CVG

Embrace What's Next

Nighttime Runway Use Program EA
Noise Exposure Map (NEM) Update
Noise Compatibility Plan (NCP) Update

September 28, 2023

Agenda

- Introductions
- Airport Noise Compatibility Planning
- History of Part 150 Planning at CVG
- NEM / NCP Update Process
- Recommended Noise Compatibility Plan Updates
- FAA Environmental Requirements
- Environmental Assessment
- Draft Noise Exposure Contours
- Next Steps/Schedule

Airport Noise Compatibility Planning

- **Code of Federal Regulations (14 CFR) Part 150**
  - Established requirements for airport owners who choose to submit noise exposure maps and develop noise compatibility planning programs for FAA review and approval
  - Typically is voluntary on the part of an airport
  - Identify noise and land use impacts that exist today and in the future
  - Work to develop solutions within the FAA's framework

History of Part 150 Planning at CVG

- 1991 Part 150 Study (original)
- 1993 Part 150 Study Update
- 2000 Part 150 Study Update
- 2008 Part 150 Study Update
  - Developed new nighttime runway selection process
  - Included Ohio River turn for nighttime departures from Rwy 36R

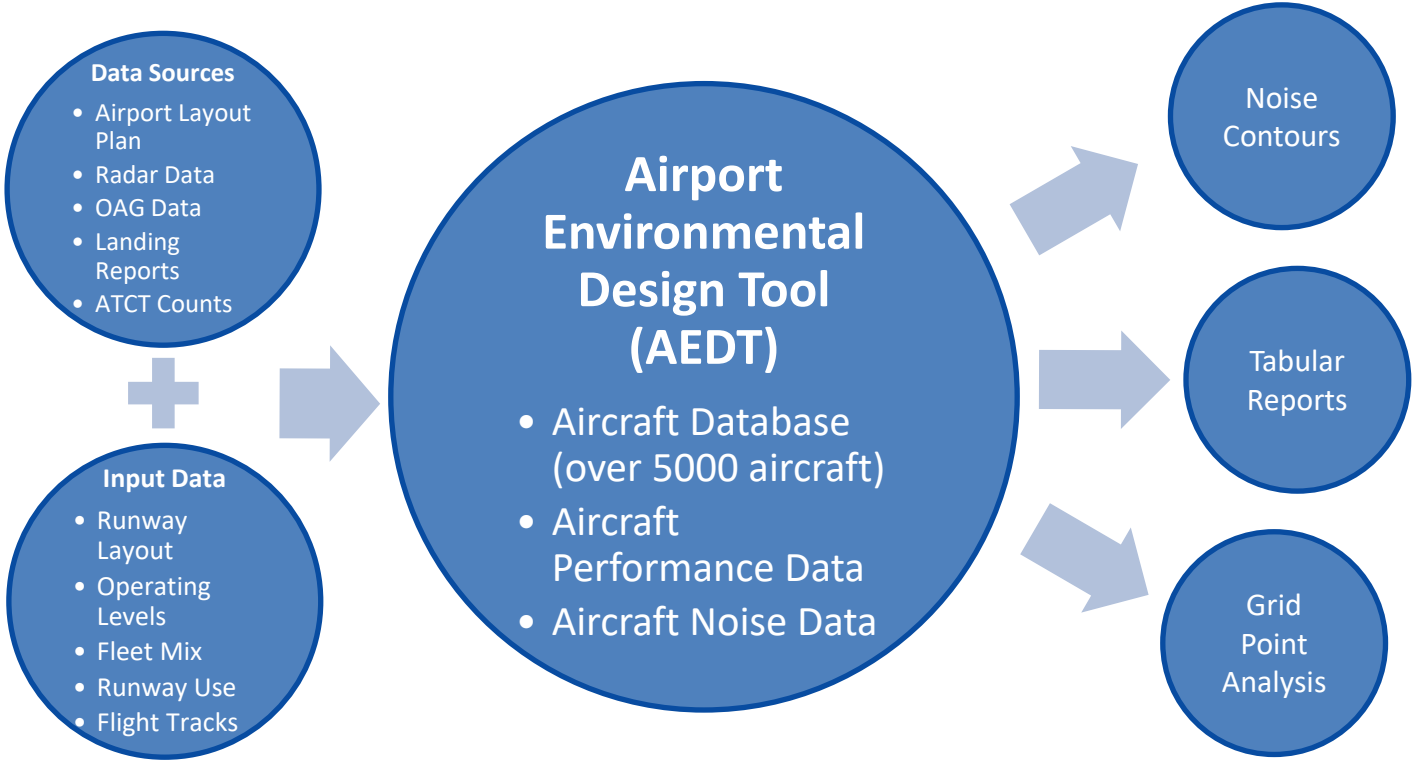
NEM / NCP Update Process

Essential Elements of a Part 150 Update

- **Noise Exposure Maps (NEMs)**
  - Description of the noise levels for existing and future (+5 years) conditions
  - Future condition based on forecast of aircraft activity
  - Noise exposure contours overlaid onto land use base map
- **Noise Compatibility Program (NCP)**
  - Recommendations for reducing, minimizing, and/or mitigating aircraft noise and land use conflicts
    - Noise Abatement Measures
    - Land Use Mitigation Measures
    - Implementation Measures
- **Public and Stakeholder Involvement Process**

NEM / NCP Update Process

Airport Environmental Design Tool (AEDT)



NEM Update Process – Input Data

Aircraft Operations – 2023 Noise Exposure Contour

Aircraft Category	2023 Operating Levels		
	Annual	Average Annual Day	Percent
Widebody Jets	50,480	138.3	24.5%
Narrowbody Cargo Jets	20,294	55.6	9.9%
Narrowbody Passenger Jets	115,486	316.4	56.1%
Regional Jets	15,075	41.3	7.3%
Commuter/Cargo/GA Props	4,380	12.0	2.1%
Total	205,714	563.6	100.0%

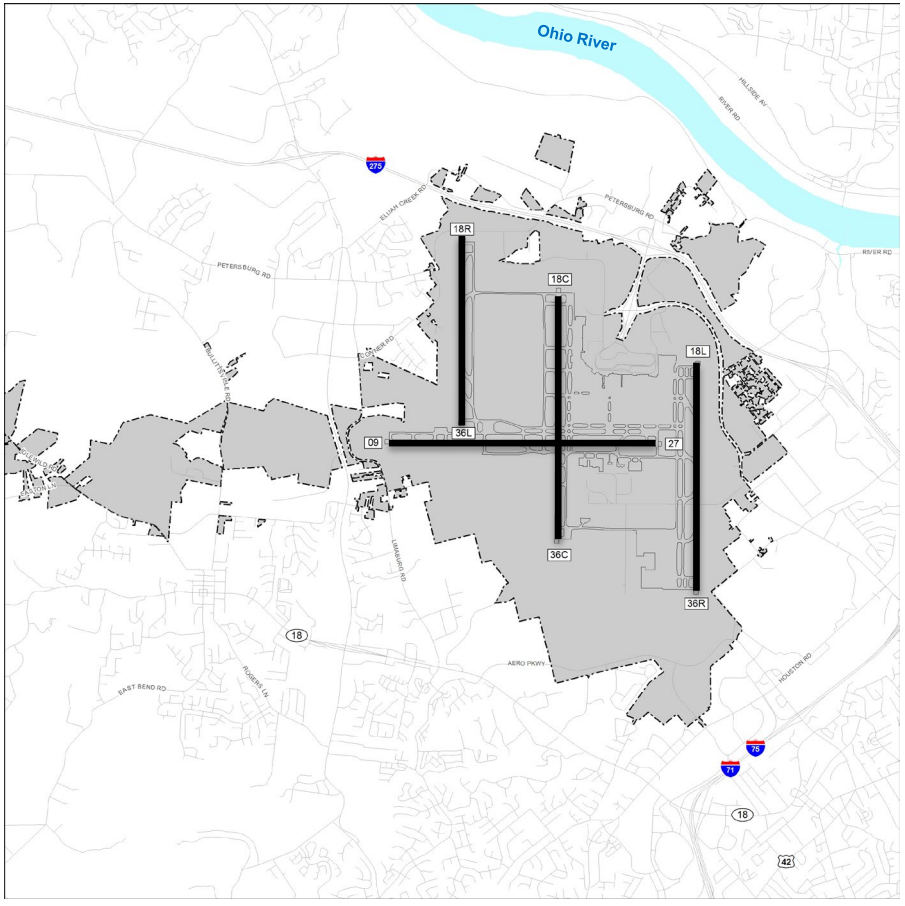
NEM Update Process – Input Data

Aircraft Operations – 2028 Noise Exposure Contour

Aircraft Category	2028 Operating Levels		
	Annual	Average Annual Day	Percent
Widebody Jets	75,044	205.6	29.3%
Narrowbody Cargo Jets	30,405	83.3	11.9%
Narrowbody Passenger Jets	127,969	350.6	50.0%
Regional Jets	16,133	44.2	6.3%
Commuter/Cargo/GA Props	6,388	17.5	2.5%
Total	255,938	701.2	100.0%

