

## **CHAPTER SIX**

### **SUMMARY OF IMPACTS AND MITIGATION**

This report summarizes the adverse impacts which would result from implementation of the proposed action alternatives at Port Columbus International Airport (CMH or Airport) and introduces potential mitigation techniques that could be implemented to reduce or compensate for those impacts. Below is a brief description of each alternative being assessed in this Environmental Impact Statement (EIS).

**Alternative A:** No Action

**Alternative C2a:** Relocate Runway 10R/28L to the south by 800 feet with no new noise abatement procedures

**Alternative C2b:** Relocate Runway 10R/28L to the south by 800 feet with implementation of the recommended noise abatement procedures

**Alternative C3a:** Relocate Runway 10R/28L to the south by 702 feet with no new noise abatement procedures

**Alternative C3b:** Relocate Runway 10R/28L to the south by 702 feet with implementation of the recommended noise abatement procedures (Sponsor's Proposed Project)

#### **6.1 SUMMARY OF IMPACTS**

The environmental consequences of the Sponsor's Proposed Project and its alternatives are provided for 2012 (anticipated opening year of proposed runway) and for 2018 (anticipated opening year of proposed passenger terminal). The following summarizes the notable impacts identified in the assessment of each alternative. **Table 6-1** (located at the end of the summary of impacts), lists the impacts for each category and offers preliminary mitigation concepts that will be further explored with the Columbus Regional Airport Authority (CRAA) and the Federal Aviation Administration (FAA).

##### **6.1.1 NOISE AND COMPATIBLE LAND USE**

For 2012 conditions, the population and number of residential housing units located within the 65 Day – Night Average Sound Level (DNL) noise contour would increase for Alternatives C2a and C3a as compared to Alternative A. Alternatives C2b and C3b, which include implementation of the noise abatement measures (from the 2007 Part 150 Study), would reduce population and residential housing units located within the 65 DNL noise contour as compared to Alternative A.

For 2018 development alternatives (C2a, C2b, C3a, C3b), population and residential housing units would be less than the 2018 Alternative A. Alternative C3b (Sponsor's Proposed Project) results in the fewest population and residential housing unit impacts of all the alternatives in both 2012 and 2018.

A change in land use would occur in the area of East 13<sup>th</sup> Avenue, east of Sterling Avenue. This area is currently residential and includes 35 homes (one vacant property). The land use would be changed from residential to open space to comply with FAA design standards for maintaining clearance within a Runway Protection Zone (RPZ).

### **6.1.2 SOCIOECONOMIC, ENVIRONMENTAL JUSTICE, & CHILDREN'S HEALTH**

The proposed relocation of Runway 10R/28L to the south would result in 36 properties located on East 13<sup>th</sup> Avenue to be purchased and residents relocated. The acquisition area would be located within the relocated RPZ for both Alternative C2a/b and C3a/b. FAA design standards require that RPZs be clear of obstacles and human congregation, such as homes. No other significant, long-term socioeconomic impacts are anticipated with implementation of any of the alternatives.

An assessment of potential environmental justice impacts found that there would not be a disproportionate impact to minority or low-income populations as a result of implementing any of the development alternatives. Under Alternatives C2b and C3b in 2012 and all of the alternatives in 2018, the noise impacts were reduced from the No Action condition, thereby reducing the potential impact on all populations.

No impact to children's health was identified as a result of implementing any of the alternatives.

### **6.1.3 AIR QUALITY**

Franklin County currently exceeds the Federal standard for emissions of Particulate Matter (PM<sub>2.5</sub>) and Ozone. Implementation of any of the development alternatives (C2a, C2b, C3a, C3b) would increase pollutant emissions on the Airport due to construction activities and increased aircraft taxi times resulting from Runway 10R/28L being relocated farther south. However, these increases would not create a new violation of Federal or State air pollution standards and, therefore, would not require mitigation.

### **6.1.4 WETLANDS AND STREAMS**

The development alternatives (C2a, C2b, C3a, C3b) would result in the same impacts to wetlands and streams for both 2012 and 2018 conditions. The proposed runway relocation would result in 0.33 acres of wetland impacts and 592 lineal feet of stream impacts. The proposed terminal would result in an additional 0.32 acres of wetland impacts.

### **6.1.5 FISH, WILDLIFE AND PLANTS**

No Federal or State threatened and endangered species or critical habitat would be impacted by any of the alternatives. Tree clearing and topping that may be necessary would be coordinated with the U.S. Fish and Wildlife Service to avoid impacts to potential Indiana bat roosting sites.

