

### 5.3 PUBLIC LANDS

Federally owned public lands in the U.S. fall under several different designations and are managed by various lead agencies. Forty-seven designated public lands are located within the initial area of investigation, as listed in Table 5.2, *Public Lands*, and Table 5.3, *Wilderness Study Areas*, as revised in the Final EIS. Lead agencies for these properties include the Bureau of Indian Affairs (BIA), the Bureau of Land Management (BLM), the National Park Service (NPS), the U.S. Forest Service (USFS), the State of Utah, the State of Arizona, and the State of Nevada.

The initial area of investigation was used as a basis for determining which public lands could potentially be affected by the development of the proposed replacement airport at St. George (see Section 5.1.1, in the Draft EIS, for detailed information about the initial area of investigation). The determination of which sites within the initial area of investigation are public lands was made through coordination with the lead agencies listed above. See Appendix M (in the Draft EIS), *Coordination with Managing Agencies of 4(f)/303(c) Properties Located within the Initial Area of Investigation*, for documentation of this coordination process.

Public lands are protected for the conservation of natural resources, the protection of historic sites, and the provision of outdoor recreational opportunities. Most public lands are protected to provide for public enjoyment in such a way that will leave resources unimpaired for the enjoyment of future generations. Some public lands are also set aside for economic uses and can be administered under the concept of multiple use management, which balances economic activities such as grazing, logging, and mining with recreational uses of the land. This is also true of both national and state-level public lands.

Some state-owned public lands are managed to produce revenue that supports specific governmental services. In Utah, the Utah SITLA is charged with managing the state's designated trust lands for the direct financial benefit of designated beneficiaries, which include public schools (receiving the largest share), state universities, public buildings, state hospitals, and state reservoirs.<sup>19</sup> Similar trust land programs have also been established in Arizona and Nevada, with public schools receiving the largest share of revenue from the management of trust lands in these states as well.

In Arizona, the State Land Department manages state trust lands. In Nevada, the Division of State Lands manages state trust lands. Trust lands in Utah, Arizona, and Nevada generate revenue for beneficiaries by being sold or leased for long-term uses such as mining, telecommunication towers, commercial and industrial enterprises, cabin sites, farming, the establishment of residential developments,

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<sup>19</sup> State of Utah School and Institutional Trust Lands Administration. On-line at <http://www.utahtrustlands.com/>. 2004.

roads, pipelines, power-lines, and other types of transmission lines, and short-term uses such as filming movies and commercials and other organized events such as cross-country races.<sup>20, 21</sup>

Detailed information about the different types of public lands in the initial area of investigation is included in **Table 5.2 and Table 5.3**, and in **Section 5.3.1 through Section 5.3.8** in the Final EIS. **Exhibit 5.1** (reproduced in the Final EIS) depicts the public lands in the initial area of investigation.

**Table 5.2**  
**PUBLIC LANDS IN INITIAL AREA OF INVESTIGATION**

TYPE OF PUBLIC LAND	NAME	LEAD AGENCY	PROMINENT FEATURES
National Forests	Dixie National Forest, UT <sup>1</sup>	USFS	<ul style="list-style-type: none"> <li>Nearly 2 million acres</li> <li>83,000 acres of wilderness</li> <li>Largest national forest in Utah</li> </ul>
	Kaibab National Forest, AZ <sup>2</sup>	USFS	<ul style="list-style-type: none"> <li>1.6 million acres</li> <li>Largest contiguous ponderosa pine forest in U.S.</li> </ul>
Wilderness Areas	Ashdown Gorge Wilderness, UT <sup>3</sup>	BLM	<ul style="list-style-type: none"> <li>7,043 acres</li> <li>Designated in 1984</li> <li>10 miles of trails</li> <li>Elevations 8,000' to 10,400'</li> </ul>
	Beaver Dam Mountain Wilderness, AZ & UT <sup>3</sup>	BLM	<ul style="list-style-type: none"> <li>17,600 total acres (15,000 acres in AZ, 2,600 acres in UT)</li> <li>No maintained trails</li> </ul>
	Clover Mountains Wilderness, NV <sup>14</sup>	BLM	<ul style="list-style-type: none"> <li>85,748 acres</li> <li>Highest elevation at 7,000'</li> </ul>
	Cottonwood Point Wilderness, AZ <sup>3</sup>	BLM	<ul style="list-style-type: none"> <li>6,860 acres</li> <li>Designated in 1984</li> <li>No maintained trails</li> <li>Peak elevation at 6,322'</li> </ul>
	Grand Wash Cliffs Wilderness, AZ <sup>3</sup>	BLM	<ul style="list-style-type: none"> <li>37,030 acres</li> <li>Designated in 1984</li> <li>No maintained trails</li> </ul>
	Kanab Creek Wilderness, AZ <sup>3</sup>	BLM	<ul style="list-style-type: none"> <li>70,460 acres</li> <li>Designated in 1984</li> <li>Elevations 2,000' to 6,000'</li> </ul>
	Mormon Mountains Wilderness, NV <sup>15</sup>	BLM	<ul style="list-style-type: none"> <li>157,938 acres</li> <li>Mountain ranges and canyons</li> <li>Thousands of archeological sites</li> </ul>

<sup>20</sup> Arizona State Land Department. On-line at <http://www.land.state.az.us/>. Retrieved Dec. 20, 2004.

<sup>21</sup> Nevada Division of State Lands. On-line at <http://www.lands.nv.gov/>. October 2004.

**Table 5.2, Continued**  
**PUBLIC LANDS IN INITIAL AREA OF INVESTIGATION**

<b>Wilderness Areas, Continued</b>	Mount Trumbull Wilderness, AZ <sup>3</sup>	BLM	<ul style="list-style-type: none"> <li>• 7,880 acres</li> <li>• Designated in 1984</li> <li>• Peak elevation at 8,028'</li> <li>• Five miles of trails</li> </ul>
	Paiute Wilderness, AZ <sup>3</sup>	BLM	<ul style="list-style-type: none"> <li>• 87,900 acres</li> <li>• Designated in 1984</li> <li>• Peak elevation at 8,012'</li> </ul>
	Pine Valley Mountain Wilderness, UT <sup>3</sup>	USFS	<ul style="list-style-type: none"> <li>• 50,232 acres</li> <li>• Designated in 1984</li> <li>• 2<sup>nd</sup> largest wilderness in Utah</li> <li>• 150 miles of trails</li> </ul>
	Tunnel Springs Wilderness, NV <sup>16</sup>	BLM	<ul style="list-style-type: none"> <li>• 5,371 acres</li> <li>• Elevations 5,000' to 6,700'</li> </ul>
<b>National Parks and Recreation Areas</b>	Zion National Park, UT <sup>4</sup>	NPS	<ul style="list-style-type: none"> <li>• 146,597 acres</li> <li>• 90% recommended wilderness</li> <li>• Established in 1909 as Mukuntuweap National Monument; 1919 as Zion National Park</li> <li>• Average of 2.5 million visitors/year since 1994</li> </ul>
	Lake Mead National Recreation Area, NV & AZ <sup>5</sup>	NPS	<ul style="list-style-type: none"> <li>• 1,495,664 acres</li> <li>• 7,829,475 visitors in 2003</li> <li>• Designated Recreation Area in 1936</li> <li>• Designated first National Recreation Area in 1964</li> <li>• Adjacent to Grand Canyon Parashant National Monument and Grand Canyon National Park, AZ</li> <li>• Straddles Nevada/Arizona border</li> </ul>
<b>National Monuments</b>	Cedar Breaks National Monument, UT <sup>6</sup>	NPS	<ul style="list-style-type: none"> <li>• 6,155 acres</li> <li>• 79% recommended wilderness</li> <li>• 601,391 visitors in 2003</li> <li>• Huge natural amphitheater eroded out of variegated Pink Cliffs</li> <li>• Over 2,000' deep</li> <li>• Rim of canyon at elevation of 10,000'</li> </ul>

**Table 5.2, Continued**  
**PUBLIC LANDS IN INITIAL AREA OF INVESTIGATION**

TYPE OF PUBLIC LAND	NAME	LEAD AGENCY	PROMINENT FEATURES
National Monuments, Continued	Grand Canyon-Parashant National Monument, AZ <sup>7</sup>  <i>As shown in Exhibit 5.1, the southern boundary of the initial area of investigation divides this national monument into two properties for noise-analysis purposes. See Section 6.6 and Appendix B for additional information.</i>	BLM & NPS	<ul style="list-style-type: none"> <li>• 1,054,264 acres</li> <li>• Under joint management by BLM and NPS</li> <li>• Borders Grand Canyon National Park to the south, and the state of Nevada to the west</li> <li>• Encompasses a portion of Lake Mead National Recreation Area</li> </ul>
	Pipe Spring National Monument, AZ <sup>8</sup>	NPS	<ul style="list-style-type: none"> <li>• 40 acres</li> <li>• 55,574 visitors in 2003</li> <li>• Located on Kaibab-Paiute Indian Reservation</li> <li>• Designated in 1923</li> </ul>
State Parks	Beaver Dam State Park, NV <sup>9</sup>	State of Nevada	<ul style="list-style-type: none"> <li>• 2,393 acres</li> <li>• Park elevation at 5,000'</li> <li>• Characterized by deep canyons, volcanic rock, meandering streams, and diverse plant and wildlife communities</li> <li>• Four developed trails open for hiking</li> </ul>
	Coral Pink Sand Dunes State Park, UT <sup>10</sup>	State of Utah	<ul style="list-style-type: none"> <li>• 3,730 acres</li> <li>• Peak elevation at 6,000'</li> <li>• 10,000 – 15,000 year-old sand dunes created by high winds from erosion of Navajo sandstone dating back to the Middle Jurassic geologic period</li> <li>• Dunes support diverse populations of insects and amphibians</li> </ul>
	Gunlock State Park, UT <sup>10</sup>	State of Utah	<ul style="list-style-type: none"> <li>• 549 acres</li> <li>• Peak elevation at 3,600'</li> <li>• Encompasses Gunlock Dam and Reservoir, constructed in 1970</li> </ul>
	Iron Mission State Park and Museum, UT <sup>10</sup>	State of Utah	<ul style="list-style-type: none"> <li>• Tells the story of Mormon missionaries who settled in the area in 1850 to mine and process iron</li> <li>• Features historic ruins of Old Iron Town, several historic cabins, horse-drawn farm equipment, and replicated pioneer household</li> </ul>

