



## **Site Suitability Assessment**

For a Southern Nevada Regional Heliport

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Clark County Department of Aviation

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## I. Introduction

### 1.1 Study Objectives

The Clark County Department of Aviation (CCDOA) has been tasked by the Clark County Board of Commissioners to designate a preferred facility for the takeoff and landing of commercial helicopters, to comply with the requirements of State of Nevada Revised Statutes, Chapter 495 (NRS 495). NRS 495, presented in **Appendix A**, was signed by Governor Guinn on June 20, 2003, and requires Clark County to designate a preferred non-urban heliport site, which cannot be the largest airport within the County, no later than January 1, 2004.

To fulfill the requirements of NRS 495, the CCDOA initiated a Needs Assessment and Site Suitability Assessment for a Southern Nevada Regional Heliport. The Needs Assessment study, completed in November 2003, documented the physical and operational characteristics of commercial helicopter operators in the Southern Nevada region, and identified the generalized facility and area requirements of a non-urban heliport accommodating multiple commercial helicopter operators. This study, the Site Suitability Assessment for a Southern Nevada Regional Heliport, has been conducted to assist the CCDOA in designating a preferred site for the Heliport. The study methodology is described in the following section.

### 1.2 Site Suitability Assessment Methodology

A series of potential sites were screened to assess the feasibility of incorporating the generalized facilities and area requirements identified in the needs assessment. The remaining feasible candidate sites were then evaluated using a number of screening criteria. The methodology of the Site Suitability Assessment involved the following steps:

- **Identification of Candidate Heliport Sites:** The initial step involved identifying a range of potential candidate sites for the Heliport. Candidate sites included three existing aviation facilities within the Clark County Airport System as well as ten non-CCDOA sites located throughout Southern Nevada.
- **Preliminary Screening of the Candidate Sites:** This step involved evaluating the 13 candidate heliport sites based on primary screening criteria established in accordance with CCDOA goals, NRS 495 requirements and generalized facility requirements for an initial occupancy phase of a Southern Nevada Regional Heliport. Preliminary screening criteria included compliance with NRS 495, available land area, surface accessibility and driving time from the customer base.
- **Secondary Screening of the Candidate Sites:** The secondary screening process evaluated the candidate heliport sites in terms of physical and environmental issues. The criteria included airspace, land ownership, terrain and slope, utilities and infrastructure, and protected and environmentally sensitive lands.
- **Assessment of Feasible Sites:** Sites that met the preliminary and secondary screening criteria were included in a third level of screening to determine their overall feasibility to accommodate a potential Southern Nevada Regional Heliport. Three final sites (in addition



to McCarran International Airport and Henderson Executive Airport) were evaluated based on consistency with area-wide planning, operational capability, long-term capacity, flight time considerations, user access and convenience, development costs, environmental criteria and socioeconomic factors.

- **Conclusions and Recommendations:** The Site Suitability Assessment for a Southern Nevada Regional Heliport concludes that while the Jean Airport and Eldorado Valley/Boulder City candidate sites are suitable for heliport development, the GoKart/Sloan site would best accommodate the Heliport. These conclusions and recommendations were presented to the Advisory Committee on Helicopter Noise<sup>1</sup>, and it is anticipated that a public workshop will be held in late January 2004 seeking community concerns.

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<sup>1</sup> In December 2001, the Clark County Board of Commissioners adopted an ordinance that established an Advisory Committee on Helicopter Noise through which various parties can discuss, review, and, where appropriate, formulate potential solutions. The ordinance provided for the appointment of ten members to the committee: seven members who represent neighborhoods directly affected by helicopter overflights, two members who represent commercial operators of helicopters, and one member who represents the Board of County Commissioners.

## II. Identification of Candidate Heliport Sites

### 2.1 Introduction

This section identifies the 13 sites in southern Nevada that are considered potential locations for a Southern Nevada Regional Heliport. The candidate sites entail either the expansion of existing airport facilities or the development of non-airport sites. The helicopter operators and the City of Henderson requested that the CCDOA review, during the course of this study, a majority of the sites. The locations of the candidate sites are shown on **Exhibit II-1**.

### 2.2 Existing County Airports

The CCDOA owns and operates six airports that accommodate a full range of aviation activity. In addition to improvements at these existing airports, new airports are either being considered or planned within the region. The City of Mesquite is currently planning the development of a second airport that would be located approximately ten miles west of Mesquite, while the City of Boulder City owns and operates a facility in Boulder City, Nevada. The CCDOA is considering the potential development of a new Southern Nevada Airport in the Ivanpah Valley, which is located along Interstate 15 between the towns of Jean and Primm.

Three CCDOA-operated airports are reviewed in this report, and include:

- McCarran International Airport
- Henderson Executive Airport
- Jean Airport

Each existing airport is shown on Exhibit II-1 and described in the following sections. Although owned and operated by the CCDOA, North Las Vegas Airport was not reviewed in this report due to a lack of interest from the helicopter operators, foreseen conflicts with Nellis Air Force Base airspace, and limited land availability. It should be noted that Under the Airport Noise and Capacity Act of 1990, federal grant assurances, and 14 Code of Federal Regulations, Part 161, the CCDOA may not restrict helicopter operations at any of the airports that it owns and operates as public-use facilities.

#### 2.2.1 McCarran International Airport

Located about five miles south of downtown Las Vegas near the southern end of the Las Vegas Strip, McCarran International Airport is the primary air carrier airport serving the region and is the largest airport in the County. The CCDOA plans to accommodate the near-term commercial aviation demand through the development of additional terminal facilities at McCarran International Airport, and anticipated long-term demand at a new southern Nevada airport in the Ivanpah Valley.

The west side of McCarran International Airport is currently used as a base for helicopter tour operators. The west-side comprises 124 acres, and is located approximately two miles south of Caesar's Palace which is located in the heart of the Las Vegas Strip (the center of the air tour customer base). Four of the five local operators providing helicopter air tours to the Grand Canyon and Las Vegas Strip are based on the west side of the Airport. These operators own 95 percent of the

[Click here for Exhibit II-1](#)

air tour fleet, and were responsible for 88 percent of the daily departures to the tour destinations in 2000. These figures are based on research gathered for the *Needs Assessment for a Southern Nevada Regional Heliport* (November 2003) prepared by R&A. Additional helicopters are based at McCarran for television news gathering, fire fighting, and executive charter flights. For the majority of the tour operators, which currently base their operations from McCarran International Airport, the suitability assessment of McCarran International Airport as a candidate heliport site should be viewed as the “no action” alternative.

### **2.2.2 Henderson Executive Airport**

Henderson Executive Airport is located within the City of Henderson, Nevada, and about 6 miles south of McCarran International Airport and approximately 10 miles south of Caesar’s Palace. Henderson Executive Airport is an essential component of the Clark County Airport System and serves as a reliever airport to McCarran International Airport. Two fixed wing aircraft operators, King Airlines and Air Vegas Airlines, have historically been based at the Airport and offer Grand Canyon air tours. Helicopter operations, as well as some military and training operations, have historically been accommodated at Henderson Executive Airport. The Airport comprises approximately 730 acres.

### **2.2.3 Jean Airport**

Jean Airport is located approximately 27 miles south of Caesar’s Palace in Jean, Nevada, adjacent to Interstate 15 and State Highway 161. Jean Airport is owned and operated by the CCDOA and attracts transient general aviation activity to the Gold Strike Casino, which is located at the northeast end of the Airport. The Airport’s primary role is to accommodate sport aviation, including aerobatic aircraft, sailplanes, and ultralight aircraft. The facility comprises approximately 230 acres.

## **2.3 Non-CCDOA Aviation Related Sites**

The remaining ten candidate heliport sites identified for further study are not operated by the CCDOA for aviation related purposes, but are located in the southern Nevada region. These sites were identified as:

- Blue Diamond/Union Pacific Railroad
- Decatur/Interstate 215
- Eldorado Valley/Boulder City
- Go Kart/Sloan
- Railroad Pass – Site A
- Railroad Pass – Site B
- Silverbowl
- Silverton
- Sunrise Landfill
- Three Kids Mine

### **2.3.1 Blue Diamond/Union Pacific Railroad**

The Blue Diamond/Union Pacific Railroad (UPRR) site is located approximately three miles west of Interstate 15 (exit 33) on West Richmar Avenue approximately 9 miles south of Caesar’s Palace. Light industrial uses and an on-site storage facility are located on the west side of the site, and a sand and gravel plant is located on the east side. The UPRR runs along the east side of the site. The site

includes approximately 38 acres. The area immediately adjacent to the site is zoned for business park/industrial uses.

### **2.3.2 Decatur & Interstate 215**

This site is located approximately four miles southwest of Caesar's Palace off of West Russell Road on Cameron Street (just west of Decatur Boulevard and north of Interstate 215). Land uses immediately adjacent to the site are industrial. The site includes approximately 34 acres, and is currently being developed as a flood detention basin.

### **2.3.3 Eldorado Valley/Boulder City**

The Eldorado Valley/Boulder City site includes approximately 160 acres south of the intersection of U.S. Highway 95 and U.S. Highway 93 in Boulder City, Nevada. The site is located approximately 25 miles southeast of Caesar's Palace. Most of the land in the immediate vicinity of the site is undeveloped.

### **2.3.4 Go Kart/Sloan**

The Go Kart/Sloan site is located approximately 15 miles south of Caesar's Palace on the west side of Interstate 15 at Exit 25. The site is located on approximately 49 acres, and includes an outside storage facility. The site is surrounded by vacant federal land, and is currently owned by the CCDOA.

### **2.3.5 Railroad Pass - Site A**

Railroad Pass - Site A is located on South Boulder Highway (U.S. 93 North/U.S. 95 North) approximately 21 miles southwest of Caesar's Palace in Henderson, Nevada. Site A consists of 160 acres of undeveloped federal land, and is immediately surrounded by undeveloped federal land.

### **2.3.6 Railroad Pass - Site B**

Railroad Pass - Site B is located on South Boulder Highway approximately 21 miles southwest of Caesar's Palace in Henderson, Nevada. Site B consists of approximately 37 acres of undeveloped federal land, and is immediately surrounded by undeveloped federal land.

### **2.3.7 Silverbowl**

The Silverbowl site is located approximately ten miles southeast of Caesar's Palace along the south side of East Russell Road in Las Vegas. The site consists of approximately 68 acres. Single-family residential development is located immediately south of the site, and UNLV's Sam Boyd Stadium is located north of the site (on the north side of Russell Road). The area east of the site is currently undeveloped, and a large regional sports complex is located west of the site.

### **2.3.8 Silverton**

The Silverton site is located on the south side of Blue Diamond Road (NV-160) in Las Vegas, approximately 6.3 miles south of Caesar's Palace at Exit 33 from Interstate 15. The 42-acre site is undeveloped and is surrounded by a combination of vacant land and residential land uses.

