

Final  
**Environmental Assessment**

**Site 3C Development  
Cincinnati/Northern Kentucky International Airport**

**Prepared For  
U.S. Department of Transportation  
Federal Aviation Administration**

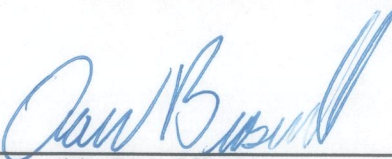


**July 2016**

**Prepared by  
Landrum & Brown**



This environmental assessment becomes a Federal document when evaluated, signed, and dated by the Responsible FAA Official.

  
\_\_\_\_\_  
Responsible FAA Official

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Date

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# Chapter One

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# CHAPTER ONE

## PROPOSED ACTION

### 1.1 INTRODUCTION

This Environmental Assessment (EA) analyzes the potential environmental effects of the proposed development of a commercial structure and parking (Proposed Action) at the Cincinnati/Northern Kentucky International Airport (CVG or Airport) in Boone County, Kentucky. The Proposed Action is expected to be completed in approximately 12 months. The project sponsor is the Kenton County Airport Board (KCAB), the owner and operator of CVG.

An EA is a disclosure document prepared for a proposed Federal or Federally-funded action, in compliance with the requirements set forth by the Council on Environmental Quality (CEQ) in its regulations for implementing the *National Environmental Policy Act of 1969* (NEPA), as amended (40 Code of Federal Regulations (CFR) 1500-1508).<sup>1</sup> The purpose of this EA is to investigate, analyze, and disclose the potential impacts of the Proposed Action and its reasonable alternatives. Depending upon whether certain environmental thresholds of significance are exceeded or not, this EA may either lead to a Finding of No Significant Impact (FONSI) or to the requirement for the preparation of an Environmental Impact Statement (EIS). This EA has been prepared in accordance with FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* and Order 5050.4B, *NEPA Implementing Instructions for Airport Actions*. This EA was also prepared pursuant to other Federal and state laws relating to the quality of the natural and human environments.

### 1.2 DESCRIPTION OF THE PROPOSED ACTION

The Proposed Action consists of the development of a commercial structure and parking lot on development Site 3C to the east of CVG. **Exhibit 1-1, Project Site**, shows the general project site in relation to the Airport and surrounding area. The Proposed Action includes following activities:

- Site preparation of Site 3C which measures approximately 25 acres in size and is located on the northeast corner of the intersection of Donaldson Highway and Point Pleasant Road;
- Construction and operation of a 264,000 square foot commercial warehouse/distribution structure;
- Construction of parking and circulation areas to support operations for the commercial building;
- Grading of land to facilitate stormwater flow, including the creation of stormwater detention facilities;
- Construction of utilities to support the development.

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<sup>1</sup> P.L. 91-190, 42 U.S.C. 4321, et. seq., *National Environmental Policy Act*, 1969, Section 102(2)(c).

A conceptual layout of the Proposed Action is shown on **Exhibit 1-2, Proposed Action**. All project activities including construction equipment staging are expected to occur on the sites.

### **1.3 PROPOSED FEDERAL ACTION**

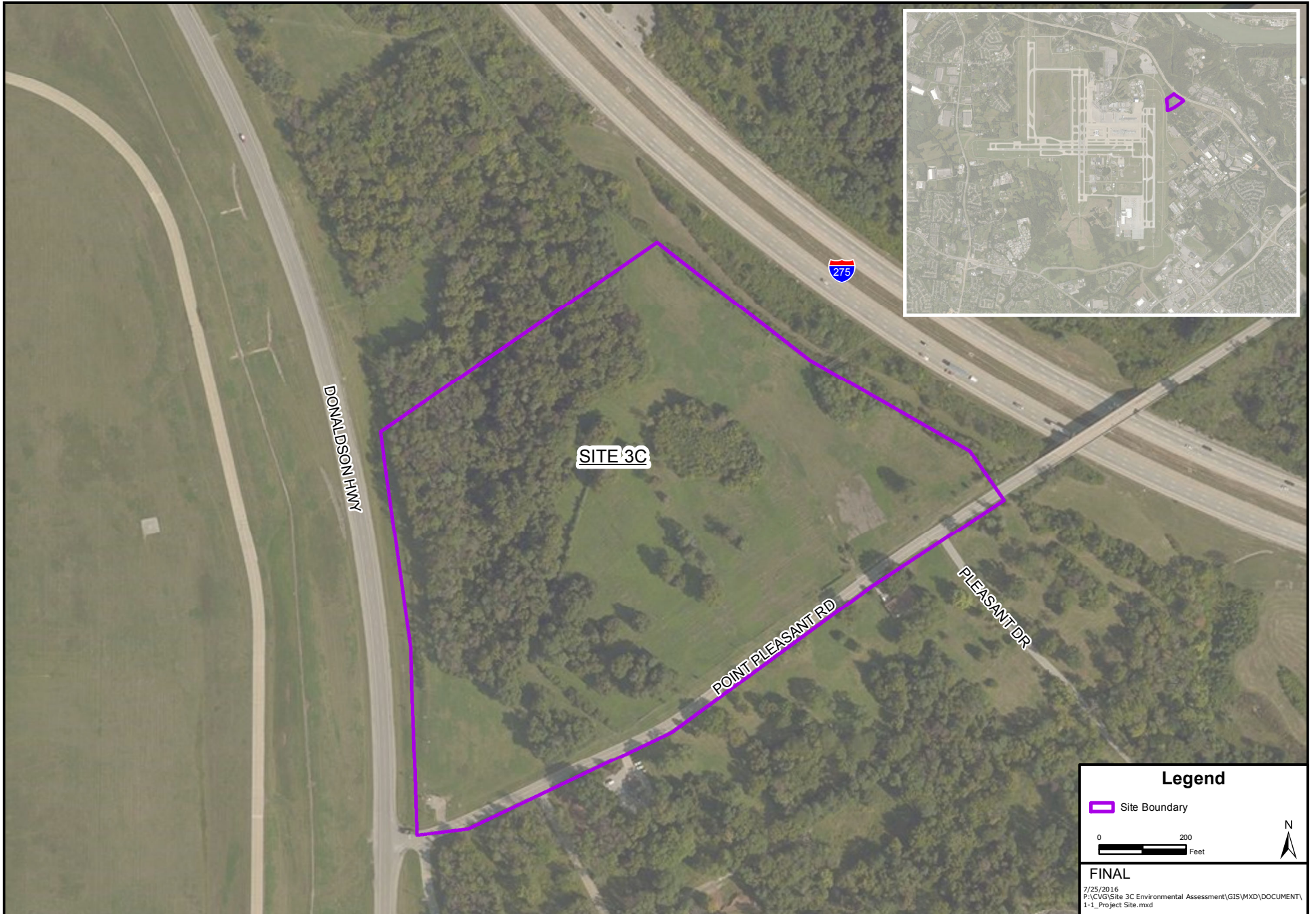
The Proposed Federal Action includes the following project components:

***Approval of the changes to the Airport Layout Plan (ALP) to reflect the proposed development on Site 3C***

The FAA action is necessary in connection with the construction of the proposed commercial structure and parking on Site 3C. Pursuant to 49 USC § 47107(a)(16), the FAA Administrator (under authority delegated from the Secretary of Transportation) must approve any revision or modification to an ALP before the revision or modification takes effect. The Administrator's approval includes a determination that the proposed alterations to the Airport, reflected in the ALP revision or modification, do not adversely affect the safety, utility, or efficiency of the Airport.

***FAA consent to long-term leases converting airport-dedicated property to non-aeronautical, revenue-producing purposes***

An FAA action is necessary in connection with the release, or consent to a long-term lease, of land purchased with Federal monies. An airport sponsor incurs specific obligations to use land for airport purposes when it accepts AIP financing to buy land for airport development or noise compatibility. If an airport sponsor no longer needs airport land for aeronautical purposes, the sponsor may request that the FAA release the sponsor from its Federal grant assurance obligations addressing the uses of the land. A land release may be required for any elements of the Proposed Action that are not considered an aeronautical use. According to FAA Order 5190.6B, *FAA Airport Compliance Manual*, section 22.33.d, long-term leases are normally those exceeding 20 years.