NEM Update Process – Input Data

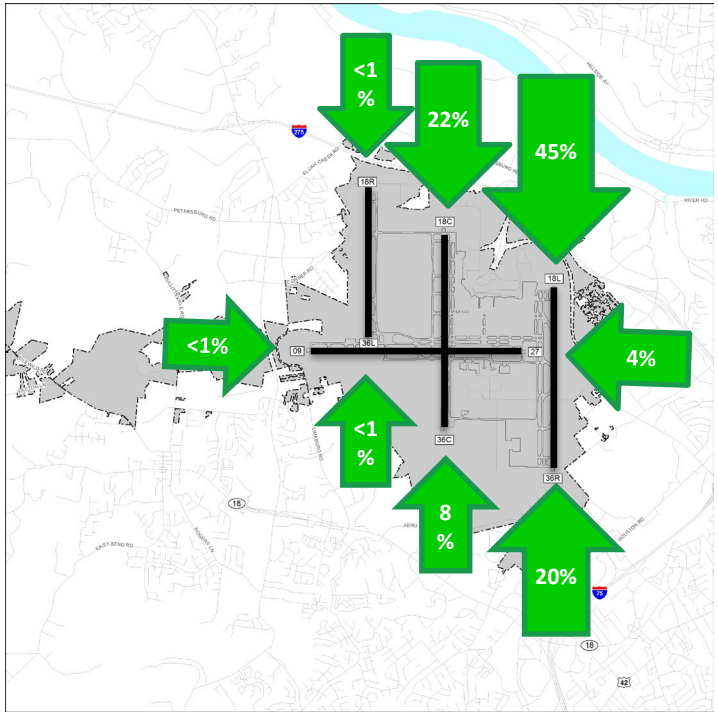
Airport Layout



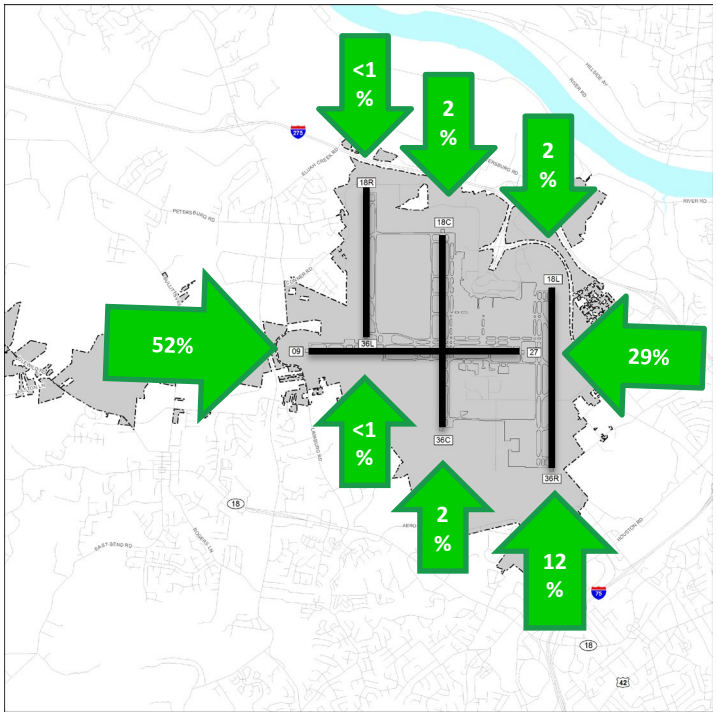
NEM Update Process – Input Data

Runway Use – 2023 Average-Annual Day Conditions

Daytime Arrivals (7:00am to 9:59pm)



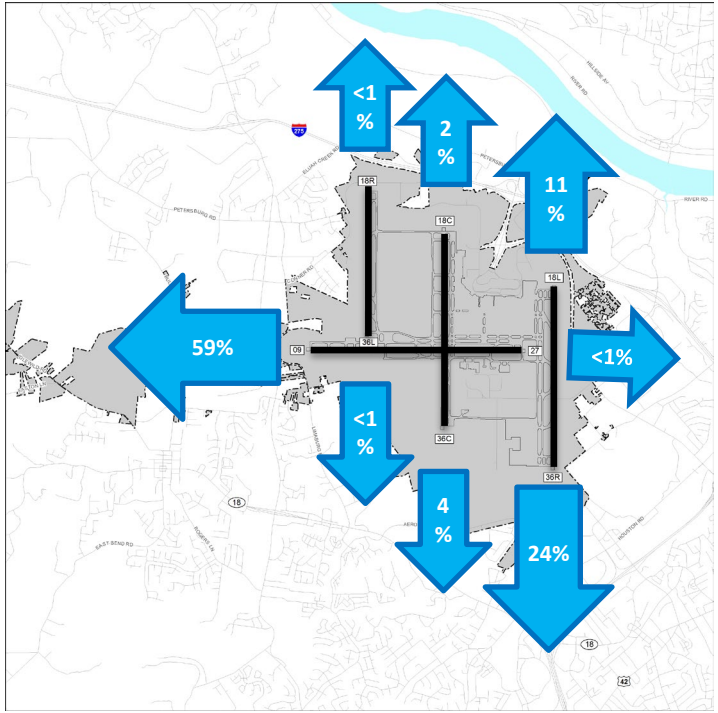
Nighttime Arrivals (10:00pm to 9:59am)



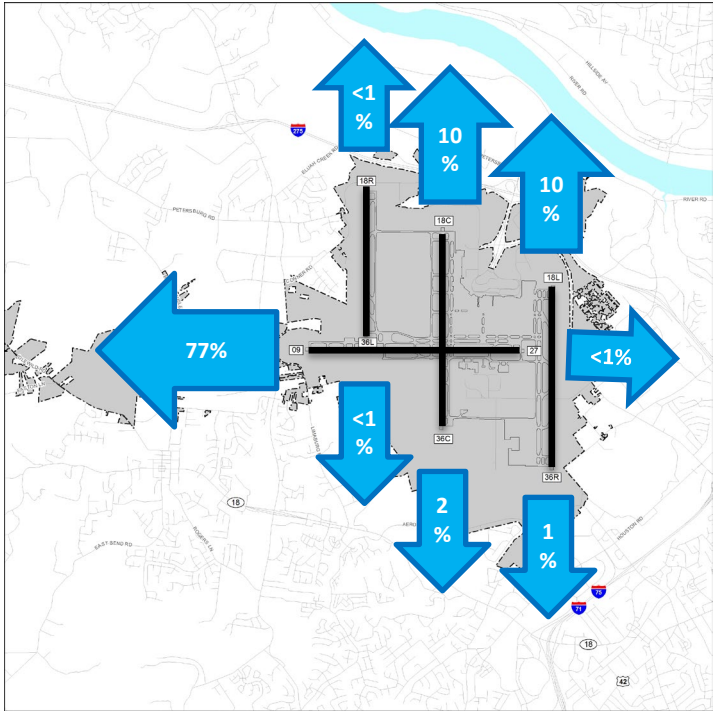
NEM Update Process – Input Data

Runway Use – 2023 Average-Annual Day Conditions

Daytime Departures (7:00am to 9:59pm)



Nighttime Departures (10:00pm to 9:59am)



Recommended Noise Compatibility Plan Updates

- The Proposed Action consists of updates to the nighttime runway use program.
  - OP-17: Modify existing nighttime runway use program to include Runway 18L/36R;
  - OP-18: Assign heavy (>255,000 lbs) aircraft departures to Runway 27 during the nighttime hours (10:00 pm to 7:00 am);
    - This preference for Runway 27 is not intended to restrict the use of other runways, such as Runway 18L/36R or Runway 18C/36C, when wind, weather, and operating conditions require.
  - OP-19: Turbojet aircraft departing Runway 36R during the nighttime hours (10:00 pm to 7:00 am) turn left to 330-degree heading to follow the Ohio River corridor.

Recommended Noise Compatibility Plan Updates

OP-17: Modify existing nighttime runway use program to include Runway 18L/36R

OP-18: Assign heavy (>255,000 lbs) aircraft departures to Runway 27 during the nighttime hours (10:00 pm to 7:00 am);

DEPARTURES	ARRIVALS	REMARKS	Primary Factors for Selecting the Operational Configuration
27 – Primary	**9 – Primary**	Would remain the KCAB's number 1 priority for nighttime operations.	Most preferred choice. Used for separate arrival and departure bank periods. No wind condition.
27 – Primary **36R – Secondary**	**36R – Primary** **36C – Secondary**	Maximize the use of Runway 27 for departures and Runway 36R for arrivals. Runway 36R (for departures) and Runway 36C (for arrivals) are to be used as overflow when wind/operational conditions require the use of a second runway.	Second choice when required for operational reasons. Typically used during heavy departure bank periods with minimal arrival operations. No wind condition or a north wind condition.
27 – Primary **18L – Secondary**	**18C – Primary**	Maximize the use of Runway 27 for departures and Runway 18C for arrivals. Runway 18L (for departures) is to be used as overflow when wind/operational conditions require the use of a second runway.	Third choice when required for operational reasons. Typically used during heavy departure banks with minimal arrival operations. South wind condition. This configuration is expected to occur during the shoulder hours between 10:00 p.m. and 11:00 p.m. and 6:00 a.m. and 7:00 a.m.
36R – Primary **36C – Secondary**	**9 – Primary** **36R – Secondary**	Maximize the use of Runway 36R for departures and Runway 9 for arrivals. Runway 36C (for departures) and Runway 36R (for arrivals) are to be used during high arrival periods with a few departures.	Fourth choice when required for operational reasons. Typically used during heavy arrival banks with minimal departures. No wind condition or a north wind condition. The use of Runway 36C as a secondary choice would preclude the use of the Runway 36R noise abatement turn (OP-19).