**Table 5.2, Continued**  
**PUBLIC LANDS IN INITIAL AREA OF INVESTIGATION**

TYPE OF PUBLIC LAND	NAME	LEAD AGENCY	PROMINENT FEATURES
State Parks, Continued	Quail Creek State Park and Reservoir, UT <sup>10</sup>	State of Utah	<ul style="list-style-type: none"> <li>• Peak elevation at 3,000'</li> <li>• Man-made reservoir completed in 1985, diverts water from Virgin River through buried pipeline</li> <li>• Reservoir maximum depth of 120' supports wide varieties of fish</li> </ul>
	Sand Hollow State Park, UT <sup>10</sup> <i>Not a 4(f)/303(c) resource, per State of Utah</i>	State of Utah	<ul style="list-style-type: none"> <li>• 1,670 acres</li> <li>• Peak elevation at 3,000'</li> <li>• Adjacent to 19,123-acre Sand Hollow recreation area</li> </ul>
	Snow Canyon State Park, UT <sup>10</sup>	State of Utah	<ul style="list-style-type: none"> <li>• 6,272 acres</li> <li>• Peak elevation at 3,200'</li> <li>• Predominantly Red Navajo sandstone, capped by black lava rock</li> <li>• Easy to moderate-level trails throughout</li> </ul>
Native American Lands	Kaibab Indian Reservation, AZ <sup>11</sup>	BIA	<ul style="list-style-type: none"> <li>• 120,413 acres</li> <li>• 216 residents in 2003</li> <li>• Elevations 5,500' to 6,000'</li> <li>• Established in 1907, surrounding the then, privately-owned Pipe Spring Ranch (today Pipe Spring National Monument)</li> </ul>

**Table 5.2, Continued  
PUBLIC LANDS IN INITIAL AREA OF INVESTIGATION**

Native American Lands, Continued	Cedar City Reservation Paiute Indian Tribe of Utah <sup>12</sup>	BIA	<ul style="list-style-type: none"> <li>• Paiute Indian Tribe of Utah includes five bands located in south-central and southwest Utah. Two bands (Shivwits and Cedar City) are located in the initial area of investigation.</li> <li>• Shivwits Reservation located on 27,000 acres near St. George, UT</li> </ul>
	Shivwits-Paiute Reservation Paiute Indian Tribe of Utah <sup>12</sup>	BIA	<ul style="list-style-type: none"> <li>• Cedar City Reservation located on 10 acres located near Cedar City, UT</li> <li>• Total Tribal enrollment of 733 in 2004</li> <li>• 40,000 total acres of reservation land</li> <li>• Shivwits were first Paiute Band to occupy reservation land in southern Utah in 1891</li> <li>• Cedar City Band occupies land originally purchased and provided by the Mormon Church in late 1920s</li> <li>• A Tribal Council with representatives from all five bands is located in Cedar City, UT</li> </ul>
Traditional Cultural Property	Little Black Mountain Petroglyph Site, AZ <sup>13</sup>  <i>See Section 5.7.2.1, Traditional Cultural Properties, for additional information.</i>	BLM	<ul style="list-style-type: none"> <li>• 200 acres</li> <li>• Rock art site containing approximately 500 petroglyphs (i.e. rock carvings or drawings)</li> <li>• Includes a short trail system and picnic area</li> </ul>

Notes:  
 USFS – United States Department of Agriculture Forest Service  
 BLM – Bureau of Land Management  
 BIA – Bureau of Indian Affairs  
 NPS – National Park Service

## Table 5.2, Continued

### PUBLIC LANDS IN INITIAL AREA OF INVESTIGATION

## Sources:

- <sup>1</sup> Dixie National Forest. On-line at <http://www.fs.fed.us/dxnf/>. June 1, 2004.
- <sup>2</sup> Kaibab National Forest. On-line at <http://www.fs.fed.us/r3/kai/> June 1, 2004.
- <sup>3</sup> University of Montana College of Forestry and Conservation Wilderness Institute. On-line at [www.wilderness.net/](http://www.wilderness.net/). Retrieved June 1, 2004.
- <sup>4</sup> Zion National Park Profile. On-line at <http://www.nps.gov/>. National Park Service. 2004.
- <sup>5</sup> Lake Mead National Recreation Area Profile. On-line at <http://www.nps.gov/lame/>. Retrieved June 2, 2004.
- <sup>6</sup> Cedar Breaks National Monument Profile. On-line at <http://www.nps.gov/cebr/>. Retrieved June 2, 2004.
- <sup>7</sup> Grand Canyon-Parashant National Monument. Arizona Bureau of Land Management. On-line at <http://www.az.blm.gov/parashant/>. Retrieved June 1, 2004.
- <sup>8</sup> Pipe Spring National Monument Profile. On-line at <http://www.nps.gov/pisp/>. Retrieved June 2, 2004.
- <sup>9</sup> Nevada Department of Conservation and Natural Resources. On-line at <http://www.dcnr.nv.gov/>. September 2004.
- <sup>10</sup> Utah Division of Parks and Recreation. On-line at <http://www.stateparks.utah.gov/>. 2003.
- <sup>11</sup> Kaibab Paiute Indian Reservation Community Profile. Arizona Department of Commerce. On-line at <http://www.commerce.state.az.us/doclib/commune/kaibab-paiute.pdf/>. 2001.
- <sup>12</sup> Paiute Tribe of Utah. Federal Emergency Management Agency (FEMA), Region VIII. On-line at <http://www.fema.gov/regions/viii/tribal/paiutebg.shtm>. October 22, 2004.
- <sup>13</sup> Paiute Indians of Utah. *Utah History Encyclopedia*. University of Utah Press. On-line at <http://www.uen.org>. 1994.
- <sup>14</sup> Utah Division of Indian Affairs, Profile of Paiute Indian Tribe. On-line at <http://dced.utah.gov/>. 1997.
- <sup>15</sup> Little Black Mountain Petroglyph Site. Bureau of Land Management Arizona. On-line at <http://www.az.blm.gov/asfo/prehist.htm/>. December 10, 2004.
- <sup>16</sup> Clover Mountains Wilderness Area. On-line at: <http://www.nevadawilderness.org/eastern/clover.htm/>. Retrieved March 3, 2006.
- <sup>17</sup> Mormon Mountains Wilderness Area. On-line at: <http://www.nevadawilderness.org/eastern/mormon.htm/>. Retrieved March 3, 2006.
- <sup>18</sup> Tunnel Spring Wilderness Area. On-line at: <http://www.nevadawilderness.org/eastern/tunnelspr.htm/>. Retrieved March 3, 2006.

### 5.3.1 BUREAU OF LAND MANAGEMENT (BLM)

The BLM, an agency within the U.S. Department of the Interior, operates under its mission of sustaining the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.<sup>22</sup>

The BLM was created in 1946 by the merger of the U.S. Grazing Service with the General Land Office. When the BLM was initially created, there were over 2,000 unrelated and often conflicting laws for managing public lands in the U.S. The BLM had no unified legislative mandate until Congress enacted the Federal Land Policy and Management Act of 1976 (FLPMA), declaring that public lands would remain in public ownership. In so doing, Congress also established multiple use management of public lands, which allows for public lands to be leased or occasionally sold for government revenue production and development. The BLM identifies parcels of land for potential sale that fall into one of the following categories:<sup>23</sup>

- Scattered and isolated tracts that are difficult or uneconomical to manage;
- Tracts acquired by the BLM for a specific purpose that are no longer needed for that purpose; or
- Land where disposal will serve important public objectives, such as community expansion and economic development.

<sup>22</sup> U.S. Department of the Interior Bureau of Land Management. On-line at <http://www.blm.gov/>. October 6, 2004.

<sup>23</sup> U.S. Department of the Interior Bureau of Land Management, *Frequently Asked Questions, How does the BLM select land that might be sold?* On-line at <http://www.blm.gov/nhp/faqs/>. June 21, 2001.

Today, the BLM administers over 260 million surface acres of America's public lands (11 percent of U.S. acreage, the most of any Federal agency), which are primarily located in 12 western states and are dominated by extensive grasslands, forests, high mountains, deserts, and arctic tundra in Alaska. The BLM also manages a wide variety of resources and uses on those public lands, including:

- Recreational activities, including fishing, hiking, off-road vehicle use, and camping
- Commercial activities, including energy development, timber sales, mining, grazing, forestry, power transmission rights-of ways, scenery for advertising, and motion picture filming (commercial uses of the public lands managed by the BLM generate over \$1 billion in revenue for state and local governments annually)
- Wild free-roaming horses and burros
- Paleontological, archaeological, and historical sites
- Fish and wildlife habitats
- Transportation systems, including roads, trails, and bridges
- Wilderness areas and wild and scenic rivers
- Rare and vulnerable plant communities
- Public land survey system

### 5.3.2 NATIONAL FORESTS

The United States Forest Service (USFS) manages national forests and grasslands, forestry research, and cooperation with forest managers on state and private lands. Like the BLM, the Forest Service is dedicated to multiple-use management for the sustained yield of renewable resources such as water, forage, wildlife, wood, and recreation.<sup>24</sup> The Dixie National Forest, the largest national forest in Utah covering nearly two million acres, and the Kaibab National Forest in Arizona, the largest contiguous ponderosa pine forest in the U.S. covering 1.6 million acres, are located within the initial area of investigation, as shown in Exhibit 5.1 and on Table 5.2, **Public Lands**, in the Final EIS.

Dixie National Forest - The Dixie National Forest in Utah, located several miles north and east of the proposed replacement airport site, occupies nearly two million acres and stretches for about 170 miles across southern Utah. As the largest national forest in Utah, it straddles the divide between the Great Basin and the Colorado River. The Dixie National Forest provides diverse recreational opportunities including: camping, hunting, fishing, viewing scenery, hiking, horseback riding, scenic drives, nature study, snowmobiling, skiing, resort lodging, and a variety of water sports. All recreational activities are provided on permitted basis. Dixie has 83,000 acres of wilderness in three areas: Pine Valley, Box-Death Hollow, and Ashdown Gorge which provide opportunities for hiking, horseback riding, and solitude. Along with the recreational opportunities provided within Dixie National Forest, it shares many similar physical characteristics with Bryce Canyon National Park, including its sandstone formations, canyons, and

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<sup>24</sup> USDA Forest Service. On-line at <http://www.fs.fed.us/>. May 21, 2004.

gorge formations. Dixie National Forest surrounds the Pine Valley Mountain Wilderness and lies adjacent to several wilderness study areas managed by the BLM, and Beaver Dam State Park, managed by the State of Utah.

