

# CHAPTER ONE

## PROPOSED PROJECT

An Environmental Impact Statement (EIS) evaluates the effects of a proposed Federal action on the surrounding environment and is prepared in compliance with the National Environmental Policy Act (NEPA). Federal Aviation Administration (FAA) Order 1050.1E, *Environmental Impacts: Policies and Procedures*, and FAA Order 5050.4A, *Airport Environmental Handbook*, describe Federal airport and aviation actions that trigger the requirement for environmental assessments (EAs) and EISs. FAA Orders 1050.1E and 5050.4A also provide detailed guidance on the preparation of airport and aviation environmental studies.

The City of St. George, Utah is proposing the replacement of the existing St. George Municipal Airport (SGU) at a larger, less constrained site. Development of the proposed replacement airport requires approval by the FAA of the Airport Layout Plan (ALP), navigational aids (NAVAIDs), air traffic procedures, and the approval of grant applications for funding construction. The City of St. George's proposal to replace SGU would trigger environmental evaluation as directed by NEPA. Thus, the FAA has determined that an EIS should be prepared to fully evaluate the potential effects of the Proposed Replacement Airport. This EIS has been prepared pursuant to Title V of Public Law 97-248 of the Airport and Airway Improvement Act of 1982, as amended.<sup>1</sup>

This chapter describes the Proposed Replacement Airport and the proposed Federal actions.

### 1.1 OBJECTIVE OF THE PROPOSED REPLACEMENT AIRPORT

The objective of the City of St. George is to provide an airport that would accommodate, in a safe and efficient manner, the forecast growth of passenger enplanements, aircraft activity, and the changing fleet of aircraft needed to serve the community through 2020. In order to meet this objective, the city proposes to construct a replacement St. George Municipal Airport (SGU) at a larger site that would allow for the development of an airport with a runway length of 9,300 feet and one instrument approach to the runway that meets the requirements for Airport Reference Code (ARC) Category D-III aircraft.

The ARC is a coding system used to relate airport design criteria to the operational and physical characteristics of the aircraft intended to operate at the airport, which are represented by one or more design aircraft type(s). The Design Aircraft is the most demanding aircraft type currently using, or projected to use the replacement airport, with a minimum of 500 operations (arrivals and departures) per year, and can either be one aircraft or a group of aircraft.

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<sup>1</sup> FAA Advisory Circular 150/5300-13, *Airport Design*.

The first component of the ARC is a capital letter (A, B, C, or D, with A being the lowest and D being the highest), which refers to the aircraft approach speed in its landing configuration. The second component, which is depicted by a Roman numeral (I, II, III, IV, V, or VI, with I being the lowest and VI being the highest), refers to aircraft wingspan. Together, the two components relate aircraft operational and physical characteristics to the required design criteria of various airport components, such as runway/taxiway widths, runway-to-taxiway separation standards, and obstacle clearance. Under this methodology, safety margins are provided in the physical design of airport facilities.

An initial runway length of 9,300 feet is planned. This would accommodate approximately 75 percent of the fleet of aircraft forecast to operate at SGU at 90 percent useful loads (i.e. fuel, cargo, and passengers).<sup>2</sup> See **Chapter Three, Purpose and Need for the Proposed Replacement Airport**, for detailed information about future demand (**Section 3.2.2**) and existing airport deficiencies (**Section 3.2.3**).

## 1.2 REASON FOR THE PROPOSED REPLACEMENT AIRPORT

The existing airport is located atop a mesa in the central portion of the City of St. George, Utah and consists of a single runway oriented generally north/south at magnetic headings of 340 degrees and 160 degrees, Runway 16/34. **Exhibit 1.1** shows a location map of the existing SGU site, as well as the proposed replacement airport site. The runway is complemented by one full and one partial parallel taxiway, which provide aircraft access to and from the runway. Commercial service is currently provided by SkyWest Airlines, which operates as both Delta Connection and United Express.<sup>3</sup> Delta Connection served 78 percent of passengers in 2003 and 76 percent of passengers in 2004 through Delta Air Lines' hub at Salt Lake City International Airport, while United Express served 22 percent of the airport's passengers in 2003 and 24 percent of passengers in 2004 through United Airlines' hub at Los Angeles International Airport.<sup>4</sup>

