quality of life for minority and low-income groups.

The realignment of EJ&E Railroad and relocation of the perimeter road (including the addition of a southwest access road) would have no impacts on noise. However, it would have some impacts on land use at Gary/Chicago International Airport. The railroad relocation would require the relocation of some businesses north and south of Chicago Avenue.

Changes in the Airport's passenger volume and aircraft activity are assumed with or without the Proposed Action in 2007; therefore, there is no projected change in economic impact in 2007 with the proposed development. The FEIS economic impact analysis predicts no loss of monetary benefit to the region with or without the Proposed Action. However, the Proposed Action has an economic benefit for the region by providing cost savings to the airlines by reducing weight restrictions at the Airport.

Mitigation

No mitigation program measures are offered as a result of impacts caused by the Proposed Action. Noise impacts will likely lessen, and any relocation associated with the Proposed Action is strictly on a voluntary basis, and will comply with all Federal and state requirements, including the benefits set out in the Uniform Relocation Assistance Act. The acquisition of residences proposed southeast of the Airport is consistent with the Runway Safety Area Improvements proposed to be implemented by the Gary/Chicago Airport Authority and would provide an opportunity for residents currently impacted by noise to move. It would also fulfill FAA's objective of avoiding residential land uses within the Runway Protection Zone. The Airport Authority has limited funds available to purchase these properties and their purchase will likely have a lower priority than improvements necessary to bring the Runway Safety Area into compliance with Federal standards.

Air Quality Impacts and Mitigation

Impacts

For all cases examined, the annual emissions resulting from construction equipment and vehicles during years 2005, 2006, and 2007 are below (within) the conformity emission thresholds as shown in Exhibit 5.5-8 in the FEIS. The operational emissions increases are most likely to start in 2008 after the railroad relocation and runway extension projects are completed in 2007. In this regard, there would be a slight increase in emissions due to the greater taxi distance to the extended runway. The estimated emissions increases for CO, VOC, NO_2, SO_2, and PM_{10} will only be 0.6, 0.1, 5.1, 0.0, and 0.2 tons/year, respectively; and are all far below (within) the General Conformity Thresholds (25 ~ 100 tons/year). The proposed additional length to Runway 12-30 associated with the Proposed Action may permit aircraft to carry more fuel and baggage. This would allow aircraft to utilize a heavier takeoff weight; however, no means of projecting the number of affected flights is available. The overall contribution to regional emissions from a small number of flights carrying more fuel would not significantly increase the projected emissions.

FAA concludes that the Proposed Action would comply with the National Ambient Air Quality Standards (NAAQS), conforming to the General Conformity Rules[1] and Clean Air Act 1990 Amendment requirements. The air quality emission and impact evaluation results are consistent with the impact findings regarding airport operation, proposed construction, and traffic evaluation, and purpose of the Proposed Action. To

[1] U.S. EPA *40 CFR Parts 6, 51 and 93* (November 30, 1993).

ensure the compliance with Ambient Air Quality Standards and SIP requirements, FAA has determined that the Proposed Action:

- will not cause or contribute to any new violation of the standard;
- will not increase the frequency or severity of any existing violation; and
- will not delay timely attainment of the standards.

The U.S. EPA concurred that the General Conformity requirements have been satisfied in its comment letter dated June 10, 2004. Further, the U.S. EPA stated that a thorough analysis of the emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x) has been conducted for the Proposed Action, including a comparison to the current de minimis level for the severe 1-hour ozone non-attainment area. EPA noted that Lake County has recently been designated non-attainment for the 8-hour ozone standard and classified moderate. However, because the de minimis level for a moderate ozone area is higher than the de minimis level for a severe ozone area, the analysis conducted by FAA has met the more rigid test; thus, no additional analysis is necessary for the General Conformity determination.

Mitigation

Mitigation measures for air quality impact purposes during operation and construction periods are not required since this Proposed Action will meet the conformity thresholds. Nevertheless, during construction on-site construction management and policy will further reduce these emissions as described in Section 5.19 Construction Impacts in the FEIS.

Water Quality Impacts and Mitigation

Impacts

The Proposed Action has the potential of improving water quality in the immediate area of the airport because of the remediation of contaminated soil and groundwater in the area northwest of the runway. Most of the construction activities would occur northwest of Runway 12-30 in the contaminated Asphalt Wetland. The degraded swales and ponds within the construction area would be eliminated by the proposed activities. The Proposed Action does not involve any work within the Grand Calumet River.

The impervious area of the airport is expected to increase by approximately 29.5 acres. Development related water quality impacts would result from increased impervious surface and increased storm water volume. Water quality would be permanently affected by the development of the Proposed Action and through continued airport operations, such as maintenance and deicing that influence water quality. The increase in runway and taxiway pavement is likely to increase pavement deicing and anti-icing activities. The Gary/Chicago International Airport will continue to use potassium acetate as the primary pavement deicer. Aircraft deicing/anti-icing runoff would continue to be directed to the public wastewater treatment plant. Thus the application of deicing chemicals should not impact water quality.

Because the soils in the study area are sandy and will allow percolation, stormwater runoff is not expected to increase significantly. Since minimal flow increases are anticipated, no detention will be provided and the size of the existing discharge pipes or ditches would not be altered. The existing culverts would serve to restrict flows to the river.

Mitigation

Best Management Practices (BMP) and engineering controls will be implemented to mitigate anticipated erosion and sedimentation impacts throughout construction, as well as post-construction during the operation of the proposed improvements. Measures may include the use of silt fencing, sediment berms, interceptor ditches, hay bales, riprap dams, sedimentation basins, and other erosion and sediment control structures. A detailed site-specific Erosion & Sedimentation (E&S) Control Plan will be prepared to address all earth disturbance aspects of the Proposed Action. The Gary/Chicago International Airport Authority has adopted the use of oil/water separators in all fueling areas at the airport as a BMP. The airport-wide Spill Prevention, Control, and Countermeasure (SPCC) and Storm Water Pollution Prevention Plans (SWPPP) will be updated to include new maintenance facilities as the airport expands.

All measures necessary to mitigate water quality impacts are designed into the Proposed Action.

The construction activities in the contaminated Asphalt Wetland would remediate contaminated groundwater and soil to reduce or eliminate the risk of groundwater contaminants (primarily metals and organic compounds) and to prevent further migration of contaminated groundwater. The remediation would reduce or eliminate the discharge of contaminated groundwater to the Grand Calumet River. The remaining thick black tank bottoms and abandoned drums would be removed and disposed in an environmentally sensitive manner. Surficial soils would be removed and replaced with clean fill. The proposed placement of a slurry wall up gradient of the contaminated zone and installation of extraction wells at the southern boundary of the property (near Gary Avenue) to pump and treat the groundwater should prevent migration of contaminated groundwater. Treated groundwater would be re-injected and/or combined with treated groundwater at the ongoing groundwater remediation efforts at the Conservation Chemical Site and the MIDCO II site.

The Proposed Action also incorporates specific elements to improve both existing and future water quality. Best management practices will be instituted to control the quality and quantity of stormwater generated by the Gary/Chicago International Airport. Due to the sandy soils in the study area, it is not anticipated that stormwater run off will increase significantly. Additional drainage ditches may be constructed to convey the runoff to existing pipes or ditches. No new outfall would be constructed to the Grand Calumet River. Since minimal flow increases are anticipated, the size of the existing discharge pipes or ditches will not be altered. Therefore, the existing culverts will serve to restrict flow to the river.

Finally, due to impacts to the dune and swale wetlands and other wetlands by the Proposed Action, and the associated water quality issues, a number of Federal and state permits will need to be complied with for

disturbing wetlands, which include certification of the associated water quality. As a condition of approval of the project any required U.S. Army Corps of Engineers (Corps) wetland mitigation ratios will be implemented and wetland mitigation will comply with the results of permit process under Section 404 of the Clean Water Act.

Section 303(c) [Formerly Section 4F] Properties/Historic, Architectural, Archaeological, and Cultural Resources Impacts and Mitigation

Impacts

No impacts to Section 303(c) [formerly Section 4f] lands were identified as a result of the Proposed Action.

No historic buildings, structures, districts, objects, or archaeological resources listed in or eligible for inclusion in the National Register of Historic Places will be affected by the Proposed Action.

Mitigation

No mitigation is contemplated as being needed. Although mitigation is not required or proposed, as requested by the Indiana SHPO, if artifact concentrations, archaeological features or burials are encountered during construction, the Proposed Action must be halted and the archaeologist in the Division of Historic Preservation and Archaeology of the Department of Natural Resources will be contacted for an evaluation before the Proposed Action resumes.

Biotic Communities and Threatened and Endangered Species Impacts and Mitigation

Impacts

Extension of Runway 12-30 and Taxiway A by 546 feet to the northwest to conform to current FAA standards would result in the filling, grading and paving of much of the central portion of the degraded Asphalt Wetlands, which contain some remnant dune and swale habitat. To accommodate these improvements, nearly half of the remnant dune and swale habitat remaining in the Asphalt Wetlands would be permanently lost. A variety of vegetative and wildlife habitat types, including wetland plant communities, would also be lost.

Filling, grading and paving in association with extending Runway 12-30 and Taxiway A an additional 1,354 feet to the northwest would eliminate nearly all the remnant dune and swale habitat remaining in the degraded Asphalt Wetlands. The Proposed Action would eliminate most of the wetlands, vegetational communities, and associated habitat in the Asphalt Wetlands.

The relocated EJ&E tracks under interim Route 1E and final Route 1D would pass through the triangular Wetland B, comprised of Common Reed marshes and patches of successional forest, for about 700 feet. Approximately 5 feet of fill would be required along the route through this area in order to meet the elevation of the existing EJ&E tracks. The relocated rail route through the Asphalt Wetlands, requiring about 3 feet of

fill to accommodate the EJ&E tracks, would impact native and exotic woody vegetation over remnants of dune and swale topography, and a wetland that has been severely disturbed by a former oil refinery. The approximately 300-foot-long railroad crossing of Clark Junction South under Route 1D would require placing fill in this disturbed wetland. While this area is already disturbed and contains dense cover of exotic species, natural swale topography may exist at the site. These activities would result in a permanent loss of vegetation and associated wildlife habitat.

The relocation of the EJ&E Railway track under Route 1D through the Asphalt Wetlands has the potential to permanently impact one state-endangered and two state-rare plant species (sticky goldenrod, Baltic rush and Prairie goldenrod). The relocation of the EJ&E railroad through Clack Junction South has the potential to permanently impact one state-endangered plant species (Bicknell Northern Crane's Bill) and one state herpetofauna species of concern (Northern cricket frog).

Under Route 1E, impacts to special status species from the relocation of the EJ&E Railway track would be limited to the Asphalt Wetlands, which would be crossed twice by the track. As mentioned above, the relocation of the railroad track through the Asphalt Wetlands has the potential to permanently impact one state-endangered and one state-rare plant species (sticky goldenrod, Baltic rush and Prairie goldenrod).

The Proposed Action will not disturb the Federally endangered Karner blue butterfly, as the proposed areas of impacts are located in habitat that does not support wild lupine. While the Department of Interior, U.S. Fish and Wildlife Service (USFWS) has reported the presence of wild lupine in the midfield triangle area of the Airport, the Karner blue butterfly has not been observed there. Since the midfield triangle is not included as part of any of the Proposed Actions, the project is not expected to impact the Karner blue butterfly or its potential habitat.

Mitigation

The Gary/Chicago International Airport Authority will use Best Management Practices (BMP) to minimize habitat loss. The Gary/Chicago Airport Authority will also implement mitigation measures which include conducting pre-construction, site specific species surveys; avoidance of special status species and/or habitat for these species during construction activities; capturing individual animal species and collecting plan species from within the project construction area prior to construction and relocating or transplanting them to other suitable habitat within the Airport or one of the adjacent wildlife preserves; monitoring for these species during construction and operation of the facility through such activities as the USFWS Safe Harbor Program. Where this mitigation also involves contaminated soil, this work must also be done in accordance with the requirements of the Remediation Action Plan. Impacts to two state-endangered and two state-rare plant species and one state herpetofauna species of concern will be mitigated by the preservation or creation of dune and swale habitat. This mitigation could include introducing these species to preserved or created habitats through relocation or transplanting.

The Federal Aviation Administration (FAA) on January 12, 2005, contacted Elizabeth McCloskey of the Department of the Interior's U.S. Fish and Wildlife Service (USFWS), seeking closure on Section 7 Endangered Species Consultation with USFWS on the Karner blue butterfly.[2] Upon this request by the FAA, a letter of concurrence was received (dated January 14, 2005) from the USFWS that the Proposed Action "…would not affect the area supporting wild lupine. Therefore, even if the Karner blue butterfly is found to be present at the airport, the proposed projects are not likely to adversely affect this endangered species... This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended."[3]

This letter further states:

> Wild lupine (*Lupinus Perennis*), the only larval food plant for the Karner blue butterfly, is known to be present at Gary/Chicago International Airport in a triangle formed by the 2 runways at the airport. This remnant dune and swale area is directly north of the Ivanhoe Dune and Swale Nature Preserve, owned by the Nature Conservancy, which is known to support the Karner blue butterfly. The Indiana Toll Road, South Shore Railroad tracks, and the Grand Calumet River are between the preserve and the airport. To date, Karner blue butterflies have not been observed at Gary/Chicago International Airport. A survey for this species will be conducted in 2005 during the 2 brood flight periods (late May/early June and July/August).[4]

This letter refers to a survey process that is to be conducted by the Airport Authority working with The Nature Conservancy to coordinate the Airport Authority's participation in the USFWS Safe Harbor Program for the Karner blue butterfly at the airport. To participate in this program the Gary/Chicago Airport Authority must also conduct an inventory for the butterfly to establish a baseline. In discussion with The Nature Conservancy about the addition of the Gary/Chicago Airport Authority to the USFWS Safe Harbor Program application, it was determined that the best timing for an inventory for the Karner blue butterfly baseline would be during the 2005 season.

As part of the wetland permitting process, the Gary/Chicago Airport Authority also plans to re-examine the Asphalt Wetlands and conduct a biotic inventory to prepare a Floristic Quality Assessment. This information will assist the Gary/Chicago Airport Authority in negotiating an appropriate ratio for wetland mitigation. Based on the results of the Floristic Quality Assessment and the design of the proposed improvements, the Gary/Chicago Airport Authority also will determine whether the proposed Safe Harbor Program for the

---

[2] FAA, Chicago Airports District Office – Larry H. Ladendorf, Acting Manager; Letter to Scott E. Pruitt, Supervisor, U.S. Department of the Interior, Fish & Wildlife Service. January 12, 2005. Included in Appendix C.

[3] United State Department of Interior, Fish and Wildlife Service – Scott E. Pruitt, Supervisor; Letter to Larry H. Ladendorf, Acting Manager, FAA, Chicago Airports District Office. January 14, 2005. Included in Appendix C.

[4] United State Department of Interior, Fish and Wildlife Service – Scott E. Pruitt, Supervisor; Letter to Larry H. Ladendorf, Acting Manager, FAA, Chicago Airports District Office. January 14, 2005. Included in Appendix C.

Karner blue butterfly should be extended to include the Asphalt Wetlands area. The Gary/Chicago Airport Authority is coordinating with the Nature Conservancy to participate in the USFWS Safe Harbor Program for the Karner blue butterfly for the midfield triangle area where habitat already exists.

Wetlands and Streams Impacts and Mitigation

Impacts

The Proposed Action would disturb approximately 48.5 acres of the 55 acres of delineated and potential wetlands identified within the project area as shown on Exhibit 5.11-6 of the FEIS. A very small portion of this area could be deferred until the future terminal development if funding is available to implement railway relocation Route 1D. Ultimately, long-term development would likely disturb all 55 acres of identified wetlands.

Approximately 13.25 acres of wetlands to be disturbed within the expansion area do not support the functional or physical characteristics of dune and swale wetland communities. In large measure these wetlands have become established on unnatural terrain that resulted from the construction and subsequent dismantling of a petroleum storage facility. In many cases the substrate is so compromised by petroleum wastes and chemical products that little to no vegetation can survive. This area must be cleaned up before the Proposed Action can be constructed.

The dune and swale area to be disturbed comprises about 41.53 acres and includes some wetlands that have not been fully delineated or characterized due to access restrictions. Some of the wetlands have been substantially altered through the mining of sand and the disposal of oil refinery waste. Portions of the area contain large amounts of oil waste disposed of directly on the ground surface. The soil substrate is severely disturbed and consists mainly of a heavy tar. The surrounding uplands also consist of significantly disturbed ground.

Because of the nature of the Proposed Action which will include embankment construction or removal, grading to support runway/ taxiway improvements, and associated safety and drainage improvements, all of the wetlands within the construction limits are expected to be disturbed by removal of contaminated soils and subsequent filling before the Proposed Action can be constructed.

