

## **APPENDIX B**

### **SUMMARY OF ENVIRONMENTAL IMPACTS, BENEFITS, AND MITIGATION ASSOCIATED WITH THE PROPOSED REPLACEMENT AIRPORT**

**Table B.1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND BENEFITS ASSOCIATED  
WITH THE PROPOSED REPLACEMENT AIRPORT**

Impact Category	Proposed Replacement Airport	
	Potential Impacts	Potential Benefits
Airport Noise	Aircraft noise may be introduced to new areas.	No dwellings are located within the 65 DNL noise contour.  Aircraft approach and departure paths will occur over undeveloped land.
Land Use	Conversion of undeveloped land.	Compatible with the overall General Plan for the City of St. George and Washington City and land uses planned for the area in the future.  Meets the forecast aviation demand needs of the region.  Contributes to the redevelopment of the existing airport site into a combination of residential and commercial uses.
Air Quality	Increase in the annual rate of emissions of CO, VOC, No <sub>x</sub> , So <sub>x</sub> , and PM <sub>10</sub> in Washington County, with a net emissions increase of 80.65 tons in 2010 and 55.56 tons in 2020.  Temporary construction emissions will occur with development of the replacement airport and redevelopment of the existing airport.	The proposed relocation of the airport conforms to the Utah SIP and Section 176(c) of the CAA.  Larger aircraft will be able to operate at the replacement airport, contributing to fewer overall operations and a decrease in jet fuel demand, contributing to lower VOC emissions.
Historic, Architectural, Archeological, and Cultural Resources	Overflights of several NRHP-eligible or NRHP-listed sites, including Little Black Mountain Petroglyph Site, would occur. These overflights would not result in an adverse effect	None
Department of Transportation Act, Section 4(f)/303(c) Properties and Resources	Overflights of several Section 4(f)/303(c) properties, including Zion National Park, Dixie National Forest, and Pine Valley Mountain Wilderness, will continue to occur with relocation of the airport. These overflights would not result in a use.	None
Water Quality	Temporary degradation of stormwater may occur as a result of construction.  The operation of the replacement airport will introduce stormwater into the Fort Pearce Wash.	None
Wetlands	A total of 0.264 acres of waters of the U.S. dry washes will be filled to construct the replacement airport. <sup>1</sup>	No wetlands are impacted by construction of the replacement airport and impacts to other waters of the U.S. (dry washes) have been minimized to the greatest extent practicable.

<sup>1</sup> Due to the recent Supreme Court ruling regarding the determination of wetland jurisdiction, it is unclear as to whether or not the 0.246-acre dry washes impacted by the proposed project would be considered under Clean Water Act jurisdiction or not. In this ROD, the FAA recognizes this uncertainty, however, due to the small size of the potential impact, it is anticipated that the permit requirement would still fall under a Nationwide permit (see *Rapanos et ux., et al. vs. United States*, 126 S. Ct. 2208 (US 2006)).