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Site Boundary

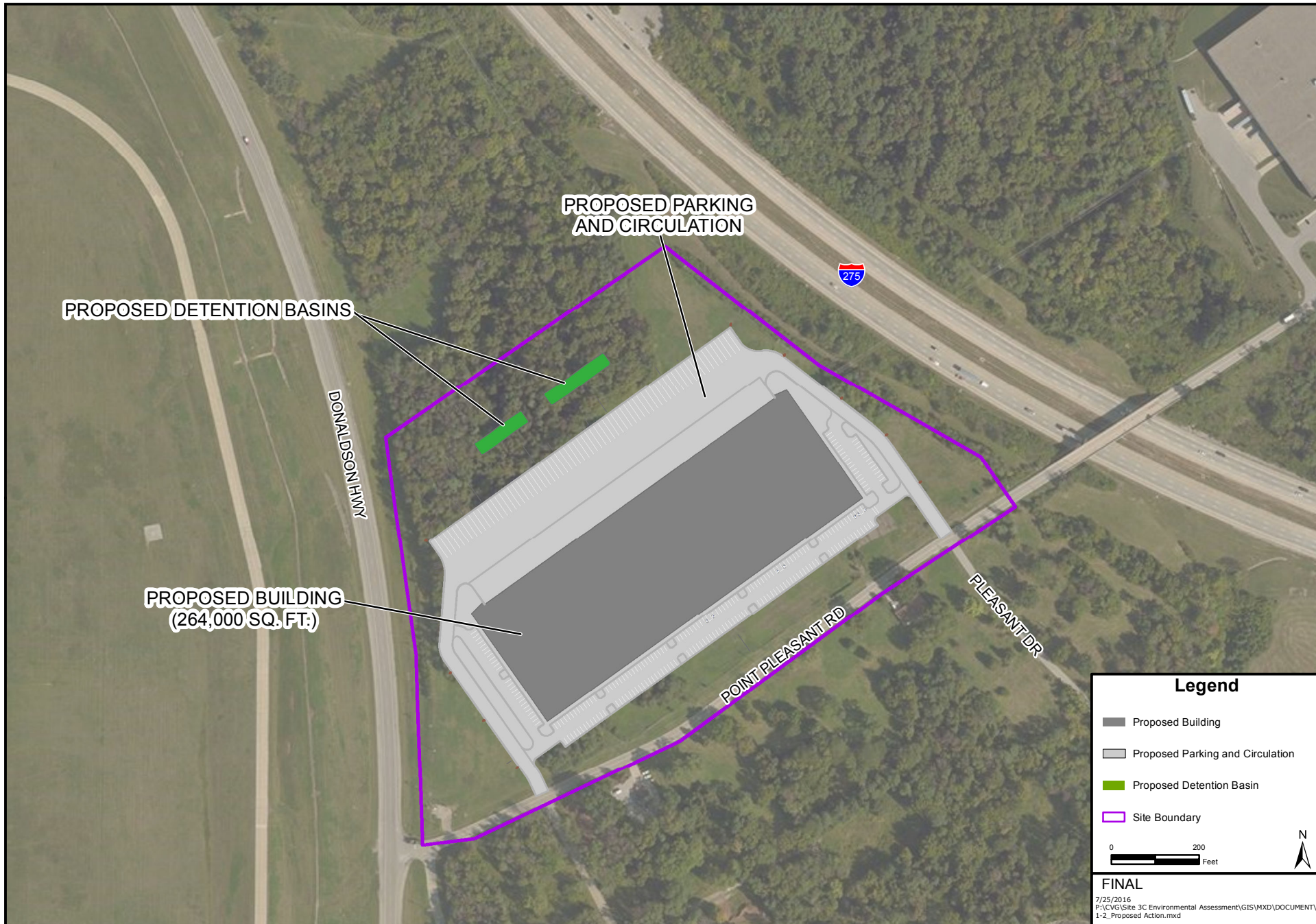
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- Proposed Building
- Proposed Parking and Circulation
- Proposed Detention Basin
- Site Boundary

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## Chapter Two

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# CHAPTER TWO

## PURPOSE AND NEED

### 2.1 PURPOSE AND NEED FOR THE PROPOSED ACTION

The Kenton County Airport Board (KCAB), which owns and operates the Cincinnati/Northern Kentucky International Airport (CVG or Airport), has undertaken a program to develop and lease underutilized Airport-owned land in a way that is compatible with Airport operations. The development of a commercial structure on Site 3C (Proposed Action) is consistent with this goal. The following section discusses the purpose and need for the project.

The *purpose* of this project is to develop Airport-owned land that is currently under-utilized to accommodate the construction of distribution/warehouse facilities that are compatible with FAA airspace restrictions and design standards and is easily accessible to roadways and utilities. The *need* for the project is to provide additional revenue to the KCAB.

### 2.2 FORECAST

The Proposed Action, when fully operational, would include distribution/warehouse facilities that would have no access to the airfield. Therefore, the proposed facilities would not cause an increase or decrease in operations and would not result in changes to the aircraft fleet at CVG.

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# Chapter Three

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# CHAPTER THREE

## ALTERNATIVES

### 3.1 BACKGROUND

The Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act of 1969 (NEPA) requires that the Federal decision-makers perform the following tasks:

- Evaluate all reasonable alternatives, including alternatives not within the jurisdiction of the Federal agency, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
- Devote substantial treatment to each alternative considered in detail, including a no action alternative and the proposed action, so that reviewers may evaluate their comparative merits.

This section describes alternatives to the Proposed Action, and evaluates the ability of the alternatives to meet the purpose and need described in Chapter Two, *Purpose and Need*. Federal and state guidelines concerning the environmental review process require that all prudent, feasible, reasonable, and practicable alternatives that might accomplish the objectives of a project must be identified and evaluated. Federal agencies may consider the applicant's purposes and needs and common sense realities of a given situation in the development of alternatives.<sup>2</sup>

### 3.2 INITIAL ALTERNATIVES SCREENING

Other Kenton County Airport Board (KCAB) owned sites at Cincinnati/Northern Kentucky International Airport (CVG or Airport) are vacant and available for non-aviation development. **Exhibit 3-1, *Non-Aviation Development Sites Owned by KCAB*** shows the location of other developable sites around the Airport. However, Site 3C is the only contiguous site suitable for the developer due to the size and height of the proposed facility in relation to the site dimensions and the building height restrictions, as well as offering proximity to the interstate-highway system, a well-developed road access, and availability of utilities. As a result, only the No Action and Proposed Action alternatives are being environmentally assessed in this EA. Under the No Action, the proposed development would not occur and the Proposed Project site would not be disturbed.

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<sup>2</sup> *Guidance Regarding NEPA Regulations*, CEQ, 48 Federal Register 34263 (July 28, 1983).

### 3.3 ALTERNATIVES CARRIED FORWARD FOR DETAILED EVALUATION

#### ***Alternative 1: No Action***

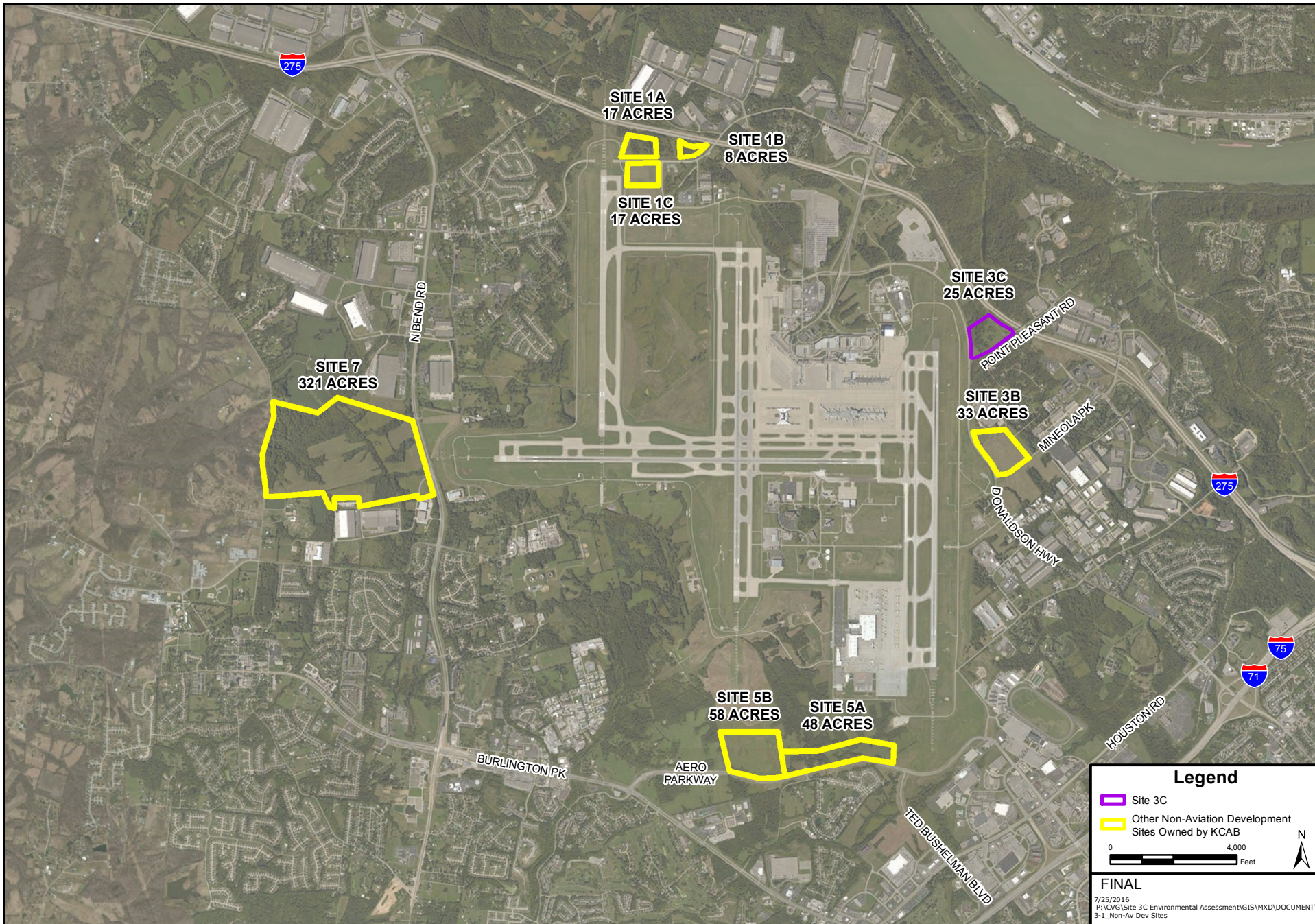
To satisfy the intent of NEPA, FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*; FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*; and other special purpose environmental laws, a No Action Alternative is carried forward in the analysis of environmental consequences provided in Chapter Four. With the No Action Alternative, Site 3C would remain undeveloped.

The No Action does not meet the stated purpose and need for this project. Although not always reasonable, feasible, prudent, nor practicable, the No Action Alternative is a required alternative under NEPA and serves as the baseline for the assessment of future conditions/impacts.

#### ***Alternative 2: Proposed Action***

As described in Chapter One and shown in Exhibit 1-2, the Proposed Action includes:

- Site preparation of Site 3C which measures approximately 25 acres in size and is located on the northeast corner of the intersection of Donaldson Highway and Point Pleasant Road;
- Construction and operation of a 264,000 square foot commercial warehouse/distribution structure 3C;
- Construction of parking and circulation areas to support operations for the commercial building;
- Grading of land to facilitate stormwater flow, including the creation of stormwater detention facilities;
- Construction of utilities to support the development.



