FINAL ENVIRONMENTAL ASSESSMENT

Airport Expansion and Development Program

Austin-Bergstrom International Airport
Austin, Texas

Prepared for

City of Austin Airport Advisory Commission and
U.S. Department of Transportation
Federal Aviation Administration

As lead Federal Agency pursuant to the National Environmental Policy Act of 1969

Prepared by:

RS&H, Inc.

June 2022

This Environmental Assessment becomes a Federal document when evaluated, signed and dated by the Responsible Federal Official.

JOHN J MACFARLANE
Digitally signed by JOHN J
MACFARLANE
Date: 2022.06.13 12:03:25
-05'00'

Responsible Federal Official

Date

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

| Chapte | r 1 Purpose and Need | 1-1 |
|---|--|---|
| 1.1 1.2 1.3 1.4 1.5 Chapte | Introduction Background Information Proposed Project Purpose and Need Description of Proposed Project Requested Federal Actions r 2 Alternatives | 1-1 1-15 1-19 1-26 |
| 2.1 2.2 2.3 2.4 2.5 2.6 2.7 Chapte | Introduction Identification of Potential Alternatives Screening Process Screening Step 1: Can the Alternative Achieve the Objective of the Purpose and Need for the Proposed Project? Screening Step 2: Is the Alternative Practical and Feasible to Implement? Alternatives Retained for Analysis in This EA. Federal Laws and Regulations Considered in This Analysis r 3 Affected Environment and Environmental Consequences | 2-1 2-9 2-10 2-13 2-15 2-16 |
| 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 3.10 3.11 3.12 3.13 | Introduction | 3-1 3-2 3-5 3-14 3-23 3-28 3-30 3-37 3-43 3-48 3-51 |
| | Water Resourcesr 4 Consultation | |
| 4.1 4.2 4.3 4.4 4.5 4.6 Chapte | Introduction Agency and Organization Coordination Public Involvement Distribution of Draft EA Public Review of Draft EA Final EA r 5 References | 4-1 4-1 4-2 4-2 |
| 5.1 5.2 5.3 5.4 | Introduction Purpose and Need Chapter Alternative Chapter Affected Environment and Environmental Consequences | 5-1 5-1 |

| Chapter 6 List of Preparers6-1 |
|--|
| 6.1 Introduction6-1 |
| 6.2 Federal Aviation Administration6-1 |
| 6.3 Principal Preparers6-1 |
| |
| LIST OF TABLES |
| Table 1-1 Barbara Jordan Terminal Facilities |
| Table 1-1 South Terminal Facilities |
| Table 1-2 South Ferninal Facilities |
| Table 1-4 Historical and Forecast Passenger Enplanements at the Airport |
| · · · · · · · · · · · · · · · · · · · |
| Table 1-5 Terminal Components Meeting Existing and Future Standards |
| Table 1-6 Aircraft Gate Requirements |
| Table 1-7 Proposed Project Components and Identification of Associated Federal Actions |
| Table 2-1 Aircraft Operations and Enplanements Under the No Action Alternative in |
| 2027 |
| Table 2-2 Aircraft Operations and Enplanements Under the No Action Alternative in |
| 2032 |
| |
| Table 2-3 Summary of Step 1 Screening Process |
| Table 2-4 Summary of Step 2 Screening Process2-15 |
| Table 2-5 Federal Laws and Regulations Considered in this Analysis2-16 |
| Table 3.4-1 National Ambient Air Quality Standards (NAAQS) |
| Table 3.4-2 Aircraft Operational Emissions Inventory Under the No Action Alternative3-8 |
| Table 3.4-3 Construction Emission Inventory – Proposed Project |
| Table 3.4-4 Aircraft Operational Emissions Inventory Under the Proposed Project Compared |
| to the No Action Alternative |
| Table 3.4-5 Operational Emissions Inventory of the Net Change in Central Utility Plant |
| Emissions |
| Table 3.4-6 Operational Emissions Inventory of the Additional Ground Access Vehicles .3-12 |
| Table 3.4-7 Operational Emissions Inventory of the Additional Parking Areas3-12 |
| Table 3.4-8 Net Operational Emission Changes Compared to the De Minimis Thresholds |
| 3-13 |
| Table 3.5-1 Wildlife Species Habitats Summary |
| Table 3.6-1 City of Austin Climate Equity Plan Provisions Related to the Airport3-25 |
| Table 3.6-2 GHG Emissions Associated with Aircraft Operations for the No Action |
| Alternative and the Proposed Project |
| Table 3.6-3 GHG Emissions Associated with Construction and Demolition for the Proposed |
| Project |
| Table 3.7-1 Change in Noise for Section 4(f) Properties in General Study Area3-33 |
| Table 3.10-1 Airport Overlay Zone Land Use Restrictions |
| Table 3.12-1 2019 Existing Conditions Noise Contours Population, Housing, and Area3-52 |
| Table 3.12-2 Part 150 Noise / Land Use Compatibility Guidelines |
| Table 3.12-3 2027 No Action Alternative Noise Contours Population, Housing, and Area 3-58 |
| Table 3.12-4 2032 No Action Alternative Noise Contours Population, Housing, and Area 3-58 |
| Table 3.12-5 2032 Proposed Project Noise Contours Population, Housing, and Area3-66 |

