Dallas Love Field

Runway 18-36 Decommissioning Environmental Assessment

PREPARED FOR:
City of Dallas, Texas, Department of Aviation

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DRAFT

This Environmental Assessment becomes a Federal document when evaluated, signed, and dated by the Responsible FAA Official.
# Table of Contents

1. Purpose and Need ................................................................................................................................ 1-1
   1.1 Introduction ................................................................................................................................ 1-1
   1.2 Background ..................................................................................................................................... 1-2
      1.2.1 RUNWAY SAFETY AREAS ........................................................................................................ 1-2
      1.2.2 RUNWAY OBJECT FREE AREAS ............................................................................................. 1-5
      1.2.3 RUNWAY PROTECTION ZONES ............................................................................................... 1-5
      1.2.4 DIMENSIONAL REQUIREMENTS FOR RSAS/ROFAS/RPZS .................................................. 1-5
      1.2.5 VASI OPERATIONAL COMPLIANCE ...................................................................................... 1-7
   1.3 Purpose of and Need for the Proposed Action ....................................................................... 1-13
      1.3.1 PURPOSE OF THE PROPOSED ACTION ............................................................................... 1-13
      1.3.2 NEED FOR THE PROPOSED ACTION .................................................................................... 1-13
   1.4 Description of the Proposed Action ................................................................................... 1-14
   1.5 Requested Federal Actions .................................................................................................. 1-14
   1.6 General Implementation Schedule ..................................................................................... 1-15

2. Alternatives ........................................................................................................................................... 2-1
   2.1 Introduction ..................................................................................................................................... 2-1
   2.2 Identification of Alternatives ................................................................................................ 2-1
      2.2.1 NO ACTION ............................................................................................................................ 2-1
      2.2.2 DECOMMISSIONING OF RUNWAY 18-36/CONSTRUCTION OF DEPARTMENT OF AVIATION ADMINISTRATION BUILDING (PROPOSED ACTION) ........................................................................... 2-2
      2.2.3 ALTERNATIVES ANALYSIS ................................................................................................... 2-2
   2.3 Sponsor’s Preferred Alternative ................................................................................................. 2-3
   2.4 Federal Laws and Regulations Considered .......................................................................... 2-3

3. Affected Environment ......................................................................................................................... 3-1
   3.1 Introduction ..................................................................................................................................... 3-1
   3.2 Identification and Description of the Area of Potential Effect and Indirect Study Area ......................................................................................................................... 3-1
Table of Contents (continued)

3.3 Existing Land Use and Zoning .................................................................................................................. 3-5
  3.3.1 ON-AIRPORT LAND USES .................................................................................................................. 3-5
  3.3.2 SURROUNDING LAND USES ............................................................................................................. 3-5
  3.3.3 ZONING ........................................................................................................................................... 3-6

3.4 Noise ......................................................................................................................................................... 3-6
  3.4.1 2001 MASTER PLAN NOISE ANALYSIS ....................................................................................... 3-6
  3.4.2 2006 IMPACT ANALYSIS UPDATE .............................................................................................. 3-7

3.5 Demographics and Social Profile ............................................................................................................... 3-8

3.4 Natural Environment .................................................................................................................................. 3-13
  3.4.1 AIR QUALITY ..................................................................................................................................... 3-13
  3.4.2 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE .......................................................... 3-15
  3.4.3 WATER QUALITY ............................................................................................................................ 3-15
  3.4.4 WETLANDS ....................................................................................................................................... 3-17
  3.4.5 FLOODPLAINS ................................................................................................................................. 3-17
  3.4.6 BIOTIC COMMUNITIES ..................................................................................................................... 3-18

3.5 Department of Transportation Act, Section 4(f) Properties ....................................................................... 3-18

3.6 Historic, Architectural, Archaeological, and Cultural Resources ................................................................. 3-19

3.7 Hazardous Materials and Solid Waste ......................................................................................................... 3-1
  3.7.1 HAZARDOUS MATERIALS ............................................................................................................... 3-20
  3.7.2 SOLID WASTE .................................................................................................................................. 3-20

3.8 Past, Present, and Reasonably Foreseeable Future Actions ........................................................................... 3-21

4. Environmental Consequences ...................................................................................................................... 4-1
  4.1 Noise ...................................................................................................................................................... 4-1
    4.1.1 METHODELOGY ............................................................................................................................. 4-2
    4.1.2 NO ACTION ALTERNATIVE ........................................................................................................... 4-2
    4.1.3 PROPOSED ACTION ALTERNATIVE ........................................................................................... 4-2
  4.2 Compatible Land Use .................................................................................................................................. 4-2
    4.2.1 METHODELOGY ............................................................................................................................. 4-2
    4.2.2 NO ACTION ALTERNATIVE ........................................................................................................... 4-2
    4.2.3 PROPOSED ACTION ALTERNATIVE ........................................................................................... 4-3
### Table of Contents (continued)

#### 4.3 Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks

- 4.3.1 METHODOLOGY ................................................................. 4-5
- 4.3.2 NO ACTION ALTERNATIVE .................................................. 4-7
- 4.3.3 PROPOSED ACTION ALTERNATIVE ........................................ 4-7

#### 4.4 Air Quality

- 4.4.1 METHODOLOGY ................................................................. 4-7
- 4.4.2 NO ACTION ALTERNATIVE .................................................. 4-8
- 4.4.3 PROPOSED ACTION ALTERNATIVE ........................................ 4-8

#### 4.5 Greenhouse Gas Emissions and Climate Change

- 4.5.1 NO ACTION ALTERNATIVE .................................................. 4-8
- 4.5.2 PROPOSED ACTION ALTERNATIVE ........................................ 4-8

#### 4.6 Water Quality

- 4.6.1 NO ACTION ALTERNATIVE .................................................. 4-9
- 4.6.2 PROPOSED ACTION ALTERNATIVE ........................................ 4-10
- 4.6.3 MITIGATION MEASURES ..................................................... 4-11

#### 4.7 Fish, Wildlife, and Plants

- 4.7.1 METHODOLOGY ................................................................. 4-11
- 4.7.2 NO ACTION ALTERNATIVE .................................................. 4-11
- 4.7.3 PROPOSED ACTION ALTERNATIVE ........................................ 4-11

#### 4.8 Historic, Architectural, Archaeological, and Cultural Resources

- 4.8.1 METHODOLOGY ................................................................. 4-12
- 4.8.2 NO ACTION ALTERNATIVE .................................................. 4-12
- 4.8.3 PROPOSED ACTION ALTERNATIVE ........................................ 4-12

#### 4.9 Light Emissions and Visual Impacts

- 4.9.1 METHODOLOGY ................................................................. 4-13
- 4.9.2 NO ACTION ALTERNATIVE .................................................. 4-13
- 4.9.3 PROPOSED ACTION ALTERNATIVE ........................................ 4-13

#### 4.10 Natural Resources and Energy Supply

- 4.10.1 METHODOLOGY ................................................................. 4-14
- 4.10.2 NO ACTION ALTERNATIVE .................................................. 4-14
- 4.10.3 PROPOSED ACTION ALTERNATIVE ........................................ 4-14

#### 4.11 Hazardous Materials, Pollution Prevention, and Solid Waste

- 4.11.1 METHODOLOGY ................................................................. 4-15
Table of Contents (continued)

4.11.2 NO ACTION ALTERNATIVE ............................................................................................................................... 4-15
4.11.3 PROPOSED ACTION ALTERNATIVE ................................................................................................................ 4-16

4.12 Construction Impacts ........................................................................................................................................... 4-16
4.12.1 EROSION AND SEDIMENTATION .................................................................................................................... 4-17
4.12.2 NOISE ............................................................................................................................................................... 4-17
4.12.3 AIR QUALITY .................................................................................................................................................... 4-17
4.12.4 GREENHOUSE GASES AND CLIMATE CHANGE .......................................................................................... 4-18
4.12.5 WATER QUALITY .......................................................................................................................................... 4-18
4.12.6 NATURAL RESOURCES AND ENERGY SUPPLY ....................................................................................... 4-18
4.12.7 HAZARDOUS MATERIALS, POLLUTION PREVENTION, AND SOLID WASTE ................................... 4-19

4.13 Cumulative Impacts ............................................................................................................................................. 4-19
4.14 Other Considerations ........................................................................................................................................... 4-20

5. Agency Coordination and Public Review .............................................................................................................. 5-1
5.1 Agency Coordination ........................................................................................................................................... 5-1
5.2 Availability of the Draft EA for Review ................................................................................................................ 5-1

6. References ................................................................................................................................................................ 6-1

7. List of Acronyms ....................................................................................................................................................... 7-1

8. List of Preparers ....................................................................................................................................................... 8-1
8.1 Principal Federal Aviation Administration Reviewers .......................................................................................... 8-1
8.2 City of Dallas, Department of Aviation ................................................................................................................ 8-1
8.3 Ricondo & Associates, Inc. ................................................................................................................................... 8-2

List of Appendices

Appendix A: THC Consultation
List of Tables

Table 1-1: FAA Airport Reference Code Classifications ........................................................................................................... 1-6
Table 1-2: RSA/ROFA/RPZ Dimensional Requirements for Runway 18-36........................................................................................... 1-7
Table 1-3: 2010 Total Runway Operations ...................................................................................................................................1-14
Table 2-1: Comparison of Alternatives ........................................................................................................................................... 2-3
Table 2-2: Federal Laws and Statutes Considered ........................................................................................................................ 2-4
Table 2-3: Executive Orders Considered ........................................................................................................................................ 2-5
Table 2-4: FAA Orders, AdvisoryCirculars, and Federal Regulations Considered ........................................................................ 2-5
Table 3-1: Comparison of Area and Population Affected by Various Noise Impact Scenarios .................................................. 3-8
Table 3-2: Demographic and Socioeconomic Data .................................................................................................................... 3-12
Table 3-3: Income Data by Census Tract .....................................................................................................................................3-13
Table 3-4: Past, Present, and Reasonably Foreseeable Future Actions in the Vicinity of the Area of Potential Effect ................................................. 3-22
Table 5-1: Publication Locations for Draft EA........................................................................................................................................ 5-2

List of Exhibits

Exhibit 1-1: General Airport Location and Project Site Map ........................................................................................................ 1-3
Exhibit 1-2: Runway 18-36 Noncompliant RSAs, ROFAs, and RPZs .............................................................................................. 1-9
Exhibit 1-3: Impact of Taxiway L Extension on Runway 36 VASI Lights .................................................................................. 1-11
Exhibit 1-4: Proposed Action ...................................................................................................................................................... 1-17
Exhibit 3-1: Area of Potential Effect and Indirect Study Area .................................................................................................. 3-3
Exhibit 3-2: Census Tracts in the Airport Vicinity .................................................................................................................... 3-10
1. Purpose and Need

1.1 Introduction

Located within the City of Dallas, Texas, Dallas Love Field (the Airport) is classified as a medium-hub commercial service airport in the National Plan of Integrated Airport Systems as of 2014. Hub classifications are based on the number of passengers enplaned at the Airport; a “medium hub” classification means that between 0.25 percent and 1.0 percent of total annual U.S. enplaned passengers were enplaned at the Airport.\(^1\) The Airport is owned by the City of Dallas and operated through the City’s Department of Aviation (Sponsor), and is served by five commercial airlines, including Southwest Airlines, which maintains its corporate headquarters at the Airport. Seven fixed base operators (FBOs) provide full service general aviation (GA) facilities at the Airport for maintenance, fueling, hangar rentals, charter flights, and additional executive class amenities.

This Environmental Assessment (EA) was prepared by the Sponsor pursuant to the requirements of Section 102(2)(c) of the National Environmental Policy Act of 1969 (NEPA, 42 United States Code [U.S.C.] 4321-4370h), and Section 509(b)(5) of the Airport and Airway Improvement Act of 1982, as amended. The Federal Aviation Administration (FAA), as the lead federal agency responsible for ensuring that airport development actions are in compliance with NEPA, must review the potential environmental effects of a proposed project before taking any action to approve the proposed project. This EA was also prepared in accordance with FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*\(^2\) and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*.\(^3\)

NEPA requires federal agencies to prepare environmental documentation that discloses to decision-makers and the interested public a clear, accurate description of potential environmental effects resulting from proposed federal actions and reasonable alternatives to those actions. Through NEPA, the U.S. Congress directed federal agencies to integrate environmental factors in their planning and decision-making processes and to encourage and facilitate public involvement in decisions that affect the quality of the human

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\(^3\) U.S. Department of Transportation, Federal Aviation Administration, Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, effective April 28, 2006.
environment. Federal agencies are required to consider the environmental effects of a proposed action, alternatives to the proposed action, and a no action alternative (assessing the potential environmental effects of not undertaking the proposed action).

The Sponsor is preparing this EA in compliance with FAA Orders 1050.1E and 5050.4B to evaluate the potential environmental effects of (a) decommissioning Runway 18-36 and (b) constructing a new Department of Aviation (DOA) administration building near the approach (south) end of Runway 36 (together, the Proposed Action). The Proposed Action would not affect the number or types of aircraft serving the Airport or the routing of aircraft in the air to and from the Airport.

The purpose of and need for the Proposed Action are described in this chapter, along with background information, a description of the Proposed Action, a statement of the requested federal actions, and a general implementation schedule.

1.2 Background

The Airport is located approximately 3.5 miles north-northwest of the Dallas downtown business district. The project site is located entirely within the Airport property boundary. Exhibit 1-1 depicts the general location of the Airport and the project site.

Runway 18-36 has been closed since April 2011 as a result of construction activities associated with the Love Field Modernization Program. The runway has not been reopened because of a variety of noncompliance issues regarding runway safety areas (RSAs), runway object free areas (ROFAs), and visual approach slope indicator (VASI) lighting.

In addition to the decommissioning of Runway 18-36, the DOA also plans to construct a replacement administration building. The project site identified by the Sponsor for the new administration building includes approximately 8.5 acres of land adjacent to Denton Drive, southeast of the Runway 36 approach end. The administrative offices are currently located in a temporary structure southwest of the Airport terminal building on a site needed for remote aircraft parking. Because of the geographical proximity of and anticipated schedules for decommissioning Runway 18-36 and constructing the administration building, the FAA required the Sponsor to include both projects as the Proposed Action in this EA.

1.2.1 RUNWAY SAFETY AREAS

The function of the RSAs is to create a buffer between the runway pavement and non-movement areas. Takeoffs and landings are generally regarded as the most critical phases of flight, during which more than 60 percent of aircraft accidents occur. During these flight segments, aircraft are subject to a variety of controls and operational factors, including the usable operating dimensions of the runway.
General Location and Project Site Map

EXHIBIT 1-1


LEGEND

- Airport Property Boundary
- City of Dallas

Runway 18-36
Site for DOA Administration Building

EXHIBIT 1-1

General Location and Project Site Map

Purpose and Need
As defined in FAA Advisory Circular (AC) 150/5300-13A, *Airport Design*, an RSA is “a defined surface surrounding the runway prepared or suitable for reducing the risk of damage to aircraft in the event of an undershoot, overshoot, or excursion from the runway.” An additional safety-related function of the RSA is to provide greater accessibility for firefighting and emergency rescue vehicles during such incidents. The FAA has established dimensional requirements, as well as clearing, grading, and drainage requirements, for RSAs.

Certification under Title 14 Code of Federal Regulations Part 139 (14 CFR Part 139), *Airport Certification*, is required for all airports that accommodate scheduled or unscheduled passenger airline aircraft operations conducted using aircraft with seating capacity for more than 30 passengers. The DOA currently holds a 14 CFR Part 139 Certificate for the Airport and must comply with applicable federal regulations. Under these regulations, each certificate holder is required to provide and maintain safety areas for runways and taxiways that are compliant with FAA design standards. In addition, Public Law 109-115 requires airport sponsors that hold a Certificate under 14 CFR Part 139 to comply with FAA design standards for RSAs by December 31, 2015.

