

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

SOUTHERN REGION  
ATLANTA, GEORGIA

RECORD OF DECISION

FOR

PROPOSED NEW PARALLEL RUNWAY,  
RUNWAY EXTENSION  
AND ASSOCIATED WORK

AT

CHARLOTTE DOUGLAS INTERNATIONAL  
AIRPORT  
CHARLOTTE, NORTH CAROLINA

April 27, 2000

# TABLE OF CONTENTS

<b>Section</b>	<b>Title</b>	<b>Page</b>
I	<a href="#">Introduction</a>	1
II	<a href="#">Background</a>	2
III	<a href="#">Proposed Federal Actions and Approvals Requested to Implement the Proposed Project</a>	3
IV	<a href="#">Purpose and Need</a>	4
V	<a href="#">Alternative Analysis</a>	6
VI	<a href="#">The FAA's Selected Alternative</a>	14
VII	<a href="#">Public and FAA Involvement</a>	15
VIII	<a href="#">Major Environmental Impacts and Mitigation Measures</a>	17
IX	<a href="#">Mitigation Summary</a>	33
X	<a href="#">Federal Findings</a>	33
Appendices		
Appendix A	<a href="#">Comments and Responses to Comments on the Final EIS</a>	36
Appendix B	<a href="#">Memorandum of Agreement</a> (not available electronically; contact <a href="#">Southern Region</a> , Airports Division)	25
Appendix C	<b>Governor's Air and Water Quality Certifications</b> (not available electronically)	

## I. INTRODUCTION

This Record of Decision (ROD) announces final agency determinations and approvals for those Federal actions by the Federal Aviation Administration (FAA) requested by the City of Charlotte, the airport sponsor, that are necessary to support the proposed construction and operation of a new 9,000 foot independent IFR (Instrument Flight Rules) approach runway, a 2,000 foot extension to Runway 18R/36L and related airport development actions at the Charlotte Douglas International Airport (CLT) that is publicly owned and operated by the City of Charlotte located in Mecklenburg County, North Carolina. This ROD completes a thorough and careful environmental and decision-making process, including review of the Final Environmental Impact Statement (FEIS) prepared by the agency for the proposed project to facilitate the identified purposes and needs of CLT.

A ROD is prepared and issued by the FAA to announce and document certain Federal actions and decisions 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 1050.1D 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 FAA determinations and approvals based on environmental analysis and findings in the FEIS. The FAA supercedes its conditional approval with "approval" for that portion of the revised CLT Airport Layout Plan (ALP) depicting the following:

- Construction of a new 9,000 foot independent IFR (Instrument Flight Rules) IFR approach runway, parallel to and 3,700 feet west of existing Runway 18R/36L, and associated taxiways and lighting.
- Extension of Runway 18R/36L to a length of 12,000 feet by constructing a 2,000 foot southerly extension with parallel and connecting taxiways and associated lighting.
- Approval for the relocation of various navigational aides (navaids) required for the proposed new runway and runway extension.
- Relocation of West Boulevard around the south end of the airport from the eastern end of Runway 36R and closure of Byrum Road.
- Relocation of Wallace-Neel Road, just east of and parallel to the proposed I-485 Outer Belt.
- Relocation of Old Dowd Road to the north of the new third parallel runway.
- Construction and implementation of terminal and landside projects.

The following is a summary of the major aeronautical findings, determinations, and actions by the FAA that are necessary to implement the proposed project:

- Proceeding to make determinations and to take actions, through the aeronautical study process, that evaluates any off-airport obstacles that might be obstructions to the navigable airspace under established standards and criteria.
- Determinations that air quality impacts associated with the proposed new runway conform to applicable air quality standards under the Clean Air Act, as amended (42 U.S.C. Section 7506, Section 176 (c) (1), and 40 CFR Part 93).
- Mitigate the potential impacts to approximately 2.0 acres of wetlands, 5,400 feet of intermittent streams, 6,780 feet of perennial streams (a total of 12,180 feet), 4.2 acres of identified open water-ponds, and 10,900 feet of identified small drains.
- Determination that the proposed new runway conforms to FAA design criteria. Approval of protocols for maintaining coordination among sponsor offices, construction personnel, and appropriate FAA program offices, as required, to ensure safety during construction.
- The establishment of modified flight procedures into and out of the airport.
- Proceeding to make determinations and to take actions to develop air traffic control and airspace management procedures to establish and maintain safe and efficient handling and movement of air traffic into and out of the airport.
- Proceeding to make the required determinations and to take actions pertaining to FAA grant-in-aid funding for airport development that meet applicable requirements upon receipt of a timely application from the Sponsor for Federal funds for eligible components of the proposed project. (This approval is from an environmental standpoint only.)

## **II. BACKGROUND**

As early as 1985, the FAA recognized that airports across the country were being affected by delay problems. As a result of this the FAA initiated Airport Capacity Enhancement Studies at most major affected airports. Typically representatives from airport operators, airlines, other airport users, aviation industry groups and FAA representatives work together on these capacity studies to identify and analyze capacity problems at each individual airport. The objective of these studies were to identify and evaluate methods to safely increase capacity and efficiency and reduce current and forecasted delays.

In the late eighties the FAA sponsored such an effort at CLT, which culminated in the April 1991, Charlotte Douglas International Airport Capacity Enhancement Plan. The FAA sponsored capacity study identified demand levels at which CLT should operate or suffer the consequences of delay. Thereafter, a Master Plan was prepared by the City of Charlotte as the ("airport sponsor") which indicated the existing airport runway system is operating beyond its calculated Annual Service Volume (ASV) capacity and the baseline activity levels identified in the 1991 Capacity Study were exceeded which triggered the need to increase the capacity of the airport. If capacity of the airport were not increased, then the airport would suffer operational delays. The 1991 Capacity Study recommended nine airport development proposals to reduce operational delays, which included the proposed project, construction of a third parallel runway. The construction of a third parallel runway was identified as the most beneficial development proposal to increase capacity at CLT airport and at the same time reduce operational delays.

In 1998, the airport completed an update to its Master Plan. The key finding of the Master Plan was that additional runway capacity is needed at CLT. One of the key elements of the Master Plan Update was to evaluate the need for a new third north/south parallel runway and a runway extension at CLT based on commercial service and airline hub activity. This update ultimately recommended the construction of a new runway to enhance capacity, specifically, an air carrier runway 9,000 feet long and 3,700 feet west of existing Runway 18R/36L. It also recommended provision for a 12,000-foot runway at CLT to provide adequate runway length to provide service to far distant markets such as the Pacific Rim that the sponsor wished to develop.

In 1997, CLT ranked as the seventeenth (17<sup>th</sup>) busiest airport in the United States in operations, twentieth (20<sup>th</sup>) in passengers and thirtieth (30<sup>th</sup>) in cargo volumes. Seven major airlines and six commuter carriers serve the airport. CLT is the largest jet hub of US Airways, with more than 300 daily flights to more than 100 cities. The airport offers non-stop or direct domestic and international service to more than 160 cities worldwide. The character of Charlotte's airport has changed as the US Airways hub has matured and the projected activity levels have continued to slow growth. The number of total aircraft movements, or operations, is expected to increase from 448,000 operations in 1995 to 494,700 in 2015, for an average annual growth rate of 1.4 percent.

### **III. PROPOSED FEDERAL ACTIONS AND APPROVALS REQUESTED TO IMPLEMENT THE PROPOSED PROJECT**

The airport sponsor has requested certain Federal actions to be taken to facilitate the proposed project. Section 2.4 of the FEIS summarizes the variety of basic actions requested that would require Federal action prior to undertaking the proposed project. Separate Federal or State actions and determinations will be made by the appropriate agencies on those matters in accordance with the established procedures. The EIS discloses those matters to the extent they are known at this time.

The following is a summary of the major aeronautical and environmental findings, determinations, and actions by the FAA that are necessary to implement the proposed project:

- Determinations under 49 U.S.C. section 47107 (a) (16) that approve a revised Airport Layout Plan (ALP) reflecting the proposed airfield modifications together with requisite environmental approvals for those improvements under 49 U.S.C. sections 4321-4347 and 40 CFR Parts 1500-1508. [It should be noted that the required determinations under 49 U.S.C. sections 47106 and 47107, pertaining to FAA grant-in-aid funding for ALP approved airport development, must be deferred to the established process for considering a grant application for approval after an actual application for funding is received from the airport sponsor and has been determined to comply with all applicable Federal funding requirements.]
- Determinations and actions under 49 U.S.C. sections 40103 (b) and 44701 that provide for the establishment of modified flight procedures, and other rules or terms and conditions for the safe and efficient use, as well as management, of the navigable airspace.
- Determination and actions, through the aeronautical study process that evaluates any off-airport obstacles that might be obstructions to the navigable airspace under the standards and criteria of 14 CFR Part 77.
- Determinations and actions that 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.

- Decisions and actions to develop air traffic control and airspace management procedures to establish and maintain safe and efficient handling and movement of air traffic into and out of the airport under 49 U.S.C. sections 40103, 40113, and 40120.
- Environmental basis for approval of eligible airport development components in conjunction with any subsequent and timely application for Federal grant-in-aid funding.
- Certification that the proposed air facility is reasonably necessary for use in air commerce or for the national defense purposes under 14 CFR Part 169 and 49 U.S.C. section 44502 (b).
- Determinations that the proposed new runway and runway extension conform to FAA design criteria. Approval of protocols for maintaining coordination among sponsor offices, construction personnel, and appropriate FAA program offices, as required to, ensure safety during construction.
- Determinations that air quality impacts associated with the proposed new runway and runway extension conforms to applicable air quality standards under the Clean Air Act, as amended (42 U.S.C. Section 7506, Section 176 (c) (1), and 40 CFR Part 93).

#### **IV. PURPOSE AND NEED**

As a result of the evaluations of airport operations and facilities conducted during the Master Plan Study Update and the evaluations conducted under the NEPA process, deficiencies were identified at the airport which affect the ability of the airport to maintain its critical transportation function, both currently and in the near future. These deficiencies must be addressed in order for the airport to continue as an air carrier jet hub and provide air cargo jet service. Additionally, the approved Part 150 noise abatement air traffic actions and associated land use compatibility actions proposed for implementation are designed to abate and mitigate airport noise. The noise abatement air traffic measures need to be environmentally assessed as required by NEPA for disclosure and analysis purposes and to inform the Federal decision-maker of the environmental impacts of the proposals.

Also, during this evaluation process which identified the CLT existing and near future deficiencies, the airport sponsor identified a shortcoming in the runway system that denied CLT the facilities necessary to compete effectively in the global market economy. The need identified was a runway with enough length to accommodate long hauls to international destinations. The airport sponsor has proposed extension of an existing runway to meet this need and has requested the FAA to take actions that would facilitate implementation of the proposed runway and runway extension.

The proposed development projects requested by the airport sponsor are planned to allow the airport to accommodate aviation traffic and passenger demand through a period projected for the next ten years from issuance of this ROD. To complete the necessary development, the airport sponsor will phase the development of facilities between now and five years from FAA issuance of the ROD, in accordance with demand, availability of funding and the potential need for reassessment of environmental conditions at that time in accordance with established procedures.

The following baseline conditions were used to develop the need for the proposed project:

- Acceptable levels of aircraft delay;
- Sufficient peak-period arrival capacity under instrument (IFR) conditions;
- Sufficient runway length to accommodate potential air transportation demand;

- Sufficient terminal gate capacity for commuter aircraft , and domestic and international jet aircraft;
- Sufficient ancillary/landside facilities to support the potential increase in air transportation demand and
- Resolve aircraft noise impacts to incompatible land uses not eligible under the currently approved 1990, Part 150 noise abatement air traffic actions and associated land use compatibility actions.

After a detailed analysis of the above baseline conditions, the Master Plan Update Study determined that only a widely spaced parallel runway (3,700 feet to 4,300 feet separation from existing runways) would provide sufficient capacity over the next 10 years into 20-year master planning period. An independent delay and taxi-time study also validated the selection of the widely spaced independent, parallel runway option as providing substantially greater annual delay and taxi-time reduction than a closely spaced parallel runway.

The independent analysis conducted by the FAA during its preparation of the EIS confirmed that the parallel runway option is the only option, which provides sufficient capacity to operate three arrival runways simultaneously. The existing airfield configuration can handle a peak of 24 arrivals in 20 minutes, during visual flight rules (VFR) and instrument flight rules (IFR) weather conditions. The proposed project will increase capacity to 32 arrivals in the peak 20 minutes without undue delays.

The airport's combined domestic air carrier; domestic commuter and international enplaned passenger volumes are projected to increase from 10.5 million enplanements in 1995 to 16.5 million enplanements in 2015. This increase in passenger traffic represents a 2.3 percent average annual growth rate from 1995 through 2015. Therefore, to accommodate this growth, future terminal gate capacity needs to be increased as disclosed and documented in Section 2.3 of the FEIS.

The airport sponsor's Master Plan forecasts are lower than the FAA's Terminal Area Forecasts (TAF). These differences in growth rates result in a difference of approximately ten (10%) percent in the forecasted 2010 enplaned passengers and approximately eight and half (8.5%) percent in the 2010 aircraft operations. The FAA concluded from its review that the differences in the forecast were insignificant and approved the airport sponsor's forecast April 3, 1996, for use in this EIS and the Master Plan. Both forecasts show that the airport can expect slow to moderate growth over the next 15 to 20 years, which is consistent with maturity of a connecting hub airport.

Based on the analysis conducted during the FAA sponsored Capacity Study and the EIS, CLT existing airfield configuration will not be able to accommodate the forecasted increases in air traffic. CLT will sustain substantial and increasing delays with the existing airfield configuration. Terminal gate capacity, ancillary facilities that typically support air transportation demand will also have to be expanded to accommodate the projected increase in air traffic.

