

**ENVIRONMENTAL ASSESSMENT
FOR IMPROVING THE
RUNWAY 6L/24R SAFETY AREA
AT BURKE LAKEFRONT AIRPORT,
CLEVELAND, OHIO**

Final

September 2012

Prepared for:

Department of Port Control
Cleveland Airport System

Prepared by:



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This Environmental Assessment becomes a Federal document when evaluated and signed and dated by the responsible FAA official.

Katherine S. Delaney
Responsible FAA Official

9/19/12
Date

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**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
GREAT LAKES REGION
DETROIT AIRPORTS DISTRICT OFFICE
ROMULUS, MICHIGAN**

FINDING OF NO SIGNIFICANT IMPACT/RECORD OF DECISION

for

IMPROVING THE RUNWAY 6L/24R SAFETY AREA & ASSOCIATED DEVELOPMENT

At

**BURKE LAKEFRONT AIRPORT
CLEVELAND, OHIO**



September 2012

Introduction

This Finding of No Significant Impact/Record of Decision (FONSI/ROD) has been prepared for a proposed project at Burke Lakefront Airport (BKL). The City of Cleveland (Sponsor) is the owner and operator of BKL. The proposed action, environmental impacts, and required mitigation are described in detail in the attached Environmental Assessment (EA), dated September 2012.

The City prepared the EA in accordance with the guidelines and requirements set forth by the Council on Environmental Quality (CEQ) and the Federal Aviation Administration (FAA) to implement the environmental review and disclosure provisions of the National Environmental Policy Act of 1969.

Based on the environmental evaluation, impacts, and mitigation commitments defined in the attached EA, no significant impacts associated with the development actions were identified in accordance with FAA Order 1050.1E, Environmental Impacts: Policies and Procedures and FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions of Airport Actions; therefore, no environmental impact statement will be prepared and a FONSI/ROD is being issued.

This FONSI/ROD provides a review of the impacts expected to occur to the environment from a decision to implement the Proposed Action, Sponsor mitigation requirements, and provides the FAA's basis for its decision. Specific project details and mitigation commitments are further defined in the attached EA.

I. The Purpose of and Need for the Proposed Action

The Purpose of the Proposed Action is to comply with Federal Aviation Administration Runway Safety Area standards. In order to meet the purpose of the Proposed Action, the following elements must also be taken into consideration.

- The Need for the Airport to maintain sufficient runway length to the extent practicable and maintain the existing instrument landing system capabilities to accommodate the current and projected fleet.
- The Need to maintain roadway access to the extent practicable in order to maintain Airport, U.S. Department of Agriculture (USDA), and the U.S. Army Corps of Engineers (USACE) maintenance and operational activities.
- The Need to provide ancillary development to support the safety area improvement project.

The Need to maintain sufficient runway length & the existing instrument landing system

Burke Lakefront Airport is located in downtown Cleveland in the midst of an urban setting. The Airport is bounded by many constraints, including obstructions to the east that place limits on instrument approaches into the airport. The existing Instrument Landing System (ILS) approach is a fixed feature at the airport based on the permanent obstructions and cannot be moved. Maintaining the Airport's only instrument approach is vital to the use of the airport in the region.

Runway 6L/24R is currently 6,198 feet long by 150 feet wide. The Airport is served by a wide variety of aircraft. This includes small single-engine airplanes to large air carrier jets used by local and visiting sports team on a charter basis. A runway length analysis of the existing fleet mix identified a need to maintain at least 6,198 feet of runway length.

The Need to maintain roadway access

The Airport maintains vehicle service roads that provide access around the airport perimeter. The vehicle service road needs to be maintained to the extent practicable and is broken into three distinct sections each serving a unique and required need. This road provides access for airport operations, USDA wildlife management and mitigation, and the USACE. The road is used for a variety of purposes by multiple users to complete their mission. Airport operations use the road to perform perimeter checks, maintenance operations, and wildlife management activities in accordance with their Part 139 certificate. The USDA uses the road as a part of their agreement with the City of Cleveland and the USACE to perform wildlife management and mitigation related to the activities associated with both the Combined Disposal Facilities and the proximity to Lake Erie. Lastly, the USACE uses portions of the vehicle service road to access the Combined Disposal Facility operation. This is the only land access to the operation.

