

CHAPTER ONE INTRODUCTION AND DESCRIPTION OF PROPOSED ACTION

The Salt Lake City Department of Airports (SLCDA), as the Airport Sponsor, in conjunction with the Utah Transit Authority (UTA), prepared this Environment Assessment (EA) to disclose potential impacts to the natural environment due to proposed capital improvements at the Salt Lake City International Airport (Airport). The Proposed Action¹ includes the construction and operation by UTA of a light-rail transit system (LRT) to provide service between the Surplus Drainage Canal² and existing Terminal 1. The Proposed Action represents one of the final two components of the West-East Light-Rail Transit System (W-E TRAX) providing a continuous transit connection between the Airport, downtown Salt Lake City, and the University of Utah, which are the three largest generators of traffic in the Salt Lake City area. The W-E TRAX is an important element of the Salt Lake City public mass transit system to relieve traffic congestion while not contributing to air emissions or fuel consumption.

The On-Airport component of the W-E TRAX project is proposed to be located entirely on Airport property which constitutes a modification to the Airport Layout Plan (ALP). ALP modifications require FAA approval which is a Federal action triggering review in accordance with the *National Environmental Policy Act of 1969* (NEPA)³. This EA is intended to provide an evaluation sufficient for the FAA to determine whether the Proposed Action would have adverse impacts significant enough to require the preparation of an Environmental Impact Statement (EIS), or if the need for an EIS is not indicated, a Finding of No Significant Impact (FONSI) would be issued by the FAA. Documentation of coordination with the relevant Federal and state agencies is provided in **Appendix A, Coordination and Comments**; information that supplements and further clarifies the air quality impact analysis is provided in **Appendix B, Air Quality**.

¹ The Proposed Action assessed in this EA is also the Airport Sponsor's Preferred Alternative; see FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures Change 1*, Paragraph 405(d)(2) (March 20, 2006).

² There are two canals that lie along the south side of the Airport, the Surplus Drainage Canal and the North Point Canal. Traffic must cross these two canals to access the Airport.

³ Pub.L. 91-190, Title 42 U.S. Code §4321, et. seq., *National Environmental Policy Act*, 1969 NEPA, Section 102(2)(c); 40 CFR Parts 1500-1508 (July 1, 2008).

1.1 BACKGROUND

Planning for rail transportation in the Salt Lake City Valley began in the early 1980s and the North-South corridor that extends from Ogden, to Salt Lake City, to Provo, Utah, was identified as an area with transportation issues. Funding was secured for rail service within the North-South corridor in 1995 and planning also began for the W-E TRAX, the light rail system to serve the West-East corridor⁴ extending from the University of Utah, to downtown Salt Lake City, to the Airport.

Assisted by the UTA and the Wasatch Front Regional Council (WFRC), the Federal Transit Administration (FTA) was the Federal agency that sponsored the initial comprehensive NEPA environmental review of the entire W-E TRAX system beginning with the *1997 Major Investment Study/Draft Environmental Impact Statement* (FTA 1997 MIS/DEIS).⁵ The alignment of the entire W-E TRAX is shown in **Exhibit 1-1, UTA TRAX West-East Transit System**. In that draft EIS the FTA evaluated a range of transit modes and identified light rail as the most appropriate solution to the transportation needs of the West-East corridor. The NEPA review of the W-E TRAX, including the On-Airport component⁶, was finalized with the approval of the *1999 Airport to University West-East Light Rail Project Final Environmental Impact Statement* (FTA 1999 Final EIS).⁷ The eastern section of the W-E TRAX line is referred to as the University TRAX Line. A section of the University TRAX Line was then completed in January 2002 in time for the 2002 Winter Olympics. The remainder of the University TRAX Line was completed in September 2003. The University TRAX Line extends from the University of Utah Medical Center to the Salt Lake City downtown area.

The major western section of the W-E TRAX line is proposed to extend from downtown Salt Lake City to the Airport. Referred to as the Airport TRAX Line, and shown in Exhibit 1-1, *UTA TRAX West-East Transit System*, this western section was initially delayed due to funding constraints. However, in 2006, the voters in Salt Lake County approved local funding for UTA rail transit projects allowing the development of the Airport TRAX Line to continue without the need for Federal funding. The proposed Airport TRAX Line is being evaluated in two components, the Off-Airport component and the On-Airport component. The Off-Airport component, shown in Exhibit 1-1, extends west from downtown Salt Lake City along North Temple Street, to Interstate 80, and along northbound State Route 154 ending just south of the Surplus Drainage Canal.

⁴ Federal Transit Administration (FTA), *Before and After Studies of New Starts Project* (September 2007).

