

# APPENDIX F

## CULTURAL RESOURCES

The following items are attached to this Appendix.

### LIST OF ATTACHMENTS

Attachment	Items
<b>F-1 – Survey Documentation</b>	Documentation package for the Cultural Resources Survey of the Proposed Replacement Airport Study Area submitted to the Utah State Historic Preservation Office
<b>F-2 – Prior Coordination Pursuant to the 2001 Final Environmental Assessment</b>	Letter from James Dykman, State of Utah, to Cynthia Romero, FAA, dated May 28, 1998.
	Letter from Cynthia Romero, FAA, to James Dkyman, State of Utah, dated September 27, 2000.
	Response letter from James Dykman, State of Utah, to Cynthia Romero, FAA, dated October 26, 2000.
<b>F-3 – Current Coordination</b>	Letter from Bureau of Land Management, Arizona Strip Field Office, to FAA, regarding the determination of Little Black Mountain as Area of Critical Env. Concern, dated Dec. 10, 2004
	Signed concurrence letter from Utah State Historic Preservation Office to FAA, signed April 1, 2005 (Original Letter from FAA is dated March 22, 2005)
	Signed concurrence letter from Arizona State Historic Preservation Office to FAA, signed April 28, 2005 (Original Letter from FAA is dated March 22, 2005)
	Letter from Utah State Historic Preservation Office, to FAA acknowledging receipt of coordination materials, dated July 1, 2005
	Letter from Bureau of Land Management, Arizona Strip District Office, to Arizona State Historic Preservation Office, stating agreement with FAA's determination that the Little Black Mountain Petroglyph Site is eligible for listing on the National Register of Historic Places, dated July 20, 2005
	Letter from FAA to Bureau of Land Management, Arizona Strip Field Office, regarding constructive use under Section 4(f) of the Little Black Mountain Petroglyph Site, dated July 22, 2005
	Letter from FAA to Utah State Historic Preservation Office, regarding Section 106 findings in relation to the proposed replacement airport, dated July 28, 2005
	Letter from FAA to Arizona State Historic Preservation Office, regarding Section 106 findings in relation to the proposed replacement airport, dated July 28, 2005
	Letter from FAA to Nevada State Historic Preservation Office, regarding Section 106 findings in relation to the proposed replacement airport, dated July 28, 2005

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**F.1 CULTURAL RESOURCES SURVEY OF THE  
PROPOSED REPLACEMENT AIRPORT STUDY AREA**

**A CULTURAL RESOURCES SURVEY OF 367.7 ACRES FOR A PROPOSED  
REPLACEMENT AIRPORT, SOUTH OF ST. GEORGE, WASHINGTON  
COUNTY, UTAH**

**UTAH STATE PERMIT AND PROJECT NO. U-04-LI-0353P,S**

***PREPARED FOR:***

LANDRUM & BROWN, INCORPORATED  
11279 CORNELL PARK DRIVE  
CINCINNATI, OHIO 45242

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February 2005

LSD Technical Report No. 035064

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**F.1.1 ABSTRACT AND MANAGEMENT SUMMARY**

<b>Report Title</b>	<b>A Cultural Resource Survey of 367.7 Acres for a Proposed Replacement Airport, South of St. George, Washington County, Utah</b>
<b>Project Sponsor</b>	City of St. George, Utah.
<b>Agencies Involved</b>	Federal Aviation Administration, Utah State Historic Preservation Office, Washington County, National Park Service, City of Washington, Bureau of Land Management, U.S. Army Corps of Engineers, Paiute Tribe, Utah State School and Institutional Trust Lands Administration
<b>Utah Permit and Project No.</b>	U-04-LI-0353p,s
<b>LSD Project No.</b>	035064
<b>Report Date</b>	December 2004
<b>Project Description</b>	Landrum & Brown Incorporated requested that Logan Simpson Design Inc. (LSD) complete a Class III survey of 367.7 acres as part of a proposed St. George Replacement Airport. The survey was conducted to identify and evaluate any cultural resources in the project area.
<b>Project Location</b>	Within portions of Sections 11, 12, 13, 14, 22, 23, 26, and 27, Township 43 South, Range 15 West, Salt Lake Baseline and Meridian (USGS 7.5' Quadrangles St. George, Utah 1986, and Washington Dome, Utah 1986)
<b>Land Ownership</b>	Private, Utah State School and Institutional Trust Lands Administration
<b>Methods</b>	Pedestrian survey spaced at 15-m intervals
<b>Acres Surveyed</b>	Total: 367.7 -- Private--276.3; Utah State School and Institutional Trust Lands--91.4
<b>Number of sites</b>	2 (previously recorded)
<b>Ineligible sites</b>	Total 2: 42Ws3151 42Ws3144
<b>Summary</b>	Construction of the proposed St. George Replacement Airport will not impact any significant cultural resources. Intensive survey resulted in the confirmation of two previously recorded sites—42Ws3151 and 42Ws3144; no new sites were documented. LSD identified four lithic concentrations within the boundary of 42Ws3151, a large, diffuse lithic scatter that has already been determined not eligible for listing in the National Register of Historic Places (NRHP). Site 42Ws3144, a small lithic scatter, has previously been recommended not eligible for the NRHP. LSD concurs with this recommendation. In addition, LSD identified 29 isolated occurrences of artifacts (IOs); the IOs have been fully documented and are not eligible for the NRHP. No additional cultural resources investigation is recommended for the survey area.

### F.1.2 INTRODUCTION

This report summarizes the results of a Class III cultural resources survey conducted by Logan Simpson Design Inc. (LSD) for Landrum & Brown, Incorporated, for the proposed St. George Replacement Airport in Washington County, Utah (**Figure F.1**). The 367.7-acre survey area was divided into six irregularly shaped parcels that surround land previously surveyed for development of the proposed replacement airport. The current survey included 276.3 acres of private land and 91.4 acres of Utah State School and Institutional Trust Lands (**Figure F.2**). Because of changes in the proposed replacement airport site boundary, the survey took place on three separate occasions, April 27, June 28 and 29, and September 7 and 8, 2004. Directed by LSD archaeologist Gregory Brown, the survey crew included Phill Peters, David Bild, Brad Santos, and Judith Breen. The survey was conducted under the authorization of Utah State Antiquities Permit and Project No. U-04-LI-0353p,s. Development of the proposed replacement airport requires approval from the Federal Aviation Administration (FAA) and is considered a federal undertaking subject to review under 36 CFR § 800 (as revised in 2004), the regulations implementing Section 106 of the National Historic Preservation Act.

Portions of a previously recorded lithic scatter, 42Ws3151, were confirmed within Parcels 1 and 6 of the survey area. Four site-sized lithic concentrations (or loci) situated within the boundaries of 42WS3151 were identified and plotted during survey (**Figure F.3**). Another previously recorded lithic scatter, 42Ws3144, was also confirmed in Parcel 1. A total of 29 isolated occurrences of artifacts (IOs) were identified during the survey as well (**Figure F.3**).

See **Attachment F-1** for Survey Documentation.

### F.1.3 ENVIRONMENTAL SETTING AND LEGAL DESCRIPTION

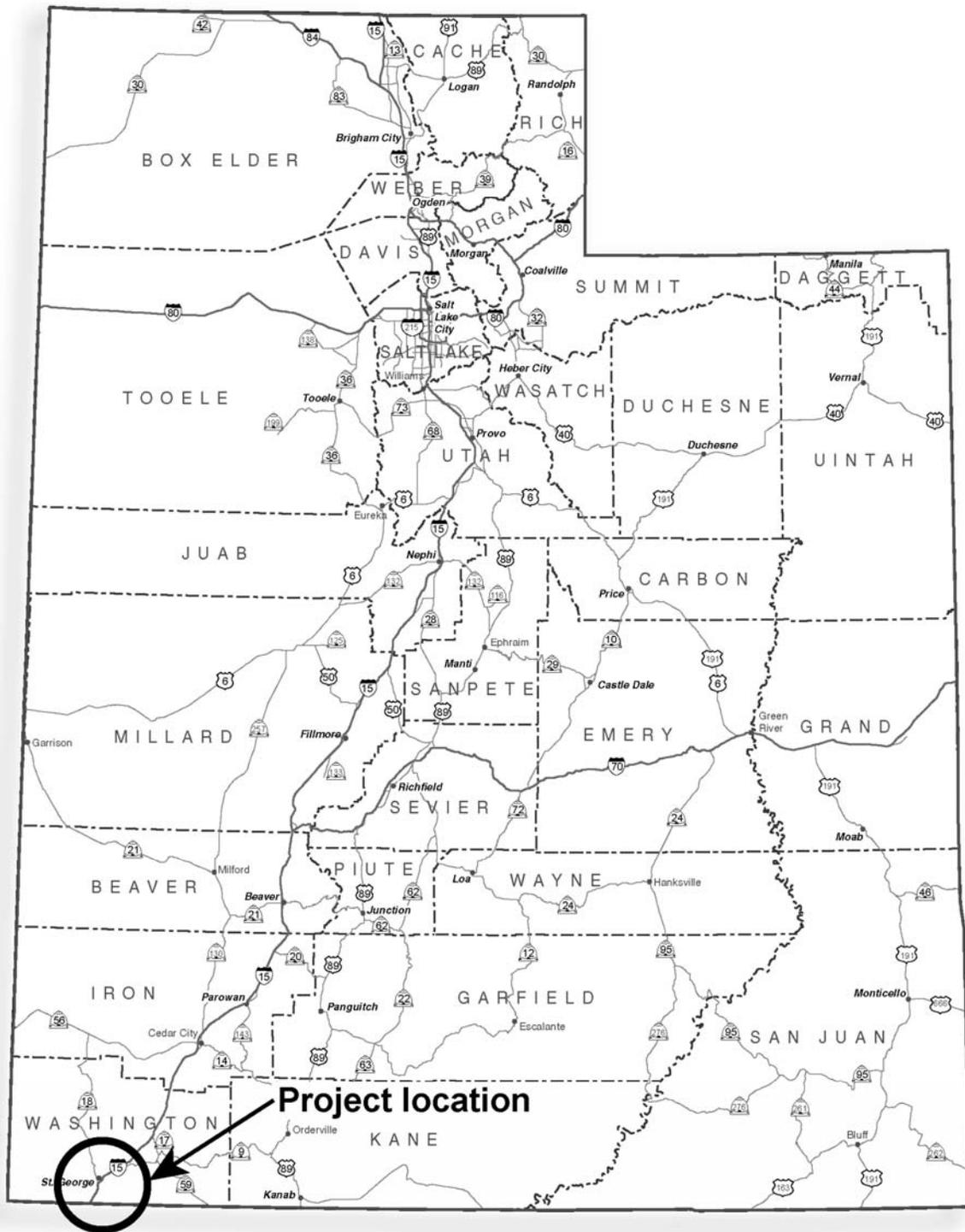
The survey area is located southeast of the city of St. George at an elevation ranging between 2,680 and 2,920 feet above mean sea level in the St. George Basin topographic zone (**Photograph F.1**). The survey area is situated in the Mohave desertscrub biotic community (Turner 1994). Characteristic vegetation in this biome includes creosotebush, brittlebush, and shadscale, as well as cacti such as hedgehog, prickly pear, and cholla.

The survey area includes the following general community types: rock-shrub, shrub, shrub-cactus, creosote, and agriculture. This area, like much of the St. George Valley area, is an ecotone for major deserts coming together and has some biotic and structural similarities with the Great Basin and Mojave deserts. This provides a relatively complex and diverse habitat structure for a desert ecosystem. A rock escarpment ridge, a significant contributor to desert biodiversity, runs along the western edge of this area. The southern portion of the survey area (adjacent to the 100-year floodplain of the Fort Pearce Wash) contains some isolated dune communities.

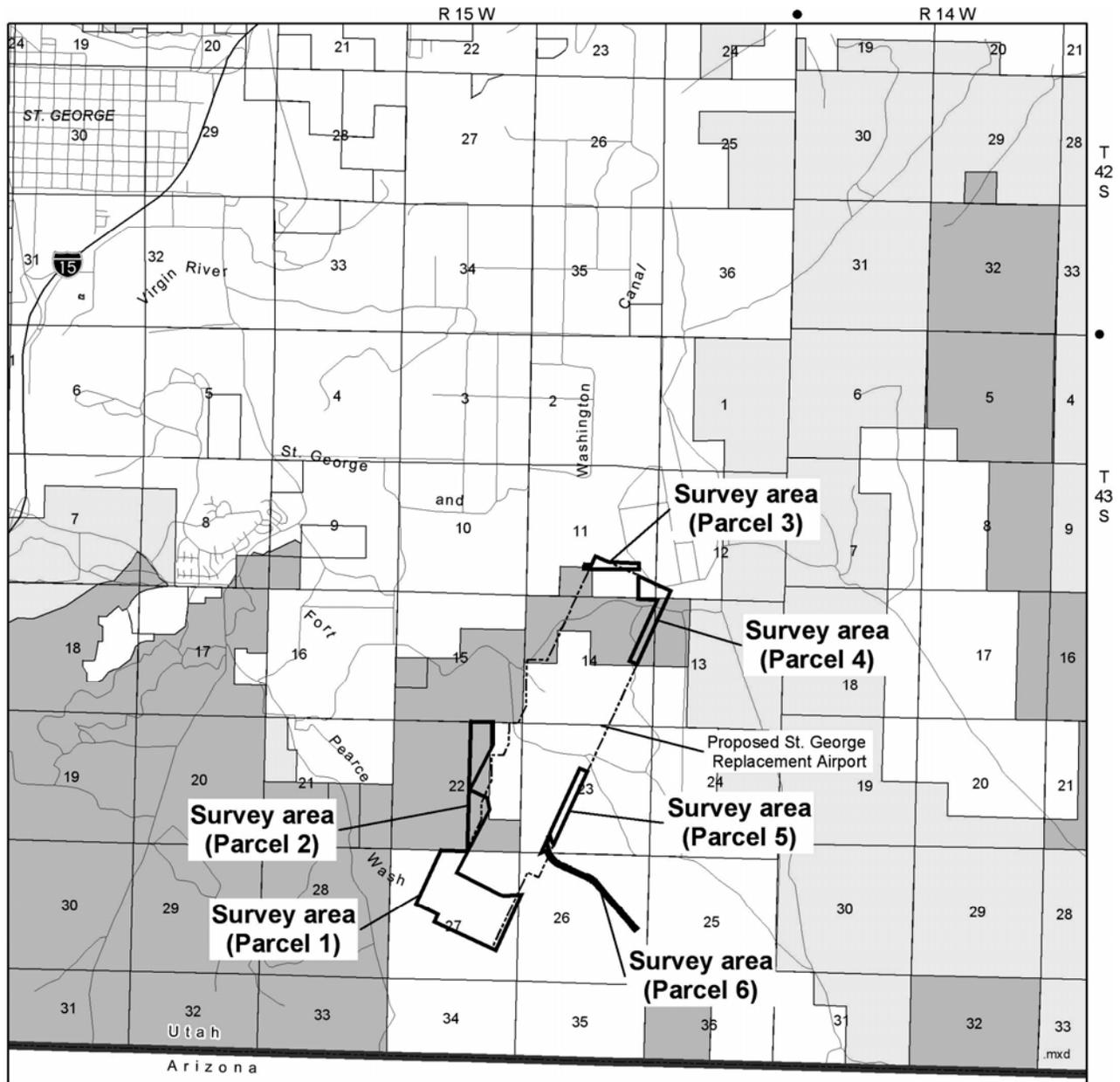
The legal description of the survey area is as follows (within T43S, R15W, USGS 7.5' Quadrangles St. George, UT 1986, and Washington Dome, UT 1986):

- NW $\frac{1}{4}$  of SE $\frac{1}{4}$ , and NE $\frac{1}{4}$  of SE $\frac{1}{4}$ , and SE $\frac{1}{4}$  of SE $\frac{1}{4}$ , and SW $\frac{1}{4}$  of SE $\frac{1}{4}$ , and SE $\frac{1}{4}$  of SW $\frac{1}{4}$  of Section 11;
- SW $\frac{1}{4}$  of SW $\frac{1}{4}$  of Section 12;
- NW $\frac{1}{4}$  of NW $\frac{1}{4}$  of Section 13;
- NE $\frac{1}{4}$  of NE $\frac{1}{4}$ , and SE $\frac{1}{4}$  of NE $\frac{1}{4}$  of Section 14;
- NW $\frac{1}{4}$  of NE $\frac{1}{4}$ , and SW $\frac{1}{4}$  of NE $\frac{1}{4}$ , and NW $\frac{1}{4}$  of SE $\frac{1}{4}$ , and SW $\frac{1}{4}$  of SE $\frac{1}{4}$  of Section 22;
- SW $\frac{1}{4}$  of SW $\frac{1}{4}$ , and SE $\frac{1}{4}$  of SW $\frac{1}{4}$ , and NE $\frac{1}{4}$  of SW $\frac{1}{4}$ , and SE $\frac{1}{4}$  of NW $\frac{1}{4}$  of Section 23;
- NW $\frac{1}{4}$  of NW $\frac{1}{4}$ , and NE $\frac{1}{4}$  of NW $\frac{1}{4}$ , and NW $\frac{1}{4}$  of NE $\frac{1}{4}$ , and SW $\frac{1}{4}$  of NE $\frac{1}{4}$ , and SE $\frac{1}{4}$  of NE $\frac{1}{4}$ , and NE $\frac{1}{4}$  of SE $\frac{1}{4}$  of Section 26; and
- NE $\frac{1}{4}$  of NW $\frac{1}{4}$ , and SE $\frac{1}{4}$  of NW $\frac{1}{4}$ , and SW $\frac{1}{4}$  of NW $\frac{1}{4}$ , and NW $\frac{1}{4}$  of NE $\frac{1}{4}$ , and SW $\frac{1}{4}$  of NE $\frac{1}{4}$ , and SE $\frac{1}{4}$  of NE $\frac{1}{4}$ , and NW $\frac{1}{4}$  of SE $\frac{1}{4}$ , and NE $\frac{1}{4}$  of SE $\frac{1}{4}$ , and NE $\frac{1}{4}$  of SW $\frac{1}{4}$  of Section 27.

Figure F.1  
PROJECT LOCATION MAP



**Figure F.2  
LAND JURISDICTION MAP**



Source: Land Ownership GIS Coverage provided by Utah State University

**Key**

-  Survey area
-  Proposed St. George Replacement Airport boundary
-  Private
-  State Trust
-  Bureau of Land Management



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**FIGURE F.3**

**MAP REMOVED FOR RESOURCE PROTECTION PURPOSES**

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**Photograph F.1**  
**VIEW OF THE PROPOSED REPLACEMENT AIRPORT SITE, FACING**  
**SOUTHEAST**



**F.1.4 PREVIOUS RESEARCH**

A record search conducted at the Utah State Historic Preservation Office (SHPO) indicates that 17 cultural resource investigations have taken place within one mile of the current survey area (**Table F.1**). Records show that portions of the current survey area had been surveyed previously (**Figure F.4**). All of Parcel 1 and most of Parcel 6 were surveyed by Bureau of Land Management (BLM) archaeologists as part of a land exchange project called Desert Tortoise Exchange Tract 10 (DTX-Tract 10) (Dalley 1995b). The west side of Parcel 6 was surveyed by Intersearch, Inc. as part of previous work conducted for the airport replacement project (Frank 1997a). A small portion of the west side of Parcel 3 was surveyed by the State of Utah School and Institutional Trust Lands Administration for a project called the Redhawk Development Parcel (Wintch 2001). Additional surveys have been conducted in the vicinity of, but outside the current survey area for various projects, including BLM land sales and exchanges (Copeland 1984; Dalley 1995a, 1996a, 1996b), a replacement airport road alignment (Frank 2000), power line construction (Dalley 1998; Frank 1996, 2001), a coal-slurry pipeline (Fowler 1975), quail habitat improvement sites (McEwen 2002), and gravel test pits (Dalley 1993). A paleontological records search at the Utah Geological Survey did not reveal any significant paleontological localities within the survey area, and none were noted during survey.