Mitigation

The concept for mitigating the impacted wetlands, affected by the Proposed Action, is to work closely with the resource agencies to categorize the impacted wetlands as either remnant dune and swale wetlands (41.53 acres) or other, non-dune and swale wetlands (13.25 acres). While the replacement ratio will likely be based upon the quality of the disturbed wetlands, the location for the mitigation process will be based upon whether the wetland is remnant dune and swale or not. Remnant dune and swale mitigation consists of restoration and preservation of existing dune and swale habitat locations in the region. The permitting

process will include coordination with the resource agencies to determine the appropriate mitigation ratios, given the contaminated condition of the wetlands that will be disturbed by the Proposed Action and the condition of the proposed mitigation sites. The IDNR believes that the mitigation ratio to be used should be higher than 4:1. There has been some discussion of a ratio as high as 10:1 for dune and swale habitat loss. Mitigation for the non-dune and swale wetlands will be considered at the Lake Station Mitigation Bank.

All measures necessary to mitigate wetland and stream deterioration are designed into the proposed development project. The Gary/Chicago Airport Authority will comply with all measures set forth in a Section 401/404 permit. As a condition of approval of the project any required U.S. Army Corps of Engineers (Corps) wetland mitigation ratios will be implemented and wetland mitigation will comply with the results of permit process under Section 404 of the Clean Water Act.

Coordination with the Corps has determined that an Individual Permit under Section 404 of the Clean Water Act would be required for construction of the proposed project. Certification under Section 401 of the Clean Water Act, including compliance with the Indiana Department of Environmental Management's (IDEM) Anti Degradation Rules, would also be required prior to implementation of the project. The permitting process is separate from the disclosure of impacts resulting from the proposed project provided in the FEIS, an FAA NEPA document. The Corps and IDEM will undertake a separate NEPA disclosure process for their respective permits. Coordination is currently ongoing between the Gary/Chicago Airport Authority, IDEM, and the Corps. More information on the wetland mitigation sites being considered is provided in Section 5.11.6. Because the FAA discourages mitigation within 10,000 feet of the airport (due to the potential to create new hazardous wildlife attractants), potential sites located within this area (shown as Sites A-W on Exhibit 5.11-7 of the FEIS), are listed as tentative until a hazardous wildlife assessment can be carried out. This is proposed to be carried out during the permitting process, which will be coordinated with the Corps, IDEM and the U.S. EPA.

The best opportunity for practical, effective compensatory mitigation for the dune and swale system losses may be for well-planned enhancement work. There may also be available situations where mitigation activities might approach the definition of restoration if there has been substantial site degradation. Enhancement activities could include trash removal, exotic species control, earthmoving and prescription burning. All mitigation sites will be monitored for a period of 5 years (typical) to insure that they meet their restoration goals and to guide maintenance activities.

Floodplains Impacts and Mitigation

Impacts

Only one small portion of the 100-year floodplain (Zone A2) is shown within a construction area northwest of Runway 12. However, upon visual inspection, it was determined that this area has been culverted and should no longer be considered as a floodplain area. The remainder of the 100-year floodplains and all of the 500-year floodplains (Zone B) are located to the south of the airport runways. Construction would primarily occur in the areas north and northwest of Runway 12. Thus, these improvements appear to avoid impacts to floodplains and Special Flood Hazard Areas in accordance with FAA Order 5050.4A.

The floodplains located in the area of the southeast RPZ will improve if the land is acquired and the buildings are removed. The open space will promote vegetation, which will decrease the amount of impervious areas, thereby providing additional areas that will absorb stormwater runoff.

Mitigation

Since there will be no impacts, mitigation measures have not been proposed.

Coastal Zone Management Program and Coastal Zone Barriers Impacts and Mitigation

Impacts

The proposed improvements involve Indiana's Lake Michigan Coastal Zone Management

Program as the Gary/Chicago International Airport is within the boundaries of the Indiana's coastal zone. However, there are no coastal barriers in the area, so the proposed improvements are not subject to the provisions of the Coastal Barriers Resources Act of 1982. On September 18, 2004, the Indiana Department of Natural Resources concurred with FAA's Consistency Determination.

Mitigation

Since there will be no impacts, mitigation measures have not been proposed.

Wild and Scenic Rivers, and Farmland Impacts and Mitigation

Impacts

Review of the U.S. Department of the Interior's National Inventory of Wild and Scenic Rivers indicated that there are no designated "Wild and Scenic Rivers" within the study area or surrounding properties of Gary/Chicago International Airport.

Development will not adversely impact any prime or unique farmlands or soil types as designated by the U.S. Department of Agriculture, Natural Resource Conservation Service. The areas have already been converted into urban uses and no longer retain their previous agricultural designation.

Mitigation

Since there will be no impacts, mitigation measures have not been proposed.

Energy Supply and Natural Resources, Light Emissions Impacts and Mitigation

Impacts

The increased requirements for electrical power associated with the Proposed Action are minimal and are capable of being met by the local energy reserves. The increases in air traffic will increase local demand for aviation fuels; however, airport development will not directly affect the fuel consumption for ground transportation. Although additional energy and natural resources will be required for the operation of the Proposed Action, this will not impact the supply of energy or natural resources to the surrounding communities.

No significant off-airport light emission impacts are anticipated. Any on and off-airport light impacts from the terminal or roadway lighting on pilots or airport traffic control tower personnel should be able to be addressed during the design of the runway extension and terminal expansion through use of shielding, lowering and/or redirecting the light source, without affecting its utility for the terminal or roadway.

The Proposed Action is not expected to change the solid waste removal practices. All applicable Federal, state and local regulations will be followed for the handling, cleanup, and disposal of hazardous waste during construction activities.

Mitigation

No mitigation measures for airport lighting, or of airborne aircraft or aircraft on the ground are required. If any impacts were to arise in the future, the mitigation could be provided through the use of barriers and shields to block light from impacting any residences. If mitigation of off-airport light impacts is needed it will be considered during the design of the runway extension and terminal expansion through the use of shielding, lowering and/or redirecting the light sources to protect the pilots and airport traffic controller vision of the runway environment.

Mitigation will not be required for the increase in fuel consumption.

Aesthetics and Visual Impacts and Mitigation

Impacts

There will be minimal change in visual characteristics of the area due to the proposed development.

Mitigation

Applicable design and landscape codes and standards will be adhered to. No additional mitigation will be required.

Surface Transportation Impacts and Mitigation

Impacts

The proposed development will require the modification and realignment of the EJ & E railroad. The changes in transportation patterns due to the Proposed Action would not noticeably increase congestion at the affected intersections; nor would the modifications increase access time to community facilities, recreation areas, businesses, or residences.

Mitigation

No specific mitigation measures are required for associated roadway and railroad (crossing gates) improvements for the proposed development.

Solid Waste Impacts and Mitigation

Impacts

The Proposed Action is not expected to change the solid waste removal practices. The Proposed Action will require the removal of solid waste and debris generated during the construction process. Because of known contamination at sites within the study area, special provisions will be included in the construction document to address the potential for encountering hazardous materials. All applicable Federal, state and local regulations will be followed for the handling cleanup and disposal of hazardous waste during construction activities.

According to forecasted operational activity at Gary/Chicago International Airport, increased activity would occur at the same levels with or without the proposed development. As such, the increased volume of solid waste to be generated is not an impact or result of the Proposed Action. The volume of solid waste generated at the airport would continue to increase with or without the proposed development.

Mitigation

No specific mitigation measures are required for solid waste impacts for the proposed development. All applicable Federal, state and local regulations will be followed for the cleanup and disposal of hazardous waste during construction activities (see below).

Hazardous Materials Impacts and Mitigation

Impacts

There is considerable evidence of existing soil and groundwater contamination on and near the site of the Proposed Action. However, access to several parcels in private ownership has thus far made it impossible to collect significant empirical data to validate or quantify the degree of contaminations on all of the parcels. Therefore, the FEIS does not purport to fully establish the total impact or need for remediation. Rather the FEIS identifies the range of known contamination, likely areas of additional contaminations, and subsequent steps that the Gary/Chicago Airport Authority will be required to take in implementing the Proposed Action.

Waste generated during implementation of the Proposed Action will consist of both hazardous and non-hazardous waste. Construction activities have the potential to disturb contaminated areas from previous land uses. There are previously identified areas of contamination and current remediation activity in the study area. In addition, cleanup activities are proposed as a part of the land acquisition and prior to or simultaneously with construction. However, no construction can be initiated unless and until compliance with applicable Federal, state and local requirements are determined and met.

It is known that the Proposed Action would cause impacts to the following areas, which have undergone some level of investigation: OSI Environmental (former Solar Environmental, Inc.), 6917 West Industrial Highway (abandoned property), PI&I Motor Express (Kerola Enterprises, Inc.), Riechmann Enterprises, Inc., PGT Trucking, Truck City of Gary, Inc./Gary White Sales and Service, Inc., Fuelex, Inc. (Calumet Flexicore Corp.), Western Scrap Corporation, LWD Land Company, SES Construction and Industrial Equipment, Beemsterboer Slag Ballast Company, Amerigas Propane LP, Northwest Indiana Water Department, Connell Ltd, Go-Tane Service Stations, Inc., Conservation Chemical Company, EJ&E Railway right-of-way between Industrial Highway and Gary Avenue, and NBD Bank Trust Property. Each of these areas has been identified as having a potential for being contaminated with substances classified under the Resource Conservation and Recovery Act (RCRA) or by the U.S. EPA as being hazardous.

Also, while not part of the Proposed Action, several properties in the southeast portion will eventually be acquired, due to their proximity to the Runway Protection Zone for Runway 30. No Recognized Environmental Conditions (RECs) were discovered in connection with the residences in this area. Asbestos-containing materials and lead-based paint could be present based on the age of the homes. These should be considered during residential demolitions. Several 55-gallon drums and an AST were observed at the equipment storage facility, NG Land Ltd., which could be a potential REC.

Mitigation

The following cleanup actions have been identified for consideration in the Remedial Action Plan for the Proposed Action. It is proposed for clean up activities to occur immediately as part of the land acquisition process, with the primary cleanup actions to occur from 2005-2007.

Mitigation proposed includes additional investigation, potential remediation, and regulatory oversight by the State of Indiana Department of Environmental Management (IDEM) and the U.S. Environmental Protection Agency (US EPA). Consideration of and cooperation with ongoing remedial investigation, feasibility studies, remedial design, and remedial implementation efforts disclosed within the FEIS will be a priority and will be conducted in accordance with applicable Federal, state and local laws, regulations, and guidelines.

Additional Phase II and III Procedures – At the time of acquisition of parcels where RECs were identified but permission was not granted for the access needed to complete a Phase II EAS, additional Phase II/III procedures will be conducted as required to either document that the site will not require cleanup or to prepare a Remediation Action Plan (RAP).

Submittal of a Remediation Action Plan – The Gary/Chicago Airport Authority has developed a conceptual Remediation Action Plan (RAP) as part of the preparation of the FEIS, and has presented the conceptual RAP to IDEM and other regulatory agencies. The conceptual RAP was based solely on the default threshold cleanup levels identified in the IDEM RISC program. The Gary/Chicago Airport Authority will continue technical and policy-level interaction with IDEM, including further investigation and the development and implementation of site-specific threshold remediation levels. The guidance included in the RISC program will form the basis of these criteria. A Remediation Action Plan (RAP) will be submitted for approval once the Proposed Action is imminent so that the cleanup activities can occur immediately upon the acceptance of the RAP.

Soil Mitigation Actions – Benzo (a) pyrene concentration in some surface soil samples has been detected above the RISC closure level for industrial land use. An additional subsurface investigation will be performed at the properties (Western Scrap Corporation) northeast of the NBD Bank Trust Property (up-gradient) to assess the background levels of contaminants in soil and groundwater. Although land farming has been carried out for major hazardous components, some remediation actions are still required, particularly for surficial contamination. The remaining thick and black suspect tank bottoms will be scraped and removed from the area. The drums at the NBD Bank Trust Property should be removed and disposed of in an environmentally acceptable manner, and the Property should be fenced or properly secured to prevent exposure to the general public and illegal dumping. The soil excavated will either be land farmed or, where necessary, disposed of at a licensed hazardous waste disposal facility. Moreover, considering the site geologic characteristics and the portion of this area is directly in the path of the runway extension and location for FAA navigational equipment it is likely that the unconsolidated soil material will need to be removed, at least to a depth to be determined by additional surveys, and replaced with clean fill to provide adequate soil mechanical properties as part of the future use of the property. The areas that will be serviced by FAA personnel in the future will be cleaned to the RISC standards for residential land use.

Groundwater Mitigation Actions – Groundwater sampling should be performed at the monitoring well at the Conservation Chemical Company property. The sampling will assess the progress of remedial action for the extraction of free product being conducted by U.S. EPA Region 5 at the Conservation Chemical Company property. Pumping and treating contaminated groundwater will continue until the threshold cleanup levels are achieved as documented by both onsite and offsite monitoring well data. The total quantity of groundwater that will be treated and the duration of this cleanup program cannot be estimated based on available information. However, this procedure will allow the runway expansion and other improvements to proceed. Off-site migration of contaminated groundwater has been identified as an important factor; therefore, control of contaminated soil to water movement will be implemented unless it can be confirmed that no new contaminants are being introduced within the up-gradient watershed boundary. The implementation of a groundwater treatment system using six extraction wells at the Conservation Chemical Company Site will prevent the offsite migration of contamination into the NBD Bank Trust Property. Furthermore, the placement of the sixth extraction well at the EJ&E Railway right-of-way has a zone of influence over the eastern boundary of the site. Although physical barriers have been considered to prevent off-site migration of containment plumes and remove or separate contaminants from the media, these measures will only be used if absolutely necessary to meet the cleanup objectives. U.S. EPA indicates that in several locations active recovery of oil product by the Airport Authority will be necessary to contain and remove the oil and prevent potential release to the ditch and Calumet River. As needed, permits for installation, operation and maintenance of the remedial system will be obtained. Before commencing any groundwater extraction work the existence and location of underground utility lines will be determined and, during the extraction process, they will be rerouted temporarily or permanently if necessary.

Verification of Completion of Remediation – The final part of the mitigation process is developing in accordance with IDEM requirements a media-sampling plan to verify completion of remediation program. Following the collection of confirmatory samples, at locations previously sampled and, if needed, at locations off site, the data will be evaluated using IDEM closure values to assess the site status regarding additional remediation.

Construction Impacts and Mitigation

Impacts

Temporary construction impacts resulting from the Proposed Action, including surface-transportation-related improvements may include soil erosion, water quality, wetlands, noise disturbance, solid and hazardous waste, socioeconomic, and airport operations.

The construction emissions from the Proposed Project were evaluated based on U.S. EPA procedures and following state requirements. The results are compared to the General Conformity Thresholds for various air pollutants. As a result of this construction emissions analysis and all present and future regulations, practices, and construction plans, the construction impacts of the proposed project would be insignificant. Therefore, the construction activities will conform to the General Conformity Rules and CAAA requirements.

Noise levels will increase during construction, however these construction activities are not anticipated to have any significant adverse effect on surrounding land use due to the temporary nature of construction activity and the noise level reductions associated with distance attenuation.

Waste generated during construction will consist of both non-hazardous and hazardous waste. Most waste generated during construction will consist of non-hazardous waste. Although specific quantities have not been estimated, construction waste generated may include excavated material from airside perimeter roads, concrete, asphalt, and soil.

The Proposed Action will require the irretrievable commitment of various construction materials.

The Proposed Action will generate temporary economic benefits to the Gary and Chicago regional economy during the construction phase. The expenditures of Federal, state and local funds upon materials and labor will create direct economic benefits in the region. Indirect benefits will also occur when supplying industries use these initial direct revenues to purchase required goods and services as part of their production process.

Construction activities will result in short-term impacts to airport operations.

Mitigation

A detailed, site-specific Erosion and Sedimentation (E&S) Control Plan would be prepared to address all earth disturbance aspects of the proposed improvements. Appropriate implementation of the Soil Erosion and Sedimentation Plan will minimize soil erosion to insignificant levels. Once construction is complete, landscaping techniques will prevent further erosion of disturbed areas.

All necessary mitigation actions will be implemented to minimize construction impacts to the Grand Calumet River and groundwater to ensure compliance with state and Federal water quality standards. In accordance with Rule 5 of IDEM's stormwater program, construction activities involving more than five acres require a NPDES stormwater discharge permit. Since the proposed project will involve greater than 5 acres of construction, the Gary/Chicago International Airport will complete the following tasks in accordance with Rule 5: File a Notices of Intent (NOI) prior to the start of work; file a soil erosion control plan with the Lake County Soil and Water Conservation District; comply with the requirements outlined in the permit; and erect and maintain erosion control fences to prevent soil erosion.

A Clean Water Section 404 permit from the Corp of Engineers is required prior to commencement of any construction activity. Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into all "waters of the United States". The requirement of a Section 404 permit from the Corp of Engineers triggers the need for a Section 401 Water Quality Certification from IDEM, Office of Water Quality. All necessary mitigation efforts will be implemented to minimize adverse impacts (direct and indirect) wetlands as part of the permitting process.

The onsite construction management would be encouraged to include general environmental commitments from contractors and construction activities.