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- Site 3C
- Other Non-Aviation Development Sites Owned by KCAB

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# Chapter Four

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# CHAPTER FOUR

## AFFECTED ENVIRONMENT

Pursuant to the environmental documentation requirements of FAA Orders 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, and 1050.1F, *Environmental Impacts, Policies, and Procedures*, this chapter succinctly describes the existing environmental conditions and potential impacts of those resources potentially affected by the Proposed Action at the Cincinnati/Northern Kentucky International Airport (CVG or Airport).

### 4.1 ENVIRONMENTAL SETTING

CVG is an international airport located on approximately 7,000 acres of land within Boone County, Kentucky. The site of the Proposed Action is located on the site known as Site 3C to the east of the Airport, on the northeast corner of the intersection of Donaldson Highway and Point Pleasant Road. The Proposed Action would occur on property that is currently owned by the Kenton County Airport Board (KCAB). Exhibit 1-1, *Project Site*, shows the location of the Proposed Action. Site features include a combination of undeveloped open field and wooded areas, as well as some areas that have been previously disturbed.

### 4.2 RESOURCES NOT POTENTIALLY AFFECTED

The No Action and Proposed Action do not have the potential to affect the following categories because it has been demonstrated through numerous previous NEPA documents for similar development at the Airport that either the resources do not exist at the Airport and/or the nature of the project does not result in impacts to these resources:

- Coastal resources
- Department of Transportation Act, Section 4(f)
- Farmland
- Floodplains
- Hazardous materials, solid waste, and pollution prevention
- Natural resources and energy supply
- Noise and Compatible Land use
- Socioeconomics, environmental justice, and children's environmental health and safety risks
- Wild and scenic rivers.

Therefore, no discussion of the existing conditions or potential impacts related to these categories is included in this chapter.

### 4.3 RESOURCES POTENTIALLY AFFECTED

The Proposed Action has the potential to include impacts to the following resource categories:

- Air quality
- Biological resources (including fish, wildlife, and plants)
- Climate
- Historical, architectural, archeological, and cultural resources
- Land use
- Visual effects (including light emissions)
- Water resources (including wetlands, surface waters, and groundwater) \*  
*noting that there are no floodplains or wild and scenic rivers on the site*

The current conditions and potential impact for each of these resource categories is described in the following sections.

#### 4.3.1 AIR QUALITY

The Airport is located within Boone County, Kentucky, which is included in the Metropolitan Cincinnati Interstate Air Quality Region. The U.S. Environmental Protection Agency (USEPA) has determined that levels of the eight-hour concentration of ozone exceed the Federal standards defining healthful air quality within this area. In the past, Boone County was designated as nonattainment for 24 hour concentrations of fine particulate matter (PM<sub>2.5</sub>); however, on December 15, 2011, the USEPA determined the area had attained the PM<sub>2.5</sub> standard and the region was re-designated to attainment for PM<sub>2.5</sub>. The area now operates under a maintenance plan for PM<sub>2.5</sub>.

#### 4.3.2 BIOLOGICAL RESOURCES

A biological survey and habitat assessment was completed in February 2016 for Site 3C. The purpose of the survey was to determine the presence or absence of Federal or state-listed species and if potential habitat for both Federal and state-listed species existed in the proposed development areas. The site consists primarily of open field habitat, with two woodlots in the eastern portion of the site, and two wooded drainages in the central portion of the site. There are three wetlands totaling approximately 0.088 acres and three ephemeral streams totaling approximately 870 feet in length within the site.

##### 4.3.2.1 THREATENED AND ENDANGERED SPECIES

According to the US Fish and Wildlife Service (USFWS), the following Federal listed species of plants and animals, shown in **Table 4-1**, are found in Boone County.

**Table 4-1  
FEDERAL THREATENED AND ENDANGERED SPECIES  
Cincinnati/Northern Kentucky International Airport**

TAXONOMIC GROUP	COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS
Mammal	Gray Bat	<i>Myotis grisescens</i>	Endangered
Mammal	Indiana Bat	<i>Myotis sodalis</i>	Endangered
Mammal	Northern Long-Eared Bat	<i>Myotis septentrionalis</i>	Threatened
Mussels	Clubshell	<i>Pleurobema clava</i>	Endangered
Mussels	Pink Mucket	<i>Lampsilis abrupta</i>	Endangered
Mussels	Orangefoot Pimpleback	<i>Plethobasus cooperianus</i>	Endangered
Mussels	Sheepnose	<i>Plethobasus cyphus</i>	Endangered
Mussels	Rough Pigtoe	<i>Pleurobema plenum</i>	Endangered
Mussels	Fanshell	<i>Cyprogenia stegaria</i>	Endangered
Mussels	Ring Pink	<i>Obovaria retusa</i>	Endangered
Plants	Running Buffalo Clover	<i>Trifolium stoloniferum</i>	Endangered

Source: <https://ecos.fws.gov/ipac/project/66U5HJR2BZFCJNDKYUHFMOFAOI/resources>, November 15, 2015.

#### 4.3.2.2 STATE DESIGNATED THREATENED, ENDANGERED, OR SPECIAL STATUS SPECIES

In addition to the USFWS information, the Kentucky Department of Fish & Wildlife database was reviewed and the Kentucky State Nature Preserves Commission (KSNPC) was contacted to obtain information on potential state-protected species at or in the vicinity of Site 3C. The list of the Kentucky state designated threatened, endangered or special concern species that are found in Boone County is provided in **Appendix C, Biological Resources and Water Resources**.

#### 4.3.2.3 SURVEY FINDINGS

No Federally-protected or state-protected plant or animal species were observed in the areas surveyed. The habitat surveys found potentially suitable habitat for two Federal threatened or endangered species or species of special concern, the Indiana bat and the northern long-eared bat. Summer habitat for this species includes trees with cavities, hollows, cracks or loose bark. Winter habitat for these species is restricted to suitable underground hibernacula typically consisting of caves or abandoned mines.

Results of the survey found that Site 3C includes 8.64 acres of mature woods and 13 individual mature trees that are potential summer habitat for the Indiana bat and northern long-eared bat. No caves, mines, sinkholes, or other potential bat hibernacula were identified during the field survey and there are no known hibernaculum located within 0.25-mile radius of the site.

### 4.3.3 CLIMATE CHANGE/GREENHOUSE GASES

Greenhouse gases (GHG) are gases that trap heat in the earth's atmosphere. Both naturally occurring and man-made, GHGs primarily include water vapor (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons, and sulfur hexafluoride (SF<sub>6</sub>). Sources that require fuel or power at an airport are the primary sources that would generate GHGs.

Research has shown there is a direct correlation between fuel combustion and GHG emissions. In terms of U.S. contributions, the General Accounting Office (GAO) reports that "domestic aviation contributes about three percent of total carbon dioxide emissions, according to EPA data," compared with other industrial sources including the remainder of the transportation sector (20 percent) and power generation (41 percent).<sup>1</sup> The International Civil Aviation Organization (ICAO) estimates that GHG emissions from aircraft account for roughly three percent of all anthropogenic GHG emissions globally.<sup>2</sup> Climate change due to GHG emissions is a global phenomenon, so the affected environment is the global climate.<sup>3</sup>

The scientific community is continuing efforts to better understand the impact of aviation emissions on the global atmosphere. The FAA is leading and participating in a number of initiatives intended to clarify the role that commercial aviation plays in GHG emissions and climate. The FAA, with support from the U.S. Global Change Research Program and its participating federal agencies (e.g., National Aeronautics and Space Administration (NASA), National Oceanic and Atmospheric Administration (NOAA), EPA, and Department of Energy (DOE)), has developed the Aviation Climate Change Research Initiative (ACCRI) in an effort to advance scientific understanding of regional and global climate impacts of aircraft emissions. FAA also funds the Partnership for Air Transportation Noise & Emissions Reduction (PARTNER) Center of Excellence research initiative to quantify the effects of aircraft exhaust and contrails on global and U.S. climate and atmospheric composition. Similar research topics are being examined at the international level by the International Civil Aviation Organization.<sup>4</sup>

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<sup>1</sup> *Aviation and Climate Change*. GAO Report to Congressional Committees, (2009).

<sup>2</sup> Alan Melrose, "European ATM and Climate Adaptation: A Scoping Study," in *ICAO Environmental Report*. (2010).

<sup>3</sup> As explained by the U.S. Environmental Protection Agency, "greenhouse gases, once emitted, become well mixed in the atmosphere, meaning U.S. emissions can affect not only the U.S. population and environment but other regions of the world as well; likewise, emissions in other countries can affect the United States." Climate Change Division, Office of Atmospheric Programs, U.S. Environmental Protection Agency, *Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act 2-3* (2009).

<sup>4</sup> Lourdes Q. Maurice and David S. Lee. *Chapter 5: Aviation Impacts on Climate*. Final Report of the International Civil Aviation Organization (ICAO) Committee on Aviation and Environmental Protection (CAEP) Workshop. October 29<sup>th</sup> November 2nd 2007, Montreal.

#### 4.3.4 HISTORIC, ARCHITECTURAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES

It is assumed that the entire area of the Project Site would be graded, cleared, or disturbed from their current state. As a result, a Phase I archaeological survey was completed and consisted of a literature search and archaeological field survey to determine potential impacts to archaeological resources. The literature review collected data on known cultural resources within a 1.2-mile radius of Site 3C. Several previously-recorded sites were found within a 1.2-mile radius; however, none of the sites were within or adjacent to the site of the Proposed Action.

The archaeological survey was conducted within the site of the Proposed Action in November 2015. This survey noted the site had extensive disturbance due to the demolition of the many residences that previously occupied the site. This survey identified one archaeological site, two non-site localities, and one isolated find. It was concluded these cultural resource sites are not considered eligible for inclusion on the National Register of Historical Places (NRHP) under Criteria A, B, C, or D. The Kentucky Heritage Council/State Historic Preservation Office (SHPO) concurred with these findings in a letter dated April 20, 2016. A copy of the correspondence from the SHPO is included in **Appendix D, Cultural Resources**.