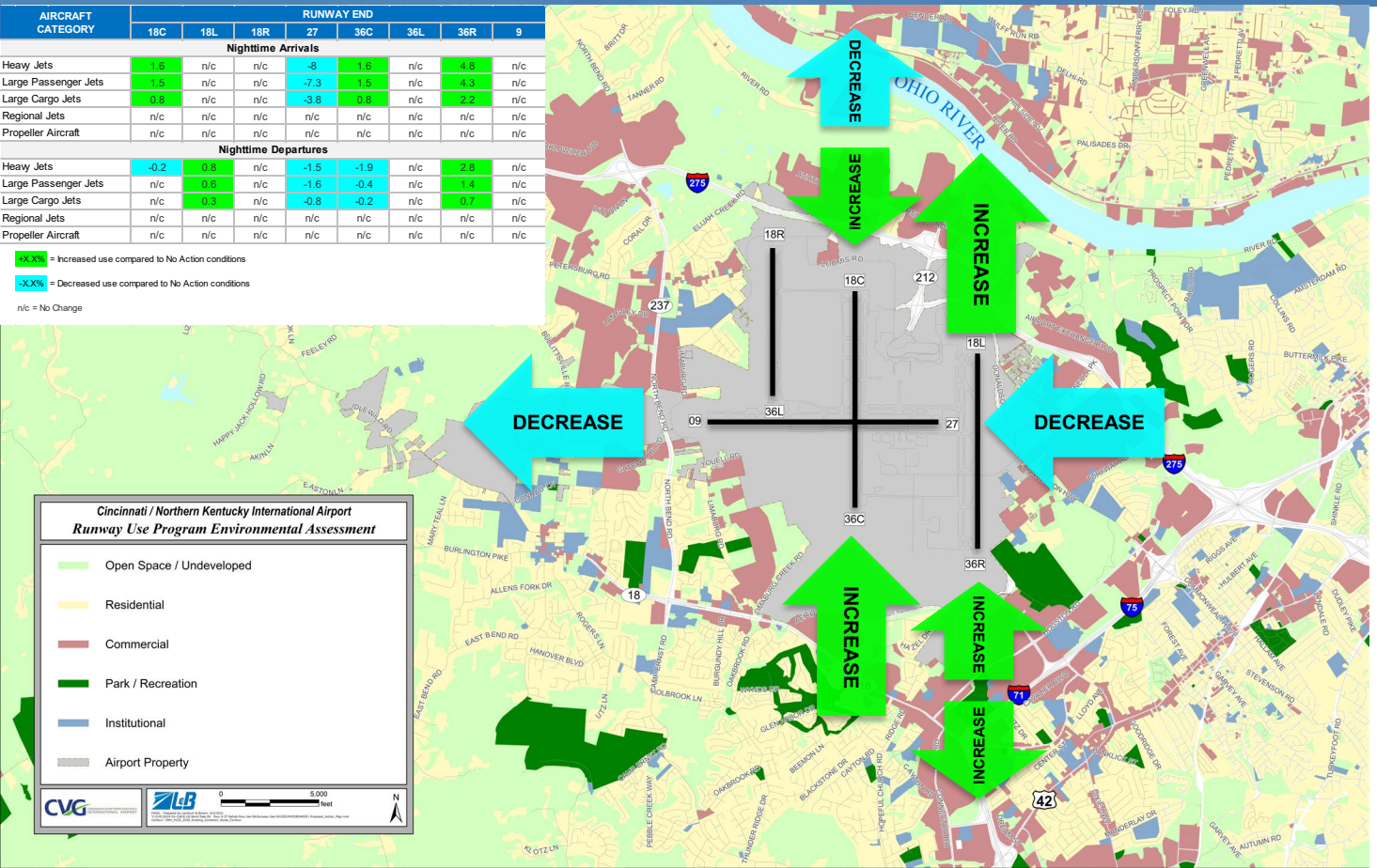
Recommended Noise Compatibility Plan Updates

AIRCRAFT CATEGORY	RUNWAY END							
	18C	18L	18R	27	36C	36L	36R	9
Nighttime Arrivals								
Heavy Jets	1.6	n/c	n/c	-8	1.6	n/c	4.8	n/c
Large Passenger Jets	1.5	n/c	n/c	-7.3	1.5	n/c	4.3	n/c
Large Cargo Jets	0.8	n/c	n/c	-3.8	0.8	n/c	2.2	n/c
Regional Jets	n/c	n/c	n/c	n/c	n/c	n/c	n/c	n/c
Propeller Aircraft	n/c	n/c	n/c	n/c	n/c	n/c	n/c	n/c
Nighttime Departures								
Heavy Jets	-0.2	0.8	n/c	-1.5	-1.9	n/c	2.8	n/c
Large Passenger Jets	n/c	0.6	n/c	-1.6	-0.4	n/c	1.4	n/c
Large Cargo Jets	n/c	0.3	n/c	-0.8	-0.2	n/c	0.7	n/c
Regional Jets	n/c	n/c	n/c	n/c	n/c	n/c	n/c	n/c
Propeller Aircraft	n/c	n/c	n/c	n/c	n/c	n/c	n/c	n/c

+X.X% = Increased use compared to No Action conditions

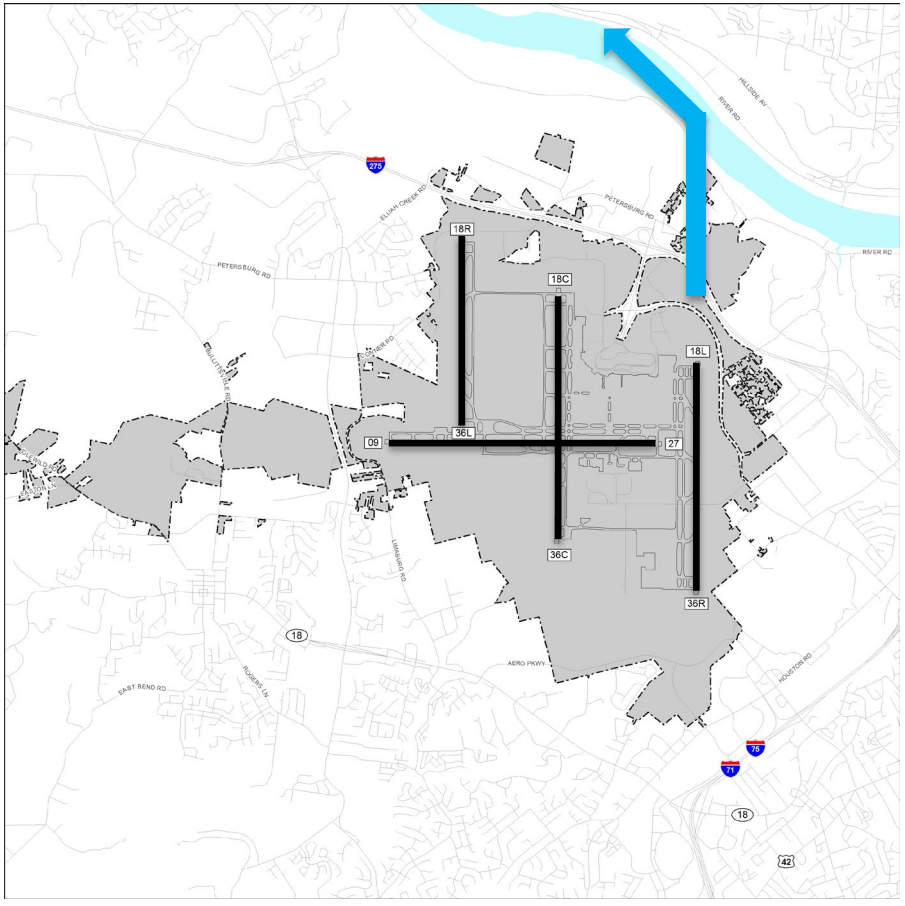
-X.X% = Decreased use compared to No Action conditions

n/c = No Change



Recommended Noise Compatibility Plan Updates

OP-19: Turbojet aircraft departing Runway 36R during the nighttime hours (10:00 pm to 7:00 am) turn left to 330-degree heading to follow the Ohio River corridor.