Background research indicates that 42 archaeological sites are located within a one-mile radius of the survey area (**Figure F.3; Table F.2**). The sites consist mainly of lithic scatters and limited activity areas, along with rock shelters, rock art, rubble mounds, and field camps. Outside of the one-mile radius is the Little Black Mountain Petroglyph Site, a large rock art site located in Arizona, approximately 1.5 miles south of the proposed replacement airport boundary, and maintained by the Arizona Strip Field Office of the LBM.

Two sites have been previously identified within the current survey area, both recorded during the DTX-Tract 10 survey (Dalley 1995b). Site 42Ws3151, a large, diffuse lithic scatter and workshop site overlaps the western portion of Parcel 6 and a majority of Parcel 1 (**Figure F.3**). Rather than a single site, Dalley (1995b) described 42Ws3151 as "an areally extensive designation put together to account for the rather persistent scatter of flakes, source material, and to some extent preforms seen over large areas." The expansive site boundary was drawn both north and south of Fort Pearce Wash to encompass several discrete site-sized scatters as well as diffuse general scatter found across the landscape. The site was initially recommended eligible for the National Register of Historic Places (NRHP). Frank (1997a) also located portions of the site and recorded a northern boundary. The site was later tested by Abajo Archaeology, and its eligibility recommendation was changed from eligible to not eligible (Davis et al. 1998). Testing revealed that the site lacked cultural depth, diagnostic artifacts, or cultural features, and work already conducted on the site had realized the site's research potential. Utah SHPO concurred with the recommendation and with an FAA determination of No Effect by the St. George Replacement Airport project (letter from James Dykman, Utah SHPO, to Cynthia Romero, FAA, dated May 28, 1998).<sup>1</sup>

Site 42Ws3144 is also located in Parcel 1, very close to the boundary of 42Ws3151. It is a much smaller lithic scatter, consisting of fewer than 25 artifacts. Dalley (1995b) recommended the site not eligible for NRHP listing because it contained no diagnostic artifacts and appeared to lack depth.

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<sup>1</sup> **Attachment F-2.**

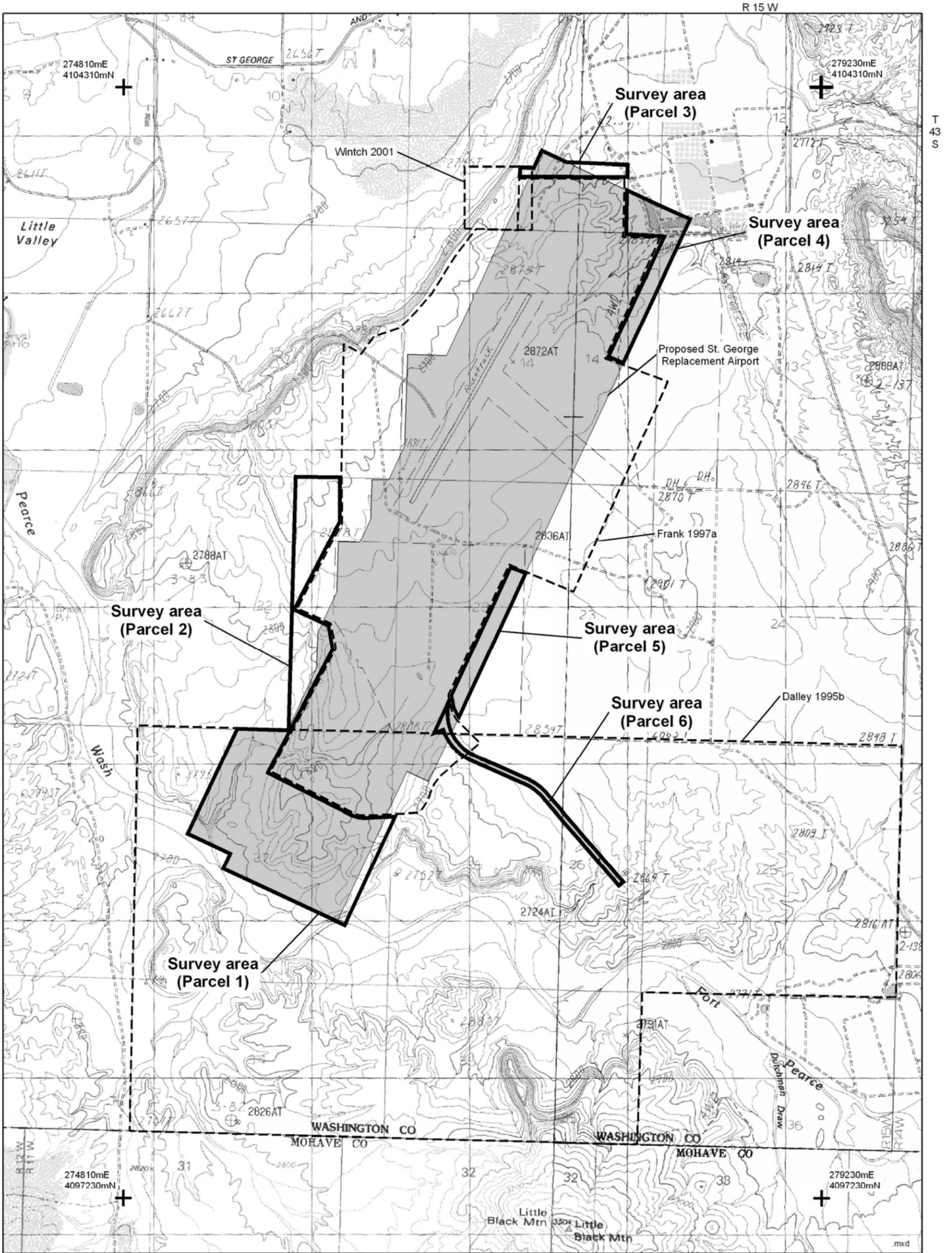
**Table F.1  
CULTURAL RESOURCES INVESTIGATIONS DOCUMENTED WITHIN ONE  
MILE OF THE SURVEY AREA**

Reference	Utah Project Number	Location Relative to Current Survey	Project Type
Copeland 1984	U-83-CD-0107b	Outside	Survey
Dalley 1993	U-93-BL-0851b	Outside	Survey
Dalley 1995a	U-95-BL-0379b	Outside	Survey
Dalley 1995b	U-95-BL-0380b	Inside/outside	Survey
Dalley 1996a	U-95-BL-0381b	Outside	Survey
Dalley 1996b	U-95-BL-0382b	Outside	Survey
Dalley 1998	U-98-BL-0396b	Outside	Survey
Davis et al. 1998	U-97-AS-0850b	Outside	Testing
Fowler 1975	U-75-DA-0009b	Outside	Survey
Frank 1996	U-96-IG-0675b	Outside	Survey
Frank 1997a	U-97-IG-0071b,p,s	Inside/outside	Survey
Frank 1997b	U-97-IG-0071b,p,s	Outside	Testing
Frank 2000	U-00-IG-0564s	Outside	Survey
Frank 2001	U-01-IG-0418s	Outside	Survey
McEwen 2002	U-02-BL-0193b	Outside	Survey
Unknown	U-85-BC-0679p	Outside	Survey
Wintch 2001	U-96-UM-0733s	Inside/outside	Survey

Source: Logan Simpson Design, Inc., 2004

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Figure F.4  
PROJECT SITE AND PREVIOUSLY CONDUCTED SURVEYS



Sources: USGS 7.5' Quadrangles St. George, UT (1986 provisional) and Washington Dome, UT (1986 provisional)

Key

-  Survey area
-  Previously conducted survey
-  Proposed St. George Replacement Airport



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**Table F.2  
PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES WITHIN THE VICINITY OF  
THE PROPOSED REPLACEMENT AIRPORT SITE**

Site Number	Site Type	Affiliation/Age	Report Number	Reference	NRHP Eligibility
42Ws447	Rock shelter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Considered eligible
42Ws616	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws1644	Rock shelter	Virgin Anasazi/prehistoric	U-95-BL-0379b	Dalley 1995a	Considered eligible
42Ws1645	Artifact scatter	Virgin Anasazi/prehistoric	U-95-BL-0379b	Dalley 1995a	Not considered eligible
42Ws1716	Lithic scatter	Unknown/prehistoric	U-83-CD-0107b	Copeland 1984	Not considered eligible
42Ws1717	Lithic scatter	Archaic?/prehistoric	U-83-CD-0107b	Copeland 1984	Not considered eligible
42Ws1718	Lithic scatter	Unknown/prehistoric	U-83-CD-0107b	Copeland 1984	Not considered eligible
42Ws1719	Lithic scatter	Unknown/prehistoric	U-83-CD-0107b	Copeland 1984	Not considered eligible
42Ws1720	Lithic scatter	Unknown/prehistoric	U-83-CD-0107b	Copeland 1984	Not considered eligible
42Ws1721	Opportunistic stone tool chipping site	Unknown/prehistoric	U-83-CD-0107b	Copeland 1984	Not considered eligible
42Ws1722	Opportunistic stone tool chipping site	Unknown/prehistoric	U-83-CD-0107b	Copeland 1984	Not considered eligible
42Ws1723	Lithic scatter	Unknown/prehistoric	U-83-CD-0107b	Copeland 1984	Not considered eligible
42Ws1724	Rock alignment and piles	Euroamerican?/historic?	U-83-CD-0107b	Copeland 1984	Not considered eligible
42Ws3052	Lithic scatter	Late Archaic	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3053	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3054	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3055	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3057	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3058	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3059	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3060	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3061	Rock shelter	Anasazi/prehistoric	U-95-BL-380b	Dalley 1995b	Considered eligible

**Table F.2, Continued**  
**PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES WITHIN THE VICINITY OF**  
**THE PROPOSED REPLACEMENT AIRPORT SITE**

Site Number	Site Type	Affiliation/Age	Report Number	Reference	NRHP Eligibility
42Ws3062	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3063	Rock shelters and petroglyph	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Considered eligible
42Ws3064	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3065	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3143	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3144	Lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3145	Artifact scatter and possible structure	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Considered eligible
42Ws3146	Artifact scatter	Anasazi/prehistoric	U-95-BL-380b	Dalley 1995b	Not considered eligible
42Ws3147	Rock shelter	Anasazi/late PII	U-95-BL-380b	Dalley 1995b	Considered eligible
42Ws3148	Rock shelter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Considered eligible
42Ws3149	Rock shelters and petroglyph	Anasazi/prehistoric	U-95-BL-380b	Dalley 1995b	Considered eligible
42Ws3150	Rock shelters and petroglyph	Anasazi/prehistoric	U-95-BL-380b	Dalley 1995b	Considered eligible
42Ws3151	Lithic scatter	Unknown/prehistoric	U-95-BL-380b; U-97-AS-0850b; U-97-IG-0071b,p,s	Dalley 1995b; Davis et al. 1998; Frank 1997a	Determined ineligible
42Ws3152	Petroglyphs and lithic scatter	Unknown/prehistoric	U-95-BL-380b	Dalley 1995b	Considered eligible
42Ws3413	Rubble alignment and mound	Unknown	U-97-IG-0071b,p,s	Frank 1997a; Frank 1997b	Not considered eligible
42Ws3414	Rubble mounds	Unknown	U-97-IG-0071b,p,s	Frank 1997a; Frank 1997b	Not considered eligible
42Ws3415	Lithic scatter	Unknown/prehistoric	U-97-IG-0071b,p,s	Frank 1997a	Determined ineligible
42Ws3429	Rubble mound	Unknown	U-97-IG-0071b,p,s	Frank 1997a; Frank 1997b	Not considered eligible
42Ws4013	Rock shelter	Virgin Anasazi and So. Paiute/prehistoric	U01-IG-0418s	Frank 2001	Considered eligible
42Ws4336	Historic St. George and Washington Canal	Euroamerican/1891–present	U-02-BC-0775	Baker 2002	Determined eligible

Source: Logan Simpson Design, Inc., 2004

### F.1.5 SURVEY METHODS AND RESULTS

The survey area was intensively covered by pedestrian survey, involving compass-oriented transects spaced at no more than 15-meter (49-foot) intervals.

Vegetation in the survey area was sparse, and ground visibility averaged 90 percent open. When cultural remains were encountered, they were assigned a field number, plotted on U. S. Geological Survey topographic maps and with a hand-held global positioning system unit, and described in written notes. The survey resulted in the identification of two previously recorded sites—42W3151 and 42Ws3144—and 29 IOs; no new archaeological sites were identified.

#### F.1.5.1 Site Number 42Ws3151

Portions of the previously recorded and tested site 42Ws3151, a large, diffuse lithic scatter, cover the majority of Parcel 1 and the western half of Parcel 6. Four discrete lithic concentrations within 42Ws3151 were recorded during the current survey and plotted as loci, each representing a separate component of the site (described below). Widely spaced lithic artifacts were observed within 42Ws3151 during survey of Parcel 1; however, these were not recorded, because they represent the diffuse general scatter found across the landscape, originally described by Dalley (1995b). The site has already been determined not eligible for NRHP listing.

*Locus 1* consists of a lithic concentration, approximately 40 meters in diameter, containing 50–100 primary flakes, shatter, cores, and a small number of tertiary flakes. Material types include red, white, and gray chert. Nodules of unworked chert are present within the locus boundary.

*Locus 2* consists of a lithic concentration, approximately 30 meters in diameter, containing 50–100 flakes and shatter, and three cores. The material is primarily dark red chert, although small amounts of gray, white, and tan chert are also present.

*Locus 3* consists of a lithic concentration measuring approximately 40 by 100 meters, containing 100–150 flakes, shatter, and cores. Material types include red, gray, and white chert. One gray-and-white banded chert uniface scraper with cortex on the dorsal face was identified near the southern end of the concentration. The flakes appear to be eroding down the wash to the south.

*Locus 4* consists of an area of eroding unworked chert nodules, approximately 30 meters in diameter that also contained chert cores, primary flakes, secondary flakes, and a small number of tertiary flakes. The material is mostly mottled pink-and-white chert, along with smaller amounts of yellow/red chert.

#### F.1.5.2 Site Number 42Ws3144

Another previously recorded lithic scatter, 42Ws3144, was re-located within Parcel 1. The site was originally recorded as a small surface scatter on a tributary of Fort Pearce Wash, consisting of approximately 20 flakes along with two scrapers, two utilized flakes, and a biface fragment (Dalley 1995b). The site was recommended

not eligible because it lacked diagnostic artifacts and appeared to have no depth. The site form indicates that a grab sample was collected from the site. LSD re-located the site and observed flakes but no tools. A biface fragment (IO24) was identified relatively close to the site but on the opposite side of the drainage. LSD concurs with the recommendation that the site is not eligible for NRHP listing.

### F.1.5.3 Isolated Occurrences

A total of 29 Isolated Occurrences (IOs) were identified during the survey (Table F.3). Most of the IOs consist of lithics of indeterminate age and cultural affiliation and are indicative of the highly diffuse distribution of lithic debitage across the landscape. Two historic cans and a lid were also noted, including a matchstick/soldered-top can (IO10) that dates from between 1950 and 1975 (Simonis 1992). The lithics were found mainly in the rocky areas near Fort Pearce Wash. No IOs were located in the two northern survey parcels. IO29, a rock pile with no associated artifacts, was identified near the east edge of Parcel 5. The pile consisted of approximately 20 tabular rocks and measured about one meter in diameter. At least five additional rock piles were located in the same general vicinity but outside of the survey area. One rock pile had a piece of wood embedded but none had any associated artifacts. Similar rock piles were noted during a previous survey for the proposed replacement airport project (Frank 1997a), and one such feature at 42Ws3413 was tested (Frank 1997b). The excavation revealed no subsurface artifacts or cultural features. The age and function of the rock pile is unclear, although agricultural field clearing is a possibility.

**Table F.3**  
**ISOLATED OCCURRENCES OF ARTIFACTS AND FEATURES**

Isolated Occurrence Number	Description	UTM Location (Zone 12) <sup>A</sup>
1	3 chert flakes in a 1-meter-diameter area	276819 mE, 4100169 mN
2	1 white chert flake	277334 mE, 4099833 mN
3	1 grey chert flake	277585 mE, 4099634 mN
4	3 chert flakes in a 5-meter-diameter area	277748 mE, 4099494 mN
5	5 chert flakes in a 5-meter-diameter area	277927 mE, 4099260 mN
6	12 white chert flakes in a 10-meter-diameter area	277942 mE, 4099215 mN
7	9 chert flakes in a 10-meter-diameter area	277965 mE, 4099189 mN
8	2 flakes, 1 core, and 8 shatter, all red/gray chert, in a 5-meter-diameter area	275913 mE, 4100401 mN
9	1 red-and-gray banded chert uniface scraper	276155 mE, 4099698 mN
10	1 matchstick/soldered-top can measuring 2 <sup>15</sup> / <sub>16</sub> " x 3 <sup>15</sup> / <sub>16</sub> "	276330 mE, 4099603 mN
11	1 red chert secondary flake	275906 mE, 4101086 mN
12	1 chalcedony primary flake	275890 mE, 4101294 mN
13	1 quartz flake	276123 mE, 4101530 mN

**Table F.3, Continued**  
**ISOLATED OCCURRENCES (IO) OF ARTIFACTS AND FEATURES**

Isolated Occurrence Number	Description	UTM Location (Zone 12) <sup>A</sup>
15	1 dark red chert uniface fragment	276015 mE, 4101807 mN
16	1 whitish-gray chert biface fragment and 2 tertiary flakes in a 1-meter-diameter area	275960 mE, 4101444 mN
17	1 gray chert primary flake	276155 mE, 4099698 mN
18	1 gray chert core	275936 mE, 4101703 mN
19	1 secondary and 1 tertiary chalcedony flakes and 1 chert shatter in a 10-meter-diameter area	275784 mE, 4100190 mN
20	1 brown chert core fragment	275601 mE, 4100123 mN
21	10 chalcedony tertiary flakes, 1 brown chert secondary flake, and 1 white chert tertiary flake in a 15-meter-diameter area	275616 mE, 4100086 mN
22	1 secondary and 3 tertiary chalcedony flakes in a 5-meter-diameter area	275484 mE, 4100045 mN
23	1 primary and 1 secondary gray chert flakes and 1 tertiary chalcedony flake in a 5-meter-diameter area	275573 mE, 4100054 mN
24	1 gray chert biface fragment	275533 mE, 4099923 mN
25	4 chalcedony tertiary flakes in a 5-meter-diameter area	275435 mE, 4099858 mN
26	2 primary and 3 tertiary petrified wood flakes in a 5-meter-diameter area	277068 mE, 4100638 mN
27	2 secondary and 1 tertiary chert flakes in a 10-meter-diameter area	277156 mE, 4100820 mN
28	1 secondary and 1 tertiary petrified wood flakes and 2 chert tertiary flakes	277262 mE, 4101131 mN
29	Rock pile measuring 1 meter in diameter and containing approximately 20 tabular rocks	276949 mE, 4100385 mN

Notes:

<sup>A</sup> UTM coordinates based on the 1927 North American Datum

mE = meters East

mN = meters North

Source: Logan Simpson Design, Inc., 2004

### F.1.6 SUMMARY AND RECOMMENDATIONS

At the request of Landrum & Brown, Inc., LSD conducted a Class III cultural resources survey of 367.7 acres as part of the proposed St. George Replacement Airport. Construction of the proposed replacement airport would not impact any significant cultural resources. Intensive survey resulted in the confirmation of two previously recorded sites—42Ws3151 and 42Ws3144; no new sites were documented. LSD identified four lithic concentrations within the boundary of 42Ws3151, a large, diffuse lithic scatter that has already been determined not eligible for listing in the NRHP. Site 42Ws3144, a small lithic scatter, has previously

been recommended not eligible for the NRHP; LSD concurs with this recommendation. In addition, LSD identified 29 IOs; the IOs have been fully documented and are not eligible for the NRHP. No additional cultural resources investigation is recommended for the survey area.