| • | pulation and Housing Characteristics in Project Study Area and General | |
|--------------------|---|------|
| • | a | 3-68 |
| | employment Rate in Project Study Area, General Study Area, Travis | |
| | nd State of Texas | |
| | sting (2019) Measures of Effectiveness | |
| | 27 Measures of Effectiveness | |
| | 32 Measures of Effectiveness | |
| | vironmental Justice Populations in Project Study Area, General Study Ar | |
| , | stin, and Travis County | |
| | d Identified Potential Wetlands within Project Study Area | |
| Table 4-1 Draft E | A Available Locations | 4-2 |
| | | |
| LIST OF EX | HIBITS | |
| Exhibit 1-1 Region | onal Location of Airport | 1-2 |
| | Airport Diagram | |
| Exhibit 1-3 Passe | enger Terminal Buildings at AUS | 1-5 |
| Exhibit 1-4 Barba | ara Jordan Terminal Layout | 1-6 |
| | h Terminal Layout | |
| | rical and Forecast Aircraft Operations at Airport | |
| | rical and Forecast Passenger Enplanements at Airport | |
| | osed Project | |
| | native 1: Maximum Capacity of Barbara Jordan Terminal | |
| | native 2: Expanded Barbara Jordan Terminal | |
| | native 3: New/Expanded Arrival/Departure Hall with New Pier Concours | |
| | ourse B | |
| | native 4: New/Expanded Arrival/Departure Hall with New Concourse B | |
| | ction Alternative Hardstand Locations | |
| | natives Screening Process | |
| - | ject Study Area and General Study Area | |
| | dlife Resources in the General Study Area | |
| | ction 4(f) Properties in the General Study Area | 3-31 |
| | eas of Potential Effect (APE) for Historic, Architectural, and Cultural | 2 20 |
| | deline Lend Her | |
| | xisting Land Use | |
| | irport Overlay Zones | |
| | 019 Existing Conditions Noise Contours | |
| | 027 No Action Alternative Noise Contours | |
| | 032 No Action Alternative Noise Contours | |
| | esidential Land Uses in 65+ Noise Contours Under No Action Alternative | |
| | 022 Description of Nation Combines | |
| Exhibit 3.12-5 20 | 032 Proposed Project Noise Contours | J-63 |
| | 032 Proposed Project Noise Contours Compared to 2032 No Action e Noise Contours | 2.61 |
| | esidential Land Uses in 65+ Noise Contours Under Proposed Project in | 5-04 |
| | esidential Land Oses in 65+ Noise Contours Onder Proposed Project in | 3_65 |
| | ensus Tracts in Project Study Area and General Study Area | |
| | chous tructs in France study Arca and Ocheral Study Arca | J 0/ |

| Exhibit 3.14-1 Potential Wetlands within Project Study Area and in Vicinity of Project Study Area3-81 |
|---|
| Exhibit 3.14-2 Potential Wetlands in Vicinity of Project Components in U-2 and U-33-84 |
| Exhibit 3.14-3 Floodplains in Vicinity of Project Study Area |
| APPENDICES |
| Appendix A – REDIM Analysis |
| Appendix B - Project Components Compared to Mater Plan |
| Appendix C – Regulatory Context |
| Appendix D – Air Quality and Noise Technical Report |
| Appendix E – Texas Parks and Wildlife Correspondence |
| Appendix F – List of Rare, Threatened, and Endangered Species in General Study Area |
| Appendix G – Asbestos Surveys and Abatement Activities |
| Appendix H – Surface Traffic Counts and Models |
| Appendix I – Consultation and Public Outreach |
| Appendix J – Public Outreach for Draft EA Public Meetings |
| Appendix K – Public Comments and Response to Comments |