The purposes of the proposed project are for the airport sponsor to increase capacity, reduce delay, lessen noise impacts, provide a runway system capable of supporting long haul international flights and provide landside facilities to support the projected growth in aviation demand.

The airport sponsor has expressed an interest in providing sufficient runway length to accommodate potential air transportation demand for long-range aircraft departures to destinations in the Pacific Rim. Lengthening a runway will better position the airport to compete for international cargo/freight/passenger services. An examination of runway length requirements

for aircraft that typically used long-haul routes such as Asia was conducted. The analysis determined that a runway length of 12,000 feet is sufficient for a Boeing 747-200 to depart at 100 percent of maximum take-off weight, and is also sufficient for passenger service to the Far East using aircraft such as the Boeing 747-400, 767 or 777, and the McDonnell Douglas MD-11. Therefore, a 12,000-foot runway was proposed in order to accommodate aircraft for long-haul departures at CLT.

An update to the airport's 1989 Part 150 Noise Compatibility Program ("NCP") was conducted concurrently with the Master Plan Update and was completed in August 1997. The Part 150 NCP Update, approved regulatorily on March 30, 1998, proposed six air traffic noise abatement actions to be implemented for use with the current runway system and two measures to be implemented if the new third parallel runway is commissioned. The extension of Runway 18R/36L by 2,000 feet to the south will not affect any of the recommended air traffic noise abatement actions. Implementation of the updated Part 150 NCP air traffic noise abatement actions will help mitigate the impacts of aircraft noise on the surrounding community.

The specific purposes of the proposed project are to:

- Provide sufficient airfield capacity during peak operation periods;
- Provide a means for reducing delay during peak operating periods;
- Provide sufficient runway length to accommodate potential air transportation demand (long-range aircraft departures to destinations in the Pacific Rim);
- Provide sufficient terminal gate capacity for commuter aircraft, and domestic and international jet aircraft;
- Provide sufficient ancillary facilities to support the potential increase in air transportation demand; and
- Minimize impacts on the human environment by reducing noise impacts on the surrounding communities.

The FAA has therefore determined that CLT needs a solution to its delay and capacity problem. Further, the FAA has also determined that the identified need to provide sufficient terminal gate capacity for domestic commuter, air carrier and international jet aircraft and ancillary facilities is justified based on the projected increases in air traffic. With the projected increases in air traffic the airport sponsor has proposed air traffic actions to reduce noise impacts on the surrounding communities. In addition, the FAA based on statutory requirements and policies set forth by the United States Congress has determined that the airport sponsor's identified need to provide the airport sponsor with sufficient runway length to accommodate potential air transportation demand (long-range aircraft departures to destinations in the Pacific Rim) is consistent with the principals outlined in the President's Executive Order on Federalism. The airport sponsor's proposed Project is one possible remedy and is entitled to substantial deference by the Federal agency. Other alternatives were investigated disclosed and analyzed in the FEIS and is discussed in the following section.

## **V. ALTERNATIVE ANALYSIS**

In addition to its responsibility to comply with relevant environmental statutes, the FAA in its consideration of alternatives, has 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). The 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)).

While the FAA does not have the authority to control or direct the actions and decisions of the airport sponsor relative to planning for this project, it does have the authority to withhold project approval, including Federal funding and the other Federal actions discussed in this ROD. It was 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 sponsor or whether the airport sponsor's proposal will cause impacts warranting disapproval of the Federal actions discussed in this ROD, including the potential for withholding of Federal funds for this project.

In determining the best way to meet the needs identified in Section 2.3 of the FEIS, the FAA identified numerous alternatives to the proposal. During this exploration of alternatives, all reasonable, feasible, prudent and practicable alternatives were carefully examined, ranging from the "No-Action Alternative" to development alternatives including a future baseline, noise abatement air traffic action and land use compatibility action alternatives, and four runway and runway extension development alternatives.

After analysis of each of the above range of alternatives, the FAA determined that there were six viable alternatives to the Proposed Federal Action that needed to be subjected to thorough and more detailed environmental analysis in the FEIS. These included the "No Action Alternative", two noise abatement air traffic action alternatives and three airfield development alternatives.

Further analysis of the six alternatives, determined that the construction of a runway 3,700 feet west of existing Runway 36L/18R and associated approved Noise Abatement Air Traffic Actions, extension of Runway 18R/36L by 2,000 feet to the south, and development of proposed terminal projects and ancillary facilities as the agency's preferred alternative in the FEIS. Other alternatives were eliminated for a variety of reasons as discussed below and in more detail in the FEIS:

### **No-Action Alternative**

The FAA considered the possibility of no airfield improvements at CLT over the 10-year planning horizon. Although the No-Action Alternative will be the least disruptive in terms of development impacts, it will not solve the capacity needs or current and projected delays existing at CLT and thus would not achieve the purposes and needs for the proposed action. The No-Action would not provide capacity, reduce delays or additional benefits to the community. However, the FAA is required by law to submit this alternative to detailed environmental analysis. This alternative was therefore retained for analysis through the EIS process under all NEPA environmental impact categories.

### **Use of Other Modes of Transportation/Communication Alternatives**

Alternative modes of transportation, such as rail, bus or automobile, can offer feasible alternatives to freight shippers and air travelers, particularly those traveling 500 miles or less. However, reliance on other surface roadway transportation modes could not replace air service in terms of speed and timeliness of product delivery or passenger service. The airport provides an interface between air and ground transportation and is an integral link in the region's economic and

transportation network. Therefore, the use of other surface roadway transportation modes is not considered to be a viable alternative. For example, since high-speed rail transportation will not be available in the CLT Trade Area in the foreseeable future, it would not be a reasonable alternative.

Communication technology alternatives are not viable either because it is projected that less than five percent of air travel demand could be satisfied by communication technologies by 2010.

### **Use of Other Airports**

The FAA investigated the possible use of other airports that could be used to move operations from CLT. Other airports in the region such as Greensboro, Hickory, and Winston-Salem, North Carolina and Greer and Columbia, South Carolina, are not reasonably or economically capable of providing the necessary airfield requirements to support large aviation-related and air carrier hub service to meet the projected increase in air traffic activity at CLT. All of these airports have been identified as supplemental airports to CLT principally for airlines providing point-to-point service in the region. These facilities are not considered to be feasible alternatives for the projected air traffic activity at CLT due to their geographical distance from the CLT market area and it is not reasonable to expend the level of funds necessary to enhance the facilities at another airport when CLT can accommodate the market demand required by a hub airline more economically.

### **Construction of a New Airport**

This alternative was not considered to be practicable for several reasons including: 1) the large capital investment necessary for the construction of a new airport; 2) the cost of environmental mitigation at a new location; 3) the role of US Airways at CLT; 4) the inability of cities the size of Charlotte to generate an economy great enough to support two major air carrier airports; and 5) the lack of a sponsor to propose and support construction of a new airport. Additionally, CLT has an excellent airfield facility already in place. There remains a sizable amount of undeveloped airport land still available and future expansion can be accommodated without the construction of another airport. Additionally, the construction of a new, greenfield airport to serve a substantial air carrier market will generally cause greater and, potentially more significant, environmental impacts than the future airport development on an existing or adjacent site.

### **Other Technologies**

There are a number of technological applications that can be used to reduce airfield delay. These technologies include:

- Airport Safety Capacity Technology – primarily affecting the movement of aircraft while on the ground.
- Terminal Airspace Capacity Technology – primarily affecting aircraft on approach or departure from the airport.
- Enroute Airspace Capacity Technology – primarily affecting aircraft operating between cities – outside the airspace of the origin/destination city.
- System Planning, Integration and Control Technology and Vertical Flight Program

The FAA's analysis of the above technologies indicated that none of these technologies will be able to be implemented within the 5 to 10 year planning timeframe to address CLT's needs of:

- Providing sufficient airfield capacity.
- Reducing delays during peak operating periods.
- Providing for safe and efficient operation of the airport and aircraft.
- Providing sufficient runway length to accommodate potential air transportation demand (long-range aircraft departures to destinations on the Pacific Rim).

### **Activity or Demand Management Alternatives**

In addition to evaluating other technologies for reducing airfield delays, the FAA also considered the possibility of the use of activity or demand management alternatives. Activity or demand management alternatives are typically implemented to address the imbalance between demand and capacity at an airport by redistributing air traffic. By redistributing air traffic, the goal is to create a more even demand throughout the day and evening to avoid peak period back-ups and delays. Activity or demand management alternatives that could be implemented at CLT include:

- Use of waivers to conduct intersecting runway operations on wet runways.
- Increase the number of satellite control positions for departures at the CLT tower.
- Use of departure restrictions.
- Improve and upgrade reliever airports to accommodate additional air traffic.
- Restrict commuter aircraft operations.
- Use of airline pricing policies.

During the development of the 1991 Charlotte/Douglas International Airport Capacity Enhancement Plan the above activity and demand management strategies were evaluated. The following activities were recommended for consideration of implementation:

- Obtain a waiver to conduct intersecting runway operations on wet runways.
- Increase tower satellite departure control positions.
- Identify departure restrictions.
- Improve reliever airports.

Currently the status of the activity/demand management strategy recommendations are:

- The waiver for wet intersecting runways is not likely to be granted because of a recent U.S. Department of Transportation, Federal Aviation Administration's policy reflected in Notice 7110.195 dated 3/12/99 which does not authorize wet operations in land and hold short operations on intersecting runways;
- The departure satellite positions have been fully implemented with no additional delay benefit are expected;

- The departure restrictions are under continuous discussions between the airlines and FAA, as of June, 1999, no implementation action has been identified and the reliever airport alternative has been fully implemented with some reduction in general aviation use of CLT but not to extend as expected.
- The restriction on commuter operations and the airline pricing policy was evaluated in the FEIS. The implementation of such measures at CLT will require joint and coordinated efforts by the airport sponsor, FAA, U.S. DOT, other area airports, and airport users. The implementation of these measures raises major policy issues; any one of these alternatives may conflict with existing management alternatives will not resolve the basic needs at CLT for sufficient airfield capacity during peak operating periods, a means for reducing delay during peak operating period.

### **CLT Airfield Expansion Alternatives**

Absent any practical way to create a new airport, other competitive modes of transportation communication, other technologies, comparable service at other local and regional airports, or feasible activity or demand management alternatives, the only remaining alternatives to be evaluated were limited to improving or not improving the airfield and landside facilities at CLT.

The evaluation of airfield alternatives was conducted in two phases. The initial evaluation was conducted concurrently with the Master Plan Update, Part 150 and the NEPA planning processes which included representatives from the airport, airlines, the FAA, and local planning agencies. The second phase evaluation was to examine the short-listed alternatives in greater detail and modify those alternatives based on additional analysis.

The initial evaluation resulted in a shortlist of alternatives that satisfied the airport sponsor's following criteria: meet the 10-year arrival and departure demand requirements, minimize off-airport impacts, minimize on-airport impacts, maximize runway use flexibility and provide a runway with sufficient length to accommodate long-haul operations. The conclusions reached from this evaluation were:

- New runway development to the east of the existing airfield will be more disruptive to the neighboring community, have higher development cost, and conflict with the use of Runway 23 for arrivals.
- New runways less than 7,000 feet in length do not serve jet aircraft which is the predominant aircraft using CLT. Shorter runways, which do not serve jet aircraft, do not deliver sufficient capacity to serve future capacity needs of the airport nor do they provide a return on investments.
- New parallel runway which are spaced less than 2,500 feet from current runways cannot serve as a third arrival or a third departure runway.
- While there is some need for additional departure runway capacity, the predominant need for additional runway capacity is for arrivals. Thus, runway lengths in excess of 9,000 feet are not necessary, because this length is sufficient to serve all aircraft in the airlines' fleets.

The result of the initial evaluation process was the selection of three airfield development concepts that were proposed to be carried forward for further analysis. The list of alternatives included:

- New 9,000-foot runway spaced 2,500 feet west of existing Runway 18R/36L.

- New 9,000-foot runway spaced 3,400 feet west of existing Runway 18R/36L.
- New 9,000-foot runway spaced 5,000 feet west of existing Runway 18R/36L.

All of the above runway alternatives would require acquisition of all of the land west of the airport to the proposed Outer Beltway (I-485) in order to accommodate the runway and associated parallel and connector taxiways. Residential and commercial properties in this area will need to be acquired and relocated.

The second phase of the evaluation process evaluated the selected alternatives on the following criteria:

- Additional peak-period capacity.
- Acceptable taxiing distances and times.
- Development costs.
- Aircraft noise impacts (abatement/mitigation).
- Long-range development preservation (beyond the 20-year Master Plan horizon development requirements).
- Compatibility with future FAA ATC technological advances.

In addition to the short-listed alternatives, the proposed runway alternative from the previous Master Plan was included as part of the evaluation process. This alternative, a parallel runway at a separation of 1,200 feet from existing Runway 18R/36L, does not meet the identified airside facility requirements. However, it was used to draw a comparison to the short-listed alternatives.

The three short-listed alternatives were modified to account for separation requirements associated with the runway threshold staggers. Also, in 1996, the FAA reduced the runway separation standard from 5,000 feet to 4,300 feet. Therefore, 4,300 feet of separation is the minimum separation that is required to conduct triple, independent, instrument (IFR-instrument flight rules) operations. As a result, the following alternatives were included in the detailed evaluation process:

- New 9,000-foot runway spaced 1,200 feet from existing Runway 18R/36L
- New 9,000-foot runway spaced 2,700 feet from existing Runway 18R/36L
- New 9,000-foot runway spaced 3,700 feet from existing Runway 18R/36L
- New 9,000-foot runway spaced 4,300 feet from existing Runway 18R/36L

The close-in alternatives (1,200 feet and 2,700 feet separation) were eliminated from further analysis because neither will provide the capability of triple independent arrivals under IFR conditions. Both alternatives will cause operational delays for both arriving and departing traffic and result in aircraft noise occurring in the more sensitive nighttime hours. There will also be direct overflights of three schools located south of the airport. In addition, neither alternative would be compatible with future air traffic control technology advances because it is not likely that future technology will allow triple independent IFR arrivals at these separations. Finally, the construction of a 9,000-foot north/south parallel runway, spaced 1,200 feet or 2,700 feet west of existing Runway 18R/36L will not meet the need of providing sufficient airfield capacity or reducing delay during peak operating periods. Therefore, these alternatives were eliminated from further detailed environmental assessment and analysis and the 3,700-foot and 4,300-foot runway separation alternatives were carried forward.