If remediation efforts are not completed prior to the commencement of construction activities, the remediation action plan (RAP) will need to be reevaluated to determine the impact of the construction on achieving the required cleanup goals. If necessary, the revised RAP will continue once construction is complete. Also, construction activities have the potential to unearth contaminated areas from previous land use. Previously identified areas of contamination and current remediation activity include the Conservation Chemical Company Site and the MIDCO I superfund site. An Environmental Site Assessment conducted by Clean World Engineering identified several contaminated sites within the construction zone of the proposed runway improvements and extension. A conceptual remediation action plan has been developed as part of the EIS and will be implemented prior to and along with the Proposed Action as identified in Section 5.19, Hazardous Materials. Special provisions will be included in the construction document to address the potential for encountering hazardous materials. All applicable Federal, state and local regulations will be followed for the cleanup and disposal of hazardous waste during construction activities.

All use of natural resources will comply with Federal, state and local environmental standards. As site preparation involves grading and filling of project sites, clean fill material will be reused from excavated areas. Where possible while meeting FAA construction standards, asphalt from previous airport construction projects will be reused for the runway extension.

Construction details, procedures and equipment will determine the types of temporary operational changes required to complete the runway improvement. Operational changes may include runway, taxiway and road restrictions and closures. A detailed construction plan will be developed to minimize impacts to airport operations.

Construction impacts are temporary and short term in nature and can be minimized through the establishment and utilization of environmental controls and best management practices (BMPs). To minimize construction impacts, environmental controls as specified in Advisory Circular 150/5370.10A will be included throughout the preparation of the plans and specifications for each of the proposed construction projects. These controls will be established to minimize the temporary air, water, noise, erosion, and light impacts typically associated with construction activities. The Gary/Chicago International Airport Authority

also incorporate all applicable State of Indiana and Lake County construction and environmental control provisions into the plans and specifications developed for all roadway and off-site airport-related improvements.

Construction and environmental control measures will be developed as part of the preparation of plans and specifications for each airport development project and will be implemented with the initiation of demolition and construction activities. A construction management plan will be prepared which, based on the selected contractor's haul plan, will specify hours of operation, haul routes, and similar controls. To minimize the stirring or entrapment of fugitive dust already on roads, mitigation measures will include frequent sweeping and/or flushing of the roads with water. In order to minimize fugitive dust transport, unpaved roads and inactive portions of the construction site will be either watered (achieving a 50 percent reduction in fugitive dust) or chemically stabilized (achieving an 80 percent reduction). The exact method or combination of methods for abatement of erosion has not yet been determined.

Furthermore, there is a separate state-required process, which would require a NPDES stormwater discharge permit for project construction as disclosed within the FEIS. Under the National Stormwater Program, the USEPA regulates stormwater discharges from construction sites containing clearing, grading, and excavation activities, if the disturbed land area is five acres or more. To comply with the USEPA regulations, the airport would have to file a "Notice of Intent" (NOI) form. The NOI indicates that the operator of the construction site would comply with the erosion, sediment, and Stormwater control measures presented in Indiana Department of the Environment's General Permit for Construction Activities. The NOI requirements are promulgated at Indiana Code 377 IAC 15-(5-12) (see also EPA Final NPDES General Permits for Stormwater Discharges From Construction Sites Notice).

As a means to minimize impacts associated with the proposed roadway improvements the City of Gary and the Gary/Chicago International Airport Authority, in coordination with the Indiana Department of Transportation, will develop a plan to maintain traffic to mitigate the impacts disclosed in the FEIS. This staged implementation plan will identify what portions of the proposed roadway improvements will be constructed during each phase of the implementation plan, what the overall sequence of construction will be, and how traffic flow/access will be maintained during the construction phases. This staged construction plan will be coordinated with the appropriate county and city agencies prior to the beginning of construction. The maintenance of traffic plan will be developed during the preliminary engineering and final design of the improvements.

Because of known contamination sites within the study area, the construction plans will also be coordinated with the Remediation Action Plan and IDEM. Where needed special provisions will be included in the construction document to address the potential for encountering hazardous materials. All applicable Federal, state, and local regulations will be followed for handling the cleanup and disposal of hazardous waste during construction activities.

Cumulative Impacts and Mitigation

Impacts

Chapter 6, Cumulative Impacts, of the FEIS provides the background, overviews other completed or contemplated improvement programs in the study area and considers potential cumulative impacts. No significant cumulative impacts have been identified in conjunction with the Proposed Action for the following environmental areas: Historic, Architectural, Archaeological, and Cultural Resources; Farmland, and, Light Emission. There are cumulative impacts from other projects identified in the other environmental categories. However, none of these projects' cumulative impacts tip any category to a level of significance. Any significant impacts result solely from the Proposed Action, and with mitigation measures in place, the environment in the area is improved as a result of the combination of the mitigation and the completion of the Proposed Action.

Mitigation

No mitigation beyond that already considered for the individual environmental categories is included for cumulative impacts.

IMPACT SUMMARY

Table R-6a, shown at the end of this chapter, provides a matrix showing the major environmental impacts to each resource category for the Proposed Action and No Action Alternative evaluated in detail within the Final Environmental Impact Statement. Comparing the Proposed Action (FAA's selected Alternative) to the No Action Alternative would have the same environmental impacts for the following resource categories: social, induced socioeconomic, air quality, floodplains, coastal zone management and coastal barriers, wild and scenic rivers, farmland, energy supply and natural resources, light emissions, aesthetic and visual, surface transportation, solid waste, and hazardous waste, construction.

For the resource categories noise and compatible land use, the Proposed Action would impact the fewest acres of land with noise levels 65 DNL or greater. Additionally, Proposed Action Alternative, when compared to the No Action Alternative, impacts the fewest housing units and population. Water quality impacts for No Action Alternative nearly identical, with the only small differences being the amount of pavement and other impervious surfaces constructed that would need stormwater management. The Proposed Action increases impervious surfaces 13 acres over existing conditions.

MITIGATION SUMMARY

The mitigation measures proposed in the FEIS are summarized in the Executive Summary on pages ES-45 to ES-57, and are also discussed within this chapter of the ROD under the mitigation elements of each resource category. The FAA has provided a comprehensive mitigation program, which establishes measures to mitigate the adverse effects of construction and operation of the proposed development. This

program was developed to meet applicable Federal and state requirements and in consideration of local guidelines. The concerns and interests of the public and government agencies were also addressed. The mitigation program is described in Chapter 5 of the FEIS. Mitigation measures considered in the FEIS are conditions of approval of the project in this ROD, and the project sponsor, the Gary/Chicago Airport Authority, has agreed to them. The FAA will have oversight responsibility for implementation of the mitigation measures and will assist other Federal and state resource agencies as necessary to monitor the implementation of these mitigation actions to insure they are carried out as project commitments. The FAA finds that these measures constitute all reasonable steps to minimize harm and all practicable means to avoid or minimize environmental harm from the selected alternative.

Table R-6a Impacts Summary Matrix					
Impact Category	No Action	Improvements to existing Runway 12-30 to conform with current FAA Standards	Improvements to provide additional runway length on Runway 12-30	Expansion of existing passenger terminal and apron	Analysis of sites adjacent to extended Runway 12-30 for aviation related development
Noise/Land Use/Direct and Induced	The total area projected to experience DNL noise levels of 65 or greater is 1.5 square miles, or 957.3 acres. This is an area 15% smaller than the 65 DNL for 2000 Baseline Conditions. Thirty-six homes would be encompassed by the 65 DNL, which is 35 fewer homes than for 2000 Baseline Conditions. No homes or other sensitive land uses would experience noise levels that reach a DNL of 70 or more.	Land acquisition undertaken by the Airport Authority as a part of implementing the Proposed Action to adhere to the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as Codified in Title 42, Section 4601 et seq. of the United States Code and the applicable implementing regulations set forth in Title 49, Part 24 of the Code of Federal Regulations (collectively, the "Uniform Act"). It should be noted that only the land acquisition northwest of Runway 12-30 is proposed as Federally-assisted projects which cause displacement of persons or businesses. In this area, only business establishments exist, without residential dwellings located within the northwest acquisition area. Southeast of Runway 12-30, there will potentially be 42 residences acquired and 1 business. The Airport Authority intends to purchase these properties as opportunity and funding allow, on a voluntary basis, without creating involuntary displacement of persons or businesses. Noise impacts on the southeast end of the runway will likely lessen, as the noise contours shift northwest, and away from populated areas. While the Airport is located adjacent to low-income and minority populations the Propose Action will not significantly impact these populations.	The Proposed Action under various Build Conditions will shift the noise contour slightly northwest as the result of the proposed runway extension. There would not be any significant noise impacts from airport operations. Mitigation would not be necessary. The Proposed Action would not result in any increase in automotive airport traffic. There would not be any significant noise impacts from highway traffic. Mitigation would not be required. There would not be any significant impact from railway operations and mitigation would not be required. While the Airport is located adjacent to low-income and minority populations the Propose Action will not significantly impact these populations. The expansion of the Gary/Chicago International Airport can be anticipated to create new business opportunities and markets in the area. A larger work force will be employed at the Gary/Chicago International Airport as a result of its expansion, which will create new jobs for local residents. This growth in employment will help increase incomes and raise the overall quality of life for minority and low-income groups.	No impact.	No impact.

Air Quality	Aircraft emissions are projected to increase due to the overall increase in aircraft operations from 2000 to 2007. However, the number of commercial operations has decreased slightly while other operations have increased, resulting in a decrease in emissions from ground support equipment. Roadway emissions show a net decrease due to projected changes in the fleet mix and technological improvements to auto engines, as incorporated into the MOBILE6.1 model. These predicted future annual pollutant emissions under 2007 No-Action Conditions would be compared to the emissions under Project Development scenarios to determine the Proposed Action effects.	For all cases examined, the annual emissions resulting from construction equipment and vehicles during year 2005, 2006, and 2007 are below (within) the conformity emission thresholds. Therefore, the Proposed Action will conform to the General Conformity Rules and CAA 1990 Amendment requirements. The air quality emission and impact evaluation results are consistent with the impact findings through airport operation, proposed construction, traffic evaluation, and purpose of the Proposed Action. To ensure the compliance with Ambient Air Quality Standards and SIP requirements, the Proposed Action: • Will not cause or contribute to any new violation of the standard; • Will not increase the frequency or severity of any existing violation; and • Will not delay timely attainment of the standards. The U.S. EPA has determined that the General Conformity requirements have been satisfied in its comment letter dated June 10, 2004. Further, the U.S. EPA stated that a thorough analysis of the emissions of volatile organic compounds (VOC) and oxides of nitrogen (NOx) has been conducted for the Proposed Action, including a comparison to the current de minimis level for the severe 1-hour ozone nonattainment area. Lake County has recently been designated nonattainment for the 8-hour ozone standard and classified moderate. Because the de minimis level for a moderate ozone area is higher than the de minimis level for a severe ozone area, the analysis has met the more rigid test; thus, no additional analysis is necessary for the General Conformity determination.	For all cases examined, the annual emissions resulting from construction equipment and vehicles during year 2005, 2006, and 2007 are below (within) the conformity emission thresholds. Therefore, the Proposed Action will conform to the General Conformity Rules and CAA 1990 Amendment requirements. The air quality emission and impact evaluation results are consistent with the impact findings through airport operation, proposed construction, and traffic evaluation, and purpose of the Proposed Action. To ensure the compliance with Ambient Air Quality Standards and SIP requirements, the Proposed Action: • Will not cause or contribute to any new violation of the standard; • Will not increase the frequency or severity of any existing violation; and • Will not delay timely attainment of the standards. The U.S. EPA has determined that the General Conformity requirements have been satisfied in its comment letter dated June 10, 2004. Further, the U.S. EPA stated that a thorough analysis of the emissions of volatile organic compounds (VOC) and oxides of nitrogen (NOx) has been conducted for the Proposed Action, including a comparison to the current de minimis level for the severe 1-hour ozone nonattainment area. Lake County has recently been designated nonattainment for the 8-hour ozone standard and classified moderate. Because the de minimis level for a moderate ozone area is higher than the de minimis level for a severe ozone area, the analysis has met the more rigid test; thus, no additional analysis is necessary for the General Conformity determination.	The predicted future 2007 Gary/Chicago International Airport aircraft operations, airport ground support equipment and facilities, and nearby local roadways within the airport vicinity would be the same as for the alternative to conform to FAA standards. CO impact concentrations under this alternative are the same as under the 2007 No Action alternative. No increases in airport-generated traffic volume are anticipated under this alternative.	The predicted future 2007 Gary/Chicago International Airport aircraft operations, airport ground support equipment and facilities, and nearby local roadways within airport vicinity would be the same as for the alternative to conform to FAA standards. The predicted total air pollutant emissions of carbon monoxide (CO), hydrocarbon (VOC), nitrogen dioxide (NO2), sulfur dioxide (SO2), and particulates (PM10) are the same as those presented in Exhibit 5.5-7 above. CO impact concentrations under this alternative are the same as under the 2007 No Action alternative. No increases in airport-generated traffic volume are anticipated under this alternative since no or negligible increases in passenger load and cargo are expected.

Water Quality	In general, because no construction would result, water quality would not be affected if the No Action alternative were selected for implementation. The proposed alternative would, however, involve construction to remediate a contaminated site located northwest of Runway 12-30 that ultimately discharges to the Grand Calumet River. If the No Action alternative is selected, it is unlikely that airport remediation of the groundwater will occur.	Water quality at the airport could improve as a result of the remediation of contaminated soil and groundwater in the area northwest of the runway. The impervious area of the Gary/Chicago International Airport is expected to increase by approximately 13 acres due to runway improvements. Because the soils in the study area are sandy and will allow percolation, stormwater runoff is not expected to increase significantly. The Proposed Action fill requirements are not expected to be extensive enough to alter the runoff characteristics of the site. The shallow water table and presence of permeable sands associated with the Calumet Aquifer has led to groundwater contamination from past industrial practices, landfills and waste disposal facilities. Due to the degraded quality of the water, stormwater discharges of the Proposed Action should have no discernable adverse impact on groundwater quality as the stormwater discharges will not add any (or very minimal amounts) of the contaminants of concern to the water. Groundwater levels will not be significantly changed by the project. BMPs and engineering controls will be implemented to mitigate anticipated erosion and sedimentation impacts throughout construction, as well as post-construction during the operation of the Proposed Action. The airport-wide SPCC and SWPPP would be updated to include the new facilities and appropriate activities. The increase in runway and taxiway pavement is likely to increase pavement deicing and anti-icing activities. Aircraft deicing/anti-icing runoff would continue to be directed to the public	Water quality at the airport could improve as a result of the remediation of contaminated soil and groundwater in the area northwest of the runway. The impervious area of the Gary/Chicago International Airport is expected to increase by approximately 13 acres due to runway improvements. Because the soils in the study area are sandy and will allow percolation, stormwater runoff is not expected to increase significantly. The Proposed Action fill requirements are not expected to be extensive enough to alter the runoff characteristics of the site. The shallow water table and presence of permeable sands associated with the Calumet Aquifer has led to groundwater contamination from past industrial practices, landfills and waste disposal facilities. Due to the degraded quality of the water, stormwater discharges of the Proposed Action should have no discernable adverse impact on groundwater quality as the stormwater discharges will not add any (or very minimal amounts) of the contaminants of concern to the water. Groundwater levels will not be significantly changed by the project. BMPs and engineering controls will be implemented to mitigate anticipated erosion and sedimentation impacts throughout construction, as well as post-construction during the operation of the Proposed Action. The airport-wide SPCC and SWPPP would be updated to include the new facilities and appropriate activities. The increase in runway and taxiway pavement is likely to increase pavement deicing and anti-icing activities. Aircraft deicing/anti-icing runoff would continue to be directed to the public	The impervious area of the Gary/Chicago International Airport is expected to increase by approximately 0.5 acres due to expansion of the existing terminal. Part of the runoff in the terminal area will be subject to capture during periods of deicing operation or in the event of a fuel spill. Stormwater runoff captured in the deicing retention system will be transported and treated in the local sanitary sewer system. The remaining stormwater discharges will runoff through existing open culverts.	Securing sites for future passenger terminal and air cargo facilities is not expected to impact the water quality of the project area.