Table B.1, *Continued*

**SUMMARY OF ENVIRONMENTAL IMPACTS AND BENEFITS ASSOCIATED WITH THE PROPOSED REPLACEMENT AIRPORT**

Impact Category	Proposed Replacement Airport	
	Potential Impacts	Potential Benefits
Floodplains and Floodways	The construction and operation of the replacement airport will introduce stormwater into the Fort Pearce Wash; although no physical alteration of the floodplain will occur.	None
Wild and Scenic Rivers	N/A	N/A
Biological Resources, Threatened and Endangered Species	<p>Construction and operation of the replacement airport has the potential to impact habitat and individuals of the following species: burrowing owl, common chuckwalla, desert tortoise, kit fox, sidewinder, western banded gecko, and zebra-tailed lizard.</p> <p>Loss of ephemeral stream and desert scrub habitat.</p> <p>Construction and operation of the replacement airport may result in the introduction of invasive species and in aircraft/wildlife collisions.</p>	<p>The habitat affected by construction of the replacement airport is degraded, low quality desert scrub habitat.</p> <p>The project will have no effect on Mexican spotted owls.</p>
Farmlands	None	None
Natural Resources	Natural resources (i.e., fuel, water, stone, wood, etc.) would be consumed for construction and operation of the replacement airport.	None
Hazardous Waste	None	With construction of the replacement airport, the underground and above-ground fuel tanks at the existing airport will be removed and areas of contaminated soils will be remediated.
Solid Waste	Solid waste will be generated with construction and operation of the replacement airport.	None
Construction Impacts	Increased air emissions, fugitive dust, noise, solid waste, and stormwater will be generated during construction. These impacts will be short-term and temporary.	None.
Social and Socioeconomic Impacts	Short-term and temporary disruption of traffic patterns in the vicinity of the airport during construction.	<p>No residential or business displacements occur.</p> <p>The existing airport site will be redeveloped into a multi-use development, providing a mixture of residential, commercial, and business uses.</p> <p>Stimulate local economic activity.</p>
Secondary, Induced, and Infrastructure Impacts	None	<p>Introduction of infrastructure and utilities to an area ready for rapid growth.</p> <p>Short and long-term growth in economy due to construction activity and the operation of the replacement airport and redevelopment of existing airport.</p>

**Table B.1, Continued**

**SUMMARY OF ENVIRONMENTAL IMPACTS and BENEFITS ASSOCIATED WITH THE PROPOSED REPLACEMENT AIRPORT**

Impact Category	Proposed Replacement Airport	
	Potential Impacts	Potential Benefits
Surface Transportation	Roadway noise along new roadways that provide access to the airport, including the Southern Corridor.  Temporary roadway detours and congestion due to construction activities.	Access to the airport will be provided from the Southern Corridor, relieving the traffic burden from local streets.
Environmental Justice	None	No minority or low-income populations are displaced or disproportionately impacted by the replacement airport.
Energy Supply	Increased energy consumption proportionate to increase in aircraft operations.	New facilities would be more energy efficient.
Sustainable Design and Development	None	Design, materials, and construction methods proposed should minimize waste, increase energy efficiency of buildings, and reduce pollution.
Visual and Aesthetic Impacts	Introduce new source of light emissions to a rural, undeveloped area.	The planned design of the terminal and ancillary buildings is intended to compliment the natural forms and colors of the surrounding landscape.
Coastal Zone Management	N/A	N/A
Coastal Barriers	N/A	N/A
Short Term Uses and Long Term Productivity of the Environment	Short-term and temporary construction impacts, increased use of natural resources, and increased consumption of energy.	Enhance the contribution of the St. George Airport to the region's overall transportation system.  More efficient airport operations, minimizing energy consumption by aircraft and ground support equipment.

Source: Landrum & Brown, 2005.

**Table B.2  
SUMMARY OF ENVIRONMENTAL MITIGATION OR OTHER ACTIONS TO  
PROMOTE AMICABLE COMMUNITY RELATIONS AND HELP PRESERVE PARK  
RESOURCES AND VALUES ASSOCIATED WITH THE PROPOSED  
REPLACEMENT AIRPORT**

Impact Category	Proposed Replacement Airport	
	Proposed Mitigation	Other Actions
Airport Noise	No mitigation is required.	<p>The FAA and the City of St. George have elected to do the following:</p> <ul style="list-style-type: none"> <li>• The FAA will establish an approach procedure for the replacement airport designed to keep aircraft as high as possible and west of Zion National Park without affecting final approach minimums.</li> <li>• The FAA will work with NPS in future Air Tour Management planning for Zion National Park. Other appropriate resource management agencies will be invited to participate in this coordination.</li> <li>• The City of St. George in cooperation with the FAA will develop voluntary noise abatement initiatives involving a pilot education program, commercial operator agreements, printed informational materials, and follow-up monitoring.</li> <li>• The FAA will ensure that the City of St. George will work with the NPS and the BLM to monitor the success of these initiatives.</li> </ul>
Land Use	No mitigation is required.	No other actions proposed.
Air Quality	No mitigation is required.	No other actions proposed.
Historic, Architectural, Archeological, and Cultural Resources	No mitigation is required.	No other actions proposed.
Department of Transportation Act, Section 4(f)/303(c) Properties and Resources	No mitigation is required.	<p>The FAA and the City of St. George have elected to do the following:</p> <ul style="list-style-type: none"> <li>• The FAA will establish and approach procedure for the replacement airport designed to keep aircraft as high as possible and west of Zion National Park without affecting final approach minimums.</li> <li>• The FAA will work with NPS in future Air Tour Management planning for Zion National Park. Other appropriate resource management agencies will be invited to participate in this coordination.</li> </ul>