As part of a National Visitor Use Study conducted by the USFS in June 2004, the Dixie National Forest experienced 773,789 visits in 2002-2003.<sup>25</sup> Access to the Forest and to campsites, interpretive centers, skiing, and lodging is provided by surface roads. In addition to an internal roadway network, foot trails provide access to additional recreational activity areas and special features.

Kaibab National Forest - The Kaibab National Forest is located in Arizona, approximately 32 nautical miles southeast of the proposed replacement airport. The Forest is one of six national forests located in Arizona and is part of the largest contiguous ponderosa pine forest in the U. S. The 1.6 million acres of the Kaibab National Forest borders along the north and south rims of the Grand Canyon. Kaibab provides views of unusual geologic formations and expansive wooded scenery for the thousands of visitors each year that participate in various organized recreational activities such as hiking, trail rides, mountain biking, cross-country skiing, and sight seeing. Kaibab also provides areas for livestock grazing and logging. All organized and commercial activities (i.e., logging, grazing) are authorized through a special use permit.

As part of a National Visitor Use Study conducted by the USFS in August 2001, the Kaibab National Forest experienced approximately 560,000 visits in 2000.<sup>26</sup> Access to the Forest is provided by surface roads, including roadways that provide access to the various use areas associated with the Grand Canyon. In addition to an internal roadway network, foot trails provide access to additional recreational activity areas and special features.

### 5.3.3 Wilderness Areas

In 1964, President Lyndon B. Johnson signed into law the Wilderness Act, which declared the United States policy "to secure for the American people of present and future generations the benefits of an enduring resource of wilderness." In 1976, the FLPMA authorized the BLM to include wilderness within its framework of "multiple-use management."<sup>27</sup> The Arizona wilderness areas of Grand Wash Cliffs, Mount Trumbull, Paiute, Kanab Creek, and Cottonwood Point; and the Utah wilderness areas of Pine Valley Mountain, Ashdown Gorge, and Beaver Dam (located in both Utah and Arizona) are located within the initial area of investigation, as shown in **Exhibit 5.1** and on **Table 5.2, Public Lands**, in the **Final EIS**. These wilderness areas are administered by the BLM, except for the Pine Valley Mountain wilderness area, which is administered by the USFS.

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<sup>25</sup> *National Visitor Use Monitoring Results, USDA Forest Service Region 4, Dixie National Forest.* USDA Forest Service; June 2004.

<sup>26</sup> *National Visitor Use Monitoring Results, USDA Forest Service Region 3, Kaibab National Forest.* USDA Forest Service; August 2001.

<sup>27</sup> Utah Wilderness Study Areas. On-line at [http://www.utah.com/playgrounds/wilderness\\_study.htm/](http://www.utah.com/playgrounds/wilderness_study.htm/). Retrieved June 1, 2004.

Ashdown Gorge Wilderness - Located within the Dixie National Forest, the Ashdown Gorge Wilderness Area encompasses 6,750 acres of forest and meadows. Ashdown Gorge is located southeast of Cedar City, Utah, adjacent to and west of Cedar Breaks National Monument. Many of the red limestone formations of the Cedar Break National Monument can be seen from areas within the Ashdown Gorge Wilderness. Elevations within the wilderness area range from 8,000 to 10,400 feet. The wilderness is home to a significant stand of bristlecone pine trees known as the Twisted Forest. The scenic aspects of the wilderness area and adjacent National Monument can be viewed by hikers along the two main trails within the wilderness area – Rattlesnake Trail and Potatoe Hollow Trail.<sup>28</sup>

Beaver Dam Mountain Wilderness – Located in the northwest tip of Arizona and the far southwest corner of Utah, the Beaver Dam Mountain Wilderness covers approximately 17,600 acres which have a similar, Grand Canyon-like scenery of eroded, stepped cliffs and terraces of metamorphosed sandstone. The Beaver Dam Mountains are somewhat accessible, with no maintained trails or campsites. This wilderness area is dominated by Joshua trees and cacti, lizards and mountain sheep, and an abundance of colorful weathered rock.<sup>29</sup>

Cottonwood Point Wilderness - Adjacent to the southeast boundary of Zion National Park, Canaan Mountain provides a variation on the topographic and ecologic themes found in Zion National Park, with emphasis on plateaus more than canyons. The Canaan Mountain Wilderness was designated by the BLM in 1974. The Arizona portion of the Canaan Mountain Wilderness was designated as the Cottonwood Point Wilderness in 1984, which encompasses 6,860 acres.<sup>30</sup> The BLM describes this convoluted, rugged country as "reminiscent of the landscapes of Zion National Park." Without trails and difficult to access, Cottonwood Point Wilderness receives few human visitors, and provides opportunities for canyon backpacking and horse-packing.<sup>31</sup>

Grand Wash Cliffs Wilderness - Carved by the Colorado River, the Grand Wash Cliffs Wilderness covers 37,030 acres of land within the Grand Canyon-Parashant National Monument in northwestern Arizona. The Grand Wash Cliffs mark the transition zone between the Colorado Plateau and Basin and Range Provinces, and preserve the Colorado River's creation of rugged canyons, scenic escarpments, and colorful sandstone buttes. The most remarkable features are the 12 miles of towering cliffs which are cut into two giant steps, the first about 2,000 feet high, and the second a 1,000-foot high range that extends to the Shivwits Plateau. There are no maintained trails within the wilderness, but the area does provide opportunities for rock climbing and hiking for a few adventurers.<sup>32</sup>

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<sup>28</sup> [http://gorp.away.com/gorp/resource/us\\_wilderness\\_area/ut\\_ashdo.htm](http://gorp.away.com/gorp/resource/us_wilderness_area/ut_ashdo.htm)

<sup>29</sup> [http://www.americansouthwest.net/arizona/beaver\\_dam\\_mountains/wilderness.html](http://www.americansouthwest.net/arizona/beaver_dam_mountains/wilderness.html)

<sup>30</sup> <http://www.suwa.org/WATE/greaterzion.html#u01>

<sup>31</sup> <http://www.wilderness.net/index.cfm?fuse=NWPS&sec=wildView&wname=Cottonwood%20Point%20Wilderness>

<sup>32</sup> <http://www.wilderness.net/index.cfm?fuse=NWPS&sec=wildView&wname=Grand%20Wash%20Cliffs%20Wilderness>

Kanab Creek Wilderness – The Kanab Creek Wilderness was designated by the BLM in 1984. This Arizona wilderness, covering 70,460 acres, is positioned along one of the major tributaries of the Colorado River, Kanab Creek - the largest tributary canyon system on the north side of the Grand Canyon. From its origin about 50 miles north in southern Utah, Kanab Creek and its feeder streams have cut a network of gorges with vertical walls deep into the Kanab and Kaibab Plateaus. The water action created a variety of canyons and plateaus that range in elevation from 2,000 feet at the river to about 6,000 feet on the rim. Most of the slopes are angled in excess of 40 degrees. Some of the best examples of ancient rock art in the Southwest can be found in this wilderness. Several trails lead into the area but are very rugged and there is limited water.<sup>33</sup>

Mount Trumbull Wilderness – Like most of the other wilderness areas in Arizona, the Mount Trumbull Wilderness was designated by the BLM in 1984. Encompassing 7,880 acres, the wilderness, located just north of the Grand Canyon and Mount Logan Wilderness Area, is a large, basalt-capped mesa rising to 8,028 feet. Steep south and west slopes are dominated by piñon pine and juniper. The top of the plateau is dominated by a pristine forest of ponderosa pine that has never been harvested. The Mount Trumbull Trail climbs about five miles round-trip to the summit. The BLM maintains a campsite at the base of the mountain.<sup>34</sup>

Paiute Wilderness – Located within the Virgin Mountains, the Paiute Wilderness has remained virtually unblemished by human intrusion. The Virgin Mountains form the backbone of Paiute Wilderness, a geological amalgam of granite, gneiss, and limestone. From atop Mount Bangs, the Paiute's highest point at 8,012 feet (over 5,600 feet above the desert floor), a panoramic view of the whole area and the Mojave Desert to the west is visible. The Interstate 15 corridor separates the Paiute Wilderness from Beaver Dam Mountains Wilderness to the north. The Paiute Wilderness encompasses 87,900 acres and was designated as a wilderness area in 1984. The Virgin Loop Trail provides access to the areas' special features including Sullivan Canyon and Mount Bangs. Primitive camping can be accommodated along the trail.<sup>35</sup>

Pine Valley Mountain Wilderness – Surrounded by the Dixie National Forest, the Pine Valley Mountain Wilderness is composed of approximately 50,232 acres covered by a network of more than 151 miles of recreational trails. Elevations within the wilderness range from 6,000 to 10,365 feet at Signal Peak.<sup>36</sup> Within the Pine Valley Mountains a laccolithic intrusion called the "Iron Axis" - an uplift caused by the intrusion of molten igneous rock between layers of sedimentary rock - has been described in the Utah Geological Survey's publication Survey Notes as "world class" and "one of the largest in the world."<sup>37</sup> The wilderness is used primarily for hiking and scenic viewing.