### **2.3.9 Sunrise Landfill**

The Sunrise Landfill site is located approximately 11 miles east of Caesar's Palace on Vegas Valley Drive in Las Vegas. The 160-acre site is surrounded by vacant federal land. Leased to Clark County by the Bureau of Land Management, Sunrise Landfill was a municipal solid waste landfill originally

designed with a refuse capacity of approximately 61 million cubic yards. With an estimated 47 million cubic yards of waste in place, the landfill accepted its last load of waste on October 8, 1993, and was officially closed in March 1995.

### **2.3.10 Three Kids Mine**

The Three Kids Mine site is located approximately 19 miles southeast of Caesar's Palace near the intersection of East Lake Mead Drive and Lake Las Vegas Parkway in Henderson, Nevada. The Three Kids Mine was a manganese mine that operated from 1917 to 1961 and contributed heavily to the growth of the City of Henderson in the early and middle part of the 20<sup>th</sup> century. The 44-acre site is mostly surrounded by vacant federal land.

### III. Generalized Regional Heliport Requirements

#### 3.1 Introduction

The Needs Assessment for a Southern Nevada Regional Heliport identified, on a conceptual level, the minimum space requirements of commercial helicopter operators at the initial occupancy phase of a large heliport. The generalized facility requirements were developed in accordance with the guidance for a large heliport planned to meet transport heliport standards provided Chapter 4 of AC 150/5390-2A. The needs assessment study quantified generalized area requirements for both airside and landside components of the Heliport based on identified goals for the project and identified planning criteria. The study provided a basis for early decision-making purposes, and was completed in November 2003.

#### 3.2 Generalized Facility Requirements

The generalized facility requirements for the initial construction of the Southern Nevada Regional Heliport were based on specific design helicopters, three scenarios for potential users, and fleet mixes appropriate for each scenario.

Based on the current and planned helicopter fleet of commercial helicopter operators the Eurocopter AS350 has been selected to represent the design helicopter for apron areas. In addition, one tour operator has recently considered operating the larger Sikorsky S55QT due to its higher passenger capacity and quiet technology. Therefore the design helicopters for the Heliport were the Eurocopter AS350 for the apron areas, and the Sikorsky S55QT for the taxi routes and takeoff and landing areas. The initial construction planning period fleet mix, representing the current commercial helicopter fleet and near-term planned acquisitions includes a total of up to 72 helicopters. The requirements vary according to three potential scenarios for accommodating commercial helicopter operations:

- Scenario A: the Heliport would accommodate all commercial operators (tour and training) – 72 helicopters.
- Scenario B: the Heliport would accommodate all tour operators (Grand Canyon and Strip) – 55 helicopters.
- Scenario C: the Heliport would accommodate Grand Canyon tour operators only – 50 helicopters.

The generalized facility requirements for the initial construction planning period for the Heliport are summarized in **Table III-1**.

**Table III-1**

## Summary of Facility Requirements for Initial Construction Planning Period

	Helicopter Parking	Facilities (sq. ft.)		Auto Parking		
		Public/Admin	Maintenance	Employee	Visitor	Van/Limo
Scenario A	72	44,000	55,000	191	47	55
Scenario B	55	37,000	45,000	165	40	55
Scenario C	50	24,000	32,000	113	36	50

Source: *Needs Assessment for a Southern Nevada Regional Heliport*, Ricondo & Associates, Inc., November 2003.  
 Prepared by: Ricondo & Associates, Inc.

### 3.3 Generalized Area Requirements

The needs assessment study identified generalized area requirements for airfield, terminal facilities, maintenance facilities, ground access, parking, and support facilities. The estimated total area required for the Heliport is presented below in **Table III-2** for the three potential operating scenarios. The required areas could vary based on the specific site conditions of the Heliport such as irregular site geometry, which would likely increase area requirements.

**Table III-2**

## Total Area Requirements for Initial Construction Planning Period

	Scenario		
	A (acres)	B (acres)	C (acres)
Airfield			
Apron Area	14.5	12.5	11.2
Active Movement Area	22.0	22.0	22.0
Passenger Terminal Complex	1.0	0.8	0.6
Maintenance	1.3	1.0	0.7
Ground Access	4.3	3.8	3.5
Parking	2.9	2.6	2.1
Support Facilities	1.9	1.7	1.7
Landscaping and Setbacks <sup>a</sup>	--	--	--
Total	<b>47.9</b>	<b>44.4</b>	<b>41.8</b>
Total rounded	<b>48</b>	<b>44</b>	<b>42</b>

a. The specific requirements for landscaping and setbacks will be dependent on the final site selection.

Source: *Needs Assessment for a Southern Nevada Regional Heliport*, Ricondo & Associates, Inc., November 2003.  
 Prepared by: Ricondo & Associates, Inc.



## IV. Preliminary Screening of the Candidate Sites

### 4.1 Introduction

The 13 candidate heliport sites described in Section II were first assessed in terms of their ability to serve the resort and tourism industry of Las Vegas. Preliminary screening criteria were established to ensure that minimum requirements were met before a site could be considered further in the secondary screening. The preliminary screening criteria allowed the sites to be compared in terms of land use compatibility, availability and accessibility, and include:

- Compliance with NRS 495/Land Use Compatibility
- Available Land Area
- Driving Time from Customer Base
- Surface Accessibility

### 4.2 Compliance with NRS 495/Land Use Compatibility

To comply with NRS 495, Clark County must identify a preferred site that is not the largest airport located within the county, and that is not located within a residential area. A residential area is defined in NRS 495 as “land that is being used primarily for one- or two-family dwellings or apartments,” and “land that is adjacent to or near other residentially used land.”

Each candidate heliport site was evaluated to determine whether residential uses are the primary land use in the vicinity of the site and whether significant residential uses (i.e. more than 100 housing units) are located immediately adjacent to the candidate site. **Exhibits IV-1** thru **IV-13** depict the locations of the candidate heliport sites and the existing criterion land uses within a one-mile radius of each site. Criterion land uses include single- and multi-family residential land, Bureau of Land Management (BLM) disposal areas<sup>1</sup>, Cooperative Management Area (CMA) land<sup>2</sup>, deed restricted land<sup>3</sup>, and federal lands<sup>4</sup>. The land use information was compiled by the CCDOA from various sources including the United States Geological Survey (USGS), and local planning authorities.

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<sup>1</sup> The Southern Nevada Public Land Management Act (SNPLMA) states that the BLM has extensive land ownership in small and large parcels interspersed with or adjacent to private land in the Las Vegas Valley, making many of these parcels difficult to manage and more appropriate for disposal. To promote responsible and orderly development in the Las Vegas Valley, the SNPLMA specifies that certain of those federal lands should be sold by the federal government based on recommendations made by local government and the public. The SNPLMA enables the BLM to sell public land within a specific boundary around Las Vegas, Nevada.

<sup>2</sup> In November 1992, a Cooperative Management Area (CMA) was established through an agreement between Clark County and the BLM. The CMA is located to the west and south of McCarran International Airport, and its boundaries are defined by aircraft departure flight corridors and the DNL 60 noise contour of the 1992 Noise Exposure Map prepared for the 1989 FAR Part 150 Noise Compatibility Program. The objectives of the CMA are (1) to provide proper land use planning and management to protect against the encroachment of incompatible land uses on federal land under the airspace used for aircraft departing to the west and southwest from McCarran International Airport; (2) to facilitate the efficient management and protect against unlawful use of public land in these areas; (3) to ensure that the affected areas are regularly patrolled and monitored to reduce unlawful disposal of trash; and (4) to prevent the transfer of public lands to private ownership without the concurrence of Clark County.

<sup>3</sup> Deed restricted land includes CMA parcels transferred to Clark County that are unable to be developed for residential uses. The land can be developed for business and commercial purposes, or other airport compatible uses, where appropriate.

<sup>4</sup> Any land owned by the federal government (e.g., BLM land).

Sites located in an area primarily used for residential uses or located immediately adjacent to residential land are removed from further consideration. The following paragraphs summarize the evaluation of each candidate heliport site in terms of proximity of the site to residential land uses and overall land use compatibility.

#### **4.2.1 McCarran International Airport**

McCarran International Airport occupies approximately 3,000 acres of land and is the largest airport in Clark County. The area currently used as a heliport (the west side of the airfield) includes a portion of approximately 124 acres. As discussed in Section II, the west side of McCarran International Airport currently accommodates the majority of the commercial helicopter operators in the region. Because McCarran International Airport is the largest airport in Clark County, it does not meet the requirements of NRS 495 (See Appendix A), and is therefore eliminated from further analysis.

#### **4.2.2 Henderson Executive Airport**

Henderson Executive Airport occupies approximately 730 acres of land. The Airport, as presented in Exhibit IV-2, is generally bordered by St. Rose Parkway (State Highway 146), vacant land within the corporate limits of the City of Henderson to the north and west, the Seven Hills Subdivision (residential development) to the east, and BLM property to the south.

Exhibit IV-2 depicts existing land uses in the vicinity of Henderson Executive Airport. Single-family residential land uses are the primary land use on the east side of the Airport. The City of Henderson has recently annexed land south of the Airport and is planning for the development of additional residential uses that could accommodate up to 60,000 people. Based on the extent of residential development in the vicinity of the site (approximately 1,700 housing units) and the proximity of residential land uses to the site, Henderson Executive Airport does not meet the requirements of NRS 495 or the land use compatibility criterion.

#### **4.2.3 Jean Airport**

Jean Airport occupies 230 acres of land in the South County Planning Area of Clark County. Exhibit IV-3 depicts existing criterion land uses in the vicinity of the Airport. No residential land uses are located within a one-mile radius of Jean Airport. The Airport is mostly surrounded by federal land, with the Union Pacific Railroad (UPRR) along the east side of the site, and Interstate 15 along the west side of the site. Currently, two hotels and casinos are located just north of the airport. Much of the Interstate 15 corridor in the vicinity of Jean Airport is considered either premature for development or physically constrained from development at this time. Areas directly north and south of Jean Airport, along Las Vegas Boulevard, are planned and zoned for commercial development. Light industrial development is proposed along the UPRR right-of-way between the railroad and Las Vegas Boulevard. Additional commercial development is proposed generally north of the Interstate 15 and State Highway 161 interchange. Heavy industrial uses have been deemed inappropriate along the Interstate 15 corridor. Given the nature of development in the vicinity of the site and the lack of residential uses within a one-mile radius of the site, Jean Airport meets the requirements of NRS 495 and the land use compatibility criterion.

#### **4.2.4 Blue Diamond/UPRR**

Existing criterion land uses in the vicinity of the Blue Diamond/UPRR site are depicted on Exhibit IV-4. Several parcels with single-family residential units are located within a one-mile radius of this

candidate heliport site (approximately 300 housing units), however, vacant federal land is the primary land use in the area. There is a single-family residential parcel immediately south of the site. Since significant residential land uses are adjacent to the candidate heliport site, the Blue Diamond/UPRR site does not meet the requirements of NRS 495 or the land use compatibility criterion.