The Need to provide ancillary development support to the project

The completion of the Proposed Action will require some airport facilities to be modified and/or improved to be consistent with the airfield layout. These ancillary development items include extending taxiways to the new runway thresholds and relocation of navigational aids.

II. Proposed Action

The Proposed Action will be constructed on Airport-owned land and adjacent U.S. Army Corps of Engineers land. The Proposed Action will improve the Runway 6L/24R Safety Area and associated development and is broken into the following components:

- *Construction of a 400-foot Engineered Materials Arresting System (EMAS) bed on the Runway 6L end.*
- *Displace the landing threshold of Runway 6L approximately 165 feet to the east.*
- *Construct an approximate 600-foot eastern shift and extension to Runway End 24R.*
- *Relocation and enhancements to the vehicle service road, identified by three distinct areas – the south end, west side, and north end.*

The Proposed Action is graphically depicted in the Final Environmental Assessment Exhibit 1-2.

The Connected Actions associated with this project include: the construction and extension of the taxiways to the new runway ends; the relocation of the existing FAA Navigational Aids (NAVAIDs), including the Runway End 6L End Identifier Lights, automated surface observing system, and the addition of in-ground runway lights in the shift/extension; and new runway marking and striping.

III. Alternatives Considered

There was a wide range of reasonable build alternatives that were evaluated to address the purpose of and need for this project. The Airport evaluated ten (10) airfield build alternatives, three (3) roadway alternatives, and the No Action alternative. The Sponsor's Preferred Alternative, is the construction of a 400-foot EMAS bed on Runway 6L; displace the landing threshold of Runway 6L approximately 165 feet; an approximate 600-foot eastern extension to the Runway 24R end; modifications to the existing vehicle service road; construction/extension of taxiways; relocation of existing FAA navigational aids (including REILs, ASOS, and the addition of in-ground runway lights in the extension); and new runway marking and striping.

Other alternatives were considered and eliminated due to feasibility, financial considerations, or not meeting the purpose and need of meeting FAA design standards, an enhanced runway safety area, and providing a 6,198 feet of runway available for take-off included:

- Establishment of a full RSA through Lake Erie land reclamation;
- Full RSA through shortening the runway and Lake Erie land reclamation;
- 600-foot non-standard RSA length on Runway 6L;
- Full RSA through shortening runway and shifting runway centerline 40 feet south;
- 835-foot non-standard RSA length on Runway 6L and 600-foot runway extension on Runway 24R;
- Full RSA through shortening runway and 800-foot runway extension on Runway 24R;
- Full RSA through shortening runway and 1,000-foot runway extension on Runway 24R; and full RSA through EMAS on Runway 6L and 1,000-foot extension on Runway 24R.

Each alternative was evaluated based on the following criteria:

- Does this alternative provide a FAA-standard RSA?
- Does this alternative maintain runway length and instrument capability?
- Is the alternative economically and environmentally feasible and/or reasonable?

Alternatives that were not able to meet each of the three criteria were eliminated from further consideration. Since the sponsors preferred alternative meets the purpose and need statement and have the fewest environmental impacts, the Sponsor's Preferred Alternative was carried forward for environmental consideration as well as the No Action alternative.

Alternatives Carried Forward

No Action alternative – The No Action alternative would maintain Runway 6L/24R in its existing location and there would be no enhancements or improvements to the runway safety area, vehicle service road, or runway shift.