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<sup>33</sup> <http://www.wilderness.net/index.cfm?fuse=NWPS&sec=wildView&wname=Kanab%20Creek%20Wilderness>

<sup>34</sup> <http://www.wilderness.net/index.cfm?fuse=NWPS&sec=wildView&wname=Mount%20Trumbull%20Wilderness>

<sup>35</sup> <http://www.wilderness.net/index.cfm?fuse=NWPS&sec=wildView&wname=Paiute%20Wilderness>

<sup>36</sup> [http://gorp.away.com/gorp/resource/us\\_wilderness\\_area/ut\\_pine.htm](http://gorp.away.com/gorp/resource/us_wilderness_area/ut_pine.htm)

<sup>37</sup> <http://www.utahforests.org/pinevalley.html>

Clover Mountains Wilderness – Located in eastern Nevada, the Clover Mountains Wilderness covers 85,748 acres. The volcanic peaks of the Clover Mountains Wilderness rise to elevations exceeding 7,000 feet above sea level. Millions of years ago, the area known today as Clover Mountains Wilderness was a major volcanic center. After millions of years of erosion, features of the terrain now include canyons, cliffs, rock outcrops, peaks, ridges, and saddles. Riparian vegetation is found along one of the longest year-round streams found in Nevada. Recreational activities include hiking, camping, climbing, and rock scrambling, as well as horseback riding.<sup>38</sup>

Mormon Mountains Wilderness – Located in eastern Nevada, the Mormon Mountains Wilderness covers 157,938 acres. The topography of the Mormon Mountains Wilderness includes mountain ranges and canyons that feature colorful geology and archaeological sites. Throughout the Mormon Mountains region are literally thousands of archaeological sites that range in age from hundreds to thousands of years. A wide variety of wildlife and vegetation are supported by the wilderness area.<sup>39</sup>

Tunnel Springs Wilderness – Located in eastern Nevada, on the Nevada-Utah border adjacent to Beaver Dam State Park, Dixie National Forest, and Cougar Canyon Wilderness Study Area, the Tunnel Springs Wilderness covers 5,371 acres. Steep mountainous canyons, long ridges, rough drainages, and various kinds of volcanic rocks dominate the landscape. Land elevations within the wilderness area range from 5,000 to 6,700 feet. Seven miles of perennial streams and several springs are in the wilderness area, which is unusual for BLM lands in this desert region. The wilderness area is too rugged for horseback riding, but is good for hiking.<sup>40</sup>

#### 5.3.4 NATIONAL PARKS, MONUMENTS, AND RECREATION AREAS

National parks, monuments, and recreation areas are administered by the NPS. President Woodrow Wilson approved legislation creating the NPS within the Department of the Interior in 1916, making it responsible for the Department's national parks and monuments, Hot Springs Reservation in Arkansas (made a national park in 1921), and "such other national parks and reservations of like character as may be hereafter created by Congress."

In managing these areas, the NPS was directed "to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."<sup>41</sup>

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<sup>38</sup> Clover Mountains Wilderness Area. On-line at: <http://www.nevadawilderness.org/eastern/clover.htm/>. Retrieved March 3, 2006.

<sup>39</sup> Mormon Mountains Wilderness Area. On-line at: <http://www.nevadawilderness.org/eastern/mormon.htm/>. Retrieved March 3, 2006.

<sup>40</sup> Tunnel Spring Wilderness Area. On-line at: <http://www.nevadawilderness.org/eastern/tunnelspr.htm/>. Retrieved March 3, 2006.

<sup>41</sup> National Park Service. On-line at <http://www.nps.gov/>. March 9, 2004.

In its early years, the NPS was only responsible for lands located in the western U.S. That changed in 1933 with an Executive Transfer Order signed by President Franklin D. Roosevelt, which transferred to the NPS the administration duties of several protected lands in the eastern U.S., including the War Department's parks and monuments, the 15 national monuments then held by the Forest Service, and the national capital parks, including the Washington Monument, the Lincoln Memorial, and the White House. The addition of these nearly 50 historical areas in the East made the park system and the NPS truly national and deeply involved with historic preservation programs as well as natural resource conservation.

To be eligible for favorable consideration as a unit of the National Park System, an area must possess national, natural, cultural, and recreational significance (as explained below), be a suitable and feasible addition to the National Park System, and require direct management by the NPS instead of protection by some other governmental agency or by the private sector.<sup>42</sup>

- **National Significance:** A proposed unit will be considered nationally significant if it meets all four of the following standards:
  - It is an outstanding example of a particular type of resource.
  - It possesses exceptional value of quality illustrating or interpreting the natural or cultural themes of our Nation's heritage.
  - It offers superlative opportunities for recreation for public use and enjoyment, or for scientific study.
  - It retains a high degree of integrity as a true, accurate, and relatively unspoiled example of the resource.
- **Natural Significance:** Examples of areas of natural significance include:
  - An outstanding site that illustrates the characteristics of a landform or biotic area that is still widespread;
  - A rare remnant natural landscape or biotic area of a type that was once widespread but is now vanishing due to human settlement and development;
  - A landform or biotic area that has always been extremely uncommon in the region or Nation;
  - A site that possesses exceptional diversity of ecological components (species, communities, or habitats) or geological features (landforms, observable manifestations of geologic processes);
  - A site that contains biotic species or communities whose natural distribution at that location makes them unusual (for example, a relatively large population at the limit of its range or an isolated population);
  - A site that harbors a concentrated population of a rare plant or animal species, particularly one officially recognized as threatened or endangered;
  - A critical refuge that is necessary for the continued survival of a species;
  - A site that contains rare or unusually abundant fossil deposits;

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<sup>42</sup> National Park Service. On-line at <http://www.nps.gov/>. January 2003.

- An area that has outstanding scenic qualities such as dramatic topographic features, unusual contrasts in landforms or vegetation, spectacular vistas, or other special landscape features;
- A site that is an invaluable ecological or geological benchmark due to an extensive and long-term record of research and scientific discovery.
- An area that is nationally significant also must meet criteria for suitability and feasibility to qualify as a potential addition to the National Park System. To be suitable for inclusion in the System, an area must represent a natural or cultural theme or type of recreational resource that is not already adequately represented in the National Park System or is not comparably represented and protected for public enjoyment by another land-managing entity. Adequacy of representation is determined on a case-by-case basis by comparing the proposed area to other units in the National Park System for differences or similarities in the character, quality, quantity, or combination of resources, and opportunities for public enjoyment. To be feasible as a new unit of the National Park System an area's natural systems and/or historic settings must be of sufficient size and appropriate configuration to ensure long-term protection of the resources and to accommodate public use. It must have potential for efficient administration at a reasonable cost. Important feasibility factors include landownership, acquisition costs, access, threats to the resource, and staff or development requirements.
- **Cultural Significance:** Cultural areas may be districts, sites, structures, or objects that possess exceptional value or quality in illustrating or interpreting our heritage and that possess a high degree of integrity of location, design, setting, materials, workmanship, feeling, and association. Examples include:
  - A resource that is associated with events that have made a significant contribution to and are identified with, or that outstandingly represent the broad national patterns of United States history and from which an understanding and appreciation of those patterns may be gained;
  - A resource that is importantly associated with the lives of persons nationally significant in the history of the United States;
  - A resource that embodies distinguishing characteristics of an architectural type specimen, exceptionally valuable for study of a period, style, or method of construction, or represents a significant, distinctive and exceptional entity whose components may lack individual distinction;
  - A resource that is composed of integral parts of the environment not sufficiently significant by reason of historical association or artistic merit to warrant individual recognition but collectively composes an entity of exceptional historical or artistic significance, or outstandingly commemorates or illustrates a way of life or culture;
  - A resource that has yielded or may be likely to yield information of major scientific importance by revealing new cultures, or by shedding light upon periods of occupation over large areas of the United States.

- **Recreational Significance:** Many units of the National Park System have been established to recognize their important role in providing recreational opportunities. The potential for public use and enjoyment is an important consideration in evaluating potential new additions to the National Park System. However, recreational values are not evaluated independently from the natural and cultural resources that provide the settings for recreational activities.

Today, the NPS continues its focus on preserving unimpaired the natural and cultural resources and values of the national park system, including national monuments, for the enjoyment, education, and inspiration of present and future generations. The NPS cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation.

As previously described, all NPS units are managed under the authority of the *National Park Service Organic Act of 1916*. As shown in **Exhibit 5.1** and **Table 5.2** (in the Final EIS), five NPS units in three states are located within the initial area of investigation. These include Zion National Park and Cedar Breaks National Monument in Utah, Pipe Spring National Monument, and Grand Canyon-Parashant National Monument (jointly administered by the NPS and BLM) in Arizona, and the Lake Mead National Recreation Area, which is located in both Nevada and Arizona. The following paragraphs provide a description of each NPS unit within the initial area of investigation and the corresponding management goals for each area.

Zion National Park – Zion National Park, located at the junction of the Colorado Plateau, Great Basin, and Mojave Desert provinces in southwestern Utah, is dominated by a dramatic landscape of sculptured canyons and soaring cliffs. Its 148,024 acres provided varied recreational experiences for 2,672,995 visitors in 2004. In addition to the many hiking trails, visitor centers, scenic drives, and bus tours, Zion provides facilities for camping, bicycling, climbing, horseback riding, and snow skiing. Zion National Park features stunning scenery, sandstone cliffs among the highest in the world, diverse plant and animal communities, and Ancestral Puebloan, Paiute, and Mormon pioneer history.<sup>43</sup>

Zion is located along the edge of a region called the Colorado Plateau, where rock layers have been uplifted, tilted, and eroded, forming a feature called the Grand Staircase, a series of colorful cliffs stretching between Bryce Canyon and the Grand Canyon. The bottom layer of rock at Bryce Canyon is the top layer at Zion, and the bottom layer at Zion is the top layer at the Grand Canyon. Thousands of years of uplift and erosion due to wind and water have created the unique geologic features within the park.<sup>44</sup>

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<sup>43</sup> <http://www.nps.gov/zion/index.htm>

<sup>44</sup> <http://www.nps.gov/zion/Geology.htm>

Zion National Park was initially set aside as a National Monument in 1909. In 1919, Congress added lands to the original monument area and designated the entire area as a National Park. Over 90 percent of the park was recommended to Congress as wilderness in 1978. NPS policy requires the park to manage wilderness areas as follows:

"The NPS will take no action that would diminish the wilderness suitability of an area possessing wilderness characteristics until the legislative process of wilderness designation has been completed. Until that time management decisions pertaining to land qualifying as wilderness will be made in expectation of eventual wilderness designation." (*NPS Management Policies 2001 – 6.3.1, General Policy.*)

"In evaluating environmental impacts, the National Park Service will take into account wilderness characteristics and values, including the primeval character and influence of the wilderness; the preservation of natural conditions (including the lack of man-made noise); and assurances that there will be outstanding opportunities for solitude, that the public will be provided with a primitive and unconfined type of recreational experience, and that wilderness will be preserved and used in an unimpaired condition." (*NPS Management Policies 2001 – 6.3.4.3, Environmental Compliance.*)

In 2001, Zion completed a General Management Plan (GMP) which provides a framework for park management for the next 20 years. The GMP also outlines the purposes and significance of the park, which identify why the park was established as a unit in the National Park System and addresses what makes the area unique. The purposes and significance are as follows.