The *2001 Final Environmental Assessment (2001 FEA)*<sup>5</sup> and the *1998 Site Selection Study and Master Plan Study (1998 Master Plan)*<sup>6</sup>, prepared for the proposed replacement of SGU, evaluated a total of 15 potential airport relocation sites in the vicinity of St. George. From these 15 sites, six potential airport locations were identified for initial analysis. The six sites selected for initial analysis were

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<sup>2</sup> As a general rule, it is not profitable for commercial service operators to operate an aircraft at less than 90 percent useful load. Conversely, it is prohibitively expensive for most airport operators to build a runway of sufficient length to accommodate 100 percent of the forecast fleet at 100 percent useful load.

<sup>3</sup> Airline Information for St. George Municipal Airport. On-line at <http://www.sgcity.org/airport/>. Retrieved February 4, 2004.

<sup>4</sup> *2004 Year End Passenger Report*, St. George Municipal Airport. January 3, 2005.

<sup>5</sup> *Final Environmental Assessment for the Proposed Replacement Airport at St. George, Utah*. Prepared by Creamer & Noble, Engineers and Barnard Dunkelberg & Company. January 30, 2001.

<sup>6</sup> *Site Selection and Master Plan, St. George Municipal Airport*, prepared by Creamer & Noble Engineers and Barnard Dunkelberg & Company, October 1998.

evaluated in accordance with the goals of the City of St. George to determine their feasibility for development of a replacement airport that is capable of meeting FAA design standards and accommodating air carrier jet aircraft.

Three of the six sites were eliminated due to limitations of the natural terrain, runway orientation constraints, or distance from the City of St. George to the site. The remaining three sites were further evaluated in greater detail, including a preliminary environmental review, to determine which site would best be developed as a replacement airport. A complete description and analysis of the site selection process can be found in **Chapter Four, Alternatives**, of this document, as well as within the *1998 Master Plan* itself.

The preferred alternative for the proposed replacement airport at St. George involves development of a single northeast/southwest oriented runway that offers instrument approach capabilities and is designed and developed in accordance with ARC D-III dimensional criteria as described in **Section 1.1** of this chapter. Aircraft parking areas, the passenger terminal, hangars, and other physical facilities would be developed on the east side of the proposed runway. The west side of the proposed runway would be reserved for a future airport traffic control tower (ATCT) and a future helipad. The southern portion of the proposed site would be reserved for future runway lengthening, if that should ever become necessary.

The proposed airport would replace the existing SGU; it is not intended to serve as a new regional airport. There have been several proposals by groups other than the City of St. George for new regional airports in southeastern Utah in recent years. The actions proposed and evaluated in this EIS are separate from all other proposals made for airports within the region.

## **1.3 PROPOSED REPLACEMENT AIRPORT ELEMENTS**

### **1.3.1 LOCATION OF PROPOSED SITE**

The proposed replacement airport site is located approximately five miles southeast of the City of St. George within the limits of the City of St. George and Washington City, within Washington County. The site occupies approximately 1,306 acres of largely undeveloped land in Sections 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, and 27 of Township 43 South, Range 15 West. The Utah State School and Institutional Trust Lands Administration, the City of St. George, the State of Utah, the U.S. Bureau of Land Management (BLM), and several private entities currently own separate portions of the proposed site.

The results of both a three-year wind study conducted by the Utah Division of Aeronautics and an airspace analysis undertaken by the FAA show that the proposed site would allow for the airport to be developed around a new single northeast/southwest runway, which would offer instrument approach capability and

would be designed and developed in accordance with ARC D-III dimensional criteria.<sup>7</sup> This runway would have an orientation of magnetic headings 010 degrees and 190 degrees.