### **6.1.6 WATER QUALITY**

Impacts to water quantity, primarily from increase in impervious surfaces, and water quality, primarily from increased use of deicing agents, would occur as a result of implementing any of the alternatives. The level of impacts are essentially the same for the C2a/b and the C3a/b alternatives in both 2012 and 2018 conditions.

### **6.1.7 FARMLANDS, FLOODPLAINS, WILD AND SCENIC RIVERS, AND COASTAL RESOURCES**

No unique farmlands, floodplains, wild and scenic rivers, or coastal resources would be impacted by any of the alternatives.

### **6.1.8 HISTORIC, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES**

There are a number of significant historic sites located near the Airport and project site. Alternatives C2a/b would result in the greatest impact to historic structures, with the need for removal of Buildings 3 and 7 of the former Air Force Plant 85 (now known as Columbus International Air Center), which is eligible for listing on the National Register of Historic Places.

Alternatives C3a/b would result in the removal of a ramp tower that is located on top of Building 7 of the former Air Force Plant 85. This ramp tower is not considered to be a significant impact, but there will need to be coordination with the Ohio Historic Preservation Office (OHPO) to determine the level of documentation necessary prior to removal.

No archaeological sites of significance were found at the project area. Human remains associated with the former Stelzer Cemetery, located east of Stelzer Road, were identified through field work and will be relocated prior to construction activities in that area.

### **6.1.9 DEPARTMENT OF TRANSPORTATION 4(f)**

The development alternatives will require the reconfiguration of the Airport Golf Course located east of Hamilton Road. This effort will require the golf course to be reduced to nine holes for a period of up to 18 months. The reconfiguration is currently being coordinated with the City of Columbus and the U.S. Department of the Interior. No other physical impacts to a Department of Transportation (DOT) 4(f) property (parks, recreation facilities, wildlife refuges) are anticipated as a result of implementing any of the alternatives.

### **6.1.10 LIGHT EMISSIONS/VISUAL IMPACTS**

No adverse light emissions or visual impacts would occur as a result of implementing any of the alternatives.

### **6.1.11 HAZARDOUS MATERIALS/SOLID WASTE**

Previous assessments of the former Air Force Plant 85 (now referred to as the Columbus International Aircenter) found hazardous materials in a number of the buildings and sites near the project area. Alternative C2a/b would result in the greatest impact to the former Air Force Plant 85, with both Buildings 3 and 7 being removed. These structures (in particular, Building 3) have been shown to have previously contained hazardous materials. Alternative C3a/b would impact the ramp tower on the top of Building 7. In general, all of the development alternatives would result in demolition of structures that may contain asbestos and lead paint.

Local solid waste haulers stated that there was sufficient capacity in local landfills to accommodate the amount of construction debris that would be generated by the development projects.

### **6.1.12 NATURAL RESOURCES AND ENERGY SUPPLY**

The local supply of building and fill materials would not be significantly reduced as a result of implementing any of the alternatives.

Local suppliers of natural gas and electricity have confirmed that there would be no impact by their increased usage from implementing any of the alternatives.

### **6.1.13 CONSTRUCTION**

Temporary impacts from dust, noise, and erosion are likely to occur as a result of constructing the development alternatives. The CRAA would implement Best Management Practices in order to avoid and minimize these temporary impacts.

**Table 6-1  
2006 ENVIRONMENTAL IMPACT SUMMARY MATRIX  
Port Columbus International Airport**

Impact Category	Alternatives				
	Alt. A	Alt. C2a	Alt. C2b	Alt. C3a	Alt. C3b
<b>NOISE</b>					
2012:					
Total Residential Units <sup>2/</sup>	693	725	507	700	473
Unmitigated Residential Units	336	406	269	363	225
Noise - Sensitive Facilities <sup>3/</sup>	4	1	No Impact	No Impact	No Impact
2018					
Residential Dwelling Units <sup>2/</sup>	819	811	740	738	656
Unmitigated Residential Units	437	523	502	420	399
Noise - Sensitive Facilities <sup>3/</sup>	5	2	2	3	2
<b>COMPATIBLE LAND USE</b>					
Noise Impacts	No Impact	2012 Noise Impacts	2012 Noise Impacts	2012 Noise Impacts	2012 Noise Impacts
Land Use Impacts	No Land Use/Zoning Changes	Land Use Change in RPZ Area	Land Use Change in RPZ Area	Land Use Change in RPZ Area	Land Use Change in RPZ Area
<b>SOCIOECONOMIC IMPACTS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS</b>					
Socioeconomic Impacts	No Impact	Acquisition and removal of 36 properties on East 13 <sup>th</sup> Avenue	Acquisition and removal of 36 properties on East 13 <sup>th</sup> Avenue	Acquisition and removal of 36 properties on East 13 <sup>th</sup> Avenue	Acquisition and removal of 36 properties on East 13 <sup>th</sup> Avenue
Environmental Justice	No Impact	No Impact	No Impact	No Impact	No Impact