The north/south parallel runway alternative spaced approximately 4300 feet west of 18R/36L provides additional peak period capacity allowing for independent arrivals and departures during VFR, independent departures during IFR, and independent arrivals during IFR. The development cost is estimated at \$63.2 million, which makes it the highest cost of all of the alternatives. Additionally, this alternative will require the westward relocation of the proposed I-485 Outer Beltway to accommodate the applicable safety areas and satisfy FAA obstruction [FAR Part 77] requirements. Noise impacts will be spread into areas west of I-485 and arrivals will be routed directly over residential areas north and south of the airport. Ground noise will be moved nearer residential areas west of the airport. This alternative will ensure adequate area to accommodate long-range airport development and ensure compatible land use planning around the airport. This alternative was carried forward for detailed environmental evaluation and analysis in the FEIS.

The north/south parallel runway spaced approximately 3700 feet west of existing Runway 18R/36L also provides additional peak period capacity allowing for independent arrivals and departures during VFR (visual flight rules); independent departures during IFR (instrument flight rules) and dependent arrivals during IFR. The development cost is estimated at \$59.4 million, which is in the mid-range of the alternatives. This alternative will ensure adequate area to accommodate long-range airport development and ensure compatible land uses around the airport. This alternative reduces delays into the night (noise-sensitive) hours. This alternative was carried forward for detailed environmental evaluation and analysis in the FEIS. Noise impacts associated with this alternative will not spread into areas west of I-485 and arrivals will not be routed directly over residential areas north of the airport. Ground noise will not be moved closer to residential areas located west of the airport.

The FAA conducted an airfield runway length analysis that resulted in the recommendation of a runway length of 12,000 feet to satisfy the Sponsor's requested long-haul departure capability. This runway length will enable a Boeing 747-200 to serve destinations on the Pacific Rim. All three existing runways (18L/36R, 18R/36L, and Runway 5/23), as well as the proposed third parallel runway, were considered as candidates for a runway extension.

Analysis of the runway extension alternatives to meet the 12,000-foot requirement determined that:

#### **Extension of Runway 5/23 alternative**

- Extending existing Runway 5/23 was not feasible due to the proximity of two major roads (Josh Birmingham Parkway and Billy Graham Parkway) and the Norfolk Southern Railroad to the northeast.
- A southwestern extension to runway 5/23 will create an undesirable intersection with runway 18R/36L and 4,499 feet would be required to meet the 12,000 runway length requirement.

#### **Extension of Runway 18R/36L Alternative**

- Extending Runway 18R/36L was not feasible due to the proximity of the Norfolk Southern Railroad and the Josh Birmingham Parkway to the north.
- A southerly extension to 18R/36L will require the relocation of West Boulevard, Byrum Drive and a reconfiguration of the West Boulevard/Yorkmont Road intersection, to accommodate the amount of extension needed to provide the necessary length (3,800 foot extension).

- To relocate the roadways will require a significant amount of additional land.

### **Extension of the Proposed Third Runway Alternative**

The extension of the proposed third runway was determined not to be feasible or prudent since operational requirements usually dictate Air Traffic Control (ATC) assigning arrivals to the outboard runway and departures to inboard runway closest to the terminal area. Taxiing distance to the departure ends of the runway would become significant.

Two alternatives were identified for extending runway 18R/36L:

- Extend the runway to the maximum possible length without relocation of the Norfolk Southern Railroad or West Boulevard and the use of declared distance to meet required safety area standards. This extension will allow a 1,294-foot extension to the north and 52 foot extension to the south. This will result in a departure runway of 11,506 feet in each direction, which is less than the 12,000-feet in length required for long-haul departures.
- Since relocation of the railroad was considered more costly than relocating a portion of West Boulevard the airport sponsor proposed to extend Runway 36L to the south 2,000 feet to obtain the 12,000 foot departure runway length required. Extension of Runway 36L would avoid crossing an active runway and aircraft using this runway would be at a higher altitude when flying over noise sensitive areas.

Therefore, the second alternative of extending Runway 18R/36L to the south 2,000 feet was carried forward for more detailed environmental assessment since it met the need of providing sufficient runway length to accommodate potential air transportation demand.

The following list describes each alternative the FAA conducted a detailed environmental assessment of in the FEIS. These alternatives are graphically depicted in Chapter 3 of the FEIS.

#### **Alternative 1:**

##### **1997 Approved Noise Abatement Air Traffic Actions Only**

Alternative 1 includes runway usage and flight track changes based on the 1997 Updated Noise Compatibility Program (NCP) recommendations. This alternative will be implemented immediately upon receiving FAA environmental approvals. The regulatory Record of Approval for the NCP was issued on March 30, 1998.

#### **Alternative 2:**

##### **2001 Baseline Condition (No-Build/No-Action)**

All operational conditions at the airport remain unchanged in Alternative 2 except for fleet mix and the number of flights that would be unaffected by any substantial airport development under the proposals. Future forecast operations and fleet mix are applied to existing runway utilization, flight tracks, and flight-track utilization. The day-night split of operations also remains constant. This alternative also includes the development of the proposed terminal projects and ancillary facilities, which do not affect long-term airport noise impacts.

#### **Alternative 3:**

### **2001 Approved Noise Abatement Air Traffic Actions Only**

Alternative 3 reflects the implementation of NCP recommendations that includes changes in runway usage and flight tracks. The operational levels and fleet mix changes are based on the operational forecasts for 2001. This alternative also includes the development of the proposed terminal projects and ancillary facilities.

#### **Alternative 4:**

### **2001 Approved Noise Abatement Air Traffic Actions with a Third Parallel Runway at 3,700 foot Separation**

A third north/south parallel runway, 9,000 feet in length, located 3,700 feet west of existing Runway 18R/36L, is added to the noise-modeling assumptions to create Alternative 4. Operations and fleet mix remain the same as Alternative 3; however, runway utilization, flight tracks, and flight-track utilization changes based on the new runway development. This alternative also includes the development of the proposed terminal projects and ancillary facilities.

#### **Alternative 5:**

### **2001 Approved Noise Abatement Air Traffic Actions with a Third Parallel Runway at 4,300-foot Separation**

A third north/south parallel runway, 9,000 feet in length, located 4,300 feet west of existing Runway 18R/36L is added to the noise-modeling assumptions to create Alternative 5. Operations and fleet mix remain the same; however, runway utilization, flight tracks, and flight-track utilization change based on the new runway development. This alternative also includes the development of the proposed terminal projects and ancillary facilities.

#### **Alternative 6:**

### **2001 Approved Noise Abatement Air Traffic Actions with a 2,000-Foot Extension on the South End of Runway 18R/36L**

A 2,000-foot extension of Runway 18R/36L and a revision of the operational assumptions according to the NCP recommendations comprise Alternative 6. Operational levels and fleet mix are taken from the airport's operational forecasts. This alternative also includes the development of the proposed terminal projects and ancillary facilities.

#### **Alternative 7:**

### **2001 Approved Noise Abatement Air Traffic Actions with a Third Parallel Runway at 3,700-Foot Separation and a 2,000-Foot Extension of Runway 18R/36L (*The Proposed Project*)**

Alternative 7 includes an extension of Runway 18R/36L by 2,000 feet to the south and the construction of a third north/south parallel runway, 9,000 feet in length, located 3,700 feet west of existing Runway 18R/36L. Operational conditions are revised based on the NCP recommendations and the future forecast of operational levels and fleet mix. This alternative also includes the development of the proposed terminal projects and ancillary facilities.

## **VI. THE FAA'S SELECTED ALTERNATIVE**

As summarized in the previous presentation and discussed in Chapter Three, *Alternatives*, of the FEIS, the FAA concluded that there were six reasonable and viable alternatives, in addition to the Proposed Federal Action, (alternative 7) to consider. These alternatives were: 1) the implementation of only the 1997 approved noise abatement air traffic actions (Alternative 1); 2) implementation of No-Action/No-Build (Alternative 2); 3) the implementation of only the 2001 approved noise abatement air traffic actions (Alternative 3); 4) the construction of a new third parallel runway at a 3,700 foot separation along with implementing the 2001 approved noise abatement air traffic actions (Alternative 4); 5) the construction of a new third parallel runway at a 4,300 foot separation along with implementing the 2001 approved noise abatement air traffic actions (Alternative 5); and 6) construction of a 2,000 foot extension to Runway 18R/36L along with implementing the 2001 approved noise abatement air traffic actions (Alternative 6). The build alternatives as well as the no-build/no-action alternatives were subjected to environmental impact analysis in all NEPA impact categories. First, the baseline conditions including extensive noise modeling were performed for the year 1997. The year 2001 will be the first year of project development completion. These conditions are described in the FEIS; the impacts disclosed during the analysis process are detailed in Chapter Five of the FEIS and summarized in Section IX of this ROD.

Based on the results of the analysis, the FAA was able to compare the alternatives for environmental impacts and select the Proposed Federal Action. The first consideration was that the demand for air transportation services, including cargo and passenger services will continue to increase at CLT with or without the proposed project. The second consideration was the delays will continue to increase during peak operational periods without the proposed project. The third consideration was that with the proposed project, improvements could be made which will satisfy that demand and reduce delays. The fourth consideration was with Alternative 7 (Proposed Federal Action), demand could be satisfied and, at the same time, significant improvements to the compatibility of the airport with its surrounding community could be achieved through environmental enhancements and mitigation built into the project.

The FAA's selection of the 3,700 foot lateral separation parallel air carrier runway, with the southerly (2,000 feet) extension of runway 18R/36L as the preferred alternative which incorporates mitigation measures described in the FEIS and later sections of this ROD. Specifically, the parallel runway alternative is preferred because it provides the additional capacity needed and will reduce delays at CLT. The FAA also found this alternative to be the least environmentally damaging alternative that satisfies the identified purpose and need. Additionally, the southerly extension was selected because it provides the necessary length for long-haul capability and it provides the most efficient use of the airport for departures with the least environmental impact.

## **VII. PUBLIC AND FAA INVOLVEMENT**

The FAA has been actively involved in the project planning process. Prior to initiating NEPA review through the EIS process, FAA representatives met with the airport sponsor and the North Carolina Department of Transportation (NCDOT) to discuss the proposed project. Based on these discussions, the FAA and the airport sponsor's concluded to initiate the Master Plan Update, Part 150 Noise Compatibility Program Update and the EIS process so the preparation would be done concurrently. The FAA determined based on the objectives of the planning process that an EIS, rather than an EA (Environmental Assessment), was required to appropriately evaluate the proposed action alternatives and their potential impacts. The FAA interviewed various consultant teams experienced in preparing environmental documents and subsequently selected a consultant team to assist the agency in performing analysis of the alternatives, identification of potential impacts and preparation of the document.

Using preliminary information prepared by the consultant, the FAA conducted Public and Agency Scoping meetings. A Notice of Intent to prepare an Environmental Impact Statement was published in the Federal Register on March 31, 1995. A Notice announcing the Public Scoping Meeting was also published in local newspapers on November 14<sup>th</sup>-18<sup>th</sup>, 1995.

The FAA conducted an Agency Scoping Meeting at 1:00 p.m., December 13, 1995, in the atrium of the airport terminal building. Three officials representing state and county governments were present (Mecklenberg County Department of Environmental Protection, York County Planning, and the North Carolina Department of Environment and Natural Resources).

A Public Scoping Meeting was also conducted on December 13, 1995. This meeting was held from 6:00 p.m. to 9:00 p.m. and afforded the general public an opportunity to review and comment on the preliminary environmental investigation and selection of the Airport Sponsor's Proposed Action alternative. Members of the EIS consultant team, airport staff, FAA representatives, and members of the Airport Advisory Committee and Airport Neighborhood Task Force were available to respond to questions from the public. The main purpose of the meeting was to present the results of the preliminary EIS environmental evaluations and selection of the Airport Sponsor's Proposed Action alternative, to answer questions and to receive comments on issues of concern and the study process from the public.

Several issues were raised at the Scoping Meeting. The Mecklenberg County Department of Environmental Protection voiced concerns regarding transportation facility permits and the need to address ambient air quality carbon monoxide levels. Ambient carbon monoxide levels would likely increase due to higher levels of vehicular traffic flows, automobile parking, and air traffic. The area of particular concern to the Department is the airport access road.

Stormwater issues and retention facilities were the concerns expressed during the Scoping process by the North Carolina Department of Environment and Natural Resources. Airport management stated that one of the airport sponsor's goal is to capture all stormwater runoff in order to avoid any contamination of ground water while also reducing the amount of stormwater fees that the airport pays to the airport sponsor for processing stormwater runoff. In meeting this goal the airport sponsor committed to ensuring the safety of aircraft operations by not creating a wildlife hazard.

The second Public Information Meeting was conducted at the same location on October 15, 1997, to update the public on the status of the EIS investigation, to hear comments, and to respond to questions and concerns of area residents. Advance notification of both meetings was provided through advertisements in regional and local newspapers and notices mailed to community and neighborhood representatives.

Based on FAA review and comments received through the scoping process and during the development of the environmental document, a Draft Environmental Impact Statement (DEIS) was prepared and submitted for Federal, state and local review and public comment. The Notice of Availability of the DEIS appeared in the Federal Register on July 24, 1998. The agency and public comment period ended on September 11, 1998. A public information workshop and public hearing were held on August 27, 1998.