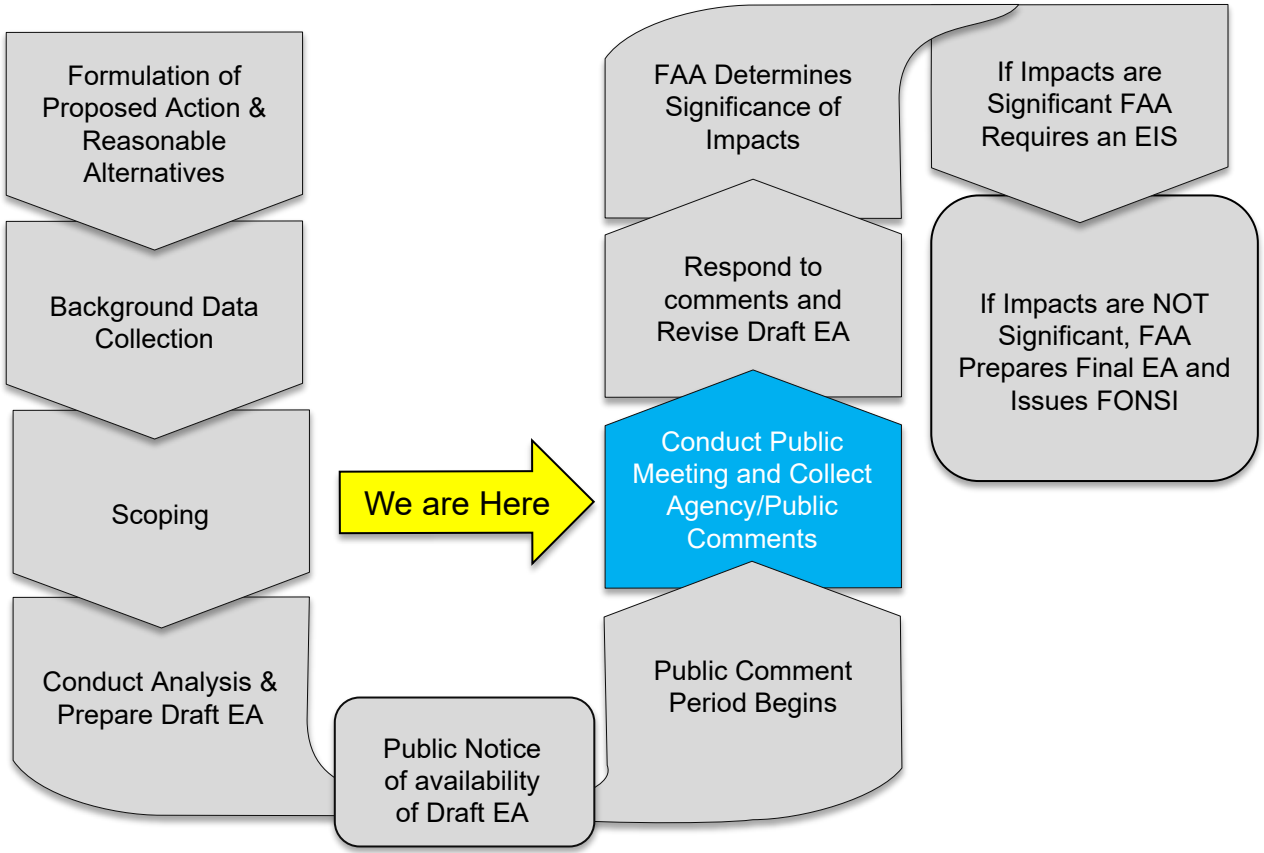
FAA Environmental Requirements

- **National Environmental Policy Act (NEPA)**
  - Requires environmental review of projects receiving federal funding or approval
  - The purpose of NEPA is for federal agencies to inform decision makers, agencies, organizations, and the public about whether a federal action would significantly affect the environment
  - Three levels of NEPA Review:
    - Categorical Exclusion
    - Environmental Assessment (EA)
    - Environmental Impact Statement (EIS)

Environmental Assessment

- Meets the requirements of the National Environmental Policy Act to address the following Federal Actions:
  - FAA approval of amendment to the Airport Traffic Control Tower Order to implement Measures OP-17, OP-18, and OP-19
  - Developing and publishing a departure procedure for the Runway 36R Ohio River departure corridor
  - Amending the Part 150 Noise Compatibility Program with modification to Measure OP-18
- Provides sufficient evidence and analysis for a federal determination of whether to prepare an Environmental Impact Statement (EIS) or issue a Finding of No Significant Impact (FONSI)

