

# **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 1,005 linear 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 portions of Buildings 3 and all of Building 7 of the former Air Force Plant 85 (now known as Columbus International Aircenter), 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. Air Force Plant 85 is eligible for listing on the NRHP due to the aircraft manufacturing activities that occurred at the site and the architectural significance of the original structures, which were designed by Albert Kahn. Since its original construction in 1943, Building 7 has undergone a number of improvements and additions, one of which was the addition of a ramp tower in 1953. The FAA has determined that removal of the ramp tower would constitute an adverse impact because it would modify the existing structure which is a contributing building to the Air Force Plant 85 historic district. However, the ramp tower was not part of Albert Kahn's original work and was built after the time when the Air Force Plant 85 was being used for the manufacturing activities that made it eligible for the NRHP. Based on these facts, the FAA has determined that removal of the structure is not a significant impact and would actually return the site to a condition where it is closer to its original layout and architecture.

No archaeological sites of significance were found at the project area. Human remains and artifacts associated with the Stelzer Cemetery, located east of Stelzer Road, were identified through field work. These remains and artifacts will remain at the Stelzer Cemetery and no disturbance of the site will occur as a result of implementing any of the development alternatives.

### **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 has been coordinated with the City of Columbus and the U.S. Department of the Interior. A Memorandum of Understanding (MOU) between the CRAA and the City of Columbus was entered into on December 12, 2008 and outlines the responsibilities of each party during the reconfiguration process (see Appendix I, *Airport Golf Course*, for a copy of the MOU).

Alternative C2a would result in the removal of Building 7 and a portion of Building 3 of the former Air Force Plant 85, which is eligible for listing on the NRHP. This would constitute a physical taking of these resources. Under Alternative C3a, one historic structure would be directly impacted due to the relocation of Runway 10R/28L 702 feet to the south. A ramp tower located on the top of Building 7 of the former Air Force Plant 85 would be removed to comply with FAA airport design standards. Air Force Plant 85 is eligible for listing on the NRHP due to the aircraft manufacturing activities that occurred at the site and the architectural significance of the original structures, which were designed by Albert Kahn. Since its original construction in 1943, Building 7 has undergone a number of improvements and additions, one of which was the addition of a ramp tower in 1953. The FAA has determined that removal of the ramp tower would constitute an adverse impact because it would modify the existing structure which is a contributing building to the Air Force Plant 85 historic district. However, the ramp tower was not part of Albert Kahn's original work and was built after the time when the Air Force Plant 85 was being used for the manufacturing activities that made it eligible for the NRHP. Based on these facts, the FAA has determined that removal of the structure is not a significant impact and would actually return the site to a condition where it is closer to its original layout and architecture.

### **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.

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**Table 6-1  
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	693	725	507	700	473
Unmitigated Residential Units	336	406	269	363	225
Noise - Sensitive Facilities	4	1	No Impact	No Impact	No Impact
2018					
Residential Dwelling Units	819	811	740	738	656
Unmitigated Residential Units	437	523	502	420	400
Noise - Sensitive Facilities	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			
<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  
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 Building 7 & portions of Building 3, 1 park in 65 DNL	Airport Golf Course, Remove Building 7 & portions of Building 3, 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  
ENVIRONMENTAL IMPACT SUMMARY MATRIX  
Port Columbus International Airport**

Impact Category	Alternatives				
	Alt. A	Alt. C2a	Alt. C2b	Alt. C3a	Alt. C3b
<b>HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, &amp; CULTURAL RESOURCES</b>					
Direct Effects (Physical Impacts)	No Direct Impacts	Remove Building 7 & portions of Building 3	Remove Building 7 & portions of Building 3	Remove Ramp Tower 1	Remove Ramp Tower 1
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  
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, removal of 36 properties on East 13 <sup>th</sup> Avenue	Impacts to AF Plant 85 Bldgs. 3 & 7, 2 Hangars, removal of 36 properties on East 13 <sup>th</sup> Avenue	Ramp Tower, 1 Hangar, removal of 36 properties on East 13 <sup>th</sup> Avenue	Ramp Tower, 1 Hangar, removal of 36 properties on East 13 <sup>th</sup> Avenue
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. In addition, other permits and authorizations are also identified where applicable.

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

CRAA will offer sound insulation to approximately 247 single-family homes as identified for Alternative C3b.

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

The CRAA and FAA will 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.

### **6.2.3 FISH, WILDLIFE, AND PLANTS**

The CRAA will not remove trees along the Big Walnut Creek. Tree topping will be performed as necessary to reduce penetrations within the Runway Protection Zone (RPZ) on the relocated Runway 10R/28L.

All tree topping and tree removal (e.g., west of Stelzer Road and the stream on the east side of the Airport) will be performed during non-mating periods of the Indiana bat, and will be coordinated with the US Fish and Wildlife Service (USFWS) in order to determine if potential impacts to the Indiana bat would occur as a result of this activity. Currently, the USFWS recommendations include no clearing or trimming to be conducted between April 15 and September 15.

In order to verify that there would be no impacts to the bald eagle, the CRAA will contact the Ohio Department of Natural Resources, prior to construction to obtain an updated status of the bald eagle's activity in the area.

### **6.2.4 WETLANDS AND STREAMS**

The CRAA will require a 404/401 permit from the US Army Corps of Engineers (USACOE) and Ohio EPA for impacts to wetlands (0.33 acres) and streams (1005 LF). The CRAA is currently working with the USACOE to determine potential mitigation ratios and locations for the mitigation. 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.

