

## 5.8 MITIGATION

### 5.8.1 Mitigation Measures

Mitigation measures include actions of three types: avoidance, minimization, and compensation. The following sections summarize the impacts created by the Proposed Action, and potential mitigation measures that would reduce or compensate for those impacts. All mitigation commitments are made by the Rhode Island Airport Corporation (RIAC) irrespective of available Federal funding assistance.

#### **Noise and Land Use**

As indicated in Section 5.1, *Noise*, and 5.2, *Land Use*, there are significant noise increases (1.5 decibels or higher) occurring from the implementation of at least one alternative presented in this document. In Alternative 2, there were significant increases of noise in certain areas when compared to Alternative 1, the No-Build/No-Action Alternative. In Alternative 3, however, there would be no “significant” (1.5 decibels or greater) noise level increases when compared to Alternative 1, the No-Build/No-Action Alternative. However, the change in the noise contours did impact some residences that were previously outside the 65+ DNL noise contour levels under the no-action scenarios. This was explained previously in Section 5.2, *Land Use*, see also Table 5.2-7, and Exhibit 5.1-15. This change, or shift in the noise contours, occurred from implementing the Noise Compatibility Program (NCP) air traffic measures and redirecting a portion of the flights to the Severe Weather Alternative Procedure (SWAP) route which takes those aircraft south southeast of the airport as opposed to northwest to the Putnam area. There would be impacted residences remaining within the 65 DNL and greater noise contours of Alternative 3, and mitigation would be provided through the Noise Compatibility Program (NCP) Update. Mitigation is explained in the following paragraphs.

The update of the NCP was done primarily because of the growth in enplanements and operations that was occurring. It was determined that although noise impacts would be minimized overall, a shift in the noise contours would result from implementation of the Proposed Action. This led to a shift in the impacted areas when compared to the No-Action alternative.

Noise and land use mitigation would be accomplished in accordance with the recommendations of the 1999 NCP Update.<sup>1</sup> The air traffic measures from the Proposed Action represent the best noise mitigation efforts that can be achieved. Those measures were discussed previously in this document.

There are land use mitigation measures from the 1999 NCP Update that range from the acquisition of over 200 residences to the sound insulation of 830 single-family homes within the noise contours. There are also measures that recommend fair disclosure policies, updates of comprehensive land use plans, and amending the state of Rhode Island building code. The land use measures recommended for the NCP are shown in **Table 5.8-1**.

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<sup>1</sup> T.F. Green Airport NCP Update, Final, August 1999, prepared by Landrum & Brown, Incorporated.

**Table 5.8-1**  
**NCP LAND USE MITIGATION MEASURES**  
**T.F. Green Airport**

<ol style="list-style-type: none"> <li>1. <b>(Preventive)</b> Amend the state of Rhode Island building code to require that new construction and major additions within or immediately adjacent to the 2003 Noise Exposure Map, based on the 65 DNL noise contour of the 2003 NCP, meet an interior noise standard through the use of sound insulation techniques. <i>Continuation and Modification of Approved Measure.</i></li> <li>2. <b>(Corrective)</b> Modify previous measure to provide for the voluntary acquisition of over 200 residential structures located within or adjacent to the 70 DNL noise contour of the 2003 NCP. <i>Continuation and Modification of Approved Measure.</i></li> <li>3. <b>(Corrective)</b> Sound insulate all schools within the 65 DNL of the 1986 NCP. <i>Completed.</i></li> <li>4. <b>(Corrective)</b> Provide sound insulation for approximately 830 single-family homes, on a voluntary basis, within the 2003 Noise Exposure Map, based on the 65 DNL contour of the 2003 NCP. <i>Continuation and Modification of Approved Measure. Addresses the shift in 65 DNL from air traffic noise abatement procedures.</i></li> <li>5. <b>(Preventive)</b> Implement a formal Fair Disclosure Policy whereby the state of Rhode Island amends the Fair Disclosure Policy legislation to require formal disclosure of noise levels on residential property located within a 65 DNL noise contour and is supplemented by information on aircraft noise levels distributed by airport staff within the community and among the citizens, neighborhood associations, developers, real estate agencies, and lenders. <i>New Measure.</i></li> <li>6. <b>(Preventive)</b> The city of Warwick's Comprehensive Plan should be updated to address airport influence on the surrounding community; and where appropriate to encourage compatible land uses within the 2003 Noise Exposure Map boundary, based on the 65 DNL noise contour of the 2003 NCP. <i>New Measure.</i></li> <li>7. <b>(Corrective)</b> Initiate a formal study to evaluate the noise levels at various schools located under heavily used aircraft flight paths for eligibility for sound insulation. <i>New Measure.</i></li> </ol>
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Source: T.F. Green Airport NCP Update, Landrum & Brown, 1999.

