



# LEGEND

- |  |   |  |   |
|--|---|--|---|
|  | Airport Property                                |  | Medium Density Residential (3.1-10 du/ac) |
|  | Municipal Boundaries                            |  | High Density Residential (10.1+ du/ac)    |
|  | Extra-territorial Jurisdiction                  |  | Floodplains                               |
|  | Railroad Tracks                                 |  | Noise Sensitive                           |
|  | Study Area                                      |  | School                                    |
|  | 2007 Noise Exposure Contour, Marginal Effect    |  | Planned School                            |
|  | 2007 Noise Exposure Contour, Significant Effect |  | Library                                   |
|  | Low Density Residential (0-3 du/ac)             |  | Historic Structures                       |
|  |   |  | Places of Worship                         |
|  |   |  | Potential Growth Risk                     |

Source: Base Information and Map:  
City of Lincoln Geographic  
Information System, May 2002.  
Coffman Associates Analysis.



0 4000  
SCALE IN FEET

Lincoln Airport

west of the airport as this land is either currently undeveloped or at risk of in-fill development. **Table 3D** presents a

breakdown of the potential growth within each noise contour.

<b>TABLE 3D</b> <b>Noise-Sensitive Land Uses Exposed to 2007 Aircraft Noise</b> <b>Lincoln Airport</b>					
	Noise Contour (DNL)				
LAND USE	60-65	65-70	70-75	75+	Total
<i>DWELLING UNITS</i>					
Existing Dwelling Units	517	10	0	0	527
Future Potential Dwelling Units	<u>1,830</u>	<u>9</u>	<u>1</u>	<u>0</u>	<u>1,840</u>
<b>Total Dwelling Units</b>	<b>2,347</b>	<b>19</b>	<b>1</b>	<b>0</b>	<b>2,367</b>
<i>NOISE-SENSITIVE INSTITUTIONS</i>					
Places of Worship	0	0	0	0	0
Schools	0	0	0	0	0
Other (Library, Museum, Etc.)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Total Noise-Sensitive Institutions</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<i>HISTORIC RESOURCES</i>					
<b>Total Historic Resources</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## POPULATION EXPOSED TO 2007 NOISE

The future population impacts parallel the patterns observed for land use impacts. The population increases from 1,022 in 2002 to 1,220 in 2007, which corresponds to an increase in the LWP value from 219 to 259. **Table 3E** depicts the impact of 2007 noise on the existing local population.

The majority of the affected population, 1,220 people, continues to reside within the 60 to 65 DNL noise contour. Within the 65 to 70 DNL contour 24 people

reside. There are no residents affected by noise greater than 70 DNL.

**Table 3E** also provides an estimate of the number of potential, additional residents which may be impacted by 2007 aircraft noise. Approximately 4,342 additional residents could be exposed to noise above 60 DNL for a total of 5,586 existing and potential population impacts. Of these impacts, 5,538 will fall within the 60 to 65 DNL noise contour. The remaining population impacts occur in the 65 to 70 (46) and the 70 to 75 (2) noise contours.

**TABLE 3E**  
**Population Exposed to 2007 Aircraft Noise**  
**Lincoln Airport**

	Noise Contour (DNL)				Total Above 60 DNL		Total Above 65 DNL	
	60-65	65-70	70-75	75+	Residents	LWP	Residents	LWP
Existing Population	1,220	24	0	0	1,244	259	24	9
Potential Population	<u>4,318</u>	<u>22</u>	<u>2</u>	<u>0</u>	<u>4,342</u>	<u>895</u>	<u>22</u>	<u>9</u>
<b>Total Population</b>	<b>5,538</b>	<b>46</b>	<b>2</b>	<b>0</b>	<b>5,586</b>	<b>1,154</b>	<b>46</b>	<b>18</b>

Notes: LWP = Level-weighted population; an estimate of the number of people actually annoyed by aircraft noise. It is derived by multiplying the population in each DNL contour range by the appropriate LWP response factor. The factors used are as follows: 0.205 for 60-65 DNL, 0.376 for 65-70 DNL, 0.644 for 70-75 DNL, and 1.000 for 75+ DNL.

Source: Coffman Associates analysis.

## 2022 NOISE EXPOSURE

This section describes the exposure of existing and potential land uses and population to aircraft noise in 2022.

### LAND USES EXPOSED TO 2022 NOISE

**Exhibit 3G** illustrates the forecast 2022 noise contours together with both existing and potential future noise-sensitive land uses within the study area.

### Contour Descriptions

Even with a forecasted increase in airport operations, the 2022 noise contours are significantly smaller than the 2002 and 2007 contours in all areas other than the area on the east side of the airport where run-up operations are performed. This is primarily due to the phasing out of louder aircraft and the introduction of quieter, more efficient aircraft.

The 60 DNL contour is similar in size and shape to the 2002 and 2007 65 DNL noise contour, extending 6,800 feet off airport property to the north and 8,500 feet to the south.

The 65 DNL contour extends only 500 feet off airport property to the north and 3,000 feet to the south. The 70 and 75 DNL contours are contained entirely within airport property.

### Land Use Impacts

Noise-sensitive land uses potentially impacted by noise in 2022 are presented in **Table 3F**. The number of impacts decreases dramatically when compared to the 2002 and 2007 impacts due to the reduction of louder Stage II business jets and older generation military aircraft. The greatest number of impacts are realized southeast and south of the airport.

The total number of dwelling units affected by noise above 60 DNL in 2022 decreases to 63 total units, consisting of