### F.1.7 REFERENCES

#### ***Baker, S.***

- 2002 *Washington County Regional Pipeline Survey*. U-02-BC-0775. Office of Public Archaeology, Brigham Young University, Provo.

#### ***Copeland, J. M***

- 1984 *Archaeological Survey: BLM Section 203 Sale, Iron and Washington Counties, Utah*. U-83-CD-0107b. Centuries Research Inc., Montrose, Colorado.

#### ***Dalley, G. F.***

- 1993 *Gravel Test Pits – Fort Pearce Wash.* U-93-BL-0851b. Bureau of Land Management District Office, Cedar City.
- 1995a *Desert Tortoise Exchange 9 (DTX-09) Survey/Environmental Report*. U-95-BL-0379b. Bureau of Land Management District Office, Cedar City.
- 1995b *Desert Tortoise Exchange 10 (DTX-10) Survey/Environmental Report*. U-95-BL-0380b. Bureau of Land Management District Office, Cedar City.
- 1996a *Desert Tortoise Exchange 11 (DTX-11) Survey/Environmental Report*. U-95-BL-0381b. Bureau of Land Management District Office, Cedar City.
- 1996b *Desert Tortoise Exchange 12 (DTX-12) Survey/Environmental Report*. U-95-BL-0382b. Bureau of Land Management District Office, Cedar City.
- 1998 *Unauthorized Phone Line – UTU 61471*. U-98-BL-0386b. Bureau of Land Management District Office, Cedar City.

#### ***Davis, W. E., M. C. Bond, J. D. Till, and D. A. Westfall***

- 1998 *Archaeological Investigations in the DTX Tract 10 Project Area, Washington County, Utah*. U-97-AS-0850b. Abajo Archaeology, Bluff, Utah.

#### ***Fowler, D. D.***

- 1975 *Archeological Reconnaissance along the Proposed Coal-Slurry Pipeline Corridor from Alton, Utah to Dry Lake Valley, Nevada*. U-75-DA-0009b. Manuscript on file at the Utah State Historic Preservation Office, Salt Lake City.

#### ***Frank, B. W.***

- 1996 Letter report on the Ross-Washington Fields Powerline Survey. U-96-IG-0675b. Intersearch, Inc., Cedar City.
- 1997a *The Creamer & Noble – St. George Airport Archeological Survey, Location I, in Washington County, Utah*. U-97-IG-0071b,p,s. Intersearch, Inc., Cedar City.

- 1997b *The Creamer & Noble – St. George Airport, Location I: Evaluation of 42Ws3413. U-97-IG-0071b,p,s.* Intersearch, Inc. Cedar City.
- 2000 *An Archeological Survey of the Creamer & Noble – St. George Replacement Airport Road Alignment in Washington County, Utah.* U-00-IG-0564s. Intersearch, Inc., Cedar City.
- 2001 Letter report on the Dixie Escalante South St. George Power Line Survey. U-01-IG-0418s. Intersearch, Inc., Cedar City.

**McEwen, G. V.**

- 2002 *Gamble's Quail Habitat Condo's.* U-02-BL-0193b. Bureau of Land Management District Office, Cedar City.

**Simonis, D.**

- 1992 *Milk Can Typology for Dating Historical Sites.* U.S. Department of the Interior Bureau of Land Management, Kingman Resource Area. Kingman, Arizona.

**Turner, R. M.**

- 1994 Warm Temperate Desertlands. Mohave Desertscrub. In *Biotic Communities: Southwestern United States and Northwestern Mexico*, edited by D. E. Brown, pp. 157–68. University of Utah Press, Salt Lake City.

**Wintch, K. L.**

- 2001 *A Short Archaeological Inventory Report for the Redhawk Development Parcel in Washington County, Utah.* U-96-UM-0733s. State of Utah, School and Institutional Trust Lands Administration, Salt Lake City.

## **F.2 CULTURAL RESOURCES OUTSIDE OF THE PROPOSED REPLACEMENT AIRPORT STUDY AREA**

As previously stated in **Section 5.7.2** and presented on **Exhibit 5.12**, a total of eighty historic properties and districts located outside of the Proposed Replacement Airport Study Area, within Washington County, Utah, are listed on the National Register of Historic Places (NRHP). All but two of the property listings date to the historic period – the period documented with written records. The two properties listed in Washington County that do not date to the historic period, the Southern Paiute Archaeological District in Washington City and the Parunuweap Canyon Archaeological District in Zion National Park, date to the prehistoric period. Twelve of the listed properties are located within the City of St. George, and are all historic buildings. Other municipalities with listed properties include Washington City with six, Santa Clara with eight properties, and Hurricane with eight properties. Each of these properties is listed on **Table F.4**.

**Table F.4**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
<b>Listings Outside of Zion National Park</b>				
93000410	Enterprise Meetinghouse Historic Significance: Event, architecture/engineering Historic Function: Education, religion, social Historic Sub-Function: Meeting hall, religious structure, school	Approximately 24 S. Center St.	Enterprise	1993
75001833	Mountain Meadows Historic Site Historic Significance: Event (transportation, exploration/settlement) Historic Function: Domestic, landscape Historic sub-function: Camp, underwater	7 mi. S of Enterprise on UT 18	Enterprise	1975
89000281	Santa Clara Hydroelectric Power Plants Historic District Historic Significance: Event, architecture/engineering Historic Function: Industry/processing/extraction Historic Sub-Function: Energy Facility	Off UT 18 on Santa Clara River	Gunlock	1989
91001443	Bradshaw House--Hotel Historic Significance: Event (community planning and development, commerce, exploration/settlement) Historic Function: Domestic, education Historic Sub-Function: Hotel, School, Single Dwelling <sup>2</sup>	85 S. Main St.	Hurricane	1991
77001324	Hurricane Canal Historic Significance: Event, architecture/engineering Historic Function: Agriculture/subsistence, industry/processing/extraction Historic Sub-Function: Water works	E of Hurricane	Hurricane	1977
86000752	Hurricane High School Historic Significance: Event, architecture/engineering Historic Function: Education Historic Sub-Function: School	34 S. One Hundred W	Hurricane	1986

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
<b>Listings Outside of Zion National Park, Continued</b>				
95000980	Hurricane Historic District Historic Significance: Architecture/engineering, event Historic Function: Agriculture/subsistence, commerce/trade, domestic, education Historic Sub-Function: Department store, library, multiple dwelling, school, single dwelling2, storage	Roughly bounded by 300 South, 200 West, State St. and the Hurricane Canal	Hurricane	1995
91001444	Hurricane Library--City Hall Historic Significance: Event (politics/government, social history) Historic Function: Education, government Historic Sub-Function: City Hall, library	35 W. State St.	Hurricane	1991
95000413	Hurricane--LaVerkin Bridge Historic Significance: Event, architecture/engineering Historic Function: Transportation Historic Sub-Function: Road- related	E of UT 9 over the Virgin R.	Hurricane	1995
93000063	Isom, Samuel and Elizabeth, House Historic Significance: Event, architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	188 S. 100 West	Hurricane	1993
92001692	Stanworth, Emanuel and Ursella, House Historic Significance: Architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	198 S. Main St.	Hurricane	1992
93000062	Leeds CCC Camp Historic District Historic Significance: Event (conservation, social history) Historic Function: Domestic, government, health care Historic Sub-Function: Clinic, institutional housing	96 W. Mulberry	Leeds	1993

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
<b>Listings Outside of Zion National Park, Continued</b>				
85000291	Leeds Tithing Office Historic Significance: Event (social history) Historic Function: Religion, social Historic Sub-Function: Civic	SW Corner 100 West and 100 North	Leeds	1985
79003493	Fort Harmony Site Historic Significance: Event (exploration/settlement) Historic Function: Defense, domestic Historic Sub-Function: Fortification	E of New Harmony on I-15	New Harmony	1979
71000859	Pine Valley Chapel and Tithing Office Historic Significance: Event, architecture/engineering Historic Function: Religion Historic Sub-Function: Religious structure	Main and Grass Valley Sts.	Pine Valley	1971
72001263	Deseret Telegraph and Post Office Historic Significance: Event (communications) Historic Function: Domestic, industry/processing/extraction Historic Sub-Function: Communications facility, single dwelling2	On UT 15	Rockville	1972
99001007	Grafton Historic District Historic Significance: Event (architecture, agriculture, community planning and development, exploration/settlement) Historic Function: Agriculture/subsistence, domestic, education, religion Historic Sub-Function: Animal facility, religious structure, school, single dwelling2, storage	1861 townsite of Grafton	Rockville	1999
95000982	Rockville Bridge Historic Significance: Event, architecture/engineering Historic Function: Transportation Historic Sub-Function: Road-related	Bridge St. over E. Fork, Virgin R.	Rockville	1995

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
<b>Listings Outside of Zion National Park, Continued</b>				
98001461	Graff, George and Bertha, House Historic Significance: Event, architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	2865 Santa Clara Dr.	Santa Clara	1998
98001462	Hafen, Hans George, House Historic Significance: Event, architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	3003 Santa Clara Dr.	Santa Clara	1998
71000860	Hamblin, Jacob, House Historic Significance: Person (Hamblin, Jacob) Historic Function: Domestic Historic Sub-Function: Single dwelling2	US 91	Santa Clara	1971
99000215	Leavitt, Lemuel and Mary Ann, House Historic Significance: Event (social history) Historic Function: Domestic Historic Sub-Function: Single dwelling2	1408 Quail	Santa Clara	1999
98001448	Reber, Frederick and Anna Maria, House Historic Significance: Event, architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	2988-2990 Santa Clara Dr.	Santa Clara	1998
99000214	Reber, Frederick, Jr., and Mary F., House Historic Significance: Event (social history) Historic Function: Domestic Historic Sub-Function: Single dwelling2	3334 Hamblin Dr.	Santa Clara	1999

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
<b>Listings Outside of Zion National Park, Continued</b>				
93001577	Santa Clara Relief Society House Historic Significance: Event, architecture/engineering Historic Function: Education, government, health care, religion, social Historic Sub-Function: Clinic, meeting hall, post office, religious structure, school	Approximately 3036 W. Santa Clara Dr.	Santa Clara	1994
98001460	Santa Clara Tithing Company Historic Significance: Event (social history, agriculture) Historic Function: Agriculture/subsistence Historic Sub-Function: Storage	3105 Santa Clara Dr.	Santa Clara	1998
71000861	Wells Fargo and Company Express Building Historic Significance: Event (industry, commerce) Historic Function: Commerce/trade Historic Sub-Function: Financial institution	Main St.	Silver Reef	1971
78002709	Blake, Wallace, House Historic Significance: Architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	S of St. George	St. George	1978
84002433	Butler, William F., House Historic Significance: Architecture/engineering, person Historic Function: Domestic Historic Sub-Function: Single dwelling2	168 S. 300 West	St. George	1984
78002710	Judd, Thomas, House Historic Significance: Architecture/engineering, person Historic Function: Domestic Historic Sub-Function: Single dwelling2	269 S. 200 East	St. George	1978
80003988	Main Building of Dixie College Historic Significance: Event, architecture/engineering Historic Function: Education Historic Sub-Function: College	86 S. Main St.	St. George	1980

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
<b>Listings Outside of Zion National Park, Continued</b>				
70000634	Old Washington County Courthouse Historic Significance: Event (politics/government) Historic Function: Government Historic Sub-Function: Correctional facility, courthouse	85 E. 100 North	St. George	1970
83003199	Pratt, Orson, House Historic Significance: Person (Pratt, Orson) Historic Function: Domestic Historic Sub-Function: Single dwelling2	76 W. Tabernacle St.	St. George	1983
85000820	St. George Elementary School Historic Significance: Event (politics/government, social history) Historic Function: Education Historic Sub-Function: School	120 S. 100 West	St. George	1985
91000360	St. George Social Hall Historic Significance: Event (entertainment/recreation, agriculture) Historic Function: Agriculture/subsistence, recreation and culture Historic Sub-Function: Auditorium, storage	212 N. Main St.	St. George	1991
71000862	St. George Tabernacle Historic Significance: Event, architecture/engineering Historic Function: Religion Historic Sub-Function: Religious structure	Jct. of Tabernacle and Main Sts.	St. George	1971
77001325	St. George Temple Historic Significance: Event, architecture/engineering Historic Function: Religion Historic Sub-Function: Religious structure	Bounded by 200 East, 300 East, 400 South, and 500 South	St. George	1977
80003989	Woodward School Historic Significance: Event, architecture/engineering Historic Function: Education Historic Sub-Function: School	100 West and Tabernacle Sts.	St. George	1980

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
<b>Listings Outside of Zion National Park, Continued</b>				
71000863	Young, Brigham, Winter Home and Office Historic Significance: Architecture/engineering, person Historic Function: Commerce/trade, domestic Historic Sub-Function: Professional, single dwelling2	Corner of 200 North and 100 West	St. George	1971
82004184	Forsyth, Thomas, House Historic Significance: Event, architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	Off UT 15	Toquerville	1982
80003990	Naegle Winery Historic Significance: Event (exploration/settlement, agriculture) Historic Function: Agriculture/subsistence Historic Sub-Function: Processing	Main and 5th Sts.	Toquerville	1980
88000401	Steele, John, House Historic Significance: Architecture/engineering, person Historic Function: Domestic Historic Sub-Function: Single dwelling2	263 N. Toquerville Blvd.	Toquerville	1988
89000281	Santa Clara Hydroelectric Power Plants Historic District Historic Significance: Event, architecture/engineering Historic Function: Industry/processing/extraction Historic Sub-Function: Energy facility	Off UT 18 on Santa Clara River	Veyo	1989
00000732	Jepson, James, Jr., House Historic Significance: Person, architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	15 East Jepson	Virgin	2000

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

NRIS NUMBER	RESOURCE NAME AND HISTORIC SIGNIFICANCE	ADDRESS/LOCATION	CITY	DATE LISTED
<b>Listings Outside of Zion National Park, Continued</b>				
78002711	Covington, Robert D., House Historic Significance: Architecture/engineering, person Historic Function: Domestic Historic Sub-Function: Single dwelling2	200 N. 200 East	Washington	1978
75001834	Fort Pearce Historic Significance: Event (military, agriculture) Historic Function: Agriculture/subsistence, defense Historic Sub-Function: Fortification	12 mi. SE of Washington off I-15	Washington	1975
82004185	Southern Paiute Archeological District Historic Significance: Information potential (prehistoric) Historic Function: Domestic Historic Sub-Function: Village site	Address Restricted	Washington	1982
71000864	Washington Cotton Factory Historic Significance: Event (industry/agriculture) Historic Function: Industry/processing/extraction Historic Sub-Function: Manufacturing facility	On U.S. 91 (Frontage Rd. West)	Washington	1971
80003991	Washington Relief Society Hall Historic Significance: Event, architecture/engineering Historic Function: Commerce/trade, funerary, government, social Historic Sub-Function: Meeting hall, mortuary, post office, specialty store	100 West and Telegraph Sts.	Washington	1980
80003992	Washington School Historic Significance: Event, architecture/engineering Historic Function: Education Historic Sub-Function: School	Main and Telegraph Sts.	Washington	1980

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

NRIS NUMBER	RESOURCE NAME AND HISTORIC SIGNIFICANCE	ADDRESS/LOCATION	CITY	DATE LISTED	MULTIPLE RESOURCE AREA (MRA)
<b>Listings within Zion National Park</b>					
86003707	Angels Landing Trail-- West Rim Trail Historic Significance: Architecture/Engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, pedestrian related	S of Scout Lookout across the Virgin River and Refrigerator Canyon	Springdale	2/14/87	Zion National Park MRA
96000053	Cable Creek Bridge Historic Significance: Event, architecture/engineering Historic Function: Landscape, transportation Historic sub-function: Park, road-related	Floor of the Valley Rd. at milepost 4.48, S of Weeping Rock Parking Area entrance	Springdale	2/16/96	Zion National Park MRA
78000281	Cable Mountain Draw Works Historic Significance: Event, architecture/engineering Historic Function: Industry/processing/ Extraction Historic Sub-Function: Extractive facility	N of Springdale in Zion National Park	Springdale	5/24/78	Zion National Park MRA (AD)
86003722	Canyon Overlook Trail Historic Significance: Architecture/engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, pedestrian related	Across hwy. from parking area at E end of Zion-Mt. Carmel Tunnel to a point directly above the Great Arch of Zion	Springdale	2/14/87	Zion National Park MRA
86003732	Crawford Irrigation Canal Historic Significance: Event (exploration/settlement) Historic Function: Industry/processing Extraction Historic Sub-Function: Water works	W bank of Virgin River from 1 mi. N of Virgin River Bridge to base of Virgin River Formation and .5 mi up Oak Creek	Springdale	7/7/87	Zion National Park MRA

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

NRIS NUMBER	RESOURCE NAME AND HISTORIC SIGNIFICANCE	ADDRESS/ LOCATION	CITY	DATE LISTED	MULTIPLE RESOURCE AREA (MRA)
<b>Listings within Zion National Park, Continued</b>					
86003711	East Entrance Checking Station Historic Significance: Architecture/engineering (Civilian Conservation Corps) Historic Function: Unavailable	Island in middle of UT 9	Springdale	2/14/87	Zion National Park MRA
86003712	East Entrance Residence Historic Significance: Architecture/engineering (Civilian Conservation Corps) Historic function: Domestic Historic Sub-Function: Institutional housing	E Entrance 150 ft. N of UT 9	Springdale	2/14/87	Zion National Park MRA
86003710	East Entrance Sign Historic Significance: Architecture/engineering (Civilian Conservation Corps) Historic Function: Recreation & culture Historic Sub-Function: Monument/marker	East Entrance Checking Station on N and S sides of UT 9	Springdale	7/7/87	Zion National Park MRA
86003723	East Rim Trail Historic Significance: Historic Significance: Architecture/engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, pedestrian related	Between Weeping Rock Parking Area and Observation Pt.	Springdale	7/7/87	Zion National Park MRA
86003725	Emerald Pools Trail Historic Significance: Architecture/engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, road-related	Foot Bridge across hwy. from Utah Parks Lodge proceeding W to the Lower Emerald Pool	Springdale	2/14/87	Zion National Park MRA