Proposed Action (Sponsor's Preferred Alternative) – The Proposed Action is the construction of a 400-foot EMAS bed on Runway 6L; displace the landing threshold of Runway 6L approximately 165 feet; an approximate 600-foot eastern extension to the Runway 24R end; modifications to the existing vehicle service road (such as, maintaining portions of the road with operational restrictions and relocating other portions of the road outside the runway safety area); construction/extension of taxiways; relocation of existing FAA navigational aids (including REILs, ASOS, and the addition of in-ground runway lights in the extension); and new runway marking and striping.

It was determined a portion of the vehicle service road will remain in the RSA on the west side of the airport. This determination is based on the unique geographic location and proximity to Lake Erie to BKL. A portion of the road may remain in place subject to the conditions set forth below. Extensive review of the usage and need for the road was completed. It was determined the vehicle service road needs to remain in its existing location for Airport Operations, USDA, and USACE. Each entity uses the road for various reasons but are not limited to perimeter inspections, wildlife management, and access to the north side of the airfield.

In order for the vehicle service road to remain in the RSA many conditions must be met. The conditions as outlined in this finding include:

- Appropriate roadway signage must be installed to delineate the boundaries of the RSA.
 - The approved signage must ultimately be incorporated within the Airport Certification Manual. The Airport must also work with the assigned Airport Certification Safety Inspector (ACSI) on the proposed signage and marking plan. Additionally, it may be necessary to add additional pavement markings at a later date if deemed necessary by the FAA.
- The Airport must establish and enforce appropriate use of the roadway in the airports drivers training program.
 - The training program must include ensuring all personnel who have airfield driving access understand and are trained in the restrictions on the perimeter road. This action must be coordinated with the Airport's assigned ACSI.
- Operational procedures are established to ensure applicable portions of this road are no being used when aircraft operations are taking place on Runway 6L/24R.
 - Operational procedures must ensure the roadway remains clear during aircraft operations during towered and non-towered hours of operation. The procedures must be outlined and exhibited in the Airport Certification Manual to include but not be limited to a Letter of Agreement with the local Airport Traffic Control Tower. This agreement must be coordinated with the ACSI for acceptability.

IV. Public and Agency Coordination

The public and agency coordination was extensive. An agency meeting was held on March 7, 2012 and included a site visit.

Additional agency meetings were held with the USACE and the Ohio Department of Natural Resources (ODNR). The USACE meeting was held on May 9, 2012 in the Buffalo District office. The purpose of the meeting was to discuss the various options regarding the vehicle service road and use of the road. The ODNR meeting was held at the Burke Lakefront Airport on June 21, 2012. The purpose of the meeting was to discuss the close proximity of the vehicle service road to the Lake Erie shoreline and the various submerged land leases held between the City of Cleveland and the ODNR.

The draft EA was made available to the public on August 6, 2012 for 30 days and made available at the following locations: the Burke Lakefront Airport; Cleveland Hopkins International Airport, Planning and Engineering; City of Cleveland, Planning Department; Cleveland Public Library Main Office Science & Technology Department.

A public hearing was held on September 5, 2012 at the Burke Lakefront Airport from 3:00 p.m. to 6:00 p.m. The documentation at the public workshop portion is located in Appendix A. The public comment period was open until September 12, 2012, providing the public a total of 38 days to review and comment on the document. A transcript of the public hearing, including the response to comments is also located in Appendix A.

V. Environmental Considerations and Mitigation

The Proposed Action was compared to the environmental impacts of the No Action alternative described in the Final EA, September 2012. The environmental impacts and mitigation in this section of the FONSI are described for the Proposed Action only.

The following environmental categories were evaluated and found to have **no impacts**:

Air Quality
Architectural, Archaeological, and Cultural Resources
Coastal Resources
Compatible Land Use
Department of Transportation Section 4(f)
Farmlands
Fish, Wildlife and Plants
Floodplains
Hazardous Materials
Light Emissions and Visual Impacts
Natural Resources and Energy Supply
Noise
Secondary Induced Impacts
Socioeconomic Impacts, Environmental Justice and Children's Environmental Health and Safety Risks
Wild and Scenic Rivers

The following environmental impact categories were evaluated and found to have **no significant impact** for the Proposed Action:

1. Construction Impacts

The Proposed Action will include temporary construction impacts typical of construction projects in the area.