The FAA in the preparation of the FEIS carefully considered all comments received from the public as well as from Federal, state and local agencies (see Appendix A). In some cases, the FAA responded by modifying material in the DEIS that now appears in final form in the FEIS. In all cases, the FAA responded appropriately to all comments received from Federal, state and local governmental agencies as well as the general public in response to the DEIS and changes were made to the DEIS in preparing the FEIS.

The FEIS was approved by the FAA on November 16, 1999 and was released to the public on December 3, 1999 through publication in the Federal Register of a Notice of Availability. The FEIS addresses the topics and issues of public concern raised on the draft EIS and reflect modifications to its text. Specific responses to public comments are contained in Appendix B of the FEIS. Substantive comments on the FEIS received by the FAA on matters within its jurisdiction have been fully considered and written responses are contained in Appendix A to this ROD.

## **VIII. MAJOR ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

In accordance with 40 CFR 1505.3, the FAA will take appropriate steps through Federal funding grant assurances and conditions, PFC "use" approvals, airport layout plan approvals and contract plans and specifications to ensure that the following mitigation actions are implemented during project development. The FAA will monitor the implementation of these mitigation measures as necessary. The approvals contained in this ROD are specifically conditioned upon full implementation of these mitigation measures.

A detailed environmental analysis of the potential environmental impacts resulting from the construction and operation of the selected alternative was accomplished as part of the FEIS. Two study periods were examined, 1997 for the baseline conditions and 2001 for conditions anticipated occurring in the future with and without development of the Proposed Federal Action. An additional study period of 2009 was examined to assess future noise impacts once the Proposed Federal Action had been implemented and operational.

### **Supplemental Technical Analysis**

Supplemental technical reports have been prepared, published as part of the FEIS. These analyses address the potential direct and indirect effects to resources protected under special Federal laws. The following list each of these reports and the relevant Federal law:

Section 303(c) Evaluation – 49 U.S.C. Sections 303 [Recodified from and commonly known as Section 4 (f) of the Department of Transportation Act 1966]

Section 106 Documentation associated with the Final Environmental Impact Statement – Section 106 of the National Historic Preservation Act of 1966.

### **Impacts and Mitigation**

This section of the ROD includes a summary of mitigation measures, discussed more fully in the FEIS, Chapter 5 for each environmental impact category.

The primary responsibility for implementation of the mitigation measures lies with the airport sponsor. The FAA will have oversight responsibility and will condition any grant agreements and/or PFC "use" approvals upon implementation of the mitigation measures by the airport sponsor. 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 and Compatible Land Use Impacts and Mitigation**

The proposed Federal Action (Alternative 7) will increase the area of noise exposure by one square mile over the Alternative 2 (No Build/No Action) for 2001. The analysis of noise impacts resulting from implementation of the Proposed Federal Action indicates that residential neighborhoods located south of the proposed new runway will experience a significant increase in aircraft overflights once the new runway became operational. These neighborhoods (Dorcas Drive, Markswood Road, Snowridge Lane, and south to

I-485 right-of-way), which lie outside of the 65 DNL noise contour, have never before experienced continual direct aircraft overflights. A screening analysis determined that a 1.5 dB increase does occur within the 65 DNL or greater noise contour when comparing the Alternative 2 (No-Action/No-Build). Also, the screening analysis determined whether there were areas that experienced a 3 dB increase in noise contours within the 60-65 DNL noise contour. The area of 3-dB increase to the north is located entirely within the future airport property line and within the 65 DNL or greater noise contour. The area of 3-dB increase to the south is located within the 60-65 DNL noise contours and extends from the West Boulevard extension to the I-485 right-of-way. A total of 40 single family residential properties lie within this area, including properties on Dorcas Drive, Markswood Road, and Snowridge Lane, as well as properties on and north of Dixie River and Shopton Roads.

### **Ten-Year Future Noise Impacts**

The 65, 70 and 75 DNL noise contours for 2009 were generated for the No-Build/No-Action alternative and the proposed Federal Action (Alternative 7 ). The No-Build/No-Action assumed that the airfield will remain as it exists today. Future forecasts for fleet mix and operational levels were applied to the existing airport layout with no changes to operational procedures. The 2009 forecast fleet mix, operational levels, and 2001 approved noise abatement air traffic actions were used to model a combination of two alternatives, specifically, the extension of Runway 18R/36L 2000 feet to the south and the construction of a new parallel runway (Runway 17/35 – 9,000 feet long) separated from Runway 18R/36L by 3,700 feet are assumed.

Within the entire 2009 No Build/No-Action 65 DNL noise contour, there would potentially be 860 housing units and a total population of 2,163. Seven churches would also potentially be located within the 65 DNL noise contour. Five of these churches have been mitigated through the implementation of the 1990 approved noise abatement air traffic actions. Two of these churches would have been mitigated with the implementation of the 1997 approved noise abatement air traffic actions. One school, the Westerly Hills Elementary School, would also potentially be located within the 65 DNL noise contour. This school was sound insulated through the implementation of the 1990 approved noise abatement air traffic actions.

South of Runway 18R/36L, the 70 and 75 DNL noise contours would extend south along with the runway threshold (the same as the Proposed Federal Action, Alternative 7), reflecting the relocation of aircraft to the south end of the runway to initiate their take-off rolls to the north on Runway 36L. The 65 DNL contour would change little by the extension of the runway because its location is driven principally by aircraft departing to the south on Runway 18R. The extent of the 65 DNL noise contour of the 2009 Proposed Federal Action alternative is generally smaller than the 2001 Proposed Federal Action, Alternative 7, specifically to the north and south.

Within the entire 2009 65 DNL noise contour, there would potentially be 776 housing units and a total population of 1,952; a reduction of 103 housing units and 414 population from the 2001 Proposed Federal Action. Five churches would also potentially be located within the 65 DNL noise-contour. Four of these churches have been mitigated through the implementation of the 1990 approved Noise Abatement Air Traffic Action and Associated Land Use Compatibility

Actions. Two of these churches would have been mitigated with the implementation of the 1997 approved Noise Abatement Air Traffic Actions. One school, the Westerly Hills Elementary School, would potentially be located within the 65 DNL noise-contour. This school was sound insulated through the implementation of the 1990 approved Noise Abatement Air Traffic Actions.

A total of 123 housing units would potentially be located within the proposed airport expansion construction area. An additional 15 housing units, located within the 65 DNL noise contour, would be mitigated through the I-485 Outer Beltway project.

The housing units not mitigated through the construction projects of the Outer Beltway or the Proposed Federal Action would be mitigated through the implementation of the 1997 approved noise abatement mitigation programs.

There are 32 businesses located within the proposed airport expansion construction area that would have to be acquired and relocated. Business acquisition and relocation are discussed in Chapter Five, Section 3, Social Impacts in the FEIS.

Although there will be an increase in noise impacts with the Proposed Federal Action, this alternative will impact the fewer total people, housing units and noise-sensitive uses than the other alternatives evaluated as part of the FEIS. Additionally, there will be no impacts to multi-family land uses. Further, there will be no noise impacts directly resulting from the proposed terminal and ancillary facilities development because the development will occur within the airport boundary. This development will occur with or without the proposed development to the airside of the airport (Proposed New Runway and Runway Extension). Noise impacts resulting from the proposed airport development will be mitigated through measures identified in Section 5.1.8, of the FEIS.

The noise mitigation program for the Proposed Federal Action consists of air traffic operational and lands use control measures. The program was developed in a manner, which is consistent with the previous, and ongoing noise mitigation and abatement programs implemented by the airport sponsor through their Part 150 Noise Compatibility Programs. The main objective of this program is to mitigate noise impacts associated with the Proposed Federal Action aircraft operations by recommending appropriate measures consistent with the approved 1997 Part 150 Noise Compatibility Program Update. Although the mitigation program outlined below is designed to be consistent with the airport sponsor's ongoing Part 150 process, the mitigation measures described below are associated with the specific impacts of the airport sponsor's proposed expansion. It is the obligation and the responsibility of the City of Charlotte to implement the mitigation for the expansion.

The airport sponsor does not foresee any additional expansion of the airport beyond those improvements identified as part of the Proposed Federal Action. There are no plans for further extension of the proposed third parallel runway or for a fourth new runway. Therefore, further noise abatement air traffic or lands use measures are not required at this time.

### **Noise Abatement Air Traffic Measures**

With the implementation of both a new runway at a 3,700 foot-separation and the runway extension, the noise exposure contours will extend further to the west and approximately 2,000 feet further to the south than those of the 2001 NCP Actions only alternative. The contours to the west of the existing runway will be extended westward nearly to the new I-485 right-of-way. The 65 DNL noise contour along the extended centerline of the proposed runway will however, extend from nearly West Boulevard on the south to beyond Wilkinson Boulevard to the north, reflecting the use of the new runway for approaches in both north and south traffic flows. Contours of higher

noise levels associated with the third parallel runway will remain over property that will be acquired for runway development.

Since the opening of Runway 18R/36L in 1979, the preferred runway use to minimize overall community impact from aircraft noise has been to maximize nighttime use of Runway 23 for departures and Runway 5 for landings. This policy has been maintained through the original Part 150 Study and the 1997 Part 150 Update. Usage of Runway 5/23 in this manner has varied over the years and has tended to decline when operational demand has increased. However, it remains an important technique to reduce overall impact of aircraft noise in the surrounding communities. The contours reflect continued adherence to this procedure for the No-Action/No Build Alternative.

The airport sponsor's 1997 Part 150 Noise Compatibility Program Update identified the most compatible way to implement noise abatement air traffic procedures and to mitigate the effects of those procedures through a Noise Compatibility Program (noise abatement air traffic actions and associated land use compatibility actions). The approved 1997 Update contains noise exposure maps (NEMs) for 1996 and 2001 and provides a program of 22 proposed measures which continue to expand the approved 1990 noise abatement air traffic actions and associated land use compatibility actions.

A total of eight noise abatement air traffic measures were included and approved in the 1997 Part 150 Study update. Six measures are identified as "Phase I" measures which abate the noise impacts of aircraft operations with the airfield in its existing configuration.

The following two measures are identified as "Phase II" measures that abate the noise impacts of aircraft operations with the Proposed Federal Action of a new north/south parallel runway and a 2,000-foot extension to Runway 18R/36L:

- Upon "commissioning" of a third parallel runway west of Runway 18R/36L, establish an initial departure turn, as soon as practicable, by turbojets and four-engine prop aircraft to a heading of 195 degrees from Runway 17.
- Upon "commissioning" of a third parallel runway west of Runway 18R/36L, establish an initial departure turn, as soon as practicable, by turbojets and four-engine prop aircraft to a heading of 315 degrees from Runway 35.

### **Land Use Measures**

In order to assess the potential noise impacts to these neighborhoods a comparative noise analysis was conducted under the FAA's policy recommendations of the Federal Interagency Committee on Noise (FICON). FICON was formed to review and make recommendations on Federal policies that govern the assessment of airport noise impacts. FICON concluded that it is prudent to provide for a systematic analysis of noise levels below the 65 DNL noise contour in NEPA documents using the following screening procedures:

- Determine if a 1.5 dB increase occurs at noise-sensitive sites within the 65 DNL or greater noise contour. If a 1.5 dB increase does not occur then it is likely that a 3 dB increase will not be found within the 60-65 DNL noise contour and no further screening will be necessary.
- If a 1.5 dB increase does occur at noise-sensitive sites within the 65 DNL or greater noise contour, then determine the areas, if any, where a 3 dB increase occurs within the 60-65 DNL noise contour.

A screening analysis was prepared for CLT which determined that a 1.5 dB increase does occur within the 65 DNL or greater noise contour comparing the Alternative 2 and the 2001 NEM/NCP proposed action alternatives. The second step of the FICON screening procedures was then performed to identify the areas where a 3-dB increase in noise occurs within the 60-65 DNL noise contours.

The land use impacts within the area of 3-dB increase and within the 60-65 DNL noise contours include 40 single-family residential structures located south of the airfield. When this area is mitigated as part of implementation of the Proposed Federal Action, isolated pockets of land uses will remain to the east and west of this area. These uses would not be mitigated by the airport's previous mitigation programs nor are they eligible for Federal mitigation under any of the approved noise abatement air traffic actions and associated land use compatibility actions due to their location outside of the 65 DNL noise contour. An estimated 69 single-family residence are located within these isolated pockets of land use impacts.

All of these homes lie within a contiguous development pattern. In order to maintain the integrity of an established neighborhood, the airport sponsor will need to also provide mitigation to the adjacent and contiguous residential structures. Therefore, a total of 109 residential properties will be proposed for mitigation due to the operation and resultant noise impacts of the proposed new runway. This number includes 69 single-family residences located within the isolated pockets of land use impacts and 40 properties located within the area of 3-dB increase. There are no noise-sensitive public facilities or mobile homes located within this 3-dB area that will be impacted.

The land use mitigation program is based on the potential noise impacts identified through the comparison of the year 2002 No-Action and the Proposed Federal Action contours. All of the eligible land use impacts located within the 65 DNL noise contour for all of the alternatives assessed in the FEIS will be mitigated either through the Part 150 NCP mitigation programs of sound insulation or acquisition or through acquisition due to Master Plan construction and development projects by the City.

The FAA has approved that mitigation measures proposed for the area of 3 dB increase within the 60-65 DNL noise contour band should generally follow the currently established and/or approved mitigation programs at CLT within the 65 DNL noise contour which include:

- Sound insulates noise-sensitive public buildings intended for public use, instruction (e.g. schools), or assembly (e.g. churches) located within the 65 DNL noise contours.
- Sound insulates eligible houses located within the 65 DNL noise contours.
- At the airport's option, purchase aviation easements, sound insulate, or acquire houses within the combined 65 DNL noise contour where sound insulation is infeasible or not cost-effective because the property does not comply with the Building Code.
- Acquire mobile homes located within the 65 DNL noise contours.