Environmental Assessment Process

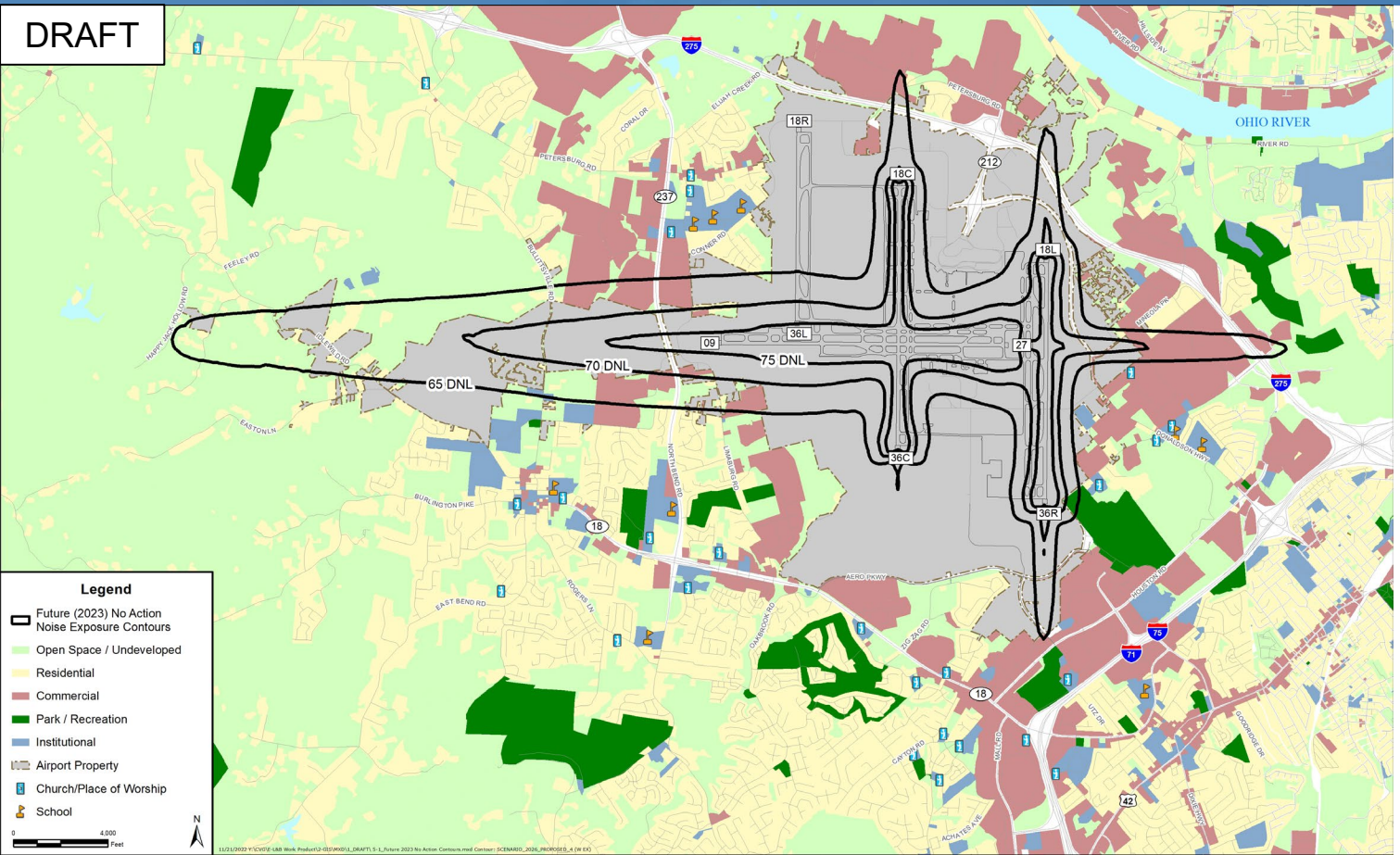


Environmental Assessment

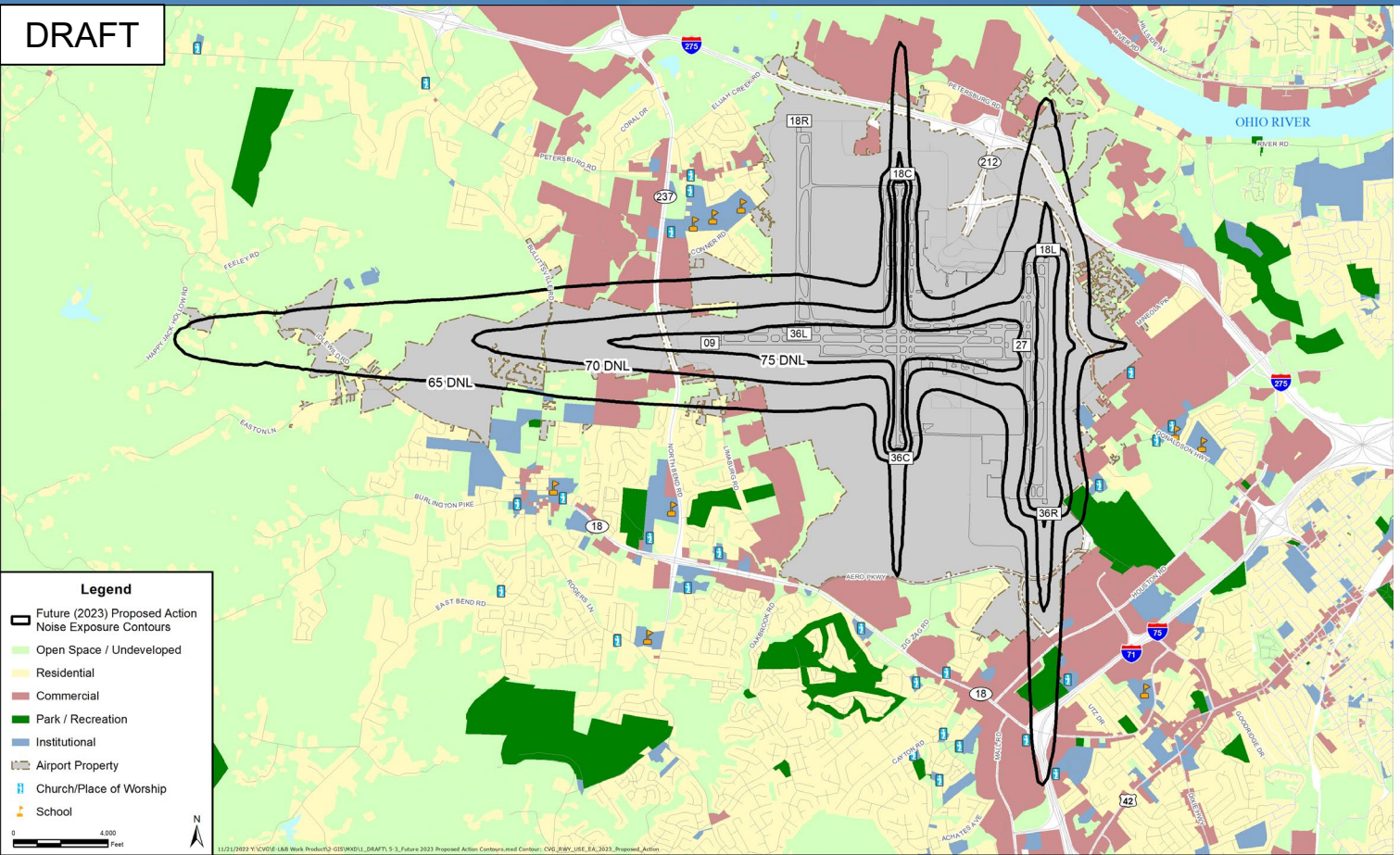
Environmental Impact Categories

- **Air Quality**
- Biological Resources
- **Climate**
- Coastal Resources
- **Department of Transportation Act, Section 4(f) Resources**
- Farmlands
- Hazardous Materials, Solid Waste, and Pollution Prevention
- **Historical, Architectural,** Archaeological, and Cultural Resources
- Land Use
- **Natural Resources and Energy Supply**
- **Noise and Noise-Compatible Land Use**
- **Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks**
- Visual Effects (including light emissions)
- Water Resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)
- **Cumulative Impacts**

2023 No Action Noise Exposure Contours



2023 Proposed Action Noise Exposure Contours



2023 Proposed Action Compared to 2023 No Action Noise Exposure Contours

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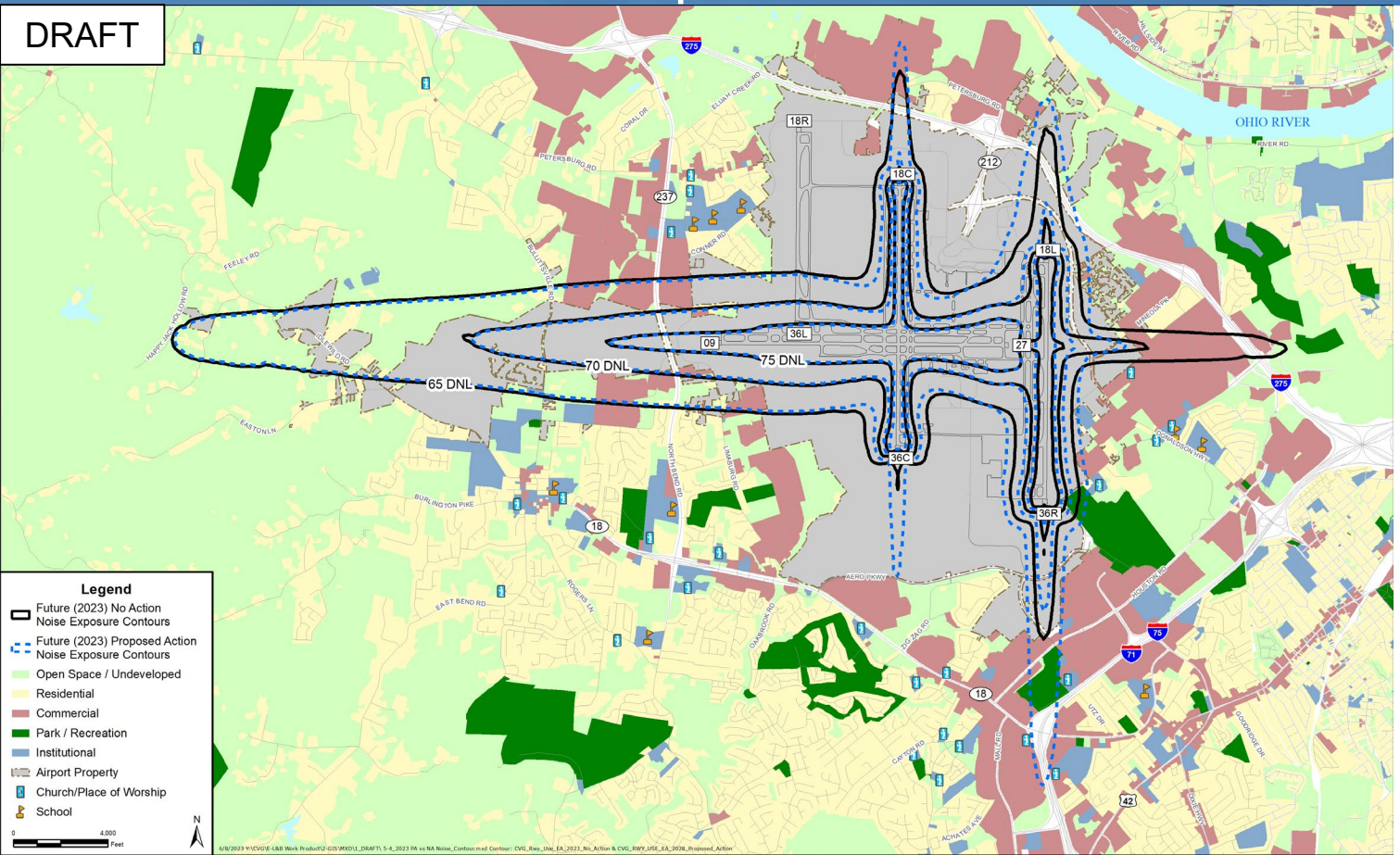
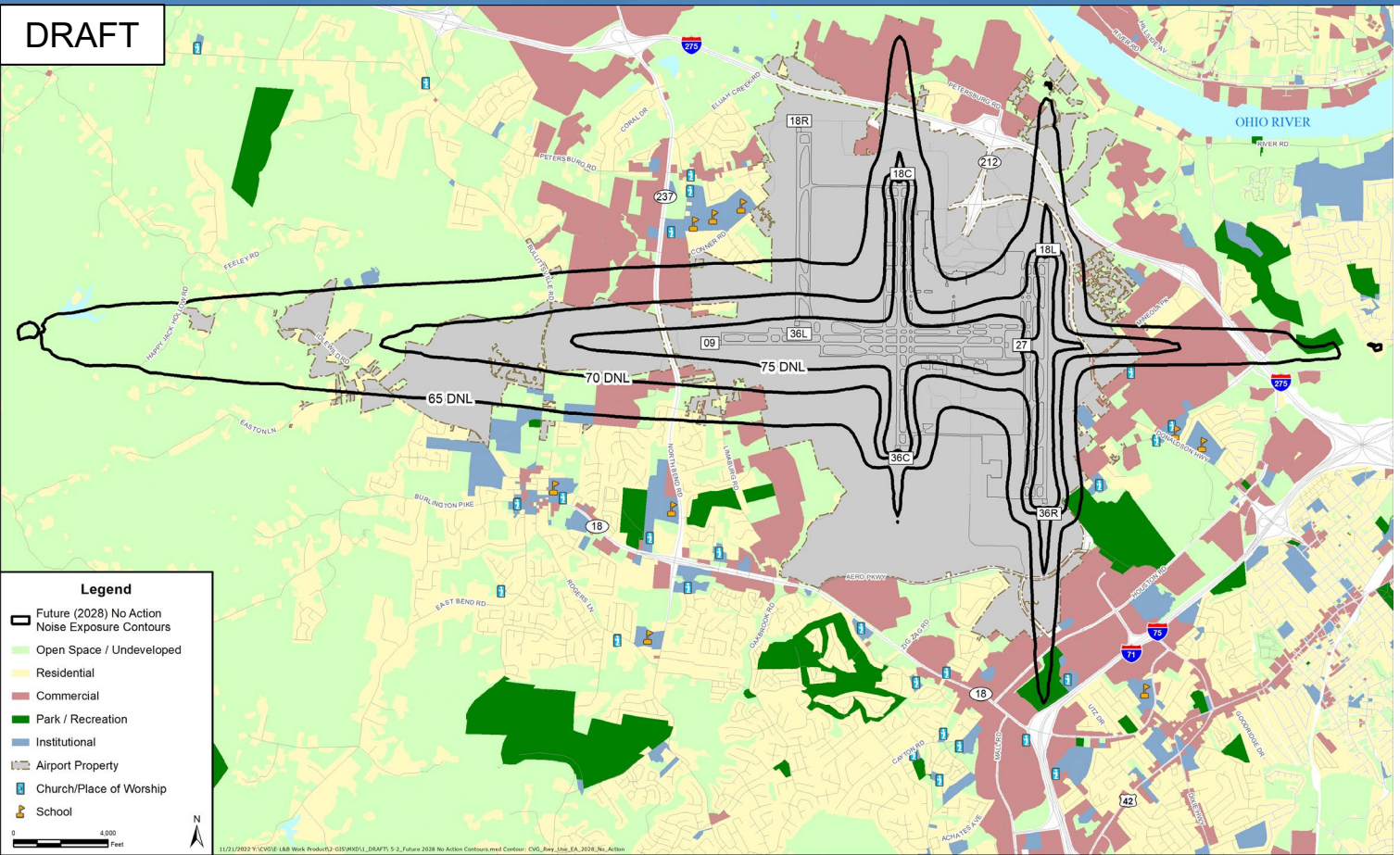


