







# 14 CFR PART 150 NOISE AND LAND USE COMPATIBILITY STUDY

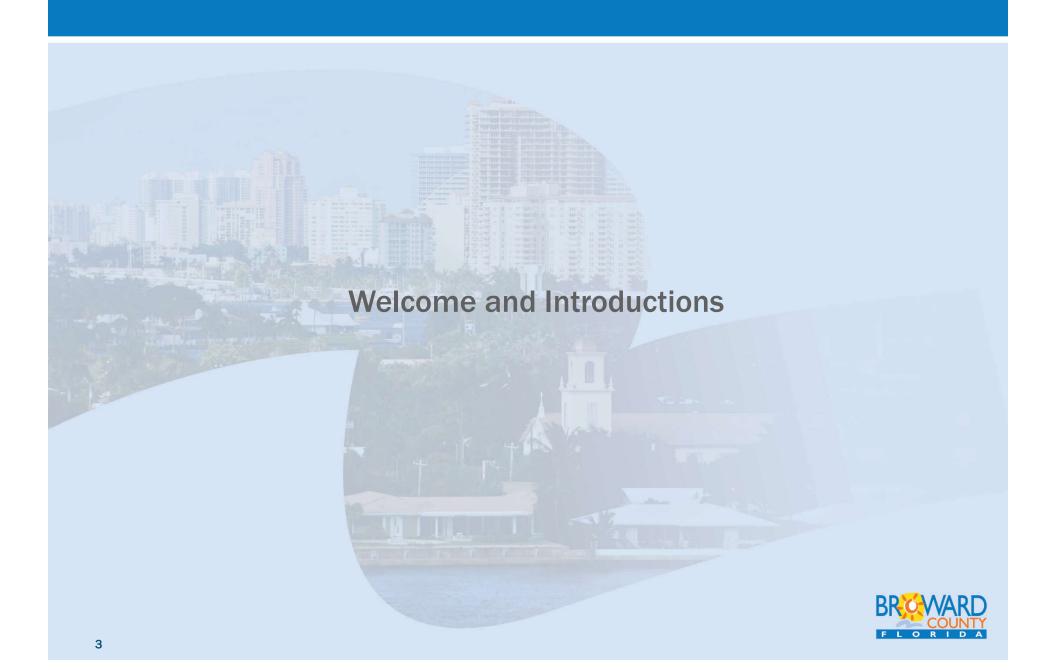
Technical Committee Meeting #5
January 16, 2019



## Agenda

- Introductions
- Review of the Role of the TC Meeting Facilitator
- Review of TC Meetings
- Noncompatible Land Use Analysis
- Noise Compatibility Program
- Future TC Meetings
- Questions from TC Members





### **Purpose and Objectives of the TC**

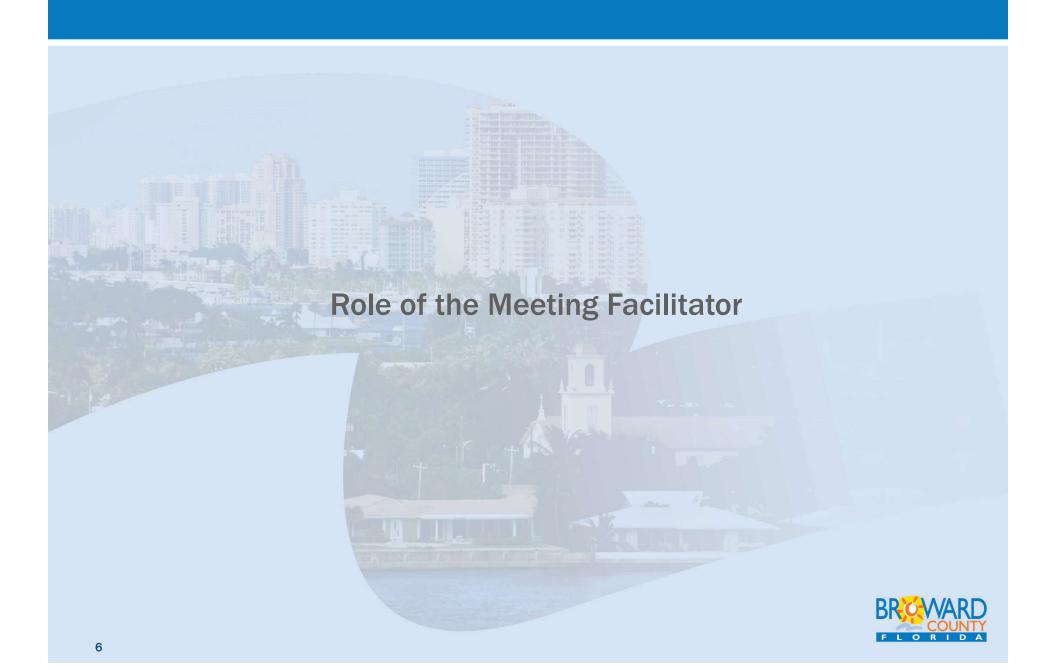
- TC members represent the interests of their organization and/or constituents
- The TC's role is to support the FLL Part 150 Study
  - Review study assumptions
  - Provide technical feedback within the context of the Part 150 Study (noise exposure maps and noise compatibility program)
  - TC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TC members
- TC members are also expected to advise their organization and/or constituents of the TC's discussions
- BCAD will respect and consider the TC's technical input, but retains responsibility for, and decision making authority on, the FLL Part 150 Study