Some Federal grant funds may be available for implementing these mitigation measures. However, if Federal funding is not available, there may be state or local funding available to implement the mitigation measures.

### **Social Impacts and Mitigation**

Residential and business displacements are the principal social impacts associated with the selected alternative. The Proposed Federal Action will result in the acquisition and relocation of

760 people (combined population of single-family homes and mobile home units) and 330 employees of the 32 businesses. There will be no impacts resulting from the proposed terminal and ancillary facilities development because the development will occur within the airport boundary and will occur with or without the proposed airfield development.

All acquisitions and relocations must comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. The airport sponsor will develop a detailed plan for the relocation of all properties including residential, commercial, public and nonprofit organizations will be consistent with FAA Advisory Circular 150/5100-17, Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects.

### **Environmental Justice Impacts**

The implementation of the Proposed Federal Action will not disproportionately impact any minority groups either within the proposed airport expansion construction area or within the area of the 3-dB increase. In fact, a smaller percentage of minority population will be impacted from implementation of the Proposed Federal Action than expected, when compared to the racial mix of the immediate airport environment.

Based on detailed analysis in Section 5.3.4. of the FEIS, the FAA determined that while the project directly impacts minority populations and low-income households, the minority and low-income impacts are not disproportionate in comparison to the general population of the airport environment, located in southwestern Mecklenburg County. Therefore, the Proposed Federal Action will not result in environmental justice impacts and will not require additional mitigation.

Since issuance of the FEIS, the FAA has received correspondence from a group of citizens, which have expressed concerns regarding possible discrimination based on mitigation provided as part of the airport sponsor's existing Part 150 NCP. In response to the concerns expressed, the FAA reevaluated the mitigation approved in the Part 150 study and found that on its face, the mitigation as approved value is nondiscriminatory in terms of Environmental Justice Impacts policy. The FAA has no reason to believe the City will implement the plan in a discriminatory manner.

### **Induced Socioeconomic Impacts**

The economic impact from the Proposed Federal Action will include the acquisition and relocation of residential properties, businesses and undeveloped/vacant land. The economic impact resulting from the acquisitions will be a net reduction in Mecklenburg County property tax revenues of approximately \$187,400. The economic impact from the implementation of the 1997 approved noise abatement air traffic actions and associated land use compatibility actions acquisition program (acquiring 220 mobile home units for noise mitigation purposes) will result in a net reduction in Mecklenburg County property tax revenues of approximately \$71,250. The potential total loss of \$259,000 in Mecklenburg County tax revenues represents approximately 0.08 percent of the County's property tax revenues. These localized impacts will not be significant when assessed from a regional perspective or for the local economy. Impacts to the local economy and the tax base will be short term, as anticipated relocation, induced growth and development resulting from airport expansion will replace initial tax base losses.

Since no adverse impacts are anticipated as a result of induced socioeconomic impacts, mitigation is not required.

### **Air Quality Impacts**

The City of Charlotte and the airport area are located in Mecklenburg County, which is in compliance with all of the air pollutants except for ozone and carbon monoxide, and therefore has been designated as a maintenance area for ozone (O<sub>3</sub>) and carbon monoxide (CO). However, during 1998 Mecklenburg County violated both the 1-hour and 8-hour ozone standards. While the 1-hour standard no longer is applicable to any county in the state of North Carolina, the 8-hour standard cannot be enforced according to the U.S. Environmental Protection Agency.

Air emissions from aircraft, motor vehicles and ground support equipment are expected to decrease with the Proposed Federal Action as well as all maximum estimated concentrations. Aircraft emissions will decrease due to a decrease in aircraft delays, while motor vehicle emissions will also decrease because of changes in land uses associated with the relocation of Wallace Neel Road. These reductions more than offset the slight increase in aircraft emissions that will occur due to longer taxi distances to the extended runway end, and the slight increase in motor vehicle emissions that will occur due to longer travel distances associated with the relocation of West Boulevard. There will be no impacts resulting from the proposed terminal and ancillary facilities development. The Governor of North Carolina has certified that there is a reasonable assurance that the project will meet all applicable air quality standards.

Total air emissions associated with the Proposed Federal Action (Alternative 7) in comparison to the No-Action/No Build (Alternative 2) will be less than the de minimis levels specified in the General Conformity Rule. Therefore, the Proposed Federal Action (Alternative 7) conforms to the state of North Carolina's State Implementation Plan for Air Quality.

### **Construction Period Impacts**

The proposed construction of the new runway and the runway extension will include demolition of certain existing structures, site preparation, realignment of roadways, and construction of the new runway surface and associated facilities such as drainage structures, lighting, and navigational aids. These activities will result in short-term impacts on ambient air quality. These potential impacts include: increased emissions from motor vehicles on the street due to traffic disruption at the construction site accesses, fugitive dust emissions, and direct emissions from construction equipment and trucks. These impacts will be temporary, and would affect only the immediate vicinity of the construction site and access routes.

Fugitive dust emissions can occur during ground excavation, material handling and storage, movement of equipment at the site, and transport of material to and from the site. Practices such as wetting, paving, landscaping, or chemically treating exposed earth areas, covering dust-producing materials during transport, limiting dust-producing construction activities during high-wind conditions, and providing street sweeping or tire washes for trucks leaving the site, will minimize the impacts from fugitive dust.

Fugitive dust emissions from construction activities shall be controlled in accordance with MCAPCO Regulation 1.5108 – "Dust and Related Material" paragraphs (c) and (d). Paragraph (c) stipulates that reasonable precautions shall be taken to prevent dust from being scattered off the property, some methods of which were noted in this report. Paragraph (d) stipulates that vehicles may not be operated "in such a manner that particulate matter loaded thereon is discharged onto a public highway, street, road, or right-of-way." MCDEP accepts soil stabilization by use of water/chemical application, depositing soil on roadways by covering loads, cleaning bodies and tires prior to public road access, use of crush-and-run or bumps to "shake" dust from vehicles, and other methods. All stationary methods, such as paving, bumps, and crush-and-run, must be maintained so that they remain effective.

Compared with emissions from other motor vehicle sources in the proposed airport expansion and construction area, emissions from construction equipment and traffic were determined to be

insignificant with respect to compliance with the National Ambient Air Quality Standards (NAAQS) and the North Carolina and Mecklenburg County Ambient Air Quality Standards (AAQS).

### **Construction Permit**

The state of North Carolina and Mecklenburg County both require a Transportation Facility Permit (a construction permit administered by the County) for facilities that exceed indirect source review thresholds for levels of aircraft operations, motor vehicle volumes, or parking facility size. The permit is required in accordance with Mecklenburg County Air Pollution Control Ordinance ("MCAPCO") Section 2.0800 – "Transportation Facilities". Application of this rule requires that the subject facility demonstrate that its construction will not cause a violation of the National Ambient Air Quality Standard for carbon monoxide.

### **Conformity Determination**

The air quality analysis conducted as part of the FEIS demonstrated that air emissions increases will be less than the de minimis levels for the Proposed Federal Action (Alternative 7). In addition, estimated ambient concentrations are less than the NAAQS for the No-Build/No-Action (Alternative 2). Therefore, the Proposed Federal Action will comply with the General Conformity Rule and will be in conformance with the SIP, in accordance with Section 176 of the 1990 Clean Air Act Amendments.

### **Air Certification**

Consultation with the North Carolina Department of Environment and Natural Resources (DERM) (the Governor's designated agency for air quality), the Governor of North Carolina certifies that there is a reasonable assurance that the project will meet all applicable air quality standards in accordance with Section 509 (b)(7) of the Airport and Airway Improvement Act, recodified under 49 U.S.C. 47106 (c) (letter dated February 9 2000, in Appendix C of the FEIS).

### **Water Quality Impacts**

The Proposed Federal Action including the proposed terminal and landside developments will have impacts on various aspects of water quality in the airport environs. Impacts to water quality from the erosion of exposed soil and the possible release of hazardous substances during the demolition and construction of structures could result. Water quality could also be affected by the use of deicing and cleaning agents on new airfield pavements. These new substances could potentially contaminate surface water and groundwater in the airport environs. Water supply however, will not be impacted.

Another possible impact on the airport environs, resulting from the proposed developments, will be the increased volume and flow rate of stormwater generated on airport property. Small increases to sewage and water treatment will occur from proposed terminal development. The development will incorporated plans to control and manages the stormwater increases to minimize the effects on receiving waters.

Mitigation measures as part of construction standards for the proposed project will be required to be designed and implemented to meet applicable State and local standards. Additional outfalls to accommodate the new runway deicing requirements will be required. The airport sponsor has a Spill Prevention Control and Countermeasure Plan (SPCC), National Pollutant Discharge Elimination System (NPDES) Permit, and a Stormwater Pollution Prevention Plan (SWPP) to minimize groundwater contamination. The NPDES Permit will be modified or replaced to reflect the additional runoff and potential for storm water pollution. The SWPP will be modified to ensure

compliance with federal and state requirements. Other plans will be secured and/or updated as necessary.

Any storm water detention ponds planned for the airport's storm water discharge must be large enough to treat de-icing compounds contained in storm water runoff prior to being discharged to receiving streams. All new construction on the airport will comply with an amendment to the City of Charlotte's Zoning Code that requires stream buffers on all streams that drain 100 acres or greater.

The Governor of North Carolina has provided reasonable assurance that this project will be located, designed, constructed, and operated in compliance with applicable State water quality standards, per FAA Order 5050.4A. A copy of the Governor's letter is included in Appendix C of this ROD. No Clean Water Act Section 404 permit may be issued by the USACE for the Proposed Project without the issuance of a Section 401 Water Quality Certification by the North Carolina Division of Water Quality.

### **Historic, Architectural, Archaeological, and Cultural Resources, and 49 USC Section 303 (c) Properties Impacts and Mitigation**

An evaluation of the potential impacts to historic and archaeological resources was accomplished in accordance with the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, 36 CFR Part 800; (39 FR 3365; January 25, 1974, 51 FR 31115; September 1986 and 64 FR 27071; May, 1999) The FAA has determined that the Proposed Federal Action will have an adverse effect on historic resources and may have an effect on archaeological resources eligible for listings in the National Register. The State Historic Preservation Officer (SHPO) for the state of North Carolina has concurred in this determination.

The proposed construction of the parallel runway and runway extension will impact the Samuel Brown Farm and may lead to its acquisition. A new noise impact in the magnitude of 60-65 DNL over the Spratt-Grier Farm would occur. Additionally, two archaeological sites, proposed as potentially National Register eligible will also be physically disturbed as a result of construction of the parallel runway and runway extension.

As the FEIS states, in the event artifacts are discovered during construction activities, construction in the area will be halted immediately in order to record the finding, determine its level of significance, and develop appropriate mitigation measures.

A Memorandum of Agreement (MOA) has been prepared stipulating measures to be implemented to avoid, reduce, or mitigate the adverse effects from this project on historic properties. The North Carolina SHPO, the Advisory Council on Historic Preservation, and the airport sponsor have been consulted on the MOA.

The FAA, the airport sponsor and the North Carolina Historic Preservation Office (SHPO) have signed the MOA, in compliance with Section 106 of the National Historic Preservation Act. The agreement was signed by all of the above parties. In reaching its conclusions relative to the National Historic Preservation Act, the FAA's findings are supported by the FEIS, and the Department of Transportation Section 303/Section 6 (f) Evaluation. Execution of the MOA satisfies the FAA's Section 106 responsibilities for all actions associated with the Proposed Federal Action. The stipulations of the MOA are discussed in Section 5.7.3 of the FEIS. A final copy of the entire MOA is included in Appendix B of this ROD.

### **Memorandum of Agreement**

Specifically, the stipulations within the MOA, summarized below, ensure that:

- The airport sponsor in consultation with the SHPO shall evaluate measures to allow the Samuel Brown Farm to remain standing. If after consultation with the SHPO, no feasible and prudent rehabilitation adaptive reuse, and/or relocation of the property are found, the Airport will carry out the recordation plan.
- Five sites: Dr. Richard A. Query House, John Douglas House, Asbury House, Samuel Brown Farm and Spratt-Grier Farmhouse and Slave House subject to aircraft noise exposure levels greater than 65dB and are not compatible land use; or are located in an area that may be subject to an increase of more than 3 dB within the 60DNL resulting from the proposed action are eligible for sound attenuation under the provisions of the Airport's Noise Compatibility Program.
- The airport sponsor in consultation with the SHPO will evaluate and implement measures to minimize potential impacts resulting from the relocation of West Boulevard on the Dr. Richard A. Query House.
- The FAA will ensure that the airport sponsor prepares and implements an archaeological data recovery plan for the Wynn Site and the Ertel Site.
- Prior to any disturbance of lands immediately surrounding the Freeman House, the airport will conduct an archeological survey to enable the FAA and SHPO to determine the presence of archeological features potentially eligible for the National Register of Historic Places (NRHP).
- The FAA agrees to ensure that all materials and records resulting from excavations at the Wynn Site and Ertel Site and any other sites investigated and determined eligible for the National Register will be curated in accordance with 36 CFR Part 79.

The MOA also states that in the event that previously unknown archeological resources are discovered during construction that the airport sponsor will cease work in the immediate area. The FAA and the SHPO will be notified if this occurs. The FAA and the SHPO will also determine the eligibility and the significance of any artifacts discovered. If it is determined that the site is eligible for the NHRP, the FAA, SHPO, the ACHP, and the airport sponsor will consult to determine appropriate mitigation measures for the site(s).