Purposes:

- Preserve the dynamic natural process of canyon formation as an extraordinary example of canyon erosion.
- Preserve and protect the scenic beauty and unique geologic features: the labyrinth of remarkable canyons, volcanic phenomena, fossiliferous deposits, brilliantly colored strata, and rare sedimentation.
- Preserve the archaeological features that pertain to the prehistoric races of America and the ancestral Indian tribes.
- Preserve the entire area intact for the purpose of scientific research and the enjoyment and enlightenment of the public.
- Provide a variety of opportunities and a range of experiences, from solitude to high use, to assist visitors in learning about and enjoying park resources without degrading those resources.

Significance:

- Zion's stunning scenery features towering brilliantly colored cliffs and associated vegetation highlighted by a backdrop of contrasting bright, southwestern skies.

- Zion is a geological showcase with sheer sandstone cliffs among the highest in the world. The Virgin River – one of the last mostly free-flowing river systems on the Colorado Plateau – is responsible for the ongoing carving of this deeply incised landscape.
- Because of its unique geographic location and variety of life zones, Zion is home to a large assemblage of plant and animal communities.
- Zion preserves evidence of human occupation from prehistoric to modern times, including American Indian sites, remnants of Mormon homesteading, and engineering and architecture related to park establishment and early tourism.

The GMP goes on to identify *Desired Conditions* for cultural resources, natural resources, and visitor experience, and *Strategies* on how to reach those conditions. The Desired Conditions for Natural Sounds are: "Natural sounds predominate in Zion. Visitors have opportunities throughout most of the park to experience natural sounds in an unimpaired condition. The sounds of civilization are generally confined to developed areas."<sup>45</sup>

The Strategies identified within the GMP are designed to achieve the desired conditions. They include: "The NPS will continue to work with the FAA, tour operators, commercial businesses, and general aviation interests to minimize noise and visual impacts of aviation to the park." "Aircraft will be encouraged to fly outside the park, especially for those flights where the presence of the park is incidental to the purpose of the flight (i.e., transit between two points). Actions that may be considered for encouraging pilots to fly outside park boundaries include identifying the park on route maps as a noise-sensitive area, educating pilots about the reasons for keeping a distance from the park, and encouraging pilots to fly in compliance with FAA regulations and advisory guidance, in a manner that minimizes noise and other impacts."<sup>46</sup>

Public Law 100-91, *The National Park Service Overflight Act of 1987*, directed the Secretary of the Interior, through the NPS, and the Secretary of Transportation, through the FAA, to conduct a study to identify any problems associated with aircraft overflights on units of the National Park System. The findings of the study were reported to Congress in the *Report on Effects of Aircraft Overflights on the National Park System* (1995). The study identified Zion National Park as an "immediate priority area for maintaining or restoring natural quiet."<sup>47</sup>

In 2003, Zion National Park documented Natural Soundscapes as an important vital sign in the Northern Colorado plateau Vital Signs Network and Prototype Cluster Plan for Natural Resources Monitoring.

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<sup>45</sup> National Park Service letter to Dennis Ossenkop, Federal Aviation Administration; September 16, 2004.

<sup>46</sup> National Park Service letter to Dennis Ossenkop, Federal Aviation Administration; September 16, 2004.

<sup>47</sup> National Park Service letter to Dennis Ossenkop, Federal Aviation Administration; September 16, 2004.

Lake Mead National Recreation Area – The Lake Mead National Recreation Area (NRA), encompassing 1,496,727 acres of land and water in eastern Nevada and western Arizona, welcomed 7,829,475 visitors in 2003. Lake Mead NRA encompasses 142 miles of the Colorado River in northwestern Arizona and southern Nevada, and is centered on two artificial lakes – Lake Mead and Lake Mohave. Lake Mead, created by Hoover Dam, is 76 miles long, has 153,200 acres of water surface (239 square miles), and over 695 miles of shoreline. Lake Mohave, which is 67 miles long, lies behind Davis Dam, has 27,800 acres of water surface (44 square miles) and over 257 miles of shoreline.

The Lake Mead NRA contains 1,484,159 acres of Federal land and 12,568 acres of non-Federal land, making it the third largest area administered by the NPS outside of Alaska. The park contains over 184,000 acres of designated wilderness in nine separate units.<sup>48</sup>

Three of America's four desert ecosystems - the Mojave, the Great Basin, and the Sonoran Deserts - meet in Lake Mead NRA. Lake Mead NRA offers a wealth of recreational opportunities including: boating, fishing, waterskiing, swimming, kayaking, canoeing, hiking, camping, and sightseeing. Several paved roads wind through the area providing access to not only campgrounds, boat marinas, picnic areas, and lodging, but providing sight seers access to dramatic desert scenery, towering stark mountains, plateaus, desert basins of cactuses and creosote bush, and vertical-walled canyons.<sup>49</sup>

Designated as this nation's first recreation area, Lake Mead provides diverse recreational opportunities for millions of visitors each year. The area's enabling legislation recognized the high public value for recreation in a quality setting, establishing the area for the purposes of public recreation, benefit, and use, and in a manner that will preserve, develop and enhance the scientific, historic, scenic, and other important features of the area. The NPS is charged with providing a variety of appropriate recreational experiences, in a manner that preserves the spectacular resource setting of the area.<sup>50</sup>

Specific purposes and values are outlined in the authorizing legislation for the Lake Mead NRA and are highlighted below.

**Purposes:**

- Designated as this nation's first recreation area for the purposes of public recreation, benefit, and use, and in a manner that will preserve, develop and enhance the scientific, historic, scenic, and other important features of the area.
- Preserve 184,000 acres of designated wilderness, and preserve the wilderness character of an additional 266,000 acres with existing wilderness character and associated wilderness values.

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<sup>48</sup> National Park Service letter to Dennis Ossenkop, Federal Aviation Administration; September 16, 2004.

<sup>49</sup> <http://www.nps.gov/lame/index.htm>

<sup>50</sup> National Park Service letter to Dennis Ossenkop, Federal Aviation Administration; September 16, 2004.

- Preserve the flora and fauna and natural processes.
- Interpret the history of Native Americans who inhabited the area, including the undisturbed archaeological evidence, displaying the long and rich human history spanning more than 12,000 years.
- Provide for a variety of appropriate recreational experiences, in a manner that preserves the spectacular resource setting of the area.

Values:

- Lake Mead is home to the desert bighorn sheep, mule deer, coyote, kit fox, bobcat, mountain lion, ringtail cat, beaver, at least 18 species of bats, and numerous lizard, snake, and bird species. Threatened and endangered species such as the desert tortoise, peregrine falcon, and Colorado River fish are also found here.
- Over 900 identified archeological sites representing many different Native American tribes.
- Wilderness character that includes natural quiet, solitude, clear air, vastness, and natural processes.
- A setting for people to explore and appreciate, through such activities as hiking, camping, wildlife viewing, scenic vista, research, educational opportunities, and quiet contemplation.

Cedar Breaks National Monument – The Cedar Breaks National Monument covers 6,155 acres and is located southeast of Cedar City, Utah. The main feature of the monument is a huge natural amphitheater that has been eroded out of the variegated Pink Cliffs (Claron Formation). Millions of years of sedimentation, uplift, and erosion have created a deep canyon of rock walls, fins, spires, and columns that spans more than three miles, and is over 2,000 feet deep. The rim of the canyon is over 10,000 feet above sea level, and is forested with islands of Englemann spruce, subalpine fir and aspen; separated by broad meadows of brilliant summertime wild flowers. Roadways are often closed in the monument area into mid-summer (i.e., June-July) due to heavy snows. The monument was visited by 514,046 visitors in 2004, taking advantage of the hiking trails, interpretive programs, camping, and various winter sports including cross-country skiing, snowmobiling, and snowshoeing.<sup>51</sup>

The mission of the NPS at Cedar Breaks National Monument is based on the park's establishing Presidential Proclamation No. 2054 dated August 22, 1933: "to preserve the cliffs, canyons, and features of scenic, scientific, and educational interest found therein." The proclamation creating Cedar Breaks Monument mandated the NPS to:

- Preserve the geology, vistas, natural and ecological processes, and other features of scenic, scientific, and educational interest in Cedar Breaks National Monument.

<sup>51</sup> <http://www.nps.gov/cebr/pphtml/facts.html>

- To provide opportunities for research, public enjoyment, inspiration, and appreciation of the resources of Cedar Breaks National Monument through interpretation and other educational endeavors.<sup>52</sup>

The following statements summarize the primary significance of Cedar Breaks National Monument. They are the attributes that make the Monument unique, set it apart from other areas with similar features, and make it worthy of preservation as a unit of the National Park System:

- The Cedar Breaks amphitheater is a grand example of the geologic processes that have eroded a colorful sandstone and limestone environment into fantastic shapes and formations.
- Cedar Breaks represents one of the highest plateaus in the region, providing spectacular vistas that stretch from the western edge of the Colorado Plateau for over 100 miles into the Great Basin.
- Cedar Breaks contains a variety of distinctive flora and fauna concentrated in a relatively small area, which provide ample viewing opportunities of colorful wildflower displays, bristlecone pines, and watchable wildlife.
- Cedar Breaks provides quiet solitude, colorful beauty, opportunities for contemplation, pristine night skies, endless vistas, and isolation; the wilderness attributes of the geologic amphitheater permit even more intense appreciation of these values.
- The cultural and quaternary resources of Cedar Breaks include high elevation archeological remains dating back almost 10,000 years, and glacial deposits, paleobotany, paleosoils, and bog deposits that contribute to a paleoclimatic record for the region encompassing almost 14,000 years.<sup>53</sup>

According to the NPS management goals for Cedar Breaks, the importance of natural quiet is paramount in preserving the opportunities listed in the fourth statement above, for visitors to experience "quiet solitude..., opportunities for contemplation, [and] isolation." Eighty percent of the monument's land area is proposed as wilderness, and the entire western boundary and southwest and northwest corners of the monument adjoin the designated Ashdown Gorge Wilderness Area on the Dixie National Forest. These areas are managed to preserve their wilderness values and character, including the almost palpable absence of non-natural sounds. In 2003, Cedar Breaks documented Natural Soundscapes as an important vital sign in the Northern Colorado Plateau Vital Signs Network and Prototype Cluster Plan for Natural Resources Monitoring.

Cedar Breaks National Monument has been listed as one of the top ten locations in the U.S. for viewing the night sky, as the park's main overlooks are all located at over 10,000 feet in elevation and the area is remote from large sources of light

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<sup>52</sup> National Park Service letter to Dennis Ossenkop, Federal Aviation Administration; September 16, 2004.