#### **TC Members**

- BCAD
- ANAC
- Southwest Airlines
- Delta Airlines
- JetBlue
- Spirit Airlines
- UPS
- NBAA
- Greater Fort Lauderdale Chamber of Commerce
- Greater Hollywood Chamber of Commerce
- Greater Fort Lauderdale Alliance Economic Development Agency
- Broward Workshop

- City of Dania Beach
- City of Fort Lauderdale
- City of Hollywood
- Town of Davie
- City of Plantation
- City of Cooper City
- Town of Southwest Ranches
- City of Weston
- Broward County School Board
- FAA Orlando Airports District Office
- Miami Air Traffic Management/TRACON
- FLL Airport Traffic Control Tower
- South Florida Flight Standards Division (FSDO)





## Role of the TC Meeting Facilitator

- To ensure that the TC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item at his or her sole discretion
- The meeting facilitator, or BCAD, may cancel or suspend a TC meeting due to disrespectful or disruptive behavior
- TC meetings will be open to the public, subject to space availability



## **Prior Technical Committee Meetings**

## TC #1 - May 26, 2017

- Purpose and Objectives of the Technical Committee
- Airport Overview
- Part 150 Study Overview
- Introduction to Aircraft Noise, Modeling, and Compatibility
- **Initial Data Collection**
- Project Schedule

## TC #2 - August 23, 2017

- Data collection process and status
- **AEDT Model inputs**
- Aircraft Activity Forecast
- Runway Use
- Flight Track Methodology



## **Prior Technical Committee Meetings**

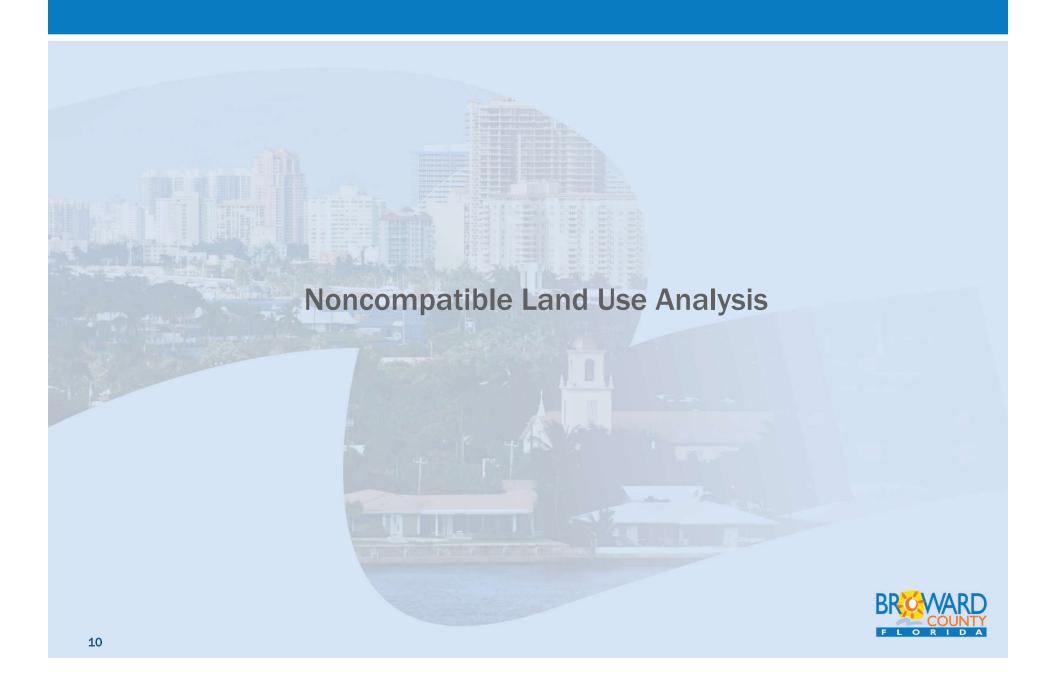
## TC #3 - March 7, 2018

- Public Workshop Summary
- Land Use Data Collection
- Aircraft Activity
- Runway Use
- Flight Track Analysis
- Modeling Assumptions