2028 No Action Noise Exposure Contours



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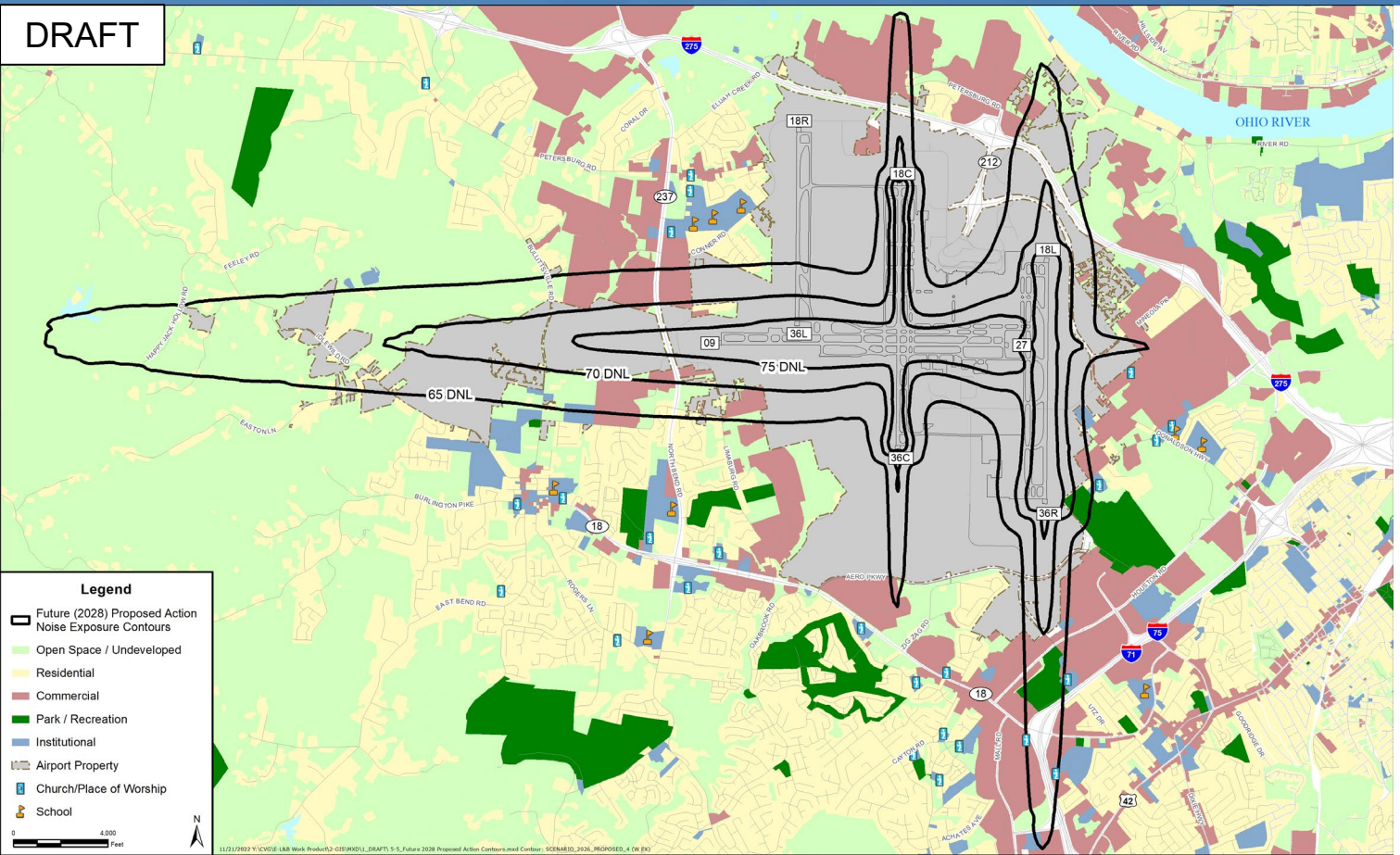

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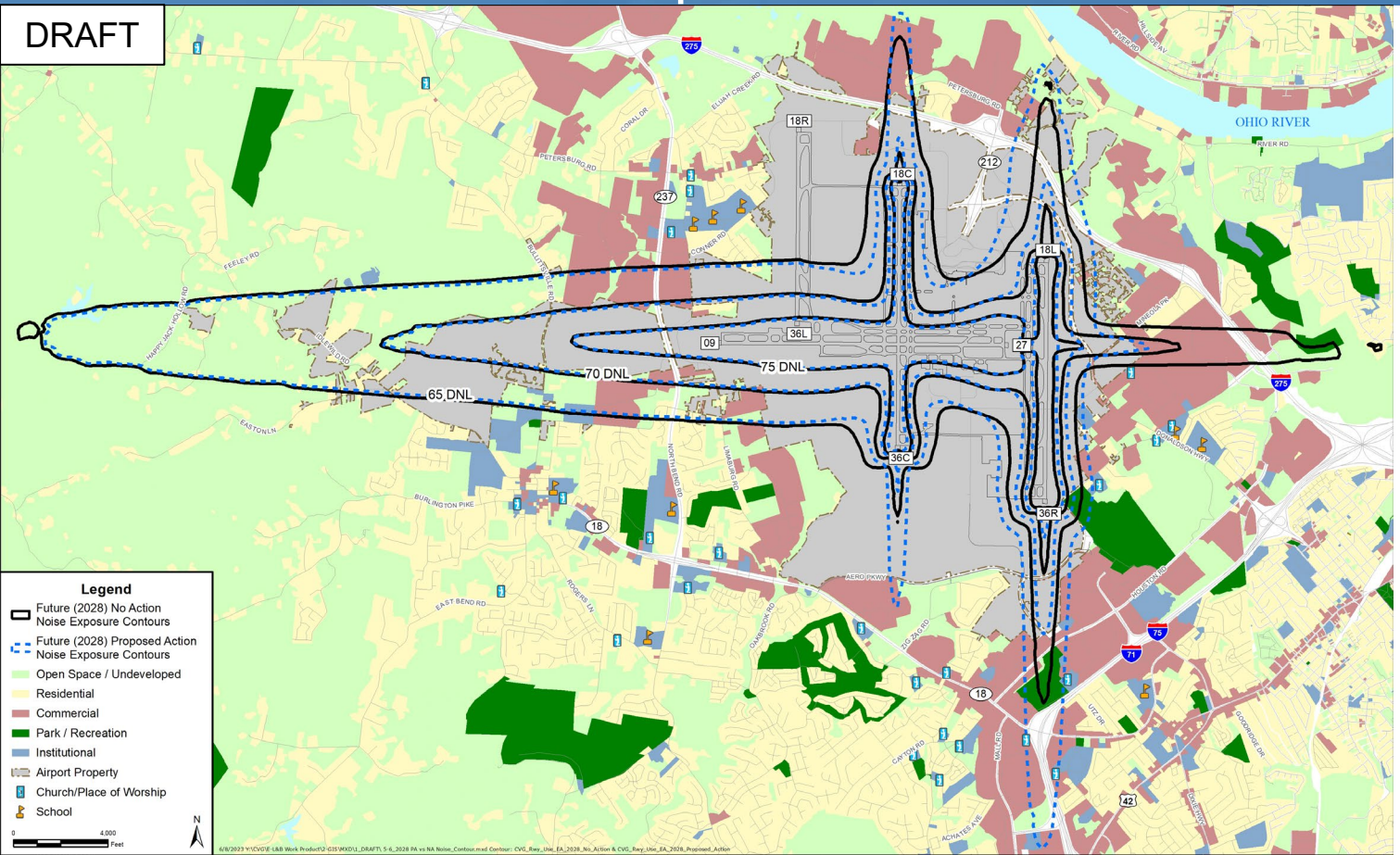