#### **4.2.5 Decatur/I-215**

Exhibit IV-5 presents existing criterion land uses in the vicinity of the Decatur/I-215 site. Significant single- and multi-family residential development is located within a one-mile radius of the site (almost 1,000 housing units). Several parcels in the immediate vicinity of the site are designated CMA land. The site and adjacent parcels are largely undeveloped, however significant commercial and industrial development is located north, east, and southeast of the site. Considering the land uses in the immediate vicinity of the Decatur/I-215 site, the site does not meet the requirements of NRS 495 and the land use compatibility criterion.

#### **4.2.6 Eldorado Valley/Boulder City**

Exhibit IV-6 presents existing criterion land uses in the vicinity of the Eldorado Valley/Boulder City site. The site is surrounded by vacant land. There is no residential development within a one-mile radius of the site. The Eldorado Valley/Boulder City site meets the requirements of NRS 495 and the land use compatibility criterion.

#### **4.2.7 Go Kart/Sloan**

Exhibit IV-7 presents existing criterion land use in the vicinity of the GoKart/Sloan site. The site is primarily surrounded by vacant federal and private land and there is no residential development within a one-mile radius of the site. The GoKart/Sloan site meets the requirements of NRS 495 and the land use compatibility criterion.

#### **4.2.8 Railroad Pass – Site A**

Existing criterion land uses in the vicinity of Railroad Pass - Site A are depicted on Exhibit IV-8. Some single-family and multi-family residential development is located northwest of the site (approximately 400 housing units), however, the majority of the land adjacent to the site is vacant federal land. Railroad Pass - Site A does not meet the requirements of NRS 495 and the land use compatibility criterion.

#### **4.2.9 Railroad Pass – Site B**

As shown on Exhibit IV-9, some single-family and multi-family residential units are located within a one-mile radius of Railroad Pass - Site B (approximately 200 housing units). The site is located along Boulder Highway immediately southwest of Railroad Pass - Site A, and is primarily surrounded by vacant federal land. Railroad Pass - Site B does not meet the requirements of NRS 495 and the land use compatibility criterion.

#### **4.2.10 Silverbowl**

As shown on Exhibit IV-10, significant single- and multi-family residential development is located northwest and immediately south of the Silverbowl candidate heliport site (approximately 3,000 housing units). The area to the east of the site consists of undeveloped parcels. Since residential land uses are the primary land use in the immediate vicinity of the site, Silverbowl does not meet the requirements of NRS 495 or the land use compatibility criterion.

**4.2.11 Silverton**

As shown on Exhibit IV-11, single-family residential development is scattered throughout the area within a one-mile radius of the Silverton site (approximately 3,000 housing units). There also is some multi-family housing located approximately one-half mile to the east of the site. Most of the land surrounding the Silverton site is designated within the CMA. Since land in the vicinity of the Silverton site is primarily residential, the site does not meet the requirements of NRS 495 or the land use compatibility criterion.

**4.2.12 Sunrise Landfill**

As shown on Exhibit IV-12, the Sunrise Landfill site is primarily surrounded by vacant federal land. No residential land uses are located within a one-mile radius of the site. The Sunrise Landfill site meets the requirements of NRS 495 and the land use compatibility criterion.

**4.2.13 Three Kids Mine**

As shown on Exhibit IV-13, the Three Kids Mine site is primarily surrounded by vacant federal land. No residential land uses are located within a one-mile radius of the site. The Three Kids Mine site meets the requirements of NRS 495 and the land use compatibility criterion.

**4.2.14 Summary**

**Table IV-1** shows a summary of the approximate number of existing residential housing units located within one mile of each candidate heliport site.

**Table IV-1**  
Estimated Residential Units Within One Mile of Candidate Heliport Sites

Site	Residential Units <sup>a</sup>	Meets Criteria
McCarran International Airport	<b>4,616</b>	<b>No</b>
Henderson Executive Airport	<b>1,764</b>	<b>No</b>
Jean Airport	0	Yes
Blue Diamond/U. P. R.R.	<b>331</b>	<b>No</b>
Decatur/I-15	<b>979</b>	<b>No</b>
Eldorado Valley/Boulder City	0	Yes
GoKart/Sloan	0	Yes
Railroad Pass - Site A	<b>379</b>	<b>No</b>
Railroad Pass - Site B	<b>228</b>	<b>No</b>
Silverbowl	<b>2,844</b>	<b>No</b>
Silverton	<b>2,958</b>	<b>No</b>
Sunrise Landfill	0	Yes
Three Kids Mine	0	Yes

a. Residential units within one mile of candidate heliport site.

Source: Housing unit estimates provided by the Clark County Department of Aviation  
Prepared by: Ricondo & Associates, Inc.

[Click here for Exhibit IV-1](#)

[Click here for Exhibit IV-2](#)

[Click here for Exhibit IV-3](#)

[Click here for Exhibit IV-4](#)



[Click here for Exhibit IV-5](#)

[Click here for Exhibit IV-6](#)

[Click here for Exhibit IV-7](#)

[Click here for Exhibit IV-8](#)

[Click here for Exhibit IV-9](#)

[Click here for Exhibit IV-10](#)

[Click here for Exhibit IV-11](#)

[Click here for Exhibit IV-12](#)



[Click here for Exhibit IV-13](#)

### **4.3 Available Land Area**

The available land area and potential for expansion at each of the 13 candidate heliport sites were evaluated to determine whether adequate land is available (or could be available in the future) to meet the potential heliport facility requirements described in Section III. Both the defined site and its surrounding land were evaluated. A minimum of 40 acres of land would be required to accommodate the necessary facilities for all commercial helicopter operators in the Southern Nevada Region.<sup>5</sup>

The following paragraphs summarize the screening analysis based on available land area. In addition to the acreage of candidate heliport site, the land surrounding the site was reviewed for potential expansion capability (i.e., through land acquisition). This evaluation was accomplished through a review of the existing land uses, land ownership, and discussions with CCDOA staff. A site with considerable potential for expansion may be retained for further consideration even if its approximate acreage is less than 40 acres.

#### **4.3.1 Henderson Executive Airport**

There are approximately 157 acres of non-airfield land within the boundary of Henderson Executive Airport. Although this land is not contiguous and much of the land is occupied by existing corporate and general aviation facilities, the land area required to develop a commercial heliport could be accommodated within this area. Therefore, Henderson Executive Airport meets the available land area criterion.

#### **4.3.2 Jean Airport**

There are approximately 104 acres of non-airfield land within the boundary of Jean Airport. Given the location of existing tenants and land uses, the Airport could accommodate the land area needed for a commercial heliport. Therefore, Jean Airport meets the available land area criterion.

#### **4.3.3 Blue Diamond/UPRR**

The Blue Diamond/UPRR site consists of 38 acres of land. The existing land area is not adequate to accommodate the necessary heliport facilities, however, adjacent land could potentially be acquired to increase the amount of land available for development of a heliport. Therefore, the Blue Diamond/UPRR site could meet the available land area criterion.

#### **4.3.4 Decatur/I-215**

The Decatur/I-215 site includes 34 acres. The existing land area is not adequate to accommodate the heliport facilities, however, adjacent land owned by Clark County Department of Public Works could potentially be used to increase the amount of land available for development of a heliport. However, as previously stated, this land is now being developed as a flood detention basin, and therefore, the site does not meet the available land area criterion.

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<sup>5</sup> Based on the generalized facility requirements defined in Section III, a commercial heliport would require, at a minimum, between 40 and 50 acres to accommodate commercial helicopter activity in the Southern Nevada Region.

#### **4.3.5 Eldorado Valley/Boulder City**

The Eldorado Valley/Boulder City site includes 160 acres. The site is large enough to accommodate the required heliport facilities, and therefore it meets the available land area criterion. Additionally, adjacent land could potentially be used for future expansion of the heliport facilities.

#### **4.3.6 Go Kart/Sloan**

The GoKart/Sloan site includes 49 acres of land. The site is large enough to accommodate the required heliport facilities, and therefore it meets the available land area criterion. Additional land could potentially be acquired to provide additional land area for future expansion of the heliport facilities.

#### **4.3.7 Railroad Pass – Site A**

The 160-acre Railroad Pass - Site A has adequate land available to accommodate the required heliport facilities, and therefore meets the available land area criterion. Additionally, adjacent land could potentially be acquired for future expansion of the heliport facilities.

#### **4.3.8 Railroad Pass – Site B**

Railroad Pass - Site B includes 37 acres. The existing land area is not adequate to accommodate the required heliport facilities. Adjacent land could potentially be acquired to increase the amount of land available for development of a heliport. Therefore, Railroad Pass - Site B could meet the available land area criterion.

#### **4.3.9 Silverbowl**

The Silverbowl site includes 70 acres of land. The site has adequate land available for the required heliport facilities, and therefore meets the available land area criterion. Adjacent land could potentially be acquired to increase the amount of land available for development of a heliport.

#### **4.3.10 Silverton**

The Silverton site includes 42 acres of land. The land area is slightly less than the requirement, however, adjacent land potentially could be acquired to accommodate the necessary facilities. Therefore, the Silverton site could meet the available land area criterion.

#### **4.3.11 Sunrise Landfill**

The Sunrise site includes 160 acres of land. The site has adequate land available for the required heliport facilities, and therefore meets the available land area criterion.

#### **4.3.12 Three Kids Mine**

The Three Kids Mine site includes 44 acres of land. The site has adequate land to accommodate the required facilities, and therefore meets the available land area criterion. Additional adjacent land potentially could be acquired to expand the size of the facility in the future.

#### 4.4 Driving Time from Customer Base

The driving time from the customer base to the site is an important criterion for selecting a regional heliport site. As the heliport is intended to serve the commercial air tour industry of Las Vegas, the candidate sites were evaluated based on the driving time from the Las Vegas Strip, the primary customer base for the tour operators, to the site. The start point for the drive is Caesar's Palace at 3570 South Las Vegas Boulevard. This point was selected due to its central location in the Las Vegas Strip, and represents the average start point for all trips from the tourist area. Preferred sites that meet the driving time criteria must be located within an approximately 22-minute drive of this point, or less than twice the current driving conditions to McCarran International Airport. Marginal sites will be defined as having a driving time less than three times the current driving conditions, or between 23 minutes and 33 minutes.

The driving time analysis was performed by CCDOA staff and was based on actual driving tests from the start point to each site at different times of the day. The calculated average drive time to each site is presented in **Table IV-2**. The Sunrise Landfill and Three Kids Mine sites are the only sites that do not meet the driving time criterion.

**Table IV-2**

Average Driving Time

Site	Time (minutes) <sup>a</sup>	Meets Criteria
McCarran International Airport	11.0	Existing
Henderson Executive Airport	24.7	Marginal
Jean Airport	30.6	Marginal
Blue Diamond/U. P. R.R.	15.0	Preferred
Decatur/I-15	7.5	Preferred
Eldorado Valley/Boulder City	32.8	Marginal
GoKart/Sloan	17.6	Preferred
Railroad Pass - Site A	27.4	Marginal
Railroad Pass - Site B	27.4	Marginal
Silverbowl	25.0	Marginal
Silverton	10.0	Preferred
Sunrise Landfill	<b>36.3</b>	<b>No</b>
Three Kids Mine	<b>36.6</b>	<b>No</b>

a. Drive time from Caesar's Palace to site

Source: Clark County Department of Aviation staff, estimated using results of timed driving tests at various times of day  
 Prepared by: Ricondo & Associates, Inc.