<sup>53</sup> National Park Service letter to Dennis Ossenkop, Federal Aviation Administration; September 16, 2004.

pollution. A significant attribute of the night sky experience is the natural quiet that envelopes visitors as they view the spectacular star lit sky, which is generally free from low altitude aircraft.<sup>54</sup>

Grand Canyon-Parashant National Monument – Grand Canyon-Parashant National Monument is located along the northern edge of the Grand Canyon in northern Arizona. Situated on the Colorado Plateau in northwestern Arizona, within the drainage of the Colorado River, the monument borders Grand Canyon National Park to the south, and the state of Nevada to the west, and encompasses a portion of Lake Mead National Recreation Area. The National Monument was established by presidential proclamation on January 11, 2000. Encompassing over 1,054,000 acres, the monument is jointly managed by the NPS and the BLM. The NPS lands cover approximately 212,000 acres, of which 190,830 acres are proposed wilderness. The BLM lands contain about 840,000 acres, and include four designated wilderness areas. This remote area of open, undeveloped spaces is an impressive and diverse landscape that includes an array of scientific and historic resources. There are no paved roads into the monument and no visitor services.<sup>55</sup> It should be noted that, as shown in **Exhibit 5.1** (reproduced in the Final EIS), the southern boundary of the initial area of investigation divides this national monument into two properties for noise-analysis purposes. See the Draft EIS in **Section 6.6** and **Appendix B** for additional information.

The proclamation establishing the Grand Canyon-Parashant National Monument identified numerous resource values and the context for their protection:

- "...vast, biologically diverse, impressive landscape encompassing an array of scientific and historic objects"
- "...remote area of open, undeveloped spaces and engaging scenery"
- "full of natural splendor and a sense of solitude, this area remains remote and unspoiled, qualities that are essential to the protection of the scientific and historic resources it contains,"
- "...the remote and undeveloped nature of the monument protects these [numerous] historical sites in nearly their original context"...
- "The monument also contains outstanding biological resources preserved by remoteness and limited travel corridors."<sup>56</sup>

The NPS and BLM are currently preparing a 20-year Management Plan for the monument. As part of that process, draft significance and mission statements have been developed:

- **Significance:** The vastness and isolated location of this area provides for solitude, natural quiet, dark night skies, and wilderness characteristics.
- **Mission:** The preservation of natural quiet is emphasized in wilderness areas and other remote settings.

<sup>54</sup> National Park Service letter to Dennis Ossenkop, Federal Aviation Administration; September 16, 2004.

<sup>55</sup> <http://www.nps.gov/para/index.htm>

<sup>56</sup> National Park Service letter to Dennis Ossenkop, Federal Aviation Administration; September 16, 2004.

The Management Plan also articulates the following natural quiet desired resource conditions and actions to achieve those conditions:

- The NPS (and BLM) will strive to preserve or restore the natural quiet and natural sounds associated with the physical and biological resources of the monument's designated and proposed wilderness and areas managed for solitude, naturalness, and primitive and unconfined recreation.
- NPS will evaluate how, when, and where motorized equipment is used on NPS lands. Where such use is necessary and appropriate, the least impacting equipment, vehicles, and transportation systems should be used.
- NPS will consult with the FAA for Section 4(f)/Section 303(c) issues affecting the protection or restoration of natural quiet in and above noise-sensitive areas on NPS lands within the monument.
- The preservation of natural quiet is emphasized in wilderness areas and other remote settings.<sup>57</sup>

Visitation to the Grand Canyon-Parashant National Monument is limited due to the few and rugged routes accessing the area. One of the primary attractions of the monument is its rugged, primitive character that offers hardy visitors the opportunity to experience wide open spaces and solitude. The natural and social settings are managed to preserve the remote and essentially unspoiled landscape character while providing opportunities for visitors to experience adventure, beautiful vistas, retreat from the pressures of modern life, and a sense of discovery through appropriate and sustainable backcountry activities. Preservation of natural quiet is an integral part of securing the values for which the monument was designated.

Pipe Spring National Monument – Pipe Spring National Monument in Arizona provides a glimpse into American Indian, early explorer, and Mormon pioneer history in the Southwest. The water of Pipe Spring has made it possible for plants, animals, and people to live in this dry, desert region. Ancestral Puebloans and Kaibab Paiute Indians gathered grass seeds, hunted animals, and raised crops near the springs for at least 1,000 years. In 1907, the Kaibab Paiute Indian Reservation was established, surrounding what was then the privately owned Pipe Spring ranch. The 40-acre Pipe Spring ranch was purchased and dedicated as a National Monument in 1923; with Pipe Spring National Monument established officially by President Warren G. Harding's Proclamation No. 1663 (43 Stat 1913) on May 31, 1923. The establishing proclamation states: "It appears that the public good would be promoted by reserving land on which Pipe Spring and the early dwelling place are located as a National Monument, with as much land as may be necessary for the proper protection thereof, to serve as a memorial of western pioneer life."<sup>58</sup>

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<sup>57</sup> National Park Service letter to Dennis Ossenkop, Federal Aviation Administration; September 16, 2004.

<sup>58</sup> National Park Service letter to Dennis Ossenkop, Federal Aviation Administration; September 16, 2004.

Today the Pipe Spring National Monument - Kaibab Band of Paiute Indians Visitor Center and Museum - explains the human history of the area over time. Daily tours of Winsor Castle, summer "living history" demonstrations, an orchard and garden, and a half-mile trail offer a glimpse of American Indian and pioneer life in the Old West. The Pipe Spring National Monument was listed on the National Register in 1966. It was visited by 57,840 people in 2004.<sup>59</sup>

From the 1995 Statement for Management, the significance of Pipe Spring National Monument is summarized in statements that capture the area's importance to the Nation's natural and cultural heritage. Significance statements are not an inventory of significant resources, but rather describe the importance or distinctiveness of the aggregate of resources in the monument.

- Pipe Spring National Monument provides opportunities to understand the Mormon colonial expansion into Southern Utah and Arizona, and its conflict and interchange with the resident American Indians. The Monument contains historic stone buildings and artifacts related to early pioneer settlements and cattle ranching, including a fortified ranch house known as "Winsor Castle," and the first telegraph station in Arizona.
- The presence of readily available water has provided for a sequence of cultural occupation and use at the site from prehistoric times to the present. The importance of the water source to prehistoric Pueblos, Kaibab Paiute, Mormon pioneers, and others presents a special opportunity for understanding of these cultures and interactions between them.
- The springs at Pipe Spring National Monument form a unique natural oasis and riparian area in a large desert region providing water for use by animals and humans since prehistoric times.
- This setting on the Arizona Strip provides visitors with a sense of isolation and serenity due to the vast and spectacular expanse reminiscent of prehistoric and pioneer eras.

Due to the lack of development in this part of Arizona, the view south from the monument is much the same as it has been for several thousand years. The isolation and serenity of this setting are important in maintaining an historic (1870's) atmosphere within the historic district on the monument.

Pipe Spring lies within a military training route flight path. For many years military aircraft flew directly over the monument, often at elevations below 1,000 feet. In the opinion of the NPS, those direct overflights not only disrupted the feeling of isolation and serenity the NPS attempts to provide to visitors at Pipe Spring, but also generated concerns that the vibrations from the aircraft were damaging the 130+ year old sandstone structures within the historic district. In the 1990's the NPS entered into an agreement with the United States Air Force (USAF) pursuant to which their training flights are directed to avoid the monument and adjacent Indian Reservation lands. In scheduling time on the training route, the USAF is to inform

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<sup>59</sup> <http://www.nps.gov/pisp/>

all pilots to avoid the monument by at least one mile, or stay at an elevation of at least 1,500 feet above ground level over the monument. Violations of the agreed-upon no-fly zone are promptly reported to the USAF. This agreement has helped protect visitor experience and historic structures at the monument.<sup>60</sup>

In 2003, Natural Soundscapes were documented as an important vital sign in the Northern Colorado Plateau Vital Signs Network and Prototype Cluster Plan for Natural Resources Monitoring. The NPS is interested in reducing or eliminating any air traffic directly over Pipe Spring National Monument that would disrupt visitor experiences or threaten the natural or cultural resources of the monument.

In addition to the properties identified under the management of the NPS, USFS, and BLM located within the initial area of investigation, several other recommended and proposed wilderness areas are under consideration by these agencies. These areas are designated as proposed wilderness pending resolution of area-specific management, boundary, and specialty issues. In most cases, recommended or proposed wilderness areas are managed as designated wilderness areas in anticipation of the final resolution of wilderness issues and the preparation of a wilderness management plan.<sup>61</sup> These recommended or proposed wilderness areas are included within the boundaries of the larger jurisdictional parcels, and are therefore evaluated collectively with the designated wilderness areas and wilderness study areas identified in **Table 5.2 and Table 5.3** in the Final EIS.

### 5.3.5 STATE PARKS

The Utah Division of Parks and Recreation is responsible for preserving and managing Utah's natural and cultural resources that are protected under the designations of "state park" and "state museum."<sup>62</sup> Similarly, in Nevada, the Department of Conservation and Natural Resources is responsible for the establishment and administration of goals, objectives, and priorities for the preservation of the state's natural resources.<sup>63</sup> In Arizona, the Operations Section of the State Parks Division is responsible for the operation and maintenance of the state's natural areas and historic and cultural resources.<sup>64</sup> Within the initial area of investigation, as shown in **Exhibit 5.1** and on **Table 5.2** (in the Final EIS), there are six state parks located in Utah and one state park located in Nevada. There are no state parks located in Arizona within the initial area of investigation.

Beaver Dam State Park – Beaver Dam State Park is Eastern Nevada's most remote park. Situated in rugged canyon country, this 2,393-acre park is located approximately 34 miles east of Caliente, adjacent to the Utah border. Deep canyons, pinion and juniper forests, a flowing stream, and numerous beaver dams are the primary features, offering fishing, camping, picnicking, hiking, photography,

<sup>60</sup> National Park Service letter to Dennis Ossenkop, Federal Aviation Administration; September 16, 2004.

<sup>61</sup> *Grand Canyon National Park, General Management Plan*. On-line at: <http://www.nps.gov/grca/gmp/Interr.htm#wilderness/1995>.

<sup>62</sup> Utah Division of Parks and Recreation. On-line at <http://www.stateparks.utah.gov/>. 2003.