⁵ FTA, Utah Transit Authority (UTA), and Wasatch Front Regional Council (WFRC), *Major Investment Study and Draft Environmental Impact Statement* (FTA 1997 MIS/DEIS) (July 1997). The Final EIS on the preferred alternative identified in the FTA 1997 MIS/DEIS, a light-rail transit system, was completed in 1999.

⁶ Per the UTA, the eastern section of the West-East Light-Rail Transit System refers to the University TRAX Line; the western section refers to the Airport TRAX Line, which is further divided into the Off-Airport component and the On-Airport component.

⁷ FTA, UTA, and WFRC, *Airport to University West-East Light Rail Project Final Environmental Impact Statement* (FTA 1999 Final EIS) (March 1999).

Insert Exhibit 1-1
UTA TRAX West-East Transit System

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The environmental impacts of the Off-Airport component (with a track approximately five miles in length) were reevaluated by the UTA in the *2008 Final Environmental Study Report for the Airport TRAX Line* (UTA 2008 Final ESR)⁸. Because the Off-Airport component did not involve Federal funding or otherwise involve a Federal action that triggered NEPA, this updated environmental review was not done by the FTA (as it was in 1999) and was not a formal NEPA review. This EA evaluates the cumulative effects of the Off-Airport component later in this document in Chapter Five, *Environmental Consequences*, Section 5.3, *Cumulative Impacts*.

The second part of the Airport TRAX Line (track is approximately 1 mile), the On-Airport component as shown in **Exhibit 1-2, Project Location and Study Area**, is the subject of this EA. Unlike the Off-Airport component, the On-Airport component involves a Federal action subject to NEPA requirements (*i.e.*, FAA's approval of the ALP as described in the introduction), thus this updated environmental analysis is done pursuant to NEPA.

1.2 PROJECT LOCATION AND STUDY AREA

The On-Airport component of the Airport TRAX Line and the outline of the EA Study Area are presented in Exhibit 1-2, *Project Location and Study Area*. The Study Area is located entirely on Airport property along a path extending 1,000 feet to either side of the proposed rail line alignment that begins on the south side of the Surplus Canal, crosses the Surplus Canal and the Farmington Wetlands North Point Consolidated Canal (FWNPCC or North Point Canal), and continues 4,800 feet along North Terminal Drive to the proposed station platform at Terminal 1. The Study Area also extends 1,800 feet north beyond the proposed station platform. The dimensions used to define the Study Area corridor on Airport property are consistent with the dimensions used to define the TRAX corridor analyzed in the FTA 1999 Final EIS.

1.3 REGULATORY OVERVIEW

This EA was prepared in accordance with all the relevant Federal, state, and local regulations and guidelines relating to the quality of the natural and human environments. The analysis followed NEPA regulations and guidelines promulgated by the Council on Environmental Quality (CEQ) and was prepared in accordance with U.S. DOT Order 5610.1C,⁹ and FAA guidelines including

⁸ UTA, *Final Environmental Study Report for the Airport TRAX Line: Supplement to the 1999 Final Environmental Impact Statement for the Airport to University West-East Light Rail Project* (UTA 2008 Final ESR) (July 2008).

⁹ U. S. Department of Transportation (DOT), Order 5610.1C, in the Federal Register (71 Fed. Reg. 29014, volume 71 beginning on page 29014) (May 18, 2006), wherein FAA is instructed to follow the requirements of Paragraph 19d of U.S. DOT Order 5610.1C.

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**Insert Exhibit 1-2
Project Location and Study Area**

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FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*;¹⁰ FAA Order 5050.4B, *NEPA Implementing Instructions for Airport Actions*;¹¹ and the FAA *Environmental Desk Reference for Airport Actions*.¹²

The analysis and evaluation contained in this EA are based in part on the extensive environmental and planning studies that have already been completed on the W-E TRAX, including:

- FTA 1997 MIS/DEIS
- FTA 1999 Final EIS (based on the 1997 MIS/DEIS)
- SLCDCA *Airport Layout Plan 2006 Update* (SLCDCA 2006 ALP Update)¹³
- SLCDCA *2008 LRT Alignment Selection Initial Alternatives Analysis Report* (SLCDCA 2008 LRT Alignment Draft Report)¹⁴
- UTA 2008 Final ESR
- *WFRC Long Range Transportation Plan Update: 2004-2030*¹⁵ (WFRC 2008 LRTP Update)
- *WFRC 2009-2014 Transportation Improvement Program* (2009 TIP)¹⁶

This EA was prepared pursuant to various federal laws relating to the quality of the natural and human environments including:

- *The Department of Transportation Act (1966)*, as amended¹⁷
- *Protection of Wetlands (1977)*, Executive Order 11990¹⁸
- *Preservation of the Nation's Wetlands (1978)*, U.S. Department of Transportation (USDOT) Order 5660.1A¹⁹
- *Floodplain Management (1977)*, Executive Order 11988²⁰

¹⁰ FAA Order 1050.1E, Change 1, Paragraph 405(d)(2) (March 20, 2006), *Environmental Impacts: Policies and Procedures*.