### **Section 303 (c) Impacts**

There are no publicly owned parks, recreation areas, or refuges within the airport environment. However, the Proposed Federal Action will directly affect five Section 303 (c) sites. All five of these sites adversely affected by the Proposed Federal Action are also protected under Section 106 of the National Historic Preservation Act. Acquisition and removal of two historic sites (Spratt-Grier Farm and Samuel Brown Farm) would be required and thus interpreted as a "physical taking" of Section 303 (c) property in conjunction with an airport proposal. The Samuel Brown Farm has been acquired by the City. It will be investigated for adaptive reuse, stabilization and preservation and/or the possibility of moving the structures (s). If no feasible and prudent rehabilitation, adaptive reuse, and/or relocation of the property(s) is found, the Airport shall carryout a recordation plan as outlined in the MOA with the SHPO contained in Appendix B. Therefore, Section 303 (c) is applicable to the proposed project.

All of the proposed alternatives were evaluated in an effort to determine ways to avoid or minimize impacts to the USC 303(c) properties at CLT. The FAA determined that impacts to the two historic properties cannot be avoided. Therefore, the two historic sites that will be acquired and removed will be mitigated through a Section 106 Memorandum of Agreement (MOA)

(Appendix B of this ROD). The FAA and the airport sponsor will implement the provisions identified in the executed Memorandum of Agreement (MOA) and will work with the North Carolina State Historic Preservation Office (NSHPO) and the North Carolina Division of Archives and History and Department of Cultural Resources concerning impacts to the historic properties. Pursuant to 303 ( c ) (2), "The project includes all possible planning to minimize harm on historic sites resulting from the use."

There will be no impacts resulting from the proposed terminal and ancillary facilities development which are components of the Proposed Federal Action because their development occurs within the airport boundary. These developments will occur with or without the proposed airfield development.

### **Biotic Communities Impacts**

Implementation of the Proposed Federal Action will result in the unavoidable disturbance of up to 3,000 acres of vegetated areas for construction and safety buffer and clear zones. The Proposed Federal Action will also result in the conversion of approximately 1,490 acres of Oak-Pine-Hickory Forest, 200 acres of Alluvial/Upland Swamp Forest, 235 acres of Old Field-Scrub/Shrub, 2.0 acres of Wetlands and 4.2 acres of Open Water to Urban-Industrial Turf.

The loss of vegetation assemblages will directly result in the loss of wildlife habitat. Many species, particularly those requiring forested habitats will be affected. In general, species requiring forest and scrub/shrub habitat will be eliminated while those species able to use old field and maintained areas will generally increase in abundance.

The proposed terminal developments will have only have a minimal effect on vegetation, as discussed in detail in the FEIS in Section 5.9.1. Planned terminal improvements will be in locations currently developed for parking and airfield currently with little to no vegetation present. Impacts will however result from the proposed landside improvements. The degree of impacts will be dependent on the type of development implemented and the amount of vegetation located within the proposed airport expansion/construction area. The proposed construction of new parking and rental car facilities will require some clearance of land currently inhabited by an array of vegetation. Proposed road improvements and relocations will also require the elimination of various types of vegetation in the proposed airport expansion/construction area. Some areas currently covered by vegetation will be converted to pavements, while others will be converted to maintained lawn as a result of tree and shrub removal.

The proposed terminal developments will have little or no effect on wildlife surrounding the airport because it currently provides poor habitat for most species of wildlife. However, the proposed construction of landside developments will have impacts on wildlife communities. The addition of parking and rental car facilities will remove habitat currently occupied by variety of wildlife. Similarly, the improvement and relocation of various roads will also alter the current habitat of wildlife located in the proposed airport expansion/construction area.

The airport sponsor has not prepared preliminary construction plans yet. These plans will not be prepared until after the ROD is issued. As such, the potential for avoidance of impacts to wildlife in the proposed airport expansion/construction areas cannot be accurately estimated. However, the North Carolina Wildlife Resource Commission recommended a detailed mitigation plan be developed, including site descriptions, success criteria, and long-term monitoring efforts. Potential mitigation efforts for loss of habitat include: proper disposal and reuse of all woody materials, acquiring land for preservation of woodlands currently threatened by urban development, and development of a replanting/reforestation plan for areas of the county that have been previously disturbed but undeveloped.

The FAA conditions its approvals in this ROD, upon, among other things, the airport sponsor working with the North Carolina Wildlife Resource Commission in developing a mitigation and long-term monitoring plan for forested areas that will be removed as a result of construction of the Proposed Federal Action. Any mitigation plan will be designed in accordance with FAA Advisory Circular 150/200-33: Hazardous Wildlife Attractants On or Near Airports so that the attraction of wildlife hazardous to aviation operations is eliminated or minimized. This AC provides guidance on locating certain land uses having the potential to attract hazardous wildlife to or in the vicinity of public-use airports.

### **Endangered and Threatened Species Impacts**

The potential for several Federally and State listed rare, threatened or endangered plant and animal species that might be present within the proposed airport expansion/construction area were identified. A biological assessment conducted in accordance with Section 7 (c) of the Endangered Species Act, as amended, was initiated to evaluate the potential presence of these species within the proposed airport expansion/construction area. Extensive field surveys did not identify any listed species within the 3,000-acre proposed airport expansion/construction area. Both the United States Fish and Wildlife Service and the North Carolina Department of Environment and Natural Resources concurred with the conclusions of the surveys conducted.

No state or Federally listed rare, threatened, or endangered species is expected to be located within the proposed airport expansion/construction area. Therefore no impacts to rare, threatened, or endangered species will occur as a result of the implementation of the Proposed Federal Action therefore, no mitigation is required.

### **Wetlands Impacts and Mitigation**

The wetland delineation conducted identified 23 National Wetland Inventory identified systems located within the study area, 14 of which are ponds. A total of approximately 5.7 acres of Palustrine Scrub/Shrub and Emergent and Palustrine Emergent wetlands were located on the airport property and adjoining properties proposed for acquisition by the airport. A total of 12 ponds were identified within the study area. The total acreage of open water in the study area was approximately 9.5 acres. The study area consists of highly dissected plateau containing a variety of both permanent and intermittent streams. Approximately 28,000 linear feet of intermittent stream and 12,000 feet of permanent streambed occur within the survey area. The FAA has coordinated with the United States Army Corps of Engineer (USACE) and has the USACE's concurrence (see Appendix A) on the wetlands, streams and pond delineation report contained within Appendix of H of the FEIS. The airport sponsor will be required to apply for and obtain a Section 404 Individual Permit, which will contain the appropriate avoidance and mitigation measures, required by the USACE for issuance of the permit.

Implementation of the Proposed Federal Action will result in impacts to existing wetlands. Intermittent and Perennial streams open water ponds and small drains will also be impacted. Based on the conceptual plans used in the preparation of the FEIS, the Proposed Federal Action will impact approximately 2.0 acres of wetlands, 5,400 feet of perennial streams, 6,780 feet of intermittent streams, 4.2 acres of open water ponds and 10,900 feet of small drains.

Final design plans will be prepared by the airport sponsor in such a manner as to avoid, minimize and mitigate wetland, stream, open water ponds and small drains to the greatest extent practicable, as required by applicable rules and regulations. These plans will be developed during the permitting process and as construction plans are finalized. A formal jurisdictional wetland delineation with agencies having jurisdiction over this project will be conducted during the permitting process. Wetlands have been avoided to the extent practicable. Potential compensatory mitigation measures to address the unavoidable impacts on wetlands associated

with the Proposed Federal Action were discussed in Section 5.11.3 of the FEIS. The potential measures discussed include restoration of existing wetland and stream habitats or the creation of new habitat within the watershed.

A specific mitigation plan will be developed and completed in coordination with the United States Department of Army Corps of Engineers (USACE) and the United States Environmental Protection Agency (EPA) as part of the Section 404 permitting process. Under the terms of this ROD its approvals are conditioned upon the airport sponsor obtaining the required Section 404 and 401 permits prior to starting any construction. For any particular affected wetland area, the wetland mitigation must be completed prior to the removal of the existing wetland.

The airport sponsor met with the USACE on March 7, 2000 to initiate the Section 404 permitting process. The USACE indicated that based on the wetland and stream impacts resulting from the implementation of the proposed project will require a mitigation ratio of 1:1. (acres created/enhanced or restored to the acres impacted).

At this time a specific mitigation plan has not been developed; however, the airport sponsor is pursuing possible implementation of one or a combination of the following wetlands mitigation options:

- Purchase of land off-site for restoration.
- Assist Mecklenburg County in wetland restoration projects.
- Assist Charlotte-Mecklenberg Utility Department in wetland buffer projects.
- Create wetlands adjacent to the airport property.
- Purchase land in the name of the Catawba River Conservancy for restoration.
- Pursue any other options that are acceptable to the USACE.

### **Energy Supply and Natural Resources Impacts**

Energy consumption at CLT is expected to increase as activity increases. However, sufficient resources exist to meet the projected increase in demand. There are no known sources of mineral or energy resources in the Charlotte area that will be impacted. Development of the Proposed Federal Action will not require the use of unusual materials or those that are in short supply in the Charlotte area. Since there are no impacts anticipated, specific measures to mitigate energy consumption and the use of natural resources are not proposed.

### **Light Emissions Impacts and Mitigation**

Areas sensitive to changes in light emissions are located in the vicinity of the airport. However, the airfield improvements associated with the Proposed Federal Action should have little or no impact on the residences located around the airport. There will be no impacts resulting from the proposed terminal and ancillary facilities development because lighting of these facilities would be limited to within the airport boundary. The proposed landside improvements will occur in currently undeveloped areas, or in areas proposed to be acquired for airport development. The presence of forested and brushy areas in conjunction with the rolling terrain provides a natural buffer between the light emitted from the airport and surrounding communities. If any impacts were to arise, they will be mitigated through the use of barriers and shield to block light from reaching any of the residences.

### **Solid Waste Impacts**

The Proposed Federal Action will not increase the quantity of solid waste generated at the airport. However, there will be a small, temporary construction impacts resulting from the clearing of

debris and structures in the proposed airport expansion/construction area. Removal and proper disposal of such materials will be the responsibility of a qualified contractor hired by the airport sponsor. There will also be no impacts resulting from the proposed terminal and ancillary facilities development. Further the implementation of the 2001 approved noise abatement air traffic actions and associated land use compatibility action will not result in an increase in solid waste.

### **Hazardous Waste Impacts**

The proposed construction of the Proposed Federal Action will not have any impact on the generation, storage, and removal of hazardous waste. Temporary construction impacts could occur; however, implementation of measures to minimize hazardous waste resulting from construction and demolition activity will be used in the event these impacts occur.

In the event of a release of a hazardous substance or waste (including petroleum products) in an amount greater than the reportable quantity as established by the USEPA, the airport sponsor will contact the National Response Center (NRC). The airport sponsor will provide details of the incident and measures taken to reduce the effects of the release. In the event that hazardous substances and/or wastes are identified within the proposed airport expansion/construction area, the airport sponsor will initiate consultation with the North Carolina Department of Environment and Natural Resources and/or the USEPPA.

### **Surface Transportation Impacts**

The Proposed Federal Action will impact surface transportation facilities located in the vicinity of the airport. It will require the modification, relocation and closure of several roadways to accommodate the proposed expansion of the airport.

The projected increase in aircraft operations with the Proposed Federal Action will cause an increase in traffic volumes for on-airport roadway segments as described in Section 5.20.2.2 of the FEIS.

The modifications proposed for the off-airport roadway pattern will decrease the number of vehicles traversing the secondary roadways while diverting the number of vehicles onto the new I-485 beltway via the extension of West Boulevard. An increase in traffic will occur on the higher-capacity West Boulevard, which has four lanes, and onto Billy Graham Parkway, a four-lane highway.

Temporary impacts to the transportation system will occur during proposed construction and will include increased commercial traffic on neighborhood roads, increased traffic congestion, increased travel distances, and increased travel time for drivers. Additional construction impacts could include increased noise, dust, vibration, congestion and truck traffic along roadways within and adjacent to airport property. The Mecklenburg County Department of Environmental Protection has recommended that construction activities including construction of relocated roads prior to other activities that will close, or restrict operations of, existing roads should be phased so as to minimize congestion, especially during the AM and PM peak hours. Construction activities will be phased to minimize congestion during peak hours.

Based on the assessment of surface transportation impacts detailed in Section 5.20.3 of the FEIS, there are no specific additional mitigation measures required for associated roadway improvements for the Proposed Federal Action.

### **Other Impact Categories**

No significant impacts were identified in the FEIS for the following categories:

- Land and Water Conservation Act, Section 6(f) property – No DOT LWCA Section 6 (f) sites were identified within the 1997 65 DNL noise contour. Nor are Section 6(f) sites included in the year 2001 contours, for the Proposed Federal Action runway development alternative. Construction of the Proposed Federal Action will not require taking of a 6(f) property.
- Floodplains – The proposed development will not be located within the 100-year floodplain.
- Coastal zones and coastal barriers – There are no coastal zones or coastal barriers located at CLT.
- Wild and Scenic Rivers – There are no wild and scenic rivers located at CLT.
- Farmland- No prime or unique farmland will be impacted by the Proposed Federal Action.

### **Construction Impacts (Short-Term Effects) and Impacts**

The FAA has identified and disclosed as the "construction" impacts those short-term impacts associated with the Proposed Federal Action. Implementation of the Proposed Federal Action will result in the greatest impacts because of the composite quality of this alternative out of all of the alternatives. The FEIS indicates that construction activities will include clearing, grubbing and grading of land; the removal of vegetation and debris; the mobilization of construction equipment on the site; the placement of lighting and drainage structures. Impacts to soil, water quality, air quality, noise, solid waste, and surface transportation is anticipated as a result of these activities.

Soil erosion is a primary concern as possible serious adverse impacts of proposed construction projects. During the site preparation phase, existing land will be cleared and excavation will occur to remove existing pavement, trees, vegetation, utility lines, and other structures.