### 1.2.2 RUNWAY OBJECT FREE AREAS

In conjunction with RSAs, ROFAs also provide protection for aircraft operating on runways. In accordance with FAA AC 150/5300-13A, *Airport Design*, a ROFA is “an area centered on the ground on a runway centerline provided to enhance the safety of aircraft operations by remaining clear of objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.”

### 1.2.3 RUNWAY PROTECTION ZONES

The FAA has also designated runway protection zones (RPZs), which function as areas that “enhance the safety and protection of people and property on the ground” at the approach and departure ends of a runway.

### 1.2.4 DIMENSIONAL REQUIREMENTS FOR RSAs/ROFAs/RPZs

The dimensional requirements for RSAs, ROFAs, and RPZs are based on the runway design code (RDC) associated with the runway under consideration. The RDC is a 3-component code establishing the design standards to which the runway is to be built. The first component of an RDC is a letter that represents the Aircraft Approach Category (AAC) and relates to the aircraft approach speed (operational characteristics). The second component of the RDC, depicted by a Roman numeral, is the Airplane Design Group (ADG) and relates to the aircraft wingspan or tail height (physical characteristics), whichever is most restrictive to an aircraft’s safe movement on the airport. The third component of the RDC represents the visibility minimums associated with a runway end.

*Table 1-1* lists the AACs and ADGs and their corresponding aircraft characteristics. The AAC and ADG together are the basis for establishing RSA dimensions for a particular runway.

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Table 1-1: FAA Airport Reference Code Classifications

<table>
<thead>
<tr>
<th>AIRCRAFT APPROACH CATEGORY</th>
<th>AIRCRAFT APPROACH SPEED</th>
<th>AIRCRAFT DESIGN GROUP</th>
<th>AIRCRAFT WINGSPAN</th>
<th>AIRCRAFT TAIL HEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Up to 91 knots</td>
<td>I</td>
<td>Up to 49 feet</td>
<td>Up to 20 feet</td>
</tr>
<tr>
<td>B</td>
<td>Greater than or equal to 91 knots but less than 121 knots</td>
<td>II</td>
<td>Greater than or equal to 49 feet, but less than 79 feet</td>
<td>Greater than or equal to 20 feet, but less than 30 feet</td>
</tr>
<tr>
<td>C</td>
<td>Greater than or equal to 121 knots but less than 141 knots</td>
<td>III</td>
<td>Greater than or equal to 79 feet, but less than 118 feet</td>
<td>Greater than or equal to 30 feet, but less than 45 feet</td>
</tr>
<tr>
<td>D</td>
<td>Greater than or equal to 141 knots but less than 166 knots</td>
<td>IV</td>
<td>Greater than or equal to 118 feet, but less than 171 feet</td>
<td>Greater than or equal to 45 feet, but less than 60 feet</td>
</tr>
<tr>
<td>E</td>
<td>Greater than or equal to 166 knots</td>
<td>V</td>
<td>Greater than or equal to 171 feet, but less than 214 feet</td>
<td>Greater than or equal to 60 feet, but less than 66 feet</td>
</tr>
<tr>
<td>F</td>
<td>Greater than or equal to 166 knots</td>
<td>VI</td>
<td>Greater than or equal to 214 feet, but less than 262 feet</td>
<td>Greater than or equal to 66 feet, but less than 80 feet</td>
</tr>
</tbody>
</table>


Runway 18-36 has an RDC designation of B-II-Visual. AAC B and ADG II aircraft generally consist of light GA and business jet aircraft. The appropriate RSA/ROFA/RPZ dimensions for Runway 18-36 are presented in Table 1-2.

As part of 14 CFR Part 139 requirements, the DOA maintains an Airport Certification Manual to meet FAA rules and regulations. In certain cases, airports will outline modifications to existing standards, such as “Safety Areas” based on prior approval FAA approval. According to the Airport Certification Manual for the Airport, the RSA width for Runway 18-36 was increased to 400 feet to standardize all RSAs at the Airport. Standardization of RSA dimensions ensures planning and operational efficiency within the airfield. With a dimension of 400 feet, the Runway 18-36 RSA width is compliant with FAA design standards, while the RSA length is deficient by 100 feet.
### Table 1-2: RSA/ROFA/RPZ Dimensional Requirements for Runway 18-36

<table>
<thead>
<tr>
<th>REQUIREMENT</th>
<th>RSA Width</th>
<th>150 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Length Beyond Departure End</td>
<td>300 feet</td>
</tr>
<tr>
<td></td>
<td>Length Prior to Threshold</td>
<td>300 feet</td>
</tr>
<tr>
<td>RUNWAY OBJECT FREE AREA (ROFA) DIMENSIONS</td>
<td>ROFA Width</td>
<td>500 feet</td>
</tr>
<tr>
<td></td>
<td>Length Beyond Departure End</td>
<td>300 feet</td>
</tr>
<tr>
<td></td>
<td>Length Prior to Threshold</td>
<td>300 feet</td>
</tr>
<tr>
<td>RUNWAY PROTECTION ZONE (RPZ) DIMENSIONS</td>
<td>RPZ Length</td>
<td>1,000 feet</td>
</tr>
<tr>
<td></td>
<td>Inner Width</td>
<td>500 feet</td>
</tr>
<tr>
<td></td>
<td>Outer Width</td>
<td>700 feet</td>
</tr>
</tbody>
</table>

NOTES:
1/ The Runway 18-36 RSA width is 400 feet in accordance with the FAA Airport Certification Manual.
2/ Inner width is the shortest dimension of the trapezoidal end of the RPZ.
3/ Outer width is the longest dimension of the trapezoidal end of the RPZ.


As depicted on Exhibit 1-2, the RSAs and ROFAs at both ends of Runway 18-36 are 100 feet deficient. In addition, a public road penetrates the RSA at the approach (south) end of Runway 18.

Also as depicted on Exhibit 1-2, roads, residential land, and industrial land uses are located within the RPZs at both ends of Runway 18-36. These types of land uses are not recommended within an RPZ based on criteria set forth in FAA AC 150/5300-13A, Airport Design, and the FAA Memorandum sent to all airports, *Interim Guidance on Land Uses within a Runway Protection Zone*.6

#### 1.2.5 VASI OPERATIONAL COMPLIANCE

The VASI is an array of lights parallel to the airport runway threshold that provides visual descent guidance to pilots during final approach. The VASI system emits white, red, or a combination of white and red lights, indicating to the pilot of an approaching aircraft that the aircraft is above, below, or correctly on the appropriate glide slope to the runway. One of the light boxes associated with the VASI system on the Runway 36 end was removed when Taxiway L was extended; Taxiway L is located north of Taxiway C and west of Runway 18-36. Exhibit 1-3 illustrates the location of the VASI light boxes for the Runway 36 end relative to the alignment of Taxiway L. The DOA does not have plans or funding to replace the inoperative light boxes at the Runway 36 end.

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Runway 18-36 Noncompliant RSAs, ROFAs, and RPZs

NOTE: Runway 18-36 RSA width is 400 feet per the FAA Certification Inspection.


EXHIBIT 1-2

EA for Runway 18-36 Decommissioning
Purpose and Need
Impact of Taxiway L Extension on Runway 36 VASI Lights
1.3 Purpose of and Need for the Proposed Action

Pursuant to NEPA and FAA Orders 1050.1E and 5050.4B, an EA must include a description of the purpose of and need for a proposed action. Identification of such purpose and need also provides the rationale and the foundation for identification of reasonable alternatives that can also meet the stated purpose of the action and, therefore, address the need or problem. The purpose of and need for the Proposed Action that is the subject of this EA are discussed in this section.

1.3.1 PURPOSE OF THE PROPOSED ACTION

The Proposed Action would address the need to comply with FAA standards for RSAs and lighting at the Airport, and would provide for a more efficient use of the airfield area. The Proposed Action would fulfill the Sponsor’s goals to:

- Eliminate the noncompliant Runway 18-36 RSAs and ROFA,
- Eliminate the need for a VASIs on Runway 18-36,
- Eliminate the condition of RPZs, as well as incompatible land use, at each end of Runway 18-36 that are not consistent with FAA design standards set forth in FAA AC 150/5300-13A, Airport Design,
- Increase airfield efficiency by ceasing operating and maintenance activities associated with an inactive runway, and
- Add office space for DOA staff, allowing the area in which the temporary office space is located to be used for remote aircraft parking.

1.3.2 NEED FOR THE PROPOSED ACTION

As part of a Congressional mandate (Public Law 109-115), owners and operators of 14 CFR Part 139 certificated airports are required to bring existing runways into compliance with FAA standards for RSAs by December 15, 2015. The DOA further wishes to eliminate, to the extent practical, RPZs for Airport runways that are not compliant with FAA design standards.

As shown in Table 1-3, Runway 18-36 accommodated approximately 1.0 percent of Airport traffic in 2010, the last full year that it was in use. Therefore, the DOA has determined that there is no justification for improving the Runway 18-36 RSA, ROFA, RPZs, or VASI lighting that would allow the runway to be reopened.

Further, the DOA needs to construct a permanent administration building to consolidate its administrative functions into a single building and allow the area currently occupied by temporary DOA office space to be used for remote aircraft parking.
### 1.4 Description of the Proposed Action

The Proposed Action consists of decommissioning Runway 18-36 and constructing a new DOA administration building. The decommissioning of Runway 18-36 would include modifications to airfield marking, signage, and lighting and conversion of portions of the runway for use as a taxiway. The administration building would be constructed southeast of the southern end of Runway 18-36 and would include realignment of the perimeter road in the vicinity of the building, construction of new security fencing and parking, and relocation of utilities adjacent to the intersection of Denton Drive and Clifford Street within the Airport property boundary. As noted in Section 1.2, the decommissioning of Runway 18-36 and construction of the administration building and associated improvements are combined under the Proposed Action in this EA because of their geographic proximity and the timing of the project elements. Exhibit 1-4 depicts the major project elements associated with the Proposed Action.

### 1.5 Requested Federal Actions

The Sponsor is requesting the following FAA actions:

- Unconditional approval of the Airport Layout Plan (ALP) depicting the decommissioned Runway 18-36 and other proposed improvements pursuant to 49 U.S.C. 40103(b), 44718, and 47107(a)(16); 14 CFR Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace; and 14 CFR Part 157, Notice of Construction, Alteration, Activation, and Deactivation.

- Determination under 49 U.S.C. 44502(b) that the Proposed Action is reasonably necessary for use in air commerce or in the interest of national defense.

- Continued close coordination with the Sponsor and appropriate FAA program offices, as required, to ensure safety during construction in accordance with 14 CFR Part 139, Airport Certification, under 49 U.S.C. 44706.
1.6 General Implementation Schedule

Runway decommissioning is anticipated to begin and be completed in 2015. The FAA has received a 7480-1 Form from the Sponsor regarding the proposed decommissioning of Runway 18-36. The DOA must update the ALP, update the Airport Certification Manual, and update the Signage and Marking Plan. Construction of the administration building and all associated elements is expected to begin in 2015 and to be completed by 2016.
Proposed Action

Purpose and Need

EA for Runway 18-36 Decommissioning
2. Alternatives

2.1 Introduction

FAA Orders 1050.1E and 5050.4B set forth FAA policies and procedures to be followed in assessing the environmental impacts of aviation-related projects in compliance with NEPA. These Orders require a thorough and objective assessment of the Proposed Action, the No Action alternative, and all other "reasonable" alternatives that would achieve the stated purpose of and need for the Proposed Action. The alternatives analysis described in this chapter of the EA is consistent with the requirements of FAA Orders 1050.1E and 5050.4B.

The process followed in identifying the range of initial alternatives to be considered and the screening process used to determine which alternatives would reasonably satisfy the purpose of and need for the Proposed Action are described in this chapter. Those alternatives that would satisfy the purpose of and need for the Proposed Action were carried forward for analysis of environmental consequences. Applicable federal laws, regulations, and other guidelines considered during the analysis are listed in the tables provided at the end of this chapter.

2.2 Identification of Alternatives

Three alternatives were identified to potentially address the purpose of and need for the Proposed Action. These alternatives are briefly described below:

- No Action
- Displacing Thresholds and Implementing Declared Distances for Runway 18-36 and Constructing a DOA Administration Building
- Decommissioning of Runway 18-36 and Construction of a DOA Administration Building

2.2.1 NO ACTION

The No Action alternative consists of the continued temporary closure of Runway 18-36, which is noncompliant with FAA RSA, ROFA, and VASI lighting guidance. The RPZs at both ends of the runway would remain and would continue to contain uses that are not consistent with FAA design standards for RPZs. The DOA would not take any action or undertake the needed improvements to bring the runway RSAs or lighting into compliance with FAA standards. In addition, the DOA would continue using the temporary administrative
office facilities, precluding the airfield area where the facilities are located from being used for needed remote aircraft parking. This alternative would not address the best use of airfield area based on existing and future conditions at the Airport. The site identified for the proposed administration building southeast of the approach end of Runway 36 would remain vacant.

2.2.2 DISPLACING THRESHOLDS AND IMPLEMENTING DECLARED DISTANCES FOR RUNWAY 18-36 AND CONSTRUCTING A DOA ADMINISTRATION BUILDING

This alternative includes displacing the thresholds at both ends of Runway 18-36, implementing declared distances for Runway 18-36, and constructing a new DOA administration building at the Airport. The thresholds at both ends of Runway 18-36 would be displaced by 100 feet to comply with RSA and ROFA dimensional standards. The DOA would update the ALP for the Airport and publish declared distances for the maximum available length suitable for meeting takeoff, rejected takeoff, and landing distance performance requirements for turbine powered aircraft. The declared distances would be as follows:

- The Takeoff Run Available (TORA), which is the runway length declared available and suitable for the ground run of an aircraft taking off, would remain as 6,147 feet.
- The Takeoff Distance Available (TODA), which is TORA plus the length of any remaining runway or clearway beyond the far end of the TORA, would remain as 6,147 feet.
- The Accelerate-Stop Distance Available (ASDA), which is the runway plus stopway length declared available and suitable for the acceleration and deceleration of an aircraft aborting a takeoff, would remain as 6,147 feet.
- The Landing Distance Available (LDA), which is the runway length declared available and suitable for landing an aircraft, would change from 6,147 feet to 5,947 feet.

Declared distances would require modification of existing airfield signage, lighting, and airfield pavement markings. The use of declared distances would not affect the locations of the RPZs at the ends of the runway. The DOA would also install a new VASI system, potentially in coordination with the FAA’s Southwest Region’s Navigation Implementation (ANI) program.

The DOA would also construct an administration building southeast of the southern end of Runway 18-36. In addition to construction of the building, the perimeter road in the vicinity of the building would be realigned, new security fencing and parking would be constructed, and the utilities adjacent to the intersection of Denton Drive and Clifford Street would be relocated.

1 A Displaced Threshold is a threshold that is located at a point on the runway beyond the beginning of the runway.

2 Declared distances are the distances the airport owner declares available for turbine powered aircraft’s takeoff runway, takeoff distance, accelerate-stop distance, and land distance requirements. The distances are TORA, TODA, ASDA, and LDA.
2.2.3 DECOMMISSIONING OF RUNWAY 18-36 AND CONSTRUCTION OF A DOA ADMINISTRATION BUILDING (PROPOSED ACTION)

This alternative includes the decommissioning of Runway 18-36 and construction a new DOA administration building at the Airport. The decommissioning of Runway 18-36 would include modifications to airfield marking, signage, and lighting, and portions of the existing runway pavement would serve as taxiways. The DOA would also construct an administration building southeast of the southern end of Runway 18-36. In addition to construction of the building, the perimeter road in the vicinity of the building would be realigned, new security fencing and parking would be constructed, and the utilities adjacent to the intersection of Denton Drive and Clifford Street would be relocated. The DOA has selected this alternative as its Proposed Action. See Exhibit 1-4 for the project elements associated with the Proposed Action.