		wastewater treatment plant. Thus, the application of deicing chemicals should not impact water quality. Most of the construction activities would occur northwest of Runway 12-30 in the contaminated Asphalt Wetlands. The Proposed Action would eliminate the degraded swales and ponds within the construction area.	wastewater treatment plant. Thus, the application of deicing chemicals should not impact water quality. Most of the construction activities would occur northwest of Runway 12-30 in the contaminated Asphalt Wetlands. The Proposed Action would eliminate the degraded swales and ponds within the construction area.		
Section 303c Lands/ Historic, Architectural, Archaeological, and Cultural Resources	No impact.	The Proposed Action will not impact Section 303(c) lands There will be significant impacts to the Asphalt Wetlands for the Proposed Action, eliminating nearly all the remnant dune and swale habitat remaining in the degraded Asphalt Wetlands. There will also be impacts to Clark Junction South. The approximately 300-foot long railroad crossing of Clark Junction South would require placing fill in this disturbed wetland. The conclusions of the *Archaeological Records Review*, conducted by Archaeological Resources Management Service, are that the Proposed Action be allowed to proceed without additional archaeological assessment.	The Proposed Action will not impact Section 303(c) lands. There will be significant impacts to the Asphalt Wetlands and Clark Junction South for the Proposed Action. The impacts would be the same as those described for the proposed improvements to existing Runway 12-30 to conform with current FAA Standards. The conclusions of the *Archaeological Records Review*, conducted by Archaeological Resources Management Service, are that the Proposed Action be allowed to proceed without additional archaeological assessment.	No impact.	No impact.
Biotic Communities	Continued maintenance of low, sparse ground cover in areas within the Gary/Chicago International Airport property under the Wildlife Hazard Management Plan would result in essentially unchanged vegetational communities and limited use of the Airport	Implementation of the proposed project would result in the filling, grading and/or paving of much of the central portion of the Asphalt Wetlands. Nearly half of the remnant dune and swale habitat remaining in the Asphalt Wetlands would be permanently lost. Because of the high degree of disturbance, wildlife diversity of the Asphalt Wetlands is likely low. The burial of power lines presently located on the east side of Cline Avenue would likely disturb only a small area of land with urban vegetated and unvegetated plant communities. These	Filling, grading and paving associated with extending Runway 12-30 and Taxiway A by 1,354 feet to the northwest would eliminate nearly all the remnant dune and swale habitat remaining in the Asphalt Wetlands. While the Asphalt Wetlands has been severely degraded by sand mining, construction debris disposal and industrial uses, the remnant dune and swale habitat remaining to the northwest of the initial 546-foot runway extension contains wetlands with marsh, shrub-swamp, dune and swale, and panne/wet prairie communities. Although many of the plant species are weedy and exotic, native	The proposed expansion of the existing terminal is not expected to impact biotic communities, as this terminal is in the center of the existing airport facility.	Most of the future passenger terminal area will be previously disturbed due to the runway improvements program. Some new habitat areas may be impacted south of the relocated railway route where the long-term air cargo facilities are

	property by wildlife. Areas of dune and swale habitat around the Gary/Chicago International Airport would continue to support high species diversity of birds, amphibians and reptiles, while areas affected by industry or other development would provide habitat for species more tolerant of human disturbance. The use of the study area by mammals would continue to be low. Fish and invertebrate communities of the Grand Calumet River would remain unchanged. The wildlife communities of many of the natural areas currently remaining in the project area, including globally imperiled dune and swale habitat, would continue to be unprotected from disturbance and development.	plant communities consist of aggressive, weedy and often exotic species with negligible habitat value. The relocation of the Runway 12 threshold and the displacement of the Runway 30 threshold would not affect vegetational communities, as these changes involve modifications to areas immediately adjacent to the runways. In order to bring the Runway 30 runway protection zone under control of the Gary/Chicago International Airport, approximately 20 acres of land southeast of the Airport would have to be acquired. This area includes several acres of land adjacent to the Grand Calumet River and several more acres east of Industrial Highway. These areas are urban vegetated and unvegetated cover types with low habitat value. The other acquired areas would probably remain in their current vegetative state with no impacts to wildlife. Under Route 1E, the relocated EJ&E Railway track, from the south, would follow the same route as Route 1D until reaching Cline Avenue. At Cline Avenue, the track would curve around the end of Runway 12-30 and turn to the southeast, parallel to the runway and through the Asphalt Wetlands again before rejoining the original EJ&E tracks south of the Industrial Highway crossing.	vegetation does occur. The lengthening of Runway 12 would eliminate most of the wetlands and vegetational communities in the Asphalt Wetlands. Because of the high degree of disturbance, wildlife diversity of the Asphalt Wetlands is low. Some of the actions described here would be completed in the initial construction improvements associated with the runway meeting current FAA standards. The relocation of Runway 12-30 navigational aids would not affect biotic communities beyond those impacts expected from runway lengthening and construction of the RSA. A deicing/hold pad would be constructed at each end of Taxiway A under this alternative. Because areas adjacent to Taxiway A are mowed fields, the creation of deicing/hold pads would have a negligible impact on vegetation or wildlife at the Gary/Chicago International Airport. Likewise, the creation of two high-speed exit taxiways between Runway 12-30 and Taxiway A where mowed turf currently exists would have a negligible effect on biotic communities.		proposed. This project will be subject to an additional environmental review at the time it is justified.

Endangered and Threatened Species of Flora and Fauna	No impact.	The removal of vegetative communities and habitat in the Asphalt Wetlands, and subsequent filling, grading and paving of this area would have permanent direct impacts on one state-endangered and two state-rare plant species known to inhabit the area. During construction, these plants will be translocated.	This phase of development proposes the extension of Runway 12 and Taxiway A by 1,354 feet, the relocation of Runway 12-30 navigational aids, the construction of two deicing/holding pads adjacent to Taxiway A, and the creation of two high speed exit taxiways between Runway 12-30 and Taxiway A. Expansion of Runway 12 to a total length of 8,900 feet would permanently impact any remaining wetlands within the Asphalt Wetlands, as a result permanently impacting one state-endangered and two state-rare plant species located within this area.	No impact.	Most of the future passenger terminal area will be previously disturbed due to the runway improvement program. Some new habitat areas for state listed species may be impacted south of the relocated railway route where the long-term cargo facilities are proposed.
Wetlands and Streams	Under the No Action alternative, although the wetlands identified in the delineation process will not be disturbed by the Proposed Action, the deterioration of these sites will most likely continue.	Based upon the construction limits, approximately 48.5 acres of the approximately 55 acres of wetlands within the Proposed Action area are expected to be disturbed during the runway improvement program. This assumes that both the interim and final railway relocation routes are implemented. If funding is available to implement railway relocation Route 1D immediately without an interim relocation route, some of the wetland disturbances associated with railway relocation Route 1E may be deferred until the future terminal development; however, this is a very small area. Because of the nature of development proposed where the railway relocation will require embankment construction or removal, and the area off the end of the runway requires grading and remaining dry due to wildlife hazards, all of the wetlands within the construction limits are expected to be disturbed. A refined alternative to the railway relocation Route 1D is a northern shift of this route. This refinement would decrease land acquisition requirements and eliminate disturbances to wetland A (estimated 1 acre).	Fee simple land acquisition for the runway extension will have already been completed to meet the requirements for Runway 12-30 to conform to FAA standards. No new wetland impacts are expected due to the additional runway length since the runway improvements required to conform to current FAA standards require grading activities off the runway end where the extension will occur.	The terminal expansion area that is under review as a part of the Proposed Action does not have wetlands within it.	Wetland 1A, in the area reserved for cargo facility development, would not be impacted except for clean-up requirements of hazardous materials in the area. Otherwise, it would be subject of future environmental review at the time the long-term cargo development is determined to be needed.

Floodplains	No impact.	No impact.	No impact.	No impact.	No impact.
Coastal Zone Management /Barrier Programs	No impact.	IDNR issued a consistency determination on September 18, 2004. The consistency determination is only for FAA activities. The Gary/Chicago Airport Authority and other Federal agencies will have to submit consistency determinations for any subsequent grants and permit applications.	IDNR issued a consistency determination on September 18, 2004. The consistency determination is only for FAA activities. The Gary/Chicago Airport Authority and other Federal agencies will have to submit consistency determinations for any subsequent grants and permit applications.	IDNR issued a consistency determination on September 18, 2004. The consistency determination is only for FAA activities. The Gary/Chicago Airport Authority and other Federal agencies will have to submit consistency determinations for any subsequent grants and permit applications.	IDNR issued a consistency determination on September 18, 2004. The consistency determination is only for FAA activities. The Gary/Chicago Airport Authority and other Federal agencies will have to submit consistency determinations for any subsequent grants and permit applications.
Wild and Scenic Rivers	No impact.	No impact.	No impact.	No impact.	No impact.
Farmland	No impact.	No impact.	No impact.	No impact.	No impact.
Energy Supply and Natural Resources	No impact.	The increased requirements for electrical power associated with the Proposed Action are minimal and are capable of being met by the local energy reserves. The increases in air traffic will increase local demand for aviation fuels; however, airport development will not directly affect the fuel consumption for ground transportation. Although additional energy and natural resources will be required for the operation of the Proposed Action, this will not impact the supply of energy or natural resources to the surrounding communities.	The increased requirements for electrical power associated with the Proposed Action are minimal and are capable of being met by the local energy reserves. The increases in air traffic will increase local demand for aviation fuels; however, airport development will not directly affect the fuel consumption for ground transportation. Although additional energy and natural resources will be required for the operation of the Proposed Action, this will not impact the supply of energy or natural resources to the surrounding communities.	To the extent feasible, energy efficient "green building" standards will be utilized in the terminal expansion project.	No impact.

Light Emissions	No impact.	All airfield lighting improvements will occur within the existing airport property boundary or within the area to be acquired as a part of the Proposed Action. The airfield lighting improvements will shift the light sources approximately 546 feet farther from any light sensitive land uses located southeast of the existing runway. No significant off-airport light emission impacts are anticipated.	To the northwest, the runway extension will shift airport light sources approximately 1,900 feet closer to light sensitive development; however, residential development is located beyond the major roadway serving the area (Cline Avenue), which would continue to serve as a buffer from airport light emissions and is further from the Gary/Chicago International Airport than residential development to the southeast. No significant off-airport light emission impacts are anticipated Any on and off-airport light impacts from roadway lighting on pilots or airport traffic control tower personnel should be able to be addressed during the design of the runway extension through use of shielding, lowering and/or redirecting the light source, without affecting its utility for the terminal or roadway.	All terminal lighting improvements will occur within the existing airport property boundary or within the area to be acquired as a part of the Proposed Action. Any on and off-airport light impacts from the terminal on pilots or airport traffic control tower personnel should be able to be addressed during the design of the terminal expansion through use of shielding, lowering and/or redirecting the light source, without affecting its utility for the terminal or roadway.	No impact.
Solid and Hazardous Waste Impacts	No impact.	Most of waste generated during construction will consist of contaminated soil; however, the rest will be non-hazardous waste. Although specific quantities of non-hazardous wastes have not been estimated, construction waste generated may include excavated material from airside perimeter roads, concrete, asphalt, and soil. Clean soil and other suitable waste will be reused as fill material, buried or recycled. All other material will be land farmed or disposed of at permitted solid waste landfills, construction/debris landfills and vegetative waste facilities as required by IDEM. Construction activities have the potential to unearth contaminated areas from previous land	The considerations for waste disposal during this part of the Proposed Action are nearly identical to those mentioned above. Most of the waste generated during remediation and construction will consist of contaminated soil, some of which will be considered hazardous waste. However the rest will be non-hazardous waste. Although specific quantities cannot yet be estimated until full site access is available, construction waste generated may include excavated material from airside perimeter roads, concrete, asphalt, and soil. Where hazardous waste disposal is required, contaminated soil excavated will either be land farmed or, where necessary, disposed of at a licensed hazardous waste disposal facility. Clean soil and other suitable waste will be	Use of the expanded facility will generate slightly more waste than is generated today; however, this increase is not expected to create a noticeable change in the waste disposal activities. The terminal expansion will create solid waste from construction debris during its construction and	The Proposed Action does not include the development of the areas identified for future aviation related activities. Accordingly, the securing of these sites for future development is not expected to create new sources for solid waste materials.

		use. There are currently six extraction wells removing free product from the contaminated groundwater. Remediation efforts will continue until a satisfactory level is reached. If remediation efforts are not completed prior to commencement of construction activities, the Gary/Chicago Airport Authority will work closely with IDEM and the U.S. EPA to reevaluate the Remediation Action Plan (RAP) to determine the impact of the construction on achieving the required cleanup goals. In addition, any and all steps that may be required by appropriate state and/or local agencies prior to initiation of construction will be identified and undertaken. Removal of the existing rail track and relocation of the EJ&E Railway also have the potential to unearth contaminated areas. Because of known contamination sites within the study area, special provisions will be included in the construction documents to address both the potential for encountering hazardous materials, as well as the steps to be undertaken if hazardous wastes are encountered. All applicable Federal, state and local regulations will be followed for the containment, cleanup and disposal of hazardous waste during construction activities. To the extent that acquisition and remediation proceeds parcel by parcel, special containment provisions may be required to ensure that remediated parcels cannot become re-contaminated by subsequent, adjacent remediation activity, both during remediation and construction activities.	reused as fill material, buried or recycled. All other material will be disposed of at appropriate permitted solid waste or hazardous waste landfills, construction/debris landfills and vegetative waste facilities as required by IDEM.	operation. No hazardous wastes are likely to be generated.	

Construction Impacts	No impact.	Anticipated construction activities will include clearing, grading, excavation, filling, backfilling, compaction, drainage structures, tree cutting and vegetation clearing, waste disposal, and pavement removal.	Anticipated construction activities will include clearing, grading, excavation, filling, backfilling, compaction, drainage structures, tree cutting and vegetation clearing, waste disposal, and pavement. Anticipated construction equipment includes excavator, haul trucks, forklift, compactor, and bulldozer.	Anticipated construction activities will include site preparation, grading, excavation, filling, backfilling, compaction, drainage structures, waste disposal, and pavement. Anticipated construction equipment includes excavator, haul trucks, forklift, compactor, and bulldozer.	No Impact.

THIS PAGE INTENTIONALLY LEFT BLANK

CHAPTER 7
PUBLIC AND AGENCY INVOLVEMENT

From the outset, the concerns of the public have been considered. Both the Gary/Chicago Airport Authority and the FAA have been forthcoming with the communities about the Proposed Action through opportunities for public involvement. The interests of communities have been considered throughout the decision-making process regarding the Proposed Action at Gary/Chicago International Airport. This is shown in part as described below. Because of the Airport's impact on (and relationship to) the surrounding communities, the FAA and the Airport Authority have conducted open public meetings to inform the public of the Proposed Action. The FAA and the Airport Authority have received public comments throughout the EIS process. To the extent practicable, all of these comments have been reviewed to ensure that the needs and concerns of the public were considered and addressed. Based on the opportunities for public participation, the FAA is satisfied that full consideration has been given to the public's views on the Proposed Action.

PUBLIC INVOLVEMENT PROCESS

Public involvement included the following:

- Pre-scoping briefings were held for the following agencies and interested parties:
- Briefing for Northwestern Indiana Regional Planning Commission's Environmental Management Policy Committee on December 6, 2001
- Briefing for the City of East Chicago on December 27, 2001.
- Briefing for the U.S. Environmental Protection Agency on January 9, 2002.
- Briefing for interested environmental groups on January 9, 2002.

A scoping comment period extended from November 7, 2001, through January 29, 2002. The original scoping meeting date was scheduled for December 13, 2001. This date was changed to January 15, 2002 due both to a high level of interest in matters pertaining to Gary/Chicago International Airport, and a desire to fully accommodate persons, agencies and other potentially interested parties. Copies of the agency and public scoping comments received are provided in Appendix A of the FEIS.

- An agency EIS scoping meeting was held on January 15, 2002. Fifty-two individuals were in attendance. A summary of the meeting comments is provided in Appendix A of the FEIS.

- A public EIS scoping meeting/public information meeting was held on January 15, 2002. One hundred and thirty one individuals were in attendance. A meeting overview is provided in Appendix A of the FEIS.

The following meetings were held during the EIS process, subsequent to the scoping process

- Three public information meetings (January 15, 2002, March 4, 2003 and May 25, 2004) have been held with the general public during the course of the preparation of the EIS.
- A community leaders meeting on March 4, 2003.
- Five agency briefings (January 15, 2002; July 19, 2002; February 24, 2003; October 21, 2003; and June 2, 2004) were held since the initiation of the Scoping process for the EIS.
- Three environmental interest group briefings (July 19, 2002; February 24, 2003 and October 21, 2003) were held since the initiation of the Scoping process for the EIS.
- A coordination meeting with the Indiana Army National Guard on February 24, 2003 to discuss the impact of their proposed project on the Airport, and determine if there were any potential cumulative impacts.
- A joint environmental interest group and resource agency meeting concerning wetland impacts held on September 9, 2004.

A public information meeting/hearing was held at the Gary/Chicago International Airport passenger terminal on Tuesday, May 25, 2004. In order to address issues of socioeconomic impacts and environmental justice, an increased public outreach component provided information about the Airport Authorities proposed land acquisition program. Residents living near, but outside of the acquisition area, as well as potential landowners to be acquired were specifically invited to attend the May 25, 2004 public information meeting/hearing to receive information and to encourage public input.

- The DEIS was distributed to local libraries, city halls, and to principal commenting agencies. The DEIS was available for review from April 16, 2004 through June 11, 2004.
- The DEIS was available for more than the minimum 45 days required by CEQ regulations, i.e., April 23, 2004 through June 7, 2004. The comment period for the DEIS opened on April 16, 2004, and closed on June 11, 2004.
- Public workshop/public hearing were held to receive comments on the DEIS on May 25, 2004, more than 30 days after the DEIS was released for review. Approximately 45 people attended the event and 11 people provided oral testimony over the course of the public information meeting/hearing.
- The list of recipients of the DEIS and FEIS, including public review depositories and locations, is found in Section 7.2 of the FEIS.
- Sixty-four comments were received from the public and agencies in response to the DEIS.

The FEIS was approved by the FAA on October 8, 2004, released to the public on October 15, 2004, and listed in the Federal Register on October 22, 2004.