## **4.5 Surface Accessibility**

In addition to driving time, convenient ground access is an important criterion for evaluating potential heliport sites. The typical passengers for the helicopter tour industry are visitors coming from one central area, the Las Vegas Strip. The air tour operators typically pick up their passengers at their hotels and drive them to the operator's terminal. The ability to transport these users to the site efficiently is critical to the continued success of the helicopter tour industry. Air tour related vehicle traffic, occurring throughout the day, could bring a significant amount of traffic to the area around the site. In addition, the kinds of roads and extent of cross traffic in the region pose potential delays to a time-sensitive air tour industry.

The purpose of this evaluation was to confirm the presence of an efficient route to transport the passengers to each candidate site. Sites within one mile of a primary roadway segment (interstate freeway or highway) are considered more easily accessible than ones requiring significant use of secondary roadway segments (smaller surface streets with multiple stop signs or signals). The ground access criterion is the ability to access the site within one mile or less from a primary roadway and/or access from a secondary roadway with minimal signalized intersections. **Exhibit IV-14** depicts the primary and secondary roads to access each site.

The following paragraphs summarize the evaluation of each candidate heliport site in terms of accessibility.

### **4.5.1 Henderson Executive Airport**

Henderson Executive Airport is directly accessible via St. Rose Parkway, a secondary roadway segment connecting I-15 and I-215. I-15 is the closest primary road to the site, located approximately 2.5 miles east of the Airport. St. Rose Parkway is currently being improved to a six-lane divided highway. Due to its proximity to St. Rose Parkway, Henderson Executive Airport meets the established accessibility criterion.

### **4.5.2 Jean Airport**

Jean Airport is located adjacent to I-15 in Southern Clark County. I-15 is located within one mile of the potential site, thus allowing for easy vehicle access to the Airport. Therefore, Jean Airport meets the surface accessibility criterion.

### **4.5.3 Blue Diamond/UPRR**

Traveling to the potential Blue Diamond/UPRR site requires use of Blue Diamond Road (Highway 160), with quick access from I-15. Therefore, the Blue Diamond/UPRR site meets the surface accessibility criterion.

### **4.5.4 Decatur/I-215**

The Decatur/I-215 site is accessible via I-215, which runs east/west within one mile of the site. I-215 is classified as a primary roadway, therefore the site meets the established surface accessibility criterion.

#### **4.5.5 Eldorado Valley/Boulder City**

U.S. Highway 95 (US-95) runs adjacent to the Eldorado Valley/Boulder City site. Located less than one mile from the highway, the site meets the surface accessibility criterion established for preliminary screening.

#### **4.5.6 Go Kart/Sloan**

The GoKart/Sloan site is accessible via I-15, which runs adjacent to the site. With immediate access to the interstate, the potential GoKart/Sloan site meets the established surface accessibility criterion.

#### **4.5.7 Railroad Pass – Site A**

Railroad Pass-Site A is located within one mile of US-95, a primary roadway. Its proximity to the highway would afford easy access to this potential heliport site, thus marginally satisfying the established surface accessibility criterion. However, it should be noted that significant costs associated with the development of a freeway offramp might be incurred for this candidate site to accommodate the Southern Nevada Regional Heliport.

#### **4.5.8 Railroad Pass – Site B**

Direct primary road access to Railroad Pass - Site B is provided via US-95, which runs alongside the western boundary of the site. Therefore, Railroad Pass - Site B marginally meets the established criterion for surface accessibility. It should be noted that, similar to Railroad Pass – Site A, significant costs associated with the development of a freeway offramp might be incurred for this candidate site to accommodate the Heliport.

#### **4.5.9 Silverbowl**

The Silverbowl site is located on the eastern-most end of Russell Road, approximately over one mile from the nearest primary roadway segment (US-95). However, heavy traffic conditions exist in the area when special events occur at the Sam Boyd Stadium, causing congestion and delays at signalized intersections serving the site. Therefore the site marginally meets the established criterion for surface accessibility.

#### **4.5.10 Silverton**

The Silverton site is accessible via I-15, which runs North/South and within one mile of the site. Due to its proximity to I-15, the Silverton site meets the established vehicle access criterion.

#### **4.5.11 Sunrise Landfill**

The Sunrise site is located at the eastern end of Vegas Valley Drive, approximately five miles from US-95, the nearest primary road to the site. The Sunrise Landfill site, therefore, does not provide the required accessibility necessary for further consideration as a potential heliport site.

#### **4.5.12 Three Kids Mine**

The Three Kids Mine site is located furthest from any primary roadway segment. Located approximately seven miles from US-95 via Lake Mead Parkway, which has several signalized intersections, the site does not meet the accessibility requirements established for preliminary screening.

[Click here for Exhibit IV-14](#)

### 4.6 Preliminary Screening Conclusions

Table IV-3 presents a summary of the preliminary screening analysis of the 13 candidate heliport sites for each of the screening criteria. As shown in Table IV-2, the sites are coded according to whether they meet the established criterion, could meet the criterion or do not meet the criterion.

**Table IV-3**  
Summary of Preliminary Screening Analysis

Candidate Heliport Site	Preliminary Screening Criteria				Retained for Further Consideration
	Complies with Requirements of NRS 495	Meets Land Area Requirements (and/or potential for expansion)	Acceptable Drive Time (within approximately 30 minutes)	Accessible from a Major Roadway	
McCarran International Airport		N/A	N/A	N/A	YES
Henderson Executive Airport					YES
Jean Airport					YES
Blue Diamond/Union Pacific Railroad					NO
Decatur/Interstate 215					NO
Eldorado Valley/Boulder City					YES
Go Kart/Sloan					YES
Railroad Pass - Site A					NO
Railroad Pass - Site B					NO
Silverbowl					NO
Silverton					NO
Sunrise Landfill					NO
Three Kids Mine					NO

- Legend:
- Meets criteria
  - Could meet criteria through acquisition of adjacent land
  - Marginally meets drive time or roadway access criteria
  - Does not meet criteria

Source: Ricondo & Associates, Inc.  
Prepared by: Ricondo & Associates, Inc.

Based on the preliminary screening analysis, five sites were retained for further consideration in subsequent screening: McCarran International Airport, Henderson Executive Airport, Jean Airport, Eldorado Valley/Boulder City, and GoKart/Sloan. The Jean Airport, Eldorado/Boulder City, and GoKart/Sloan sites comply with the requirements of NRS 495, meet (or could meet through land acquisition) the land area requirements for the initial phase of construction, are accessible from a major roadway, and are located within an acceptable driving distance from the Las Vegas Strip. These sites will be evaluated using secondary screening criteria in Section V.

Although McCarran International Airport and Henderson Executive Airport do not meet all of the preliminary screening criteria, specifically compliance with NRS 495, the airports currently accommodate commercial tour operators and other helicopter operations. Under the Airport Noise and Capacity Act of 1990, federal grant assurances, and 14 Code of Federal Regulations, Part 161,



the CCDOA may not restrict helicopter operations at any of the airports that it owns and operates as public-use facilities. Therefore, these sites will be continued through the remainder of this study. The remaining eight sites were not carried forward in the screening of candidate heliport sites.

## V. Secondary Screening of the Candidate Sites

### 5.1 Introduction

This section documents the secondary screening evaluation of the candidate heliport sites that have been carried forward from the evaluation in Section IV, Preliminary Screening of the Candidate Sites. The secondary evaluation criteria are used to assess each candidate site in terms of the physical and operational characteristics associated with the specific site and potential impact that the heliport could pose to the adjacent areas of the larger community. The secondary screening criteria include:

- Airspace
- Land Ownership
- Terrain and Topography
- Community Issues

The following sections describe the screening criteria and present the results of the evaluation of each of the remaining candidate heliport sites. Sites that best meet the above criteria will undergo a final evaluation that will provide the CCDOA with the information necessary to select a preferred heliport site.

### 5.2 Airspace

The characteristics of the airspace surrounding each site and along potential flight corridor(s) associated with each site are important considerations in the selection of a potential heliport location. The United States Airspace system is separated into two major categories: controlled and uncontrolled airspace. Controlled airspace consists of those areas designated as Class A through Class E airspace within which some or all aircraft may be subject to Air Traffic Control (ATC). Safety, user needs, and volume of flight operations are some of the factors considered in the designation of controlled airspace. Controlled airspace is supported by ground to air communications, navigation aids, and air traffic services. **Exhibit V-1** depicts the location of controlled airspace relative to the existing and potential flight corridors developed for each of the remaining candidate heliport sites. The potential flight corridors are shown to converge at a single rendezvous point from which Grand Canyon tours commence. The following sections describe each class of controlled airspace, followed by an analysis of the interaction between that airspace and the existing and potential flight corridors identified for the sites.

#### 5.2.1 Class A Airspace

Class A airspace extends from Flight Level 180 (approximately 18,000 feet mean sea level [MSL]) up to and including Flight Level 600 (approximately 60,000 feet MSL). All aircraft must operate under instrument flight rules (IFR) when in this airspace unless previous authorization for an exemption from this requirement has been obtained. Class A airspace overlies all of Clark County. Tour helicopters do not operate within Class A airspace or at a level above 18,000 feet MSL, and therefore, helicopters traveling to and from any of the candidate sites would operate below Class A airspace.

[Click here for Exhibit V-1](#)

### **5.2.2 Class B Airspace**

Class B Airspace is normally around the busiest airports in terms of aircraft traffic. Class B airspace is customized to contain the published instrument procedures for the specific airport(s) served. Clearance from ATC is required prior to entering Class B airspace. Applicable ATC aircraft separation rules are enforced for all aircraft operating within Class B airspace.

McCarran International Airport is served by Class B airspace. A portion of the lateral limits of the Class B airspace are depicted on Exhibit V-1. Lateral and vertical limits of the Class B airspace have been modified to allow independent visual flight rules (VFR) and IFR operations at Henderson Executive Airport, Boulder City Municipal Airport and Nellis Air Force Base. The Las Vegas Terminal Radar Approach Control (TRACON), McCarran Airport Traffic Control Tower (ATCT), and Nellis Radar Approach Control (RAPCON) all provide ATC services to aircraft operating within the Class B airspace. Helicopters traveling to and from many of the remaining candidate sites could operate below and/or outside Class B airspace.

### **5.2.3 Class C Airspace**

Class C airspace is the airspace from the surface to 4,000 feet above the airport elevation. Class C airspace will only be found at airports that have an operational control tower, are serviced by a radar approach control, and that have a certain number of IFR operations. There is no Class C airspace in the vicinity of the remaining candidate heliport sites.