2.2.4 ALTERNATIVES ANALYSIS

The Sponsor’s need to comply with the Congressional mandate (Public Law 109-115) for RSAs on all runways by 2015 and to address other non-compliance matters are the primary purposes for decommissioning Runway 18-36. The continued temporary closure of Runway 18-36 associated with the No Action alternative would not meet the Sponsor’s purpose of complying with FAA standards for RSAs, ROFAs, and VASI lighting and the RPZs at both ends of the runways would remain and continue to contain land uses that are not consistent with FAA airport design standards.

The cost to replace the VASI system associated with displacing the runway thresholds and implementing declared distances is impractical because the runway has been closed since 2011 and, when it was operational, the runway served less than 1.0 percent of the Airport’s total annual traffic. Also, even after correcting the RSA and ROFA deficiencies of Runway 18-36, the RPZs at both ends of the runway would remain and continue to contain land uses that are not consistent with FAA airport design standards.

Therefore, only the Proposed Action would meet the Sponsor’s purpose of and need for the project. Because of the timing and geographic location of the project to decommission Runway 18-36, construction of the proposed administration building was considered a connected action to the runway decommissioning.

FAA guidance states that, “If there are no unresolved conflicts concerning alternative uses of available resources, the range of alternatives may be limited to the no action and proposed action alternatives”.

Because all actions would occur on developed Airport property, no unresolved conflicts concerning alternative uses of available resources were identified. Although the No Action alternative would not meet the stated purpose and need, it was retained for analysis in this EA to fulfill Council on Environmental Quality regulations implementing NEPA and to comply with FAA Orders 1050.1E and 5050.4B. Thus, only the No Action and Proposed Action alternatives were analyzed in detail for this EA.

---

Table 2-1 shows the alternatives considered and whether or not they would meet the project objectives identified in Chapter 1, “Purpose and Need.”

<table>
<thead>
<tr>
<th>ALTERNATIVE</th>
<th>MEETS PURPOSE AND NEED</th>
<th>REASONS FOR MEETING OR NOT MEETING STATED PURPOSE AND NEED</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Action</td>
<td>No</td>
<td>Would not resolve the condition of noncompliance for the Runway 18-36 RSAs, ROFAs, and VASI system, nor eliminate RPZs that do not meet FAA airport design standards. This alternative would not provide space for the future development of remote aircraft parking, as the temporary DOA offices would remain in place in the needed airfield area.</td>
</tr>
<tr>
<td>Displacing Thresholds and Implementing Declared Distances for Runway 18-36 and Constructing a Department of Aviation Administration Building</td>
<td>No</td>
<td>Would eliminate the noncompliant Runway 18-36 RSAs and ROFAs, but would not eliminate RPZs that do not meet FAA airport design standards. This alternative would require the installation of a new VASI system in coordination with the FAA’s ANL. This alternative would provide adequate space for the future development of remote aircraft parking by relocating the existing DOA offices to a new administration building southeast of the Runway 36 approach end. This alternative would allow the DOA to consolidate its administrative functions in a single location.</td>
</tr>
<tr>
<td>Decommissioning of Runway 18-36 and Construction of a Department of Aviation Administration Building</td>
<td>Yes</td>
<td>Would eliminate the noncompliant Runway 18-36 RSAs, ROFAs, and VASI system and would eliminate RPZs that do not meet FAA airport design standards by decommissioning Runway 18-36. This alternative would provide space for the future development of remote aircraft parking by relocating existing DOA offices to a new administration building southeast of the Runway 36 approach end. This alternative would allow the DOA to consolidate its administrative functions in a single location.</td>
</tr>
</tbody>
</table>


2.3 Sponsor’s Preferred Alternative

The Proposed Action, as defined in Section 1.4, is the Sponsor’s preferred alternative. Because the Proposed Action would meet the Sponsor’s purpose and need and would not result in any significant adverse environmental impacts, it is also the environmentally preferred alternative.

2.4 Federal Laws and Regulations Considered

In accordance with FAA Order 1050.1E, Paragraph 405(d)(4), the relevant federal laws and statutes, executive orders, and other federal regulations considered during preparation of this EA are listed in Table 2-2, Table 2-3, and Table 2-4, respectively.
## Table 2-2: Federal Laws and Statutes Considered

<table>
<thead>
<tr>
<th><strong>CITATION</strong></th>
<th><strong>DESCRIPTION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>42 U.S.C. 7401 et seq.</td>
<td>Clean Air Act of 1970, as amended</td>
</tr>
<tr>
<td>49 U.S.C. 303(c) et seq.</td>
<td>Department of Transportation Act of 1966, Section 4(f)</td>
</tr>
<tr>
<td>49 U.S.C. 40101 et seq.</td>
<td>Federal Aviation Act</td>
</tr>
<tr>
<td>16 U.S.C. 661 et seq.</td>
<td>Fish and Wildlife Coordination Act of 1958</td>
</tr>
<tr>
<td>33 U.S.C. 1251 et seq.</td>
<td>Federal Water Pollution Control Act of 1972, as amended (commonly referred to as the Clean Water Act)</td>
</tr>
<tr>
<td>33 U.S.C. 403 et seq.</td>
<td>Rivers and Harbors Act of 1899, Section 10</td>
</tr>
<tr>
<td>7 U.S.C. 4201 et seq.</td>
<td>Farmland Protection Policy Act</td>
</tr>
<tr>
<td>15 U.S.C. 2601 et seq.</td>
<td>Toxic Substances Control Act</td>
</tr>
<tr>
<td>16 U.S.C. 1452 et seq.</td>
<td>Coastal Zone Management Act of 1972</td>
</tr>
<tr>
<td>33 U.S.C. 2701 et seq.</td>
<td>Oil Pollution Control Act of 1990</td>
</tr>
</tbody>
</table>

### Table 2-3: Executive Orders Considered

<table>
<thead>
<tr>
<th>Executive Order</th>
<th>Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Order 11593 of 1971, Protection and Enhancement of the Cultural Environment</td>
<td>36 Federal Register (FR) 8921</td>
</tr>
<tr>
<td>Executive Order 11988 of 1977, Floodplain Management</td>
<td>43 FR 6030</td>
</tr>
<tr>
<td>Executive Order 11990 of 1977, Protection of Wetlands</td>
<td>42 FR 26961</td>
</tr>
<tr>
<td>Executive Order 12898 of 1994, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations</td>
<td>59 FR 7629</td>
</tr>
<tr>
<td>Executive Order 13045 of 1997, Protection of Children from Environmental Health Risks and Safety Risks</td>
<td>62 FR 19883</td>
</tr>
</tbody>
</table>

**Source:** Ricondo & Associates, Inc., April 2014.  

### Table 2-4: FAA Orders, Advisory Circulars, and Federal Regulations Considered

**U.S. Department of Transportation and FAA Orders**

- U.S. Department of Transportation (DOT), FAA Order 1050.1E: Environmental Impacts: Policies and Procedures
- U.S. DOT, FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions
- U.S. DOT, Order 5680.1: Final Order to Address Environmental Justice in Low-Income and Minority Populations
- U.S. DOT, Order 5650.2: Floodplain Management and Protection
- U.S. DOT, Order 5660.1A: Preservation of the Nation’s Wetlands

**FAA Advisory Circulars**

- U.S. DOT, FAA Advisory Circular (AC) 150/5020-1: Noise Control and Compatibility Planning for Airports
- U.S. DOT, FAA AC 150/5200-33A: Hazardous Wildlife Attractants on or near Airports
- U.S. DOT, FAA AC 36-3H: Estimated Airplane Noise Levels in A-Weighted Decibels
- U.S. DOT, FAA AC 150/5300-13A, Airport Design
- U.S. DOT, FAA AC 150/5370-10A: Standards for Specifying Construction of Airports

**Code of Federal Regulations**

- Title 14 Code of Federal Regulations (CFR) Part 71: Designation of Class A, B, C, D, and E Air Traffic Service Routes; and Reporting Points
- Title 14 CFR Part 77: Safe, Efficient Use, and Preservation of the Navigable Airspace
- Title 40 CFR Part 93, Subpart B: Determining Conformity of General Federal Actions to State or Federal Implementation Plans
- Title 40 CFR Part 122: EPA Administered Permit Programs: The National Pollutant Discharge Elimination System
- Title 40 CFR Part 123: State Program Requirements
- Title 40 CFR Part 124: Procedures for Decisionmaking
- Title 14 CFR Part 135: Operating Requirements: Commuter and On-Demand Operations and Rules Governing Persons on Board Such Aircraft
- Title 14 CFR Part 150: Airport Noise Compatibility Planning
- Title 14 CFR Part 157: Notice of Construction, Alteration, Activation, and Deactivation

**Source:** Ricondo & Associates, Inc., April 2014.  
3. Affected Environment

3.1 Introduction

The affected environment includes those areas that would be directly or indirectly affected by the decommissioning of Runway 18-36 or the construction of the DOA’s administration building. This chapter identifies the potentially affected geographic areas and documents existing conditions in those areas. In accordance with FAA Orders 1050.1E and 5050.4B, those resources that could be affected by the Proposed Action are identified herein. No farmlands, coastal resources, or wild and scenic rivers are located within the Area of Potential Effect (APE) and Indirect Study Area; therefore, those resources are not discussed in this chapter.

3.2 Identification and Description of the Area of Potential Effect and Indirect Study Area

The APE consists of the area that would be physically disturbed by the Sponsor’s Proposed Action. The APE is delineated by the approximate limits of Runway 18-36 and the area of construction for the administration building and associated project elements (see Exhibit 3-1). The Indirect Study Area is bounded by the RSA, ROFA, and RPZ limits of Runway 18-36, and a residential area located south of Denton Drive. The Indirect Study Area for the DOA administration building was based on a buffer zone for potential construction and traffic impacts related to the Proposed Action.

The Airport site, located north-northwest of downtown Dallas, is constrained by both natural and manmade boundaries. Residential properties are located to the northeast, industrial properties and Bachman Lake are located to the northwest, Denton Drive is located to the southwest, and commercial properties and Mockingbird Lane are located to the southeast.
Area of Potential Effect and Indirect Study Area

LEGEND
- Airport Property Boundary
- Area of Potential Effect
- Indirect Study Area

SOURCE: ESRI Online Database; Google Earth, Aerial Imagery, 2014.

EXHIBIT 3-1
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3.3 Existing Land Use and Zoning

3.3.1 ON-AIRPORT LAND USES

The Airport is located on 1,256 acres of land approximately 3.5 miles north-northwest of downtown Dallas, and is the only commercial-service airport operating within the Dallas city limits. The airfield consists of two parallel runways, 8,800 feet and 7,752 feet long, and one crosswind runway, 6,147 feet long. The airfield also includes associated taxiways and support facilities, including the Airport Traffic Control Tower, the aircraft rescue and firefighting station, and general aviation facilities. Specific Airport facilities include:

- **Runway 13R-31L** (8,800 feet long) and its associated taxiway system.
- **Runway 13L-31R** (7,752 feet long) and its associated taxiway system.
- **Runway 18-36** (6,147 feet long) and its associated taxiway system.
- **Central Terminal Area**: The area between Runways 13L-31R and 13R-31L is primarily occupied by the terminal building and gates, as well as associated commercial aviation facilities. Two parking garages are adjacent to the terminal building at the center of the Cedar Springs Drive terminal loop.
- **Southeastern Central Area**: The area southeast of the Central Terminal Area between Runways 13L-31R and 13R-31L is occupied by business and FBO facilities for GA aircraft and commercial rental car facilities.
- **Northwestern Central Area**: The area northwest of the Central Terminal Area between Runways 13L-31R and 13R-31L is occupied by business and industrial land uses.
- **North Side**: The north side of Runway 13L-31R is primarily occupied by businesses and FBO facilities for GA aircraft along Lemmon Avenue.
- **South Side**: The south side of Runway 13R-31L is occupied by Southwest Airlines’ corporate headquarters, aviation and training facilities, and other businesses and FBO facilities for GA aircraft. Additionally, Dallas Area Rapid Transit Green and Orange Line light rail routes and the Burbank station are located on the south side of the runway along Denton Drive, outside the Airport property boundary.

The APE is located in the central and southeastern portions of the Airport and includes Runway 18-36 and a primarily vacant area southeast of the Runway 36 approach end. That area does include a temporary construction staging area and a compressed natural gas station for Airport vehicles. Runway 18-36 was operational from the 1930s until 2011; however, with the use of Runways 13R-31L and 13L-31R, Runway 18-36 is no longer needed to accommodate existing or future aircraft operations.

3.3.2 SURROUNDING LAND USES

As the Airport is located less than 4 miles from downtown Dallas, land in the Airport vicinity is densely developed. The primary land uses within the Indirect Study Area are shown on Exhibit 3-1. The area north of the Runway 18 departure end, within the RPZ, includes a commercial corridor north of Lemmon Road. The
area south of the Airport includes multi- and single-family residential development as far south as Mohawk Drive.

3.3.3 ZONING

City of Dallas zoning is maintained and mapped by the City’s Zoning Section of Development Services Department. The Airport is currently zoned as Industrial Research. Generally, zoning within the Indirect Study Area tends to be Multi- and Single-Family Residential or Commercial, which is consistent with the current land uses in this area.

3.4 Noise

To comply with NEPA requirements, the FAA has developed specific guidance and requirements for the assessment of aircraft noise. The methodology to be used in analyzing aircraft noise is established in FAA Order 1050.1E. The FAA has determined that the cumulative aircraft noise exposure experienced by individuals must be established in terms of the yearly day-night average sound level (DNL) metric (expressed in A-weighted decibels).

The Noise Control Program for the Airport was adopted by the Dallas City Council in December 1981 to provide a voluntary noise abatement and mitigation program that could be implemented over time. To balance the operating needs of the Airport with the needs of surrounding communities, the City adopted the Dallas Love Field Policies. These policies recognize Love Field’s importance to the Dallas community at large and also establish a noise reduction goal to minimize the effects of Airport operations on surrounding neighborhoods.

Sensitive noise receptors (residences, schools, hospitals, etc.) in proximity to the APE were examined; the nearest sensitive noise receptor to the area of the Proposed Action is residential housing, located approximately 370 feet east-northeast of the DalFort leasehold boundary. The City of Dallas conducted noise analyses in 2001 for the updated Airport Master Plan, and in 2006 to assess impacts from the repeal of the Wright/Shelby Amendment.

3.4.1 2001 MASTER PLAN NOISE ANALYSIS

For the 2001 Dallas Love Field Airport Master Plan, a noise analysis was conducted using the FAA’s Integrated Noise Model and actual data from the Airport’s noise monitoring system. Noise exposure contours and peak period data were developed to determine the effects associated with the Airport’s aviation growth scenario and the required facility development.

1 The DalFort Site includes an OMB and other adjacent structures located on Lemmon Avenue.
According to the 2001 noise analysis, the population exposed to DNL 65 and higher (considered by the FAA to be significant noise exposure) was projected to decrease from nearly 27,000 people in 1998 to 23,000 people in 2010 because of the use of new, quieter aircraft that were scheduled to replace older models in the fleet, along with mandatory and voluntary noise abatement procedures.

3.4.2 2006 IMPACT ANALYSIS UPDATE

Following the opening of Dallas/Fort Worth International Airport (DFW) in 1974, airline service at the Airport was limited under the restrictions of the Wright Amendment of 1979. This federal regulation restricted flights and destinations served at the Airport to protect DFW from nearby competition. These restrictions have gradually been phased out and the Shelby Amendment, enacted in 1997, which expanded service to three additional states. The Wright Amendment will be completely repealed October 2014 with the introduction of routes to Baltimore, Denver, Las Vegas, Orlando, and Chicago.