2023 Proposed Action Area of DNL 1.5 dB Increase within the 65 DNL Noise Exposure Contour

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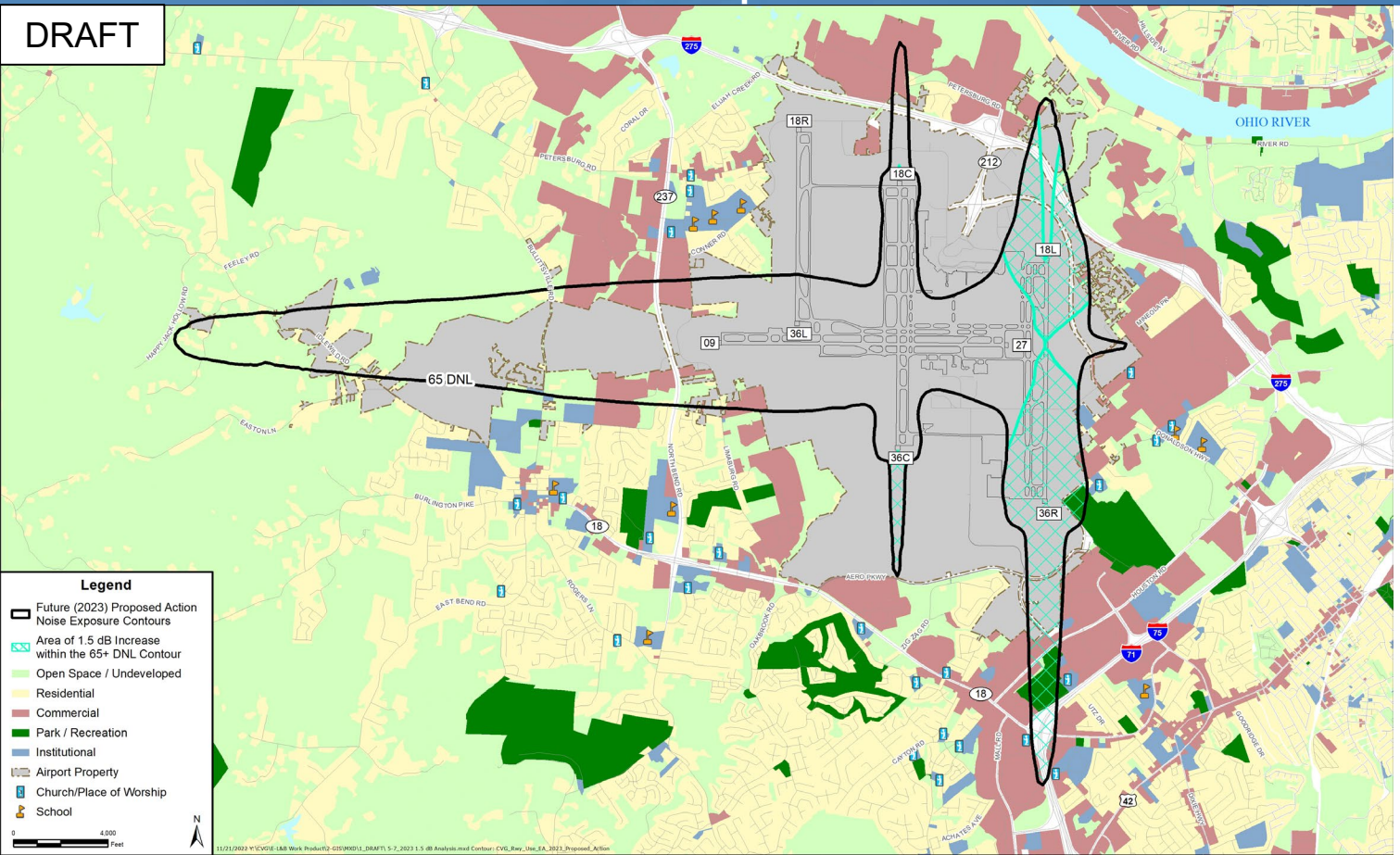

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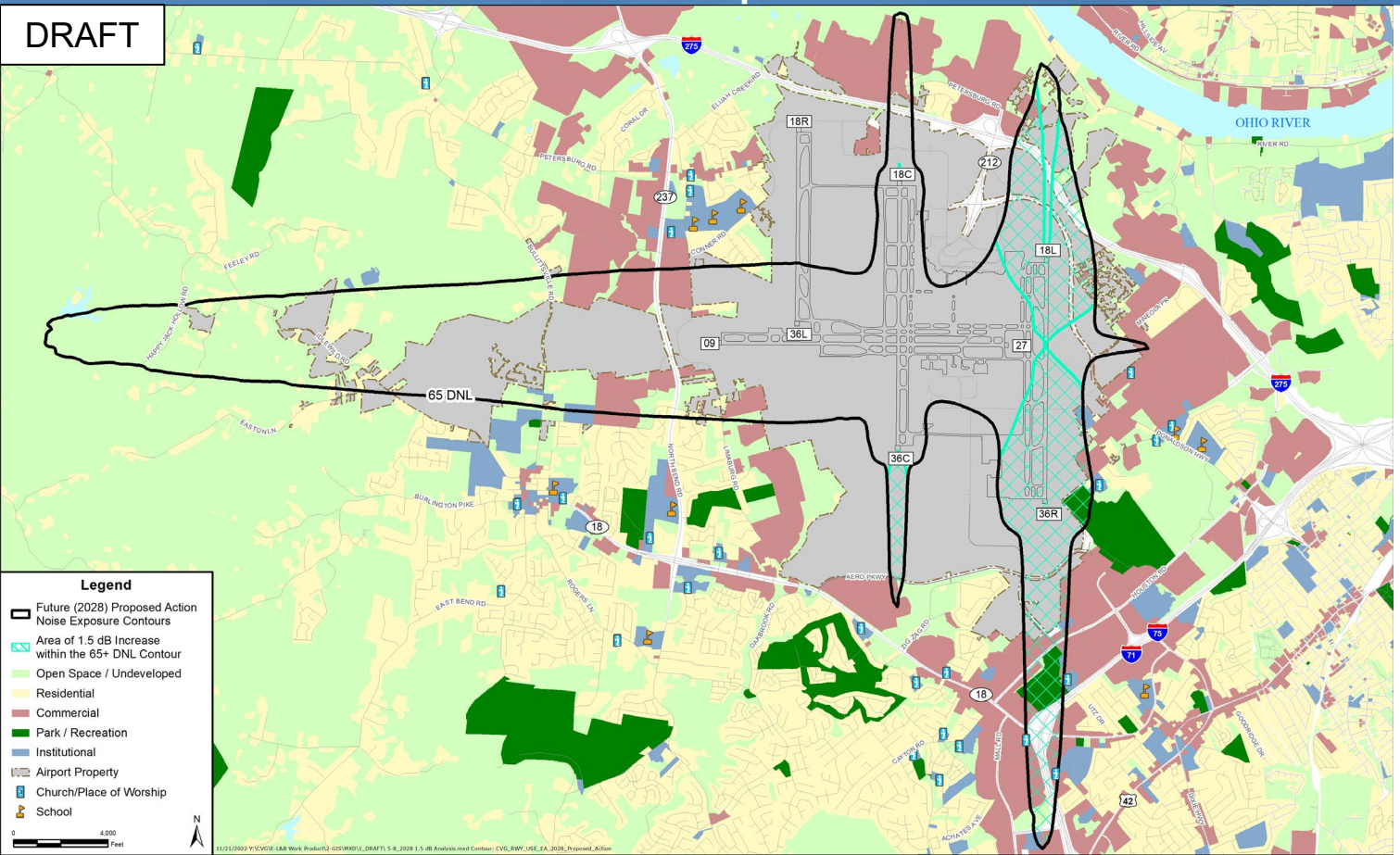