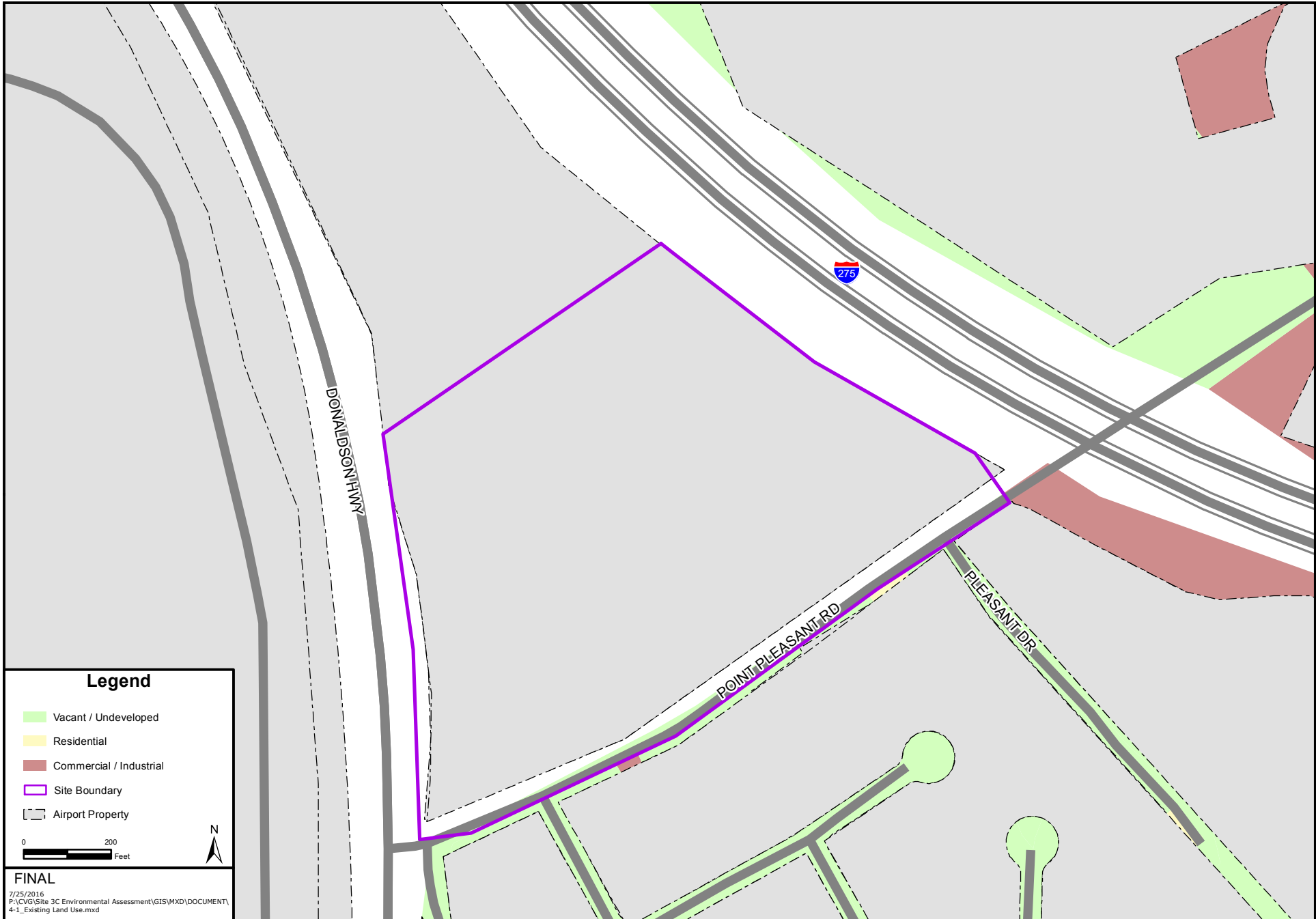
An analysis of the area in which potential indirect visual effects may occur was conducted within the 1,000-foot viewshed of the site of the Proposed Action. The site is bounded by I-275 to the north and northeast, airport facilities to the west and development to the south and southeast within the former Rolling Green Acres subdivision. Four single-family residences remain in this area, two of which are within the 1,000-foot viewshed. Other lots have been converted to commercial use by the landowners. The two remaining homes within the 1,000-foot viewshed were constructed in 1956 and 1961. Area reconnaissance did not identify any features that indicate the homes are in any way unique or different than other homes in the area of that time period. A review of the National Park Service NRHP database did not find any properties listed on the NRHP within the 1,000-foot viewshed.

#### 4.3.5 LAND USE

The Project Site is located on the east side of the Airport in a predominantly commercial area. The land uses immediately adjacent to the site includes a mix of commercial uses and undeveloped Airport property. There is a residential area located to the south and southeast east of the site. This area, known as Rolling Green Acres, was offered voluntary acquisition; however, some residents did not accept the offer. Four of the lots within the subdivision remain residential, while others have been converted to commercial/industrial use by the landowner.

The site is located within an area that is zoned as "Airport" district, which allows airport development and commercial, office and industrial uses. The site has frontage on Point Pleasant Road, which provide automobile access to Donaldson Highway and Interstate I-275. **Exhibit 4-1, Existing Land Use**, shows the location of the site and the surrounding land uses. Property acquisition is not required for the Proposed Action; therefore, it would not disrupt communities nor require the relocation of residences or businesses.





**Legend**

- Vacant / Undeveloped
- Residential
- Commercial / Industrial
- Site Boundary
- Airport Property

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### 4.3.6 VISUAL EFFECTS

Visual effects include potential impacts to views and from lights. The site is located in an area where increasingly commercial and light industrial development is occurring. There are no designated scenic areas or overlooks in the area and the views to/from the Project Site is not notable for any reason. There would be an increase in lighting due to the Proposed Action. However, the number of lights would be minimal and shielded from any adjacent uses. The Project Site is located on KCAB-owned land and are surrounded by other commercial development and vacant land. The nearest residences are located southeast of the site in the former Rolling Green Acres subdivision. Three single-family residences are located in this area.

### 4.3.7 WATER RESOURCES

Water resources include wetlands, surface waters, and groundwater. As previously discussed, no impacts to floodplains or wild and scenic rivers would occur.

#### 4.3.7.1 WETLANDS AND STREAMS

Wetland surveys were conducted at the site of the Proposed Action in February 2016. Three wetlands and three streams were identified within site as shown on **Exhibit 4-2, Wetlands and Streams** and **Table 4-2**. More detailed information regarding the wetlands and streams is located in Appendix C, *Biological Resources and Water Resources*.

**Table 4-2**  
**Wetlands and Streams**  
**Cincinnati/Northern Kentucky International Airport**

Waterbody Name	Waterbody Type	Hydrologic Status	Linear Footage*	Acreage
<b>Streams</b>				
Stream 1	Ephemeral	Connected	25	0.0004
Stream 2	Ephemeral	Connected	315	0.018
Stream 3	Ephemeral	Connected	530	0.025
<b>Subtotal</b>			<b>870</b>	<b>0.043</b>
<b>Wetlands</b>				
Wetland 1	emergent wetland	Connected	N/A	0.049
Wetland 2	emergent and scrub/shrub	Connected	N/A	0.036
Wetland 3	forested wetland	Connected	N/A	0.003
<b>Subtotal</b>			<b>N/A</b>	<b>0.088</b>
<b>Total</b>			<b>N/A</b>	<b>0.131</b>

\*Note: Represents stream length within the survey area.

Source: Redwing Ecological Services, Inc., 2016.

#### **4.3.7.2 SURFACE WATERS**

The main source of hydrology to the Project Site is precipitation and stream flow. Three ephemeral streams were identified during the field assessment, and are located high in the watershed on the property (see Exhibit 4-3). Topography within the study area is gently sloping. In general, surface water is collected and migrated across the sites in south to north direction via streams that drain offsite into an unnamed tributary of the Ohio River. The site is located within the Dry Creek watershed (HUC 0509020302). No streams within the Dry Creek watershed are identified as Special Use Waters.<sup>5</sup> In Kentucky, stormwater discharges are regulated by the Kentucky Pollutant Discharge Elimination System (KPDES) as administered by the Kentucky Division of Water.