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

NRIS NUMBER	RESOURCE NAME AND HISTORIC SIGNIFICANCE	ADDRESS/ LOCATION	CITY	DATE LISTED	MULTIPLE RESOURCE AREA (MRA)
<b>Listings within Zion National Park, Continued</b>					
97001630	Flanigan Ditch Historic Significance: Information potential/event (social history, exploration/settlement, agriculture) Historic Function: Agriculture/subsistence Historic Sub-Function: Irrigation facility	Zion National Park	Springdale	1/12/98	Zion National Park MRA
96000048	Floor of the Valley Road (includes culverts and drop inlets, Temple of Sinawava Parking Area, Red Point Parking Area, Great White Thorne Parking Area, and Weeping Rock Parking Area) Historic Significance: Event, Architecture/ engineering (Civilian Conservation Corps) Historic Function: Landscape, transportation Historic Sub-Function: Park, road-related	From jct. with Zion--Mt. Carmel Hwy. along the N. Fork of the Virgin R., Zion National Park	Springdale	2/16/96	Zion National Park MRA
86003726	Gateway to the Narrows Trail (includes Trailside Exhibit Building – Temple of Sinawava) Historic Significance: Event, Architecture/engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, pedestrian related	Temple of Sinawava at the end of Zion Canyon Scenic Dr. to a pt. 1 mi. N on Virgin River	Springdale	7/7/87	Zion National Park MRA

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

NRIS NUMBER	RESOURCE NAME AND HISTORIC SIGNIFICANCE	ADDRESS/ LOCATION	CITY	DATE LISTED	MULTIPLE RESOURCE AREA (MRA)
<b>Listings within Zion National Park, Continued</b>					
86003705	Grotto Camping Ground North Comfort Station Historic Significance: Architecture/engineering Historic Function: Unavailable	Grotto Picnic Area near Grotto Residence E of Scenic Dr.	Springdale	2/14/87	Zion National Park MRA
86003704	Grotto Camping Ground South Comfort Station Historic Significance: Architecture/engineering Historic Function: Unavailable	Grotto Picnic Area near Grotto Residence, E of Scenic Dr.	Springdale	2/14/87	Zion National Park MRA
86003914	Grotto Trail Historic Significance: Architecture/engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, pedestrian related	Zion National Park, 120 ft. N of Zion Lodge extending S .2 mi. parallel to the E side of Zion Canyon Scenic Dr.	Springdale	2/14/96	Zion National Park MRA
86003731	Hidden Canyon Trail Historic Significance: Architecture/engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, pedestrian related	Hidden Canyon jct. on the E Rim Trail to the mouth of Hidden Canyon	Springdale	2/14/87	Zion National Park MRA
86003721	Museum--Grotto Residence Historic Significance: Architecture/engineering Historic Function: Recreation & culture Historic Sub-Function: Museum	SE of Grotto Picnic Area	Springdale	2/14/87	Zion National Park MRA
86003706	Oak Creek Historic District Historic Significance: Architecture/engineering Historic Function: Domestic Historic Sub-Function: Institutional housing, secondary structure	Off US 9 along bank of Oak Creek	Springdale	7/7/87	Zion National Park MRA

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

NRIS NUMBER	RESOURCE NAME AND HISTORIC SIGNIFICANCE	ADDRESS/ LOCATION	CITY	DATE LISTED	MULTIPLE RESOURCE AREA (MRA)
<b>Listings within Zion National Park, Continued</b>					
86003738	Oak Creek Irrigation Canal Historic Significance: Event (landscape architecture) Historic Function: Industry/processing Extraction Historic Sub-Function: Water works	W side of the N Fork of Virgin River 1/8 mi. N of Virgin River Bridge to the N side of Watchman Campground Entrance Rd.	Springdale	7/7/87	Zion National Park MRA
96001235	Parunuweap Canyon Archeological District Historic Significance: Information potential, architecture/engineering (Native American, education, prehistoric, Virgin Anasazi, Southern Paiute) Historic Function: Agriculture/subsistence, domestic, recreation & culture Historic Sub-Function: Camp, multiple dwelling, village site, work of art (sculpture, carving, rock art)	Address Restricted	Springdale	11/7/96	Un-available
86003734	Pine Creek Irrigation Canal Historic Significance: Event (exploration, settlement) Historic Function: Industry/processing/ Extraction Historic Sub-Function: Water works	E bank of the Virgin River .25 mi. N of Virgin River Bridge to the SW end of Watchman Residential Loop	Springdale	7/7/87	Zion National Park MRA
86003736	Pine Creek Residential Historic District Historic Significance: Architecture/engineering Historic Function: Domestic Historic Sub-Function: Institutional housing, secondary structure	W side of UT 9 500 ft. S of Virgin River Bridge	Springdale	7/7/87	Zion National Park MRA

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

NRIS NUMBER	RESOURCE NAME AND HISTORIC SIGNIFICANCE	ADDRESS/ LOCATION	CITY	DATE LISTED	MULTIPLE RESOURCE AREA (MRA)
<b>Listings within Zion National Park, Continued</b>					
86003717	South Campground Amphitheater Historic Significance: Architecture/engineering (Civilian Conservation Corps) Historic Function: Recreation & culture Historic Sub-Function: Theater	South Campground	Springdale	2/14/87	Zion National Park MRA
86003708	South Campground Comfort Station Historic Significance: Architecture/engineering Historic Function: Unavailable	South Campground at N end of campsite loop	Springdale	2/14/87	Zion National Park MRA
86003713	South Entrance Sign Historic Significance: Architecture/engineering (Civilian Conservation Corps) Historic Function: Recreation & culture Historic Sub-Function: Monument/marker	South Entrance	Springdale	2/14/87	Zion National Park MRA
86003753	Zion Lodge Historic District Historic Significance: Architecture/engineering Historic Function: Domestic, landscape Historic Sub-Function: Camp, park	N of Springdale in Zion National Park	Springdale	8/24/82	Zion National Park MRA
	Zion Lodge--Birch Creek Historic District (Boundary Increase) Historic Significance: Architecture/engineering Historic Function: Agriculture/subsistence, domestic Historic Sub-Function: Animal facility, secondary structure	W of UT 9 on the W and E sides of The Zion Canyon Scenic Drive near Birch Creek	Springdale	7/7/87	

**Table F.4, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

NRIS NUMBER	RESOURCE NAME AND HISTORIC SIGNIFICANCE	ADDRESS/ LOCATION	CITY	DATE LISTED	MULTIPLE RESOURCE AREA (MRA)
<b>Listings within Zion National Park, Continued</b>					
86003719	Zion Nature Center--Zion Inn Historic Significance: Architecture/engineering Historic Function: Commerce/trade Historic Sub-Function: Business, restaurant, specialty store	N of South Campground facilities	Springdale	2/14/87	Zion National Park MRA
86003709	Zion-Mount Carmel Highway (includes Virgin River Bridge, Pine Creek Bridge, and Zion-Mt. Carmel Tunnel) Historic Significance: Event, architecture/engineering (landscape architecture) Historic Function: Transportation Historic Sub-Function: Road-related	Between US 9 and US 89	Springdale	7/7/87	Zion National Park MRA

Sources: National Park Service, National Register of Historic Places, query for Washington County, Utah, January 2004. On-line at <http://www.nr.nps.gov/>.  
National Register of Historic Places, Washington County, Utah. On-line at <http://www.nationalregisterofhistoricplaces.com/UT/Washington/state.html>. Retrieved June 9, 2005.  
Correspondence from Kezia Nielsen, National Park Service, Zion National Park, Division of Resources Management and Research, December 11, 2003.

### **F.3 AGENCY COORDINATION**

#### **F.3.1 PRIOR COORDINATION PURSUANT TO THE 2001 FINAL ENVIRONMENTAL ASSESSMENT**

See **Attachment F-2** for agency coordination regarding cultural resources that was conducted prior to the development of this Environmental Impact Statement, pursuant to the development of the 2001 Final Environmental Assessment.

#### **F.3.2 CURRENT COORDINATION**

See **Attachment F-3** for agency coordination regarding cultural resources that was conducted as part of the development process of this Environmental Impact Statement.

**ATTACHMENT F-1  
SURVEY DOCUMENTAION  
REMOVED FOR RESOURCE PROTECTION PURPOSES**

**ATTACHMENT F-2**

**PRIOR COORDINATION PURSUANT TO THE 2001 FINAL  
ENVIRONMENTAL ASSESSMENT**

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# State of Utah

Department of Community and Economic Development  
Division of State History  
Utah State Historical Society



Michael O. Leavitt  
Governor  
Max J. Evans  
Director

300 Rio Grande  
Salt Lake City, Utah 84101-1182  
(801) 533-3500 FAX: 533-3503 TDD: 533-3502  
cehistory.ushs@email.state.ut.us

May 28, 1998

Cynthia Romero  
Project Manager  
Federal Aviation Administration  
5440 Roslyn Street, Suite 300  
Denver CO 80216-6026

RE: St. George Airport Replacement Site, St. George UT U-97-IG-0071bps

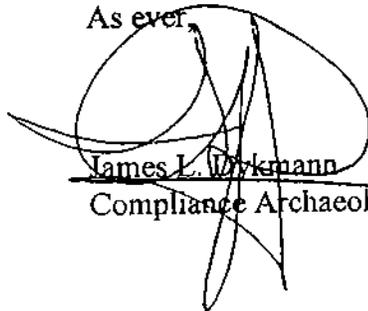
In Reply Please Refer to Case No. 96-1651

Dear Ms. Romero:

The Utah State Historic Preservation Office received the above referenced report on May 20, 1998. After consideration of your letter, the Utah Preservation Office concurs with the FAA determination of **No Effect**, based on the contractors report and recommendation of No Historic Property for 42WS 3151.

This information is provided on request to assist the FAA with its Section 106 responsibilities as specified in § 36CFR800. If you have questions, please contact me at (801) 533-3555. My email address is: [jdykman@state.ut.us](mailto:jdykman@state.ut.us)

As ever,

  
James L. Dykman  
Compliance Archaeologist

JLD:96-1651 FAA/NP/NE

c: Terry Hickman, Creamer & Noble

F:\CULTURAL\JIM\96-1651.wpd



FEDERAL AVIATION  
ADMINISTRATION  
September 27, 2000

DENVER AIRPORTS DISTRICT OFFICE  
26805 E. 68<sup>th</sup> Ave., Suite 224  
DENVER, COLORADO 80249  
(303) 342-1265

James L. Dykman  
State of Utah  
Department of Community and Economic Development  
Division of State History  
Utah State Historical Society  
300 Rio Grande  
Salt Lake City, UT 84101-1182

St. George Replacement Airport  
St. George, UT  
Cultural Resources Survey Report

Dear Mr. Dykman,

The City of St. George is proposing an alternative primary access road for the St. George Replacement Airport from that presented in the Draft Environmental Assessment that was sent to you in June 2000. The road is approximately 16,300 feet in length and will follow an existing roadway corridor. A total of 5,300 feet of this existing roadway is unpaved. The project will consist of widening the pavement on both sides of the existing roadway and construction of gravel shoulders. A three-lane wide pavement section will be provided: two 3.6-meter travel lanes and a 4.5 meters two-way center left turn lane. In addition, two shoulders ranging from 0.6 meters to 2.4 meters in width would be constructed.

Barbara W. Frank, Intersearch, Inc. conducted a survey approximately 200 to 1,000 feet wide on this proposed route. The survey recorded one new archeological site, 42Ws4013, a prehistoric rock shelter/campsite at the extreme eastern end of the project alignment. The most viable alternative in dealing with the site is avoidance of the resource. This would be accommodated by routing the proposed road alignment to the southern 500 wide section of the surveyed corridor. This would allow complete avoidance of 42Ws4013 and preservation of the resource. With this measure the proposed access route will not effect any properties eligible for the National Register of Historic Place.

Please provide us your comments on the report and determination of no adverse affect. If you need any further information please contact me at the number above.

Sincerely,

**Original Signed by:**  
**Cynthia Romero**

Cynthia Romero

B-10



Department of Community and Economic Development  
Division of State History  
Utah State Historical Society



Michael O. Leavitt  
Governor  
Max J. Evans  
Director

300 Rio Grande  
Salt Lake City, Utah 84101-1182  
(801) 533-3500 FAX: 533-3503 TDD: 533-3502  
ushs@history.state.ut.us http://history.utah.org

October 26, 2000

RECEIVED  
OCT 30 2000  
FAA DALLAS

Cynthia Romano  
Federal Aviation Administration  
Denver Airports District Office  
26805 East 68th Avenue  
Suite 224  
Denver CO 80249

RE: St. George Replacement Airport, St. George, UT

In Reply Please Refer to Case No. 96-1651

Dear Ms. Romano:

The Utah State Historic Preservation Office received the above referenced information on October 2, 2000. After consideration of the project report and FAA consultation, the USHPO concurs with a determination of **No Adverse Effect** for the project.

Technical Note; the USHPO needs a 106 cover sheet for the report by Intersearch.

This information is provided on request to assist with Section 106 responsibilities as specified in 36CFR800. If you have questions, please contact me at (801) 533-3555. My email address is: [jdykman@history.state.ut.us](mailto:jdykman@history.state.ut.us)

As ever,

James L. Dykmann  
Compliance Archaeologist

JLD:96-1651 FAA

c: Barbara W. Frank, Intersearch, Southern Utah State University, 484 South 300 East  
Cedar City UT 84720

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**ATTACHMENT F-3**  
**CURRENT COORDINATION**

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# United States Department of the Interior



## BUREAU OF LAND MANAGEMENT

Arizona Strip Field Office  
345 East Riverside Drive  
St. George, Utah 84790  
[www.az.blm.gov](http://www.az.blm.gov)

In Reply Refer To:  
AZ-010: 1100

December 10, 2004

Dennis Ossenkop  
Environmental Protection Specialist  
Northwest Mountain Region  
Federal Aviation Administration  
1601 Lind Avenue, S.W.  
Renton, Washington 98055-4056

RE: St. George, Utah, Replacement Airport, Section 303(c) Determination of Significance for the Little Black Mountain Petroglyph Site Area of Critical Environmental Concern

Dear Mr. Ossenkop:

Thank you for your November 19, 2004, letter requesting to know if we consider the above-referenced Little Black Mountain Petroglyph Site to be significant under the definition in 49 U.S.C. Section 303(c).

As you may know, this 200-acre rock art site was designated in the BLM Arizona Strip District Resource Management Plan (1992) as an Area of Critical Environmental Concern (ACEC) and as a Public Use Site because of its significant cultural resources. This site is eligible for listing in the National Register of Historic Places.

We recognize that this ACEC and its cultural resources and setting are significant to tribes in the surrounding region. We recently participated in a cultural landscape study with these tribes that confirmed this tribal significance.

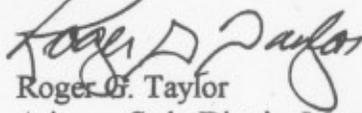
We have managed this ACEC as a public use site for the interpretation of these cultural resources, and we constructed a parking lot, restroom, trails, and protective fencing.

Some public visitors to this ACEC have noted in the visitor log that they appreciate not only the cultural resources but also the solitude, natural quiet, and remote setting. We believe that these characteristics play an important role in the public interpretation of these cultural resources.

We have determined that this ACEC and its cultural resources and setting clearly meet the definition of a significant historic site for purposes of 49 U.S.C. Section 303(c).

If you have any questions on this response, please contact Richard Spotts, Environmental Coordinator, at 435 688-3207.

Sincerely,

A handwritten signature in black ink, appearing to read "Roger G. Taylor". The signature is written in a cursive style with a large, stylized initial "R".

Roger G. Taylor  
Arizona Strip District Manager

RECEIVED MAR 28 2005



U.S. Department  
of Transportation

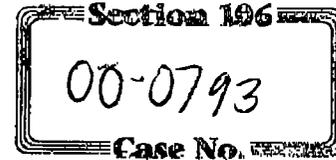
**Federal Aviation  
Administration**

March 22, 2005

James L. Dykman  
State of Utah  
Department of Community and Economic Development  
Division of State History  
Utah State Historical Society  
300 Rio Grande  
Salt Lake City, UT 84101-1143

**Northwest Mountain Region**  
Colorado, Idaho, Montana  
Oregon, Utah, Washington,  
Wyoming

1601 Lind Avenue, S. W.  
Renton, Washington 98055-4056



**Subject: Potential Environmental Impacts of the Proposed Replacement St. George, Utah,  
Municipal Airport upon the Little Black Mountain Petroglyph site and Section 106  
Consultation on the Proposed Airport Footprint State Project #U-04-LI-0353p,s**

Dear Mr. Dykman:

The Federal Aviation Administration (FAA), Northwest Mountain Region, is preparing an Environmental Impact Statement (EIS) for the proposed replacement of the St. George Municipal Airport at St. George, Utah. As part of this effort, the EIS is investigating possible effects to cultural resources within the proposed airport footprint and will also be examining the environmental conditions in a large area surrounding St. George, Utah, so as to enable the evaluation of potential impacts from aircraft over flights of sensitive lands.

During the course of our consultation with Native American Indian tribes in the vicinity of the proposed site of the replacement airport, the FAA became aware of the existence of the Little Black Mountain Petroglyph site. Enclosed is a diagram from our recent noise measurement study at Little Black Mountain showing the close proximity of the replacement airport site to Little Black Mountain. The FAA is conducting ongoing consultation with the tribes to gather information about the site's importance and has asked for feedback regarding any tribal concerns about the interaction of the proposed replacement airport and the Little Black Mountain Petroglyph site. The following tribes have been consulted: Chemehuevi Indian Tribe; the Colorado River Indian Tribe; the Havasupai Indian Tribe; the Hopi Tribe; the Hualapai Indian Tribe; the Kaibab Band of Paiutes; the Las Vegas Paiute Tribe; the Moapa Band of Paiute; the Pahrump Band of Paiutes; the Paiute Indian Tribe of Utah, including the Indian Peak, Cedar, Shivwits, Koosharem, and Kanosh Bands; the San Juan Southern Paiute Tribe; and the Pueblo of Zuni. The FAA will notify the tribes of the availability of the Draft EIS for review and of future public meetings and the public hearing on the EIS.

Because this project is considered a federal undertaking subject to Section 106 review, the entire proposed airport footprint has been surveyed. The initially proposed footprint was surveyed by Intersearch, Inc., and the results were reported in *The Creamer & Noble - St.*

*George Airport Archeological Survey, Location I, in Washington County, Utah* (Frank 1997; State Project No. U-97-IG-0071b,p,s). The survey identified four potentially significant sites. Three of the sites—42Ws3413, 42Ws3414, and 42Ws3429—were very similar rock mounds with stone alignments. Testing conducted by Intersearch, Inc. at 42Ws3413 identified no subsurface cultural remains and resulted in a change in recommendation for the three sites to nonsignificant. The fourth potentially significant site, 42Ws3151, which was a large diffuse lithic scatter, was tested outside the project area and found to be surficial in nature and not eligible for the National Register. On May 28, 1998, Utah SHPO concurred with an FAA determination of No Effect for the proposed airport footprint.