### **5.2.4 Class D Airspace**

The airspace in the vicinity of an airport with an operational Airport Traffic Control Tower (ATCT) not classified as Class B or Class C airspace is designated as Class D airspace. The dimensions of this type of airspace are generally a five nautical mile radius laterally from the airport to 2,500 feet above ground level (AGL). The elevation of the Las Vegas Valley is approximately 2,000 feet above mean sea level (MSL).

North Las Vegas and Henderson Executive airports are both served by Class D airspace. As shown on Exhibit V-1, the boundary of the Class D airspace at North Las Vegas Airport is defined by an arc from southwest to northeast with a radius of five nautical miles and by the Class B airspace for McCarran International Airport southeast of the Airport. The North Las Vegas Class D airspace extends from the surface up to, but not including, 4,500 feet MSL. The boundary of Class D airspace at Henderson Executive Airport is defined by an arc from east to west with a radius of 4.1 nautical miles and by the Class B airspace north of the airfield. Henderson Executive Airport's Class D airspace extends from the surface up to, but not including 4,000 feet MSL.

### **5.2.5 Class E Airspace**

Class E airspace extends upward from either the surface or a designated altitude to the overlying or adjacent controlled airspace. Class E airspace ensures IFR aircraft remain in controlled airspace when approaching airports without Class D airspace.

Class E airspace serving Clark County begins at an elevation of 1,200 feet AGL unless otherwise designated. Class E airspace surrounding the remaining candidate heliport sites not beginning at 1,200 feet AGL is depicted on Exhibit V-I. As shown, Class E airspace required to contain instrument approach procedures for McCarran International Airport and North Las Vegas Airport begins at 700 feet AGL. Because tour helicopters normally operate at altitudes between 300 feet and 1,500 feet AGL, interaction with Class E airspace could occur.

### **5.2.6 Special Use Airspace**

Special Use Airspace (SUA) refers to designated airspace whose use is limited because of unique activities occurring on the surface or in the air. Such activities could include high performance aircraft testing and military flight training. Limitations on the use of SUA range from complete restriction of traffic that is not part of the activities occurring in the SUA to cautionary notes to pilots of aircraft passing through the area.

The mission of Nellis Air Force Base requires that some of the airspace overlying Clark County be designated as SUA, as depicted on Exhibit V-I.

As shown on Exhibit V-1, helicopters traveling to and from the remaining candidate heliport sites would operate south of Nellis's SUA. Thus, interaction with special use airspace would not be expected by tour helicopter flights operating into or out of any of the remaining candidate heliport sites and is not a limiting factor to the siting analysis.

### **5.2.7 Airspace in the Vicinity of the Potential Flight Corridors to the Grand Canyon**

As previously stated, tour helicopters flying between any of the remaining candidate sites and the rendezvous point would operate at an altitude range between 300 feet AGL and 1,500 feet AGL. Where possible, tour operators prefer to fly at higher altitudes to provide greater visibility for passengers and reduced noise impacts on underlying communities. Current tour helicopter flights operating out of McCarran International Airport typically cruise at an altitude of 500 feet AGL.

Potential penetration of controlled airspace by tour helicopter operations was considered during the secondary screening process. Controlled airspace, such as Class B airspace, is often congested, with large turboprop and jet aircraft operating to and from a major hub airport. To minimize the exposure of tour helicopter operations to congested airspace, it is preferable that a heliport site be selected such that operations into and out of the site do not occur within airspace having a high density of aircraft operations such as that typical of the McCarran International Airport's Class B airspace. Numerous VFR helicopter operations in controlled airspace may also create increased workload for air traffic controllers, who must provide separation between the helicopters and larger aircraft operating under IFR. The following paragraphs describe the airspace in the vicinity of the potential helicopter flight corridors between each remaining candidate heliport site and the designated rendezvous point, depicted in Exhibit V-1, and summarize the evaluation of each site in terms of potential for controlled airspace penetration.

#### **5.2.7.1 Henderson Executive Airport**

Henderson Executive Airport routinely serves a large volume of air tour operator traffic to and from the Grand Canyon area, as well as considerable general aviation activity operating under VFR. After a review of current and projected operations and procedures, and to enhance aviation safety, a Class D surface area, as described in Section 5.2.3 and shown on Exhibit V-1, was developed by the FAA for Henderson Executive Airport effective January 23, 2003<sup>1</sup>.

The CCDOA has identified two potential flight corridors between the Henderson Executive Airport candidate heliport site and the rendezvous point. The first potential flight corridor would take helicopters south of the airfield, within Class D airspace while at an altitude up to, but not including

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<sup>1</sup> Federal Register, Vol. 67, No. 187. [Airspace Docket No. 02-AWP-4] September 26, 2002.

4,000 feet MSL. Outside of Class D airspace, no additional penetration of controlled airspace would be expected between the candidate site and the rendezvous point since helicopter traffic would remain below the base elevation of controlled airspace in this area. In addition to arriving and departing within Class D airspace, helicopters flying along the second potential flight corridor between the candidate heliport site and the rendezvous point would penetrate Class B airspace northeast of Henderson Executive Airport. As noted, Class B airspace is characterized by high levels of operational activity and should preferably be avoided by commercial helicopter operators, if possible.

The proximity of the Henderson Executive Airport potential flight corridors to large volumes of aircraft activity, particularly in Class B airspace, renders this candidate site unfavorable on the basis of airspace penetration. However, helicopter flights cannot be restricted at Henderson Executive Airport.

#### **5.2.7.2 Jean Airport**

The Jean Airport site is located below and just south of the Las Vegas Class B airspace. As shown on Exhibit V-1, the CCDOA has identified three potential flight corridors for helicopters operating between the candidate site and the rendezvous point. Helicopters flying to the rendezvous point along the first potential flight corridor could travel below the floor elevation of Class B airspace, turning east over the GoKart/Sloan candidate heliport site. Depending on the terrain elevation and the specific route traveled along the corridor, helicopters operating along this corridor may enter the potentially active Class D airspace in the vicinity of Henderson Executive Airport. Outside of this Class D airspace, penetration of controlled airspace would not be expected.

The second potential flight corridor between the Jean Airport site and the rendezvous point is identical to the first potential corridor except that helicopters pass just south of the lateral limits of Henderson's Class D airspace. No penetration of controlled airspace would be expected along this potential flight corridor.

The entire length of the third potential flight corridor between the candidate heliport site and the rendezvous point lies below the floor elevation of the Class B airspace and clear of all other controlled airspace. Because potential flight corridors that do not penetrate controlled airspace have been identified, the candidate heliport site at Jean Airport is favorable based on the airspace criterion.

#### **5.2.7.3 Eldorado Valley/Boulder City**

The Eldorado Valley/Boulder City candidate heliport site is located below a sector of Las Vegas Class B airspace that begins at 6,000 feet MSL. Exhibit V-1 depicts the potential helicopter flight corridor between the site and the rendezvous point identified by the CCDOA. As shown, helicopter operations along the potential flight corridor would remain below Class B airspace and clear of other congested airspace. Since there is no penetration of controlled airspace, the Eldorado Valley/Boulder City site is considered a favorable candidate heliport location.

#### **5.2.7.4 GoKart/Sloan**

Exhibit V-1 depicts two potential helicopter flight corridors identified by the CCDOA between the GoKart/Sloan candidate heliport site and the rendezvous point. Helicopters traveling along the first potential flight corridor could enter Henderson Executive Airport's Class D airspace, depending on terrain elevation and the specific route traveled along that segment of the corridor.

The second potential flight corridor between the GoKart/Sloan site and the rendezvous point would lead helicopters just south of the Class D lateral boundary. Helicopter operations along this potential flight corridor would not penetrate controlled airspace. Given the potential for the GoKart/Sloan site to maintain operations clear of controlled airspace this candidate heliport site is retained for further screening.

### **5.3 Land Ownership**

The land in the vicinity of each remaining candidate heliport site was evaluated to determine whether the land ownership status would affect the development of the site into a heliport and/or the long-term expansion potential of the site for additional heliport-related facilities. A site surrounded by City, County, State or federally owned land is considered more desirable than a site surrounded primarily by privately held land due to the greater potential to restrict or control adjacent development (maintain land use compatibility) on publicly held land and also the potential to expand the heliport facilities through cost effective (i.e., low cost or no cost) land acquisition as needed. In most instances, the cost of acquiring privately held parcels would be more expensive relative to publicly held land. In addition, privately held land may not be available for purchase, other than through the use of eminent domain, which can be controversial, time consuming and costly. The following sections describe the land ownership patterns in the vicinity of each site and the results of the evaluation of the remaining sites based on land ownership patterns.

#### **5.3.1 Henderson Executive Airport**

Most of the vacant land on the north side and west side of Henderson Executive Airport is privately held. The federal government owns much of the vacant land to the south of the Airport. The few vacant parcels on the east side of the Airport are privately held and are located adjacent to residential land uses. Depending on the location of the proposed heliport facilities on the Airport, the adjacent land ownership status could limit the expansion potential.

#### **5.3.2 Jean Airport**

The land in the immediate vicinity of the Jean Airport candidate heliport site is primarily vacant land owned by the federal government. Therefore, based on the parameters identified in Section 5.3, the expansion potential (e.g., ease of land acquisition) of the proposed heliport facilities is considered favorable.

#### **5.3.3 Eldorado Valley/Boulder City**

The land to the east, west and south of the Eldorado Valley/Boulder City site is owned by the City of Boulder City. Adjacent parcels on the north side of the site are primarily privately held. Given the vast amount of publicly held land in the vicinity of the site, the expansion potential of the Eldorado Valley/Boulder City site is considered favorable.

#### **5.3.4 GoKart/Sloan**

The majority of the land adjacent to the GoKart/Sloan candidate heliport site is federally owned. The site is also located within the BLM disposal area, BLM land located throughout the Las Vegas Valley that is designated for sale based on recommendations made by local governments and the public. Therefore, if required, acquisition of federal land is anticipated to be relatively easy in this area. The expansion potential of the site is considered favorable from a land ownership perspective.

## 5.4 Terrain and Topography

Terrain and topography are important criteria in the siting of a heliport. Some of the remaining candidate heliport sites lie amid rugged, mountainous terrain, depicted on **Exhibit V-2**. Lake Mead and the Colorado River are located along the eastern boundary of the region. The highest terrain is to the west of the candidate heliport sites.

As specified in Chapter 4 of FAA Advisory Circular (AC) 150/5390-2A, *Heliport Design*, the maximum longitudinal gradient for touchdown and liftoff area (TLOF) serving helicopters is 0.5 percent. Therefore, reasonably level terrain, or terrain that can be graded without excessive costs, is desirable. Sites that include large areas with steep slopes (defined in this study as greater than a five percent slope) were eliminated from further consideration. **Exhibit V-3** depicts the slope of the land based on digital elevation data. The slope of each remaining candidate heliport site was analyzed.

The following paragraphs describe the terrain and topography of each remaining candidate heliport site. Because topography may vary within each individual site, a slope range (minimum to maximum) was determined for each remaining site, where applicable.