#### **4.3.7.3 GROUNDWATER**

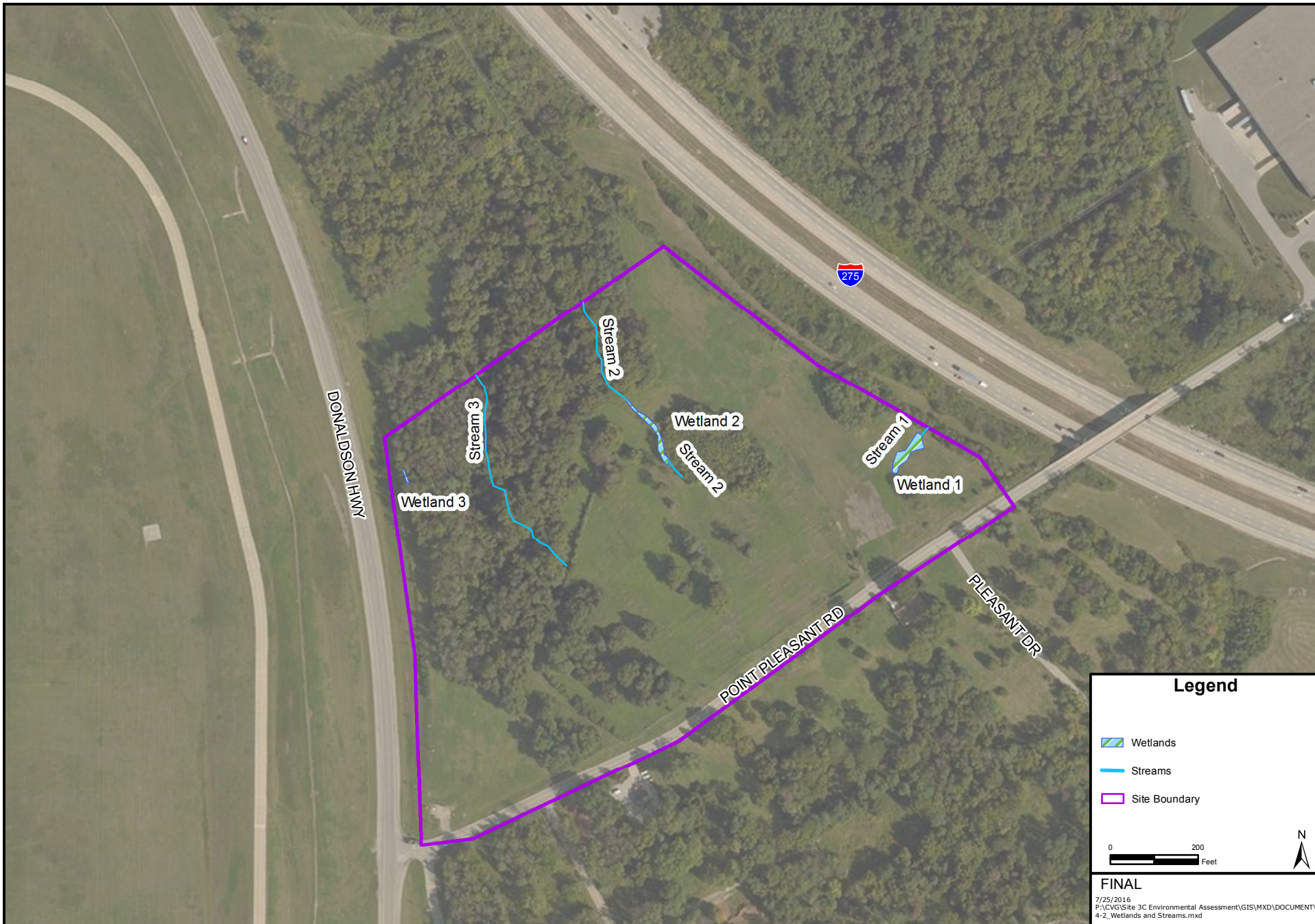
The geology of the Project Site is predominantly limestone which yields 100 to 500 gallons per day from wells in valleys or on broad ridges, but almost no water from drilled wells on narrow ridges or hilltops.<sup>6</sup> There are no public or private drinking water wells or wells used for agricultural purposes within a one half mile radius of the site of the Proposed Action.<sup>7</sup>

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<sup>5</sup> Kentucky Division of Water, Kentucky's Special Use Waters, Online at <http://eppcapp.ky.gov/spwaters/>, Accessed April 14, 2016.

<sup>6</sup> Kentucky Geological Survey; Groundwater Resources of Boone County, Kentucky; 2004.

<sup>7</sup> Kentucky Geological Survey; Water Well Records Search Results, Kentucky Groundwater Data Repository; Online at: <http://kgs.uky.edu/kgsweb/datasearching/water/waterwellsearch.asp>; Accessed: April 4, 2016.



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# Chapter Five

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# CHAPTER FIVE

## ENVIRONMENTAL CONSEQUENCES

This chapter presents the assessment of environmental impacts addressed in considering reasonably foreseeable environmental consequences of the Proposed Action and the No Action alternative at the Cincinnati/Northern Kentucky International Airport (CVG or Airport).

As required by the Federal Aviation Administration (FAA) Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Projects*, and FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, the environmental categories listed below are addressed in this Environmental Assessment (EA). Construction activities could result in potential impacts to multiple categories. Per FAA Order 1050.1F, the assessment of potential construction related impacts is discussed where applicable for each of the categories listed.

- Air quality
- Biological resources
- Climate
- Historic, architectural, archeological, and cultural resources
- Land use
- Visual effects
  - Light emissions
  - Visual resources and visual character
- Water resources
  - Wetlands and Streams
  - Surface waters
  - Groundwater

As discussed in Chapter Four, *Affected Environment*, the No Action and Proposed Action do not have the potential to affect the following categories because either the resources do not exist at the Airport or the nature of the project would not result in impacts: coastal resources; Department of Transportation Act, Section 4(f); farmland; floodplains; hazardous materials, solid waste, and pollution prevention; natural resources and energy supply; noise and compatible land use; socioeconomic; environmental justice, and children's environmental health and safety risks; and wild and scenic rivers. Therefore, no discussion of potential impacts related to these categories is included in this EA.

## 5.1 AIR QUALITY

The Clean Air Act (CAA), as amended in 1990, defines a non-attainment area as a geographic region that has been designated by the EPA as not meeting one or more of the National Ambient Air Quality Standards (NAAQS). The Airport is located within Boone County, Kentucky, which is included in the Metropolitan Cincinnati Interstate Air Quality Region. The EPA has classified this region as nonattainment for ozone and maintenance for PM2.5. Therefore, pollutants that apply to the Proposed Action are volatile organic compounds (VOC), nitrogen oxides (NOx), sulfur oxides (SOx), and PM2.5.

The impacts to air quality due to the Proposed Action were determined in accordance with the guidelines provided in FAA, *Aviation Emissions and Air Quality Handbook Version 3*,<sup>1</sup> and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, which together with the guidelines of FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, constitute compliance with all the relevant provisions of NEPA and the CAA.

A construction emissions inventory was calculated for the Proposed Action using USEPA NONROAD and MOVES emission factors to calculate emissions from construction equipment. The emissions estimated to occur during construction of the Proposed Action at CVG are provided in **Table 5-1**.

**Table 5-1  
CONSTRUCTION EMISSIONS INVENTORY SUMMARY  
PROPOSED SITE 3C DEVELOPMENT  
Cincinnati/Northern Kentucky International Airport**

ANNUAL EMISSIONS SUMMARY						
EMISSION SOURCES	CRITERIA AND PRECURSOR POLLUTANTS (tons per year)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	CAA <i>DE MINIMIS</i> THRESHOLDS					
	100	100	100	100	100	100
Construction Emissions	11.68	13.78	17.69	0.07	2.35	1.04
<b>Proposed Project Total</b>	<b>11.68</b>	<b>13.78</b>	<b>17.69</b>	<b>0.07</b>	<b>2.35</b>	<b>1.04</b>

Note: Emissions of CO and PM10 were provided for disclosure purposes.

Source: Landrum & Brown Analysis, 2016.

The air quality assessment demonstrates that the Proposed Action would not cause an increase in air emissions above the applicable *de minimis* thresholds. Therefore, the Proposed Action conforms to the State Implementation Plan (SIP) and the CAA and would not create any new violation of the NAAQS, delay the attainment of any NAAQS, nor increase the frequency or severity of any existing violations of the NAAQS. As a result, no adverse impact on local or regional air quality is expected by

<sup>1</sup> FAA, *Aviation Emissions and Air Quality Handbook Version 3 Update 1*, January 2015.

construction of the Proposed Action. No further analysis or reporting is required under the CAA or NEPA.

While the construction of the Proposed Action would be expected to contribute to fugitive dust in and around the construction site, KCAB as the Sponsor would ensure that all possible measures would be taken to reduce fugitive dust emissions by adhering to guidelines included in FAA Advisor Circular 150/5370-10G, *Standards for Specifying Construction of Airports*.<sup>2</sup>

Methods of controlling dust and other airborne particles will be implemented to the maximum possible extent and may include, but not limited to, the following:

- Exposing the minimum area of erodible earth.
- Applying temporary mulch with or without seeding.
- Using water sprinkler trucks.
- Using covered haul trucks.
- Using dust palliatives or penetration asphalt on haul roads.
- Using plastic sheet coverings.

#### No Action

The No Action alternative does not involve any construction activities and therefore would not cause any impacts to air quality.

## **5.2 BIOLOGICAL RESOURCES**

FAA Order 1050.1F states a significant impact to biological resources (including fish, wildlife, and plants) would occur when the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) determines that the action would be likely to jeopardize the continued existence of a Federally-listed threatened or endangered species, or would result in the destruction or adverse modification of federally-designated critical habitat. The FAA has not established a threshold of significance for species of concern or non-listed species; however, the following factors should be considered, as noted in Order 1050.1F:

- A long-term or permanent loss of unlisted plant or wildlife species (i.e., extirpation of the species from a large project area);
- Adverse impacts to special status species (e.g., state species of concern, species proposed for listing, migratory birds, bald and golden eagles) or their habitats;
- Substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations; or
- Adverse impacts on a species' reproductive success rates, natural mortality rates, non-natural mortality (e.g., road kills and hunting), or ability to sustain the minimum population levels required for population maintenance.

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<sup>2</sup> FAA Advisory Circular, *Standards for Specifying Construction of Airports*, Item P-156, *Temporary Air and Water Pollution, Soil Erosion, and Siltation Control*, AC 150/5370-10G (July 21, 2014)

### Proposed Action

The Proposed Action would disturb approximately 25 acres of land. As discussed in Chapter Four, *Affected Environment*, habitat and species presence surveys were conducted at Site 3C. Results of the surveys found that the site consists primarily of open field habitat, with two woodlots, and two wooded drainages, three wetlands and three ephemeral streams.

As noted in Chapter Four, during the assessment, no Federally or state-protected plant or animal species were observed. However, suitable summertime habitat for the Indiana bat and northern long-eared bat was identified. During the summer, both the bat species roost underneath bark, in cavities or in crevices of both live trees and dead trees. As shown in **Exhibit 5-1, Wetlands, Streams & Habitat Impacts**, the Proposed Action would result in removal of approximately 7.94 acres of mature woods that could potentially serve as habitat for the Indiana bat and northern long-eared bat. However, much of this habitat is of relatively poor quality and is isolated from other habitat blocks and corridors by industrial development and open fields. The project is not located within 0.25 mile of a known hibernaculum or 150 feet of a known maternity roost tree.