- The comments on the DEIS were reviewed and considered by the FAA in the preparation of the FEIS. All comments received were summarized and responded to in the FEIS (Appendices J and K of the FEIS). Additional comments that were received after June 11, 2004 but before publication of this environmental document in October of 2004 have also been included in these appendices.
- The FEIS was distributed to local libraries, city halls, and the principal commenters on the DEIS.
- Comments were received on the FEIS. These comments are addressed in Appendix A of this ROD. The public involvement process for the EIS was documented in Appendices A, C, H, I, J and K of the FEIS. The list of recipients of the DEIS and FEIS, including public review depositories and locations, is found in Section 7.2 of the FEIS.

THIS PAGE INTENTIONALLY LEFT BLANK

CHAPTER 8
ENVIRONMENTAL ISSUES RAISED ABOUT THE FEIS

This chapter was prepared during and after the 30-day hold period based on comments received on the FEIS from resource agencies. These comments were either in response to their review of the FEIS or given when queries were made by FAA as to whether they were going to provide comments. The text below discusses environmental issues that were raised by these resource agencies and notes FAA's conclusions. The FAA has carefully evaluated these comments received on the FEIS in making its decision. Appendix A of this ROD provides copies of each letter received marked for detailed responses to comments on major issues raised by the commenting agencies. The detailed responses to these comments are included in Appendix B of this ROD. Where the commenters asked that changes be made in the FEIS document or to exhibits found within the FEIS document, FAA has prepared an Appendix C that includes these changes as errata. The errata sheets in Appendix C must be considered in conjunction with the information contained within the FEIS that was published October 14, 2004, as the changes will not be made to the published report. No public comments were submitted on the FEIS.

Major airport planning and environmental issues raised in comments during the EIS process are summarized in Chapter 9 of this ROD. These include more detailed responses to the key environmental issues raised by the following agencies on the FEIS, which are summarized below:

FEDERAL AGENCIES

U.S. Environmental Protection Agency

The U.S. EPA indicated that in the DEIS their major concerns had been in the following areas: (1) the proposed action's potential to adversely impact clean-up and remediation actives that are currently being conducted by EPA, and (2) wetland impacts and lack of a satisfactory conceptual wetland mitigation proposal. In their June 10, 2004 comment letter, they identified and requested additional information to be developed and included in the FEIS. In their review of the FEIS they examined the information presented in light of the comments and concerns they presented in their June 10, 2004 letter and indicated that most of their comments and concerns have been satisfactorily addressed in the FEIS. Particularly, issues concerning purpose and need, range of alternatives, noise impact mitigation, compensatory wetlands mitigation plans, and stream preservation/restoration proposals have been adequately addressed within the FEIS. Consequently, U.S. EPA had no objections to project implementation

However, they offered the following comments, particularly that they continue to have concerns with the adequacy of the EIS documentation and proposed wetland mitigation

Gary Lagoons Site

The FEIS contains incorrect and/or contradictory information concerning the Gary Lagoons Site that will need to be adequately addressed in the Federal Aviation Administration's (FAA) Record of Decision (ROD) for this proposal. There should be a detailed and accurate identification of the location, ownership and disposition of the Gary Lagoons Site, and recognition of the legal provisions that protect the Gary Lagoons Site dune and swale habitat. These issues, and those of IDNR are addressed in Chapter 9 of this ROD under the heading Gary Lagoons. Appendix B of this ROD contains a response to these comments as Response E-1 and refers to corrected text and a number of revised exhibits found in Appendix C.

Management of Contaminated Sites

The EPA has stated that a definitive statement needs to be made that the Airport Authority recognizes that it is responsible for addressing any contamination, including assumptions of costs, coming from the Industrial Highway Site, the Conservation Chemical Site and other property it owns or acquires in accordance with local, state and Federal requirements. The FAA has requested and received a letter from the Gary/Chicago Airport Authority in response to this request, stating that:

> The Gary/Chicago International Airport Authority (hereafter "Authority") acknowledges that it will be required to complete environmental testing of soil and groundwater and to complete the remedy, under the supervision, and to the satisfaction of the United States Environmental Protection Agency and the Indiana Department of Environmental Management for all sites intended for the Authorities' Proposed Action for Gary/Chicago International Airport as defined in the Executive Summary (pages ES-2 through ES-4) of the final Environmental Impact Statement dated October 2004 and entitled "Master Plan Development Including Runway Safety Area Enhancement/Extension of Runway 12-30, and other Improvements," except to the extent that such testing and/or remediation has already been completed. The Authority understands and agrees that it has a continuing obligation under Federal, state and local laws and regulations to explore, evaluate, disclose and remediate soil and groundwater contamination on all sites titled in the name of the Authority and intended for the Proposed Action. The Authority will take all reasonable steps to ensure that current owners, prior owners, operators or other Potentially Responsible Parties fulfill their respective legal, administrative and financial responsibilities for remediation.
>
> The Authority acknowledges its obligation to remediate whenever it receives title to any parcel of real estate in connection with the Proposed Action. In the event that such parcels of real estate contain contamination, the Authority assumes associated responsibilities for those parcels. The Authority reserves its legal rights to seek remediation cost, compensation and the fulfillment of the legal, administrative and financial obligations from current owners, prior owners, Potentially Responsible Parties and others

> who were involved in current contamination, prior contamination and/or remediation efforts on such parcels of real estate. The process as described above shall be implemented in phases, subject to approval of the U.S. EPA and the Indiana Department of Environmental Management pursuant to local, state and Federal regulations.

Appendix B of this ROD also contains a response to this comment as a part of Response E-2, E-3, and E-4, and refers to corrected text and a number of revised exhibits found in Appendix C, where the above language has been used.

Appropriate Mitigation for Dune and Swale Wetland Resources

FAA should provide a commitment to engage FAA's national wildlife biology expert/s to assist in the evaluation and identification of potential wetland mitigation options within the 10,000-foot wildlife separation distance, as the options for compensatory wetland mitigation for this project are refined. This is addressed in Chapter 9 of this ROD under the heading Wetland Mitigation, which comprehensively addresses mitigation within 10,000 feet along with recommended higher mitigation ratio for wetland mitigation. Appendix B of this ROD contains a response to this comment as Response B-6, which also refers to revised text found in Appendix C.

Other Requests

Other requests called for changes in various pages and exhibits in the FEIS regarding environmental justice, and the Indiana Army National Guard proposed improvements at the Gary/Chicago International Airport. These are noted and addressed in Appendices A, B and C of this ROD.

STATE AGENCIES

Indiana Department of Natural Resources

The main issues of concern are as follows:

Gary Lagoons

Like the U.S. Environmental Protection Agency, the Indiana Department of Natural Resources noted the lack of adequate identification and description of Gary Lagoons throughout the document. The FEIS confuses what is the Ralston Street Lagoon with the Gary Lagoons. These are separate, distinct locations with different histories and current ownerships. Gary Lagoons is owned by the IDNR. The maps should be corrected and should accurately indicate the location of these two parcels. The IDNR indicated that it should also be noted that there is possible contamination extending from the Gary Lagoons site onto property owned by the Gary/Chicago Airport Authority. These issues, and those of U.S. EPA are addressed in Chapter 9 of this ROD under the heading Gary Lagoons. Appendix B of this ROD contains a response to

these comments as Response E-1 and refers to corrected text and a number of revised exhibits found in Appendix C.

Wetland Mitigation – Higher Mitigation Ratio

IDNR recommends a higher mitigation ratio for the loss of dune and swale habitat, as well as habitat associated with state and federal listed species. The IDNR believes that the mitigation ratio to be used should be higher than 4:1. There has been some discussion of a ratio as high as 10:1 for dune and swale habitat loss. This is addressed in Chapter 9 of this ROD under the heading Wetland Mitigation, which comprehensively addresses the recommendation for a higher mitigation ratio as well as addressing wetland mitigation within 10,000 feet of the runway. Appendix B of this ROD as well contains a response to this comment as Response B-5.

Wetland Mitigation – Within 10,000 Feet of the Runways

For all needed mitigation, the preference for the IDNR, where feasible, is within the 10,000-foot separation zone, and the Department strongly recommends the use of mitigation sites A-W before the use of the 5 proposed mitigation sites outside the separation zone. As much as possible, mitigation should be carried out to augment and support ongoing restoration work within the 10,000-foot separation distance due to the concentration of unique natural resources found in the area. The Indiana DNR recommended that the merits of mitigation sites A-W be critically examined before looking at mitigation sites outside the 10,000-foot separation distance. Mitigation on sites around the existing Clark and Pine Nature Preserve would be beneficial to the natural resources protected by that preserve. The sites beyond the 10,000-foot separation distance provide much less mitigation value in terms of conservation biology, endangered species conservation, etc. than do the high quality dune and swale areas closer to the airport. This is addressed in Chapter 9 of this ROD under the heading Wetland Mitigation, which comprehensively addresses mitigation within 10,000 feet along with recommended higher mitigation ratio for wetland mitigation. Appendix B of this ROD as well contains a response to this comment as Response B-6, which also refers to revised text found in Appendix C.

OTHER COMMENTS

Northwestern Indiana Regional Planning Commission

The Northwestern Indiana Regional Planning Commission (NIRPC) states that members of the commission and staff members have been regularly consulted during the development of the EIS process and development of the expansion plans for Gary/Chicago International Airport, and that the commission is supportive of the EIS conclusions and recommends its approval. NIRPC also states the proposed improvements at the Airport are consistent with the regional transportation plan and do not conflict with known environmental stewardship initiatives in the general vicinity of the Gary/Chicago International Airport.

CHAPTER 9
ENVIRONMENTAL AND PLANNING RELATED ISSUES

This chapter discusses several environmental and planning related issues that were brought up during the EIS process. Some of the issues were resolved but still require subsequent actions by the Airport Authority. Other issues were resolved but bear some relationship to other issues that have been brought up outside the EIS process. Finally, there are issues regarding wetlands and the Gary Lagoons, which require follow-on actions and further coordination with resource agencies, as described in Chapter 8. Some of these issues are also described in this chapter.

SAFETY ENHANCEMENTS AND SECONDARY BENEFITS

As explained in Chapter 2 of this ROD ("Background"), the 546-foot runway extension proposed as part of the Runway Safety Area enhancements is not needed to meet FAA standards; rather, it is to compensate for lost runway due to the proposed 546-foot displaced landing threshold on R/W 30. Similarly, the power line relocation or burial likewise are not needed to meet FAA standards. Instead, the minimums could be raised to compensate for the limitations. However, both situations would make it more difficult for existing aircraft operators to safely utilize the Airport without reducing passenger/cargo loads or fuel. The latter would limit the effective range of many aircraft departing from the Airport. Therefore, these elements of the Proposed Action offer safety-related benefits as well as secondary capacity and efficiency benefits. In this case, the 546-foot extension and power line relocation/burial offer both safety and capacity benefits.

A number of resource agencies questioned the need for the longer length and even suggested that it might not be necessary to replace the length given up when implementing runway safety area improvements. They pointed out that other airports operate with similar facilities, particularly Chicago Midway International Airport (Midway) with runways of 6,522 feet and 6,446 feet, with displaced thresholds of 460 and 634 feet, respectively.

FAA responded to those resource agencies that different circumstances exist at Midway. The fact that Midway has shorter runways is not a reason to eliminate consideration of improvements to Gary/Chicago International Airport. The commercial users of Gary/Chicago International Airport are currently operating at 7,000 feet but with payload restrictions under certain conditions. As the Airport's staff works with existing and prospective users to meet the travel demands of area passengers, the need for a runway longer than 7,000 feet has been identified as beneficial to provide service by the aircraft fleet using the Airport with load factors that are desirable for an efficient and cost-effective operation.

The runway length shortcomings for Gary/Chicago International Airport are reviewed in Section 2.2.2.1 of the FEIS.

The 1,354-foot extension is not needed to meet FAA standards but to meet design criteria for aircraft currently using the Airport. It is to compensate for restrictions caused by runway length. These restrictions have safety implications such as raising operating minimums and reducing payloads or fuel under certain conditions. Both of these actions make it more difficult for existing aircraft operators to efficiently use the Airport.

AIRSPACE MANAGEMENT ISSUES

The location of Gary/Chicago International Airport, and the demands it places upon the airspace and the airport traffic control (ATC) system, affect the ability of aircraft to readily and efficiently land and depart from the Airport. This in turn affects the capacity and accessibility of the airport. Chapter 2 of this Record of Decision ("Background") includes a detailed discussion of the airspace structure and associated management issues.

Relationship to General Aviation Airports in the Vicinity

There are three public use general aviation airports within 10 miles of the Gary/Chicago International Airport. Following is a listing of these airports with their location, distance from Gary/Chicago International Airport, and the length of their longest runway:

- Griffith-Merrillville Airport; Griffith, IN; 7 miles, 4,900 feet
- Lansing Municipal Airport; Lansing, IL; 8 miles, 4,002 feet
- Hobart Sky Ranch Airport; Hobart, IN; 9 miles; 3,125 feet

These general aviation airports within the immediate vicinity of Gary/Chicago International Airport have a potential for airspace interaction. As discussed in Chapter 1 of the FEIS, Griffith-Merrillville, Lansing Municipal and Hobart Sky Ranch are public use general aviation airports within 10 miles of the Gary/Chicago International Airport. They lie within airspace that is in the periphery of, and intersected by Class B airspace of Chicago O'Hare International Airport. The Class B airspace, which extends on a radius of 25 statute miles from Chicago O'Hare International Airport and up to an altitude of 10,000 feet MSL, partially covers the Gary Class D airspace. Recently completed and anticipated improvements to these airports are described in the FEIS. No airspace impacts were noted to these facilities during the 2001 Airport Layout Plan Update review, as the Master Plan Update proposed no instrument approaches from the northwest or southeast that affected these airports.

Relationship to Proposed South Suburban Airport

There would be an overlap of the airspace for the crosswind runway at Gary/Chicago International Airport and future South Suburban Airport runways. This would require Air Traffic management of the airspace to maintain aircraft separation under some operational scenarios.

Relationship to Chicago's Midway International Airport

Chicago's Midway Airport (MDW) is located 20 miles northwest of Gary/Chicago International Airport on the extended centerline of Gary's primary runway, Runway 12-30. The Master Plan Update for Gary/Chicago International Airport includes an extension of the primary runway to the northwest. This Airspace overlap limits, if not eliminates, the development of any instrument approaches at Gary/Chicago International Airport from the northwest. This would also limit the all-weather capability of Gary/Chicago International Airport. Since a northwest instrument approach is not planned, except for a Special Instrument Approach Procedure for Boeing described in Chapter 6, Cumulative Impacts of the FEIS, there would be no airspace conflict with Chicago's Midway International Airport, as was found in the airspace review of Gary/Chicago International Airports ALP Update in 2001.

Relationship to Chicago Terminal Airspace Project (CTAP) and National Airspace Redesign (NAR)

In the Chicago Terminal Airspace Project (CTAP), modifications to aircraft routes and air traffic control (ATC) procedures in the Chicago area were considered to reduce the overall en route time for aircraft using O'Hare, Midway, General Mitchell International Airport (Milwaukee), and their relievers. The CTAP changes would primarily take place 40 to 60 miles from O'Hare at high altitudes. The CTAP routes take advantage of recent advances in aircraft and ATC technology, particularly for high-altitude arrival routes, and would not affect the operational capacity or demand at any of the Chicago area airports. CTAP did not include any physical changes to airport facilities. A Final EIS for this project was issued on August 31, 2001,[1] and the FAA issued its Record of Decision on November 2, 2001.[2]

The National Airspace Redesign (NAR) is a multi-year initiative to review, redesign, and restructure the nation's airspace to meet the rapidly changing and increasing operational demands on the NAS.

NAR is expected to restructure the current route system to create additional departure routes for airports where departure delays are high, match airspace capacity with airport capacity by developing more efficient arrival routes and procedures, and streamline en route airspace to allow for more efficient service at higher traffic volumes while maintaining safety. Benefits are expected to be realized through reduction of restrictions, decreased delays, increased en route access, increased throughput at major airports, and

[1] Final Environmental Impact Statement for the Proposed Chicago Terminal Airspace Project (CTAP) U.S. Department of Transportation, Federal Aviation Administration, August 2001.
[2] Record of Decision for the Proposed Chicago Terminal Airspace Project (CTAP), U.S. Department of Transportation, Federal Aviation Administration, November 2, 2001.

reduced airspace complexity. The impact on operations at Gary/Chicago International Airport will be minimal, mostly associated with reduced airspace complexity in the surrounding area.