Mitigation: The Proposed Action may result in temporary, localized air, water, and noise quality impacts during construction. Construction documents will identify specific environmental control methods to minimize noise, air, and water quality impacts. Care will be taken when identifying haul routes and construction activity hours to avoid

residential areas in order to minimize noise impacts. Air quality impacts, such as fugitive dust and exhaust from construction equipment will be minimized by using some or all of the following measures, including the use of water or other appropriate liquids to control dust during land clearing, grading, and construction operations; tarp covers on trucks transporting construction materials to and from the site; the wetting of unpaved roadways and material stockpiles; and removing loose material, vehicle cleaning, and landscaping of disturbed areas. Sediment and erosion control measures will be used to minimize any water quality impacts under the requirements of the U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System Permit Program. No in-water work is approved for the construction of this project. Construction will comply with the most current version of FAA specifications AC 150/5370-2E – *Operational Safety on Airports During Construction* and AC 150/5370-10A – *Standards for Specifying Construction of Airports*. Ohio Environmental Protection Agency (OEPA) regulations will be followed, as required, to prevent air pollution. The City of Cleveland must obtain a general NPDES permit for any construction activity prior to the start of the project.

2. Water Quality

The Proposed Action includes impacts to the City of Cleveland-owned storm sewer pipes; Combined Sanitation/ Stormwater Pipes (Perpendicular to the Runway); and drainage along the Confined Disposal Facility 10B roadway and berm. The proposed road relocation out of the runway safety area is intended to restore the functionality of the drainage and the pipes once the road is relocated.

Mitigation: The storm sewer pipe located on the Runway 6L end in close proximity to the proposed EMAS bed will need to be relocated due to interference with potential maintenance of the pipe and sensitivity of the EMAS bed to construction traffic. Pipe relocation must be coordinated with the appropriate owners. Prior to construction of the replacement vehicle service road on USACE property, the USACE, Buffalo District and Real Estate Division must be coordinated with on the plans and specifications, including the proposed drainage structures with the road.

3. Wetlands

The Proposed Action includes impacts to isolated wetlands, which will require a Section 401 Water Quality Certification administered by the OEPA. Total impact avoidance to all of the identified wetlands in the proposed project area is not likely due to the site and engineering constraints for the proposed project. There are no prudent, feasible, or reasonable alternatives to avoid impacts to the wetlands. The Proposed Action will impact approximately 0.312 acres of isolated wetlands.

Mitigation: The City of Cleveland must receive the final jurisdictional determination from the USACE and all appropriate permits from both Federal and State agencies prior to the start of construction. The USACE administers the Clean Water Act and Section 404

permit and the OEPA administers the Section 401 Water Quality Certification. All permits must be obtained prior to impacting the wetlands. All applicable permits and mitigation requirements must be met prior to the start of the project.

Based upon the discussion presented in the Final EA related to wetland impacts, the proposed mitigation strategy, and in accordance with wetland protection provisions of Executive Order 11990, Protection of Wetlands, the FAA finds that: (a) there is no practicable alternative to such construction; and (b) the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

VI. FAA FINDINGS and ORDERS

The following determinations are based upon analysis contained in the EA:

Implementation of the Proposed Action would not cause an increase in net air emissions that would equal or exceed the applicable *de minimis* thresholds demonstrating the Proposed Action would not require a General Conformity Determination. Consequently, it can be concluded that no adverse impact on air quality would be expected as a result of the Proposed Action. [Clean Air Act, Section 176(c)(1) Conformity Determination for the Proposed Project. 42 U.S.C. Section 7506(c)]

Based on the discussion presented in the EA related to wetland impacts and in accordance with wetland protection provisions of Executive Order 11990, I find that: 1) There are no practicable alternatives to such construction, and 2) that the Proposed Action includes all practicable measures to minimize harm to wetlands which may result from such use.