Because the majority of land at the proposed replacement airport site is undeveloped, replacement of the airport would not require the displacement of any residences or businesses. However, recreational activities that currently take place at the proposed site, such as the operation of remote-controlled aircraft and off-road vehicles, would need to be relocated. Until January 2004, drag racing was also conducted on an old runway at the site.

### **1.3.2 AIRPORT FACILITIES AT PROPOSED SITE**

The existing entrance road, which remains from the former Civil Aeronautics Administration Airport, would be used to access the site from the west. Another entrance road from the proposed Southern Corridor Highway would provide access to the airport from the southeast. An Automated Surface Observing System and a helipad would be developed on the western side of the proposed runway, near its midpoint. Space is also reserved in that area for a future ATCT and other navigation facilities.

Development on the eastern side of the runway includes the following proposed facilities, as shown on **Exhibit 1.2, Airport Facilities at Proposed Site**.

- 9,300-foot runway, Runway 1/19, oriented to 010 degrees/190 degrees
- Instrument approach procedure to Runway 19 (see **Exhibit 1.3**)
  - The design of the proposed instrument approach to Runway 19 took into consideration many issues including severe terrain restrictions. The proposed procedure was designed to optimize the instrument approach and can not be moved further to the west due to severe terrain avoidance requirements.
- Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) and Precision Approach Path Indicator (PAPI) for Runway 19, and Runway End Identifier Lights (REILS) and PAPI for Runway 1
- Passenger terminal and parking area, including 15.5 acres for future terminal expansion
- Terminal apron, measuring approximately 412,500 square feet
- Airport Rescue and Fire Fighting building
- Airport maintenance complex
- Fuel farms, one at each end of the proposed runway
- Cargo hangar and ramp area, measuring approximately 200,000 square feet
- Executive hangar and ramp area to serve corporate aviation, measuring approximately 570,000 square feet

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<sup>7</sup> *Site Selection and Master Plan, St. George Municipal Airport*, prepared by Creamer & Noble Engineers and Barnard Dunkelberg & Company, October 1998; FAA, *St. George Airport (SGU) New Location, Instrument Approach Feasibility Analysis*, 2004; Landrum & Brown analysis, 2004.



- Fixed-Base Operator maintenance hangar and ramp areas to serve general aviation, measuring over 440,000 square feet
- T-Hangar and ramp areas for general aviation, measuring 487,500 square feet
- Helipad at/or near the north end of the runway
- Airport Access Road to connect with the Southern Corridor Highway

### 1.3.3 FUTURE EXPANSION AT THE PROPOSED SITE

The ALP for the proposed replacement airport identifies space on the east side of the site for future expansion of aviation facilities. The southern portion of the proposed site would be reserved for future runway lengthening, as necessary. The scope of the proposed replacement airport considered in this EIS does not identify specific expansion plans beyond the 9,300-foot runway. However, the St. George City Council considered it imperative to acquire sufficient property to allow expansion of the proposed runway to the south for an ultimate length of 11,500 feet, if that should ever become necessary.<sup>8</sup>

According to the runway length analysis in the *1998 Master Plan*, an 11,500-foot runway could accommodate 100 percent of the aircraft fleet weighing under 60,000 pounds at useful loads of 90 percent. This would allow the full range of aircraft in that category to operate on long stage lengths, to the east coast, for example. The City of St. George considered it necessary to provide for this long-term possibility as it undertook the planning for the costly replacement of the existing airport. At this time, however, a runway measuring longer than 9,300 feet is not justified by the activity forecast for the airport.

The City has no specific plans, no timetable, and no financing concept for the extension of the runway to 11,500 feet. Thus, the potential effects of a runway length of 11,500 feet are not being assessed in this EIS. If, in the future, the City determines that lengthening the runway is required, it will comply with all applicable laws and regulations pertaining to environmental review and project justification and will seek all required authorizations and approvals from the FAA.

### 1.3.4 IMPLEMENTATION SCHEDULE

If the FAA approves this EIS and issues an associated Record of Decision (ROD), it is estimated that design and construction of the proposed replacement airport would follow the issuance of the ROD in 2006. Operation of the airport is expected to commence in approximately 2010.