### 5.4.1 Henderson Executive Airport

The Henderson Executive Airport candidate heliport site is located in the Las Vegas Valley on flat terrain. The slope of the site ranges from zero percent to 0.73 percent. The slope value is well below the limit of five percent and thus, the Henderson Executive Airport site is favorable based on the terrain and topography criteria.

### 5.4.2 Jean Airport

The candidate heliport site located at Jean Airport is situated on relatively flat land with a constant slope of 0.78 percent. Mountainous terrain is located approximately one mile east of the site, but would not impact development of the site. On the basis of terrain and topography, the Jean Airport candidate site is favorable for heliport development.

### 5.4.3 Eldorado Valley/Boulder City

As shown on Exhibit V-2, the Eldorado Valley/Boulder City candidate heliport site is situated in the Eldorado Valley, at an elevation of approximately 1,800 feet above sea level. While some mountainous terrain exists northwest of the site, the slope of the site has a constant slope of zero percent. Therefore, in terms of the terrain and topography criterion, the Eldorado Valley/Boulder City candidate site is considered a suitable location for a potential Southern Nevada Regional Heliport.



[Click here for Exhibit V-2](#)

[Click here for Exhibit V-3](#)

#### **5.4.4 GoKart/Sloan**

The GoKart/Sloan candidate heliport site is located at the southern extent of the Las Vegas Valley. Mountainous terrain exists approximately one mile south of the site, as depicted on Exhibit V-2. As shown on Exhibit V-3, the slope of the site is constant at zero percent, making the GoKart/Sloan candidate site favorable for heliport development.

### **5.5 Community Issues**

While not a quantifiable evaluation criterion, community concerns regarding the location of a heliport are important to take into consideration in the site selection process. Through the course of this study, the CCDOA received correspondence from the community regarding the candidate heliport sites. In the majority of public comments, including e-mail communication, letters and forms, the major concerns were related to the proximity of certain candidate heliport sites and potential flight corridors to residential, recreational and environmentally sensitive areas. In one form or another, residents, agencies and organized groups opposed all of the remaining candidate sites. Until a specific site is designated by Clark County, the CCDOA will continue to consider public input into the site selection process for a non-urban heliport to serve the Southern Nevada Region. A full reproduction of correspondence received from the community with regards to this site selection process can be found in **Appendix B**, and will be an evolving Appendix as additional comments are received.

### 5.6 Secondary Screening Conclusions

Table V-1 presents the results of the secondary screening of the remaining five candidate heliport sites based on the identified screening criteria.

**Table V-1**  
Summary of Secondary Screening Analysis

Candidate Heliport Site	Secondary Screening Criterion				Expressed Community Support and/or Opposition
	Potential Flight Corridor Avoids Controlled Airspace	Adjacent Land Ownership Status Does Not Limit Expansion Potential	Relatively Level Terrain on the Site and in the Immediate Vicinity		
McCarran International Airport	NA	NA	NA		
Henderson Executive Airport					
Jean Airport					
Eldorado Valley/Boulder City					
GoKart/Sloan					

- Legend:
- Meets criteria
  - Could meet criteria
  - Meets criteria but unfavorable
  - Does not meet criteria
  - Support
  - Opposition

Source: Ricondo & Associates, Inc.  
Prepared by: Ricondo & Associates, Inc.

With the exception of the community interest criterion, Jean Airport, Eldorado Valley/Boulder City, and GoKart/Sloan meet three of the remaining candidate heliport sites meet all of the secondary screening criteria. The potential helicopter flight corridors for these sites are clear of controlled airspace in the Southern Nevada Region, adjacent land ownership does not limit the expansion potential of the site, and the site terrain and surrounding topography are relatively flat. Public opposition will be taken into consideration in the final selection process.

Although McCarran International Airport and Henderson Executive Airport sites did not satisfy each of the preliminary screening criteria, both airports accommodate helicopter operations. Section VI, Assessment of Feasible Sites, provides a qualitative evaluation of the Jean Airport, Eldorado Valley/Boulder City, and GoKart/Sloan sites in terms of operational capability, flight time considerations, potential noise associated with overflights, and federal and State sensitive lands.

## VI. Assessment of Feasible Sites

### 6.1 Introduction

This assessment provides an evaluation of the remaining feasible candidate sites for a Southern Nevada Regional Heliport, which include the Jean Airport site, the GoKart/Sloan site, and the Eldorado Valley/Boulder City site. In addition to these remaining feasible sites, this assessment evaluates McCarran International Airport and Henderson Executive Airport. As discussed throughout this document, under the Airport Noise and Capacity Act of 1990, 14 Code of Federal Regulations, Part 161, and current federal grant assurances, the CCDOA may not restrict helicopter operations at any of the airports that it owns and operates as public-use facilities.

This assessment evaluates each candidate heliport site with respect to the following:

- Operational capability
- Flight time considerations
- Potential noise associated with overflights
- Federal and State sensitive lands

### 6.2 Operational Capability

The purpose of this section is to assess the operational capability, specifically an assessment of airspace compatibility and imaginary surface and final approach/take off area (FATO) siting criteria, for the GoKart/Sloan and Eldorado Valley/Boulder City candidate heliport sites. Due to existing aircraft operations at McCarran International, Henderson Executive, and Jean Airports, these sites were not evaluated for operational capability.

The assessment of operational capability of the remaining sites which currently have no aviation related activity, or “greenfield” sites, is based on FAA Advisory Circular 150/5390-2A *Heliport Design*, Federal Aviation Regulations (FAR) Part 77 *Objects Effecting Navigable Airspace*, FAA Order 8260.42A *Helicopter Global Positioning System (GPS) Non-Precision Approach Criteria*, and data acquired via the Las Vegas TRACON, FAA digital obstruction file, aviation terminal and sectional charts as well as site visits.

According to FAA criteria, approach design for heliports sites should be based on the prevailing wind direction, crosswind component (a rotation of at least 150 degrees minimum), and clear approach and transitional surfaces. Actual prevailing wind data for the Eldorado Valley/Boulder City and GoKart/Sloan sites was not available. However, airport design criteria recommend that primary runways be oriented in a direction that provides wind coverage of 95 percent or greater. For purposes of planning for the Ivanpah Valley International Airport (IVP), the CCDOA has been gathering wind data using a wind monitor stationed at Jean Airport since January 2001. In performing an airspace study for IVP, data collected at Jean Airport were analyzed and compared to wind data from McCarran International Airport. The goal has been to determine how the terrain surrounding the two collection points (Jean and McCarran International Airports) affected the wind direction. When comparing days where wind speeds were in excess of 10.5 knots, it was found that there is a significant degree (over 80%) of similarity between the two airports. This would seem to indicate that the 10-year McCarran International Airport wind data would be acceptable for the early

planning stages of a non-urban heliport at the Jean Airport and GoKart/Sloan candidate sites. It is also reasonable to assume that the prevailing wind at Boulder City Airport would be the prevailing wind at the Eldorado Valley/Boulder City candidate site since they are less than 4NM apart with no significant terrain between them.

The heliport approach surface for each landing area at a heliport is defined in FAR Part 77 as that area beginning at the end of the take off and landing area with the same width, extending outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface rises at a rate of 8:1 (8 feet horizontal = 1 foot vertical). The heliport transitional surface as defined in FAR Part 77 extends outward and upward from the lateral boundaries of the heliport FATO area and from the heliport approach surfaces for a distance of 250 feet from the centerline of the approach surface. The slope of this surface is 2:1.

Operations at the Southern Nevada Regional Heliport would be based on visual flight rules (VFR) criteria. In the event that an instrument flight rules (IFR) approach is desired in future, general intermediate, final and missed approach design criteria as specified in FAA Order 8260.42A *Helicopter Global Positioning System Non Precision Approach Criteria* has been considered in the assessment of each approach landing area orientation.

Each of the two greenfield candidate sites have unique terrain features and physical structures dictating the placement and orientation of the approach paths. The following sections provide a description of the unique features of each site and the reasoning behind the approach path geometry.

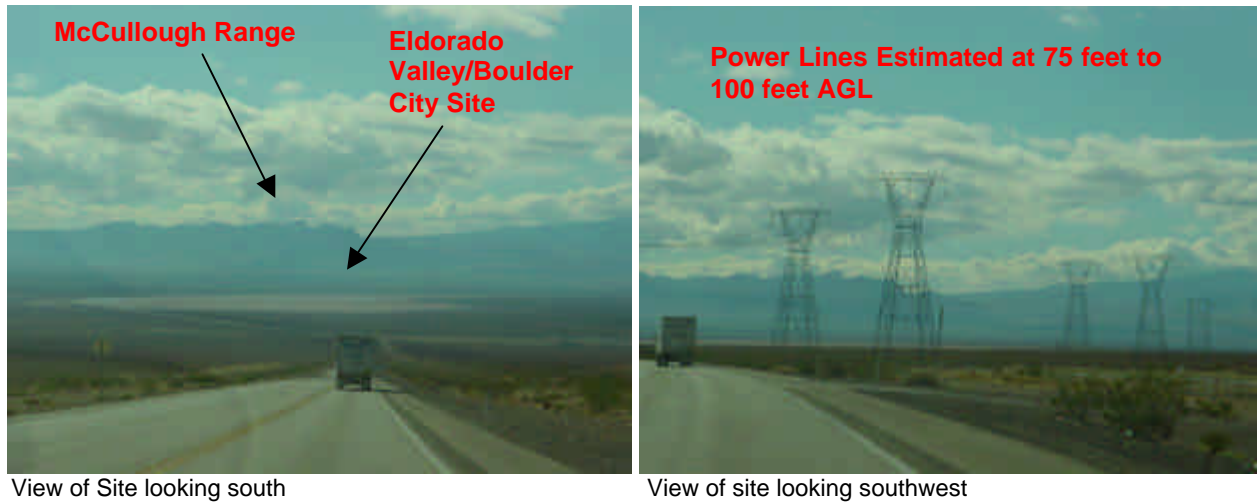
### **6.2.1 Eldorado Valley/Boulder City**

The Eldorado Valley/Boulder City candidate heliport site is located approximately 3.5 nautical miles (NM) southwest of the Boulder City Airport west of US Highway 95. There are three runways at the Boulder City Airport, Runway 9R-27L, Runway 9L-27R, and Runway 15-33. Based on the runway orientations, it is assumed that the prevailing wind in the area is from the west or northwest. The site is located in a flat area at approximately 1,800 feet mean sea level (MSL). The terrain to the north, east and south is relatively flat. As shown on **Exhibit VI-1** the terrain to the southwest, west and northwest is relatively flat for approximately 2 NM at which point the terrain rises into the McCullough Mountain Range.

The site is undeveloped and clear of structures, however there are several high voltage power lines located to the north and the south of the property. These power lines are estimated to be 75 to 100 feet above the ground, as shown on Exhibit VI-1.