FORECAST AND RECENT CHANGES IN AIR CARRIER ACTIVITY

As part of the EIS preparation process, the assumptions of the Airport Authority's 2001 Master Plan low case forecasts were revisited in light of post-2001 aviation industry conditions and the potential new users that continue to meet with representatives from the Airport. The inauguration of air service by Southeast Airlines in February of 2004 and Hooter Airs in June of 2004 fit the profile of service that the 2001 Airport Master Plan low case forecasts were based upon. During the term of most of the EIS process the activity levels continued to show growth; then, on December 2, 2004 Southeast Airlines discontinued service. Hooters Air continues to provide service at the Airport using Boeing 737 aircraft. FAA recognizes the dynamic nature of air carrier activity, schedules and even corporate survival. Therefore, it continues to believe that the Master Plan low case forecast to still be reasonable for airport planning purposes. The Airport Authority's Master Plan forecasts and the FAA Terminal Area Forecasts (TAF) both project growth to continue, but from a different baseline. Nevertheless, since the FAA's TAF forecasts are reevaluated annually, it is anticipated that in the long term, the future TAF and the Airport's existing 2001 Airport Master Plan low case forecasts will converge as air carrier and air cargo service are established and/or expanded, and efforts to attract corporate general aviation and military aircraft are successful.

The 2001 Airport Master Plan low case forecast is greater than the 2004 TAF. In the short term, the 2004 TAF and 2001 Airport Master Plan low case forecasts for Gary/Chicago International Airport do not match and are not within 10% of each other in the first five-year period nor within 15 % in the 10-year time period as usually is expected by FAA. FAA policy dated May 21, 2002[3], and revised December 23, 2004[4], allows greater differences where forecast activity does not affect the timing or scale of an airport project. The purpose and need in the EIS process is predominantly for safety enhancement. The forecast activity levels do not affect the timing and scale for most of the Airport project except for incremental improvements to the existing terminal and apron as various activity levels contemplated by the 2001 Master Plan low case forecast are reached. Therefore, the FAA agreed to the use of the Master Plan low case forecast for planning and environmental purposes. In the EIS, the purpose and need for the Proposed Action revolves around safety rather than capacity. However, FAA emphasized to the Airport Authority from the beginning that different forecast assumptions would have to be used for financial purposes if a Letter of Intent for discretionary funds was sought from FAA.

[3] Federal Aviation Administration. Memorandum "Review and Approval of Aviation Forecasts." by APP-500. May 31, 2002.

[4] Federal Aviation Administration, Memorandum "Revision to Guidance on Review and Approval of Aviation Forecasts" by APP-1, December 23, 2004.

ENDANGERED SPECIES (KARNER BLUE BUTTERFLY)

As discussed in Section 5.10, Endangered and Threatened Species of Flora and Fauna, of the FEIS, and in Chapter 6 of this ROD, the Department of Interior's United States Fish & Wildlife Service (USFWS) indicated as part of the scoping process that one endangered invertebrate, the Karner blue butterfly (*Lycaeides melissa samuelis*) has been found in the Ivanhoe Dune and Swale Nature Preserve. That preserve is located approximately 2,000 to 2,500 feet south of the Gary/Chicago International Airport and the Grand Calumet River. The Preserve is separated from the Airport by the right-of-ways of the Indiana Toll Road (Interstate 90) and the South Shore Railroad, as well as the Grand Calumet River.

The EIS process included multiple site visits and evaluation of both the butterfly population and its preferred habitat, by the EIS contractor's consulting biologists and the Indiana Department of Natural Resources. The Karner blue butterfly also occurs further west in several nature preserves in eastern Hammond, over a mile away. As shown in the FEIS, the primary butterfly population in this region is located within the Indiana Dunes National Lakeshore, several miles east of the Gary/Chicago International Airport. The butterfly has a flight range of up to about 600 feet per year.

> The Karner blue butterfly's host plant, wild lupine (*Lupinus perennis*), was observed in the upland dunes located near the midfield triangle on the Airport, within the study area. However, the FEIS concluded that the Proposed Action would not impact this area. Wild lupine was not observed within the Asphalt Wetlands, the primary area to be impacted by the Proposed Action. The FEIS also concluded that the Asphalt Wetlands do not provide suitable habitat or substrate for the wild lupine. A survey for the Karner blue butterfly will be conducted in 2005 during the 2 brood flight periods (late May/early June and July/August) by the Airport Authority.

The FAA, on January 12, 2005, contacted Elizabeth McCloskey of the Department of the Interior's U.S. Fish and Wildlife Service (USFWS), seeking closure on Section 7 Endangered Species Consultation with USFWS on the Karner blue butterfly.[5] Upon this request by the FAA, a letter of concurrence was received (dated January 14, 2005) from the USFWS that the Proposed Action "…would not affect the area supporting wild lupine. Therefore, even if the Karner blue butterfly is found to be present at the airport, the proposed projects are not likely to adversely affect this endangered species."[6]

[5] FAA, Chicago Airports District Office – Larry H. Ladendorf, Acting Manager; Letter to Scott E. Pruitt, Supervisor, U.S. Department of the Interior, Fish & Wildlife Service. January 12, 2005. Included in Appendix C.

[6] United State Department of Interior, Fish and Wildlife Service – Scott E. Pruitt, Supervisor; Letter to Larry H. Ladendorf, Acting Manager, FAA, Chicago Airports District Office. January 14, 2005. Included in Appendix C.

This letter further states: "This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended."[7]

GARY LAGOONS SITE

According to the U.S. Environmental Protection Agency (U.S. EPA) the FEIS contains incorrect and/or contradictory information concerning the Gary Lagoons Site that needs to be adequately addressed in the Federal Aviation Administrations (FAA) Record of Decision (ROD) for this proposal. They called for a detailed and accurate identification of the location, ownership and disposition of the Gary Lagoons Site, and recognition of the legal provisions that protect the Gary Lagoons Site dune and swale habitat. U.S. EPA gave the following examples that FAA agrees are confusing and has addressed in this ROD. First U.S. EPA indicates that the FEIS incorrectly identifies the location and owner of the Gary Lagoons Site on pages ES-19, 4-34, Exhibit ES-1, Exhibit 4-19, Exhibit 6-7, and Appendix K, pages K-178 and K-179. U.S. EPA provides information contrary to that information provided by the Indiana Department of Environmental Management (IDEM), June 14, 2004, DEIS comment letter (Appendix J, Page J-93) that, in part, identifies an erroneous location for the Gary Lagoons Site.

U.S. EPA also stated that the FEIS does not provide an accurate discussion of the disposition of the site nor is the Gary Lagoons Site considered in the cumulative impacts analysis as they recommended in their DEIS comment letter. U.S. EPA notes that accurate information concerning the Gary Lagoons Site (e.g., its size, ownership, location, protective covenants, etc.) in the FEIS and ROD for this proposal is important, in part, because Gary Lagoons Site is located within the EIS study area, Airport Development Zone (ADZ) (Exhibit 4-9) and the area portrayed on the Gary/Chicago International Airport Authority's Airport Layout Plan (Exhibit 2-1). The Gary Lagoons Site also contains valuable dune and swale habitat that U.S. EPA records show are protected by conditions in a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Prospective Purchaser Agreement (PPA) between EPA and the Indiana Department of Natural Resources (IDNR).

Subsequent to the FEIS publication when the FAA pursued the comments in regard to the Gary Lagoons site, the U.S. EPA provided an agreement from 2000 between the U.S. EPA, Department of Justice (DOJ), Department of Interior (DOI), IDEM and IDNR that identifies the location of the Gary Lagoons Site and its owner. These documents identify that the Gary Lagoons Site is a 7-acre vacant property located at 5622 and 5624-34 Industrial Highway in Gary, Indiana (Lake County). The documentation describes the Gary Lagoon Site as having two unlined and uncovered lagoons situated in a sandy environment and surrounded by marshes and wetlands (i.e., dune and swale habitat). The Site is bounded on the south by Industrial Highway (Route 12) and the Gary/Chicago International Airport, on the west by a vacant building owned by Harsco Company, on the east by undeveloped marshes and wetland (i.e., Clark and Pine Dune and Swale) owned by the Gary/Chicago International Airport, and on the north by a drainage canal.

[7] United State Department of Interior, Fish and Wildlife Service – Scott E. Pruitt, Supervisor; Letter to Larry H. Ladendorf, Acting Manager, FAA, Chicago Airports District Office. January 14, 2005. Included in Appendix C.

The documentation also identifies IDNR as the owner and states, "…InDNR [IDNR] shall agree to maintain and secure the (Gary Lagoons) Site in its pristine natural Dune and Swale condition." Further, the PPA between EPA and InDNR [IDNR] also requires that "…in the event of an assignment or transfer of the (Gary Lagoons) Site, or an interest in the (Gary Lagoons) Site, the assignor and transferor shall continue to be bound by the PPA, unless EPA and the assignor or transferor agree otherwise and modify the PPA in writing; and, the assignee or transferee of the (Gary Lagoons) Site must agree in writing to be bound by the PPA's conditions in order for the covenant not to sue to take effect."

Likewise, the Indiana Department of Natural Resources (IDNR) noted the lack of adequate identification and description of Gary Lagoons throughout the document. IDNR pointed out that the FEIS confuses what is the Ralston Street Lagoon with the Gary Lagoons site, particularly page ES-19. IDNR stated that these are separate, distinct locations with different histories and current ownerships. Gary Lagoons is owned by the IDNR. The maps should be corrected and should accurately indicate the location of these two parcels. IDNR also commented that there is possible contamination extending from the Gary Lagoons site onto property owned by the Gary/Chicago Airport Authority. They pointed out that page ES-33 makes no mention of the Gary Lagoons, which is located in the study area. This page was not changed despite IDNR's request since it only mentioned in general that there were properties on or adjacent to the Airport that are contaminated.

FAA agrees with both resource agencies that there is confusion in the FEIS regarding the Gary Lagoons, and to correct this situation FAA revised Exhibits ES-1, 4-19, and 6-7 to include the Gary Lagoons Site. FAA, also per U.S. EPA and IDNR comments, has also revised the Gary Lagoons Site discussion three places, first in Section 4.5.1 (page 4-34) as follows:

"The Gary Lagoons Site is shown in Exhibit 4-19 and is located at 5622 and 5624-34 Industrial Highway. The Proposed Action does not directly impact this site, though the IDNR (current owner of the Gary Lagoons) has noted that possible contamination extends from this site onto property owned by the Gary/Chicago Airport Authority. The site is a 7-acre vacant property that was the subject of a 1997-1999 EPA Superfund cleanup. The U.S. EPA, the U.S. Department of the Interior, the Indiana Department of Environmental Management (IDEM), the Indiana Department of Natural Resources (IDNR), and the State of Indiana Office of the Attorney General entered into a Prospective Purchaser Agreement (PPA) in 2000. The agreement allowed for the completion of the transfer of ownership of the site from its previous owner to IDNR. Under the terms of the PPA, IDNR would secure the site, maintain its security, maintain the site as a wetland, and maintain the site's dune and swale appearance and condition."

The second location was page ES-19 where both the INDR and U.S. EPA requested that the second paragraph of page ES-19 be revised. The second paragraph of page ES-19 was revised to read as follows:

"The Ralston Street Lagoon and the Gary Lagoon sites are also shown in Exhibit 4-19. The former is located south of the Grand Calumet River while the latter is located north of Industrial Highway across from the airport terminal parking lot between two parcels owned by the Airport Authority. These sites are not directly impacted by the proposed action. For the Gary Lagoons site although the Proposed Action does not directly impact this site, the IDNR (current owner of the Gary Lagoons) has noted that possible contamination extends from this site onto property owned by the Gary/Chicago Airport Authority. The site is a 7-acre vacant property that was the subject of a 1997-1999 EPA Superfund cleanup. The U.S. EPA, the U.S. Department of the Interior, the Indiana Department of Environmental Management (IDEM), the Indiana Department of Natural Resources (IDNR), and the State of Indiana Office of the Attorney General entered into a Prospective Purchaser Agreement (PPA) in 2000. The agreement allowed for the completion of the transfer of ownership of the site from its previous owner to IDNR. Under the terms of the PPA, IDNR would secure the site, maintain its security, maintain the site as a wetland, and maintain the site's dune and swale appearance and condition. The Gary/Chicago Airport Authority as owner of properties adjacent to this property is interested in its continued compatibility with airport operations and insuring that it does not contaminate adjacent land that the Airport Authority owns."

Finally, part of this comment was also addressed in Response Q-25, which was originally included in Appendix K of the FEIS. The text has been revised and can be found in Appendix C of this ROD. The revised response was also incorporated in Response E-1 in Appendix B of this ROD.

"Comments noted. Final remedial design will consider these areas to determine where information is relevant to the RAP for the Proposed Action. Many of the sites noted above are outside the area of the Proposed Action and will be less or not at all applicable to the Proposed Action. Exhibit 4-19 in the FEIS now also includes: Industrial Highway site, Ralston Street Lagoon, Gary Lagoons site, Georgia Pacific Landfill, and 9th Avenue Dump. The text in Section 4.5.1 has been edited to include the information provided by the U.S. EPA about the Gary Lagoons site."

WETLAND MITIGATION

As discussed in Section 5.11, Wetlands and Streams, of the FEIS and Chapter 6 of this ROD, the Airport is located within a globally unique "dune and swale" ecosystem. The surrounding natural sites are characterized by sand dunes separated by muck filled wet swales. The Dune and Swale ecosystem of southern Lake Michigan is one of the most diverse in North America. Part of this diversity is due to the commingling of species from boreal, prairie, Atlantic coast, and hardwood forest plant communities in a system that included many different wetland and upland habitats. This ecosystem is also home to many rare, threatened, and endangered species. Maintenance of biodiversity is one of the most significant values of wetlands within this ecosystem. These wetlands also function to process and cleanse water that flows through the system. Depending on their position in the landscape, these wetlands may recharge the local groundwater table or function as a discharge point. Because of their geology, unique position in relationship

to Lake Michigan, and diversity of species these wetlands can only be appropriately mitigated within a narrow band in northwest Indiana.

Nevertheless, all of the Dune and Swale wetlands to be impacted by this Proposed Action have been moderately to severely impacted by past land use and/or significant invasion by aggressive nonnative species. This has greatly diminished the ability of these wetlands to functionally support the biodiversity they once held. The site where the Proposed Action is to be constructed generally consists of severely disturbed land interspersed with remnant dune and swale habitat. The southernmost and northernmost portions of the site are the most disturbed, while the central portion of the site appears to be disturbed only by sand mining. The disturbed portions of the site contain dumped materials such as residential trash, shingles, concrete, asphalt and tires. The northern portion of the site was disturbed and filled, and is currently a gravel operation. Additionally, large portions of the site contain petroleum in the form of a heavy tar, which was dumped on the site. Many of the areas containing petroleum are not vegetated.

Higher Mitigation Ratio

As mentioned earlier, dune and swale wetland systems are a rare resource. Several of the resource agencies did not see much probability of successful creation of them. It was pointed out that the Interagency Coordination Agreement on Wetland Mitigation Banking Within the State of Indiana defines wetland creation as the establishment of a functional wetland where one did not formerly exist. This is generally a tremendous technical challenge, with a very low probability of success for most wetland types and situations.

Wetland restoration is defined as the re-establishment of wetland characteristics and functions at a site where they have ceased to exist, or exist in a substantially degraded state. In many cases, this is accomplished by restoring the site's hydrology and possibly by managing its vegetation. Wetland restoration carries considerable risk of failure, due to limited scientific experience in this area. There may also be available situations where mitigation activities might approach the level of restoration, if there has been substantial site degradation. However, the resource agencies indicated that the best opportunity for practicable, effective compensatory mitigation for the dune and swale system losses would be for ample, well-planned enhancement work. Wetland enhancement is the improvement of functions and values of an existing wetland without altering its habitat type. Often this involves the management of and improvement of a given wetland type that has been disturbed or degraded. Enhancement is usually at a higher ratio of compensation for the resources lost. Enhancement could involve the removal of trash, invasive species control, elimination of off-road vehicle use, and other site-appropriate steps, and the development and implementation of a long-term management plan, backed by the financial assurances and procedures to carry out the plan.

In the FEIS, the Airport Authority's wetland consultant suggested that an overall mitigation ratio of 4:1 be established for the Proposed Action. The Indiana Department of Natural Resources (IDNR) recommends a higher mitigation ratio for the loss of dune and swale habitat, as well as habitat associated with state and

federal listed species. The IDNR believes that the mitigation ratio to be used should be higher than 4:1. There has been some discussion of a ratio as high as 10:1 for dune and swale habitat loss. FAA recognizes that the type of mitigation proposed leads to different mitigation ratios being required: Restoration (low replacement ratio but difficult to achieve), Enhancement (medium replacement ratio but achievable), and Preservation (high replacement ratio but easy to achieve). As part of the permitting process, consideration will be given to the need for a higher mitigation ratio for the loss of dune and swale habitat. A floristic survey, to be conducted by the Airport Authority's consultant, will be used for mitigation ratio justification, and this survey will incorporate consideration of the quality of the wetlands

Within 10,000 Feet of the Runways

FAA *Advisory Circular 150/5200-33A Hazardous Wildlife Attractants on or Near Airports*, and an associated memorandum of agreement between the FAA, US Air Force, U.S. Army, US Environmental Protection Agency, US Fish & Wildlife Service and the US Department of Agriculture provide guidance that affect mitigation siting decisions. In meetings held with the Gary/Chicago Airport Authority on November 10, 2003, July 30, 2004, and September 9, 2004, the FAA confirmed the need for the Proposed Action to meet the intent of the circular. The advisory circular provides mandatory guidance on locating wetland mitigation in the vicinity of airports that may attract hazardous wildlife. Wildlife strikes on aircraft can pose a significant threat to human safety. In particular, the circular recommends a separation distance for wildlife attractants of 10,000 feet for airports serving turbine-powered aircraft, such as Gary/Chicago International Airport. However, the circular also states that wetland mitigation projects that are needed to protect unique wetland functions that must be sited within the 10,000-foot separation distance must be evaluated by a wildlife damage management biologist and a wildlife damage management plan prepared. To be feasible, such a site must be shown to not increase the wildlife hazard to the Gary/Chicago International Airport.