| ABBREVIATIONS AND | | ВЈТ | Barbara Jordan Terminal | |
|-------------------|---|----------|-------------------------------------|--|
| | <u>ACRONYMS</u> | BMPs | Best Management Practices | |
| | <u>A</u> | BTU | British Terminal Units | |
| AC | Advisory Circulars | | <u>C</u> | |
| ACEIT | Airport Construction Emissions Inventory Tool | CEQ | Council of Environmental | |
| ACERT | Airport Carbon Emission Reporting Tool | CERHB | Quality Center for Environmental | |
| ACRP | Airport Cooperative Research Program | | Research at Hornsby Bend | |
| ADG | Airport Design Group | CFR | Code of Federal Regulations | |
| AEDT | Aviation Environmental Design Tool | СО | Carbon Monoxide | |
| AIP | Airport Improvement Program | CO2e | Carbon dioxide Equivalents | |
| ALP | Airport Layout Plan | CONRAC | Consolidated Rental Car Facility | |
| AO | Airport Overlay | CZMA | Coastal Zone | |
| AOA | Air Operations Area | | Management Act | |
| APE | Area of Potential Effect | | <u>D</u> | |
| ARFF | Aircraft Rescue and Fire Fighting | dB | Decibel | |
| ATCT | Air Traffic Control Tower | DNL | Day-Night Average Sound Level | |
| Atlas | Texas Historical Commission's Archeological Sites Atlas | DOT | U.S. Department of Transportation | |
| AUS | Austin-Bergstrom | <u>E</u> | | |
| | International Airport | EA | Environmental Assessment | |
| D.4.ED | <u>B</u> | EBFR | Eastbound Frontage Road | |
| BAFB | Bergstrom Air Force Base | EBS | Environmental Basewide | |
| BCC | Birds of Conservation Concern | | Survey | |
| BCR | Bird Conservation Region | EO | Element Occurrence | |

| EO | Executive Order | | | |
|------|---|----------------|---|--|
| EPA | U.S. Environmental | <u>L</u> | | |
| ESCs | Protection Agency | LOS | Level of Service | |
| E3C5 | Erosion and sedimentation controls | | <u>M</u> | |
| | <u>F</u> | MAP | Million Annual Passengers | |
| FAA | Federal Aviation | MOS | Modification of Standards | |
| ., . | Administration | MOVES | Motor Vehicle Emissions | |
| FEMA | Federal Emergency | 1464 | Simulator | |
| EDDA | Management Agency | MSA | Metropolitan Statistical Area | |
| FPPA | Farmland Protection Policy Act | MWs | Megawatts | |
| FRS | Facility Registry Service | | | |
| | | | <u>N</u> | |
| | <u>G</u> | NAAQS | National Ambient Air Quality Standards | |
| GAO | Government Accountability Office | NEPA | National Environmental | |
| GHG | Greenhouse Emissions | | Policy Act | |
| GIS | Geographical Information | NHD | National Hydrography Agency | |
| | System | NO_2 | Nitrogen Dioxide | |
| GSE | Ground Surface | NPIAS | National Plan of | |
| CTC | Equipment Ground Transportation Center | NPIAS | Integrated Airport | |
| GTC | | | Systems | |
| | | NRHP | National Register of Historic Places | |
| | <u>H</u> | B 13 A 7 T | | |
| НВВО | Hornsby Bend Bird Observatory | NWI | National Wetland Inventory | |
| | <u>I</u> | | <u>o</u> | |
| IPaC | Information for Planning and Conservation | O ₃ | Ozone | |
| | | OFA | Object Free Area | |
| IPCC | International Panel on Climate Change | | | |

| | <u>P</u> | SWMU | Solid Waste Management |
|-----------------|--|-------|---|
| PALs | Planning Activity Levels | | Unit |
| Pb | Lead | SWPPP | Stormwater Pollution Prevention Plan |
| PCBs | Polychlorinated Biphenyls | | |
| PFCs | Passenger Facility | | Ī |
| | Charges | TAC | Tactical Air Command |
| ppm | Parts Per Million | TAF | Terminal Area Forecast |
| ppb | Parts Per Billion | TCE | Trichloroethylene |
| PM | Particulate Matter | TCEQ | Texas Commission on Environmental Quality |
| | <u>R</u> | TDS | Texas Disposal Systems |
| RCRA | Resource Conservation and Recovery Act | THC | Texas Historical Commission |
| REDIM | Runway Exits Interactive Design Model | TPDES | Texas Pollution Discharge Elimination System |
| RON | Remain Overnight | TPWD | Texas Parks and Wildlife |
| ROT | Runway Occupancy Time | | Department |
| RTEST | Rare, Threatened, and Endangered Species | TRB | Transportation Research Board |
| | | TSS | total suspended solids |
| SAC | <u>S</u> Strategic Air Command | TxDOT | Texas Department of Transportation |
| SGCN | State Listed Species of Greatest Conservation Need | TxNDD | Texas Natural Diversity Database |
| SH | State Highway | | <u>U</u> |
| SIP | State Implementation Plan | USACE | U.S. Army Corps of Engineers |
| SO ₂ | Sulfur Dioxide | USFWS | U.S. Fish and Wildlife |
| SPCC | Spill Prevention Control and Countermeasure Plan | USGS | Service U.S. Geological Survey |
| SWMM | Stormwater Management Model | | |

<u>W</u>

WBFR Westbound Frontage Road