Adverse impacts to water quality due to erosion and subsequent sedimentation are prime concerns during the proposed airport construction process. The increase in suspended sediment concentrations, caused by an increase of eroded materials entering waterways, could induce impacts on aquatic life within the airport environs. Impacts could also result from pollutants released from construction materials and equipment, such as fuels, lubricants, bitumen, concrete, and wash water from concrete mixing.

The proposed construction activities will have a short-term impact on local air quality. Air quality will be impacted temporarily due to construction equipment emissions and fugitive dust pollution from excavated areas. The effects of fugitive dust on air quality will be dependent upon local weather conditions, level and extent of construction activity and nature of the operation. Other air pollutants that could result from the proposed construction are exhaust fumes from construction equipment and smoke from open burning.

Noise from construction will increase above the ambient sound levels. Earthwork and site preparation activities will result in elevated levels of noise generated by the types of equipment used on most construction sites. However, there will be limited off-airport construction-related noise impacts because of the distances of most residential areas from the sound sources at the various construction sites.

The construction of the Proposed Federal Action will require demolition of various roads in the vicinity of the airport. Both temporary and permanent impacts to traffic patterns will result from the relocation and realignment of roads. Other temporary construction impacts could include increased commercial traffic on neighborhood roads, increased traffic congestion, increased travel distances, and increased travel times for drivers. Normal neighborhood vehicular traffic patterns could also be disrupted if driver's chose to cut-through neighborhoods to avoid congestion induced by proposed construction activities. The construction of the Proposed Federal Action will also result in increased construction-related traffic in the vicinity of the airport. Temporary construction impacts could include increased noise, dust, vibration, traffic congestion, and truck traffic along roadways. A construction management plan will be prepared which, based on the selected contractor (s) haul plan, would specify hours of operation, haul routes, and similar controls.

Temporary socioeconomic impacts (e.g. additional income and employment) and induced socioeconomic impacts will also be caused by the Proposed Federal Action. These impacts include the employment and payroll of construction workers and other personnel associated with the projects, as well as related capital expenditures for materials and equipment. The higher levels of employment and greater amounts of disposable income spent by construction-related workers in the local economy will generate more employment and activity in the service sectors such as gas stations, restaurants and supermarkets. Socioeconomic impacts of construction are generally short-term and temporary in nature, as will be the case for most other construction impacts.

During the approximately two years that Runway 18R/36L will be under construction for the proposed extension project, the runway could be closed or have a temporary displaced threshold put in place for a portion of the time. This alteration in airport operations will have a temporary effect on aircraft noise impacts within the airport environs. Aircraft will be diverted to alternate runways thus increasing the number of operations, and consequently noise generated over certain areas. There will also be an associated decrease in noise levels over other areas, where the number of operations would decrease. The changes in noise exposure resulting from operational changes will be temporary and will only occur when necessary for construction purposes.

With the Proposed Federal Action it is expected that a moderate amount of demolition and construction waste will be generated. The majority of the waste material will result from the demolition of existing buildings and pavements to accommodate new facilities. Prior to the demolition and removal of any buildings, each structure will be investigated to determine the presence of asbestos or any other hazardous materials. All necessary precautions for the removal of such materials will be coordinated with the appropriate state and local permitting agencies.

All construction activities will incorporate in their plans and specifications the construction controls identified in FAA AC 150/5370-10, Item P-156, Temporary Air Water Pollution, Soil Erosion and Siltation Control. All impacts will be minimized by the use of Best Management Practices and/or state or local construction mitigation guidelines. Such measures will include controlling the effects of dust by stabilization of exposed earth with grass, mulch, pavement or other cover; periodic sweeping, use of covered haul trucks. To protect water turbidity curtains sedimentation basins and other soil erosion control measures will be constructed or implemented. Also, the state of North Carolina requires a sedimentation plan to be prepared and submitted for approval prior to the start of construction. All environmental construction controls required by the FAA, NCDOT, NCDEHNR, USACE and Mecklenberg County will be incorporated in the construction plans, specifications, and permits that will be obtained for the project. If all of the above listed pollution controls and mitigation methods are implemented during construction of the proposed project, there should be no significant impacts from the construction of the project.

## **IX. MITIGATION SUMMARY**

The FAA has provided for a comprehensive mitigation program, which established measures to mitigate the adverse effects of construction and operation of the proposed development. This mitigation program was developed to meet applicable Federal and State requirements and in consideration of state and local guidelines. The concerns and interests of the public and government agencies were also addressed. The mitigation program is described in Chapter VII of the FEIS.

Mitigation measures for alternatives considered in the FEIS and approved for implementation are conditions of approval of the project in this ROD, and the project sponsor, the airport sponsor has agreed to them. The FAA will monitor the implementation of these mitigation measures as necessary to assure 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 Proposed Federal Action.

Accordingly, having considered: 1) the policies set forth at 49 U.S.C. Sections 40104 and 47101; 2) the ability of the alternatives to meet the purpose and need, and 3) the administrative record which concerns these development projects, the FAA hereby approves the implementation of Alternative 7 as described disclosed and analyzed in the FEIS.

The FAA's approval of these expansion and improvement projects in this ROD signifies that these projects meet FAA standards for agency approval discussed in Section II of this ROD. It does not however, signify an FAA commitment to provide a specific level of financial support for these projects, which must await future decisions under the separate funding criteria prescribed by 49 U.S.C. 47115 (d) and 49 U.S.C. 40117.

## **X. FEDERAL FINDINGS**

### **A. Federal Funding Findings and Determinations.**

The FAA understands that the airport sponsor may apply for Federal grant-in-aid funding or Passenger Facilities Charges ("PFC") approvals in conjunction with its decisions to proceed with the implementation of the project components and mitigation measures covered by this ROD. There are numerous findings and determinations prescribed by statute and regulation that must be made by the FAA as preconditions to agency approvals of airport project funding applications. Any grant-in-aid or approval would also reflect appropriate statutory and regulatory assurances and other terms and conditions for FAA's action. While this ROD provides the environmental study basis to proceed with making those findings and determinations, in the absence of application and a clearly defined course of action that would be followed, it would be premature to consider the bases for them at this time. The agency will make any necessary findings and determinations in connection with its consideration of appropriate applications for Federal funding aid or authorizations.

### **B. The Proposed Federal Action Will Comply with the SIP in Accordance with Section 176 of the Clean Air Act Amendments**

While the City of Charlotte and the airport are within the Mecklenberg County, which is designated as a "maintenance area" for ozone and carbon monoxide, the air quality modeling conducted for the EIS and findings obtained indicate that the proposed project would result in emissions that are less than the *de minimis* levels prescribed for National Ambient Air Quality

Standards ("NAAQS") and the North Carolina and Mecklenberg County Ambient Air Quality Standards ("AAQS") in the project area or the metropolitan area affected as prescribed under 40 CFR Part 93. The Governor of North Carolina has certified that there is a reasonable assurance that the project will meet all applicable air quality standards. Based on the air quality investigation and analysis conducted for, and presented in the EIS and the supporting administrative record, the FAA finds that the airport development actions proposed in the FEIS will not exceed the *de minimis* increase levels nor cause or contribute to any air quality standard being exceeded.

**C. The New Construction Components of the Project Conform to the Avoidance and Minimization of Harm to Wetlands Requirements of Executive Order 11990, as amended.**

As discussed in the FEIS, several components of the project will directly or indirectly affect wetlands. Thus, the Airport sponsor recognizes that it would have to obtain a permit from the United States Army Corp of Engineers ("USACE") under Section 404 of the Clean Water Act as a condition to its proceeding with any airport development under the approvals contained in this ROD.

The FEIS, Section 5.11, discloses that the preferred development alternative will affect approximately 5.7 acres of wetlands and 9.5 acres of open water ponds; approximately, 28,000 linear feet of intermittent stream and 12,000 feet of permanent stream bed occurs within the study area for the project. While no further practical means could be found to avoid impacts to the wetlands by the construction on the airport, the airport sponsor's preliminary design and planning of the proposal, together with the Master Plan and EIS consideration of the planning alternatives, provided for avoidance of the impacts to the extent possible and consideration was given to the practicable measures available to minimize harm to the wetlands where harm could not be avoided. Section 5.11.3 of the FEIS provides the detailed information concerning the process and considerations that apply as to the Airport sponsor, as applicant.

As the FEIS indicates, the Airport sponsor had elected not to proceed with project design until it obtained the approvals contained in this ROD. However, the airport sponsor is currently working with the USACE to develop a conceptual wetlands mitigation plan which would serve as a basis to ultimately design a detailed wetlands mitigation plan. Thus, the designing of project specifics is not sufficiently developed for the FEIS or this ROD to present actual or conceptual mitigation measures for impacts to wetlands and streams that would be included in an appropriate application for a Section 404 permit and that will be required as part of the permitting process. Thus, the approvals of this ROD are conditioned on the airport sponsor obtaining a Section 404 Permit from the USACE and the wetland mitigation being completed before removal of any existing wetland.

Although it is generally recognized as preferable to attempt to mitigate wetland losses or harm through replacement on site, or at least in the same watershed, that approach is frequently not available on airports. The applicable aircraft safety policies and standards reflect concern where the construction of man-made or enhanced wetlands would present an attractant to wildlife in aircraft movement and operations areas. Such an attractant is not consistent with aviation safety, creating a serious potential for a safety hazard for aircraft striking wildlife on the ground or in the air [see FAA Advisory Circular 150/5300-33]. The safety standards set forth in FAA's policy statement, while recommended for all public-use airports is prescribed for airport sponsors receiving Federal grant funding assistance. FAA consultation will be necessary for the full and proper consideration of all wetlands mitigation measures on the airport to ensure that flight safety is not compromised.

**D. Involuntary Displacement of Persons and Businesses Are Governed by the Requirements for Relocation Assistance.**

Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Acts of 1970 (42 U.S.C. Section 4601 *et seq.*) and implemented by the Secretary of Transportation under 49 CFR Part 24, require that state or local agencies that undertake Federally-assisted projects, which cause an involuntary displacement of persons or businesses, follow the prescribed procedures and provide relocation benefits to those displaced. The displacement impacts of the project are discussed in detail under Section 5.3.1 of the FEIS. Mitigation of those impacts is necessary and required; mitigation for the approvals given under this ROD relating to displacement impacts caused by the project will be accomplished through that relocation assistance whether or not the project receives Federal funding-assistance.

**E. There is No Prudent and Feasible Alternative to Using Land on which there are Historic Sites/Properties and All Possible Planning Has Been Included in the Project to Minimize the Harm from the Use [49 U.S.C. Section 303(c) and Section 106, National Historic Preservation Act].**

As is discussed in Chapters 5.6 and 5.7 of the FEIS and this ROD, there are no publicly owned parks, recreation areas, or wildlife and waterfowl refuges within the airport project environment. However, there are five sites protected under the provisions of Section 106 of the National Historic Preservation Act, which by reason of that delineation are also Section 303(c) properties that would be directly affected by the proposed Federal action. Each of the properties has been evaluated in an effort to avoid or to develop planning to minimize the impacts; consultation was undertaken with the North Carolina State Historic Preservation Office and the North Carolina Division of Archives and History, and Department of Cultural Resources.

It is found that the acquisition and removal of two of those historic sites (Spratt-Grier Farm and Samuel Brown Farm) represent a physical taking or use of the properties and that there is no prudent and feasible alternative to using them by the runway construction and expansion. However, the consultation process has resulted in a Memorandum of Agreement ("MOA") providing for the process to be followed and the actions to be taken during the implementation of the project to minimize and mitigate those impacts that cannot be avoided. Thus, it is found that the project includes all possible planning to minimize harm to the historic site resulting from the use of the properties. Execution and adherence to the MOA represents a condition of the approvals under this ROD.

**F. There Are No Disproportionately High or Adverse Human Health or Environmental Effects of the Project on Minority or Low-Income Populations [Executive Order 12898].**

Section 5.3.4 of the FEIS and this ROD addresses the environmental justice concerns of the project. It is concluded that no minority or low-income group or community would be disproportionately affected by the impacts of the project.

**G. The FAA Has Given The Proposal the Independent, Thorough, and Objective Evaluation Required [CEQ regulations 40 CFR 1506.5].**

As documented in the FEIS and this ROD, the airport sponsor and the FAA have engaged in a lengthy and extensive processes relating to the screening and selection of the viable alternatives that best fulfilled the identified purposes and needs for development of the sponsor's airport. The process included FAA's selecting a consultant/contractor to assist its in conducting the environmental process- the investigations and preparations of the DEIS and FEIS to document, disclose, and analyze the environmental impacts of the proposed Federal action and the reasonable alternatives, as well as appropriate planning and design for the avoidance, minimization, and mitigation of impacts, as required by NEPA, the Council on Environmental Quality's regulations, and the FAA's implementing directives.

*Issued in College Park, Georgia*

*(original signed by)* 4/27/00

*Carolyn Blum* *Date*  
*Regional Administrator*

---

## **APPENDIX A**

### **COMMENTS AND RESPONSES TO COMMENTS ON THE FINAL EIS**

#### **FAA's RESPONSE TO COMMENTS ON THE FINAL EIS FROM AGENCIES, GROUPS, AND INDIVIDUALS**

This appendix contains the comments received by the Federal Aviation Administration ("FAA") on the final EIS preceded by the FAA's responses to the environmental issues on matters within its jurisdiction and authority raised by those comments.

#### **United States Environmental Protection Agency [Letter 1]**

##### **Comment #1**

In terms of plans for foreseeable expansion of the airport, the airport sponsor does not foresee any additional expansion of the airport beyond those improvements identified as part of the Proposed Federal Action. There are no plans for further expansion of the proposed third parallel runway or for a fourth new runway. Therefore, further noise abatement air traffic or land use measures are not required at this time.