Coordination was conducted with the USFWS Kentucky Field Office (KFO) to determine the effects on Federally protected species. Per USFWS guidance, any incidental take of Indiana and/or northern long-eared bats that will or could result from the forest habitat removal would be permitted under the Conservation Memoranda of Agreement for the Indiana bat and/or northern long-eared bat.<sup>3</sup> The KFO's 2015 Conservation Strategy for Forest-Dwelling Bats (Conservation Strategy) identifies the types of conservation measures that are appropriate when impacts to known or potential habitat for listed forest-dwelling bats are unavoidable. One of those measures is a voluntary contribution to the Imperiled Bat Conservation Fund (IBCF) to off-set forest losses that occur as a result of project implementation. The current rate for mitigation is \$3,250/acre if the habitat is removed between April 1st and October 14th, or half of said amount (\$1,625) if between October 15th and March 31st. At this time, the Conservation Strategy does not cover tree removal in June or July.

The KCAB has mitigated for the loss of 7.94 acres of potential habitat for the Indiana bat through a voluntary payment to the IBCF. The mitigation and tree clearing avoidance during June and July would prevent potential significant impacts to protected bat species; therefore, the Proposed Action would not cause a significant impact to protected bat species. The USFWS would concurred with this determination in a letter dated May 11, 2016.

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<sup>3</sup> U.S. Fish and Wildlife Service, Southeast Regional Office; Biological Opinion Kentucky Field Office's Participation in Conservation Memoranda of Agreement for the Indiana Bat and/or Northern Long-eared Bat, April 2015

The Kentucky Division of Fish & Wildlife Resources and the Kentucky State Nature Preserves Commission (KSNPC) were contacted to obtain information on threatened and endangered species. The KSNPC noted that the following state monitored species have the potential to occur at the Project Sites:

- Indiana bat (*Myotis sodalists*) – State Endangered
- Running buffalo clover (*Trifolium stoloniferum*) – State Threatened
- Redback salamander (*Plethodon cinereus*) – State Special Concern
- Six-banded Longhorn Beetle (*Dryobius sexnotatus*) – State Threatened

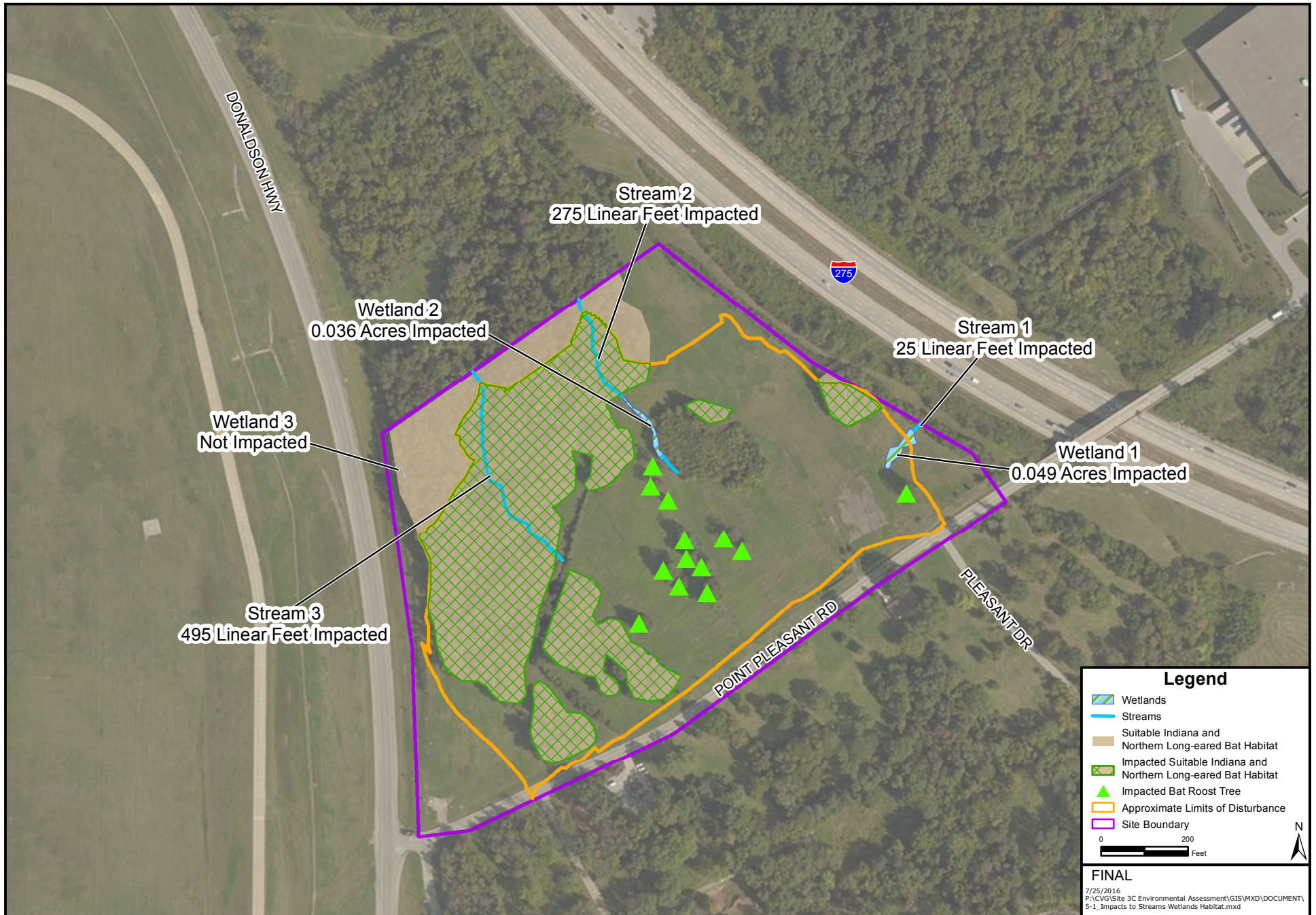
Mitigation for potential impacts to the Indiana bat and (northern long-eared bat) was discussed in the previous paragraphs. Suitable habitat for running buffalo clover was not found to be present on the site. No signs of redback salamanders or six-banded longhorn beetles were found at the site. The preferred habitat for the redback salamander includes deciduous and mixed forest types and ravines. The preferred habitat for the six-banded longhorn beetle includes over-mature/mature hardwood forest with potential host trees including sugar maple, beech, elm and basswood. The forested areas at Site 3C range from early successional to medium aged and mature woods and are dominated by black walnut, black cherry, box-elder, honey locust, white ash, sugar maple and tulip tree with few dead trees. The habitat on the Airport 3C site is of low to marginal quality with a thick understory of the invasive bush honeysuckle. The wooded areas on the site have become fragmented from a large, forested tract located to the northeast, by I-275. Additionally, the project area is surrounded by commercial and industrial developments. Therefore, no state protected species would be impacted by the Proposed Action.

As previously mentioned, the potential impacts to the Indiana bat and the northern long-eared bat would be mitigated per USFWS guidelines. No other Federal or state protected species was found to occur at the Project Sites. Therefore, the Proposed Action would not cause a significant impact to biological resources.

#### No Action

The No Action alternative does not involve any development and therefore would not cause any impacts to biological resources.

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### 5.3 CLIMATE

Although there are no federal standards for aviation-related greenhouse gas (GHG) emissions, it is well-established that GHG emissions can affect climate. The Council on Environmental Quality (CEQ) has indicated that climate should be considered in NEPA analyses.

Proposed Action

**Table 5-2** provides an estimate of the GHG construction emissions inventory. These estimates are provided for information only as no Federal NEPA standard for the significance of GHG emissions from individual projects on the environment has been established.

No Action

Under the No Action alternative, there would be no increase in project specific GHG emissions.

**Table 5-2  
GHG CONSTRUCTION EMISSIONS INVENTORY  
Cincinnati/Northern Kentucky International Airport**

Metrics	Annual Metric Tons		
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
Construction	5,423.42	0.18	0.02
GWP <sub>100</sub>	1.00	25.00	298.00
CO <sub>2e</sub>	5,423.42	4.56	7.11
CO <sub>2e</sub> Net Emissions	<b>5,435.09</b>		

CO<sub>2</sub> = Carbon Dioxide, CO<sub>2e</sub> = Carbon Dioxide equivalent, CH<sub>4</sub> = Methane, N<sub>2</sub>O = Nitrous oxide

GWP: Global Warming Potential

Total emissions may not sum exactly due to rounding.

Source: Landrum & Brown Analysis, 2016.

## 5.4 HISTORICAL, ARCHITECTURAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES

The *National Historic Preservation Act of 1966* (NHPA)<sup>4</sup> and the *Archeological and Historic Preservation Act of 1974*<sup>5</sup> are the primary Federal laws governing the preservation of historic and prehistoric resources, encompassing art, architecture, archeological, and other cultural resources. Section 106 of the NHPA requires that, prior to approval of a Federal or Federally-assisted project, or before the issuance of a license, permit, or other similar approval, Federal agencies take into account the effect of the project on properties that are on or eligible for listing on the National Register of Historic Places (NRHP).

### Proposed Action

The Proposed Action will include commercial development and associated roadways, parking, and infrastructure. As discussed in Chapter Four, *Affected Environment*, surveys for potential archaeological and historic resources were conducted at Site 3C. No significant archaeological sites that are listed or eligible for the NRHP have been found within the area of disturbance for the Proposed Action. There are no known historic structures on or eligible for the NRHP within the 1,000-foot view shed for the Proposed Action. After reviewing archeological survey results and historic structure survey results, the FAA made a determination of 'No Historic Properties Affected' for the Proposed Action. The Kentucky Heritage Council/State Historic Preservation Office (SHPO) concurred with this determination on June 9, 2016. See Appendix D, *Cultural Resources*, for the correspondence and survey results. Based on this information, it was determined the Proposed Action would not cause any impacts to any historical, architectural, archeological, or cultural resources.

### No Action

The No Action alternative would not cause any impacts to historic or archeological resources.

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<sup>4</sup> Public Law 89-665; 16 U.S.C. 470 et seq.