## 1.4 ENVIRONMENTAL IMPACT STATEMENT PROCESS

FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*, describes the internal FAA policies and procedures for implementing NEPA. The following is an overview of the EIS process.<sup>9</sup>

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<sup>8</sup> City Council of the City of St. George, Washington County, Utah. January 30, 2001.

<sup>9</sup> FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*. June 8, 2004.

- Step 1 Responsible FAA official or applicant formulates proposed replacement airport and a preliminary range of alternatives.
- Step 2 Responsible FAA official or applicant collects background data and analyzes information.
- Step 3 Responsible FAA official determines need for EIS, based on the potential for significant impacts.
- Step 4 Notice of Intent published in the *Federal Register* and local press.
- Step 5 Initiate scoping activities, inviting participation of affected agencies and interested persons and determining issues and alternatives to be addressed.
- Step 6 Environmental Analysis
- Step 7 Write Draft EIS (DEIS)
- Step 8 Make copies of DEIS available to public for review and comment.
- Step 9 Publish Notice of Availability of DEIS in *Federal Register* and file with the U.S. Environmental Protection Agency (USEPA).
- Step 10 Public comment period on DEIS
- Step 11 Responsible FAA official receives and evaluates comments.
- Step 12 Revise DEIS after consideration of public comments
- Step 13 Provide copies of Final EIS (FEIS) or Executive Summary to public, to include all commentators.
- Step 14 Publish Notice of Availability of FEIS in *Federal Register* and file with the USEPA.
- Step 15 Responsible FAA official must wait a minimum of 30 days to allow for review by USEPA and possible referral to Council on Environmental Quality, or to allow for requests of reconsideration or technical corrections, or for appeals under a lead agency's formal administrative appeals process.
- Step 16 Approving FAA official prepares and issues ROD. The purpose of the ROD is to announce the FAA's decision regarding the Proposed Replacement Airport. The ROD shall state the FAA's decision and the basis for the decision and shall include summaries of the FEIS analyses and selected mitigation measures. The FAA's preferred alternative, as well as the identification of all alternatives considered by the FAA, shall also be included in the ROD. The ROD shall also state whether all practicable means to avoid or minimize harm to the environment were considered, and if not, the reasons why. When appropriate, the applicable mitigation implementation responsibilities are also included in the ROD. Finally, the ROD shall make the appropriate findings required by executive order, regulation, or law.
- Step 17 If proposed replacement airport is approved, proceed with action, mitigation, and monitoring.

## **1.5 PROPOSED FEDERAL ACTIONS**

The proposed Federal actions, determinations, and approvals by the FAA, presented in **Section 1.5.1 through Section 1.5.7** of this chapter, are required for completion of the proposed replacement airport and meeting of all project objectives.

### **1.5.1 DETERMINATION OF PROJECT ELIGIBILITY FOR FEDERAL FUNDING APPROVAL**

The FAA must make an official determination of whether the following elements of the proposed replacement airport would be eligible for Federal funds:

- Land acquisition and relocation
- Site preparation
- Airfield construction of runway, taxiway, runway safety area, and other airfield facilities
- Development of terminal and related landside facilities
- Environmental mitigation requirements (if any)
- Navigational aids

Potential Federal funds for these project elements include Grant-in-Aid Funds through the Federal Airport Improvement Program.

### **1.5.2 FAA APPROVAL AND FUNDING OF PROPOSED AIRPORT DEVELOPMENT**

The FAA's determination of the proposed replacement airport's eligibility for Federal funding involves the approval of an ALP, environmental approval according to NEPA, and determinations under other executive orders and statutes discussed in this EIS.

### **1.5.3 FAA APPROVAL OF AIR TRAFFIC PROCEDURES FOR THE RUNWAY**

The FAA will develop air traffic procedures for the proposed runway. In addition, the FAA must approve the proposed procedures, verify them through flight testing, and publish the procedures for general use.