The noise analysis for the 2006 Dallas Love Field Impact Analysis – In the Absence of the Wright Amendment was conducted to assess potential air service impacts in the absence of the Wright/Shelby Amendment, and to compare those impacts with the information presented in the 2001 Dallas Love Field Airport Impact Analysis/Master Plan.

The 2006 noise analysis determined the following:

- The noise exposure under the 20-Gate No Wright Amendment Scenario would decrease from that estimated under the 2001 Master Plan 32-Gate Scenario, while noise exposure would increase under the 2006 32-Gate No Wright Amendment Scenario compared with the 2001 scenario. Table 3-1 summarizes the inputs and results from the modeling of each scenario.

- The DNL 65 noise exposure contour for the 20-Gate No Wright Amendment Scenario encompasses an area approximately 4.3 percent smaller than that for the 2001 Master Plan 32-Gate Scenario and would include approximately 3,800 fewer people.

- The DNL 65 noise exposure contour for the 32-Gate No Wright Amendment Scenario encompasses an area approximately 4.0 percent larger than that for the 2001 Master Plan 32-Gate Scenario and would include approximately 4,350 more people.

In each of the No Wright Amendment scenarios, the regional jet fleet mix for the 2001 Master Plan 32-Gate Scenario was replaced, for the most part, by standard air carrier jets. These aircraft are larger and have a louder noise footprint than the Canadair Regional Jet, Embraer 135, and Embraer 145 aircraft assumed in the 2001 Master Plan scenarios. Furthermore, some of the standard jets were assumed to depart at heavier takeoff weights to serve more distant nonstop destinations than those possible under the Wright/Shelby Amendment.
Table 3-1: Comparison of Area and Population Affected by Various Noise Impact Scenarios

<table>
<thead>
<tr>
<th>Noise Exposure Level</th>
<th>2001 Master Plan 32 Gates</th>
<th>2006 20 Gates No Wright Amendment</th>
<th>2006 32 Gates No Wright Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SQUARE MILES</td>
<td>POPULATION</td>
<td>SQUARE MILES</td>
</tr>
<tr>
<td>DNL 65 and Higher</td>
<td>4.6</td>
<td>24,872</td>
<td>4.4</td>
</tr>
<tr>
<td>DNL 70 and Higher</td>
<td>1.9</td>
<td>2,686</td>
<td>1.8</td>
</tr>
<tr>
<td>DNL 75 and Higher</td>
<td>0.9</td>
<td>-</td>
<td>0.8</td>
</tr>
</tbody>
</table>

NOTE:

DNL = Day-Night Average Sound Level, Expressed in A-Weighted Decibels.

SOURCES: City of Dallas, Dallas Love Field Impact Analysis – In the Absence of the Wright Amendment, May 2006.

3.5 Demographics and Social Profile

Socioeconomics encompasses the activities and resources associated with the everyday human environment, particularly related to population centers, their demographics, and economic activities generated. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, was enacted in 1994. The purpose of this Executive Order is to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no groups of people, including racial, ethnic, or socioeconomic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, tribal, or local programs and policies. Environmental justice concerns must be considered for populations in the vicinity of a proposed project funded by the federal government.

A series of census tracts in the immediate vicinity of the Airport and the Indirect Study Area was identified for socioeconomic analysis. Exhibit 3-2 depicts those census tracts in relation to Airport property. Tables 3-2 and 3-3 provide information on the communities surrounding the Airport. The Indirect Study Area includes portions of Census Tracts 4.06, 71.02, and 9801.
Census Tracts in the Airport Vicinity

LEGEND
- Airport Property Boundary
- Area of Potential Effect
- U.S. Census Tract Boundary
- U.S. Census Tract #


Z:\Love Field\Runway 18-36 Decommissioning GIS\DAL_3-2_Census_Tracts_081214.mxd

EXHIBIT 3-2

Census Tracts in the Airport Vicinity
### Table 3-2: Demographic and Socioeconomic Data

<table>
<thead>
<tr>
<th></th>
<th>DALLAS COUNTY</th>
<th>CITY OF DALLAS</th>
<th>INDIRECT STUDY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ESTIMATE</td>
<td>PERCENT</td>
<td>ESTIMATE</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total population</td>
<td>2,379,214</td>
<td>100.0%</td>
<td>1,207,202</td>
</tr>
<tr>
<td>White</td>
<td>1,409,404</td>
<td>59.2%</td>
<td>692,090</td>
</tr>
<tr>
<td>Black or African American</td>
<td>546,901</td>
<td>23.0%</td>
<td>307,333</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>31,054</td>
<td>1.3%</td>
<td>13,242</td>
</tr>
<tr>
<td>Asian</td>
<td>133,477</td>
<td>5.6%</td>
<td>39,062</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>2,773</td>
<td>0.1%</td>
<td>1,042</td>
</tr>
<tr>
<td>Some other race</td>
<td>317,014</td>
<td>13.3%</td>
<td>180,639</td>
</tr>
<tr>
<td><strong>Hispanic or Latino and Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total population</td>
<td>2,379,214</td>
<td>100.0%</td>
<td>1,207,202</td>
</tr>
<tr>
<td>Hispanic or Latino (of any race)</td>
<td>908,199</td>
<td>38.2%</td>
<td>507,405</td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>1,471,015</td>
<td>61.8%</td>
<td>699,797</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>$49,159</td>
<td>N/A</td>
<td>$42,436</td>
</tr>
<tr>
<td>Persons below Poverty Level</td>
<td>18.8%</td>
<td>N/A</td>
<td>23.6%</td>
</tr>
</tbody>
</table>

**NOTES:**
- N/A = Not Available
- This calculation is representative of “race alone or in combination with another race” of the total population.
- Some respondents may identify with more than one race; therefore, total percentages may exceed 100 percent.


### Table 3-3: Income Data by Census Tract

<table>
<thead>
<tr>
<th>CENSUS TRACT</th>
<th>MEDIAN HOUSEHOLD INCOME</th>
<th>PERCENT OF POPULATION BELOW THE POVERTY LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.06</td>
<td>$38,419</td>
<td>32.2%</td>
</tr>
<tr>
<td>73.02</td>
<td>$131,477</td>
<td>11.6%</td>
</tr>
<tr>
<td>9801</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**NOTES:**

N/A = Not Available

1/ Poverty level is $10,890 for one person and an additional $3,820 for each additional family member in the lower 48 contiguous United States and Washington, D.C., according to the U.S. Department of Health and Human Services, 2011.

2/ Tract 9801 consists mainly of Airport property, which contains no residents. Thus, median income and percent of population below the poverty level were not available.


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# 3.4 Natural Environment

## 3.4.1 AIR QUALITY

### 3.4.1.1 Air Quality Standards

The federal Clean Air Act, as amended, requires individual states to identify general geographic areas where the National Ambient Air Quality Standards (NAAQS) are not met for seven criteria pollutants:\(^2\) The U.S. Environmental Protection Agency (USEPA) has designated such areas as nonattainment areas. A state with a nonattainment area must prepare a State Implementation Plan (SIP) that describes the programs and requirements that the state will implement to attain the NAAQS by the deadlines specified in the Clean Air Act Amendments of 1990 (CAAA) and subsequent related documentation promulgated by the USEPA. In Texas, the Texas Commission on Environmental Quality (TCEQ) is responsible for formulating and maintaining the SIP.

The CAAA require federal agencies to ensure that their actions conform to the appropriate SIP. Conformity is defined as demonstrating that a project or action conforms to the SIP’s purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards. The USEPA has approved conformity regulations in the Texas SIP, which are codified in the Texas Administrative Code at Title 30, Part 1, Chapter 101, Subchapter A, §101.30.

\(^2\) The criteria pollutants include carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter less than 10 microns in diameter, fine particulate matter less than 2.5 microns in diameter, and sulfur dioxide.
Generally, to comply with the general conformity regulations, two criteria must be met: (1) it must be shown that total direct and indirect pollutant emissions resulting from a project in a nonattainment area or a maintenance area (i.e., an area that has been redesignated from nonattainment to attainment) are accounted for in a SIP, or it must be shown that the emissions would be below de minimis levels established for the nonattainment or maintenance area, and (2) it must be demonstrated that pollutant emissions from the project would not be regionally significant (i.e., the project would not contribute 10 percent or more of the region’s total emissions for a criteria pollutant). If it is determined through an emissions inventory that the direct and indirect pollutant emissions from a project would be below de minimis levels and not “regionally significant,” no further air quality analysis is required and the project is presumed to conform with the applicable SIP. If a project’s emissions would equal or exceed the annual de minimis levels, or be regionally significant, a positive conformity determination/NAAQS assessment is required, including requisite pollutant dispersion analyses.

NAAQS have been established for the following seven criteria pollutants:

- Carbon monoxide (CO)
- Lead
- Nitrogen dioxide (NO₂)
- Ozone (O₃)
- Particulate matter (PM₁₀)
- Fine particulate matter (PM₂.₅)
- Sulfur dioxide (SO₂)

The primary standards for these pollutants were established at levels sufficient to protect public health with a satisfactory margin of safety. The regulation and management of ambient (i.e., “outdoor”) air quality conditions in Dallas County are the combined responsibility of federal, State, and local government agencies.

On the federal level, the USEPA establishes the guiding principles and policies for protecting air quality conditions throughout the nation. Relevant to this EA, the USEPA is also responsible for promulgating the NAAQS, approving the SIP, and regulating aircraft emissions.

On the State level, the Texas SIP helps ensure that federal air quality requirements are met and guidelines are followed. The Texas Emissions Reduction Program was established to monitor air quality and regulate mobile sources of emissions (i.e., onroad and offroad motor vehicles and equipment). The TCEQ operates 11 permanent ambient air quality monitoring sites scattered throughout the Dallas/Fort Worth TCEQ Region as part of its ongoing State and local air quality monitoring programs. The air quality monitoring station nearest

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3 Refers to emissions so minor as to be negligible or insignificant. If a project/action would result in de minimis emissions, a conformity determination/NAAQS assessment pursuant to the CAAA is not required [40 CFR Part 93.153c].
the Airport is located approximately 1.3 miles southwest of the Airport in Dallas. No air quality monitoring stations are located on, or directly adjacent to, the Airport.

3.4.1.2 Attainment/Nonattainment Status

The Airport is located in the City of Dallas, which is currently designated as a moderate nonattainment area for ozone (8-hour).4

3.4.2 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Greenhouse gases (GHGs) are a separate component of air quality studies. An Environmental Protection Agency (EPA) inventory program, the Greenhouse Gas Reporting Program (GHGRP), is currently in place for facilities with the potential to emit at least 25,000 tons per year of carbon dioxide (CO2) or proportioned quantities of CO2 equivalents (40 CFR Part 60). The reporting requirement and 25,000 tons per year threshold are for stationary sources; there are currently no federal standards for reporting GHG emissions from aviation sources, as well as no significance thresholds. Relative potentials of GHGs to contribute to climate change are based on CO2 equivalents, e.g., the climate change potential of a GHG relative to CO2.

Due to the short time that the GHG inventory program has been in effect and its limited scope, little data on the relative importance of industrial operations and/or construction activities in contributing to climate change is available. EPA’s inventory program is the current phase of an ongoing investigation by EPA into the long-term climate change effects of GHG emissions and their sustained presence in the atmosphere.

3.4.3 WATER QUALITY

The presumed local hydrogeologic gradient of the APE, as interpreted by surface topography and drainage patterns, is expected to flow toward the south-southwest. The regional hydrogeologic gradient is also presumed to flow toward the south-southwest. However, the actual hydrogeologic gradient may be affected by local influencing factors, such as the topography of the bedrock geology, underground structures, and other variables.

A major aquifer is defined as one that yields large quantities of water in a comparatively large area of the state. The designated major aquifer in this region of Texas is the Trinity Group Aquifer, which serves all or part of 56 Texas counties. The aquifer generally consists of the Paluxy, Glen Rose, and Travis Peak Formations. These Cretaceous-age rocks extend over a large area of north-central Texas and consist primarily of sand with interbedded clays, limestone, dolomite, gravel, and conglomerates. These strata were deposited in fluvial, deltaic, strandplain, and shallow marine environments. The saturated thickness of the water-bearing units ranges from approximately 100 feet in the outcrop area to a maximum of 1,200 feet near the downdip limit of the fresh to slightly saline water. Water quality from the Trinity Group Aquifer is acceptable for most municipal and industrial purposes.

A minor aquifer is defined as one that yields large quantities of water in small areas or relatively small quantities of water in large areas of the state. The designated minor aquifer in this area of Texas is the Woodbine Aquifer, which consists of sands, clays, sandstones, shales, and limestones. The saturated thickness of the water-bearing sand and sandstone beds reaches a maximum of about 600 feet in the downdip areas to the east. Fresh, good quality water is produced from wells in or near the outcrop area of the Woodbine Aquifer. Water quality deteriorates rapidly downdip from the outcrop, with increased concentrations of total dissolved solids, sodium, chloride, and bicarbonates. The Woodbine Aquifer furnishes municipal, industrial, and small irrigation water supplies to several counties in the area. The outcrop area for both the Trinity Group and Woodbine Aquifers encompasses the Dallas metropolitan area. Important aquifer recharge occurs within an aquifer outcrop area via surface infiltration of precipitation.

3.4.3.1 Ground Water
The City of Dallas currently receives water from the following area reservoirs: Lake Ray Hubbard, Lake Lewisville, Lake Grapevine, Lake Ray Roberts, and Lake Tawakoni. Because of its poor quality, groundwater underlying the Airport is not used for drinking, irrigation, or industrial supply purposes. The City of Dallas approved a Municipal Setting Designation Ordinance in 2005, which restricts the use of groundwater in areas designated as contaminated for potable water by ordinance/restrictive covenant. The City of Dallas is in the process of obtaining a Municipal Setting Designation Ordinance for the entire Airport.

3.4.3.2 Surface Water
Surface water in the vicinity of the Airport consists primarily of Bachman Lake to the northwest. Runoff from rainfall on runways, taxiways, and industrial and commercial sites picks up a multitude of pollutants. These pollutants dissolve in the runoff or adsorb onto soil particles and are quickly transported by gravity flow through the network of concrete channels and underground pipes that are part of the Airport’s storm drain conveyance systems. These systems ultimately discharge the polluted runoff, without treatment, directly to the City stormwater system, Bachman Lake, or nearby streams and drainage channels. Pollutants typically found in the Airport runoff include sediment, nutrients (e.g., fertilizers), oxygen-demanding substances (e.g., decaying vegetation), bacteria, heavy metals, synthetic organics (e.g., fuels, oils, solvents, lubricants), pesticides, and other toxic substances.

Authorization for stormwater discharges from the Airport is required under the Texas Pollutant Discharge Elimination System (TPDES) permit. The requirement is based on the Airport’s Standard Industrial Classification code. The TPDES permit provides authorization for point source discharges of storm water associated with industrial activities and certain non-stormwater discharges to surface water. The permit

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contains effluent limitations and requirements applicable to all industrial activities covered under the TPDES permit.\(^7\)

In addition to the pollutants contributed by stormwater or wet weather runoff, dry weather runoff can also seriously degrade the quality of the receiving water. Dry weather runoff conveyed by the stormwater conveyance system, which can be substantial, consists of flows from groundwater infiltration and accidental, improper, or illegal discharges to the stormwater conveyance system. Common examples of the latter are illegally disposed used motor oil and antifreeze. These pollutants can severely degrade the beneficial uses of receiving surface waters.\(^8\)

### 3.4.4 WETLANDS

The U.S. Army Corps of Engineers’ *Wetland Delineation Manual* defines wetland areas that have positive indicators for hydrophytic vegetation, wetland hydrology, and hydric soils as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” The U.S. Army Corps of Engineers typically takes jurisdiction over wetlands only when they lie within or adjacent to navigable waters, or tributaries of such waters where those tributaries bear an ordinary high water mark. An ordinary high water mark is defined as “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, presence of litter or debris, or other appropriate means that consider the characteristics of the surrounding areas.”