<sup>5</sup> Public Law 86-523, 16 U.S.C. 469-469c-2

## 5.5 LAND USE

The FAA has not established a significance threshold for land use impacts, other than those related to noise impacts. However, CEQ Regulations require that NEPA documents discuss any inconsistency with approved state and/or local plan(s) and law(s). Furthermore, the NEPA document should discuss potential hazards to aviation such as landfills, wildlife refuges, or wetland mitigation that may attract wildlife species hazardous to aviation and potential structure height impacts.

### Proposed Action

The site of the Proposed Action is located to the east of the Airport in a predominantly commercial area. The land uses immediately adjacent to the site are a mix of commercial uses with a few residential uses. There is a residential area located to the south of the site which is within an area in which residential property owners were offered voluntary acquisition. Four single family residences remain in this area. Exhibit 4-2, *Existing Land Use*, shows the location of the site and the surrounding land uses.

Property acquisition is not required for the Proposed Action; therefore, it would not disrupt communities nor require the relocation of residences or businesses. This area is increasingly being developed for commercial/light industrial uses. As noted in Chapter Four, Section 4.4.5, the Site 3C is within a zoning district that allows commercial and industrial uses. Therefore, the Proposed Action is consistent with local land use plans and zoning.

A Traffic Impact Study (TIS) was prepared to describe and measure the impact of traffic generated by the proposed development on the existing roadway system.<sup>6</sup> The TIS estimated the increase in peak hour traffic that would be generated by the Proposed Action. As shown in **Table 5-3**, it is estimated that the Proposed Action would generate 37 new AM peak hour trips and 42 new PM peak hour trips to and from the Project Sites.

**Table 5-3**  
**TRIP GENERATION ESTIMATES**  
**Cincinnati/Northern Kentucky International Airport**

	Annual Average Daily Traffic (ADT)			AM Peak Hour			PM Peak Hour		
	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit
Trucks	168	84	84	8	6	2	11	4	7
Autos	276	138	138	29	20	9	31	12	19
Total	444	222	222	37	26	11	42	16	26

Source: Viox & Viox, 2016.

The TIS assessed the potential impact of this additional traffic on the existing roadway system. The proposed development would have frontage on Point Pleasant Road and

<sup>6</sup> Viox & Viox; Traffic Impact Study Commercial Warehouse Development, Point Pleasant Road, Boone County, Kentucky, Prepared for CVG Site 3C; April 25, 2016.

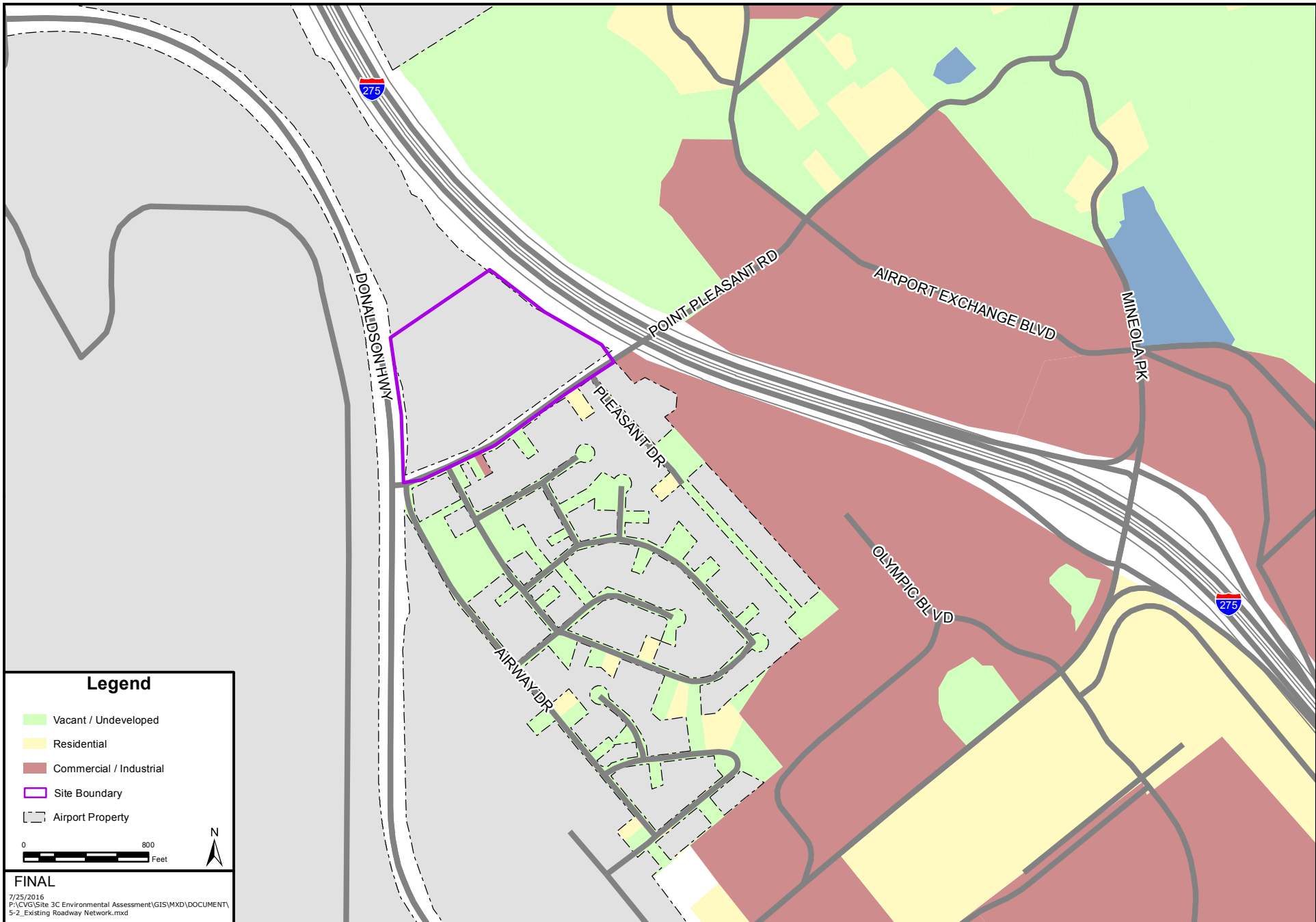
vehicles would access Point Pleasant Road from Donaldson Highway to the west or Airport Exchange Boulevard to the east as shown in **Exhibit 5-2, Existing Roadway Network**. The TIS assessed the current and potential future traffic volumes on these intersections with and without the Proposed Action. A southbound left turn lane from Donaldson Highway onto Point Pleasant Road is currently warranted for the AM peak hour and will continue to be warranted with or without the Proposed Action. No southbound left turn lane is warranted for the PM peak hour. No northbound right turn lane is warranted on Donaldson Highway at Point Pleasant Road under existing conditions or with the Proposed Action. No additional lane improvements are warranted for the intersection of Airport Exchange Boulevard and Point Pleasant Road under the Proposed Action. A copy of this TIS is included in **Appendix E, Traffic Study**.

The proposed development would cause an increase in surface traffic; however, this increase would not reduce the level of service to below acceptable levels. During construction, traffic to and from the site would also increase. However, the construction traffic would not result in a reduction in the level of service of the local roadways as traffic would be maintained at all times through the use of flaggers, arrow boards, and traffic control devices in order to reduce any potential congestion on the roads.

In addition, the Proposed Action would not create a new wildlife attractant or create an obstruction to navigation airspace per 14 CFR Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*. Therefore, no impacts to land use would occur with implementation of the Proposed Action.

#### No Action

The No Action alternative would not cause any changes to existing land use or traffic patterns; therefore, no land use compatibility impacts would occur.



**Legend**

- Vacant / Undeveloped
- Residential
- Commercial / Industrial
- Site Boundary
- Airport Property

0 800 Feet

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## 5.6 VISUAL EFFECTS

According to FAA Order 1050.1F, visual effects include light emissions and visual resources/visual character. These factors should be considered in an environmental review.

### 5.6.1 LIGHT EMISSIONS

#### Proposed Action

The Proposed Action would include development that would increase light emissions to illuminate the proposed new buildings and parking areas. The potential lighting sources that could impact the closest residential area would be located in the parking lots and security lighting on the building. The parking lot lights would be directed at a downward angle and therefore would not be directed towards nearby residences. The security lighting would illuminate the immediate area surrounding the building and would also not be directed at an angle that would cause lighting impacts to the residences. Light emissions during the construction of the Proposed Action are not anticipated to cause any impact to the surrounding areas as most of the construction would occur during daytime hours.

Site 3C is adjacent to an existing residential area in which residential property owners were offered voluntary acquisition. Four single family residences remain in this area. These residences may be subject to a noticeable increase in light; however, any potential increase is not expected to cause a significant adverse impact due to other sources of light in the area, including street lights and other nearby commercial development.

#### No Action

Under the No Action alternative, no changes would occur that would cause impacts from light emissions.

### 5.6.2 VISUAL RESOURCES/VISUAL CHARACTER

#### Proposed Action

The Project Sites are located on KCAB-owned land. Site 3C is adjacent to an existing residential area in which residential property owners were offered voluntary acquisition. Four single family residences remain in this area and one or more of these residences may be in view of the development. However, viewshed impacts are subjective in nature based on personal preference. Since these remaining four residences are in a location in which commercial development is occurring, it is not expected that additional commercial development due to the Proposed Action would cause significant visual impacts.

#### No Action

Under the No Action alternative, no changes would occur that would cause visual impacts.

## 5.7 WATER RESOURCES

Water resources include surface water, groundwater, floodplains, and wetlands, which function as a single, integrated natural system. Disruption of any one part of this system can have consequences to the functioning of the entire system. As noted in Chapter Four, *Affected Environment*, there are no floodplains within the Project Sites and therefore are not being discussed further.