### **1.5.4 DETERMINATION OF OBSTRUCTIONS TO NAVIGABLE AIRSPACE**

An aeronautical study regarding potential obstructions to navigable airspace at the proposed airport relocation site is required under Federal Aviation Regulation (FAR) Part 77, *Objects Affecting Navigable Airspace*.<sup>10</sup>

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<sup>10</sup> 49 U.S.C. § 40103(b) and 40113

### 1.5.5 FAA APPROVAL OF AIRSPACE FOR PROPOSED REPLACEMENT AIRPORT

FAA approval of the airspace associated with the proposed airport development, based on an aeronautical study conducted under FAR Part 157, *Notice of Construction, Alternation, Activation, and Deactivation of Airports*, is necessary before the proposed replacement airport could be opened for use.

### 1.5.6 FAA CERTIFICATION AND OTHER APPROVALS

Full FAA certification of the proposed replacement airport (in the areas listed below) is required to meet the City of St. George's objective of providing an airport that will comply with FAA design standards and accommodate, in a safe and efficient manner, the passenger enplanements and aircraft activity forecasts.

- Certification under FAR Part 139, Certification of Airports.
- Certification that the proposed facility is reasonably necessary for use in air commerce or for the national defense.<sup>11</sup>

The approval of Amended Operating Specifications for scheduled air carriers intending to operate at the airport in the future under FAR Part 121, *Certification and Operations: Domestic, Flag, and Supplemental Air Carriers and Commercial Operations of Large Aircraft*.

### 1.5.7 ENVIRONMENTAL FINDINGS

In order to take the actions listed in **Section 1.5.1 through Section 1.5.6** of this chapter, the FAA must make the following additional environmental findings.

- Determination of consistency with existing plans for development in the project area.
- Determination if restrictions in land use are necessary in the vicinity of the airport to purposes compatible with airport operations.
- Determination by the FAA in accordance with Executive Order 11990, *Protection of Wetlands*. Any impact to wetlands would necessitate a wetlands determination by the FAA in accordance with the above-mentioned Executive Order and Department of Transportation (DOT) Order 5660.1A, *Preservation of the Nation's Wetlands*, and *Section 404 of the Clean Water Act*.
- FAA floodplain determination and findings in accordance with Executive Order 11998, *Floodplain Management*. The environmental decision made by the FAA must include floodplain findings in accordance with the above-mentioned Executive Order and DOT Order 5650.2, *Floodplain Management and Protection*.
- Section 7(c) of the *Endangered Species Act of 1973*, as amended (P.L. 85-624; 16 USC 661, 664, 1008 note) – The environmental decision made by the FAA must include endangered species findings in accordance with the Endangered Species Act.