A preliminary investigation of potential mitigation sites in the Northwest Indiana region that are potentially consistent with the above goals was prepared and are shown in Exhibit 5.11-7 of the FEIS. Other potential restoration areas will be identified with remnant dune and swale habitats to meet the mitigation requirements for disturbed wetlands that have not significantly lost their dune and swale characteristics. Potential mitigation areas for the Proposed Actions have been explored in the dune swale region surrounding the Gary/Chicago International Airport. Because the FAA discourages mitigation within 10,000 feet of the airport (due to the potential to create new hazardous wildlife attractants), potential sites located within this area (shown as Sites A – W on Exhibit 5.11-7 of the FEIS) must be listed as tentative until a hazardous wildlife assessment can be carried out. This is proposed to occur during the permitting process, which will be coordinated with the Corps, IDEM, and the U.S. EPA. All of these parcels contain remnant dune and swale habitats that will involve varying levels of restoration activities.

U.S. EPA urged that FAA make a commitment to engage FAA's national wildlife biology expert/s to assist in the evaluation and identification of potential wetland mitigation options within the 10,000-foot wildlife separation distance, as the options for compensatory wetland mitigation for this project are refined. FAA's

wildlife biologist Ed Cleary has assisted with revisions to the FEIS and will continue to be consulted by the Gary/Chicago Airport Authority during the permitting process.

For all needed mitigation, the preference for the IDNR, where feasible, is within the 10,000-foot separation zone, and the Department strongly recommends the use of mitigation sites A-W before the use of the 5 proposed mitigation sites outside the separation zone. As much as possible, mitigation should be carried out to augment and support ongoing restoration work within the 10,000-foot separation distance due to the concentration of unique natural resources found in the area. The Indiana DNR recommended that the merits of mitigation sites A-W be critically examined before looking at mitigation sites outside the 10,000-foot separation distance. Mitigation on sites around the existing Clark and Pine Nature Preserve would be beneficial to the natural resources protected by that preserve. The sites beyond the 10,000-foot separation distance provide much less mitigation value in terms of conservation biology, endangered species conservation, etc. than do the high quality dune and swale areas closer to the airport.

Based on these and other concerns FAA proposed that as much as possible, mitigation will be carried out within the 10,000-separation distance to augment and support ongoing restoration work due to the concentration of unique natural resources found in the area. However, FAA and the Airport will not move forward with wetland mitigation within 10,000 feet if it creates an overall increase in hazardous wildlife risks. Options for mitigation within 10,000 feet must be accomplished without increasing this hazard.

It is anticipated in the mitigation concept that 41.53 acres of swale wetlands and 13.25 acres of wetlands within the expansion area that do not support the characteristics of dune and swale communities may be destroyed. During design, if any of these wetland areas can be saved without introducing wildlife hazards, this will be proposed.

The best opportunity for practicable, effective compensatory mitigation for the dune and swale system losses may be for well-planned enhancement work. There may also be available situations where mitigation activities might approach the above definition of restoration if there has been substantial site degradation. Enhancement activities could include trash removal, exotic species control, earthmoving and prescription burning. All mitigation sites will be monitored for a period of 5 years (typical) to insure that they meet their restoration goals and to guide maintenance activities. In addition, all Section 404 compensatory mitigation sites need to be located in a place that is anticipated to be free from future land use and development conflicts and need to be protected in perpetuity. The permitting process will include coordination with resource agencies to determine the appropriate mitigation ratios, given the contaminated condition of the wetlands that will be disturbed by the Proposed Action and the condition of the proposed mitigation sites.

RELATIONSHIP TO OTHER AIRPORT DEVELOPMENT PROJECTS

Early on, several resource agencies suggested that FAA should take an overall regional perspective for evaluation and allocation of airport resources in the greater Chicago region instead of fueling competition

among the various Chicago airports. These agencies expressed the belief that there needs to be a concerted effort to determine regional airport needs. They indicated that the DEIS didn't reasonably support the need for the proposed improvements based on current or projected airport capacity in the region.

FAA responded in the FEIS that development of multiple airports within a regional airport system is governed by the needs of the individual airports. Aviation has a long history in northwestern Indiana, as noted in Section 1.2.1 of the FEIS. Section 2.2 of the FEIS described how the Proposed Action was identified during the development of the 2001 Airport Master Plan. The 2001 Airport Master Plan evaluated the existing facilities, conditions and activity at Gary/Chicago International Airport, sought ways to address FAA's Runway Safety Area (RSA) concerns, and identified selected projects for review in the EIS being prepared by the FAA. The projects, recommended as near-term improvements, are seen by the Gary/Chicago Airport Authority as being needed to enhance safety and operating efficiency to accommodate the existing aviation demands and to preserve the option for potential future growth as identified in the 2001 Airport Master Plan.

Following the guidance of the CEQ regulations and FAA Orders 1050.1E and 5050.4A, the use of alternative modes of transportation or alternative airports have been considered as a part of Chapter 3, Alternatives, of the FEIS. However, commercial air service is a market-driven phenomenon, driven by air carriers and charter airlines' expectations regarding consumer demand for air travel between locations where air service can be economically competitive. Seeking to encourage the use of other modes of transportation, and/or the transfer of larger aircraft operations from Gary/Chicago International Airport to other regional airports, would not address the underlying need to optimize the safe accommodation of air service at the Airport.

Development of the Gary/Chicago International Airport is not dependent for its justification on actions taken or not taken at other airport sites within the region. Likewise, development at other airport sites is based on the needs of the aviation system at those sites. Development of multiple airports within a single region are not necessarily tied together as each airport within a system develops to meet individual needs, based on a number of factors including demographics and population distribution, ground access, airport facilities and financial considerations, and varying airline competitive strategies. Development of the Gary/Chicago International Airport therefore does not necessarily mean that development at other airport sites within the region is not needed. Each airport within a regional airport system has a unique position within that system that allows it to contribute to the overall functioning and success of the airport system.

CHAPTER 10
FEDERAL AGENCY FINDINGS

In accordance with applicable law, the Federal Aviation Administration (FAA) makes the following determinations for this project, based upon the appropriate information and data contained in the Final Environmental Impact Statement (FEIS) and the administrative record.

A. The project is consistent with existing plans of public agencies for development of the area surrounding the airport *(49 U.S.C. 47106(a)(1)*). The determination prescribed by this statutory provision is a precondition to agency approval of airport project funding applications. It has been the long-standing policy of the FAA to rely heavily upon actions of metropolitan planning organizations (MPOs) to satisfy the project consistency requirement of *49 U.S.C. 47106 (a) (*1) [see, e.g., *Suburban O'Hare Commission* v. *Dol*e, *787 F.2d 186, 199 (7th Cir. 1986*)]. Furthermore, both the legislative history and consistent agency interpretations of this statutory provision make it clear that reasonable, rather than absolute consistency with these plans is all that is required. Also, in a few areas of the country where a Coastal Zone Management Program has been approved, there is also a requirement for consistency with the State's coastal management program that deals with coordination of plans and programs for projects proposed to occur within the delineated coastal zone or would impact resources within the coastal zone.

Under the provisions of both Federal and state law, the Northwest Indiana Regional Planning Commission (NIRPC) has been designated as the MPO for the Gary metropolitan area and given primary responsibility for transportation planning in the region. On December 16, 2004, NIRPC notified the FAA that it supported the improvements/expansion plan for Gary/Chicago International Airport. They indicated that members of the Transportation and Environmental Management Committees and staff have been regularly consulted during the development of the Gary/Chicago International Airport expansion plan and the associated environmental impact statement. As a result, they are supportive of the conclusions of the Final Environmental Impact Statement and recommend its approval. They went on to say that the improvements at Gary/Chicago International Airport are consistent with the Connections 2030 Regional Transportation Plan that will be adopted in January 2005. The plan identifies the airport as a major component of the region's transportation infrastructure and accommodates the airport's likely ground access needs. The proposed improvements do not conflict with known environmental stewardship initiatives in the general vicinity of the airport. An expanded Gary/Chicago International Airport is a key public investment for Northwest Indiana. The Northwestern Indiana Regional Planning Commission has adopted resolutions in support of funding for enhanced marketing and operations.

In another matter of consistency, the State of Indiana received approval from the National Oceanic and Atmospheric Administration on August 5, 2002 for its Lake Michigan Coastal Program (LMCP). The LMCP supports coordination and partnerships among local, state, and Federal agencies and local organizations to preserve, protect, restore, and where possible, develop coastal resources in Indiana's Lake Michigan watershed. The Indiana Department of Natural Resources (IDNR), Coastal Zone office issued a consistency determination to FAA on September 18, 2004 for the Proposed Action as described in the FEIS.

Based on the analyses described above, the FAA finds that the project is reasonably consistent with the existing plans of public agencies authorized by the state in which the airport is located to plan for the development of the area surrounding the airport. The FAA is satisfied that it has fully complied with *49 U.S.C. 47106 (a)(1).* In addition, the proposed Gary/Chicago International Airport expansion lies either within the boundaries of the airport or the boundaries of the City of Gary, with the possible exception of the land in the City of East Chicago containing fuel storage tanks. The tanks are proposed to be subject an easement that would require the removal of several of the tanks. The proposed development plan as set forth in the FEIS has been reviewed by City of Gary staff and is reasonably consistent with the City of Gary's plans.

The proposed expansion is also reasonably consistent with comprehensive plans that have been adopted by jurisdictions in the vicinity of the airport as described in Section 4.2 of the FEIS. The FAA has also reviewed and considered the documentation in the administrative record demonstrating that throughout the environmental process the Gary/Chicago Airport Authority has shown concern for the impact of the proposed development actions on surrounding communities. Implementation of the Airport Authority's alternative would not be expected to result, after mitigation, in any significant increases of noise on land of neighboring jurisdictions. In making its determination under *49 U.S.C. 47106 (a) (1*), the FAA has considered the fact that local governments have been offered an opportunity to participate in the scoping and public information workshops to discuss the runway safety area enhancement/runway extension project at Gary/Chicago International Airport. The FAA has also recognized the fact that none of these jurisdictions has regulatory authority over airport operations, since long-established doctrines of Federal preemption preclude these communities from regulating aircraft operations conducted at Gary/Chicago International Airport.

B. The interest of the communities in or near where the project may be located was given fair consideration *(49 U.S.C. 47106(b)(2*)). The determination prescribed by this statutory provision is a precondition to agency approval of airport development project funding applications. The regional planning process over the past few years and the environmental process for this project-specific EIS, which began in 2001 and extended to this point of decision, provided numerous opportunities for the expression of and response to issues put forward by communities in and near the project location. Nearby communities and their residents have had the opportunity to express their views during the DEIS public comment period, at a public hearing, as well as during the

30-day hold period following public issuance of the FEIS. The FAA's consideration of these community views is set forth in FEIS Appendices A, C, H, I, J & K and is summarized in Chapter 7 of this ROD.

Thus, the FAA has determined that throughout the environmental process, beginning at its earliest planning stages, fair consideration was given to the interest of communities in or near the project location.

C. Effect on Natural Resources *(49 U.S.C. Section 47106(c)(1)(c)*). Under this statutory provision, after consultation with the Secretary of the Interior and the Administrator of the EPA, the FAA may approve funding of a new runway having significant adverse effect on natural resources, only after determining that no possible and prudent alternative to the project exists and that every reasonable step has been taken to minimize the adverse effect. FAA has consulted with the Corps of Engineers, Department of Interior and the EPA. The FAA finds that the selected alternative would have significant adverse impacts on wetlands, without mitigation described in Section 5.11 of the FEIS. However, given the inability of other alternatives discussed in the FEIS to satisfy the purpose and needs of the project, FAA has concluded that no possible and prudent alternative exists to development of the proposed alternative. As discussed in detail in Section 5.11 of the FEIS and Chapter 6 of this ROD, and documented throughout the FEIS and the administrative record, every reasonable step has been taken to minimize significant adverse environmental effects resulting from the project. The FAA has decided to condition approval of the proposed alternative upon the mitigation measures described in the FEIS and in Chapter 6 of this ROD. This condition will be enforced through a special assurance included in future Federal airport grants to the Gary/Chicago Airport Authority. The FAA has determined that all reasonable steps have been taken to minimize any significant adverse effects on natural resources through mitigation.

D. Appropriate action, including the adoption of zoning laws, has been or will be taken to the extent reasonable to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations *(49 U.S.C. Section 47107(a)(10*)). The sponsor assurance prescribed by this statutory provision is a precondition to agency approval of airport development project funding applications. In addition to the actions described in Paragraph A in this chapter, the Gary/Chicago Airport Authority has worked with local jurisdictions, especially the City of Gary, to develop and implement plans and policies to ensure compatible land use in the airport vicinity. FEIS Section 4.2 describes the current status of zoning and land use planning for lands near the airport. As explained in the FEIS, with planned mitigation, development of the project will not result in any increased significant impacts on non-compatible land uses, and the 65 DNL noise contours southeast of the airport over non-compatible land uses will shrink compared to existing and without project noise contours. In the interim the airport will acquire homes on a voluntary basis many of the homes within the 65 DNL that also fall within in existing and proposed Runway Protection Zone.

The FAA requires satisfactory assurances, in writing, that appropriate action, including the adoption of zoning laws, has been or will be taken to restrict, to the extent reasonable, the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. Based upon the administrative record for this ROD, the FAA has concluded that existing and planned activities at Gary/Chicago International Airport provide for appropriate action to ensure compatible land use in the airport vicinity.

E. Clean Air Act, Section 176(c) (1) Conformity Determination Regarding Gary/Chicago International Airport Master Plan Update Development Actions *[42 U.S.C. Section 7506(c)]*. The determination prescribed by this statutory provision is a precondition for Federal Agency support or approval of airport development projects. The USEPA regulations generally governing the conformity determination process are found at 40 CFR Part 93, Subpart B, Sections 93.154 through 93.159, 40 CFR Part 50, and 40 CFR Part 51, Appendix W.

Gary/Chicago International Airport is located in Lake County, which has been designated as non-attainment (severe-17) for the criteria pollutant O_3, non-attainment (primary) for SO_2, non-attainment (moderate) for particulate matter (PM_{10}), and maintenance for CO, This area is designated as in attainment for NO_2 and lead. Lake County has recently been designated non-attainment for the 8-hour ozone standard and classified as moderate. Based on this previous analysis for all the categories, the FAA needed to determine that the project would be consistent with the purpose of the Indiana state air quality implementation plan and not cause or contribute to any new violations of the NAAQS in the project area or the metropolitan area. The air quality analysis conducted for the FEIS, including the analysis for the recent 8-hour ozone standard, indicated that the annual emissions resulting from construction equipment and vehicles during year 2005, 2006, and 2007 are below (within) the conformity emission thresholds; accordingly, the estimated air emissions caused by the proposed project would be de minimis under 40 CFR Part 93 Subpart B and would result in ambient pollutant concentration levels less than the NAAQS as prescribed under 40 CFR Part 50. Also, because the de minimis level for a moderate ozone area is higher than the de minimis level for a severe ozone area, the analysis in Section 5.5.4 has met the more rigid test. It should be noted that construction and operational increases were not combined in the FEIS, since operational emissions is a sequential result of construction completion. The FEIS showed that the project would not increase the frequency or severity of any existing violations[1] of any NAAQS adopted by reference as the Indiana and Lake County Ambient Air Quality Standards (AAQS). The Proposed Project would not delay timely attainment of the NAAQS or any required interim emission reduction in the project area as described in the Indiana State Implementation Plan.

[1] The maintenance area is an area previously designated as non—attainment, but has been improved and re-classified by U.S. EPA as attainment states with a maintenance plan for a defined period of time.

Appendix A of this ROD presents the letter from the EPA Region 5, dated November 22, 2004, which stated the agency reviewed the FEIS pursuant to Section 309 of the Clean Air Act and the agency believed that the FEIS satisfactorily addresses most of the comments and concerns U.S. EPA expressed in their June 10, 2004 comment letter on the Draft EIS. At that time U.S. EPA had no additional concerns with the Air Quality analysis found in the DEIS and indicated that the General Conformity requirements have been satisfied, including those associated with the recent 8-hour ozone standard.

Based upon the air quality analysis in the FEIS and its appendices and supporting material in the administrative record, the FAA concludes that the Gary/Chicago International Airport project is de minimis under Section 176(c)(1) [42 USC 7506c] of the Clean Air Act Amendments of 1990, as implemented by 40 CFR Part 93, Subpart B.