**Exhibit VI-1**

## Eldorado Valley/Boulder City Candidate Site



Source: ASRC, Inc., November 2003  
 Prepared by: Ricondo & Associates, Inc.

**Exhibit VI-2** depicts the preliminary design of the approach and landing areas for the Eldorado/Boulder City heliport site. The approach surfaces for each of these landing areas are clear of the power lines, allowing for the recommended crosswind component, minimizing the amount of obstruction lighting recommended, and providing for a safe visual approach.

The potential for an instrument approach associated with VFR operations would be difficult to implement from the west due to terrain of the McCullough Range. However, there is ample open airspace to accommodate the optimum design for an instrument approach from the south to the northeast and from the north to the southwest. The minimum descent altitude for a GPS approach is 250 feet above the tallest obstacle along the final approach. It is likely that the power lines in the vicinity of the heliport site would dictate the minimums of the approach.

The majority of the departures and arrivals between the heliport site and the rendezvous point would be to the north and east of the heliport site. The Boulder City Airport and a skydiving drop zone are located between the candidate heliport site and the rendezvous point. There is also a sky dive drop zone located approximately two miles south of the site. For safety purposes, it is recommended that operations be coordinated with general aviation traffic at Boulder City Airport and parachute jump zone operations in the vicinity of the heliport.

The Eldorado Valley/Boulder City candidate site would be operationally capable of accommodating the Southern Nevada Regional Heliport.

[Click here for Exhibit VI-2](#)



### 6.2.2 GoKart/Sloan

The GoKart/Sloan site is located approximately 4.5 NM southwest of Henderson Executive Airport, east of Interstate 15, and roughly 13 NM northeast of Jean Airport. There are two runways at the Henderson Executive Airport, Runway 17L-35R and Runway 17R-35L. Based on runway orientations, it is assumed that the prevailing wind for the GoKart/Sloan heliport site is from the north and south.

As depicted on **Exhibit VI-3** the candidate heliport site is located in an area of sloping terrain at approximately 2,800 feet MSL. The terrain to the north slopes downward to an elevation of approximately 2,700 feet MSL one mile from the site. The terrain to the east, south and west rises from 2,800 feet up to 3,500 feet within a radius of 3 NM of the site.

#### Exhibit VI-3

##### GoKart/Sloan Candidate Site



View of Site looking south



View of site looking southwest

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Source: ASRC, Inc., November 2003  
Prepared by: Ricondo & Associates, Inc.

The GoKart/Sloan candidate site is somewhat developed and has several structures in its vicinity including go-kart facility, power lines, telephone lines, and billboards that run along Interstate 15. The most critical structures in the area are the billboards estimated to be 50 feet AGL.

**Exhibit VI-4** depicts the preliminary design of the approach and landing areas for the GoKart/Sloan candidate site. The approach surfaces for each of these landing areas are clear of the power lines and billboards, minimize the amount of obstruction lighting recommended and provide for a safe visual approach. The alignments provide 103-degree crosswind coverage, opposed to the recommended 150-degree coverage.

The majority of the departures and arrivals would be to/from the east of the heliport to/from the rendezvous point. Henderson Executive Airport is located in between the heliport site and the rendezvous point. Departing and arriving aircraft would transition through or remain south of the Henderson Class D airspace.

[Click here for Exhibit VI-4](#)

The GoKart/Sloan candidate site would be operationally capable of accommodating the Southern Nevada Regional Heliport.

### 6.3 Flight Time Considerations

Given the time-sensitive nature of the tour industry and the potential impact on operator fuel costs, flight time is an important consideration for the selection of a Southern Nevada Regional Heliport site. Roundtrip flight times were calculated between each remaining candidate site and the designated rendezvous point, and are presented in **Table VI-1**. These calculations were based on an average arrival/departure speeds of 80 nautical miles per hour (knots) and average cruising speed of 100 knots along the proposed flight corridors depicted in Exhibit V-1. The existing flight corridor from the McCarran International Airport site to the rendezvous point was also included in this analysis.

As shown, the time required to travel roundtrip between McCarran International Airport and the rendezvous point is approximately 39 minutes. Travel time between Henderson Executive Airport and the rendezvous point ranges from approximately 39 minutes to 48 minutes roundtrip, depending on which proposed flight corridor is utilized.

Roundtrip travel time would be longest between the Jean Airport candidate heliport site and the rendezvous point, ranging from 51 minutes to approximately 52 minutes. Again, estimated roundtrip flight time would vary based on the chosen potential flight corridor. In comparison, roundtrip flight time between the Eldorado Valley/Boulder City candidate site and the rendezvous point would be the shortest, totaling approximately 24 minutes. Roundtrip flight time between the GoKart/Sloan candidate site and the rendezvous point is estimated at approximately 40-41 minutes, depending on which potential flight corridor is utilized.

**Table VI-1****Estimated Roundtrip Flight Time**

Candidate Heliport Site	Roundtrip Distance <sup>a</sup> (nautical miles)			Time <sup>d</sup> (minutes)		
	Climb/Descent <sup>b</sup>	Cruise <sup>c</sup>	Total	Climb/Descent	Cruise	Total
McCarran International Airport	2.0	61.7	63.7	2	37	38
Henderson Executive Airport						
Potential Flight Corridor #1	2.0	62.6	64.6	2	38	39
Potential Flight Corridor #2	2.0	77.8	79.8	2	47	48
Jean Airport						
Potential Flight Corridor #1	2.0	84.7	86.7	2	51	52
Potential Flight Corridor #2	2.0	83.6	85.6	2	50	52
Potential Flight Corridor #3	2.0	82.5	84.5	2	50	51
Eldorado Valley/Boulder City	2.0	36.8	38.8	2	22	24
GoKart/Sloan						
Potential Flight Corridor #1	2.0	63.5	65.5	2	38	40
Potential Flight Corridor #2	2.0	65.6	67.6	2	39	41

- a. Roundtrip distance (in nautical miles) between the candidate heliport site and the designated rendezvous point.  
b. A speed of 80 knots is applied to two nautical miles of the roundtrip: one mile for climbing to cruising altitude and one mile for approach.  
c. Cruising speed equals 100 knots.  
d. Climb/Descent and Cruise times may not equal Total due to rounding.

Source: Ricondo & Associates, Inc., based on data provided by the Clark County Department of Aviation.  
Prepared by: Ricondo & Associates, Inc.

## 6.4 Potential Noise Associated with Overflights

The noise level metric used in this analysis is the day-night average sound level (DNL), which is the average sound pressure level in A-weighted decibels (dBA) for an average day of the year<sup>1</sup>. DNL is calculated using the sound energy generated by individual aircraft operations (arrivals or departures), the number of operations occurring during a theoretical average 24-hour period, and the time of day in which the operations occur. A 10-decibel penalty is added for aircraft operations occurring during nighttime hours (between 10:00 p.m. and 6:59 a.m.). With the penalty, each operation during the nighttime hours is equivalent to 10 operations of the same aircraft during daytime hours (between 7:00 a.m. and 9:59 p.m.). Previous helicopter noise modeling studies conducted by the CCDOA identify a one-third mile “buffer” from helicopter flight corridors as representative of approximately 45 DNL<sup>2</sup>.

Noise exposure from helicopters was evaluated through an analysis of total residential housing units effected by helicopter operations into and out of the remaining candidate heliport sites. The

<sup>1</sup> A-weighted sound pressure level is a frequency-weighted sound level that correlates with the way sound is heard by the human ear.

<sup>2</sup> The identification of a one-third mile buffer as representative of approximately 45 DNL was based on information provided in the report *Helicopter Noise Study, McCarran International Airport*, dated October 2000 by Brown-Buntin Associates.

residential housing units located within one mile of each remaining site was considered to be potentially effected by helicopter operations at that site, and discussed in detail in Section 4.2. In addition, the residential housing units within one-third of a mile from the centerline of the potential flight corridors between each remaining candidate heliport site and the rendezvous point, representing a noise exposure level of approximately 45 DNL, was considered to be potentially effected by helicopter overflights.

Existing housing unit estimates were based on recent Clark County Assessor's Office data. Future housing unit estimates were calculated by the City of Henderson. The results of this analysis are presented in **Table VI-2**. **Exhibits VI-5** through **VI-9** depict the potential flight corridors to and from the candidate sites and associated potential flights over residential housing units.

**Table VI-2**

## Population Effected by Helicopter Overflights

Candidate Heliport Site	Existing Housing Units Within 1 Mile of Candidate Heliport Site <sup>a</sup>	Existing Housing Units Within 1/3 Mile of Potential Flight Corridor <sup>a</sup>	Future Housing Units Within 1 Mile of Candidate Heliport Site and 1/3 Mile of Potential Flight Corridor <sup>b</sup>	Total Effected Housing Units (Existing and Future)
McCarran International Airport	9,406	40,264	N/A	49,670
Henderson Executive Airport	4,199			4,199
Proposed Flight Corridor #1		6	N/A	6
Proposed Flight Corridor #2		14,230	16,953	31,183
Jean Airport	0			0
Proposed Flight Corridor #1		0	N/A	0
Proposed Flight Corridor #2		0	N/A	0
Proposed Flight Corridor #3		0	N/A	0
Eldorado Valley/Boulder City	0	0	N/A	0
GoKart/Sloan	0			0
Proposed Flight Corridor #1		0	8,605	8,605
Proposed Flight Corridor #2		0	453	453

a. Existing housing unit data was calculated by the CCDOA.

b. Future housing unit data was calculated by the City of Henderson. Future housing unit quantities were isolated from total housing unit quantities (existing and future) to avoid double counting.

Source: Clark County Department of Aviation  
Prepared by: Ricondo & Associates, Inc.

As shown, helicopters operating at McCarran International Airport currently impact approximately 9,400 housing units in the vicinity of the site itself, as well as over 40,000 housing units under the existing flight corridors. Helicopters operating at Henderson Executive Airport could potentially impact approximately 4,200 – 35,400 housing units, depending on which of the two proposed flight corridors is utilized. There is no anticipated effect on existing housing units from helicopter operations at the Jean Airport, Eldorado Valley/Boulder City, or GoKart/Sloan candidate sites.

[Click here for Exhibit VI-5](#)

[Click here for Exhibit VI-6](#)

[Click here for Exhibit VI-7](#)



[Click here for Exhibit VI-8](#)

[Click here for Exhibit VI-9](#)

There is a potential to impact approximately 450 – 8,600 future housing units, depending upon which of the two potential flight corridors are utilized from the GoKart/Sloan candidate site. Impacts on future housing units were not calculated for McCarran International Airport or the Jean Airport and Eldorado Valley/Boulder City candidate sites.

## 6.5 Federal and State Sensitive Lands

This section discusses the potential impact on federal and State sensitive lands in the vicinity of the remaining heliport sites, and beneath each site's potential flight corridor(s).

**Exhibit VI-10** depicts federal and State lands deemed sensitive, including the Lake Mead National Recreation Area, the Red Rock Canyon National Conservation Area, the Sloan Canyon National Conservation Area, the Sunrise Mountain Natural Area, and the North McCullough Wilderness Area, as well as potential flight corridors associated with the remaining candidate heliport sites, as introduced in Section 5.2.