Table B.2, *Continued*

**SUMMARY OF ENVIRONMENTAL MITIGATION OR OTHER ACTIONS TO PROMOTE AMICABLE COMMUNITY RELATIONS AND HELP PRESERVE PARK RESOURCES AND VALUES ASSOCIATED WITH THE PROPOSED REPLACEMENT AIRPORT**

Impact Category	Proposed Replacement Airport	
	Proposed Mitigation	Other Actions
Department of Transportation Act, Section 4(f)/303(c) Properties and Resources, <i>Continued</i>		<ul style="list-style-type: none"> <li>The City of St. George in cooperation with the FAA will develop voluntary noise abatement initiatives involving a pilot education program, commercial operator agreements, printed informational materials, and follow-up monitoring.</li> <li>The FAA will ensure that the City of St. George will work with the NPS and the BLM to monitor the success of these initiatives.</li> </ul>
Water Quality	<p>The City of St. George would require the construction contractor to:</p> <ul style="list-style-type: none"> <li>Follow the construction procedures outlined in FAA AC 150/5370-10, <i>Standards for Specifying Construction of Airports</i></li> <li>Install oil traps and waste oil tanks to manage petroleum wastes</li> <li>Use absorbent materials to remove small spills from work areas</li> </ul> <p>In addition, the City of St. George would:</p> <ul style="list-style-type: none"> <li>File a Notice of Intent with the UDWQ to obtain coverage for construction activities under the UPDES General Permit for Storm Water Discharges Associated with Construction Activity.</li> <li>Develop a Stormwater Pollution Prevention Plan (SWPPP) for the Airport.</li> <li>Obtain an UPDES permit from the UDWQ for the discharge of stormwater resulting from normal airport operations.</li> </ul>	No other actions proposed.

Table B.2, *Continued*

**SUMMARY OF ENVIRONMENTAL MITIGATION OR OTHER ACTIONS TO PROMOTE AMICABLE COMMUNITY RELATIONS AND HELP PRESERVE PARK RESOURCES AND VALUES ASSOCIATED WITH THE PROPOSED REPLACEMENT AIRPORT**

Impact Category	Proposed Replacement Airport	
	Proposed Mitigation	Other Actions
Wetlands and Waters of the U.S.	Minor fills may be required potentially for road crossings of ephemeral tributary washes to the Fort Pearce Wash. Final mitigation requirements would be determined once final design plans for the replacement airport and access road have been completed. At that time, the mitigation requirements would be coordinated with the UDEQ and USACE. No other wetlands or aquatic resource impacts are anticipated.	No other actions proposed.
Floodplains and Floodways	No mitigation is required.	No other actions proposed.
Wild and Scenic Rivers	No mitigation is required.	No other actions proposed.
Biological Resources, Threatened and Endangered Species	<p>Gila Monster and Other State Sensitive Reptile Species:</p> <ul style="list-style-type: none"> <li>• Continue coordination with Utah Department of Wildlife Resources (UDWR) to identify and implement site-specific mitigation measures.</li> <li>• Conduct clearance surveys, as appropriate, prior to construction.</li> <li>• Install barrier fencing adjacent to reptile habitat prior to initiating construction.</li> <li>• Construct culverts at major washes to allow passage of reptiles.</li> <li>• Establish on-site conservation easements to preserve habitat after construction is completed.</li> </ul> <p>Desert Tortoise:</p> <ul style="list-style-type: none"> <li>• Conduct presence/absences surveys prior to initiating construction.</li> <li>• If tortoises are present, UDWR biologists would remove the tortoises under an incidental take permit.</li> <li>• If tortoises are encountered during construction, they would be relocated in coordination with the UDWR and according to the Washington County Habitat Conservation Plan.</li> </ul>	No other actions proposed.