### **6.2.5 WATER QUALITY**

A National Pollutant Discharge Elimination System (NPDES) for stormwater discharge and a Storm Water Pollution Prevention Plan will be required for project construction. Under the National Stormwater Program, the U.S. Environmental Protection Agency (USEPA) regulates stormwater discharges from construction sites containing clearing, grading, and excavation activities, if the disturbed land area is five acres or more. To comply with the USEPA regulations, the CRAA will have to file a "Notice of Intent" (NOI) form with the OEPA. The NOI indicates that the operator of the construction site will comply with the erosion, sediment, and stormwater control measures presented in Ohio EPA's General Permit for Construction Activities. The NOI requirements are promulgated as Ohio Administrative Code (OAC) 3745-38-06 (see also *EPA Final NPDES General Permits for Stormwater Discharges From Construction Sites Notice*).

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

The CRAA and FAA will enter into a Memorandum of Agreement (MOA) with the Ohio SHPO to outline the process of removing the Ramp Tower on Building 7 of the Air Force Plant 85. The CRAA would then be bound by that MOA in the demolition/reconstruction process.

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

The CRAA will reconfigure the Airport Golf Course to insure that it returns to a comparable 18-hole facility. The CRAA and City of Columbus have executed a Memorandum of Understanding (MOU) that provides the details and responsibilities of each party as this process moves forward. The MOU was executed by both parties on December 12, 2008. The CRAA will be bound to the agreements contained within the MOU.

### **6.2.8 HAZARDOUS MATERIALS/SOLID WASTE**

The presence of asbestos-containing materials and lead-based paint would need to be confirmed for Hangar 3, Building 7, and houses located on East 13th Avenue. If present, the hazardous materials from demolition activities would be removed in accordance with 40 CFR Parts 260-280, 49 CFR Parts 171-199, and OAC Chapter 3745-20.

A comprehensive investigation for the presence of USTs at the vacant hangar would take place before demolition activities commence. If USTs are present, their contents would be characterized and disposed of as part of their closure in accordance with BUSTR regulations (OAC Chapter 1301-7). Other hazardous wastes, if encountered during demolition activities, would also have to be managed and disposed of in accordance with 40 CFR Parts 260-280 and 49 CFR Parts 171-199. Transformers were identified for the FAA-owned Remote Transmitter and

Receiver antenna - Site B. Special care would be taken to minimize the number of workers and further contaminant releases associated with the demolition of this facility.

The majority of former Air Force Plant 85 Area has been remediated to criteria set forth by the OEPA. However, due to the nature of Air Force operations, areas of localized contamination may still remain. To reduce the potential for exposure to hazardous materials and minimize contaminant releases, the CRAA will use pollution prevention design methods to limit soil excavation and other ground disturbance for the proposed project to the extent practical. Personnel involved in the implementation of the project will be made aware of known site conditions and informed to remain cognizant of potential changes in those conditions.

As the CRAA acquires the properties located on East 13th Avenue, a comprehensive Phase I EDDA will be prepared for each property to identify hazardous materials potentially used or stored in the area, particularly indoor areas. If releases or the presence of hazardous materials are identified, remediation of the site will take place for materials found before demolition activities commence.

The wastes generated from abatement and/or demolition may be required to be evaluated or characterized to determine if they are hazardous, pursuant to OAC Chapter 3745-52-11. Hazardous waste construction debris is regulated under ORC Title 37 Chapters 3734 and 3745 and OAC Chapters 3754-49-57, 205, 266, 65, 66, 67, 68, 69, 256, and 270. Other hazardous wastes, if encountered during demolition activities will be managed and disposed of in accordance with 40 CFR Parts 260-280 and 49 CFR Parts 171-199. The demolition and construction activities will also include appropriate safety precautions and training for construction personnel. These activities will be performed or overseen by individuals trained to monitor and identify the presence of hazardous materials. Specifically, OSHA regulations 29 CFR Part 1926.62 and 29 CFR Part 1926.1101 applies to the demolition and cleanup of lead-based and asbestos areas. FAA requirements include those identified in FAA AC 150/5370-2E.

Construction activities associated with this action will also be regulated under the 42 U.S.C. §§ 13101, 13102) for hazardous materials, hazardous wastes, and hazardous substances that are used, generated, or disturbed; in accordance with Executive Orders 12088, 13101, and 13148; and in accordance with FAA Orders 1050.10B, 1050.14A, and 1050.15A, and 1050.18. Additionally, in the event unknown contaminants are discovered during construction, or a spill occurs during construction, work in that area will stop until the NRC is notified (1-800-424-8802).

### **6.2.9 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.

Temporary control measures will be specifically identified through the application of an erosion control plan prepared during the project's design stage as identified in

FAA AC 150/5370-10C, *Standards for Specifying Construction of Airports*, Item P-156, "*Temporary Air and Water Pollution, Soil Erosion, and Siltation Control*," to ensure that there are no long-term impacts to the existing drainage systems or water quality in the area. These provisions will require the development of plans and schedules for control of erosion, dust, and waste disposal. Temporary and permanent erosion controls include, but are not limited to: exposing the minimum area of erodible earth; applying temporary mulch with or without seeding; use of temporary crossing protection of watercourses; and temporary slope drains, benches, dikes, dams, sediment basins, and filter fabric/silt fencing.

The air quality analysis assumed that the CRAA will require construction contractors to use equipment that would be compliant to the emission standards established under 40 CFR Part 89.112 for diesel-powered engines to the extent possible and feasible.