As shown, none of the remaining candidate heliport sites are located on federal or State protected lands. However, existing and potential flight corridors from these sites to the rendezvous point would cause overflights of some environmentally sensitive areas. Overflights of the Lake Mead National Recreation Area would occur from helicopters based at any of the candidate sites in a manner consistent with current commercial helicopter operations. In addition, helicopters operating from the GoKart/Sloan candidate site would overfly a portion of the Sloan Canyon National Conservation Area and the North McCullough Wilderness Area. Exhibit VI-10 shows that overflights of these same areas could also occur from helicopters operating out the Henderson Executive Airport and Jean Airport candidate sites, depending on which potential flight corridors are utilized.

The Sunrise Mountain Natural Area is State-owned land located north of all candidate heliport sites. As shown on Exhibit VI-10, the southern portion of this area experiences overflights by helicopters operating along the existing flight corridor from the rendezvous point to McCarran International Airport. Additionally, current helicopter operations from McCarran international Airport overfly the Lake Mead Natural Recreation Area.

[Click here for Exhibit VI-10](#)

## 6.6 Conclusion

A summary of site comparisons for the feasible candidate heliport sites, as well as McCarran International Airport and Henderson Executive Airport, is depicted in **Table VI-3**.

The Site Suitability Assessment for a Southern Nevada Regional Heliport concludes that while the Jean Airport and Eldorado Valley/Boulder City candidate sites are suitable for heliport development, the GoKart/Sloan site would best accommodate the Heliport. This conclusion is based on the information presented in this report, most notably the evaluation summary presented in Table VI-3 and the balance of operational feasibility, such as flight time considerations presented in Table VI-1, and convenience to the customer base, including consideration for driving times to and from candidate sites discussed in Section IV.

Upon identification of a preferred site by the Clark County Board of County Commissioners, the CCDOA plans to conduct more detailed studies of the preferred site, including airspace, site planning, and detailed facility planning studies. In addition, the development of a Southern Nevada Regional Heliport may be subject to environmental study in accordance with FAA Order 5050.4A, *Airport Environmental Handbook*, in which case it is anticipated that the other two suitable sites would be evaluated as project alternatives.

The conclusion of this study is based on preliminary information and more detailed studies, if pursued, could assess additional implications of the candidate sites. The CCDOA has initiated a financial feasibility assessment for the final candidate heliport sites. This study will evaluate the potential economic benefits associated with a heliport at each of the final candidate sites and assist the CCDOA in its final site selection process.

**Table VI-3**

Summary of Site Comparisons

Candidate Heliport Site	Evaluation Category				
	Operational Capability	Flight Time Considerations <sup>a</sup>	Existing Noise Associated with Overflights <sup>b</sup>	Future Noise Associated with Overflights <sup>b</sup>	Federal and State Sensitive Lands
McCarran International Airport	Existing airfield operationally capable	39 minutes	49,670 housing units	N/A	Existing overflights of protected areas
Henderson Executive Airport	Existing airfield operationally capable	39-48 minutes	0 housing units	Up to 31,183 housing units	Potential overflights of protected areas
Jean Airport	Existing airfield operationally capable	51-52 minutes	0 housing units	N/A	Potential overflights of protected areas
Eldorado Valley/Boulder City	Capable of accommodating helicopter operations	24 minutes	0 housing units	N/A	Potential overflights of protected areas
GoKart/Sloan	Capable of accommodating helicopter operations	40-41 minutes	0 housing units	Up to 8,605 housing units	Potential overflights of protected areas

- a. Total flight time is roundtrip time between the candidate heliport site and the designated rendezvous point.
- b. Includes housing units within one-mile radius of site locations and under 1/3 mile buffer of potential flight corridors, where provided.

Source: Ricondo & Associates, Inc.  
 Prepared by: Ricondo & Associates, Inc.

# Appendix A

Joint Sponsor: Senator Coffin

CHAPTER.....

AN ACT relating to aeronautics; requiring the board of county commissioners of certain larger counties to designate a preferred airport or other preferred facility for the takeoff and landing of certain commercial helicopters, to make recommendations regarding noise-reducing technological modifications and other measures and to submit to the Federal Aviation Administration certain suggestions regarding new and alternative flight paths for such helicopters; establishing a program for the temporary exemption from personal property taxation of certain commercial helicopters that use the designated preferred airport or other preferred facility or comply substantially with the recommendations relating to noise reduction; establishing a temporary moratorium on the construction or operation of new heliports; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

**Section 1.** Chapter 495 of NRS is hereby amended by adding thereto the provisions set forth as sections 2, 3 and 4 of this act.

**Sec. 2.** *As used in sections 2, 3 and 4 of this act, unless the context otherwise requires, "commercial helicopter" means a rotary-wing aircraft that is operated by a person in the course of conducting a business for which a business license is required pursuant to NRS 364A.130. The term does not include a rotary-wing aircraft that is operated:*

*1. As an air ambulance, as that term is defined in NRS 450B.030;*

*2. By or in cooperation with a law enforcement agency, fire-fighting agency or other governmental agency for purposes related to the protection of public health and safety;*

*3. By a radio station or television station; or*

*4. By or in cooperation with the military or naval forces of this state or of the United States.*

**Sec. 3.** *1. The board of county commissioners of each county whose population is 400,000 or more shall:*

*(a) In consultation with affected local governmental entities, designate a preferred airport or other preferred facility for the takeoff and landing of commercial helicopters.*



*(b) In consultation with the advisory committee on aircraft noise described in NRS 244.414 or such other committee or advisory body as may be established by the county, recommend technological modifications and other measures that may be taken by the owners of commercial helicopters to reduce the noise that is emitted and generated by such helicopters.*

*(c) Submit to the Federal Aviation Administration suggestions that the Administration may consider for new and alternative flight paths for commercial helicopters to eliminate or minimize the flight of such helicopters over residential areas.*

*2. The preferred airport or other preferred facility designated pursuant to paragraph (a) of subsection 1:*

*(a) Must not be the largest airport that is located within the county;*

*(b) Must not be located within a residential area; and*

*(c) Must be selected, insofar as is practicable, on the basis that its location will reduce:*

*(1) The overall impact on the county and on the residents of the county of noise that is emitted and generated by commercial helicopters; and*

*(2) The risk of danger to the residents of the county related to helicopter traffic.*

*3. As used in this section, "residential area" means land that is:*

*(a) Being used primarily for one- or two-family dwellings or apartments; and*

*(b) Located adjacent to or near other residentially used land.*

*Sec. 4. 1. The board of county commissioners of each county whose population is 400,000 or more shall develop a program pursuant to which, if a commercial helicopter:*

*(a) Uses the preferred airport or other preferred facility designated pursuant to paragraph (a) of subsection 1 of section 3 of this act; or*

*(b) Complies substantially with the technological modifications and other measures that are recommended pursuant to paragraph (b) of subsection 1 of section 3 of this act, the owner of the commercial helicopter is thereby eligible to receive an exemption from the personal property tax which would otherwise be attributable to and due for that helicopter pursuant to chapter 361 of NRS.*

*2. The program developed pursuant to subsection 1:*

*(a) Must be developed in cooperation with the county assessor of the county;*

*(b) Must not allow the tax exemption described in that subsection until the fiscal year beginning on July 1, 2004;*

*(c) Must, with respect to the portion of the program which relates to the use by commercial helicopters of the preferred airport or other preferred facility, set forth minimum thresholds, measured in number of days or by a percentage of takeoffs and landings, for the usage of the preferred airport or other preferred facility by a commercial helicopter before the owner of that helicopter is eligible to receive the tax exemption described in subsection 1;*

*(d) Must, if an owner of a commercial helicopter desires to receive the tax exemption for using the preferred airport or other preferred facility, as described in paragraph (a) of that subsection, require the owner to, on an annual basis:*

*(1) Reapply for the exemption; and*

*(2) Provide proof that the commercial helicopter is using the preferred airport or other preferred facility in accordance with the thresholds established pursuant to paragraph (c); and*

*(e) Must, if an owner of a commercial helicopter desires to receive the tax exemption for complying substantially with the technological modifications and other measures, as described in paragraph (b) of that subsection, require the owner to, on an annual basis:*

*(1) Reapply for the exemption; and*

*(2) Provide proof of substantial compliance with the technological modifications and other measures that are recommended pursuant to paragraph (b) of subsection 1 of section 3 of this act.*

**Sec. 5.** NRS 361.067 is hereby amended to read as follows:

361.067 ~~[All vehicles, as defined in NRS 371.020.]~~ *The following vehicles* are exempt from taxation under the provisions of this chapter ~~§~~:

*1. All vehicles, as defined in NRS 371.020, except mobile homes which constitute "real estate" or "real property."*

*2. Commercial helicopters meeting the requirements of the program established pursuant to section 4 of this act.*

**Sec. 6.** 1. Except as otherwise provided in subsection 2, the board of county commissioners of a county whose population is 400,000 or more, and any other governmental entity within such a county, shall not, during the period commencing on July 1, 2003, and ending on June 30, 2005:

(a) Authorize the construction or operation of a heliport that was not in existence on July 1, 2003; or

(b) Approve or issue any land use permit, the effect of which approval or issuance would be to authorize the construction or operation of a heliport that was not in existence on July 1, 2003.

2. The provisions of subsection 1 do not apply to the extent that those provisions:

- (a) Are preempted or prohibited by federal law;
- (b) Violate a condition to the receipt of federal money by this state or a political subdivision of this state; or
- (c) Preclude the construction or operation of a heliport which is part of the preferred airport or other preferred facility designated pursuant to paragraph (a) of subsection 1 of section 3 of this act.

3. As used in this section:

(a) "Helicopter" includes:

- (1) A rotary-wing aircraft; and
- (2) A steep-gradient aircraft that is capable of hovering.

(b) "Helipad" means a temporary structure that is not designed for permanent use and is built on the ground to enable a helicopter to land safely.

(c) "Heliport" means any area used or intended to be used for the takeoff or landing of helicopters. The term includes, without limitation:

(1) Any and all areas and buildings that are associated with and necessary to the operation of the heliport; and

(2) A helipad.

(d) "Land use permit" means a building permit, a change in land use, a change in zoning, a conditional use permit, a special use permit, a waiver or a variance.

**Sec. 7.** A board of county commissioners shall, on or before January 1, 2004:

1. Make the designation required pursuant to paragraph (a) of subsection 1 of section 3 of this act; and

2. Establish the guidelines for noise described in paragraph (b) of subsection 1 of section 3 of this act.

**Sec. 8.** 1. This act becomes effective on July 1, 2003.

2. Section 6 of this act expires by limitation on June 30, 2005.

3. Sections 1 to 5, inclusive, and 7 of this act expire by limitation on June 30, 2007.

# Appendix B

**PUBLIC COMMENTS COMPILED AND MAINTAINED BY THE CCDOA**



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