**Table 6-1, Continued**  
**2006 ENVIRONMENTAL IMPACT SUMMARY MATRIX**  
**Port Columbus International Airport**

Impact Category	Alternatives				
	Alt. A	Alt. C2a	Alt. C2b	Alt. C3a	Alt. C3b
Children's Environmental Health and Safety	No Impact	No Impact	No Impact	No Impact	No Impact
<b>SECONDARY INDUCED</b>					
Economic Impacts	No Impact	CIAC Business Relocations / Airport Golf Course Reconfiguration	CIAC Business Relocations / Airport Golf Course Reconfiguration	Airport Golf Course Reconfiguration	Airport Golf Course Reconfiguration
Public Services	No Impact	No Impact	No Impact	No Impact	No Impact
<b>AIR QUALITY</b>	Franklin County nonattainment for ozone and PM <sub>2.5</sub> ; exceeds the PM <sub>2.5</sub> NAAQS under Existing (2006) Conditions and the future baselines. <sup>1</sup>	Complies with CAA Section 176(c)(1) <sup>2</sup>	Complies with CAA Section 176(c)(1) <sup>2</sup>	Complies with CAA Section 176(c)(1) <sup>2</sup>	Complies with CAA Section 176(c)(1) <sup>2</sup>
<b>WATER QUALITY</b>	Impacts Would Not Exceed Standards	Impacts Would Not Exceed Standards	Impacts Would Not Exceed Standards	Impacts Would Not Exceed Standards	Impacts Would Not Exceed Standards
<b>DOT SECTION 4(f) (RECODIFIED AS 303c) LANDS</b>	No Direct Impacts, 1 park (Pizzurro) in 65 DNL	Airport Golf Course, Remove Bldgs. 3 & 7, 1 park in 65 DNL	Airport Golf Course, Remove Bldgs. 3 & 7, 1 park in 65 DNL	Airport Golf Course, Remove Ramp Tower, 1 park in 65 DNL	Airport Golf Course, Remove Ramp Tower, 1 park in 65 DNL

**Table 6-1, Continued**  
**2006 ENVIRONMENTAL IMPACT SUMMARY MATRIX**  
**Port Columbus International Airport**

Impact Category	Alternatives				
	Alt. A	Alt. C2a	Alt. C2b	Alt. C3a	Alt. C3b
<b>HISTORICAL, ARCHITECTURAL, ARCHEOLOGICAL, &amp; CULTURAL RESOURCES</b>					
Direct Effects (Physical Impacts)	No Direct Impacts	Remove Buildings 3 & 7, Impacts to Stelzer Cemetery	Remove Buildings 3 & 7, Impacts to Stelzer Cemetery	Remove Ramp Tower, Impacts to Stelzer Cemetery	Remove Ramp Tower, Impacts to Stelzer Cemetery
Indirect Effects (Noise Impacts)	12 Sites within 65 DNL, 5 Historic	13 Sites within 65 DNL, 6 Historic	11 Sites within 65 DNL, 5 Historic	13 Sites within 65 DNL, 6 Historic	11 Sites within 65 DNL, 5 Historic
<b>FISH, WILDLIFE, &amp; PLANTS</b>					
Federally-Listed Species & Critical Habitats	No Impact	No Impact	No Impact	No Impact	No Impact
State - Listed Species	No Impact	No Impact	No Impact	No Impact	No Impact
Essential Fish Habitat	No Impact	No Impact	No Impact	No Impact	No Impact
<b>WETLANDS</b>					
2012	No Impact	0.33 acres	0.33 acres	0.33 acres	0.33 acres
2018	No Impact	0.65 acres	0.65 acres	0.65 acres	0.65 acres
Streams	No Impact	1,005 feet	1,005 feet	1,005 feet	1,005 feet
<b>FARMLANDS</b>	No Impact	No Impact	No Impact	No Impact	No Impact
<b>FLOODPLAINS</b>	No Impact	No Impact	No Impact	No Impact	No Impact
<b>COASTAL RESOURCES</b>	No Impact	No Impact	No Impact	No Impact	No Impact
<b>WILD &amp; SCENIC RIVERS</b>	No impact	No impact	No impact	No impact	No impact