<sup>63</sup> Nevada Department of Conservation and Natural Resources. On-line at <http://www.dcnr.nv.gov/>. September 2004.

<sup>64</sup> *Arizona State Parks Annual Report July 1, 2002 – June 30, 2003*. On-line at <http://www.azparks.gov>. 2003.

and nature study. Facilities include campgrounds, a group use area, a day-use picnic area, and hiking and interpretive trails. Beaver Dam is open year-round, weather permitting. Visitor services are provided between May and October. The 1935 Nevada State Legislature designated Beaver Dam as a state park due to the insistence and support of local residents and state officials. Exceptional scenery and the recreational possibilities of Beaver Dam Wash were primary considerations in the park's designation. Camping facilities were constructed by the Civilian Conservation Corps (CCC) between 1934 and 1936.<sup>65</sup>

Coral Pink Sand Dunes State Park – Established as a Utah state park in 1963, the Coral Pink Sand Dunes is a 3,730 acre recreation area with over 2,000 acres of sand, which makes it the only major sand dune field on the Colorado Plateau. Sitting at an elevation of 6,000 feet, the dunes enjoy mild winters and warm summers. Several hundred feet of sand lie along the 200-mile long Sevier Fault. A notch between the Moquith and Moccasin Mountains directs the windblown sand (the venturi effect) to the southwest corner of Southern Utah. The reddish colored sand was supplied courtesy of ancient Navajo sandstone that was carried from the Virgin River to the bottom of the Cane Beds. Coral Pink Sand Dunes support a diverse population of insects, including the Coral Pink tiger beetle that is found only here. Melting snow often creates small ponds on the dunes that support amphibians such as salamanders and toads.<sup>66</sup>

Gunlock State Park – The 549-acre Gunlock State Park was established in 1970 with the construction of the Gunlock Dam and Reservoir. The park lies 15 miles northwest of St. George, Utah. Year-round boating, water sports, and quality fishing for bass and catfish attract visitors. Facilities include a boat launching ramp and pit privies. The county road to the park is the Old Spanish Trail used by horsemen and raiders from Sante Fe, New Mexico to Los Angeles from the 1820's until the gold fields became the destination after 1849 and a shorter route was taken. Peak elevation at the park is 3,600 feet.<sup>67</sup>

Iron Mission State Park and Museum – Iron Mission State Park and Museum tells the story of development in Iron County, Utah when, in the 1850s, Brigham Young sent Mormon missionaries to the area to mine and process iron. Museum displays include horse-drawn vehicles used from 1850 to 1920 and a collection of pioneer artifacts. An iron industry exhibit features the town bell, which is the only known, remaining artifact from the original foundry. In addition to the permanent collections, changing special exhibits highlight artists from the local region, as well as rarely seen artifacts from the museum's collections. Other items of interest include several historic cabins, a large collection of horse-drawn farm equipment and a replicated pioneer household. Iron Mission State Park and Museum was created in 1973. The current museum opened in 1980. Iron Mission also manages the historic ruins of Old Iron Town, an iron foundry west of Cedar City that operated in the 1860's and 1870's.<sup>68</sup>

<sup>65</sup> <http://parks.nv.gov/bd.htm>

<sup>66</sup> <http://www.zionnational-park.com/coral-pink-sand-dunes.htm>;  
[http://www.stateparks.utah.gov/park\\_pages/parkpage.php?id=cpsp](http://www.stateparks.utah.gov/park_pages/parkpage.php?id=cpsp)

<sup>67</sup> [http://www.stateparks.utah.gov/park\\_pages/parkpage.php?id=glsp](http://www.stateparks.utah.gov/park_pages/parkpage.php?id=glsp);  
<http://www.utah.com/stateparks/gunlock.htm>

<sup>68</sup> [http://www.stateparks.utah.gov/park\\_pages/iron/depth.htm](http://www.stateparks.utah.gov/park_pages/iron/depth.htm)

Quail Creek State Park and Reservoir – Quail Creek reservoir was completed in 1985 to provide irrigation and culinary water to the St. George area. Most of the water in the reservoir does not come from Quail Creek, but is diverted from the Virgin River and transported through a buried pipeline. Two dams form the reservoir. The main dam is an earth-fill embankment dam. The south dam is a roller compacted concrete dam, constructed to replace the original earthfill dam that failed in 1989. The maximum depth of Quail Creek can reach 120 feet, so it is cold enough to sustain the stocked rainbow trout, bullhead catfish, and crappie. Largemouth bass, which are also stocked, and bluegill thrive in the warmer, upper layers of the reservoir.<sup>69</sup>

Sand Hollow State Park – Sand Hollow is a 1,670-acre Utah state park that is located approximately 15 miles east of St. George, Utah, adjacent to the 19,123-acre Sand Hollow recreation area. As Utah's newest state park, Sand Hollow is currently undergoing construction, which is expected to be complete in 2005. When finished, Sand Hollow will offer boating and water recreation at Sand Hollow reservoir. In addition, the park will offer two, fifty-site campgrounds, one hundred picnic sites, equestrian camping with trail access, and off-highway vehicle camping. Peak elevation at the park is 3,000 feet.<sup>70</sup> It should be noted that Sand Hollow State Park is not a 4(f)/303(c) resource, per State of Utah.

Snow Canyon State Park – Snow Canyon is a 6,272-acre state park located 11 miles northwest of St. George, Utah. Facilities at the park include a 35-unit campground, modern rest rooms, hot showers, electric hookups, sewage disposal station, a covered group-use pavilion, and an overflow campground. The landscape is dominated by Red Navajo sandstone, capped by an overlay of black lava rock, which makes the park a popular location for photography, hiking, rock-climbing, biking, and camping. Several miles of easy to moderate-level trails are located throughout the park. Two recent volcanic cones (1,000 to 2,000 years old) are located near the head of the canyon. Peak elevation at the park is 3,200 feet.<sup>71</sup>

### 5.3.6 NATIVE AMERICAN LANDS

Created in 1824, the Bureau of Indian Affairs (BIA) administers and manages 55.7 million acres of land held in trust by the U.S. for American Indians, Indian Tribes, and Alaska Natives. Of the land held in trust by the BIA, tribal governments manage 46 million acres, while individual Native Americans own the remaining 9.7 million acres. There are currently 562 Federally-recognized Indian Tribes in 32 states. Within protected reservation lands, the BIA is responsible for developing forestlands, leasing assets on these lands, directing agricultural programs, protecting water and land rights, developing and maintaining infrastructure, as well as providing for health and human services, economic development, and education services for residents.<sup>72</sup> Two Indian tribes with three locations of reservation lands, as well as one traditional cultural property, are located within the initial area of investigation, as shown in **Exhibit 5.1** and on **Table 5.2** in the Final EIS.

<sup>69</sup> [http://www.stateparks.utah.gov/park\\_pages/depth.php?id=qcsp](http://www.stateparks.utah.gov/park_pages/depth.php?id=qcsp)

<sup>70</sup> [http://www.stateparks.utah.gov/park\\_pages/depth.php?id\\_shsp/](http://www.stateparks.utah.gov/park_pages/depth.php?id_shsp/).

<sup>71</sup> [http://www.stateparks.utah.gov/park\\_pages/scenicfacilities.php?id=scsp](http://www.stateparks.utah.gov/park_pages/scenicfacilities.php?id=scsp)

<sup>72</sup> Bureau of Indian Affairs. On-line at [www.doi.gov/bureau-indian-affairs.html/](http://www.doi.gov/bureau-indian-affairs.html/). Retrieved June 2, 2004.

Kaibab Indian Reservation – Kaibab-Paiute Reservation lands are located on Kanab Creek in northern Arizona, adjacent to the Utah border in an area known as the Arizona Strip. The 120,413-acre reservation spans the Arizona counties of Coconino and Mohave with a landscape that varies from rolling grasslands to mesas of the Colorado Plateau. The reservation was established in 1907, surrounding the then, privately-owned Pipe Spring Ranch, which has since been designated the Pipe Spring National Monument. Despite the remoteness of the reservation, the Kaibab people enjoy the location because it offers a level of solitude not possible in more urban areas. The Kaibab-Paiute are members of the Southern Paiute Nation. The Paiutes speak English, as well as a Uto-Aztecan language. The Kaibab-Reservation communities consist of the five villages of Kaibab, Steam Boat, Juniper Estates, Six-Mile, and Redhills. The 2003 population count of the reservation was 216.<sup>73</sup>

Cedar City Reservation and the Shivwits-Paiute Reservation, Paiute Indian Tribe of Utah - The Paiute Indian Tribe of Utah includes five distinct bands: Shivwits, Cedar City, Koosharem, Kanosh, and Indian Peaks. Their land is scattered from south-central to southwest Utah. Two of the five bands, Shivwits and Cedar City, are located within the initial area of investigation. The Shivwits Band is located near St. George, Utah and has the largest amount of trust land at approximately 27,000 acres. The Cedar City Reservation is located on 10 acres near Cedar City, Utah. The Paiute Indian Tribe of Utah are all Southern Paiute, who once occupied a broad territory across southern Utah, southern Nevada, and into California. The Shivwits Reservation was established in 1903 and was the first Southern Paiute reservation established in Utah. The Cedar City Reservation was established in 1929. A tribal council with representatives from each band is located in Cedar City. Total tribal enrollment for all five bands was 733 in 2004.<sup>74</sup>

Little Black Mountain Petroglyph Site – The Little Black Mountain Petroglyph Site is a traditional cultural property located approximately 1.5 miles southeast of the proposed airport site. The Little Black Mountain Petroglyph Site is approximately 200 acres in size. Little Black Mountain rises approximately 600 feet above the surrounding terrain. The lower slopes at Little Black Mountain are part of the Moenkopi Formation and are highly erodible and the higher up rocky ledges are of the Shinarump Member of the Chinle Formation. Large blocks of this sandstone layer have broken off and tumbled down slope. The rock art area features approximately 50 boulders containing 800 petroglyphs carved by people of several past native cultures of the Great Basin, Western Anasazi, and Lower Colorado River, a suggestion of the many cultures that have been this way. Some of the representations of turtles, lizards, and bear paws may be symbols with social or religious meanings now lost in time. The site is accessed via local dirt roads. There is a surfaced trail that provides access to the petroglyph viewing area. The primary activity within the fenced petroglyph site area is viewing of the rock art. Off-road

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<sup>73</sup> <http://www.commerce.state.az.us/doclib/COMMUNE/kaibab%20paiute.pdf>

<sup>74</sup> <http://www.fema.gov/regions/viii/tribal/paiutebg.shtm/>.

recreational vehicles are used on most the remainder of the property. BLM visitor records from 2003, indicate that 1,181 people visited the site.<sup>75, 76</sup> See **Section 5.7.2.1, Traditional Cultural Properties**, for additional information.