Since that concurrence was obtained, the proposed airport footprint has changed, requiring additional area be surveyed. The survey was conducted by Logan Simpson Design Inc., and the results are reported in *A Cultural Resources Survey of 367.7 Acres for a Proposed Replacement Airport, South of St. George, Washington County, Utah* (Bild and Breen 2004). The survey identified two previously recorded sites—42Ws3151, which, as stated above, has already been determined not eligible, and 42Ws3144, a small lithic scatter that is recommended not eligible.

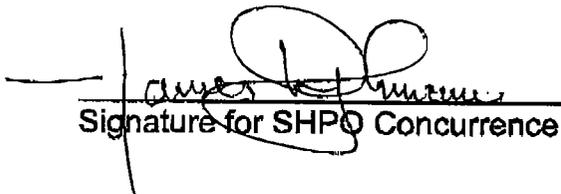
Our determination is that the proposed replacement St. George Municipal Airport will not affect any properties eligible for the National Register of Historic Places and that a finding of "no historic properties affected" is appropriate for this project. Please review the enclosed report and the information provided in this letter. If you find the report adequate and agree with the FAA's eligibility recommendations and determination of project effect, please indicate your concurrence by signing below. If you have any questions or concerns, please feel free to contact me at 1-425-227-2611 or Dennis.Ossenkop@faa.gov.

Thank you for your cooperation.

Sincerely,



Dennis Ossenkop  
 Environmental Protection Specialist  
 FAA EIS Project Manager



Signature for SHPO Concurrence

04 01 05  
 Date

Jim Dykmann  
 Deputy State Historic  
 Preservation Officer

Enclosure

SNPO- 2005 - 0764 (23560)

RECEIVED

MAR 28 2005

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28

ARIZONA STATE PARKS/H.P.O.



U.S. Department of Transportation

Federal Aviation Administration

Northwest Mountain Region  
Colorado, Idaho, Montana  
Oregon, Utah, Washington,  
Wyoming

1601 Lind Avenue, S. W.  
Renton, Washington 98055-4056

March 22, 2005

RECEIVED

MAR 28 2005

ARIZONA STATE PARKS/H.P.O.

Mr. James Garrison  
Arizona State Historic Preservation Office  
1300 W. Washington  
Phoenix, AZ 85007

Subject: Potential Environmental Impacts of the Proposed Replacement St. George, Utah, Municipal Airport upon the Little Black Mountain Petroglyph site.

Dear Mr. Garrison:

The Federal Aviation Administration (FAA), Northwest Mountain Region, is preparing an Environmental Impact Statement (EIS) for the proposed replacement of the St. George Municipal Airport at St. George, Utah. As part of this effort, the EIS will be examining environmental conditions in a large area surrounding St. George, Utah, so as to enable the evaluation of potential impacts from aircraft over flights of sensitive lands.

During the course of our consultation with Native American Indian tribes in the vicinity of the proposed site of the replacement airport, the FAA became aware of the existence of the Little Black Mountain Petroglyph site. Enclosed is a diagram from our recent noise measurement study at Little Black Mountain showing the close proximity of the replacement airport site to Little Black Mountain. The FAA is conducting ongoing consultation with the tribes to gather information about the site's importance and has asked for feedback regarding any tribal concerns about the interaction of the proposed replacement airport and the Little Black Mountain Petroglyph site. The following tribes have been consulted: Chemehuevi Indian Tribe; the Colorado River Indian Tribe; the Havasupai Indian Tribe; the Hopi Tribe; the Hualapai Indian Tribe; the Kaibab Band of Paiutes; the Las Vegas Paiute Tribe; the Moapa Band of Paiute; the Pahrump Band of Paiutes; the Paiute Indian Tribe of Utah, including the Indian Peak, Cedar, Shiwits, Koosharem, and Kanosh Bands; the San Juan Southern Paiute Tribe; and the Pueblo of Zuni. The FAA will notify the tribes of the availability of the Draft EIS for review and of future public meetings and the public hearing on the EIS.

Because this project is considered a federal undertaking subject to Section 106 review, the FAA is interested in consulting with you to gather information about your understanding of the sites importance.

Although the FAA is scheduled to release the draft EIS in the spring of this year for public and agency comment, we would appreciate receiving, as soon as possible, any concerns you may have regarding the interaction of the proposed replacement airport and the Little Black

Mountain Petroglyph site. If you have any questions or concerns, please contact me at 1-425-227-2611. My email address is Dennis.Ossenkop@faa.gov.

Thank you for your cooperation.

Sincerely,



Dennis Ossenkop  
Environmental Protection Specialist  
FAA EIS Project Manager

Enclosure

CONCUR

\* pending tribal communication  
about the absence of any  
20 APR 05 impacts



ARIZONA STATE HISTORIC PRESERVATION OFFICE  
ARIZONA STATE PARKS BOARD



State of Utah

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

Department of Community and Culture

YVETTE DONOSSO DIAZ  
*Executive Director*

Division of State History / Utah State Historical Society

PHILIP F. NOTARIANNI  
*Division Director*

July 1, 2005

Dennis Ossenkop  
Environmental Protection Specialist  
FAA EIS Project Manager  
Federal Aviation Administration  
1601 Lind Avenue, S.W.  
Renton, Washington 98055-4056

RE: Replacement St. George, Utah Municipal Airport and Little Black Mountain Petroglyph Site

In Reply Please Refer to Case No. 00-0793

Dear Mr. Ossenkop:

The Utah State Historic Preservation Office received the referenced information. After consideration of the consultation request in behalf of the FAA, the Utah Preservation Office provides the following comments per §36CFR800.

Section 106 Consultation FAA; USHPO concurs with the determination of No Adverse Effect, §36 CFR 800.5(b).

This information is provided on request to assist with Section 106 responsibilities as specified in §36CFR800. My email address is: [jdykman@utah.gov](mailto:jdykman@utah.gov)

As ever,

James L. Dykman  
Deputy State Historic  
Preservation Officer - Archaeology

JLD:00-0793 OFR/NAE



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Arizona Strip District Office  
345 East Riverside Drive  
St. George, Utah 84790  
[www.az.blm.gov](http://www.az.blm.gov)



In Reply Refer To:  
AZ 110 1610

July 20, 2005

Mr. David Jacobs  
Arizona State Historic Preservation Office  
1300 West Washington  
Phoenix, AZ 85007

RE: Proposed Replacement St. George, Utah Municipal Airport, Federal Aviation Administration, Little Black Mountain Rock Art Site

Dear Mr. Jacobs:

At your request, we are providing recommendations on the National Register eligibility and Section 106 determination for Little Black Mountain Rock Art Site. The rock art site is located approximately four miles south of the proposed St. George Replacement Airport, just across the state line in Arizona. The Federal Aviation Administration (FAA) recommends in their correspondence to your office on June 22, 2005, that the site is likely to be eligible to the National Register of Historic Places under three of the four criteria. They also recommend that the project would have a No Adverse Effect on the petroglyph art or the Little Black Mountain site in general.

BLM agrees with the recommendation that the Little Black Mountain Rock Art site (AZ A:2:51(BLM)) is eligible for listing on the National Register of Historic Places under at least the following criteria:

- A) That are associated with events that have made a significant contribution to the broad patterns of our history;
- C) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; and
- D) That have yielded or may be likely to yield, information important in prehistory or history.

The defining characteristics, listed beside the associated criteria that make this site eligible for the National Register of Historic Places, are:

**Criterion A)** This large rock art site contains over 800 glyphs on 50 boulders at the base of Little Black Mountain. The American Rock Art Research Association initiated detailed recordation of the rock art at the site in 1986. Based on their documentation, they believed that there were at least five different rock art styles at the site: Great Basin curvilinear, Great Basin rectilinear, Great Basin pecked, Sevier "A" Fremont, and Virgin Anasazi. The rock art styles at this site represent nearly the entire range of the prehistoric occupation in the St. George Basin. At least one of the glyphs appears to be a Winter Solstice marker.

The site is located on a natural travel corridor leading from the Four Corners area along the Vermilion Cliffs to the lower Colorado River and eventually California and the Pacific Coast. Some of the boulders capture and store water after rains, thereby offering a potential water source in this arid desert. The viewshed from the site today still retains its cultural landscape and appears similar to what prehistoric travelers would have seen hundreds and thousands of years ago.

**Criterion C)** The rock art at Little Black Mountain is highly representative of the Archaic, Ancestral Puebloan, and Fremont occupations of the southern Great Basin and western Colorado Plateau. The rock art possesses high artistic value representative of the various artists and groups who passed through and lived at this location.

**Criterion D)** The site potentially contains intact cultural deposits that may provide information on the prehistoric occupation and use of the area.

Little Black Mountain Rock Art Site is recommended as a historic property under Section 106 of the National Historic Preservation Act and, therefore, the effects of the Proposed Replacement St. George, Utah Municipal Airport on the site must be considered. Potential threats to the eligibility of this site to the National Register from this project appear to be:

- 1) Threat of increased sound from jets altering the rock surface or allowing the rocks to degrade.
- 2) Threat of increased traffic and visitation to the site because of the construction of the related Interstate 15 Mile Marker 2 Interchange and four lane highway leading to the new airport location. This proposed four-lane Southern Corridor highway would have an exit at River Road right on the Arizona state line, which provides the most direct access to the site. Once this associated construction occurs, more visitors and traffic will occur in the vicinity of and at the site.

BLM agrees with the FAA's recommendation of a No Adverse Effect determination for this project because:

1) The rock art itself is located on fairly stable large boulders from the Shinarump Conglomerate Member of the Chinle Formation. The rock is very resistant sandstone and has weathered to dark brown and black patinas, indicating an extremely old age. It is not fragile and is not in danger of flaking or shaking off in most places. The boulders themselves appear to have been in this location for thousands of years, which is corroborated by the Archaic rock art symbols on some of the boulders. The site and the rock surfaces are physically stable.

2) Increased visitation at the site is inevitable in this valley because of the rapidly increasing population. The site now is located on the southern edge of St. George and Washington, Utah and is due east of a large block of Arizona State Trust Lands immediately south of the state line. Potentially within the next 20-30 years, the area will change from a rural to an urban landscape. Little Black Mountain would then be more like an urban park. The BLM lands west of Little Black Mountain and adjacent to the Arizona State Trust Lands potentially could be available for disposal and could become private property. South of the site approximately 1 ½ miles is the large Navajo-McCullough Transmission Line and a right-of-way corridor in which other pipelines or transmission lines may be constructed. The addition of an airport north of the site and behind Little Black Mountain itself would not substantially add to the other changes occurring or about to occur on this landscape.

3) BLM designated Little Black Mountain Rock Art Site an Area of Critical Environmental Concern (ACEC) in 1992 because of the cultural values. It was also allocated for public use at that time and is presently being managed as a Public Use Site. The site has been recorded, trails have been constructed to the major rock art panels, a viewing platform was constructed on site, the site was fenced, a parking lot was constructed, and a toilet, visitor register, and picnic table have been located on site. The site is located on visitor maps and the public is directed to the site. BLM is managing the site for future public use and preservation.

We believe that the Proposed Replacement St. George, Utah Municipal Airport would not adversely effect Little Black Mountain's eligibility to the National Register of Historic Places under Criteria A, C, or D and concur with FAA's recommendation of No Adverse Effect on this project. If you have any questions or need additional information, please contact Diana Hawks, Planning Coordinator, at (435) 688-3266.

Sincerely,

Becky Hammond  
Field Manager

cc to Mr. Dennis Ossenkop, Federal Aviation Administration  
Chairwoman Carmen Bradley, Kaibab Band of Paiutes  
Chairman Glenn Rogers, Shivwits Band of Paiutes  
Chairman Phil Swain, Moapa Band of Paiutes  
Mr. Leigh Kuwanwisiwma, Hopi Cultural Preservation Office



U.S. Department  
of Transportation

Federal Aviation  
Administration

**Northwest Mountain Region**  
Colorado, Idaho, Montana  
Oregon, Utah, Washington,  
Wyoming

1601 Lind Avenue, S. W.  
Renton, Washington 98055-4056

July 22, 2005

Ms. Becky Hammond  
BLM, Arizona Strip Field Office  
345 East Riverside Drive  
St. George, Utah 84790

Subject: Constructive Use Under Section 4(f) of Little Black  
Mountain Petroglyph Site

Dear Ms. Hammond:

On July 20, 2005, we received your letter to the Arizona State Historic Preservation Office concurring in our Finding of No Adverse Effect on Little Black Mountain Petroglyph Site from the potential replacement airport at St. George, Utah.

Pursuant to Section 4(f) of the Department of Transportation Act (codified at 49 U.S.C. Section 303), the FAA must also make a use determination on any land qualifying under Section 4(f) as a "publicly owned land of a public park, recreation area, wildlife or waterfowl refuge, or land of an historic site of a national, state or local significance." Little Black Mountain Petroglyph Site qualifies under Section 4(f).

Based upon our noise analysis, the FAA finds that there would be no constructive use under Section 4(f).

We are currently proceeding with our NEPA draft EIS on this proposed replacement airport. Should you have any comments on our Section 4(f) finding, we would appreciate receiving them within forty-five days of receipt of this letter.

Sincerely,

A handwritten signature in black ink that reads "Dennis Ossenkop".

Dennis Ossenkop  
Environmental Protection Specialist  
FAA EIS Project Manager



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

**Northwest Mountain Region**  
Colorado, Idaho, Montana  
Oregon, Utah, Washington,  
Wyoming

1601 Lind Avenue, S. W.  
Renton, Washington 98055-4056

July 28, 2005

James L. Dykman  
State of Utah  
Department of Community and Economic Development  
Division of State History  
Utah State Historical Society  
300 Rio Grande  
Salt Lake City, UT 84101-1143

Subject: Potential Section 106 Effects of the Proposed  
Replacement St. George, Utah, Municipal Airport.  
State Project #U-04-LI-0353p,s

Dear Mr. Dykman:

In accordance with Section 106 of the National Historic Preservation Act of 1966, 16 U.S.C. § 470(f), and implementing regulations, 36 C.F.R. Part 800, the Federal Aviation Administration (FAA) makes the following findings regarding potential effects from the replacement airport at St. George, Utah to listed and/or eligible properties in the expanded Area of Potential Effects for this project.

As stated in our March 22, 2005, letter, the FAA is preparing an Environmental Impact Statement (EIS) for the proposed replacement of the St. George Municipal Airport at St. George, Utah. As required by Section 106, Federal agencies also must take into account the effects of their undertakings on properties included, or eligible for inclusion, in the National Register of Historic Places (National Register). Our March 22, 2005 letter focused on the proposed airport footprint and the Little Black Mountain Petroglyph site. We found no historic properties affected within the footprint. We did not receive a response to this finding and, pursuant to 36 C.F.R. § 800.4(d)(1)(i), we assumed concurrence. Consultation regarding Little Black Mountain has continued with the Arizona SHPO due to the geographic location of the site. BLM has recently submitted its concurrence with the FAA's Finding of No Adverse Effect on Little Black Mountain Petroglyph Site.

As a result of the large study area for this project under NEPA, extending eighty miles to the north and south of the proposed replacement airport and one hundred miles to the east and west of the replacement site for a total of approximately 9,200 square miles, the FAA also

has expanded its APE to include this same area. Please see the attached map of the area. We have identified 80 properties within this APE that are eligible or currently listed on the NRHP. This list includes thirty properties within Zion National Park that are on the NRHP. Please see the attached documentation for a full listing and description of all of these sites.

Due to the vast expanse of this APE and thus the distance from the actual physical development of this replacement airport, the primary potential effect upon these properties would result from aircraft noise. For this letter, we have selected an area we studied to demonstrate the very minimal changes in noise from the replacement airport. Since most of historic sites in the vicinity of the replacement airport lie north of Quail Creek State Park or in areas rarely overflowed by aircraft from the existing airport (and unlikely from the replacement airport), aircraft noise from the replacement airport would be less than forecast at this location because aircraft would be climbing to higher altitudes and flight tracks would be dispersing to areas beyond the park.

**Quail Creek State Park** - Quail Creek State Park (SP) is located approximately 12 nautical miles to the northeast of the existing St. George Airport.

The results of the noise analysis for the DNL, Leq(24) and Leq(day) metrics revealed that the noise levels from both the existing and replacement airports ranged from below the estimated ambient noise level to values near 30.6 dBA depending on the future year of interest (2010 or 2020). Consequently, most of the changes associated with the project were also below the ambient noise levels with a few analysis locations experiencing changes of -1.5 to 1.1 dBA depending on year of interest and metric.

The results of the TAA analysis range from 27.9 to 31.2 minutes per average day above the ambient level for the existing airport scenarios. The replacement airport results ranged from 2.4 to 3.2 minutes per average day above the ambient level for the future scenarios. The changes in TAA were mainly focused on the southern portion of the SP and they ranged from -26.1 to -25.3 minutes in 2010 and -28.2 to -27.4 in 2020.

For the number of events (overflights of this property) above various sound levels, the results ranged from 0.0 to 67.8 for the existing airport in 2010 and 0.0 to 73.9 in 2020. In contrast, results for the replacement airport ranged from 0.0 to 65.2 in 2010 and 0.0 to 72.3 in 2020.

In summary, the noise effects of the replacement airport are less than those experienced from the existing airport at this property.