**Table 6-1, Continued**  
**2006 ENVIRONMENTAL IMPACT SUMMARY MATRIX**  
**Port Columbus International Airport**

Impact Category	Alternatives				
	Alt. A	Alt. C2a	Alt. C2b	Alt. C3a	Alt. C3b
<b>NATURAL RESOURCES AND ENERGY</b>	No Impact	Increases in demand for power and fuel can be met by current suppliers and facilities.	Increases in demand for power and fuel can be met by current suppliers and facilities.	Increases in demand for power and fuel can be met by current suppliers and facilities.	Increases in demand for power and fuel can be met by current suppliers and facilities.
<b>LIGHT EMISSIONS &amp; VISUAL IMPACTS</b>	No Impact	No Impact	No Impact	No Impact	No Impact
<b>HAZARDOUS WASTE/SOLID WASTE</b>					
Hazardous Materials	No Impact	Impacts to AF Plant 85 Bldgs. 3 & 7, 2 Hangars	Impacts to AF Plant 85 Bldgs. 3 & 7, 2 Hangars	Ramp Tower, 1 Hangar	Ramp Tower, 1 Hangar
Solid Waste	No Impact	No Impact	No Impact	No Impact	No Impact
<b>CONSTRUCTION</b>	No Impact	Temporary Impacts	Temporary Impacts.	Temporary Impacts	Temporary Impacts

<sup>1</sup> National Ambient Air Quality Standards (NAAQS). Fine particulate matter (PM<sub>2.5</sub>).

<sup>2</sup> Clean Air Act, including the 1990 Amendments (CAA). Federal actions compliant under CAA Section 176(c)(1) would not have the potential to cause significant adverse air quality impacts and would not (1) cause or contribute to any new violation of any standard; or, (2) increase the frequency or severity of any existing violation of any standard.

Source: Landrum & Brown, Incorporated, 2007



## **6.2 SUMMARY OF MITIGATION**

The following summarizes the mitigation commitments made by the CRAA and the FAA to minimize the impacts of the Sponsor's Proposed Project and its alternatives.

### **6.2.1 NOISE AND COMPATIBLE LAND USE**

The CRAA is in the process of completing an update to the Part 150 Noise Compatibility Study for CMH (2007 Part 150 Study). In that study it is recommended that residential housing units within the 65 DNL be offered participation in the Airport's sound insulation program. This program would serve as mitigation for the noise impacts associated with the alternatives. The number of homes offered sound insulation is different for each alternative. See Chapter Five, Section 5.2, *Compatible Land Use*, for a discussion of the mitigation commitments of each alternative.

### **6.2.2 SOCIOECONOMIC, ENVIRONMENTAL JUSTICE, & CHILDREN'S HEALTH**

The CRAA and FAA would follow the *Uniform Relocation Assistance and Real Property Acquisition Policies Act* (49 CFR Part 24) in offering relocation assistance to residents and property owners located within the acquisition area on East 13<sup>th</sup> Avenue, east of Sterling Avenue. This Act identifies a process for acquiring property and outlines the benefits that residents and property owners are eligible for, to help offset the cost of relocating.

### **6.2.3 WETLANDS AND STREAMS**

The CRAA is currently working with the US Army Corps of Engineers (USACOE) to determine potential mitigation ratios and locations for these impacts. At the time this document was published, a potential site was being considered in Gahanna, Ohio and expected ratios of wetland mitigation were no more than 2:1, based on previous permitting efforts in this area.

### **6.2.4 WATER QUALITY**

The CRAA is currently preparing a Storm Water Master Plan to identify long-term solutions to water resource impacts that are anticipated from a number of current and proposed projects at the Airport (including the proposed runway and terminal projects being assessed in this EIS). These solutions will require additional coordination with the City of Columbus, Ohio EPA, and the USACOE.

### **6.2.5 HISTORIC, ARCHITECTURAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES**

The FAA is currently working with the OHPO to determine the necessary level of mitigation for the project. The CRAA would implement the resulting preservation techniques from the preferred alternative.

#### **6.2.6 DEPARTMENT OF TRANSPORTATION 4(f)**

The CRAA would reconfigure the Airport Golf Course to insure that it returns to a comparable 18-hole facility. The CRAA and City of Columbus are currently negotiating the details of how this process would occur.

#### **6.2.7 HAZARDOUS MATERIALS/SOLID WASTE**

Depending on which alternative is selected as the preferred alternative, the CRAA would develop a demolition plan that would result in the minimum potential impact from hazardous materials. Alternative C2a/b would require much more coordination and clean up than Alternative C3a/b (Sponsor's Proposed Project) due to the level of impacts associated with each.

#### **6.2.8 CONSTRUCTION**

Temporary impacts from dust, noise, and erosion are likely as a result of constructing the development alternatives. The CRAA would implement Best Management Practices in order to avoid and minimize these temporary impacts.