### 5.3.7 WILDERNESS STUDY AREAS

Beginning in 1978, 22 million acres of public land in Utah administered by the BLM were inventoried to identify areas meeting the basic criteria for wilderness characteristics. A total of 3.2 million acres of public lands in 83 areas of Utah met the criteria to become Wilderness Study Areas (WSA).<sup>77</sup>

A WSA typically contains ecological, geological, or other features of scientific, scenic, or historical value in addition to the following criteria:<sup>78</sup>

- Contain at least 5,000 acres of Federal land (or are large enough to be managed as wilderness).
- Are in a generally natural condition.
- Have outstanding opportunities for solitude, or a primitive or unconfined type of recreation in at least part of the area.

The BLM and the USFS are responsible for maintaining the wilderness characteristics of designated WSAs within their respective lands until Congress makes a final decision as to whether the WSA becomes part of the National Wilderness Preservation Service (NWPS) or is released for other uses. The general management standard is that the suitability of these lands for preservation as wilderness must not be impaired.<sup>79</sup>

An Instant Study Area (ISA) is a type of WSA that has been identified specifically because it is an outstanding natural resource as identified by the BLM in the Interim Management Policy (IMP) for lands under wilderness review. An ISA will not become a WSA and vice versa. ISAs and WSAs are managed the same.<sup>80</sup>

**Table 5.3**, in the Final EIS, lists the seventeen Wilderness Study Areas and one Instant Study Area that are located within the initial area of investigation.

<sup>75</sup> <http://hikearizona.com/decoder/php?ZTN=389>.

<sup>76</sup> Little Black Mountain Petroglyph site. Bureau of Land Management Arizona. On-line at <http://www.az.blm.gov/asfo/prehist.htm/>. December 10, 2004.

<sup>77</sup> Utah Wilderness Study Areas. On-line at [http://www.utah.com/playgrounds/wilderness\\_study.htm/](http://www.utah.com/playgrounds/wilderness_study.htm/). Retrieved June 1, 2004.

<sup>78</sup> Bureau of Land Management. On-line at: <http://www.blm.gov/nlcs/wsa/faq.htm>. March 18, 2005.

<sup>79</sup> Utah Wilderness Study Areas. On-line at [http://www.utah.com/playgrounds/wilderness\\_study.htm/](http://www.utah.com/playgrounds/wilderness_study.htm/). Retrieved June 1, 2004.

<sup>80</sup> Telephone conversation between Consultant and Maggie Kelsey, BLM Utah State Office in Salt Lake City. April 7, 2005.

**Table 5.3  
WILDERNESS STUDY AREAS AND INSTANT STUDY AREAS IN THE INITIAL  
AREA OF INVESTIGATION**

NAME	LEAD AGENCY	PROMINENT FEATURES
Bear Trap Canyon WSA, UT <sup>1</sup>	BLM	<ul style="list-style-type: none"> <li>• 40 acres</li> <li>• Contains headwater areas for tributaries that flow through Beartrap Canyon</li> <li>• Rugged terrain</li> </ul>
Canaan Mountain WSA, UT <sup>2</sup>	BLM	<ul style="list-style-type: none"> <li>• 42,858 acres</li> <li>• Adjacent to Zion National Park</li> </ul>
Cottonwood Canyon WSA, UT <sup>2</sup>	BLM	<ul style="list-style-type: none"> <li>• 11,330 acres</li> <li>• Adjacent to Dixie National Forest</li> </ul>
Cougar Canyon WSA, UT <sup>2</sup>	BLM	<ul style="list-style-type: none"> <li>• 15,968 acres</li> <li>• Primarily woodland and sagebrush vegetation</li> </ul>
Deep Creek WSA, UT <sup>2</sup>	BLM	<ul style="list-style-type: none"> <li>• 3,860 acres</li> <li>• Dense vegetation, contoured canyons, and elevations changes</li> </ul>
Goose Creek WSA, UT <sup>2</sup>	BLM	<ul style="list-style-type: none"> <li>• 89 acres</li> <li>• Lightly forested with ponderosa pines and mountain oak</li> <li>• Overlooks the deep chase of Goose Creek</li> </ul>
The Joshua Tree ISA, UT <sup>3</sup>	BLM	<ul style="list-style-type: none"> <li>• 14,900 acres</li> <li>• Contains the southern extent of the Beaver Dam Mountains</li> </ul>
LaVerkin Creek Canyon WSA, UT <sup>1</sup>	BLM	<ul style="list-style-type: none"> <li>• 986 acres</li> <li>• Deep canyons topped by conifer forests</li> </ul>
Lime Canyon WSA, NV <sup>4</sup>	BLM	<ul style="list-style-type: none"> <li>• 34,680 acres</li> <li>• Unique scenery due to faulting activity</li> </ul>
Moquith Mountain WSA, UT <sup>2</sup>	BLM	<ul style="list-style-type: none"> <li>• 14,830 acres</li> <li>• Riparian communities, ponderosa pine, canyons, large alcoves, and hanging gardens</li> </ul>
North Fork Virgin River WSA, UT <sup>2</sup>	BLM	<ul style="list-style-type: none"> <li>• 1,040 acres</li> <li>• Steep canyons and drainages</li> <li>• Adjacent to Zion National Park</li> </ul>
Orderville Canyon WSA, UT <sup>2</sup>	BLM	<ul style="list-style-type: none"> <li>• 5,330 acres</li> <li>• Steep canyons and drainages</li> <li>• Adjacent to Zion National Park</li> </ul>
Parunuweap WSA, UT <sup>2</sup>	BLM	<ul style="list-style-type: none"> <li>• 30,800 acres</li> <li>• Adjacent to Zion National Park</li> </ul>
Red Butte WSA, UT <sup>1</sup>	BLM	<ul style="list-style-type: none"> <li>• 804 acres</li> <li>• Peak elevation at 1,800 feet</li> <li>• Rugged terrain</li> </ul>
Red Mountain WSA, UT <sup>2</sup>	BLM	<ul style="list-style-type: none"> <li>• 18,290 acres</li> <li>• Rough hills and cliff faces</li> </ul>
Spring Creek Canyon WSA, UT <sup>1</sup>	BLM	<ul style="list-style-type: none"> <li>• 4,433 acres</li> <li>• Extremely rugged terrain</li> </ul>

**Table 5.3, Continued**  
**WILDERNESS STUDY AREAS IN INITIAL AREA OF INVESTIGATION**

NAME	LEAD AGENCY	PROMINENT FEATURES
Taylor Creek Canyon WSA, UT <sup>1</sup>	BLM	<ul style="list-style-type: none"> <li>• 35 acres</li> <li>• Lies immediately east of Zion National Park's west entrance</li> <li>• Is a headwaters for Zion National Park</li> </ul>
The Watchman WSA, UT <sup>2</sup>	BLM	<ul style="list-style-type: none"> <li>• 600 acres</li> <li>• Adjacent to Zion National Park</li> </ul>

Note: Clover Mountains WSA, UT; Mormon Mountains WSA, NV; and Tunnel Spring WSA, NV & UT have been deleted from this table and added to Table 5.2, because of their change in status.

Sources:

<sup>1</sup> *The Greater Zion Wilderness*. Southern Utah Wilderness Alliance (SUWA). On-line at <http://www.suwa.org/WATE/greaterzion.html/>. Retrieved April 6, 2005.

<sup>2</sup> *Utah Wilderness Inventory*, Bureau of Land Management. On-line at [www.access.gpo.gov/blm/utah/](http://www.access.gpo.gov/blm/utah/). 1999. *Utah Wilderness Intensive Inventory*, Bureau of Land Management. 1981.

<sup>3</sup> Note: An Instant Study Area (ISA) is a type of WSA that has been identified specifically because it is an outstanding natural resource as identified by the BLM in the Interim Management Policy (IMP) for lands under wilderness review. An ISA will not become a WSA and vice versa. ISAs and WSAs are managed the same. Sources: Telephone conversation between Consultant and Maggie Kelsey, BLM Utah State Office in Salt Lake City. April 7, 2005. *Utah Wilderness Inventory*, Bureau of Land Management. On-line at [www.access.gpo.gov/blm/utah/](http://www.access.gpo.gov/blm/utah/). 1999.

<sup>4</sup> Nevada Wilderness. On-line at <http://www.nevadawilderness.org/>. Retrieved June 2, 2004. *Nevada Wilderness Intensive Inventory*, Bureau of Land Management. 1981.

Information obtained from the Nevada BLM in March 2006 revealed that several new wilderness areas in Nevada were designated as part of comprehensive public lands legislation for Lincoln County, Nevada, passed by Congress and signed by the President on November 30, 2004. The *Lincoln County Conservation, Recreation, and Development Act of 2004*, changed the designation of three WSAs located within the initial area of investigation for this EIS. These former WSAs – the Clover Mountains Wilderness, the Mormon Mountains Wilderness, and the Tunnel Spring Wilderness – were evaluated in the same manner as designated wilderness areas in the Draft EIS. The names of these areas have not been changed from "Wilderness Study Area" to "Wilderness" in the Final EIS, because the change in name does not change the level of analysis conducted for this project.

## 5.4 BIOLOGICAL AND NATURAL RESOURCES

The following sections identify the existing biological and natural resources within the proposed replacement airport study area. The Utah Division of Wildlife Resources (UDWR), the U.S. Fish and Wildlife Service (USFWS), BLM, and the Arizona Game and Fish Department (AGFD) have been consulted to determine the potential for any Federally or state-listed species to occur in the vicinity of the proposed replacement airport study area.<sup>81</sup> In addition, field inventories of vegetation and wildlife were conducted to provide baseline information about the plant and animal species that currently exist within the proposed replacement airport study area.

<sup>81</sup> Note: The Arizona Game and Fish Department was included in the consultation because of the proximity of the project site.

#### **5.4.1 BIOTIC COMMUNITIES**

A general vegetation analysis of the proposed replacement airport study area was conducted during surveys of the proposed replacement airport site for threatened or endangered plant species. These surveys occurred in late April and early