The Airport is highly developed (i.e., buildings, paved surfaces, ornamental landscaping) and contains few areas with the potential to support wetlands. Virtually all areas that would be affected by the Proposed Action consist of bare earth, paved surfaces, structures, or ornamental (low habitat value) landscaping.

According to the U.S. Fish and Wildlife Service’s (USFWS) National Wetlands Inventory online wetland mapper, no wetlands exist within at least 1.5 miles of the Airport. The body of water nearest the Airport is Bachman Lake, which is than a mile northwest of the Airport. No wetlands or other waters of the United States are present within the APE.

### 3.4.5 FLOODPLAINS

Executive Order 11988 *Floodplain Management* was enacted to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever a practical alternative exists. The Executive Order was issued in furtherance of NEPA, the National Flood Insurance Act of 1968, and the Flood Disaster Act of

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\(^8\) Ibid.
1973. Floodplains are defined as lowland and flat areas adjoining waters that are subject to a 1.0 percent or greater chance of flooding in any given year, i.e., a 100-year flood event.

The Proposed Action would be implemented outside of the 100-year flood zone, as delineated on Federal Emergency Management Agency maps. The Airport, including the APE, is within Flood Zone X (an area of minimal flood hazard, usually depicted on Flood Insurance Rate Maps as above the 500-year flood level).

3.4.6 BIOTIC COMMUNITIES

According to the U.S. Department of Agriculture’s Soil Conservation Service Soil Survey of Dallas County, Texas, the soil in the APE is classified as Urban land. The APE consists of extensively disturbed areas. The soils in these areas were altered or covered during Airport development.

The habitat of the Airport and surrounding areas supports a limited number of biological resources because much of the area is already extensively developed. The entire area within the Airport boundary has been developed or disturbed in some manner with no native vegetation present on the site. The vegetation in the area surrounding the DOA Administration Building construction site and temporary construction staging area includes mowed, maintained lawn grasses. According to the USFWS Critical Habitat Portal, no critical habitat can be found within Dallas County. Because of the lack of habitat and the developed condition of the APE, no threatened or endangered species are present or known to use the proposed project site.

3.5 Department of Transportation Act, Section 4(f) Properties

Section 4(f) of the Department of Transportation (DOT) Act of 1966, which has been recodified and renumbered as Section 303(c), dictates that, for any program or project undertaken or approved by the U.S. DOT, the DOT must consider if that program or project would affect the use of any publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance or land from a historic site of national, state, or local significance. The DOT Act prohibits the Secretary of Transportation from approving actions that would result in the use of these properties for transportation purposes unless no prudent and feasible alternative exists and all efforts have been made to minimize impacts.

The APE and the Indirect Study Area were reviewed to determine if any properties eligible for listing in the National Register of Historic Places (NRHP) or any park/recreational/refuge uses are located within either area. (See Section 3.6 for more information on historic resources.) The APE defines the construction area for the Proposed Action, whereas the Indirect Study Area for the various environmental disciplines considered in this EA defines other effects that the Proposed Action might have on Section 4(f) resources.

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A number of parks and other recreational areas are located near the Airport, but none are located within Indirect Study Area or the APE. The closest NRHP-eligible property is the Operations and Maintenance Building (OMB) of the DalFort site, which is located on Lemmon Avenue northeast of the Indirect Study Area. This property was determined to be NRHP-eligible through Section 106 consultation during preparation of the EA for redevelopment of the DalFort site.

### 3.6 Historic, Architectural, Archaeological, and Cultural Resources

Numerous laws and regulations require that possible effects on historic, architectural, archaeological, and cultural resources be considered during the planning and execution of federal undertakings. These laws and regulations stipulate a process of compliance, define the responsibilities of the federal agency proposing the actions, and prescribe the relationships among involved agencies. In addition to NEPA, the primary laws that pertain to the treatment of historic, architectural, archaeological, and cultural resources during environmental analyses are the National Historic Preservation Act (especially Sections 106 and 110), the Archaeological Resources Protection Act, the American Indian Religious Freedom Act, and the Native American Graves Protection and Repatriation Act.

The Texas Historical Commission’s (THC’s) *Historic Sites Atlas* was consulted for the presence of previously designated or identified historic properties within the APE, including properties listed in the NRHP, designated as State Archaeological Landmarks, or designated as Recorded Texas Historic Landmarks. The records search resulted in no findings of previously designated historic properties located within the APE.

The FAA requested concurrence with THC regarding known archaeological resources within or near the APE, and areas of concern regarding the proposed undertaking and its potential effect on archaeological and cultural resources (see Appendix A for consultation letter). Historical aerial photography of the Airport site indicates that the APE has been developed in aviation uses since at least the 1930s. Historical aerial photography indicates that, prior to development as Airport property, the APE was primarily undeveloped or potentially agricultural in use.  

### 3.7 Hazardous Materials and Solid Waste

Four primary federal statutes have been enacted that govern the handling and disposal of hazardous materials, chemicals, substances, and wastes. The two statutes most applicable to airport projects are the Resource Conservation and Recovery Act (RCRA, as amended by the Federal Facilities Compliance Act of 1992) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended (also known as Superfund). The RCRA governs the generation, treatment, storage, and disposal of hazardous

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10 City of Dallas, Department of Aviation, *Dallas Love Field Historical Aerial Photography*. 
wastes. The CERCLA provides for cleanup of any release of a hazardous substance (excluding petroleum) in the environment.

3.7.1 HAZARDOUS MATERIALS

Hazardous materials are regulated by a number of federal laws and regulations, most of which are promulgated by the USEPA. These include the RCRA and CERCLA, as mentioned above, in addition to the CAAA, the Clean Water Act, the Safe Drinking Water Act, the Hazardous Materials Transportation Act, and the Emergency Planning and Community Right-to-Know Act.

Together, these regulations govern the storage, use, and transportation of hazardous and other regulated materials from their time of origin to their ultimate disposal. The recovery and cleanup of environmental contamination resulting from the accidental or unlawful release of these materials and substances are also governed by these regulations.

On the State level, hazardous materials include substances or materials, including mixtures and solutions, that the TCEQ has identified as hazardous or dangerous wastes and that the USEPA has designated for special consideration under the Toxic Substances Control Act, the CAAA, or the Clean Water Act, as defined under Section 101(14) of the CERCLA, or defined as hazardous waste under the RCRA. Hazardous materials also include constituents of petroleum products, marine pollutants, or elevated-temperature materials that have been determined by the U.S. Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce.

An environmental database search for the Airport was conducted in 2008 by Environmental Data Resources, Inc. No database listings in the 2008 report prepared by Environmental Data Resources are located within the APE. The database listing nearest the APE is “DalFort Terminal – East Concourse Love Field,” located at 8036-7440 Aviation Place; this site is registered as a Texas Voluntary Cleanup Program database site. This site is located more than 500 feet northeast of the APE and is not anticipated to have any effect on the APE or the Proposed Action.

Locally, the City of Dallas Office of Environmental Quality oversees environmental issues within Dallas. Fuel tanks are handled in accordance with International Fire Code regulations. Importantly, no sites or facilities at the Airport or in the immediate vicinity are listed on the federal “Superfund” National Priorities List.

3.7.2 SOLID WASTE

The City of Dallas Sanitation Services provides solid waste disposal services throughout the Dallas metropolitan area. One landfill and three waste transfer stations are located within the City of Dallas, the closest of which to the Airport and the APE is the northwest (Bachman) transfer station, located approximately 1,000 feet west-northwest of the Airport. The McCommas Bluff Landfill is more than 11 miles south-southeast
of the Airport at 5100 Youngblood Road.\textsuperscript{11} With an overall area of 1,029 acres, the McCommas Bluff Landfill only accepts municipal solid waste and nonhazardous industrial waste. The landfill is not permitted for, nor does it accept, hazardous waste. As of 2007, the McCommas Bluff Landfill had a remaining capacity of more than 106 million cubic yards.\textsuperscript{12} Wastes designated as hazardous or special waste must be handled, transported, and disposed at licensed facilities in accordance with all federal, State, and local regulations. The TCEQ provides assistance for permitting and regulation of these wastes.

### 3.8 Past, Present, and Reasonably Foreseeable Future Actions

Cumulative impacts to environmental resources result from incremental effects of future actions combined with other past, present, and planned projects in the area. Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies (federal, state, and local) or individuals. In accordance with NEPA, a discussion of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or planned for implementation in the near future is required. For purposes of this analysis, projects implemented within the last 5 years or proposed to be implemented within the next 5 years on Airport are identified in Table 3-4. No major projects were identified off-Airport within 1 mile of the APE.


## Table 3-4 (1 of 2): Past, Present, and Reasonably Foreseeable Future Actions in the Vicinity of the Area of Potential Effect

<table>
<thead>
<tr>
<th>PROJECT SPONSOR</th>
<th>PROJECT DESCRIPTION</th>
<th>YEAR</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOA</td>
<td>Braniff Drainage Improvements / TV Inspection of Existing Storm Sewer System/Parking Garage Storm Water Repairs</td>
<td>2008</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>Taxiways A, B, and D Reconstruction</td>
<td>2008</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>TW &quot;L&quot; Reconstruction and Extension</td>
<td>2010</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>Holding Pad Reconstruction</td>
<td>2010</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>TW &quot;C&quot; Reconstruction</td>
<td>2010</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>TW &quot;B&quot; Modifications</td>
<td>2010</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>Taxiways A, B and D Reconstruction</td>
<td>2011</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>Airport Perimeter Roads Rehabilitation</td>
<td>2011</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>Demolition and renovation of the interior area of the Enterprise Customer Service Area</td>
<td>2012</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>Sallyport - Common entry and inspection point for terminal concessions and tenants</td>
<td>2012</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>Snow and Ice Removal Facility</td>
<td>2013</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>Holding Pad Reconstruction</td>
<td>2013</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>Remove the Underground Storage Tanks (Enterprise)</td>
<td>2013</td>
<td>Complete</td>
</tr>
<tr>
<td>DOA</td>
<td>Taxiway Shoulder Reconstruction (A, M &amp; B)</td>
<td>2014</td>
<td>Complete</td>
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<tr>
<td>DOA</td>
<td>Runway 13L-31R Joint Reseal</td>
<td>2014</td>
<td>Complete</td>
</tr>
<tr>
<td>TxDOT</td>
<td>Construct intersection improvements from west of Midway Rd. to U.S. Highway 75</td>
<td>2014</td>
<td>Ongoing</td>
</tr>
<tr>
<td>DOA</td>
<td>Airport Perimeter Roads Rehabilitation</td>
<td>2015</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
Table 3-4 (2-2): Past, Present, and Reasonably Foreseeable Future Actions in the Vicinity of the Area of Potential Effect

<table>
<thead>
<tr>
<th>PROJECT SPONSOR</th>
<th>PROJECT DESCRIPTION</th>
<th>YEAR</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOA</td>
<td>Redevelopment of the DalFort Site</td>
<td>2015</td>
<td>N/A</td>
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<tr>
<td>DOA</td>
<td>Airfield Drainage - Construction</td>
<td>2018</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>Parking Garage – Construction</td>
<td>2017</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>TWB Reconstruction (B4 to B6) Design</td>
<td>2015</td>
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<tr>
<td>DOA</td>
<td>TW K, D3 &amp; D Reconstruction</td>
<td>2016</td>
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<tr>
<td>DOA</td>
<td>TWB Reconstruction (B6 to approach of 13L)</td>
<td>2017</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>TW A Reconstruction (Approach 31R to A2)</td>
<td>2017</td>
<td>N/A</td>
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<tr>
<td>DOA</td>
<td>TW A Reconstruction (A2 to Delta)</td>
<td>2017</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>TW C Reconstruction (C2 and C from C2 to C4)</td>
<td>2018</td>
<td>N/A</td>
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<tr>
<td>DOA</td>
<td>Crossfield Geometry Reconfiguration Study</td>
<td>2018</td>
<td>N/A</td>
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<tr>
<td>DOA</td>
<td>TW D &amp; C Reconstruction</td>
<td>2018</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>TWB Reconstruction (B2 to B4) Construction</td>
<td>2016</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>TWB Reconstruction (B2 to approach of 31R)</td>
<td>2018</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>TWB Reconstruction (B2 to B4) Design</td>
<td>2015</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>Rehabilitate Runway 18-36 Intersections with Taxiways P &amp; C and Remove TW J (Design)</td>
<td>2015</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>Runway Holding Position Relocation (Design)</td>
<td>2015</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>Pavement Analysis Project (Planning)</td>
<td>2016</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>Relocate Runway 31R Glideslope (Design)</td>
<td>2016</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>Rehabilitate Taxiway C from Taxiway D to Taxiway C2 (Design)</td>
<td>2017</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>Crossfield Geometry Reconfiguration (Design)</td>
<td>2017</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>Relocate Runway 31R Glideslope (Reimbursable Agreement for Construction Inspection)</td>
<td>2017</td>
<td>N/A</td>
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<tr>
<td>DOA</td>
<td>Airport Perimeter Roads Rehabilitation (Construction)</td>
<td>2017</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>Rehabilitate Taxiway B from B2 to Runway 31R and Connectors B1 &amp; B2 (Construction)</td>
<td>2017</td>
<td>N/A</td>
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<tr>
<td>DOA</td>
<td>Rehabilitate Taxiway B from Runway 13L to Runway 18 (Design)</td>
<td>2018</td>
<td>N/A</td>
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<tr>
<td>DOA</td>
<td>Crossfield Geometry Reconfiguration (Phase 1 Construction)</td>
<td>2018</td>
<td>N/A</td>
</tr>
<tr>
<td>DOA</td>
<td>Rehabilitate Taxiway C from Taxiway D to Taxiway C2 (Construction)</td>
<td>2018</td>
<td>N/A</td>
</tr>
</tbody>
</table>

NOTE:
DOA = City of Dallas Department of Aviation
TxDOT = Texas Department of Transportation
SOURCE: City of Dallas, CIP Projects List, August 2012; Texas Department of Transportation Current TxDOT Projects: Dallas District, October 2014.
4. Environmental Consequences

The potential environmental consequences associated with the No Action and the Proposed Action alternatives are discussed in this chapter. The environmental categories evaluated, as specified in FAA Order 1050.1E, are as follows:

- Noise
- Compatible Land Use
- Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks
- Air Quality
- Water Quality
- Fish, Wildlife, and Plants
- Historic, Architectural, Archaeological, and Cultural Resources
- Light Emissions and Visual Impacts
- Natural Resources and Energy Supply
- Hazardous Materials, Pollution Prevention, and Solid Waste
- Construction Impacts
- Cumulative Impacts

The following environmental resources are not present within the APE or the Indirect Study Area and, therefore, would not be affected by either the No Action or Proposed Action alternative: farmlands; floodplains; DOT Section 4(f) properties; wetlands, coastal resources, and wild and scenic rivers.

4.1 Noise


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18-36 has been closed since April 2011, and the runway accommodated less than 1 percent of annual aircraft operations at the Airport when it was operational.

Potential effects on adjacent land uses during construction and operation of the Proposed Action improvements are addressed later in this chapter, in Section 4.11, “Construction Impacts,” and Section 4.2, “Compatible Land Use,” respectively.

4.1.1 METHODOLOGY

Neither the No Action nor the Proposed Action alternative would result in any change in the number of operations or runway use patterns at the Airport. Therefore, no noise analysis is required.

4.1.2 NO ACTION ALTERNATIVE

Under the No Action alternative, Runway 18-36 would remain closed and the administration offices would remain in their current location. No changes in noise exposure would occur.