Individuals from the FAA have devoted substantial attention to the EA in order to insure compliance with NEPA and other environmental requirements. Accordingly, I find that the independent and objective evaluation call for by the Council on Environmental Quality has been provided. The FAA has given this proposal the independent and objective evaluation required by the Council on Environmental Quality [40 CFR 1506.5].

I have carefully and thoroughly considered the facts contained in the attached EA. Based on that information, I find the proposed Federal action is consistent with the existing national environmental policies and objectives set forth in Section 101(a) of the National Environmental Policy Act of 1969 (NEPA) and other applicable environmental requirements and will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102(2)(C) of NEPA. As a result, FAA will not prepare an EIS for this action.

Therefore, under the authority delegated to me by the Administrator of the FAA, I find that the proposed airport improvement projects described and evaluated in the attached EA and addressed in this FONSI/ROD are reasonably supported and approved.

I direct that action be taken to carry out the agency actions discussed in the following proposed action:

- FAA approval of the final Airport Layout Plan for the Proposed Action showing the improvement project.
- Federal environmental approval so that the City of Cleveland can establish eligibility to participate in funding through the Federal Airport Improvement Program funds.
- Determination and actions, through the aeronautical study process of any off-airport obstacles that might be obstructions to the navigable airspace under the standards and criteria of 14 CFR Part 77 and evaluate the appropriateness of proposals for on-airport development from an airspace utilization and safety perspective based on aeronautical studies conducted pursuant to the processes under the standards and criteria of 14 CFR Part 157, including the conditions set forth earlier in this Finding of No Significant Impact/Record of Decision.
- Development of air traffic control and airspace management procedures to establish and maintain safe and efficient handling and movement of air traffic into and out of the airport under 49 U.S.C. Sections 40103, 40113, and 40120; development and approval of revision to Standard Instrument Approach Procedures (SIAP), Standard Instrument Departures (SID), and Standard Approach Routes (STAR) procedures (14 CFR Part 97).
- FAA environmental approval for issuance of necessary funding, installation, and/or relocation, certification, and operation of navigational aids and any associated revisions to the existing procedures.
- FAA determinations that the proposed projects conform to the greatest extent practicable and feasible to the FAA design standards including the conditions set forth earlier in this Finding of No Significant Impact/Record of Decision.

After careful and thorough consideration of the facts contained herein, the undersigned finds that the proposed Federal action is consistent with existing national environmental policies and objectives as set forth in Section 101 of the National Environmental Policy Act of 1969 and other applicable environmental requirements and will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 101(a) and Section 102(2)(C) of NEPA.

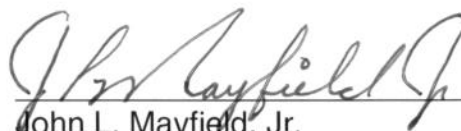
Having met all relevant requirements for environmental considerations and consultations, the Proposed Action is authorized to be taken at such time as the requirements have been met. These decisions are taken pursuant to 49 U.S.C. § 40101, et seq. The FAA findings contained in the ROD regarding the FONSI/ROD, Runway 6L/24R Safety Area Improvement, installation of Engineering Material Arresting

System, relocation of the vehicle service roads, and realignment of existing taxiways, and any necessary funding constitute an order of the Administrator, which is subject to review by the Court of Appeals of the United States in accordance with the provisions of Section 1006 of Federal Aviation Act of 1958, as amended, 49 U.S.C. § 46110.

Finally, having based upon the administrative review of this project, I certify, as prescribed by 49 U.S.C. 44502(b) that implementation of the Proposed Action is reasonably necessary for the use in air commerce.

APPROVED:

vx



John L. Mayfield, Jr.