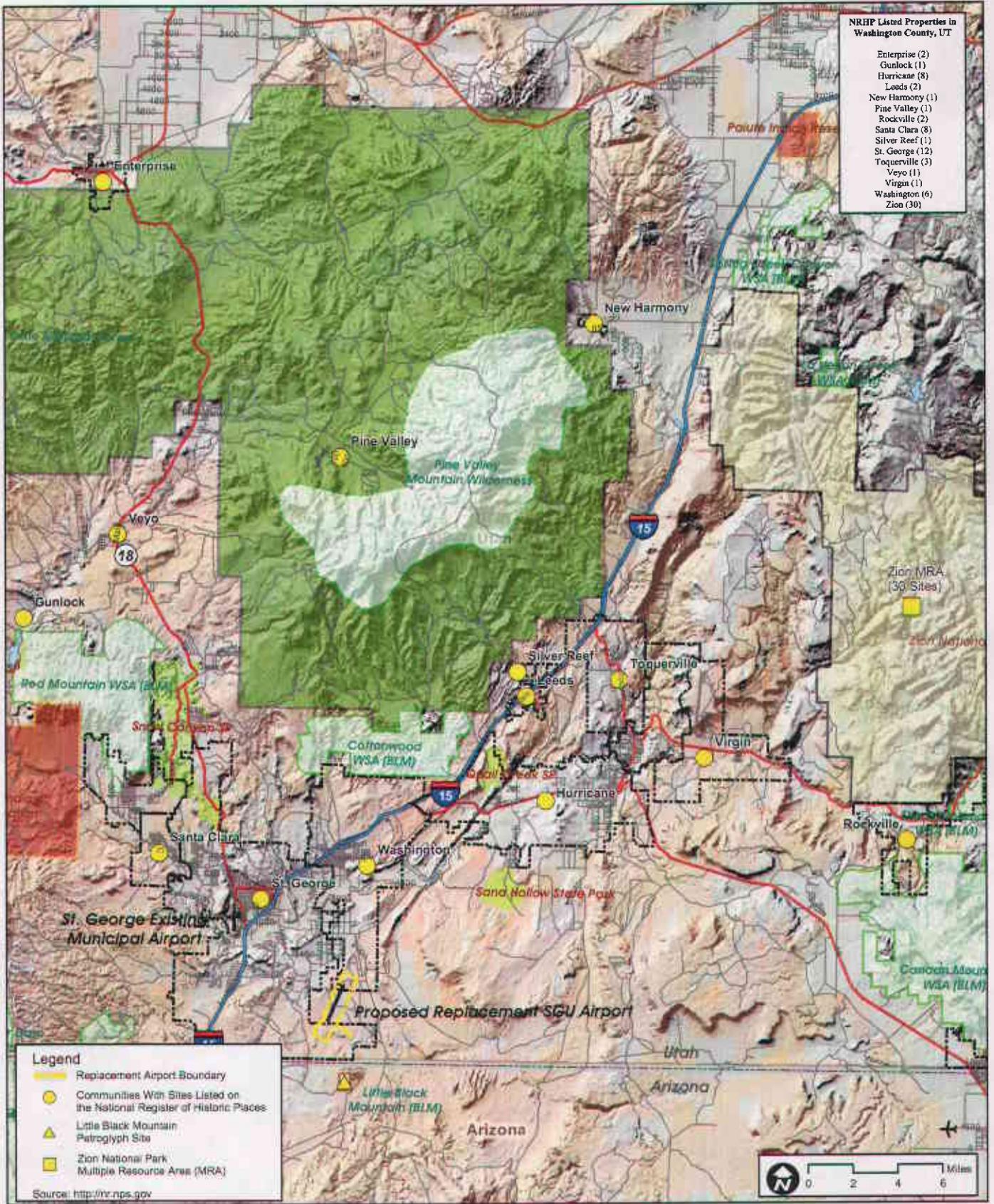
Based on the above noise analysis, the FAA finds that there would be no adverse effect on any of the eligible or listed properties.

We are currently proceeding with our NEPA draft EIS on this proposed replacement airport. Should you have any comments on our Section 106 determination, we would appreciate receiving them within thirty days of receipt of this letter.

Sincerely,

Dennis Ossenkop  
Environmental Protection Specialist  
FAA EIS Project Manager

Enclosures (4)



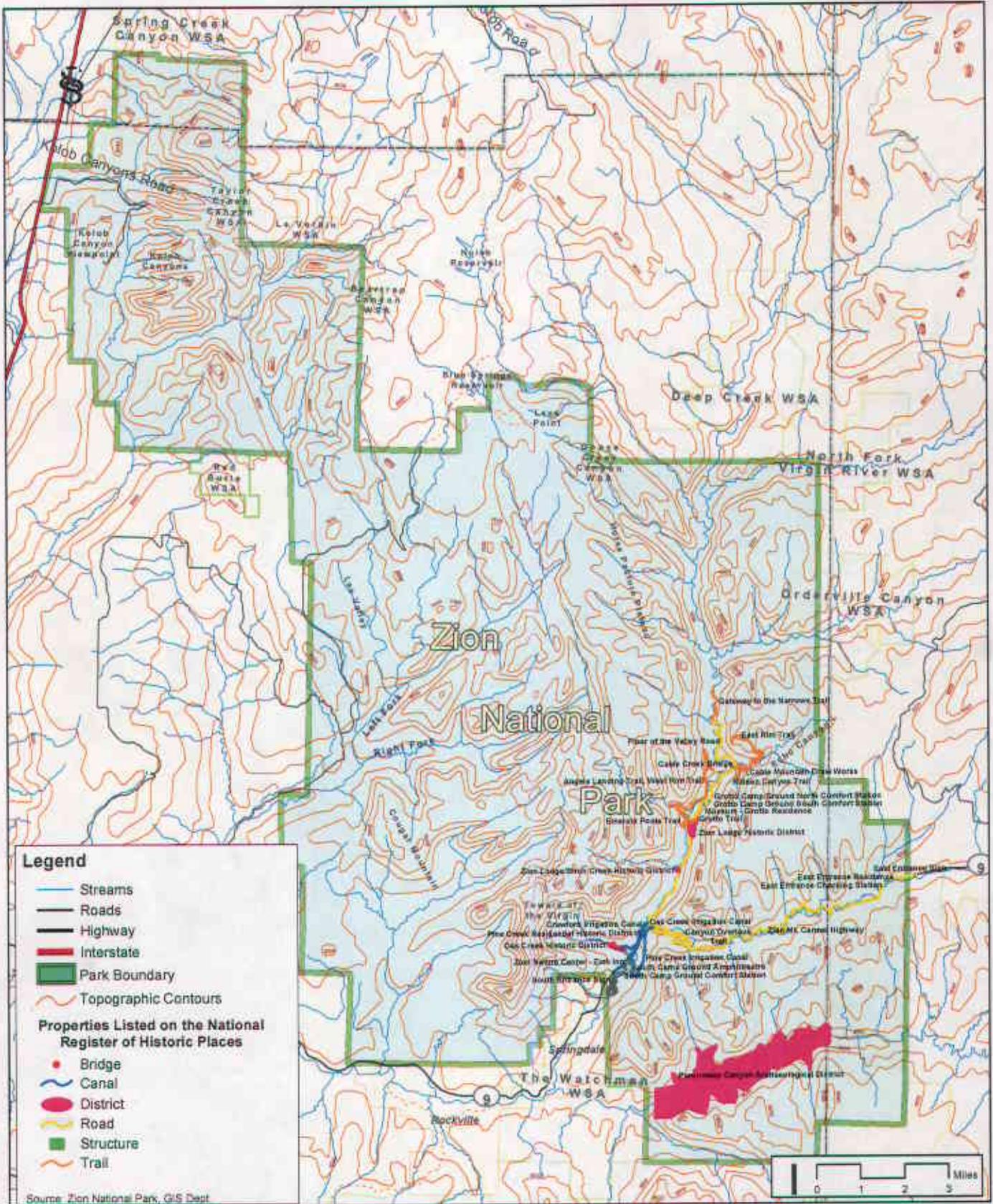
*St. George Municipal Airport  
Environmental  
Impact  
Statement*



## Cultural Resource Sites

EXHIBIT  
**5.12**

1/21/2005  
Prepared By: Landrum & Brown  
Filename: SGU\_cultural\_exhibit.mxd



*St. George Municipal Airport  
Environmental  
Impact  
Statement*



**Cultural Resources in  
Zion National Park**

EXHIBIT  
**5.13**  
1/21/2005  
Prepared by: Landrum & Brown  
Filename: Zion-cultural.mxd

**Table 5.6  
 PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES  
 Washington County, Utah**

**Listings Outside of Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
93000410	Enterprise Meetinghouse Historic Significance: Event, architecture/engineering Historic Function: Education, religion, social Historic Sub-Function: Meeting hall, religious structure, school	Approximately 24 S. Center St.	Enterprise	1993
75001833	Mountain Meadows Historic Site Historic Significance: Event (transportation, exploration/settlement) Historic Function: Domestic, landscape Historic sub-function: Camp, underwater	7 mi. S of Enterprise on UT 18	Enterprise	1975
89000281	Santa Clara Hydroelectric Power Plants Historic District Historic Significance: Event, architecture/engineering Historic Function: Industry/processing/extraction Historic Sub-Function: Energy Facility	Off UT 18 on Santa Clara River	Gunlock	1989
91001443	Bradshaw House--Hotel Historic Significance: Event (community planning and development, commerce, exploration/settlement) Historic Function: Domestic, education Historic Sub-Function: Hotel, School, Single Dwelling2	85 S. Main St.	Hurricane	1991

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings Outside of Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
77001324	Hurricane Canal Historic Significance: Event, architecture/engineering Historic Function: Agriculture/subsistence, industry/processing/extraction Historic Sub-Function: Water works	E of Hurricane	Hurricane	1977
86000752	Hurricane High School Historic Significance: Event, architecture/engineering Historic Function: Education Historic Sub-Function: School	34 S. One Hundred W	Hurricane	1986
95000980	Hurricane Historic District Historic Significance: Architecture/engineering, event Historic Function: Agriculture/subsistence, commerce/trade, domestic, education Historic Sub-Function: Department store, library, multiple dwelling, school, single dwelling2, storage	Roughly bounded by 300 South, 200 West, State St. and the Hurricane Canal	Hurricane	1995
91001444	Hurricane Library--City Hall Historic Significance: Event (politics/government, social history) Historic Function: Education, government Historic Sub-Function: City Hall, library	35 W. State St.	Hurricane	1991
95000413	Hurricane--LaVerkin Bridge Historic Significance: Event, architecture/engineering Historic Function: Transportation Historic Sub-Function: Road-related	E of UT 9 over the Virgin R.	Hurricane	1995
93000063	Isom, Samuel and Elizabeth, House Historic Significance: Event, architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	188 S. 100 West	Hurricane	1993

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings Outside of Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
92001692	Stanworth, Emanuel and Ursella, House Historic Significance: Architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	198 S. Main St.	Hurricane	1992
93000062	Leeds CCC Camp Historic District Historic Significance: Event (conservation, social history) Historic Function: Domestic, government, health care Historic Sub-Function: Clinic, institutional housing	96 W. Mulberry	Leeds	1993
85000291	Leeds Tithing Office Historic Significance: Event (social history) Historic Function: Religion, social Historic Sub-Function: Civic	SW Corner 100 West and 100 North	Leeds	1985
79003493	Fort Harmony Site Historic Significance: Event (exploration/settlement) Historic Function: Defense, domestic Historic Sub-Function: Fortification	E of New Harmony on I-15	New Harmony	1979
71000859	Pine Valley Chapel and Tithing Office Historic Significance: Event, architecture/engineering Historic Function: Religion Historic Sub-Function: Religious structure	Main and Grass Valley Sts.	Pine Valley	1971
72001263	Deseret Telegraph and Post Office Historic Significance: Event (communications) Historic Function: Domestic, industry/processing/extraction Historic Sub-Function: Communications facility, single dwelling2	On UT 15	Rockville	1972

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings Outside of Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
99001007	Grafton Historic District Historic Significance: Event (architecture, agriculture, community planning and development, exploration/settlement) Historic Function: Agriculture/subsistence, domestic, education, religion Historic Sub-Function: Animal facility, religious structure, school, single dwelling2, storage	1861 townsite of Grafton	Rockville	1999
95000982	Rockville Bridge Historic Significance: Event, architecture/engineering Historic Function: Transportation Historic Sub-Function: Road-related	Bridge St. over E. Fork, Virgin R.	Rockville	1995
98001461	Graff, George and Bertha, House Historic Significance: Event, architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	2865 Santa Clara Dr.	Santa Clara	1998
98001462	Hafen, Hans George, House Historic Significance: Event, architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	3003 Santa Clara Dr.	Santa Clara	1998
71000860	Hamblin, Jacob, House Historic Significance: Person (Hamblin, Jacob) Historic Function: Domestic Historic Sub-Function: Single dwelling2	US 91	Santa Clara	1971
99000215	Leavitt, Lemuel and Mary Ann, House Historic Significance: Event (social history) Historic Function: Domestic Historic Sub-Function: Single dwelling2	1408 Quail	Santa Clara	1999

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings Outside of Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
98001448	Reber, Frederick and Anna Maria, House Historic Significance: Event, architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	2988-2990 Santa Clara Dr.	Santa Clara	1998
99000214	Reber, Frederick, Jr., and Mary F., House Historic Significance: Event (social history) Historic Function: Domestic Historic Sub-Function: Single dwelling2	3334 Hamblin Dr.	Santa Clara	1999
93001577	Santa Clara Relief Society House Historic Significance: Event, architecture/engineering Historic Function: Education, government, health care, religion, social Historic Sub-Function: Clinic, meeting hall, post office, religious structure, school	Approximately 3036 W. Santa Clara Dr.	Santa Clara	1994
98001460	Santa Clara Tithing Company Historic Significance: Event (social history, agriculture) Historic Function: Agriculture/subsistence Historic Sub-Function: Storage	3105 Santa Clara Dr.	Santa Clara	1998
71000861	Wells Fargo and Company Express Building Historic Significance: Event (industry, commerce) Historic Function: Commerce/trade Historic Sub-Function: Financial institution	Main St.	Silver Reef	1971
78002709	Blake, Wallace, House Historic Significance: Architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	S of St. George	St. George	1978

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings Outside of Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
84002433	Butler, William F., House Historic Significance: Architecture/engineering, person Historic Function: Domestic Historic Sub-Function: Single dwelling2	168 S. 300 West	St. George	1984
78002710	Judd, Thomas, House Historic Significance: Architecture/engineering, person Historic Function: Domestic Historic Sub-Function: Single dwelling2	269 S. 200 East	St. George	1978
80003988	Main Building of Dixie College Historic Significance: Event, architecture/engineering Historic Function: Education Historic Sub-Function: College	86 S. Main St.	St. George	1980
70000634	Old Washington County Courthouse Historic Significance: Event (politics/government) Historic Function: Government Historic Sub-Function: Correctional facility, courthouse	85 E. 100 North	St. George	1970
83003199	Pratt, Orson, House Historic Significance: Person (Pratt, Orson) Historic Function: Domestic Historic Sub-Function: Single dwelling2	76 W. Tabernacle St.	St. George	1983
85000820	St. George Elementary School Historic Significance: Event (politics/government, social history) Historic Function: Education Historic Sub-Function: School	120 S. 100 West	St. George	1985
91000360	St. George Social Hall Historic Significance: Event (entertainment/recreation, agriculture) Historic Function: Agriculture/subsistence, recreation and culture Historic Sub-Function: Auditorium, storage	212 N. Main St.	St. George	1991

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings Outside of Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
71000862	St. George Tabernacle Historic Significance: Event, architecture/engineering Historic Function: Religion Historic Sub-Function: Religious structure	Jct. of Tabernacle and Main Sts.	St. George	1971
77001325	St. George Temple Historic Significance: Event, architecture/engineering Historic Function: Religion Historic Sub-Function: Religious structure	Bounded by 200 East, 300 East, 400 South, and 500 South	St. George	1977
80003989	Woodward School Historic Significance: Event, architecture/engineering Historic Function: Education Historic Sub-Function: School	100 West and Tabernacle Sts.	St. George	1980
71000863	Young, Brigham, Winter Home and Office Historic Significance: Architecture/engineering, person Historic Function: Commerce/trade, domestic Historic Sub-Function: Professional, single dwelling2	Corner of 200 North and 100 West	St. George	1971
82004184	Forsyth, Thomas, House Historic Significance: Event, architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	Off UT 15	Toquerville	1982
80003990	Naegle Winery Historic Significance: Event (exploration/settlement, agriculture) Historic Function: Agriculture/subsistence Historic Sub-Function: Processing	Main and 5th Sts.	Toquerville	1980
88000401	Steele, John, House Historic Significance: Architecture/engineering, person Historic Function: Domestic Historic Sub-Function: Single dwelling2	263 N. Toquerville Blvd.	Toquerville	1988

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings Outside of Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
89000281	Santa Clara Hydroelectric Power Plants Historic District Historic Significance: Event, architecture/engineering Historic Function: Industry/processing/extraction Historic Sub-Function: Energy facility	Off UT 18 on Santa Clara River	Veyo	1989
00000732	Jepson, James, Jr., House Historic Significance: Person, architecture/engineering Historic Function: Domestic Historic Sub-Function: Single dwelling2	15 East Jepson	Virgin	2000
78002711	Covington, Robert D., House Historic Significance: Architecture/engineering, person Historic Function: Domestic Historic Sub-Function: Single dwelling2	200 N. 200 East	Washington	1978
75001834	Fort Pearce Historic Significance: Event (military, agriculture) Historic Function: Agriculture/subsistence, defense Historic Sub-Function: Fortification	12 mi. SE of Washington off I-15	Washington	1975
82004185	Southern Paiute Archeological District Historic Significance: Information potential (prehistoric) Historic Function: Domestic Historic Sub-Function: Village site	Address Restricted	Washington	1982
71000864	Washington Cotton Factory Historic Significance: Event (industry/agriculture) Historic Function: Industry/processing/extraction Historic Sub-Function: Manufacturing facility	On U.S. 91 (Frontage Rd. West)	Washington	1971

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings Outside of Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>
80003991	Washington Relief Society Hall Historic Significance: Event, architecture/engineering Historic Function: Commerce/trade, funerary, government, social Historic Sub-Function: Meeting hall, mortuary, post office, specialty store	100 West and Telegraph Sts.	Washington	1980
80003992	Washington School Historic Significance: Event, architecture/engineering Historic Function: Education Historic Sub-Function: School	Main and Telegraph Sts.	Washington	1980

**Listings within Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>	<b>MULTIPLE RESOURCE AREA (MRA)</b>
86003707	Angels Landing Trail-- West Rim Trail Historic Significance: Architecture/Engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, pedestrian related	S of Scout Lookout across the Virgin River and Refrigerator Canyon	Springdale	2/14/87	Zion National Park MRA
96000053	Cable Creek Bridge Historic Significance: Event, architecture/engineering Historic Function: Landscape, transportation Historic sub-function: Park, road-related	Floor of the Valley Rd. at milepost 4.48, S of Weeping Rock Parking Area entrance	Springdale	2/16/96	Zion National Park MRA

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings within Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/ LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>	<b>MULTIPLE RESOURCE AREA (MRA)</b>
78000281	Cable Mountain Draw Works Historic Significance: Event, architecture/engineering Historic Function: Industry/processing/ Extraction Historic Sub-Function: Extractive facility	N of Springdale in Zion National Park	Springdale	5/24/78	Zion National Park MRA (AD)
86003722	Canyon Overlook Trail Historic Significance: Architecture/engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, pedestrian related	Across hwy. from parking area at E end of Zion-Mt. Carmel Tunnel to a point directly above the Great Arch of Zion	Springdale	2/14/87	Zion National Park MRA
86003732	Crawford Irrigation Canal Historic Significance: Event (exploration/settlement) Historic Function: Industry/processing Extraction Historic Sub-Function: Water works	W bank of Virgin River from 1 mi. N of Virgin River Bridge to base of Virgin River Formation and .5 mi up Oak Creek	Springdale	7/7/87	Zion National Park MRA
86003711	East Entrance Checking Station Historic Significance: Architecture/engineering (Civilian Conservation Corps) Historic Function: Unavailable	Island in middle of UT 9	Springdale	2/14/87	Zion National Park MRA
86003712	East Entrance Residence Historic Significance: Architecture/engineering (Civilian Conservation Corps) Historic function: Domestic Historic Sub-Function: Institutional housing	E Entrance 150 ft. N of UT 9	Springdale	2/14/87	Zion National Park MRA