¹¹ FAA Order 5050.4B *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*. Effective date: April 28, 2006.

¹² FAA, *Environmental Desk Reference for Airport Actions* (October 2007).

¹³ Salt Lake City Department of Airports (SLCDA), *Salt Lake City International Airport, Airport Layout Plan Update* (SLCDA 2006 ALP Update) (May 2006).

¹⁴ Salt Lake City Department of Airports (SLCDA), *Draft Report Salt Lake City International Airport LRT Alignment Selection Initial Alternatives Analysis Report* (SLCDA 2008 LRT Alignment Draft Report) (June 2008).

¹⁵ WFRC, *WFRC Wasatch Front Regional Transportation Plan: 2007-2030 Technical Report 46* (May 2007 amended October 23, 2008).

¹⁶ WFRC, *WFRC 2009-2014 Transportation Improvement Program* (2009 TIP) (August 28, 2008).

¹⁷ U.S. DOT, *The Department of Transportation Act (1966)*, as amended, (DOT Act 1966) Pub. L. 89-670, 80 Stat. 931 (October 15, 1966); codified at 49 U.S. Code §303 *Policy on Lands, Wildlife and Waterfowl Refuges, and Historic Sites*. See Chapter Four, *Affected Environment* and Chapter Five, *Environmental Consequences; Department of Transportation Act Section 4(f)*.

¹⁸ Executive Order 11990, *Protection of Wetlands*, journalized in 42 Fed. Reg. 26961 (May 24, 1977). See this EA document, Chapter Four, *Affected Environment* and Chapter Five, *Environmental Consequences; Wetlands and Floodplains*.

¹⁹ U.S. DOT, *Preservation of the Nation's Wetlands*, USDOT Order 5660.1a (August 24, 1978).

- *Protection and Enhancement of the Cultural Environment (1971)*, Executive Order 11593²¹
- *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1994)*, Executive Order 12898²²
- *Protection of Children from Environmental Health Risks and Safety Risks (1997)*, Executive Order 13045.²³
- *National Historic Preservation Act (1966)*, as amended²⁴
- *Advisory Council on Historic Preservation (2000)*²⁵
- *Archaeological and Historic Preservation Act (1974)*, as amended²⁶
- *Archaeological Resource Protection Act (1979)*, as amended²⁷
- *Clean Air Act (1990)*, as amended²⁸ (1990 CAA)
- *Clean Water Act (1987)*, as amended²⁹ (1987 CWA)
- *Endangered Species Act (1973)*, as amended³⁰ (ESA)

²⁰ Executive Order 11988, *Floodplain Management*, journalized in 42 Fed. Reg. 26951 (May 24, 1977; implemented by U.S. DOT Order 5650.2 *Floodplain Management and Protection* (April 23, 1979); Section VI, *Affected Environment and Environmental Consequences; Floodplains*.

²¹ Executive Order 11593, *Protection and Enhancement of the Cultural Environment*, journalized in 36 Fed. Reg. 8921 (May 15, 1971); Section VI, *Affected Environment and Environmental Consequences; Historic, Architectural, et al.*

²² Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, journalized in 94 Fed. Reg. 3685 (February 14, 1994); Section VI, *Affected Environment and Environmental Consequences; Socioeconomic Impacts, Environmental Justice, et al.*

²³ Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, journalized in 62 FR 19883 (April 23, 1997); Section VI, *Affected Environment and Environmental Consequences; Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks (includes Transportation Impacts)*

²⁴ *National Historic Preservation Act (1966)*, as amended, Pub. L. 89-665, 80 Stat. 915 (October 15, 1966); codified at 16 U.S. Code §470 et seq. *National Historic Preservation Act*; Section VI, *Affected Environment and Environmental Consequences; Historic, Architectural, et al.*

²⁵ *Advisory Council on Historic Preservation*, journalized in 65 Fed. Reg. 77725 (December 12, 2000); implemented through 36 CFR Part 800 *Protection of Historic Properties*; codified at 16 U.S. Code §470i *Advisory Council on Historic Preservation*; Section VI, *Affected Environment and Environmental Consequences; Historic, Architectural, et al.*

²⁶ *Archeological and Historic Preservation Act (1974)*, as amended, Pub. L. 93-291, 88 Stat. 174 (May 24, 1974); codified at 16 U.S. Code §469-469c-2 *Preservation of Historical and Archeological Data Threatened by Dam Construction or Alternations of Terrain*; Section VI, *Affected Environment and Environmental Consequences; Historic, Architectural, et al.*

²⁷ *Archaeological Resources Protection Act (1979)*, as amended, Pub. L. 96-95, 93 Stat. 721 (October 31, 1979); codified at 16 U.S. Code §470aa-mm *Chapter 1B – Archaeological Resources Protection*; Section VI, *Affected Environment and Environmental Consequences; Historic, Architectural, et al.*

²⁸ *Clean Air Act (1990)*, as amended, (1990 CAA) Pub. L. 101-549, 104 Stat. 2468 et seq. (November 15, 1990), General Conformity Rule journalized in 58 Fed. Reg. 13836 (November 30, 1993), implemented through 40 CFR Parts 51 and 93; codified at 42 U.S. Code §7401 et seq. *Air Quality and Emission Limitations*; Section VI, *Affected Environment and Environmental Consequences; Air Quality*.