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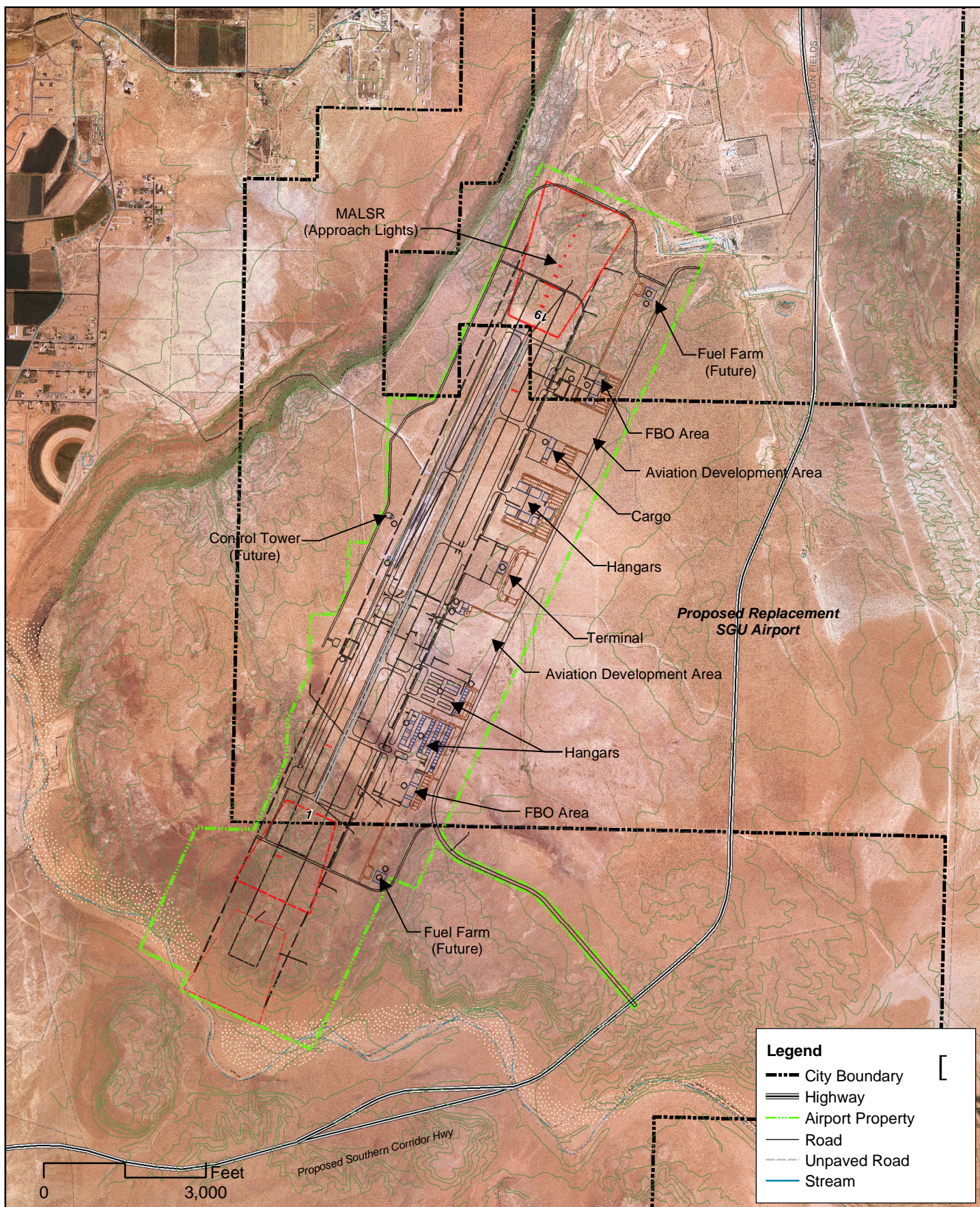
<sup>11</sup> 49 U.S.C. § 44502(b)

- FAA determination of compliance with the *Clean Air Act* (42 USC 7506).
- FAA determination that appropriate water quality requirements will be satisfied in accordance with the *Clean Water Act*.
- FAA determination related to the possible impact of the proposed replacement airport on designated Waters of the United States in the vicinity of the proposed replacement airport site, in accordance with the *Clean Water Act*.
- FAA determination in accordance with Section 106 of the National Historic Preservation Act of 1966 (NHPA). The FAA is required to make a determination related to the possible effect of the proposed replacement airport on significant properties in the vicinity of the proposed replacement airport site.
- FAA determination of the use of any publicly-owned land from a public park, recreation area, wildlife or waterfowl refuge, or historic site in accordance with Section 4(f), recodified under 49 USC 303(c).
- FAA determination regarding environmental justice in accordance with Executive Order 12898 and DOT Order 5610.2, *Environmental Justice*.
- Determination that fair consideration has been given to the interests of communities in or near the project location.