4.1.3 PROPOSED ACTION ALTERNATIVE

No changes to existing air traffic patterns or aircraft movement areas would occur with the Proposed Action alternative compared with the No Action alternative. Additionally, the Proposed Action would not result in a difference in the number or type of aircraft operations at the Airport compared with the No Action alternative. Thus, the Proposed Action would not result in a change in aircraft noise exposure. The Proposed Action would, however, require construction activities and those activities would result in temporary noise in the vicinity of construction the proposed administration building. The impacts from construction are discussed in Section 4.11.

4.2 Compatible Land Use

Impacts to existing and planned land uses in the vicinity of an airport are usually associated with noise exposure related to aircraft operations at that airport. As described in Section 4.1, the Proposed Action would not result in a change in noise exposure compared with the No Action alternative.

This section summarizes existing land use plans and policies as they could affect development in the Indirect Study Area and the surrounding area. Land use plans that apply to the area surrounding the Indirect Study Area include City of Dallas community and redevelopment plans. The potential land use impacts of the No Action and Proposed Action alternatives are identified in relation to each plan that affects onsite and surrounding land uses.

4.2.1 METHODOLOGY

The existing onsite and offsite land uses and the surrounding area land use plans and policies are discussed herein. The relevant offsite land use plans that affect nearby communities and recreation areas consist of the 2001 Dallas Love Field Airport Master Plan, the City of Dallas Comprehensive Plan, the Stemmons Corridor Plan,
and the *Maple-Mockingbird Plan*. Additionally, the analysis of compatible land use was based on a site reconnaissance of the APE and the surrounding areas. The significance criteria used to assess the land use impacts of the Proposed Action are discussed below.

In accordance with FAA Order 1050.1E, the Proposed Action is compatible with existing and future land uses if the following apply:

- The noise assessment conducted for the Proposed Action concludes that there would be no significant impact, and
- The Proposed Action is consistent with plans (existing at the time the project is approved) of public agencies for development of the area in which the Airport is located.

4.2.2 NO ACTION ALTERNATIVE

Under the No Action alternative, no project-related construction would occur and the project site of the proposed administration building would remain primarily vacant. The No Action alternative would not result in any change in noise exposure, or defer appropriate action that is being taken to consider and control the use of land adjacent to or in the immediate vicinity of the Airport to activities and purposes compatible with normal Airport operations. The No Action alternative would not result in the elimination of the Runway 18-36 RPZs that contain uses are not consistent with FAA guidance.

4.2.3 PROPOSED ACTION ALTERNATIVE

As described in Section 4.1, there would be no significant aircraft noise impacts associated with the Proposed Action.

The Airport Master Plan Advisory Committee has implemented several programs to help ensure the compatibility of aircraft operations with land uses surrounding the Airport. Those programs have included:

- **Noise Abatement Advisory Committee** – Members of the committee meet quarterly to review Airport operations, the effectiveness of the overall noise abatement program, incidents of noncompliance, records of noise complaints, and potential adjustments or improvements to the noise control program.

- **Noise Monitoring System** – The Sponsor has installed 13 permanent noise monitors in key locations around the Airport. The system has the ability to collect noise, runway use, and flight track information for every aircraft arrival and departure at the Airport. The data are stored and can be referenced at any time and various reports can be produced.

- **Noise Abatement Information** – Noise abatement information for pilots and Airport users is key to the effectiveness of the noise abatement rules. Signs were installed at the runway ends to inform

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pilots to follow noise abatement procedures. In addition to signs, an information package is updated regularly and distributed to FBOs and pilots.

- For the 2001 *Dallas Love Field Airport Master Plan*, the Sponsor agreed to include the DNL 55 and DNL 60 noise exposure contours in the analyses for informational purposes.

- **Noise Complaint Hotline** – Aircraft-related noise disturbances can be reported 24 hours a day to Airport Operations personnel. Any disturbance is recorded and an investigation is initiated at that time. Entities (e.g., airlines or general aviation aircraft operators) that may have caused the disturbance are contacted and encouraged to comply with all of the voluntary noise abatement procedures in place at the Airport.

- The 2001 *Dallas Love Field Airport Master Plan* includes 14 CFR Part 150 Land Use Compatibility Guidelines that are compared with annual DNLs for applicable land uses within the Airport area.

### 4.2.3.1 Surrounding Land Use Plans and Policies

#### 2001 Dallas Love Field Airport Master Plan

Using the City’s zoning maps, other land use maps developed in the late 1980s, and a windshield survey of the Airport, a land use survey was conducted for the 2001 *Dallas Love Field Airport Master Plan* to depict the types of land uses located within the immediate vicinity of the Airport and within area exposed to DNL 65 and higher. In addition to general land use categories, noise-sensitive sites, such as schools, churches, and hospitals, located near the Airport were identified. In the 2001 Airport Master Plan, it was recommended that the City of Dallas Development Services Department – Planning Division and the Sponsor work closely together during the development of any future land use plans.³

#### City of Dallas Comprehensive Plan

The proposed improvements would be located on Airport property, in those areas noted for Airport-related uses in the *City of Dallas Comprehensive Plan*. Use of this land for the proposed improvements would be consistent with the highly disturbed current and past uses of the land.

The proposed improvements would not extend into surrounding communities. As such, no significant disruption or division of established communities would occur. Therefore, the Proposed Action would not cause significant offsite impacts to the surrounding communities. In addition, no significant change in noise exposure in the surrounding communities would occur based on the Proposed Action. As a result, no significant impacts to these communities related to noise would occur.

#### City of Dallas Community Plans

The compatibility of the Proposed Action with City of Dallas plans for communities adjacent to and surrounding the Airport is discussed below.

³ Ibid.
• **Vision and Policy Plan: Stemmons Corridor – Southwestern Medical District Area Plan (the Stemmons Corridor Plan).** The Stemmons Corridor Plan focuses on redevelopment of the area adjacent to the Airport to the southwest. Among the redevelopment plan focus areas are expansion of the Medical District as an employment center; new development occurring around the American Airlines Center and Design District activity hubs; transportation improvements, including new Dallas Area Rapid Transit stations to enhance regional accessibility and influence development patterns; and the Trinity River project and anticipated public and associated private development. The Stemmons Corridor Plan incorporates considerations for land use restrictions surrounding the Airport within the plan limits. The Proposed Action would not result in any inconsistency with the Stemmons Corridor Plan.4

• **Maple-Mockingbird Project Plan and Reinvestment Zone Financing Plan (the Maple-Mockingbird Plan).** The Maple-Mockingbird Plan focuses on the area adjacent to the Airport to the south-southwest and encompasses some of the same areas as the Stemmons Corridor Plan. The Maple-Mockingbird Plan seeks to encourage redevelopment of property in the Maple/Mockingbird Tax Increment Financing District, which includes infrastructure/utility improvements (including streetscape improvements), environmental remediation and rehabilitation, affordable housing, and grants for retail projects. The Proposed Action would not result in any inconsistency with the Maple-Mockingbird Plan.5

### 4.3 Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks

The Proposed Action and No Action alternatives were evaluated for the potential to result in the relocation of residences and businesses, as well as the potential to alter surface transportation patterns, divide established communities, disrupt orderly planned development, or create an appreciable change in employment. The potential for the Proposed Action or No Action alternative to result in disproportionately high and adverse human health or environmental effects on minority or low-income populations or disproportionate health and safety risks to children is also discussed in this section.

#### 4.3.1 METHODOLOGY

The potential for the project alternatives to cause social impacts or community disruption was evaluated qualitatively. Potential conflicts with Executive Orders addressing environmental justice and the protection of children were evaluated based on the requirements of those orders and implementing guidance published by the federal government.

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4.3.1.1 Socioeconomic Impacts

FAA guidance in Order 1050.1E (Appendix A, Section 16) for analysis of socioeconomic impacts states that the Proposed Action would have a significant population and housing impact if it would:

- Displace a substantial number of people,
- Displace a substantial number of residential units,
- Substantially reduce the levels of service of roadways serving the Airport and its surrounding communities,
- Create a substantial loss in the community tax base, and/or
- Induce substantial population growth that would affect the population/housing balance.

Based on these guidelines, an alternative would have a significant socioeconomic impact if it would lead to substantial, adverse physical changes in the social environment.

4.3.1.2 Environmental Justice

Environmental justice significance was assessed to determine if the Proposed Action would conflict with the requirements of Executive Order 12898 (59 FR 7629 [1994]), *Environmental Justice for Low Income and Minority Populations*. This Executive Order directs federal agencies “to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.” Therefore, the Proposed Action would be determined have a significant environmental justice impact if it would cause disproportionately high and adverse human health or environmental effects on minority or low-income populations.

4.3.1.3 Protection of Children

The significance of impacts on the protection of children was assessed to determine if the Proposed Action would conflict with the requirements of Executive Order 13045 (62 FR 19883 [1997]), *Protection of Children from Environmental Health Risks and Safety Risks*. Under this Executive Order, each federal agency shall:

- Make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children, and
- Ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

4.3.1.4 Surface Transportation Impacts

Surface transportation was assessed to determine if the Proposed Action would cause increased traffic that would adversely affect the Indirect Study Area. An adverse impact would mean a significant increase in traffic that would result in a decrease in the level of service on adjacent and nearby roads to unacceptable conditions.
4.3.2 NO ACTION ALTERNATIVE

The No Action alternative does not include any property acquisition or construction and, therefore, would not result in the relocation of residences or businesses, alteration of traffic patterns, division of communities, disruption of planned development, or appreciable changes in employment. The quality of life and noise levels in surrounding areas would not be affected, and no impacts to low-income populations, minority populations, or children would occur.

4.3.3 PROPOSED ACTION ALTERNATIVE

The Proposed Action would not include any property acquisition and construction activities would be limited to areas within the Airport boundary. The Proposed Action would not result in the relocation of residences or businesses, alteration of traffic patterns, division of communities, disruption of planned development, or appreciable changes in employment. No impacts to low-income populations, minority populations, or children would occur.

Although the Proposed Action would result in an increase in traffic along Denton Drive compared with the No Action alternative, the level of vehicular traffic associated with the Proposed Action is anticipated to be relatively minor on a daily basis. Therefore, no significant decrease in the level of service on adjacent and nearby roads is anticipated to occur as a result of the Proposed Action.

4.4 Air Quality

The primary sources of guidance for assessing potential air quality effects of a project are FAA Order 1050.1E and the Air Quality Procedures for Civilian Airports and Air Force Bases (referred to as the Airport Air Quality Handbook). Typically, an emissions inventory is prepared for each reasonable project alternative, including the No Action alternative. Additional analyses, including dispersion modeling or roadway intersection hot spot analyses, are not typically required if the estimated emissions of each criteria pollutant would not exceed the de minimis thresholds listed in the general conformity regulations. Information presented in the Airport Air Quality Handbook can be used to determine whether or not an NAAQS assessment should be performed for a proposed action.

4.4.1 METHODOLOGY

Neither the No Action alternative nor the Proposed Action would result in a change in the number or type of aircraft operations at the Airport. The temporary impacts that would occur from construction activities are

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7 When a Proposed Action could cause or contribute to an exceedance of the NAAQS, concentrations of criteria pollutants of interest are estimated using air dispersion modeling. The FAA’s Emissions and Dispersion Modeling System (EDMS) incorporates algorithms from the USEPA’s AERMOD dispersion model.
discussed in Section 4.11. Vehicle trips by DOA staff would shift from Cedar Springs Road to Denton Drive. However, this shift in vehicle traffic would not result in more trips or longer distances overall compared with the No Action alternative.

4.4.2 NO ACTION ALTERNATIVE

Under the No Action alternative, no project-related construction would occur and the project site of the proposed administration building would remain vacant. Therefore, the No Action alternative would not result in increased pollutant emissions from construction activity or project-related operations.

4.4.3 PROPOSED ACTION ALTERNATIVE

No changes to existing air traffic patterns or aircraft movement areas would occur with the Proposed Action compared with the No Action alternative. Additionally, the Proposed Action would not result in a difference in the number or type of aircraft operations at the Airport compared with the No Action alternative. Thus, the Proposed Action would not increase aviation-related emissions. The Proposed Action would, however, require construction activities and those activities would result in temporary emissions. The impacts from construction activities are discussed in Section 4.11.

4.5 Greenhouse Gas Emissions and Climate Change

Based on FAA aircraft data, operations at the Airport account for less than 0.5 percent of the total U.S. commercial aviation activity. Therefore, assuming that GHGs occur in proportion to level of activity, GHG emissions associated with existing and future aviation activity at the Airport would be expected to represent less than 0.5 percent of U.S.-based airport GHG emissions.

Although there are no federal standards for aviation-related GHG emissions, it is well established that GHG emissions can affect climate. The Council on Environmental Quality (CEQ) has indicated that climate change should be considered in NEPA analyses. As noted by CEQ, however, "...it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or project emissions, as such direct linkage is difficult to isolate and to understand."

4.5.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, no construction activities would occur at the proposed site and Runway 18-36 would remain open; therefore the No Action Alternative would have no construction or operations related GHG emissions.

4.5.2 PROPOSED ACTION ALTERNATIVE

The Proposed Action would not cause a change in aircraft operations or routes, and therefore would not increase operational GHG emissions compared to the No Action Alternative.
4.6 Water Quality

In accordance with FAA Order 1050.1E, the Sponsor must follow local, state, tribal, and federal ordinances and regulations to address impacts on the quality of water resources. The Clean Water Act provides the authority for the USEPA to establish water quality standards, control discharges, develop waste treatment management plans and practices, prevent or minimize the loss of wetlands, protect aquifers and sensitive ecological areas, such as a wetland area, and regulate other issues concerning water quality.

FAA Order 1050.1E states that significant impacts on water quality include the following:

- If the Proposed Action has the potential to contaminate an aquifer designated by the USEPA as a sole or principal source of drinking water for the area.
- If the Proposed Action would impound, divert, drain, control, or otherwise modify the waters of any stream or other body of water, then the Fish and Wildlife Coordination Act would apply.
- Exceedances of water quality standards and any water quality issues that cannot be avoided or satisfactorily mitigated would be identified as significant impacts.

As described in Chapter 3, the DOA requires authorization for stormwater discharges under the TPDES permit. The TPDES permit provides authorization for point source discharges of stormwater associated with industrial activity and certain non-stormwater discharges to surface water. The permit contains effluent limitations and requirements applicable to all industrial activities covered under the TPDES permit.8

4.6.1 NO ACTION ALTERNATIVE

4.6.1.1 Hydrology

Under the No Action alternative, there would be no change to the impervious surface area and no drainage system improvements; therefore, there would be no effects on surface hydrology or drainage patterns.

4.6.1.2 Water Quality

The No Action alternative would not involve grading; therefore, there is no potential for downstream erosion or sedimentation or modified drainage patterns. No earthwork would be associated with the No Action alternative and, accordingly, no potential for pollution or contamination impacts, nor a need for sediment and erosion control, would exist.

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4.6.2 PROPOSED ACTION ALTERNATIVE

4.6.2.1 Hydrology

Under the Proposed Action alternative, additional improvements, such as a building, parking area, roadway access, and a realigned roadway, would modify the existing stormwater drainage system. However, proper storm drainage systems would be installed to offset the approximately 120,000 square feet of additional impervious surfaces. There would be no notable change in surface hydrology other than the potential stormwater drainage system improvements as a result of activities related to the Proposed Action; therefore, no significant impacts to hydrology would occur as a result of the Proposed Action.

4.6.2.2 Water Quality

Operations

As noted above, the Proposed Action alternative includes improvements that would modify existing uses within the APE and potentially modify the existing stormwater drainage system. The proposed redevelopment within the APE would slightly increase the amount of impervious surfaces with new parking lots as well as office space. It is not anticipated that there would be a substantial change in activities or potential sources of surface water pollutants at the project site. Similar to the No Action alternative, potential surface water pollutants associated with these ongoing operational activities would include, but not be limited to, fuels, lubricants, other hydrocarbon products, metals, paints, brake fluid, antifreeze, rubber particles, solvents, battery acid, and other such constituents.