Detroit Airports District Office Manager
Federal Aviation Administration

Date: 9-19-12

RIGHT OF APPEAL

This FONSI/ROD presents the Federal Aviation Administration's final decision and approvals for the actions identified, including those taken under provisions of 49 U.S.C. Subtitle VII, Parts A and B. This decision constitutes a final order of the Administrator subject to review by the Courts of Appeals of the United States in accordance with the provisions of 49 U.S.C. Section 46110.

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ACRONYMS

AAC	Aircraft Approach Category
AC	Advisory Circular
ACCRI	Aviation Climate Change Research Initiative
ALP	Airport Layout Plan
ADG	Airplane Design Group
APE	Area of Potential Effect
APU	Auxiliary Power Unit
AQCR	Air Quality Control Region
ARC	Airport Reference Code
ARFF	Aircraft Rescue and Fire Fighting
ATADS	Air Traffic Activity System
ATCT	Airport Traffic Control Tower
AWOS	Automated Weather Observing System
BMP	Best Management Practice
BCMP	Best Construction Management Practice
BKL	Burke Lakefront Airport
CAA	Clean Air Act, including the 1990 Amendments
CBD	Central Business District
CBRA	Coastal Barrier Resources Act
CDF	Confined Disposal Facility
CEQ	Council on Environmental Quality
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CIP	Capital Improvement Plan
CLE	Cleveland Hopkins International Airport
CMA	Coastal Management Area
CMSD	Cleveland Metropolitan School District
CNG	Compressed Natural Gas
CO	Carbon Monoxide

CSO	Combined Sewer Outfall
CWA	Clean Water Act
DEIS	Draft Environmental Impact Statement
DNL	Day-Night Average Sound Level
DOE	Department of Energy
DOT	Department of Transportation
DPC	City of Cleveland Department of Port Control
EA	Environmental Assessment
EDMS	Emissions and Dispersion Modeling System
EIS	Environmental Impact Statement
EMAS	Engineered Materials Arrestor System
EMS	Emergency Medical Service
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ETMS	Enhanced Traffic Management System
FAA	Federal Aviation Administration
FBO	Fixed Based Operator
FEMA	Federal Emergency Management Agency
FHWA	Federal Highways Administration
FIRM	Flood Insurance Rate Maps
FONSI	Finding of No Significant Impact
GA	General Aviation
GAO	General Accounting Office
GAV	Ground Access Vehicles
GHG	Greenhouse Gases
GSE	Ground Support Equipment
HIRL	High Intensity Runway Edge Lights
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules

ILS	Instrument Landing System
INM	Integrated Noise Model
ISR	Indirect Source Review
JD	Jurisdictional
LTO	Landing Take-Off Cycles
MA	Maintenance Area
MALSF	Medium Intensity Approach Lighting System with Sequenced Flashing Lights
MBTA	Migratory Bird Treaty Act
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NASA	National Aeronautics and Space Administration
NAVAIDS	Navigational Aids
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NMIM	National Mobile Inventory Model
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
NOAA	National Oceanic and Atmospheric Administration
NPL	National Priorities List
NRHP	National Register of Historic Places
O ₃	Ozone
OAC	Ohio Administrative Code
OCMP	Ohio Coastal Management Program
OFA	Object Free Area
ODNR	Ohio Department of Natural Resources
ODOT	Ohio Department of Transportation
PARTNER	Partnership for Air Transportation Noise & Emissions Reduction

PM	Particulate Matter
PM ₁₀	Coarse Particulate Matter
PM _{2.5}	Fine Particulate Matter
REILS	Runway End Identifier Lights
RHA	Rivers and Harbors Act
RPZ	Runway Protection Zone
RSA	Runway Safety Area
SC	Special Concern
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
SO _x	Sulfur Oxides
SWPPP	Stormwater Pollution Prevention Plan
TAF	Terminal Area Forecast
T&E	Threatened or Endangered
THPO	Tribal Historical Preservation Officers
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VASI	Visual Approach Slope Indicator
U.S.C.	United States Code
VOC	Volatile Organic Compounds