Table B.2, Continued

**SUMMARY OF ENVIRONMENTAL MITIGATION OR OTHER ACTIONS TO PROMOTE AMICABLE COMMUNITY RELATIONS AND HELP PRESERVE PARK RESOURCES AND VALUES ASSOCIATED WITH THE PROPOSED REPLACEMENT AIRPORT**

Impact Category	Proposed Replacement Airport	
	Proposed Mitigation	Other Actions
Biological Resources, Threatened and Endangered Species, <i>Continued</i>	<p>Burrowing Owl and Kit Fox:</p> <ul style="list-style-type: none"> <li>• Conduct presence/absences surveys prior to initiating construction.</li> <li>• UDWR would determine which nests (owl) and dens (kit fox) would be candidates for relocation.</li> <li>• UDWR would determine which individual animals should be relocated.</li> </ul> <p>Migratory Birds:</p> <ul style="list-style-type: none"> <li>• During the nesting season prior to initiating construction, existing raptor nests would be identified and confirmed.</li> <li>• Raptor nesting sites and territories would be avoided through continued coordination with UDWR and USFWS.</li> <li>• Raptor nests would be relocated, as determined by USFWS, and methods to deter nesting would be implemented per the direction of USFWS.</li> <li>• Spatial buffer zones may be established, depending on the timing of construction.</li> <li>• Final design plans would be coordinated with UDWR to ensure power lines are installed and maintained to reduce raptor collisions.</li> </ul> <p>Invasive Species:</p> <ul style="list-style-type: none"> <li>• Conduct pre-construction survey of the site to identify invasive species.</li> <li>• Wash earth moving and hauling equipment at the contractor's storage facility prior to mobilizing to the construction site.</li> </ul> <p>All areas disturbed during construction that would be permanently landscaped or stabilized would be done using native species.</p>	
Farmlands	No mitigation is required.	No other actions proposed.
Natural Resources	No mitigation is required.	No other actions proposed.

Table B.2, *Continued*

**SUMMARY OF ENVIRONMENTAL MITIGATION OR OTHER ACTIONS TO PROMOTE AMICABLE COMMUNITY RELATIONS AND HELP PRESERVE PARK RESOURCES AND VALUES ASSOCIATED WITH THE PROPOSED REPLACEMENT AIRPORT**

Impact Category	Proposed Replacement Airport	
	Proposed Mitigation	Other Actions
Hazardous Waste	No mitigation is required.	No other actions proposed.
Solid Waste	No mitigation is required.	No other actions proposed.
Construction Impacts	<p>Water Quality – see mitigation commitments listed above</p> <p>Air Quality:</p> <ul style="list-style-type: none"> <li>• Use of best management and construction practices.</li> <li>• Minimize the generation, stirring, or entrapment of fugitive dust in construction staging areas, disturbed areas, and along haul roads by wetting surfaces with water or other dust reducing chemical compounds.</li> <li>• Used covered trucks to haul construction materials, fill, or waste materials, or wet the contents of the truck bed to minimize the generation of fugitive dust.</li> <li>• Designate haul roads to minimize impact on local traffic patterns</li> </ul>	No other actions proposed.
Social and Socioeconomic Impacts	No mitigation is required.	No other actions proposed.
Secondary, Induced, and Infrastructure Impacts	No mitigation is required.	No other actions proposed.
Surface Transportation	No mitigation is required.	No other actions proposed.
Environmental Justice	No mitigation is required.	No other actions proposed.
Energy Supply	No mitigation is required.	No other actions proposed.
Sustainable Design and Development	No mitigation is required.	No other actions proposed.
Visual and Aesthetic Impacts	No mitigation is required.	No other actions proposed.
Coastal Zone Management	No mitigation is required.	No other actions proposed.
Coastal Barriers	No mitigation is required.	No other actions proposed.
Short Term Uses and Long Term Productivity of the Environment	No mitigation is required.	No other actions proposed.

Source: Landrum & Brown, 2006.