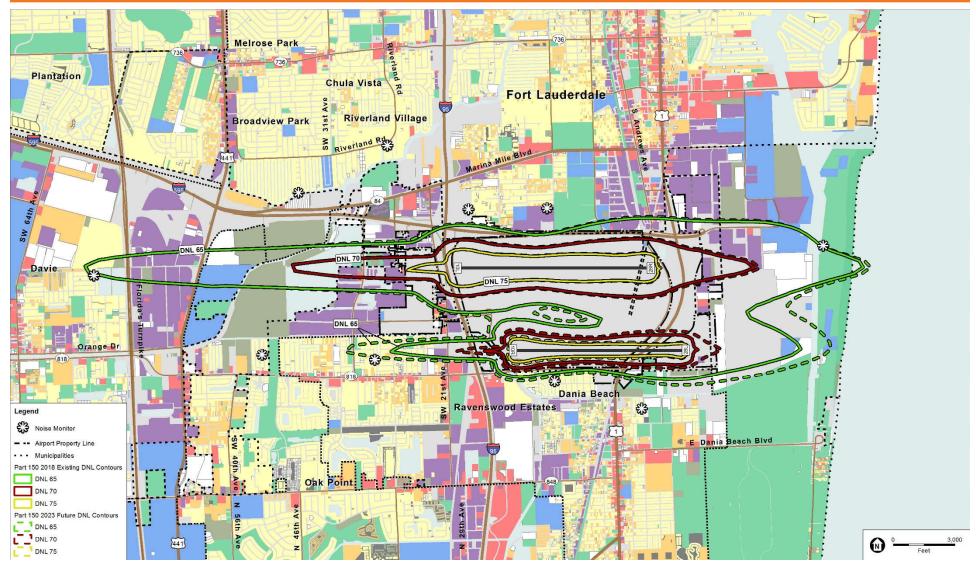
## TC #4 - November 7, 2018

- 2018 Noise Exposure Assumptions and Contours
- 2023 Noise Exposure Assumptions and Contours
- Noncompatible Land Use Analysis
- Noise Compatibility Program Overview