²⁹ *Clean Water Act (1987)*, as amended, (1987 CWA) Pub. L. 100-4, 101 Stat. 7 (February 4, 1987); codified at 33 U.S. Code §1251 et seq. *Water Pollution Prevention and Control*; Section VI, *Affected Environment and Environmental Consequences; Water Quality*.

- *Wild and Scenic Rivers Act (1968)*³¹
- Other special purpose laws, regulations, and policies as applicable

In addition, this EA was prepared according to laws relating to the preparation of written reports submitted to the FAA for aviation programs, airport safety relative to construction of facilities, and permitting by the U.S. Army Corps of Engineers (USACOE), including:

- *Air Commerce and Safety*, 49 U.S. Code §40114, as amended³²
- *Airport Development and Noise*, 49 U.S. Code §47101, as amended³³
- *Federal Aviation Act (1958)*, as amended³⁴
- *Regulatory Programs of the Corps of Engineers*³⁵

Regulations of the State of Utah applicable to the Proposed Action include the State Implementation Plan (SIP) published in the Utah Division of Administrative Rules (DAR)³⁶ and in the Utah Code.³⁷ Additional Utah State-level wetland and waterways regulations and Utah State water quality laws were considered including Utah's Water Pollution Control Laws (Utah Code Ann. § 19-5-107) and the Utah Division of Water Rights' stream alteration permit.

Also, applicable Local agency requirements were considered including guidance through the Salt Lake Valley Health Department including the Bureau of Water Quality and Hazardous Waste, the Pollution Prevention (P2) Program, and the Bureau of Air Pollution Control.

³⁰ *Endangered Species Act (1973)*, as amended, Pub. L. 93-205, 87 Stat. 884 (December 28, 1973); codified at 16 U.S. Code §1531 et seq. *Endangered Species*; Section VI, *Affected Environment and Environmental Consequences; Fish, Wildlife, and Plants (includes Ecosystems, and Endangered or Threatened Species)*.

³¹ *Wild and Scenic Rivers Act (1968)* Pub. L. 90-542, 82 Stat. 906 (October 2, 1968); codified at 16 U.S. Code §1271-1287.

³² 49 U.S. Code §40114, *Air Commerce and Safety*, Pub. L. 103-272, §1(e), 108 Stat. 1110 (July 5, 1994).

³³ 49 U.S. Code §47101, *Airport Development and Noise*, Pub. L. 103-272, §1(e), 108 Stat. 1246 (July 5, 1994).

³⁴ *Federal Aviation Act (1958)*, as amended, Pub. L. 85-726 §102(a), 72 Stat. 731 (August 23, 1958), recodified at 49 U.S. Code §40101(a) *Air Commerce and Safety*; created the FAA to provide for the regulation and promotion of civil aviation and to foster development and provide for the safe and efficient use of the airspace by both civil and military aircraft.

³⁵ *Regulatory Programs of the Army Corps of Engineers (USACE)*, implemented through 33 CFR Part 320 et seq. *Corps of Engineers, Department of the Army, Department of Defense*.

³⁶ The Utah Administrative Code (UAC) is an official publication of the Division of Administrative Rules (DAR). It is Utah's equivalent to the Code of Federal Regulations (CFR). The DAR codifies changes to the UAC on a monthly basis. Reference DAR Titles R305-R317, *Environmental Quality* (October 1, 2008).

³⁷ Utah State Legislature, Utah Code, Title 19, Environmental Quality Code; available on the Utah State Legislature website at <http://www.le.state.ut.us/~code/code.htm> (December 12, 2008).

The SLCDA Proposed Action triggers FAA approval of changes to the ALP reflecting the alignment of the proposed LRT and the disclosure of any potential environmental impacts.³⁸ The FAA Administrator, under authority delegated from the Secretary of Transportation, approves any revision or modification to an ALP before the revision or modification takes effect. The proposed W-E TRAX is shown on the most current approved ALP.

³⁸ 40 U.S.Code §47107(a)(16), *Project Grant Application Approval Conditioned on Assurances About Airport Operations*, Pub. L. 110-330 §5(e), 122 Stat. 3718 (January 2, 2006).