### 5.8.2 Summary of Impacts

The following summarizes the impacts which would result from implementation of the Proposed Action at T.F. Green Airport (PVD).

As is described in Chapter Five, *Environmental Consequences*, the Proposed Action would result in impacts on the physical environment of the study area. The following section provides a summary of the expected impacts and/or mitigation.

In order to provide an overall perspective on the environmental impacts of the alternatives, **Table 5.8-2** displays the effects. The table also lists the impacts associated with Alternative 2 and the Proposed Action, Alternative 3. Of the seven environmental categories evaluated, no impacts would occur for five, as shown in Table 6-1. For environmental categories such as noise and land use, both beneficial and adverse impacts would result.

**Table 5.8-2**  
**SUMMARY OF IMPACTS OF ALTERNATIVE 2 (NCP ACTIONS ONLY) AND**  
**ALTERNATIVE 3 (PROPOSED ACTION)**  
**T.F. Green Airport**

	<b>Alternative 2</b>	<b>Alternative 3</b>
<b>Noise</b>	The noise contours are reduced by .06 square miles when compared to 2003 Baseline Conditions. (Alternative 1).	The noise contours are reduced by .07 square miles when compared to 2003 Baseline Conditions. (Alternative 1). <i>This is a reduction of .01 square mile when compared to Alternative 2.</i>
<b>Compatible Land Use</b>	Reduces the numbers of impacted dwellings by 211 residences when compared to 2003 Baseline Conditions. (Alternative 1). A total of 1,775 dwellings would remain impacted. (See Table 5.2-7)  Likewise, the affected population is reduced by 486 people when compared to Alternative 1. The total population impacted under Alternative 2 is 4,662. (See Table 5.2-7)	Reduces the numbers of impacted dwellings by 215 residences when compared to the 2003 Baseline Conditions. (Alternative 1). A total of 1,771 dwellings would remain impacted. <i>Alternative 3 reduces the impacts by four dwellings over Alternative 2.</i> (See Table 5.2-7)  Likewise, the affected population is reduced by 516 people when compared to Alternative 1. The total population impacted under Alternative 3 is 4,632. (See Table 5.2-7)
<b>Social</b>	No Impact	No Impact
<b>Induced Socioeconomic</b>	No Impact	No Impact
<b>Air Quality</b>	No Impact	No Impact
<b>DOT Section 303c</b>	No Impact	No Impact
<b>Historic and Archaeological Sites</b>	No Impact	No Impact

Source: Landrum & Brown, Incorporated, 1998

### **Social-Related Impacts**

As stated in Chapter Five, *Environmental Consequences*, the implementation of the Proposed Action would result in shifts of the 65+ DNL noise contours, however, the resulting impacts would be mitigated under the NCP Update. Therefore, there was no need to provide further analysis of social-related impacts. Likewise, there are no Environmental Justice issues, based on the analysis in Section 5.3, *Social Impacts*.

### **Induced Socioeconomic Impacts**

The Proposed Action does not result in any new economic impacts from the airport, and there would not be population growth or movement. Based on the Federal requirements for the preparation of an EIS, and data from the alternatives analyzed, it was determined that no induced socioeconomic impacts would exist at T.F. Green Airport from the implementation of the Proposed Action.

### **Air Quality**

Section 5.5, *Air Quality*, comprehensively discusses the analysis conducted at T.F. Green Airport. The key findings of the analysis were that there are no air quality impacts as a result of the Proposed Action.

### **DOT Section 4(f) Lands**

There are no direct or indirect impacts resulting from the Proposed Action which affect Section 4(f) land near the airport. Only one park fell within the noise contour area, and it is on land purchased for noise abatement purposes. The land is currently being used as a sports complex for public use. That area is not considered to be impacted because of its status.

### **Historic and Archaeological Sites**

One historic site exists within the area studied for environmental impacts. That is the original terminal building of the Rhode Island State Airport. That site is on airport property and is not considered to be impacted by the Proposed Action of this EIS.

On either side of the original terminal building are Hangar #1 and the Air National Guard Hangar which may be eligible for listing on the National Register of Historic Places. However, because of their function and current status, neither is considered to be impacted by the Proposed Action.

### **5.8.3 Areas of Controversy**

In the majority of the areas analyzed in this EIS, no significant impacts occurred. One primary area of controversy may be the perception of the local community that aircraft will be routed over areas previously not receiving aircraft noise. As stated earlier in this document, the air traffic actions proposed here do not result in overflights of homes which did not previously experience some level of aircraft overflights. However, the aircraft will be in a more concentrated corridor if the proposed action is implemented. They utilize the same areas that have been in use at T.F. Green Airport for some time. In regards to land use, the plans to mitigate the impacts resulting from the Proposed Action should address any concerns for controversy over that topic.