Water quality best management practices would be integrated into the construction plans for the Proposed Action projects, in accordance with the Airport Stormwater Pollution Prevention Plan (SWPPP) and applicable water quality regulations, along with other measures, as necessary and appropriate. In addition to water quality best management practices incorporated into the project design, ongoing implementation of Airportwide water quality measures, such as source control best management practices (i.e., non-stormwater management, waste handling/disposal, good housekeeping, spill prevention, control, and cleanup), as set forth in the Airport SWPPP, would also help address potential water quality impacts associated with operation of the proposed improvements.

Construction

Construction activities associated with improvements under the Proposed Action could generate water quality pollutants, such as sediments from grading/ground disturbance; fuels, oil, grease, and solvents from construction equipment fueling and servicing; metals from steel/iron work; paints and miscellaneous chemicals stored and used during construction; and trash and debris. Potential water quality impacts would be addressed through compliance with the construction activity requirements specified in the Airport SWPPP.

Additionally, the Proposed Action would incorporate site soil and groundwater sampling to determine what, if any, remediation methods would be necessary in accordance with TCEQ regulations. Construction impacts are further discussed in Section 4.11.
4.6.3  MITIGATION MEASURES

No mitigation measures would be required beyond those already incorporated in the Proposed Action as project design features or otherwise mandated by provisions in the Airport SWPPP and TPDES General (Construction) Permit. However, in addition to the measures described above, the DOA has applied for a Municipal Settings Designation, which restricts the use of groundwater in areas designated as contaminated for potable water by ordinance/restrictive covenant.9

4.7  Fish, Wildlife, and Plants

The potential for the project alternatives to jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat is discussed in this section.

4.7.1  METHODOLOGY

The potential for impacts to biotic communities and threatened and endangered species was assessed through a review of earlier documents, USFWS Endangered Species lists, and assessment of the potential for the Airport to support vegetation communities/habitat for such species.

4.7.2  NO ACTION ALTERNATIVE

Under the No Action alternative, no development would occur within the APE. As no site redevelopment would occur and the APE already supports a limited number of biological resources, the No Action alternative would have no impact on fish, wildlife, and plants.

4.7.3  PROPOSED ACTION ALTERNATIVE

As discussed in Section 3, the habitat surrounding and including the Airport supports a limited number of biological resources because much of the area is already extensively developed. The entire APE is developed or disturbed in some manner, with no native vegetation present on the site.

According to the USFWS Critical Habitat Portal, no critical habitat has been found in Dallas County. Because of the lack of habitat and the developed condition of the APE, no threatened or endangered species are present or known to use the APE; therefore, no impacts to fish, wildlife, and plants would occur as a result of the Proposed Action.

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4.8 Historic, Architectural, Archaeological, and Cultural Resources

To comply with the National Historic Preservation Act of 1966 and the Archaeological and Historic Preservation Act of 1974, cultural resources that could be affected by a proposed action must be identified, documented, and assessed.

4.8.1 METHODOLOGY

Historical aerial photography provided by the Sponsor was analyzed to determine the approximate dates of development within and surrounding the APE. This historical aerial photography of the Airport indicates that the project site has been developed in aviation uses since at least the 1930s. The APE was used as Airport infield areas surrounding Runway 18-36. The historical aerial photography indicates that the APE was primarily undeveloped or potentially agricultural in use prior to its development for Airport uses.  

4.8.2 NO ACTION ALTERNATIVE

Under the No Action alternative, existing land uses would continue. There would be no adverse effect to any historic, architectural, archaeological, and cultural resources.

4.8.3 PROPOSED ACTION ALTERNATIVE

The Proposed Action would be limited to minor subsurface excavation and construction activities within the APE. The Proposed Action would occur entirely on Airport property, primarily in the central and southern portions of the Airport. No historic districts, places, or structures would be affected by the Proposed Action projects.

Therefore, the Proposed Action alternative is not anticipated to have an adverse impact on historic, architectural, archaeological, and cultural resources. If, however, any such resources are discovered during construction activities in the APE, such activities would cease and the THC would be consulted for further guidance. The FAA also received concurrence from the THC that no historic properties would be affected with the implementation of the Proposed Action (see Appendix A).

4.9 Light Emissions and Visual Impacts

The primary sources of light emissions from airports are the FAA-required lighting for security, obstruction clearance, and navigation. An analysis of the impacts of light emissions on the surrounding environment is required when proposed projects include the introduction of new lighting that may affect residential or other sensitive land uses.

10 City of Dallas, Department of Aviation, Dallas Love Field Historical Aerial Photography.
Airport improvement activities involving the potential disruption of the natural environment or the visual integrity of the area or any activities that may affect sensitive locations, such as parks, historic sites, or other public use areas, are relevant visually.

4.9.1 METHODOLOGY

4.9.1.1 Light Emissions

The potential for light emissions impacts from the Proposed Action was determined by evaluating the current Airport light sources associated with the APE and assessing future lighting impacts resulting from the Proposed Action.

4.9.1.2 Visual Impacts

The visual impacts of a Proposed Action are assessed by determining the existing visual conditions of the Indirect Study Area and analyzing the potential impacts of implementing the proposed improvements on the visual character of the surrounding areas.

4.9.2 NO ACTION ALTERNATIVE

The No Action alternative would not result in any modifications to Airport facilities; therefore, there would be no light emissions or visual impacts associated with the No Action alternative.

4.9.3 PROPOSED ACTION ALTERNATIVE

4.9.3.1 Light Emissions

The Proposed Action alternative would not substantially change existing light emissions, and would only nominally increase the number of lights during construction of the proposed projects. The Proposed Action would result in new lighting sources from the administration building, parking areas, and roadway and access routes. In addition, the VASIs and high-intensity runway lights would be removed from Runway 18-36, and new taxiway edge lighting would be added to the existing pavement shoulders.

The Proposed Action would be consistent with the surrounding land uses, and would not create an annoyance or interfere with the normal activities of people in the surrounding area. Therefore, no significant impacts related to light emissions would occur as a result of the Proposed Action.

4.9.3.2 Visual Impacts

The Indirect Study Area is located along the northern, central, and southern portions of the Airport. The areas north, southeast, west, and northwest of the APE are dedicated to Airport use and used by aviation-related businesses. Directly south of the APE is Denton Drive, with residential properties beyond.

The architectural aesthetic of on-Airport areas surrounding the APE, aside from airfield pavement areas, is largely utilitarian in nature, dominated by the Airport-related buildings and lighting and general industrial/manufacturing structures. The buildings are fairly uniform in height, ranging from one- and two-story buildings on and immediately adjacent to the APE. The Proposed Action structure would primarily be
similar in nature, and visual impacts from the Proposed Action would be minimal. The views from the residential neighborhoods in the southern portion of the Indirect Study Area would not change significantly from existing conditions.

The topography of the Airport area is relatively flat. The Proposed Action would not obstruct views of any distinct natural or significant landmark within the area. Therefore, no adverse visual impacts would result from implementation of the Proposed Action.

4.10 Natural Resources and Energy Supply

In accordance with FAA Order 1050.1E, the alternatives were examined to identify any resulting measurable effect on local supplies of natural resources or energy.

4.10.1 METHODOLOGY

FAA Order 1050.1E does not establish any significance thresholds for natural resources or energy supply. The Order requires that proposed actions be examined to identify any proposed major changes that would have a measurable effect on local supplies of natural resources or energy. However, the Order states that use of natural resources, with the exception of fuel, should only be examined if the action requires a need for unusual materials in short supply. The Order further also states that changes in energy demands or other natural resource consumption will not result in significant impacts.

4.10.2 NO ACTION ALTERNATIVE

The No Action alternative would not result in any impacts to natural resources and energy supply.

4.10.3 PROPOSED ACTION ALTERNATIVE

According to the U.S. Department of Agriculture Soil Conservation Service, Soil Survey of Dallas County, Texas, the soil at the subject property is classified as Urban land. The soils in these areas have been altered or covered during prior Airport development; therefore, it was not feasible to identify and separate them in mapping. There are no known mineral resources within or adjacent to the APE.

The Proposed Action alternative would have no impact on mineral resources, nor would implementation of the Proposed Action require the use of significant energy resources. Therefore, the Proposed Action would not have a significant impact on natural resources or energy supply.


12 Benchmark Environmental Consultants, Phase I Environmental Site Assessment, City of Dallas, DalFort Aerospace and Former Legend Terminal, 7701 and 7777 Lemmon Avenue, Dallas, Dallas County, Texas. November 17, 2008.
4.11 Hazardous Materials, Pollution Prevention, and Solid Waste

Information on the potential to generate, disturb, or dispose of hazardous materials, and the potential to generate or dispose of additional solid waste, are discussed in this section. The TCEQ is responsible for regulating underground storage tanks and above-ground storage tanks used for fuel, and the management of potential sources of surface and groundwater contamination, such as the cleanup of underground and above-ground storage tank spill sites. The City of Dallas Office of Environmental Quality oversees environmental issues within Dallas, which follows State and federal environmental guidelines. Underground storage tanks are handled in accordance with International Fire Code regulations.

4.11.1 METHODOLOGY

4.11.1.1 Hazardous Materials

Impacts related to hazards and hazardous materials associated with the alternatives were analyzed by mapping areas of known or potential environmental contamination identified in Section 3, and comparing the identified sites with the locations of the proposed improvements. For those areas where no existing source(s) or evidence of environmental contamination or hazardous materials exists, no additional analysis was conducted. However, in cases where the proposed improvements are located on or adjacent to properties where these substances and materials could be encountered, the potential impacts were further evaluated.

The types of improvements included in the Proposed Action, with emphasis on the use, storage, and disposal of hazardous materials during the construction phases, were also evaluated. The basis for this evaluation was developed from what is known about existing land uses and facilities at the Airport, combined with information about current construction practices.

4.10.1.2 Solid Waste

FAA Order 1050.1E states that “FAA actions to fund, approve, or conduct an activity may require consideration of solid waste impacts in NEPA documentation.” Potential solid waste impacts were evaluated by assessing whether or not area landfills have the capacity to accept the anticipated waste that would be generated by proposed demolition and construction activities.

4.10.2 NO ACTION ALTERNATIVE

The No Action alternative would not involve construction or other subsurface activities during which hazardous materials or environmental contamination could be encountered, nor would it have any effect on the types or quantities of hazardous materials currently used at the Airport. Adoption of the No Action alternative would not generate additional solid waste resulting from construction, demolition, or other operations and, therefore, would not have any impacts on solid waste at the Airport.
4.11.3 PROPOSED ACTION ALTERNATIVE

4.10.3.1 Hazardous Materials

A variety of hazardous materials typically associated with operation of a commercial airport, including those of airport tenants, are used at the Airport. Such uses are strictly regulated by numerous federal, State, and local safety regulations. Because the types of uses included in the Proposed Action would not involve the generation, use, or storage of hazardous materials in quantities or types that are substantially different from those currently associated with Airport operations, the Proposed Action would not create additional long-term risks to the public or the environment from these substances. Further, development of new facilities at the Airport would be subject to current safety management requirements and design standards that serve to minimize, if not avoid, the potential for, and significant hazards from, upset and accident conditions. Potential impacts would, therefore, be less than significant.

4.10.3.2 Solid Waste

The Proposed Action is anticipated to result in an increase in solid waste generated at the Airport. This increase would be negligible in comparison with the available disposal capacity. Construction activities would result in a temporary increase in solid waste generation at the Airport. However, recycling, salvage, reuse, and disposal options would be identified in Solid Waste Management Plan in advance of all activities to minimize the amount of debris directed to local landfills. This plan would include the identification of locations for sorting materials for reuse and recycling. As such, the Proposed Action would have a less-than-significant impact on the solid waste disposal system. The disposal of municipal (nonhazardous) waste would likely occur at McCommas Bluff Landfill in accordance with applicable State and local requirements.

Any special or hazardous waste resulting from construction at and operation of the Airport would not be disposed of at McCommas Bluff Landfill, but would instead be disposed of at a landfill approved to receive special or hazardous waste, as required by local and State regulations, or otherwise treated/managed in accordance with federal, State, and local requirements.

The potential impacts of the Proposed Action related to the regulation of solid waste would be less than significant.

4.12 Construction Impacts

Construction of the Proposed Action projects may create some unavoidable temporary impacts to surrounding communities, such as noise, fugitive dust, and degraded water quality. Most of these impacts could be mitigated using proper construction techniques, many of which are regulated. The Proposed Action projects would be constructed in accordance with the applicable State and local ordinances and regulations and FAA AC 150/5370-10F, Standards forSpecifying Construction of Airports, Item P-156, “Temporary Air and Water Pollution, Soil Erosion, and Siltation Control.”
As no construction activities would occur under the No Action alternative, the following discussion of construction-related impacts is specific to the Proposed Action. All construction activities associated with the Proposed Action would occur during daytime hours (7:00 a.m. to 7:00 p.m.) in accordance with contracts between the DOA and the contractor(s). All applicable lighting for construction-related equipment would be properly shielded from vehicular and aircraft traffic as specified in construction plans.

4.12.1 **EROSION AND SEDIMENTATION**

Proposed short-term grading, excavation, and construction activities would increase the potential for erosion and the offsite transportation of eroded material (sedimentation). Erosion control requirements under TPDES standards were discussed in Section 4.5, “Water Quality,” because of the relationship between erosion control and water quality concerns.

4.12.2 **NOISE**

Construction activities associated with implementation of the Proposed Action may result in the temporary exposure of Airport employees and patrons to ground-borne vibration and ground-borne noise.

The Proposed Action would require some minor excavation during construction. Because of the location of the APE relative to the airfield, the noise generated by construction activities would not be significantly greater than the noise generally experienced in the surrounding areas. Therefore, any ground-borne vibration or noise resulting from construction activities would be temporary and have no significant impacts.

4.12.3 **AIR QUALITY**

A temporary increase in air pollutant emissions would be likely during construction of the administration building. Construction activities would include trenching, site preparation, grading, structure construction, and paving. These construction activities would require the use of heavy trucks, excavating and grading equipment, material loaders, bulldozers, cranes, and trenching and paving equipment. Emissions would occur during construction activities as the result of: (a) engine exhaust from construction worker vehicle trips to and from the site; (b) truck trips for hauling raw materials, supplies, and fill material and the operation of construction equipment at the site; and (c) fugitive dust emissions during ground-disturbing activities, materials handling, and equipment use on unimproved surfaces. Construction would occur before the end of 2016.

The Dallas-Fort Worth area, where the Proposed Action would be located, has been designated by the USEPA as being in attainment for six of the seven criteria pollutants; the area has been designated as a moderate nonattainment area for the 8-hour ozone standard. The applicable de minimis thresholds for general conformity purposes are 100 tons per year of volatile organic compounds and 100 tons per year of nitrogen oxides. Following standard industry practice, ozone emissions were evaluated by evaluating emissions of volatile organic compounds and NOx, which are ozone precursors.

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13 Following standard industry practice, ozone emissions were evaluated by evaluating emissions of volatile organic compounds and NOx, which are ozone precursors.
Proposed Action, the extent of construction was compared with that for the redevelopment of the DalFort site, which was the subject of a separate EA. That project includes approximately five times the amount of new development space than the Proposed Action and the construction emissions were estimated to be well below applicable de minimis thresholds\textsuperscript{14}. In comparison, the emissions generated from construction-related activities associated with the Proposed Action would also be well below established general de minimis thresholds. Therefore, a general conformity determination is not required for the Proposed Action. No adverse air quality impacts are expected to result from implementation of the Proposed Action; therefore, the Proposed Action is presumed to conform with the SIP for the Dallas-Fort Worth area.