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings within Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/ LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>	<b>MULTIPLE RESOURCE AREA (MRA)</b>
86003710	East Entrance Sign Historic Significance: Architecture/engineering (Civilian Conservation Corps) Historic Function: Recreation & culture Historic Sub-Function: Monument/marker	East Entrance Checking Station on N and S sides of UT 9	Springdale	7/7/87	Zion National Park MRA
86003723	East Rim Trail Historic Significance: Historic Significance: Architecture/engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, pedestrian related	Between Weeping Rock Parking Area and Observation Pt.	Springdale	7/7/87	Zion National Park MRA
86003725	Emerald Pools Trail Historic Significance: Architecture/engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, road-related	Foot Bridge across hwy. from Utah Parks Lodge proceeding W to the Lower Emerald Pool	Springdale	2/14/87	Zion National Park MRA
97001630	Flanigan Ditch Historic Significance: Information potential/event (social history, exploration/settlement, agriculture) Historic Function: Agriculture/subsistence Historic Sub-Function: Irrigation facility	Zion National Park	Springdale	1/12/98	Zion National Park MRA

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings within Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/ LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>	<b>MULTIPLE RESOURCE AREA (MRA)</b>
96000048	Floor of the Valley Road (includes culverts and drop inlets, Temple of Sinawava Parking Area, Red Point Parking Area, Great White Thorne Parking Area, and Weeping Rock Parking Area) Historic Significance: Event, Architecture/engineering (Civilian Conservation Corps) Historic Function: Landscape, transportation Historic Sub-Function: Park, road-related	From jct. with Zion--Mt. Carmel Hwy. along the N. Fork of the Virgin R., Zion National Park	Springdale	2/16/96	Zion National Park MRA
86003726	Gateway to the Narrows Trail (includes Trailside Exhibit Building - Temple of Sinawava) Historic Significance: Event, Architecture/engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, pedestrian related	Temple of Sinawava at the end of Zion Canyon Scenic Dr. to a pt. 1 mi. N on Virgin River	Springdale	7/7/87	Zion National Park MRA
86003705	Grotto Camping Ground North Comfort Station Historic Significance: Architecture/engineering Historic Function: Unavailable	Grotto Picnic Area near Grotto Residence E of Scenic Dr.	Springdale	2/14/87	Zion National Park MRA
86003704	Grotto Camping Ground South Comfort Station Historic Significance: Architecture/engineering Historic Function: Unavailable	Grotto Picnic Area near Grotto Residence, E of Scenic Dr.	Springdale	2/14/87	Zion National Park MRA

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings within Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/ LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>	<b>MULTIPLE RESOURCE AREA (MRA)</b>
86003914	Grotto Trail Historic Significance: Architecture/engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, pedestrian related	Zion National Park, 120 ft. N of Zion Lodge extending S .2 mi. parallel to the E side of Zion Canyon Scenic Dr.	Springdale	2/14/96	Zion National Park MRA
86003731	Hidden Canyon Trail Historic Significance: Architecture/engineering Historic Function: Recreation & culture, transportation Historic Sub-Function: Outdoor recreation, pedestrian related	Hidden Canyon jct. on the E Rim Trail to the mouth of Hidden Canyon	Springdale	2/14/87	Zion National Park MRA
86003721	Museum--Grotto Residence Historic Significance: Architecture/engineering Historic Function: Recreation & culture Historic Sub-Function: Museum	SE of Grotto Picnic Area	Springdale	2/14/87	Zion National Park MRA
86003706	Oak Creek Historic District Historic Significance: Architecture/engineering Historic Function: Domestic Historic Sub-Function: Institutional housing, secondary structure	Off US 9 along bank of Oak Creek	Springdale	7/7/87	Zion National Park MRA
86003738	Oak Creek Irrigation Canal Historic Significance: Event (landscape architecture) Historic Function: Industry/processing Extraction Historic Sub-Function: Water works	W side of the N Fork of Virgin River 1/8 mi. N of Virgin River Bridge to the N side of Watchman Campground Entrance Rd.	Springdale	7/7/87	Zion National Park MRA

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings within Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/ LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>	<b>MULTIPLE RESOURCE AREA (MRA)</b>
96001235	Parunuweap Canyon Archeological District Historic Significance: Information potential, architecture/engineering (Native American, education, prehistoric, Virgin Anasazi, Southern Paiute) Historic Function: Agriculture/subsistence, domestic, recreation & culture Historic Sub-Function: Camp, multiple dwelling, village site, work of art (sculpture, carving, rock art)	Address Restricted	Springdale	11/7/96	Un-available
86003734	Pine Creek Irrigation Canal Historic Significance: Event (exploration, settlement) Historic Function: Industry/processing/ Extraction Historic Sub-Function: Water works	E bank of the Virgin River .25 mi. N of Virgin River Bridge to the SW end of Watchman Residential Loop	Springdale	7/7/87	Zion National Park MRA
86003736	Pine Creek Residential Historic District Historic Significance: Architecture/engineering Historic Function: Domestic Historic Sub-Function: Institutional housing, secondary structure	W side of UT 9 500 ft. S of Virgin River Bridge	Springdale	7/7/87	Zion National Park MRA
86003717	South Campground Amphitheater Historic Significance: Architecture/engineering (Civilian Conservation Corps) Historic Function: Recreation & culture Historic Sub-Function: Theater	South Campground	Springdale	2/14/87	Zion National Park MRA

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings within Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/ LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>	<b>MULTIPLE RESOURCE AREA (MRA)</b>
86003708	South Campground Comfort Station Historic Significance: Architecture/engineering Historic Function: Unavailable	South Campground at N end of campsite loop	Springdale	2/14/87	Zion National Park MRA
86003713	South Entrance Sign Historic Significance: Architecture/engineering (Civilian Conservation Corps) Historic Function: Recreation & culture Historic Sub-Function: Monument/marker	South Entrance	Springdale	2/14/87	Zion National Park MRA
86003753	Zion Lodge Historic District Historic Significance: Architecture/engineering Historic Function: Domestic, landscape Historic Sub-Function: Camp, park	N of Springdale in Zion National Park	Springdale	8/24/82	Zion National Park MRA
	Zion Lodge--Birch Creek Historic District (Boundary Increase) Historic Significance: Architecture/engineering Historic Function: Agriculture/subsistence, domestic Historic Sub-Function: Animal facility, secondary structure	W of UT 9 on the W and E sides of The Zion Canyon Scenic Drive near Birch Creek	Springdale	7/7/87	
86003719	Zion Nature Center--Zion Inn Historic Significance: Architecture/engineering Historic Function: Commerce/trade Historic Sub-Function: Business, restaurant, specialty store	N of South Campground facilities	Springdale	2/14/87	Zion National Park MRA

**Table 5.6, Continued**  
**PROPERTIES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES**  
**Washington County, Utah**

**Listings within Zion National Park**

<b>NRIS NUMBER</b>	<b>RESOURCE NAME AND HISTORIC SIGNIFICANCE</b>	<b>ADDRESS/ LOCATION</b>	<b>CITY</b>	<b>DATE LISTED</b>	<b>MULTIPLE RESOURCE AREA (MRA)</b>
86003709	Zion-Mount Carmel Highway (includes Virgin River Bridge, Pine Creek Bridge, and Zion-Mt. Carmel Tunnel) Historic Significance: Event, architecture/engineering (landscape architecture) Historic Function: Transportation Historic Sub-Function: Road-related	Between US 9 and US 89	Springdale	7/7/87	Zion National Park MRA

Sources: National Park Service, National Register of Historic Places, query for Washington County, Utah, January 2004. On-line at <http://www.nr.nps.gov/>.  
National Register of Historic Places, Washington County, Utah. On-line at <http://www.nationalregisterofhistoricplaces.com/UT/Washington/state.htm>. Retrieved June 9, 2005.  
Correspondence from Kezia Nielsen, National Park Service, Zion National Park, Division of Resources Management and Research, December 11, 2003.

## GLOSAARY

**Ambient Noise** - The total sum of noise from all sources in a given place and time.

**Day-Night Average Sound Level (DNL)** - A noise measure used to describe the average sound level over a 24-hour period, typically an average day over the course of a year. In computing DNL, an extra weight of 10 decibels is assigned to noise occurring between the hours of 10:00 p.m. and 7:00 a.m. to account for increased annoyance when ambient noise levels are lower and people are trying to sleep. DNL may be determined for individual locations or expressed in noise contours.

**Equivalent Sound Level (Leq [24] or Leq[day])** - The energy average sound level experienced over a given period of time (a 24 hour day or only daytime hours [7 am –10 pm]).

**Time Above Ambient (TAA)** - The amount of time that sound exceeds the ambient noise.



**LEGEND**

- Highway
- Interstate
- Street
- Cities
- National Park
- State Park (SP)
- Bureau of Reclamation
- Indian Reservations
- National Forest
- National Monument
- National Recreation Area
- Wilderness Area
- Wilderness Study Area (WSA)
- Public Domain Land (BLM) and State Lands
- State Recreation Area

Data Compiled From:

- Utah Automated Geographic Reference Center (AGRC)  
<http://atlas.utah.gov/>; Downloaded 2/04
- School and Institutional Trust Lands Administration (SITLA)  
<http://atlas.utah.gov/>; Downloaded 2/04
- USGS Land Use and Land Cover (LULC)  
<http://edc.usgs.gov/>; Downloaded 2/04

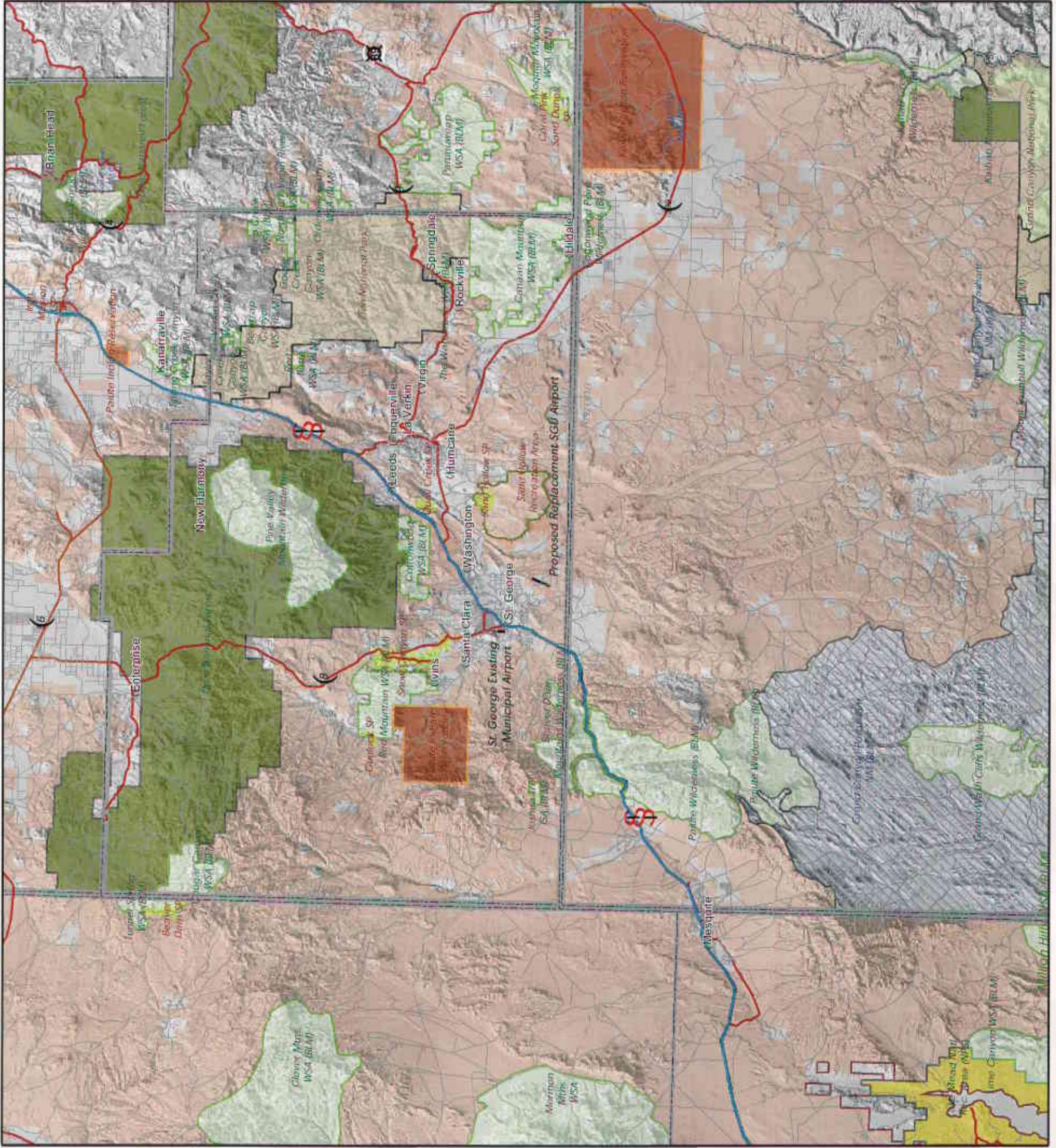
**Initial Area  
of Investigation**

4/12/2005  
Prepared by: Landrum & Brown



EXHIBIT

5.1





U.S. Department  
of Transportation

**Federal Aviation  
Administration**

**Northwest Mountain Region**  
Colorado, Idaho, Montana  
Oregon, Utah, Washington,  
Wyoming

1601 Lind Avenue, S. W.  
Renton, Washington 98055-4056

July 28, 2005

Mr. David Jacobs  
Arizona State Historic Preservation Office  
1300 West Washington  
Phoenix, AZ 85007

**Subject: Potential Section 106 Effects of the Proposed  
Replacement St. George, Utah, Municipal Airport.**

Dear Mr. Jacobs:

As stated in our previous letters regarding Little Black Mountain Petroglyph Site, the FAA is preparing an Environmental Impact Statement (EIS) for the proposed replacement of the St. George Municipal Airport at St. George, Utah. Our prior efforts regarding the application of Section 106 of the National Historic Preservation Act of 1966, 16 U.S.C. § 470(f), and the implementing regulations, 36 C.F.R. Part 800, have been on the proposed airport footprint and the Little Black Mountain Petroglyph site. We found no historic properties affected within the footprint.

On July 20, 2005, the BLM submitted to your office its concurrence with our Finding of No Adverse Effect on the Little Black Mountain Petroglyph Site. We have submitted our finding to the tribes who may be interested in this finding but have not received any response to date.

As a result of the large study area for this project under NEPA, which extends eighty miles to the north and south of the proposed replacement airport and one hundred miles to the east and west of the replacement site for a total of approximately 9,200 square miles, the FAA also has expanded its APE to include this same area. Please see the attached map of the area.

Due to the vast expanse of this APE and thus the distance from the actual physical development of this replacement airport, the only potential effect upon historic properties in the portion of Arizona falling into this large APE would result from aircraft noise. For this letter, we have selected two of the areas we studied to demonstrate the very minimal changes in noise from the replacement airport. Since most of Arizona lies south of these

three sites, aircraft noise from the replacement airport would be less than forecast at these sites because aircraft would be climbing to higher altitudes and flight tracks would be dispersing to areas beyond the three sites.

***Beaver Dam Mountains Wilderness Area*** - Beaver Dam Mountain Wilderness is located approximately 8 nautical miles to the southwest of the existing St. George Airport.

The results of the noise analysis for the DNL, Leq(24) and Leq(day) metrics revealed that the noise levels from both the existing and replacement airports ranged from below the estimated ambient noise level to values near 32.5 dBA depending on the metric and future year of interest (2010 or 2020). Consequently, most of the changes associated with the project were also below the ambient noise levels with a few analysis locations experiencing changes of -1.9 to 13.1 dBA depending on year of interest and metric.

The results of the TAA analysis range from 5.4 minutes to 48.9 minutes per average day above the ambient level for the existing airport scenarios. The replacement airport results ranged from 5.5 minutes to 36.7 minutes per average day above the ambient level for the future scenarios. The changes in TAA were mainly focused on the northeastern section of the Beaver Dam Mountain Wilderness Area and they ranged from -20.5 to 0.2 minutes in 2010 and -21.7 to 0.2 in 2020.

For the number of events (overflights of this property) above various sound levels, the results ranged from 0.1 to 82.5 for the existing airport in 2010 and 0.1 to 90.8 in 2020. In contrast, results for the replacement airport ranged from 0.0 to 61.1 in 2010 and 0.0 to 67.6 in 2020. While most areas in the park experienced some reduction in the number of events above various levels, the eastern portion of the park exhibited the most pronounced decreases.

In summary, the noise effects of the replacement airport are slightly less than those experienced from the existing airport at this property.

***Cottonwood Point Wilderness Area*** - Cottonwood Point Wilderness is located approximately 30 nautical miles to the southeast of the existing St. George Airport.

The results of the noise analysis for the DNL, Leq(24) and Leq(day) metrics revealed that the noise levels from both the existing and replacement airports did not exceed the estimated ambient noise level in either year of analysis. Consequently, the changes associated with the project were also below the ambient noise levels.

The results of the TAA analysis ranged from 2.6 to 4.0 minutes per average day above the ambient level for the existing airport scenario. The replacement airport results ranged from 3.1 to 5.0 minutes per average day above the ambient level for the future scenarios.

The change in TAA associated with the replacement airport ranged from 0.3 to 1.4 minutes in 2010 and from -0.1 to 1.1 minutes for the property in 2020.

For the number of events (overflights of this property) above various sound levels, the results ranged from 0.0 to 5.4 for the existing airport in 2010 and 0.0 to 5.5 in 2020. Similarly, the results for the replacement airport ranged from 0.0 to 5.6 in 2010 and 0.0 to 6.3 in 2020.

In summary, the noise effects of the replacement airport are little different from those of the existing airport at this property.

***Paiute Wilderness Area*** - Paiute Wilderness is located approximately 24 nautical miles to the southwest of the existing St. George Airport.

The results of the noise analysis for the DNL, Leq(24) and Leq(day) metrics revealed that the noise levels from both the existing and replacement airports ranged from below the estimated ambient noise level to values near 31.6 dBA depending on the future year of interest (2010 or 2020). Consequently, most of the changes associated with the project were also below the ambient noise levels with a few analysis locations experiencing changes of -1.1 to -0.5 dBA depending on year of interest and metric.

The results of the TAA analysis range from 0.0 to 33.8 minutes per average day above the ambient level for the existing airport scenarios. The replacement airport results ranged from 0.2 to 31.8 minutes per average day above the ambient level for the future scenarios. The changes in TAA ranged from -4.4 to 3.2 minutes in 2010 and -4.5 to 3.6 in 2020.

For the number of events above various sound levels, the results ranged from 0.0 to 67.4 for the existing airport in 2010 and 0.1 to 73.0 in 2020. In contrast, results for the replacement airport ranged from 0.0 to 33.1 in 2010 and 0.1 to 36.2 in 2020. The reductions in number of events above were mainly throughout the western and northern portions of the property.

In summary, the noise effects of the replacement airport are slightly less than those experienced from the existing airport at this property.

Based on the negligible noise increases found at sites near to the airport such as Beaver Dam Mountains Wilderness and Cottonwood Point Wilderness as well as more distant sites such as Paiute Wilderness, the FAA finds that there would be no effect on any eligible or listed properties, pursuant to 36 C.F.R. § 800.4(d)(1).

We are currently proceeding with our NEPA draft EIS on this proposed replacement airport. Should you have any comments on our Section 106 determination, we would appreciate receiving them within thirty days of receipt of this letter.