### 5.7.1 WETLANDS AND STREAMS

The U.S. Army Corp of Engineers and the USEPA define wetlands as: "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

#### Proposed Action

As discussed in Chapter 4, field surveys were conducted at the site of the Proposed Action. Three wetlands and three ephemeral streams were found on Site 3C. The Proposed Action would impact all or part of the three streams totaling 795 linear feet. The Proposed Action would impact two of the three wetlands totaling 0.085 acres. Impacts to wetlands and streams are presented in **Table 5-4** and **Exhibit 5-1**. Coordination with the U.S. Army Corps of Engineers and Kentucky Division of Water is underway to obtain the appropriate permits per the U.S. Clean Water Act and identify mitigation requirements. All permit and mitigation conditions would be met; therefore, no significant impacts would occur to wetlands and streams.

**Table 5-4**  
**WETLAND AND STREAM IMPACTS**  
**Cincinnati/Northern Kentucky International Airport**

Waterbody Name	Waterbody Type	Hydrologic Status	Length of Impact (feet)	Area of Impact (acres)
<b>Streams</b>				
Stream 1	Ephemeral	Connected	25	0.0004
Stream 2	Ephemeral	Connected	275	0.009
Stream 3	Ephemeral	Connected	495	0.025
<b>Subtotal</b>			<b>795</b>	<b>0.034</b>
<b>Wetlands</b>				
Wetland 1	Emergent Wetland	Connected	N/A	0.049
Wetland 2	Emergent And Scrub/Shrub	Connected	N/A	0.036
Wetland 3	Forested Wetland	Connected	Not impacted	
<b>Subtotal</b>			<b>N/A</b>	<b>0.085</b>
<b>Total</b>			<b>795</b>	<b>0.119</b>

Source: Redwing Ecological Services, Inc.; 2016.

#### No Action

Under the No Action alternative, no development would occur that would cause impacts to wetlands or streams.



### 5.7.2 SURFACE WATERS

#### Proposed Action

The Proposed Action would directly impact three ephemeral streams as discussed in Section 5.7.1. The Proposed Action would create additional impervious surface area that would increase stormwater runoff and could potentially lower water quality. Potential indirect impacts to surface water quality from stormwater runoff would be limited through the construction of stormwater collection and detention facilities. Stormwater facilities would meet all applicable state and local regulations and stormwater discharges would comply with the terms of the Kentucky Pollution Discharge Elimination System (KPDES). A KPDES permit would be obtained. Best Management Practices (BMPs) would be incorporated into the construction. Contractors would be required to comply with all applicable Federal, state, and local laws and regulations, including FAA guidance contained in AC 150/5370-10G, *Standards for Specifying Construction of Airports*, including Item P-156 Temporary Air and Water Pollution, Soil Erosion and Siltation Control; AC 150/5320-15A *Management of Airport Industrial Waste*; and AC 150/5320-5D, *Subsurface Drainage Design*.

Implementation of stormwater management programs, adherence to the NPDES program requirements, and BMPs would prevent any significant water quality impacts to surface waters under the Proposed Action.

#### No Action

Under the No Action alternative, no development would occur and no additional impervious surface area would be created. Therefore, no impacts to surface water quality would occur.

### 5.7.3 GROUNDWATER

#### Proposed Action

The Project Sites are in a well-developed area with public water available. As noted in Chapter Four, *Affected Environment*, there are no drinking water wells or agricultural wells within a one-mile radius of the Project Sites. Construction and operation of the proposed development would abide by all applicable regulations related to spill prevention and control regulations to prevent spills from causing significant adverse impacts to groundwater. Therefore, no significant impacts to groundwater are anticipated.

#### No Action

Under the No Action alternative, no development would occur, thus no impacts to groundwater would occur.

## 5.8 OTHER CONSIDERATIONS

### 5.8.1 POSSIBLE CONFLICTS

There are no known conflicts between the Proposed Action and the objectives of Federal, state, regional, or local land use plans, policies, or controls.

### 5.8.2 INCONSISTENCY WITH APPROVED PLANS OR LAWS

The Proposed Action would not be inconsistent with plans, laws, or administrative determinations relating to the environment of Federal, state, regional, or local agencies. The Proposed Action is consistent with local zoning and capitalizes on existing roadways and other infrastructure that has been constructed to promote economic development in the area around the Airport.

### 5.8.3 MEANS TO MITIGATE ADVERSE IMPACTS

Means of preventing, minimizing or mitigating potential adverse environmental impacts would be incorporated into the plans for constructing and operating the Proposed Action, where noted, in the above impact categories. Mitigation has been identified for biological resources (threatened and endangered species) and wetlands.

### 5.8.4 DEGREE OF CONTROVERSY ON ENVIRONMENTAL GROUNDS

The Proposed Action would construct commercial/light industrial development and would increase employment in the area. The Proposed Action is consistent with the historic pattern of commercial and light industrial development that has occurred on nearby properties in the vicinity of Site 3C. The KCAB is not aware of any major environmental controversy that has been generated from past development similar to the Proposed Action. Furthermore, construction and operation of the proposed development would have no significant environmental impacts. Therefore, the Proposed Action is not expected to be controversial on environmental grounds.

## 5.9 CUMULATIVE IMPACTS

The CEQ NEPA regulations (40 CFR 1508.7) define a cumulative impact as "...the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency, Federal or non-Federal, or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time." This cumulative impact analysis was conducted to comply with the intent of FAA Order 1050.1F, DOT Order 5610.1C, and the January 1997 CEQ guidance.

The construction of the Proposed Action is planned to occur between 2016 and 2017, which would overlap with several other projects at and around CVG. With the exception of temporary construction-related impacts, the cumulative environmental impact of the Proposed Action is expected to be minimal. Potential impacts to biological resources and wetlands would be mitigated as necessary. Best management practices would be implemented during construction to avoid and minimize any potential adverse impacts during construction.

Recently completed projects at CVG include development on the south airfield of a commercial building, parking facilities, and surface roads, and expansion of DHL's facilities. Current projects include the demolition of Terminals 1 and 2, and the commercial development on the site known as 3A to the east of CVG. Future projects in the area include the Ted Bushelman Boulevard Development and the possibility of development of other under-utilized land parcels north, east, south, and west of the airfield. These projects are discussed in more detail in the following sections and the cumulative impacts to biological resources (threatened and endangered species) and wetlands are summarized.

#### South Airfield Road Development

The South Airfield Road Project included the construction of Aero Parkway and Ted Bushelman Boulevard. Aero Parkway stretches for 2.5 miles connecting Kentucky 18 and Turfway Road. Ted Bushelman Boulevard is approximately 0.6 miles and connects Aero Parkway to Houston Road. The new roads opened in October 2012.

#### DHL Cargo Distribution Building

This project included the development of a new cargo distribution building, airport roadway expansion, apron expansion, employee parking lot, and glycol storage facility location at the DHL facility on the southeast side of CVG property.

#### DHL Apron Expansion

This project included the expansion of the existing aircraft apron and construction of in-ground power system, glycol collection facilities, hydrant fueling, and lighting at the DHL facility on the southeast side of CVG property.

#### Site 3A Development

This project included the development of a commercial distribution facility on approximately 47 acres of vacant land east of CVG.

#### Demolition of Terminals 1 and 2

This project includes the demolition of the existing Terminal 1 and Terminal 2 facilities at CVG.

### Ted Bushelman Boulevard Development

This project includes proposed commercial development of an approximately 104-acre site on the east and west side of Ted Bushelman Boulevard south of Aero Parkway.

### Future Development of Under-Utilized Airport Parcels

The KCAB owns other parcels that are currently under-utilized. These parcels are being marketed to potential developers to encourage economic development in accordance with KCAB strategy and local planning and growth objectives.

### Summary of Potential Impacts

Previous environmental analysis of the above listed projects identified impacts to 5.55 acres of wetlands, 13,343 linear feet of intermittent and ephemeral streams and 54.57 acres of wooded areas. These past impacts, along with other present, and reasonably foreseeable future development projects, are not anticipated to result in significant cumulative impacts on any of the previously discussed environmental categories from the implementation of the Proposed Action. For each of these projects, impacts to endangered species and wetlands (if applicable) have been or would be mitigated per regulatory agency requirements. Therefore, no significant cumulative impacts would occur.

## **5.10 ADVERSE IMPACTS THAT CANNOT BE AVOIDED IF THE PROPOSED ACTION IS IMPLEMENTED**

Because implementation of the Proposed Action would not result in any significant adverse environmental impacts, there would not be any adverse impacts of the Proposed Action that cannot be avoided.

## **5.11 PERMITTING AND APPROVALS**

- Wetlands permitting and water quality certification would be required per Section 401 and Section 404 of the Clean Water Act. The KCAB has applied for a Section 404 permit to the Louisville District of the USACE. An Individual Water Quality Certificate under Section 401 of the Clean Water Act has been issued by the KYDOW.
- The Proposed Action is approved under the USFWS Kentucky Field Office (KFO) Conservation Strategy for Forest-Dwelling Bats provided that conservation measures are followed which includes contribution to the Imperiled Bat Conservation Fund (IBCF). KCAB has made the appropriate contribution to the IBCF per USFWS guidance.
- A KPDES permit or modification to an existing permit for stormwater would be required to be obtained through the KYDOW.

# Chapter Six

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# **CHAPTER SIX**

## **LIST OF PREPARERS**

### **Federal Aviation Administration**

Tommy DuPree, Assistant ADO Manager, provided input on the Proposed Action and the Purpose and Need.

Aaron Braswell, Environmental Protection Specialist, provided input throughout the process and was responsible for the review of the Environmental Assessment.

### **Cincinnati/Northern Kentucky International Airport**

Debbie Conrad, Senior Manager, Sustainable Services, provided input and Airport information throughout the process and responsible for managing and review of the Environmental Assessment.

### **Landrum & Brown**

Rob Adams, Principal, responsible for project management, technical input, and principal author of the Environmental Assessment.

Chris Sandfoss, Senior Consultant, provided technical input and assisted with the preparation of the Environmental Assessment.

Charles Babb, Managing Consultant, responsible for preparing the air quality analysis.

Chuck Lang, Senior Consultant, responsible for the preparation of graphics for the Environmental Assessment.

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