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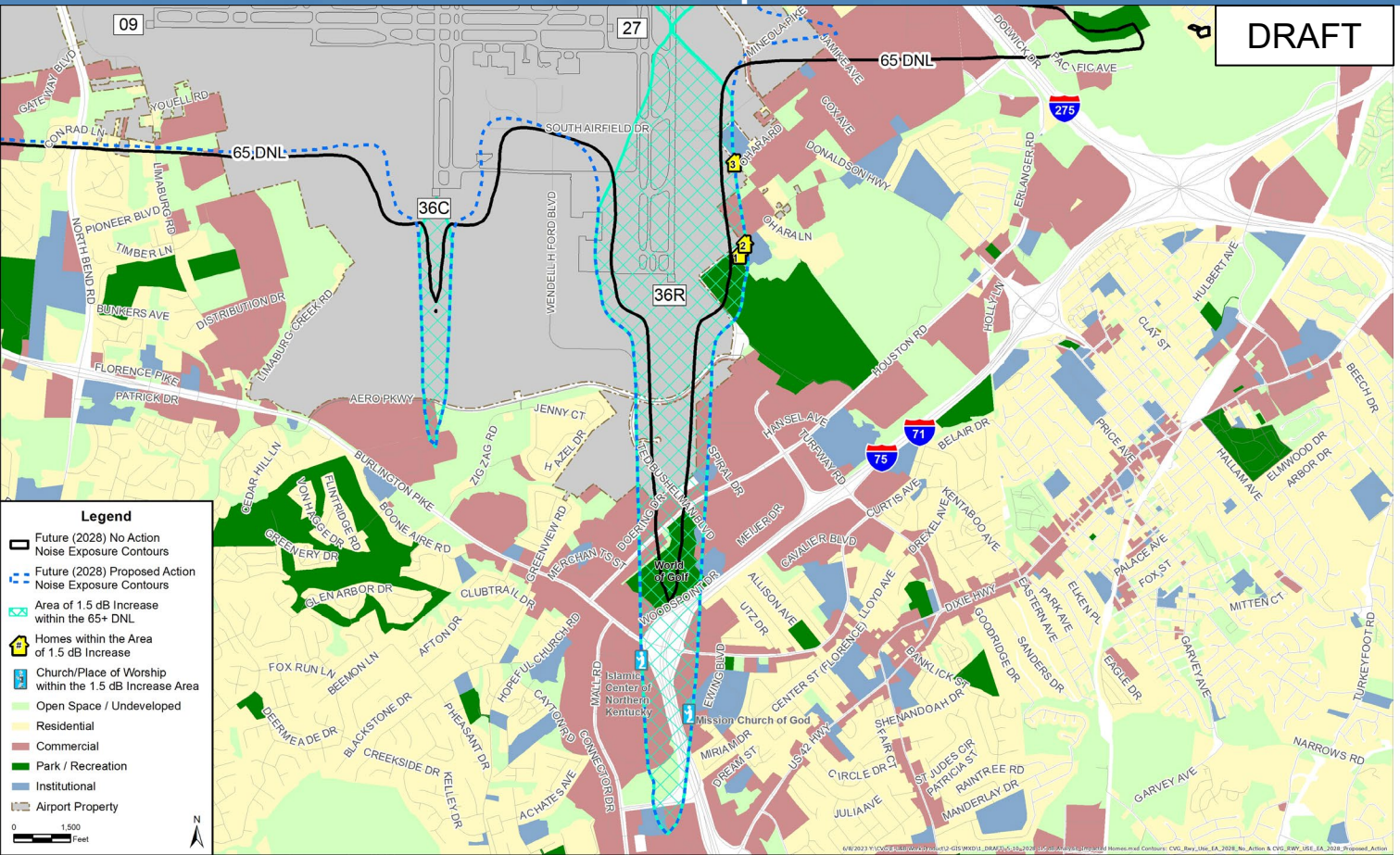

2028 Proposed Action Area of DNL 3.0 dB Increase within the 60 DNL Noise Exposure Contour

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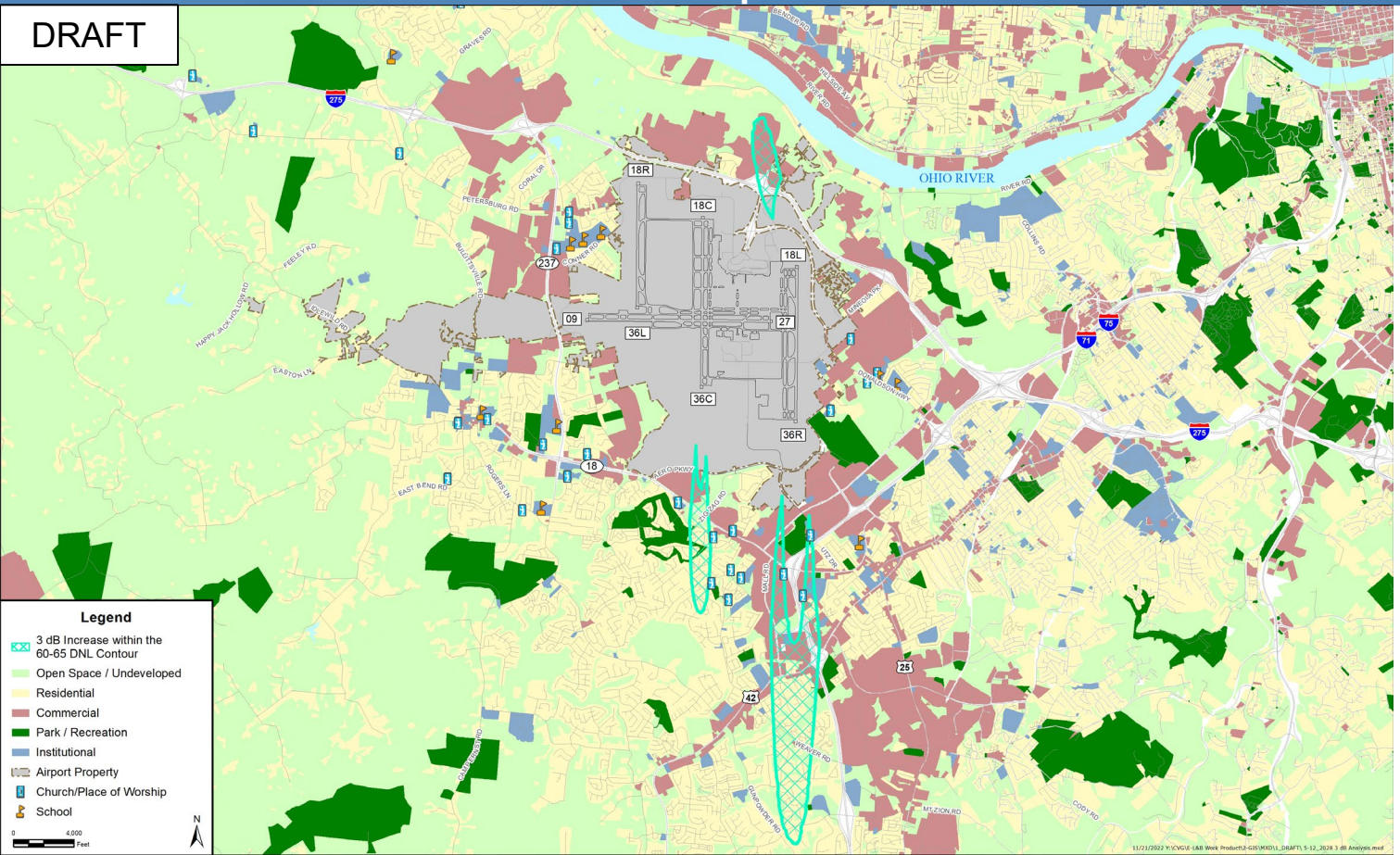

A noise impact is considered significant if there is an increase of 1.5 decibels (dB) or more over noise-sensitive facilities within the 65 DNL.

The noise increase outside the 65 DNL is shown here for disclosure purposes.

Relationship to FAA Airspace Modernization

- Next Generation Air Transportation System (NextGen) is the FAA's ongoing program to modernize the U.S. National Airspace System (NAS) to improve efficiency, operational predictability, and flexibility.
- FAA is implementing this at airports across the U.S., including CVG.
- FAA is conducting a separate environmental review of NextGen implementation.
- Approval of NextGen implementation is a separate process from the CVG Nighttime Runway Use Program.
- Changes in operating conditions due to NextGen are not expected to cause changes to the size or shape of the 65 DNL noise contours at CVG.

Next Steps

- Public Workshop/Hearing Tonight from 4:00pm to 6:00pm
- Accepting public comments now through October 12, 2023:
  - Chris Sandfoss
    Managing Consultant
    Landrum & Brown, Suite 700
    4445 Lake Forest Drive
    Cincinnati, OH 45242
  - Email: CVG-Runway-EA-comments@landrumbrown.com
- Submit Final EA & NEM / NCP Update to FAA - November 2023
- Implementation upon FAA Finding of No Significant Impact (FONSI)