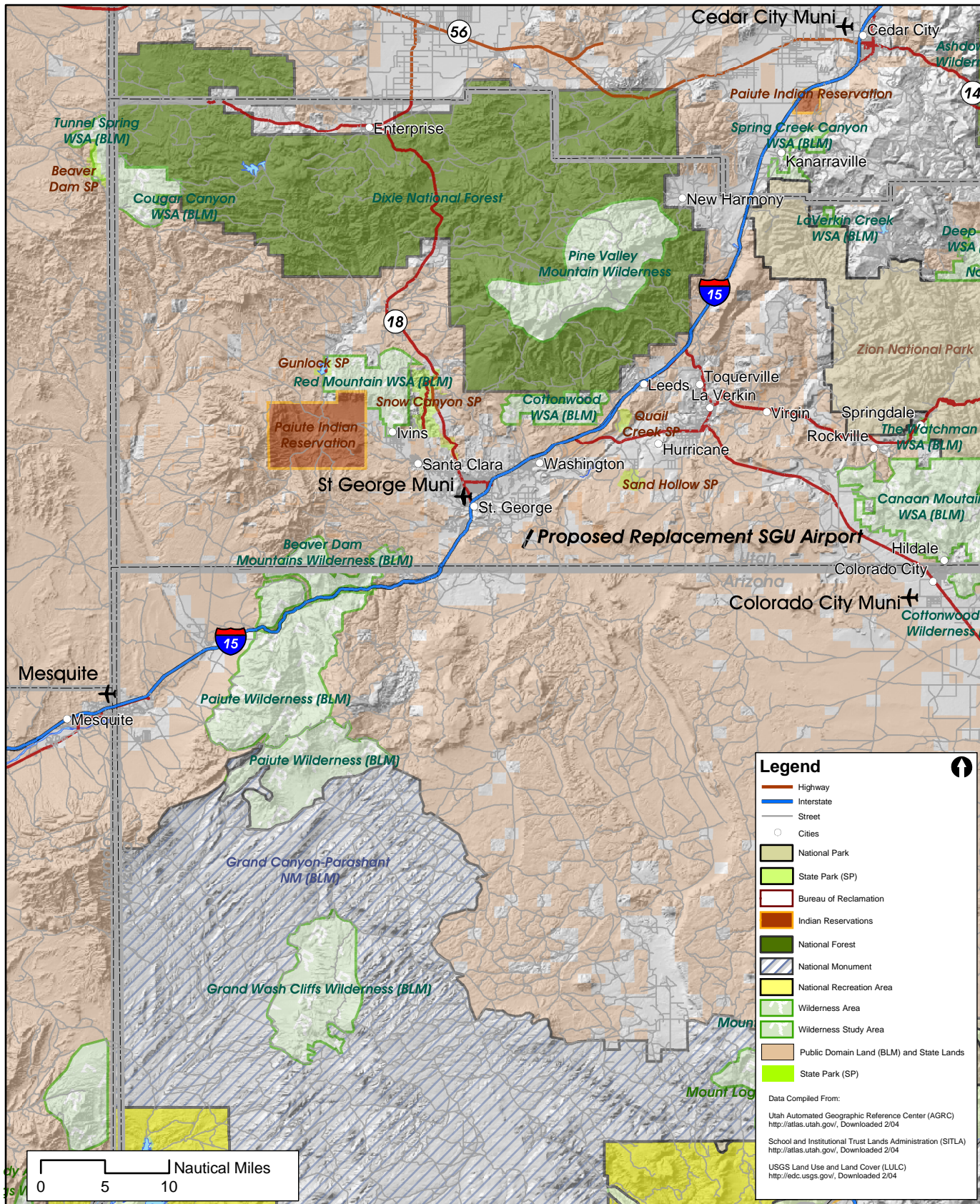
FAA determination regarding coordination and consultation with Native American representatives in accordance with DOT Order 5301.1, *Department of Transportation Programs, Policies, and Procedures Affecting American Indians, Alaska Natives, and Tribes*; and FAA Order 1210.20, *American Indian and Alaskan Native Tribal Consultation Policy and Procedures*.

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*St. George Municipal Airport  
 Environmental  
 Impact  
 Statement*



## Location Map

EXHIBIT  
**1.1**

12/06/2004  
 Prepared by: Landrum & Brown  
 Filename: EX1.1\_Location.mxd