F. For this project, involving new construction that will directly affect wetlands, there is no practicable alternative to such construction. The Proposed Action includes all practicable measures to minimize harm to wetlands that may result from such use *(Executive Order 11990, as amended)*. This executive order requires all Federal agencies to avoid providing assistance for new construction located in wetlands, unless there is no practicable alternative to such construction, and all practicable measures to minimize harm to wetlands are included in the action. The FEIS, Section 5.11, documents approximately 49.03 acres of delineated wetlands and an additional 5.75 acres of potential wetlands identified on the site, for a total of just under 55 acres. Based on the construction limits, approximately 48.5 acres of the approximately 55 acres of wetlands within the Proposed Action area are expected to be disturbed during the runway improvement program. Approximately 6.35 acres of the 55 acres of wetlands are proposed to be left undisturbed initially during the runway improvements phase; however, mitigation planning includes replacement for these wetlands as they will most likely be disturbed by long-term development of cargo facilities if and when the need is justified, with additional environmental documentation required prior to its actual development. There is no reasonable or practicable alternative to developing and improving the existing runway safety areas at Gary/Chicago International Airport resulting in these wetland impacts, given the purpose and need for the project, consideration of environmental and economic factors, and land use issues, as shown in Chapter 3 and Section 5.11 of the FEIS.

Section 5.11 indicates that the other development alternatives would result in similar impacts to wetlands. This is primarily due to FAA requirements for an Object Free Area (OFA) at the runway end. The OFA clearing standards prohibit a scrub/shrub or forested wetland in the approach area of the runway. FAA's policy is to extend the OFA beyond the required 1,000 feet to the end of the airport property or end of the runway protection zone, where practicable. With this requirement, the runway impacts for the different alternatives are similar. The FEIS demonstrates that these are low quality wetlands (because of contaminated soils) though they have some of the attributes of dune and swale wetlands that are globally significant. Two of their significant functions, stormwater attenuation and

stormwater storage, would be fully accommodated by not increasing the culverts going into the river, but instead allowing the increased stormwater time to percolate into the soil. Additional functions for these wetlands will be mitigated as part of the overall wetlands mitigation program.

Alternatives of extending the runway in another direction or relocating the entire runway are not practicable, because, among other reasons, they have additional detrimental environmental effects (impacts to other wetlands and streams). The FAA finds that there is no practicable alternative to the proposed development's use of approximately 55 acres of wetlands to be acquired or are located on the airport. This is due to the proposed runway safety area enhancement/runway extension being determined by the only feasible and prudent location for siting at the airport. The northwest quadrant of the study area, where the affected wetlands are located, is the only remaining mostly undeveloped portion of the site, and there is very limited space available overall in which to accomplish airport improvements. Considering these and other reasons described more fully in Chapter 3 of the FEIS, and taking into consideration cost, existing air traffic control and aviation technology and logistics, in light of the overall purpose of the runway project, the FAA finds that there is no practicable alternative to the wetland loss associated with the proposed development.

As noted in the FEIS Section 5.11, the sponsor has worked with the FAA to ensure that all practicable measures will be taken to minimize harm to wetlands, impacted through development of the selected alternative. Using BMPs during construction and developing a wetland compensatory mitigation site will accomplish this. Following issuance of this ROD, the Army Corps of Engineers, in consultation with the IDEM, will be asked by the sponsor to process a Section 404 permit and Section 401 certification, required for the Gary/Chicago Airport Authority to proceed with development impacting wetlands. The project approvals in this ROD and this wetlands determination are expressly conditioned upon permit approval and conditions to be outlined by the Army Corps of Engineers, and upon the Airport Authority accomplishing the wetlands mitigation measures identified in the FEIS and any Corps of Engineers permit approval.

Although it is generally preferable to attempt to mitigate wetland loss through replacement wetlands in the same watershed, this is not the case where such replacement would create man-made wetlands in the vicinity of airport aircraft movement areas. FAA Advisory Circular 150/5200-33A, dated July 27, 2004, states the FAA's policy that wetland mitigation projects located within 10,000 feet of airports serving turbine-powered aircraft (such as Gary/Chicago International Airport), may present a safety hazard as attractants of wildlife that significantly increase the risk of bird/aircraft strikes. The safety standards set forth in this FAA policy statement are recommended for the operators of all public-use airports. Furthermore, for airport sponsors who are the recipients of Federal grant funding, adherence to safety standards set forth in FAA advisory circulars is a requirement of standard grant assurance, as acknowledged in paragraph 4-3.a. of Advisory Circular 150/5200-33.

This recent agency policy guidance supports the FEIS determination that the replacement wetlands for the Gary/Chicago International Airport development actions should not be located in the immediate vicinity of the airport. However, the advisory circular also states that wetland mitigation project that are needed to protect unique wetland functions that must be sited within the 10,000-foot separation distance must be evaluated by a wildlife damage management biologists and a wildlife damage management plan prepared by the sponsor and reviewed and approved by the FAA for inclusion in the Airport's Certification Manual. To be feasible, such a site must be shown to not increase the wildlife hazard to the Gary/Chicago International Airport. As detailed in the FEIS Section 5.11.6.3, a wetland mitigation program has been developed to offset the impacts of the project and to recognize other long-term biological problems. The mitigation plan calls for replacing the filled wetlands. Several candidate wetland mitigation sites have been examined. Final mitigation requirements will be determined during the Section 404 permit application and review process in consultation with the Army Corps of Engineers, Indiana Department of Environmental Management, U.S. Environmental Protection Agency and U.S. Fish and Wildlife Service.

H. For this project, involving an encroachment on a floodplain, there is no practicable alternative to the selected development of the preferred alternative. The Proposed Action conforms to all applicable state and/or local floodplain protection standards *(Executive Order 11988)*. This executive order, together with the applicable DOT order, establish a policy to avoid supporting construction within a 100-year floodplain where practicable, and where avoidance is not practicable, to ensure that the construction design minimizes potential harm to or within the floodplain.

Section 5.12 of the FEIS explains that construction and operation of the Proposed Action would not result in adverse floodplain impacts in the Grand Calumet River floodplain. As shown in the FEIS Section 5.12, there would be no net loss of flood storage capacity or increased risk of loss of human life or property damage. The Proposed Action has been designed to comply with applicable requirements of the permitting agencies, with whom the FAA and the Gary/Chicago International Airport have been coordinating. Coordination will continue throughout the permitting process.

I. Relocation Assistance (42 U.S.C. Section 4601 et seq.) and Real Property Acquisition Policies Act of 1970, require that state or local agencies, undertaking Federally-assisted projects which cause the involuntarily displacement of persons or businesses comply with the Uniform Relocation Assistance Act. These statutory provisions, imposed by Title II of the Uniform Relocation Assistance, must make relocation benefits available to those persons impacted. As detailed in the FEIS Section 5.3, the selected development alternative will impact approximately 42 residences and 13 businesses. A commitment is made in Section 5.3.4.1 of the FEIS for any land acquisition undertaken by the Airport Authority as a part of implementing the Proposed Action to adhere to the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as Codified in Title 42, Section 4601 et seq. of the United States Code and the applicable implementing regulations set forth in Title 49, Part 24 of the Code of Federal Regulations (collectively,

the "Uniform Act"). The FAA will require the Gary/Chicago Airport Authority to provide fair and reasonable relocation payments and assistance payments pursuant to the provision of the Uniform Relocation Assistance and Real Property Acquisition Policies Act. Comparable decent, safe, and sanitary replacement properties are available on the open market.

It should be noted that only the land acquisition northwest of Runway 12-30 is proposed as Federally-assisted projects which cause involuntary displacement of persons or businesses. In this area, only business establishments exist, without residential dwellings located within the northwest acquisition area.

Southeast of Runway 12-30, there will potentially be 42 residences acquired and 1 business. Unlike the proposed acquisitions in the northwest, the immediate implementation of the Proposed Action is not contingent upon the acquisitions of the southeast properties. As such, the Airport Authority intends to purchase these properties as opportunity and funding allow, on a voluntary basis, without creating involuntary displacement of persons or businesses. Noise impacts on the southeast end of the runway will likely lessen, as the noise contours shift northwest, and away from populated areas. Although any relocation associated with the residences in the southeast area is strictly on a voluntary basis, it will comply with all Federal and state requirements, including the benefits set out in the Uniform Relocation Assistance Act.

J. For any use of lands with significant historic sites, there is no prudent and feasible alternative to using the land; the project includes all possible planning to minimize harm resulting from the use *(49 U.S.C. Section 303 (c))*. The selected alternative would not have a significant adverse affect upon and result in the use or constructive use of historic properties protected under 49 U.S.C. Section 303 (c), commonly known as Section 4(f) of the Department of Transportation Act.

K. There are no disproportionately high or adverse human health or environmental effects from the project on minority or low-income populations *(Executive Order 12898)*. Environmental justice concerns were addressed in Section 5.3 of the FEIS, and it was concluded that no minority or low-income group would be disproportionately affected by displacements occurring as a result of the selected alternative. The FEIS contains a discussion of environmental justice issues relative to the selected alternative. While the Gary/Chicago International Airport is located adjacent to low-income and minority populations, the Proposed Action will not significantly nor disproportionately impact these populations. Noise impacts will likely lessen, as the noise contours shift northwest, and away from populated areas. Additionally, any relocation required southeast of Runway 12-30, associated with the Proposed Action is strictly on a voluntary basis, and will comply with all Federal and state requirements, including the benefits set out in the Uniform Relocation Assistance Act. There are no residential land uses in the acquisition area northwest of Runway 12-30, where the acquisition process may not be voluntary. Additionally, the economic benefits of the Proposed Action mitigate

impacts to affected individuals. Therefore, the impacts from the selected alternative will not have a disproportionately high or adverse effect on minority or low-income communities.

L. No actions have been or will be taken that will limit or eliminate effective and appropriate alternatives for completing the remediation of the hazardous waste sites. Remediation of these sites will not prevent or delay the implementation of the Proposed Action. Since the project requires the acquisition or use of land that includes major and minor hazardous waste sites, the Gary/Chicago Airport Authority will initiate a remediation program and coordinate it with the Indiana Department of Environmental Management, and with U.S. EPA's ongoing remedial plans. The cleanup of these sites will be pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U. S. C. 9601 et. seq. The estimated costs of cleanup will be obtained by the Gary/Chicago Airport Authority from the current owners of the respective sites either through purchase under threat of condemnation or through condemnation. Any additional costs of cleanup will be recovered from the current or former property owners or other parties potentially responsible under Section 107 of CERCLA. Hazardous substances or contaminated soils at those sites have been, or will be removed, treated or contained in accordance with applicable federal, state and local laws.

The Gary/Chicago Airport Authority would proceed with remediation at most of the sites. Some of the sites may be remediated by the owners before the Authority acquires the properties. For those sites that require additional testing to develop a remediation plan, the investigations would continue. The results of the investigations and the remediation plans will be coordinated and approved by the appropriate divisions of the Indiana Department of Environmental Management.

No actions have been or will be taken that will limit or eliminate effective and appropriate alternatives for completing the remediation of the hazardous waste sites. It is not anticipated that any of the sites will prevent or significantly delay the implementation of the Proposed Action. The Conservation Chemical Site remediation by U.S. EPA on centerline for the extension of Runway 12/30 would not be completed before improvements are made to Runway 12-30 because pumping is likely to occur over a 30-year period. It is expected that the pipes and pumping system can be accommodated by offsets and other methods to allow continued remediation in the Runway Protection Zone and eventually under the runway itself.

M. The FAA has given this proposal the independent and objective evaluation required by the Council on Environmental Quality *(40 C.F.R. Section 1506.5)*. As the FEIS outlined, a lengthy process led to the ultimate identification of the selected alternative, disclosure of potential impacts, and selection of appropriate mitigation measures. This process began with the FAA's competitive selection of an independent EIS contractor, continuing throughout the preparation of the DEIS and FEIS, and culminating in this ROD. The FAA provided input, advice, and expertise throughout the

planning and technical analysis, along with administrative direction and legal review of the project. From its inception, the FAA has taken a strong leadership role in the environmental evaluation of this project and has maintained its objectivity.

FAA APPROVAL AND ORDER

Having determined that the agency's preferred alternative, the Proposed Action, is the only possible, prudent, and practicable alternative, the remaining decision is whether to approve or not approve the agency actions necessary for implementation of the project. Approval would signify that applicable Federal requirements relating to airport development planning have been met, and would permit the Gary/Chicago to proceed with the proposed development and possibly receive Federal funding for eligible items. Not approving these actions would prevent the Airport Authority from proceeding with federally supported development in a timely way.

I have carefully considered the FAA's goals and objectives in relation to various aeronautical aspects of the proposed development actions discussed in the FEIS. These include the purposes and needs to be served by the projects, the alternative means of achieving them, the environmental impacts of these alternatives, the mitigation necessary to preserve and enhance the environment, and the costs and benefits of achieving these purposes and needs in terms of effective and fiscally responsible expenditure of Federal funds. I have also considered comments received by the FAA on the social, environmental, and economic impacts of the Proposed Actions.

Therefore, under the authority delegated to me by the Administrator of the FAA, I find that the projects in the ROD are reasonably supported and approved. For those projects I, therefore direct that action be taken to carry out the agency actions discussed more fully in Chapter 3 of this ROD, including:

A. Environmental approval under existing or future FAA criteria of project eligibility for Federal grant-in-aid funds (49 U.S.C. §47101 et seq.) and/or Passenger Facility Charges (49 U.S.C. §40117), that include the following elements, subject to the conditions set forth under "FAA Determination" in Chapter 1 as well as the restrictions set forth in Paragraph 583.b of FAA Order 5100.38B ("the AIP Handbook"):

   1. Land Acquisition
   2. Site Preparation
   3. Runway Extension, Taxiway, and Runway Safety Area Construction
   4. Landside Developments, including Roadways
   5. Certain Navigational Aids
   6. Relocation of the EJ & E Railroad

7. Terminal Facility Improvements

8. Environmental Mitigation, contained in Chapter 6 of this ROD and found in its entirety in Chapter 5 of the FEIS

B. Unconditional approval of a revised ALP[2], based on determinations through the aeronautical study process regarding obstructions to navigable airspace, and no FAA objection to the airport development proposal from an airspace perspective. Not included in this approval of the revised ALP are the following airport improvements shown on the ALP, which also require future environmental processing:

- Construction of the south parallel taxiway to Runway 12-30
- Future cargo area development (aprons, taxiways, auto parking lots, buildings, etc.) south of the end of extended Runway 12
- Future passenger terminal area development (aprons, taxiways, auto parking lots, buildings, etc.) north of the end of extended Runway 12
- Partial dual taxiway north of extended Taxiway A from Taxiway A to the proposed passenger terminal area
- Proposed maintenance facility (Boeing Hangar) expansion

C. Approval for the relocation and/or upgrade of various navigational aids. Also the establishment or modification of existing instrument approach procedures by the National Flight Procedures office for aircraft using instrument procedures to Runway 30.

D. Review and subsequent approval of an amended Airport Certification Manual for Gary/Chicago International Airport (per 14 CFR Part 139).

The FAA has conditioned approval of the proposed alternative upon the Airport Authority carrying out the mitigation measures described in Chapter 5 of the FEIS and Chapter 6 of this ROD. The measures in the ROD are a summarization of those found in the FEIS. The FEIS also gives an explanation why some of the resource categories do not have an impact and thus no mitigation is proposed. Following is an index to these mitigation measures.

[2] An airspace determination for the Airport Layout Plan (conditionally approved on October 17, 2001) was made previously under Case No. 01-AGL-455-NRA.

EXHIBIT R-10a Consolidated Index of Mitigation Measures			
Category	**FEIS Section**	**FEIS Page**	**ROD Page**
Direct Socioeconomic	5.3.6	5.3-25	6-3
Water Quality	5.6.6 5.6.6.1 5.6.6.2	5.6-20 5.6-20 5.6-21	6-5
Historic, Architectural, Archaeological and Cultural Resources	5.8.6	5.8-9	6-6
Endangered and Threatened Species of Flora and Fauna	5.10.6	5.10-12	6-7
Wetlands and Streams	5.11.6.3 5.11.6.4 5.11.6.4.1 5.11.6.4.2 5.11.6.5	5.11-19 5.11-20 5.11-22 5.11-26 5.11-27	6-9
Floodplains	5.12.6	5.12-7	6-11
Solid and Hazardous Waste	5.18.3 5.18.3.1 5.18.3.2 5.18.3.3 5.18.3.4 5.18.3.5	5.18-24 5.18-24 5.18-25 5.18-25 5.18-26 5.18-28	6-14
Construction Impacts	5.19.6	5.19-13	6-17

Concur:

Larry H. Ladendorf — 3-17-05
Larry H. Ladendorf — Date
Assistant Manager, Airports Division, Great Lakes Region

Approved:

Perry A. Kupietz — 3/17/05
Perry A. Kupietz — Date
Acting Regional Administrator, Great Lakes Region

RIGHT OF APPEAL

This decision constitutes the Federal approval for the actions identified above and any subsequent actions approving a grant of Federal funds to the Gary/Chicago International Airport Authority. Today's action is taken pursuant to 49 U.S.C. Subtitle VII, Parts A and B, and constitutes a final order of the Administrator subject to review by the Courts of Appeals of the United States in accordance with the provisions of 49 U.S.C. Section 46110.