\subsection{GREENHOUSE GASES AND CLIMATE CHANGE}

A temporary increase in air pollutant emissions, including GHGs would be likely during construction of the administration building. As noted in Section 4.12.3, construction emissions were not specifically calculated for construction of the administration building; however, the extent of construction GHG emissions associated with construction of the administration building have not been specifically quantified due to the nature of the project, and low levels of pollutant emissions that would result from construction activity. Construction activity would only slightly contribute to global climate change, accounting for less than one-hundredth of a percent of U.S. GHG emissions.

\subsection{WATER QUALITY}

As discussed earlier in Section 4.5, construction activities associated with the Proposed Action could generate water quality pollutants, such as sediments from grading/ground disturbance; fuels, oil, grease, and solvents from construction equipment fueling and servicing; metals from steel/iron work, paints, and miscellaneous chemicals stored and used during construction; and trash and debris. Potential water quality impacts would, however, be addressed through compliance with the construction activity requirements specified in the Airport SWPPP and through the TPDES General Permit to Discharge Wastes (TXR150000) for construction sites, which requires the preparation and implementation of an SWPPP specific to the proposed construction activities.

\subsection{NATURAL RESOURCES AND ENERGY SUPPLY}

Construction associated with the Proposed Action would require the use of natural resources, including, but not limited to petrochemical construction material, lumber, sand and gravel, steel, copper, and other metals and construction materials. Fossil fuels for construction equipment and vehicles would also be consumed. Construction activities for the Proposed Action are anticipated to follow up-to-date industry standards and all applicable federal, State, and local regulations. As such, the incremental increase in the demand for natural resources and energy from construction activities is expected to be less than significant.

\textsuperscript{14} City of Dallas, Department of Aviation,Texas and U.S. Department of Transportation, Federal Aviation Administration, Redevelopment of the DalFort Site Environmental Assessment, Section 4.5, “Air Quality,” October 2014.
In addition, construction of the Proposed Action projects would require water for dust suppression and would generate small amounts of construction waste and construction debris. Minimal wastewater is expected to be generated during construction. These utility and service needs would be within the capacity of the respective utility and service systems and would not cause a significant impact.

All utility relocation would be conducted in close coordination with (or by) the respective service providers and in compliance with all applicable regulations and permits. The existing compressed natural gas fueling station would remain in the APE. Accordingly, construction impacts on utilities and service systems would not be significant.

4.12.7 HAZARDOUS MATERIALS, POLLUTION PREVENTION, AND SOLID WASTE

During construction of the Proposed Action improvements, hazardous materials (i.e., fuel, waste oil, solvents, paint, and other hydrocarbon-based products) would be used in quantities that are typical of the construction industry. The construction contract documents would require that these materials be stored, labeled, and disposed in accordance with State and local regulations. The contractors would also be responsible for reporting any discharges of hazardous materials or other similar substances (in amounts deemed reportable quantities). Contractors would be required to stop work in the event that previously unknown contaminants are discovered during construction, or a spill occurs during construction, until the National Response Center is notified.

Construction activities would result in a temporary increase in solid waste generation at the Airport. However, recycling, salvage, reuse, and disposal options would be identified in advance of all construction activities to minimize the amount of debris directed to appropriate facilities.

4.13 Cumulative Impacts

Consideration of potential cumulative impacts applies to the impacts resulting from implementation of the Proposed Action and other actions. The concept of cumulative impacts addresses the potential for individually minor, but collectively significant impacts to occur over time.

Council on Environmental Quality Regulations, Section 1508.7, defines cumulative impacts as the incremental impacts of the action when added to the past, present, and reasonably foreseeable future actions regardless of the agency (federal or non-federal) undertaking such actions.

The cumulative impact of the Proposed Action on global climate when added to other past, present, and reasonably foreseeable future actions is not currently scientifically predictable. Aviation has been calculated to contribute approximately three percent of the global CO2 emissions; this contribution may grow to five percent by 2050. Actions are underway within the U.S. and by other nations to reduce aviation’s contribution through such measures as new aircraft technologies to reduce emissions and improve fuel efficiency, renewable alternative fuels with lower carbon footprints, more efficient air traffic management, market-based measures and environmental regulations including an aircraft CO2 standard.
The U.S. has goals to achieve carbon-neutral growth for aviation by 2020 compared to a 2005 baseline, and to gain absolute reductions in GHG emissions by 2050. At present, there are no calculations of the extent to which measures individually or cumulatively may affect aviation’s CO₂ emissions. Moreover, there are large uncertainties regarding aviation’s impact on climate. The FAA, with support from the U.S. Global Change Research Program and its participating federal agencies, has developed the Aviation Climate Change Research Initiative (ACCRI) in an effort to advance scientific understanding of regional and global climate impacts of aircraft emissions, with quantified uncertainties for current and projected aviation scenarios under changing atmospheric conditions.

Because the Proposed Action would result in minor construction impacts and have no or minimal impact on other resources and would not change aircraft operations at the Airport, the Proposed Action in combination with other foreseeable projects in the APE would not reach or exceed thresholds of significance.

### 4.14 Other Considerations

The Proposed Action is not likely to be environmentally controversial and no known organized opposition to the Proposed Action exists. The Proposed Action is consistent with the plans, goals, and policies of the Sponsor. In addition, the Proposed Action is not likely to directly, indirectly, or cumulatively create a significant impact on the human environment.
5. Agency Coordination and Public Review

Under 40 CFR 1501.4, federal agencies are required to involve environmental agencies, applicants, and the public, to the extent practicable, in preparing EAs. Therefore, when conducting the NEPA process, the FAA and the airport sponsor are encouraged to begin early coordination with the appropriate federal, state, tribal, and local agencies, including surrounding municipalities, to identify any possible environmental concerns as the Draft EA is prepared. Keeping agencies and the public informed and gathering their input is an essential component of any environmental study. The following sections summarize the agency coordination and public review for this EA.

5.1 Agency Coordination

Agency consultation was conducted by the FAA to seek input from the THC on areas of concern related to archaeological resources within the proposed project site. The THC confirmed that no historic properties would be affected by the Proposed Action. All coordination regarding the Proposed Action between FAA and THC has been documented in Appendix A. Considering the nature of the project and the range of its potential effects, the FAA determined that no other agency coordination or consultation was required.

5.2 Availability of the Draft EA for Review

The Draft EA is available for review by the general public, government agencies, and interested parties beginning on November 15, 2014 for 30 days. The Notice of Availability (NOA) of the Draft EA for review is published on November 15, 2014 in the following media:

- The Dallas Morning News in print and electronically on http://www.dallasnews.com/
- Al Día in print and electronically on http://aldiatx.com/

The NOA is also posted electronically on:

- The DOA website: http://www.dallas-lovefield.com/
- The City of Dallas website: http://dallascityhall.com
Copies of the Draft EA and the NOA are available for review at the locations listed in Table 5-1, including the DOA offices, area libraries, and the FAA Southwest Regional Office, Texas Airports Development Office, in Fort Worth, Texas.

### Table 5-1: Publication Locations for Draft EA

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<td>FAA, Southwest Regional Office, Texas Airports Development Office</td>
<td>2601 Meacham Boulevard</td>
<td>Fort Worth</td>
<td>76137</td>
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<tr>
<td>DOA Office</td>
<td>8008 Cedar Springs Road</td>
<td>Dallas</td>
<td>75235</td>
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<tr>
<td>Bachman Lake Library</td>
<td>9480 Web Chapel Road</td>
<td>Dallas</td>
<td>75220</td>
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<tr>
<td>Grauwyler Park Library</td>
<td>2146 Gilford Street</td>
<td>Dallas</td>
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Anyone wishing to comment on the Draft EA is offered the opportunity to do so in writing. Written comments are to be postmarked or sent via email by midnight Central Standard Time by December 16, 2014 to:

Ms. Lana Furra  
Assistant Airport Director  
Dallas Love Field  
City of Dallas – Department of Aviation  
8008 Cedar Springs Road  
Dallas, TX 75235  
Runway1836EA@dallascityhall.com

The FAA and DOA have determined that neither a public workshop nor public hearing are required for this project because there are no environmental impacts associated with the proposed action that would exceed applicable thresholds of significance. In addition, no special purpose laws are applicable to the project, which require public participation. However, anyone believing that a public hearing should be held may state so in writing to the physical address or email address listed above. Written requests must be postmarked no later than December 16, 2014 or submitted via email by midnight Central Standard Time December 16, 2014.
6. References

Benchmark Environmental Consultants, *Phase I Environmental Site Assessment, City of Dallas, DalFort Aerospace and Former Legend Terminal 7701 and 7777 Lemmon Avenue, Dallas, Dallas County, Texas*. November 17, 2008.


City of Dallas, Department of Aviation, *Dallas Love Field Historical Aerial Photography*.


# 7. List of Acronyms

**A**

AAC – Aircraft Approach Category

AC – Advisory Circular

ADG – Airplane Design Group

ALP – Airport Layout Plan

APE – Area of Potential Effect

**B**

**C**

CAAA – Clean Air Act Amendments of 1990

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

CFR – Code of Federal Regulations

**D**

DFW – Dallas/Fort Worth International Airport

DNL – Day-Night Average Sound Level (expressed in A-weighted decibels)

DOA – Department of Aviation

DOT – Department of Transportation

**E**

EA – Environmental Assessment

**F**

FAA – Federal Aviation Administration

FBO – Fixed Base Operator

FR – Federal Register

**G**

GA – General Aviation

**H**

**I**

**J**

**K**

**L**

**M**

**N**

N/A – Not Available or Not Applicable depending on context

NAAQS – National Ambient Air Quality Standards

NEPA – National Environmental Policy Act of 1969

NRHP – National Register of Historic Places

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**R**

RCRA – Resource Conservation and Recovery Act

RDC – Runway Design Code

ROFA – Runway Object Free Area

RPZ – Runway Protection Zone

RSA – Runway Safety Area

**S**

SIP – State Implementation Plan

SWPPP – Stormwater Pollution Prevention Plan

**T**

TCEQ – Texas Commission on Environmental Quality

THC – Texas Historical Commission

TPDES – Texas Pollutant Discharge Elimination System

**U**


USEPA – U.S. Environmental Protection Agency

USFWS – U.S. Fish and Wildlife Service

**V**

VASI – Visual Approach Slope Indicator

**W**

**X**

**Y**

**Z**
8. List of Preparers

The following individuals prepared the EA. Information provided includes the organizations for which each individual works, a brief synopsis of their relative experience and qualifications, and their responsibilities in the preparation of this EA document.

8.1 Principal Federal Aviation Administration Reviewers

John MacFarlane, Environmental Protection Specialist

- **Qualifications** – More than 15 years of experience in biological assessment and NEPA compliance, with significant experience preparing categorical exclusions, environmental assessments, and environmental impact statements.
- **Responsibilities** – FAA coordination and review of the EA

8.2 City of Dallas, Department of Aviation

Mark Duebner, Director of Aviation

- **Qualifications** – More than 20 years of municipal experience, with significant experience in business development, procurement, police, public works, aviation, and special projects for the City Manager’s Office. His main areas of expertise include finance, land use, real estate development, electronic government applications, and customer service delivery.
- **Responsibilities** – Overall project direction as the City’s Director of Aviation.

Lana Furra, Assistant Director of Aviation

- **Qualifications** – More than 20 years of aviation experience, with significant experience related to the Airport Capital Development Program, master planning for Love Field and Dallas Executive Airport, the Emergency Management Division, and the Love Field Art Program.
- **Responsibilities** – Overall review of the EA and coordination with the FAA.
8.3 Ricondo & Associates, Inc.

John Williams, Senior Vice President
- **Qualifications** – More than 30 years of experience in airport environmental and facilities planning, with significant experience preparing and managing environmental assessments and environmental impact statements, airport master plans, and aviation activity forecasts.
- **Responsibilities** – Project management and quality assurance/quality control

Christen Suda, Managing Consultant
- **Qualifications** – Nearly 10 years of experience preparing airport environmental and planning analyses, with experience in facility planning, airport master planning, environmental impact statements, environmental assessments, sustainability planning and implementation and managing on-call planning projects.
- **Responsibilities** – NEPA documentation, the affected environment, and environmental consequences

Charlie Cummings, Senior Consultant
- **Qualifications** – More than 5 years of experience preparing airport environmental and planning analyses, with significant experience preparing categorical exclusions, environmental assessments, environmental impact reports, and airport master planning projects.
- **Responsibilities** – NEPA documentation, alternatives, the affected environment, and environmental consequences
August 6, 2014

Mark Wolfe
State Historic Preservation Officer
Texas Historical Commission
P.O. Box 12276
Austin, TX 78711-2276

Re: Dallas Love Field, Runway 18-36 Decommissioning and Administration Building EA, Cultural and Archaeological Resource Consultation

Dear Mr. Wolfe,

The City of Dallas, Department of Aviation (DOA) is preparing an Environmental Assessment (EA) for the Federal Aviation Administration (FAA) for the decommissioning of Runway 18-36 and the construction of an administration building, the proposed undertaking, at the Dallas Love Field (Airport). Runway 18-36 has been closed to aircraft arrivals and departures since April 2011 due to ongoing construction at the Airport. The official decommissioning of the runway is proposed because the runway does not meet FAA standards for Runway Safety Areas (RSA) or for visual approach slope indicator (VASI) lights and the DOA has determined that decommissioning of the runway is more prudent than correcting the deficiencies. The administration building would serve DOA staff and would replace temporary facilities that are located in an area designated for future remote aircraft parking.

The proposed undertaking requires the DOA to revise the Airport Layout Plan (ALP). The ALP is the official illustration prepared by the airport sponsor and approved by the FAA to identify current and proposed airport facilities. FAA approval of a modified ALP constitutes a federal action, which requires compliance with the National Environmental Policy Act (NEPA).

The FAA is the lead federal agency for NEPA processing for airport actions, and is therefore the lead agency charged with conducting Section 106 consultation with the appropriate State Historic Preservation Office, in this case, the Texas Historical Commission (THC). The FAA is initiating Section 106 consultation with your office, effective the date of this letter. The purpose of this consultation is to seek input on any areas of concern related to archaeological resources within the proposed project site. Prior Section 106 consultation regarding historic and architectural resources has been conducted for Airport property and no such resources are on or near the proposed site of the City’s administration building.
The proposed undertaking includes (a) decommissioning Runway 18-36 and (b) constructing a new DOA administration building at the Airport. The decommissioning of Runway 18-36 would include modifications to airfield marking, signage, and lighting at all of the existing Runway 18-36 taxiway crossings. The construction of the administration building would include the realignment of a portion of the Airport perimeter road, the construction of new security fencing, the construction of parking areas, and the relocation of utilities adjacent to the Denton Drive and Clifford Street intersection within existing Airport property. Although the two projects are not technically connected, because of their proximity FAA considers the projects connected actions under NEPA. Exhibit 1 depicts the Area of Potential Effect (APE) for the proposed undertaking.

The decommissioning of Runway 18-36 would not result in excavation or ground disturbance activities. However, the construction of the administration building would include ground clearing, as well as excavation for building foundations, perimeter road realignment, and utility relocations. The FAA has identified the APE for the administration building to be an 8.5-acre site adjacent to the Denton Drive and Clifford Street intersection, an area that has been heavily disturbed since the original construction of the Airport.

The FAA requests your concurrence with the APE. Also, although there are no known archaeological resources within or near the APE, the FAA further requests whether THC has any areas of concern regarding the proposed undertaking and its potential effect on archaeological or cultural resources.

If you have any questions or require additional information, please feel free to contact me at 817-222-5681 or by e-mail at john.macfarlane@faa.gov.

Sincerely,

John MacFarlane
Environmental Protection Specialist
Texas Airports Development Office

cc: Lana Furra, City of Dallas, DOA

Enclosure:

Exhibit 1: Area of Potential Effect (APE)