##### **Comment #2**

The Charlotte Douglas International Airport's approved Part 150 Noise Compatibility Program has Runway 23 designated as its preferential runway for nighttime departures for the past several years. Runway 23 was selected because aircraft departures taking off fly over less populated areas. An increase in the noise contour off the end of Runway 23 occurs due to high percentage of departures that will be taking off from this runway at night. The increase in sensitivity to noise at night is reflected in the FAA's Integrated Noise Model (INM) by the model's weighting of the "noisiness" of nighttime operations with a 10-dB penalty. The INM defines nighttime as 10 p.m. to 7 a.m.

##### **Comment #3**

While the FAA recognizes that aircraft noise impacts may occur in areas below the 65 DNL, these areas are normally categorized as compatible for residential use by applicable Federal standards. It is not generally the case that NEPA documents commit to acquiring property and relocating residents from such areas or soundproofing of structures within noise "compatible areas". Federal funding available for mitigating noise impacts through such measures, as soundproofing and property acquisition below the 65 DNL is generally not available. The FAA will have to rely on the airport sponsor to implement such measures in a Part 150 Noise Compatibility Program which, is a voluntary program.

The FAA has proposed for the area in which a 3 dB increase occurs within the 60-65 DNL noise contour band to generally follow the currently established and/or approved mitigation programs at CLT within the 65 DNL noise contour. The currently established mitigation programs at CLT include:

Sound insulates noise-sensitive public buildings intended for public use, instruction (e.g. schools), or assembly (e.g., churches) located within the 65 DNL noise contour.

Sound insulates eligible houses located within the 65 DNL noise contours.

At the airports' option purchase aviation easements, sound insulate, or acquire houses within the combined 65 DNL noise contour where sound insulation is infeasible or not cost-effective because the property does not comply with the city's Building Code.

Acquire mobile homes located within the 65 DNL noise contours.

#### **Comment #4**

Comment noted.

#### **Comment #5**

A total of eight individual wetland areas were identified during the delineation totaling 2.0 acres. The delineation identified a total wetland area of approximately 9.5 acres of waters the U.S. in twelve impoundments in three watersheds. Approximately 28,000 feet of USGS identified intermittent streams and 12,000 feet of USGS identified permanent streams are located in the project area.

During the development of the EIS, the FAA coordinated with the Corps concerning the delineation of the wetlands and potential wetland impacts that could occur from implementation of the proposed project. The U.S. Army Corps of Engineers (COE) has concurred with the wetlands delineations presented in the Wetlands Delineation Report contained in Appendix H of the FEIS. However, the (COE) did not concur in the delineation of the streams identified in the report. The airport sponsor will clarify the delineation of the streams during the Section 404 permitting process. The airport sponsor plans to initiate the Section 404 permitting process once the FAA issues its ROD.

#### **Comment #6**

While no specific mitigation has been proposed to avoid or minimize the airport sponsor will make every effort to minimize the removal of forested areas and limit construction and clearing only to those areas necessary for the proposed project and aviation operations.

During the coordination of the EIS, the North Carolina Wildlife Commission recommended that a detailed mitigation plan be developed, including site descriptions, success criteria, and long-term monitoring efforts. Potential mitigation efforts for the loss of habitat include proper disposal and reuse of all woody materials, acquiring land for preservation of woodlands currently threatened by urban development, and development of a replanting/reforestation plan for areas of the county that have been previously disturbed but undeveloped. The FAA has conditioned its approvals to include that the airport sponsor coordinate and work with the North Carolina Wildlife Commission to develop a detailed mitigation plan prior to the start of construction.

## **United States Army Corps of Engineers [Letter 2]**

### **Comment #1**

This comment has been noted and it is acknowledged that there is a flood plain in Coffee Creek and that there could be potential impacts to the 100-year flood plain and floodway of both Coffee Creek and Little Paw Creek. The airport sponsor will evaluate potential impacts to Coffee Creek and Little Paw Creek during the development of detailed design and construction plans as well as their wetlands mitigation plan. The airport sponsor will also coordinate with city of Charlotte and Mecklenberg County to ensure that the proposed project is designed and constructed in compliance with all local flood plain ordinances.

### **Comment #2**

Comment noted

- The Charlotte Douglas International Airport met with the United States Army Corps of Engineers (USACE) Wilmington District Office on March 7, 2000 to discuss and identify conceptual mitigation measures for potential impacts that may result from the proposed airport development project. At this time a specific mitigation plan has not been developed; however, the airport sponsor is pursuing possible implementation of one or a combination of the following wetlands mitigation options:
  - Purchase of land off-site for restoration.
  - Assist Mecklenberg County in wetland restoration projects.
  - Assist Charlotte-Mecklenberg Utility Department in wetland buffer projects.
  - Create wetlands adjacent to the airport property.
  - Purchase land in the name of the Catawba River Conservancy for restoration.
  - Pursue any other options that are acceptable to the USACE.

The USACE Wilmington District indicated that based on the wetland and stream impacts resulting from the implementation a mitigation ratio of 1:1 (acres created/enhanced or restored to the acres impacted).

Comment noted.

Comment noted and the correction will be made when the detailed wetlands mitigation plan is developed.

- The data on the nature of impacts to streams and wetlands for each of the alternatives is provided in Section 5.11 in the FEIS. The relocation of and impacts to streams is discussed in Section 5.11.3 of the FEIS. Specific mitigation plans for all wetlands and stream impacts will be developed during the Section 404 permitting process.
- It is the position of CDIA that all areas within the relocated West Boulevard would be cleared and filled for future use. These wetlands were, therefore, included in the final total

estimate of impacts. Ultimately, the justification for filling these resources would need to be clearly presented in the Section 404 Permit application.

- The USCOE stated that an Individual Permit would be required for construction and that the application for this permit would need to include a Conceptual Mitigation Plan, which the airport sponsor is currently working with the USCOE to develop.
- The issues on effects on endangered species and historic/archaeological resources were resolved. A biological assessment conducted in accordance with Section 7 (c) of the Endangered Species Act to evaluate the potential presence of these species within the proposed airport expansion/construction area. Extensive field surveys did not identify any listed species within the 3,000-acre proposed airport expansion/construction area. Both the United States Fish and Wildlife Service and the North Carolina Department of Environment and Natural Resources concurred with the conclusions of the surveys conducted. A Memorandum of Agreement has been prepared and executed stipulating measures to be implemented to avoid, reduce, or mitigate adverse effects from this project on historic properties. The North Carolina SHPO, the Advisory Council on Historic Preservation, and the airport sponsor were consulted on the MOA and have all signed it.
- Your office issued a memorandum dated January 12, 1999 stating that the identification and delineation of wetlands and open water ponds that have been taken are adequate. Accurate field measurements were taken and were transferred into the Geographic Information System (GIS) database maintained by the project consultant. This information or similar information will be provided to the USCOE during the 404 permitting process.
- The wetland delineation report contained in Appendix H of the FEIS was expanded to include perennial and intermittent streams.
- Functional assessment of all streams and wetlands were not a part of the Scope of Work for the FEIS but will be performed and completed during the Section 404 Permitting process.

### **United States Army Corps of Engineers [Letter 3]**

#### **Comment #1**

Comment noted; the DOI issued a letter concurring with the FAA's determination that the proposed project will have no effect to endangered Schweinitz's sunflower and the Smooth Coneflower.

#### **Comment #2**

The airport sponsor met with the USACE on March 7, 2000 to initiate the Section 404 permitting process. The USACE indicated that based on the wetland and stream impacts resulting from the implementation of the proposed project will require a mitigation ration 1:1 (acres created/enhanced or restored to the acres impacted).

At this time a specific mitigation plan has not been developed; however, the airport sponsor is pursuing possible implementation of one or a combination of the following wetlands mitigation options:

- Purchase of land off-site restoration
- Assist Mecklenburg County in wetland restoration projects.
- Assist Charlotte-Mecklenberg Utility Department in wetland buffer projects.
- Create wetlands adjacent to the airport property.
- Purchase land in the name of the Catawba River Conservancy for restoration.
- Pursue any other options that are acceptable to the USACE.

## **United States Army Corps of Engineers [Letter 4]**

### **Comment #1**

On March 13, 2000, the FAA forwarded a letter to the USACE to confirm its concurrence with the conceptual wetlands mitigation strategies discussed on March 7, 2000 meeting between the USACE and the airport sponsor.

Subsequently, the USACE responded to the FAA's inquiry in an April 20, 2000 letter indicating that while not required, the USACE recommended that since a conceptual mitigation plan was not included in the DEIS that one be included in the final EIS.

The FAA acknowledges that the DEIS did not contain a conceptual wetlands mitigation plan, however, sufficient data relative to the wetland delineation (quantity, type, location) was included in a wetlands delineation report as part of the FEIS.

### **Comment #2**

In its April 20, 2000 letter, the USACE indicated that there were no other outstanding regulatory issues relative to the EIS. However, it is recommended that an accurate delineation of surface waters and wetlands (including streams) be completed and reviewed/approved by their office prior to the submittal of a permit application if possible.

The FAA held a teleconference with the USACE on April 25, 2000 to obtain clarification from the USACE as to whether the omission of a conceptual wetlands mitigation plan and the delineation of the wetlands and streams provided in the FEIS met the disclosure requirements under the National Environmental Policy Act (NEPA). The FAA sought clarification from the USACE because the letter conflicted with previous verbal communications.

The FAA informed the USACE that since issuance of the USACE's April 20, 2000 letter, the FAA has submitted an accurate delineation of surface waters and wetlands (including streams) to the USACE for their review, concurrence and use for the Section 404 permitting process.

The USACE indicated in the teleconference that no unresolved issues relative the EIS and that the wetland and stream delineation included in the EIS was adequate for public disclosure and satisfied NEPA.

Secondly, the USACE indicated that the conceptual wetland mitigation strategies identified in their March 7, 2000 meeting with the airport sponsor were adequate however, wetland banking may also be explored as a possible strategy for mitigation.

### **Comment #3**

The airport sponsor is currently working on a conceptual wetlands mitigation plan and will provide a wetland and stream mitigation plan as part of the permit application package.

The USACE also indicated in the April 25, 2000 teleconference that the airport sponsor would have to obtain a section 404 permit prior to construction and additional delineation of the wetlands would be required for that process. The USACE indicated that while a map delineating the wetlands prior to submission of the application for the section 404 permit is not required, the USACE would like to receive one.

## **Mecklenburg County Department of Environmental Protection [Letter 5]**

**Comment #1**

The airport sponsor will modify its Storm Water Pollution Prevention Plan and Storm Water NPDES permit to reflect the additional runoff and potential for storm water pollution.

**Comment #2**

All storm water detention ponds planned for the airport's storm water discharge will be large enough to treat de-icing compounds contained in storm water runoff prior to being discharged to the receiving streams.

**Comment #3**

Comment noted.

**Comment #4**

All new construction of the airport will comply with the new the City of Charlotte's Zoning Codes.

**Comment #5**

Comment noted.

**Comment #6**

The ROD indicates that the Transportation Facility Permit to Construct is required in accordance with Mecklenburg County Air Pollution Control Ordinance ("MCAPCO") Section 2.0800-"Transportation Facilities". Other comments have been noted.

**Comment #7**

Comment noted.

**Comment #8**

Comment noted.

**Comment #9**

Comment noted.

**Comment #10**

Comment noted.

**Comment #11**

Comment noted.

**Comment #12**

Comment noted.

**Comment #13**

Comment noted.

**Comment #14**

Comment noted.

**Comment #15**

These corrections have been noted.

**Comment #16**

Comment noted.

**Comment #17**

These corrections have been noted.

**Comment #18**

These corrections have been noted and if either Wallace Neel Road or West Boulevard carry 2000 vehicles per peak hour during the first ten years of its existence, an air quality analysis will be prepared by the airport sponsor.

**Comment #19**

The correction is noted.

**Comment #20**

Where feasible, the airport sponsor will phase construction activities so as to minimize congestion, during AM and PM peak hours.

**Comment #21**

The airport sponsor is aware and plans to apply for an Air Quality Transportation Facility Permit to Construct prior to construction of any facility.

**Comment #22**

Comments noted and the airport sponsor will comply with MCAPCO Regulation 1.5108 and all other applicable regulations.

**Comment #23**

Comment noted and the airport sponsor will phase construction activities where feasible.

**Comment #24**

Comment noted regarding construction of the portion of I-485 between Arrowood Road and Mount Holly Road schedule for completion.

**Comment #25**

The FEIS air quality analysis projected-related changes only and did not evaluate impacts due to the I-485 construction and I-85 access road construction. The ambient particulate standards used in the FEIS air quality analysis were the currently valid TSP and PM10 standards.

**Comment #26**

Comment noted regarding the data that will be required to be used in the Transportation Facility Permit to Construct application for the airport expansion and associated roadway construction.

**Comment #27**

Comment noted.

**Comment #28**

Residents living near Charlotte/Douglas International Airport have raised complaints with respect to the presence of soot and oily deposits. To address the issue of sooty deposits around Charlotte/Douglas International Airport, the City of Charlotte Aviation Department commissioned a program of data collection and analysis of ambient air deposition samples from the nearby communities and on the Airport premises. This study aimed to better define the nature of these deposits and to assess the contribution to this contamination by aircraft operations at the Airport.

The results suggest that the contamination at the sampling sites was more the result of overall urban background sources rather than specifically from fuel and jet exhaust at the Airport. Also, jet fuel and jet exhaust from the Airport did not contribute significantly to the soot deposition samples analyzed.

**Comment #29**

Comment noted.

**Comment #30**

The airport sponsor will identify any internal combustion engines as permitted or permit-exempt sources of their non-Title V Air Quality Permit to Construct/Operate in accordance with MCAPCO Regulation 1.5211-"Applicability" subparagraph (g) (2) (B) (IV & V).

**MEMORANDUM OF AGREEMENT**

(see printed document)

---

**APPENDIX C**

**GOVERNOR'S AIR AND WATER QUALITY CERTIFICATION**

(see printed document)

---