Sincerely,

Dennis Ossenkop  
Environmental Protection Specialist  
FAA EIS Project Manager

Enclosures (2)

## GLOSAARY

**Ambient Noise** - The total sum of noise from all sources in a given place and time.

**Day-Night Average Sound Level (DNL)** - A noise measure used to describe the average sound level over a 24-hour period, typically an average day over the course of a year. In computing DNL, an extra weight of 10 decibels is assigned to noise occurring between the hours of 10:00 p.m. and 7:00 a.m. to account for increased annoyance when ambient noise levels are lower and people are trying to sleep. DNL may be determined for individual locations or expressed in noise contours.

**Equivalent Sound Level (Leq [24] or Leq[day])** - The energy average sound level experienced over a given period of time (a 24 hour day or only daytime hours [7 am –10 pm]).

**Time Above Ambient (TAA)** - The amount of time that sound exceeds the ambient noise.



**LEGEND**

- Highway
- Interstate
- Street
- Cities
- National Park
- State Park (SP)
- Bureau of Reclamation
- Indian Reservations
- National Forest
- National Monument
- National Recreation Area
- Wilderness Area
- Wilderness Study Area (WSA)
- Public Domain Land (BLM) and State Lands
- State Recreation Area

Data Compiled From:

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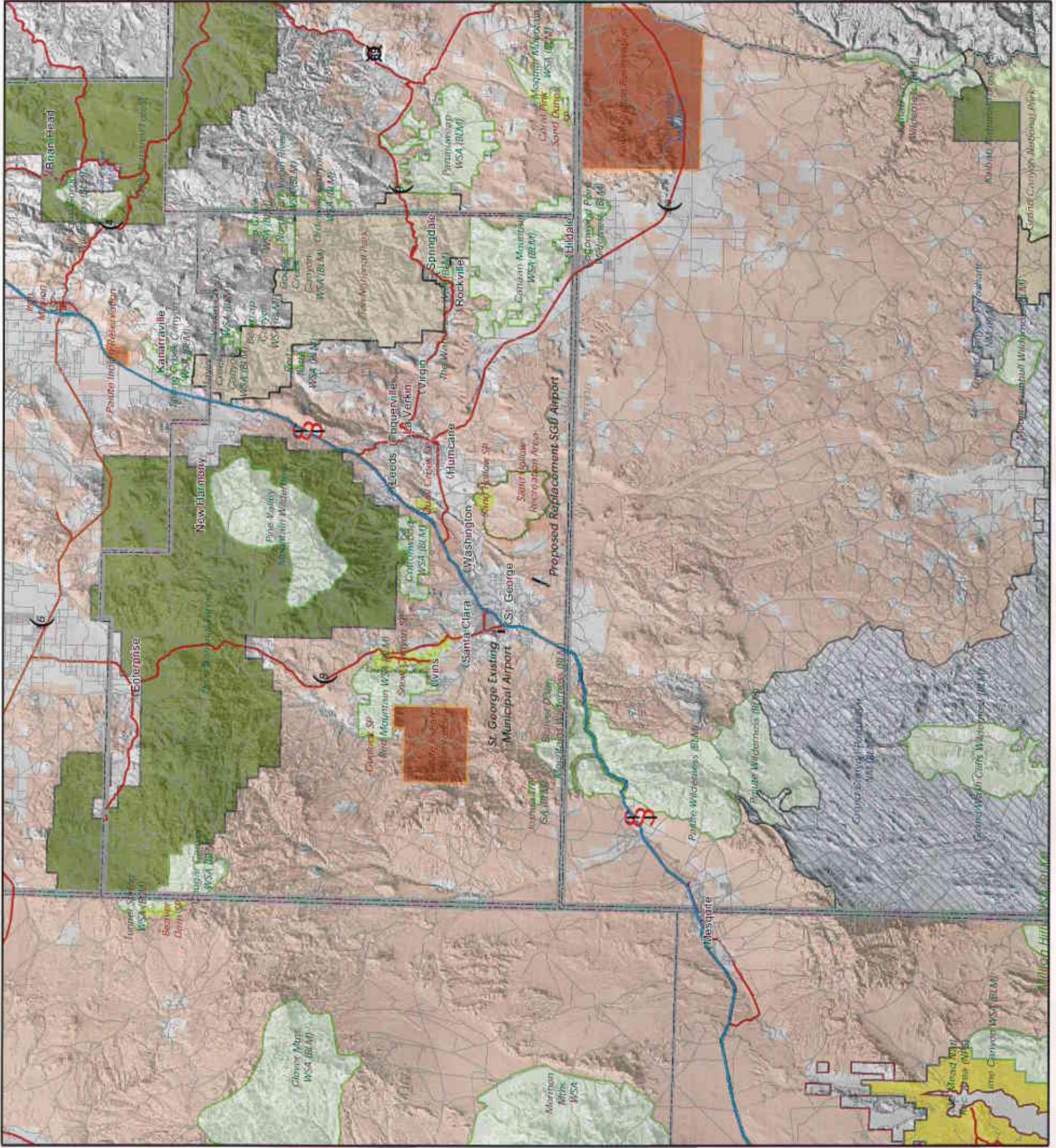
**Initial Area  
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4/12/2005  
Prepared by: Landrum & Brown



EXHIBIT

5.1





U.S. Department  
of Transportation

**Federal Aviation  
Administration**

**Northwest Mountain Region**  
Colorado, Idaho, Montana  
Oregon, Utah, Washington,  
Wyoming

1601 Lind Avenue, S. W.  
Renton, Washington 98055-4056

July 28, 2005

Ms. Alice M. Baldrice  
Nevada State Historic Preservation Office  
Department of Cultural Affairs  
716 N. Carson Street, Suite B  
Carson City, NV 89701

**Subject:** Potential Section 106 Effects of the Proposed  
Replacement St. George, Utah, Municipal Airport.

Dear Ms. Baldrice:

The Federal Aviation Administration (FAA) is preparing an Environmental Impact Statement (EIS) for the proposed replacement of the St. George Municipal Airport at St. George, Utah. As part of this effort, the EIS is examining environmental conditions in a large area surrounding St. George, Utah, so as to enable the evaluation of potential impacts from aircraft overflights.

Section 106 of the National Historic Preservation Act of 1966, 16 U.S.C. § 470(f), and the implementing regulations, 36 C.F.R. Part 800, requires Federal agencies to take into account the effects of their undertakings on properties included, or eligible for inclusion, in the National Register of Historic Places. The FAA has completed its inventory of potential National Register sites on the proposed airport property which would undergo ground-disturbing activity and found that there were no sites eligible for the National Register. This has been coordinated with the Utah State Historic Preservation Office.

As a result of the large study area for this project under NEPA, which extends eighty miles to the north and south of the proposed replacement airport and one hundred miles to the east and west of the replacement site for a total of approximately 9,200 square miles, the FAA also has expanded its APE to include this same area. Please see the attached map of the area. The far eastern portion of Clark County, but not including Las Vegas or all portions of Lake Mead National Recreation Site, and the southern portion of Lincoln County near Beaver Dam State Park fall within this APE. This would include portions of the Old Spanish Trail and the Virgin Valley.

Due to the vast expanse of this APE and thus the distance from the actual physical development of this replacement airport, the only potential effect upon historic properties in the portion of Nevada falling into this large APE would result from aircraft noise. For this letter, we have selected two of the areas we studied to demonstrate the very minimal changes in noise from the replacement airport. Since most of Nevada lies west of these two sites, aircraft noise from the replacement airport would be less than forecast at these sites because aircraft would be climbing to higher altitudes and flight tracks would be dispersing to areas beyond the two sites.

***Mormon Mountains Wilderness Study Area*** - Mormon Mountains Wilderness Study Area (WSA) is located approximately 34 nautical miles to the west of the existing St. George Airport.

The results of the noise analysis for the DNL, Leq(24) and Leq(day) metrics revealed that the noise levels from both the existing and replacement airports did not exceed the estimated ambient noise level in either year of analysis (2010 or 2020). Consequently, the changes associated with the project were also below the ambient noise levels.

The results of the TAA analysis further confirm these findings with results of 0.0 minutes above the ambient level for both 2010 and 2020 existing and replacement airport scenarios.

For the number of events (overflights of this property) above various sound levels, the results ranged from 0.0 to 2.9 for the existing airport in 2010 and 0.0 to 3.2 in 2020. In contrast, results for the replacement airport ranged from 0.0 to 1.6 in 2010 and also 0.0 to 1.6 in 2020.

In summary, the noise effects of the replacement airport are little different from those of the existing airport at this property.

***Beaver Dam State Park*** - Beaver Dam State Park is located approximately 34 nautical miles to the northwest of the existing St. George Airport.

The results of the analysis for the DNL, Leq(24) and Leq(day) metrics revealed that the noise levels from both the existing and replacement airports did not exceed the estimated ambient noise level in either year of analysis. Consequently, the changes associated with the project were also below the ambient noise levels.

The results of the TAA analysis further confirm these findings with results for both airports in both years being 0.0 minutes (less than 0.04 minutes or 2.4 seconds) per average day above the ambient level.

Similarly, for the number of events (overflights of this property) above various sound levels, the results revealed that there are 0.0 events (less than 0.04) per day for both airports, in all noise level ranges, for both years of analysis.

In summary, the noise effects of the replacement airport are little different from those of the existing airport at this property.

Based on the negligible noise increases found at sites in Nevada such as Mormon Mountains Wilderness Study Area or Beaver Dam State Park, the FAA finds that there would be no effect on any eligible or listed properties, pursuant to 36 C.F.R. § 800.4(d)(1).

We are currently proceeding with our NEPA draft EIS on this proposed replacement airport. Should you have any comments on our Section 106 determination, we would appreciate receiving them within thirty days of receipt of this letter.

Sincerely,

Dennis Ossenkop  
Environmental Protection Specialist  
FAA EIS Project Manager

Enclosures (2)

## **GLOSAARY**

**Ambient Noise** - The total sum of noise from all sources in a given place and time.

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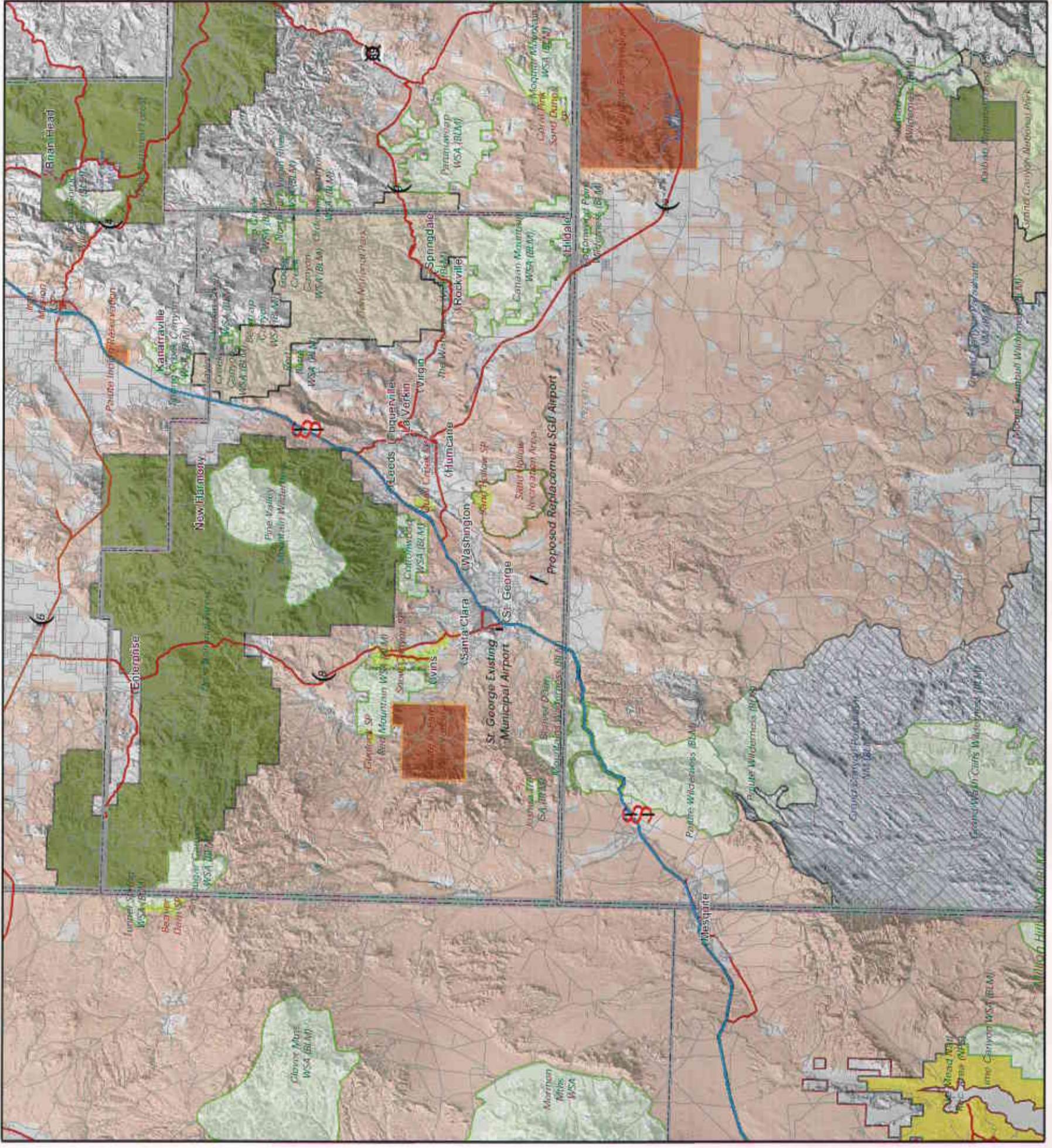
**Initial Area  
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4/12/2005  
Prepared by: Landrum & Brown



EXHIBIT

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August 9, 2005

Dennis Ossenkop  
Environmental Protection Specialist  
Northwest Mountain Region  
Federal Aviation Administration  
U.S. Department of Transportation  
1601 Lind Avenue, S.W.  
Renton, Washington 98055-4056

Janet Napolitano  
Governor

State Parks  
Board Members

Chair

Elizabeth Stewart  
Tempe

William C. Porter  
Kingman

William Cordasco  
Flagstaff

Janice Chilton  
Payson

William C. Scalzo  
Phoenix

John U. Hays  
Yarnell

Mark Winkleman  
State Land  
Commissioner

Kenneth E. Travous  
Executive Director

Arizona State Parks  
1300 W. Washington  
Phoenix, AZ 85007

Tel & TTY: 602.542.4174  
www.azstateparks.com

800.285.3703 from  
(520 & 928) area codes

General Fax:  
602.542.4180

Director's Office Fax:  
602.542.4188

RE: St. George Municipal Airport Replacement, Utah  
Little Black Mountain Petroglyph Site, Arizona  
SHPO-2005-0764 (24999)

Dear Mr. Ossenkop:

Thank you for consulting with the Arizona State Historic Preservation Office (SHPO) regarding the above project pursuant to Section 106 of the National Historic Preservation Act as implemented by 36 CFR Part 800. We recently received documentation from the Bureau of Land Management (BLM) supporting the impact determinations of the proposed airfield improvements at the St. George Municipal Airport in St. George, Utah. We have reviewed the submitted materials and offer the following comments.

Thank you for submitting additional information regarding the potential impacts of the replacement of the St. George Municipal Airport in Utah to the Little Black Mountain Petroglyph Site on land administered by BLM in Coconino County, Arizona. We concur with the FAA recommendations of "no adverse effect" for this project.

We appreciate your cooperation with this office in considering the impacts of federal undertakings on cultural resources situated in Arizona. If you have any questions or comments, please contact me at (602) 542-7140 or electronically via [djacobs@pr.state.az.us](mailto:djacobs@pr.state.az.us).

Sincerely,

David Jacobs  
Compliance Specialist/Archaeologist  
State Historic Preservation Office

Cc: Betty Hammond, BLM



State of Utah

JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

Department of Community and Culture

YVETTE DONOSSO DIAZ  
Executive Director

Division of State History / Utah State Historical Society

PHILIP F. NOTARIANNI  
Division Director

August 10, 2005

Dennis Ossenkop  
Environmental Protection Specialist  
FAA EIS Project Manager  
1601 Lind Avenue SW  
Renton Washington 98055-4056

RE: Proposed Replacement St. George, Utah Municipal Airport Project U-04-LI-0353ps

In Reply Please Refer to Case No. 00-0793

Dear Mr. Ossenkop:

The Utah State Historic Preservation Office received the referenced information on August 4, 2005. After consideration of the consultation request in behalf of the FAA, the Utah Preservation Office provides the following comments per §36CFR800.

Section 106 Consultation FAA; USHPO concurs with the FAA determination of No Adverse Effect.

This information is provided on request to assist with Section 106 responsibilities as specified in §36CFR800. My email address is: [jdykman@utah.gov](mailto:jdykman@utah.gov)

As ever,

James L. Dykmann  
Deputy State Historic  
Preservation Officer - Archaeology

JLD:00-0793 FAA/NAE



August 16, 2005

Dennis Ossenkop  
Environmental Protection Specialist  
Northwest Mountain Region  
Federal Aviation Administration  
U.S. Department of Transportation  
1601 Lind Avenue, S.W.  
Renton, Washington 98055-4056

Janet Napolitano  
Governor

RE: St. George Municipal Airport Replacement, Utah  
Impact of Aircraft Noise in Arizona  
SHPO-2005-0764 (25040)

State Parks  
Board Members

Dear Mr. Ossenkop:

Chair  
Elizabeth Stewart  
Tempe

Thank you for consulting with the Arizona State Historic Preservation Office (SHPO) regarding the above project pursuant to Section 106 of the National Historic Preservation Act as implemented by 36 CFR Part 800, and submitting additional documentation supporting the impact determinations of the proposed airfield improvements at the St. George Municipal Airport in St. George, Utah. We have reviewed the submitted materials and offer the following comments.

William C. Porter  
Kingman

William Cordasco  
Flagstaff

Thank you for submitting additional information regarding the potential noise impacts of the replacement of the St. George Municipal Airport in Utah to areas in Arizona such as the Beaver Dam Mountains Wilderness Area, Cottonwood Point Wilderness Area, and the Paiute Wilderness Area. We concur with the FAA recommendations of "no adverse effect" for this project.

Janice Chilton  
Payson

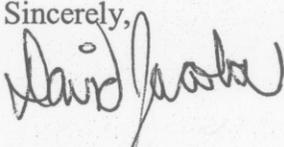
William C. Scalzo  
Phoenix

John U. Hays  
Yarnell

We appreciate your cooperation with this office in considering the impacts of federal undertakings on cultural resources situated in Arizona. If you have any questions or comments, please contact me at (602) 542-7140 or electronically via [djacobs@pr.state.az.us](mailto:djacobs@pr.state.az.us).

Mark Winkleman  
State Land  
Commissioner

Kenneth E. Travous  
Executive Director

Sincerely,  


Arizona State Parks  
1300 W. Washington  
Phoenix, AZ 85007

Tel & TTY: 602.542.4174  
[www.azstateparks.com](http://www.azstateparks.com)

David Jacobs  
Compliance Specialist/Archaeologist  
State Historic Preservation Office

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