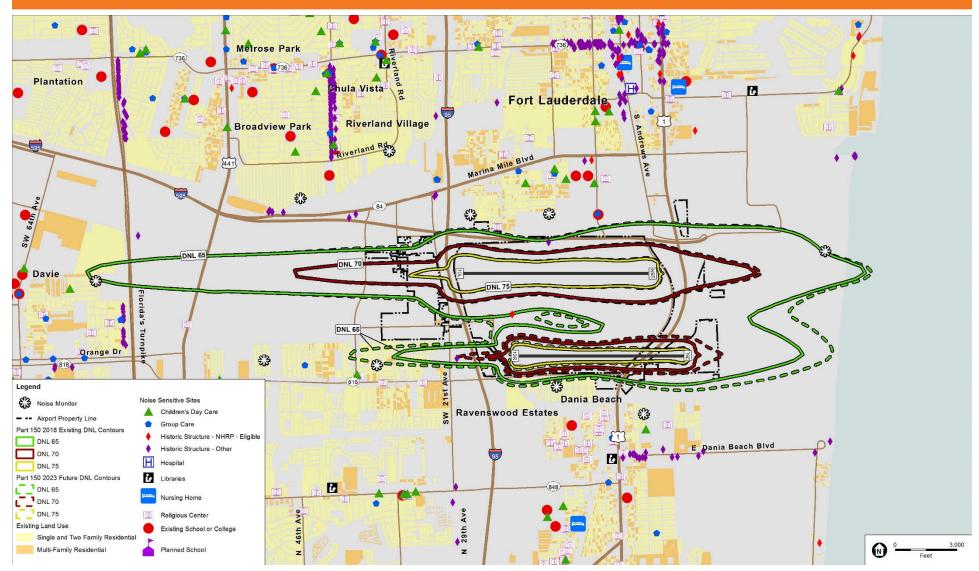


## FLL 2018 Part 150 Noise Contours vs 2023 Part 150 Noise Contours with Existing Land Use



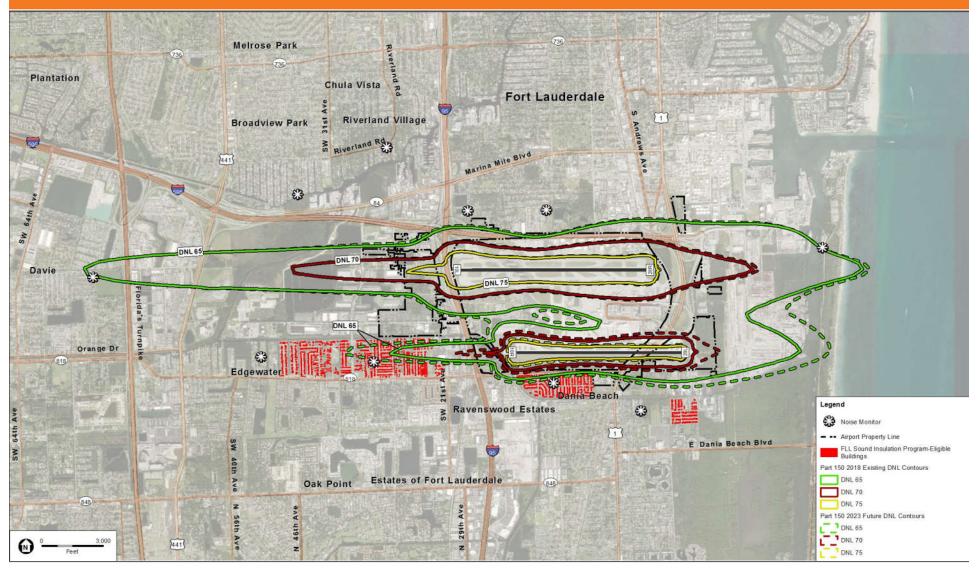
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## FLL 2018 Part 150 Noise Contours vs 2023 Part 150 Noise Contours with Non-Compatible Land Use



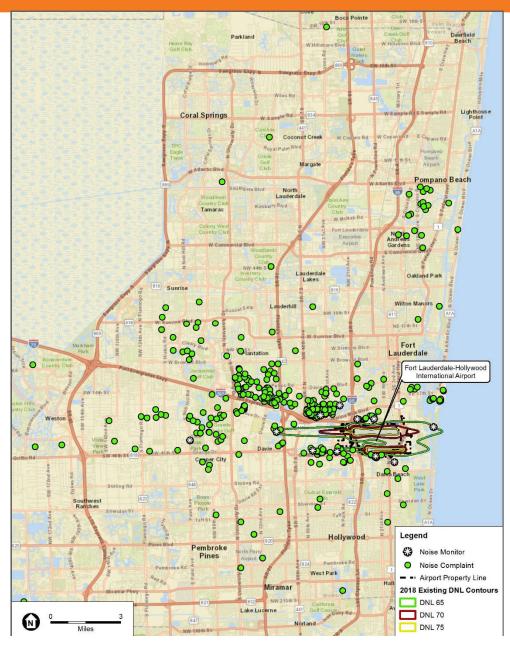
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## FLL 2018 & 2023 Part 150 Noise Contours with EIS Sound Insulation Program Limits



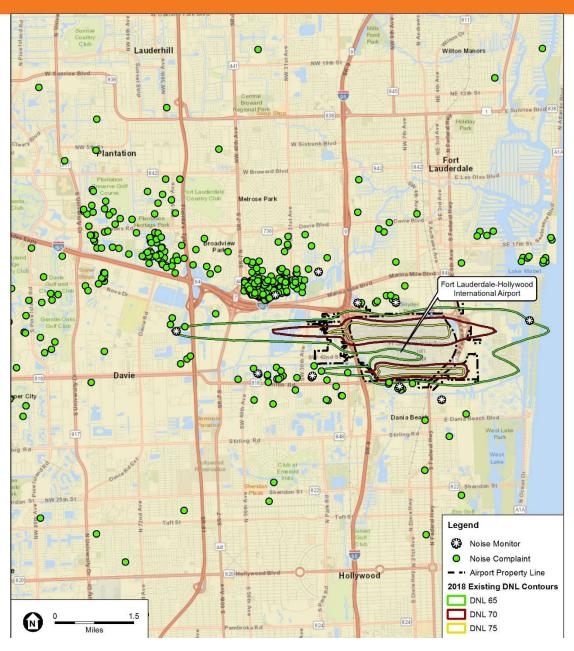
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## FLL 2018 Part 150 Noise Contours with FLL Noise Complaints



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## FLL 2018 Part 150 Noise Contours with FLL Noise Complaints



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## 2018 and 2023 Non-Mitigated Residential Land Uses

## HOUSING UNITS NOT IN CURRENT FLL SOUND INSULATION PROGRAM<sup>1</sup>

Noise Level <sup>2</sup>	Housing Units Outside SIP <sup>3</sup>	Housing Units within SIP <sup>1</sup>
	2018	
DNL 65-70	89	114
DNL 70+	0	0
TOTAL:	89	114
	2023	
DNL 65-70	105	387
DNL 70+	0	0
TOTAL: SOURCES:	105	387

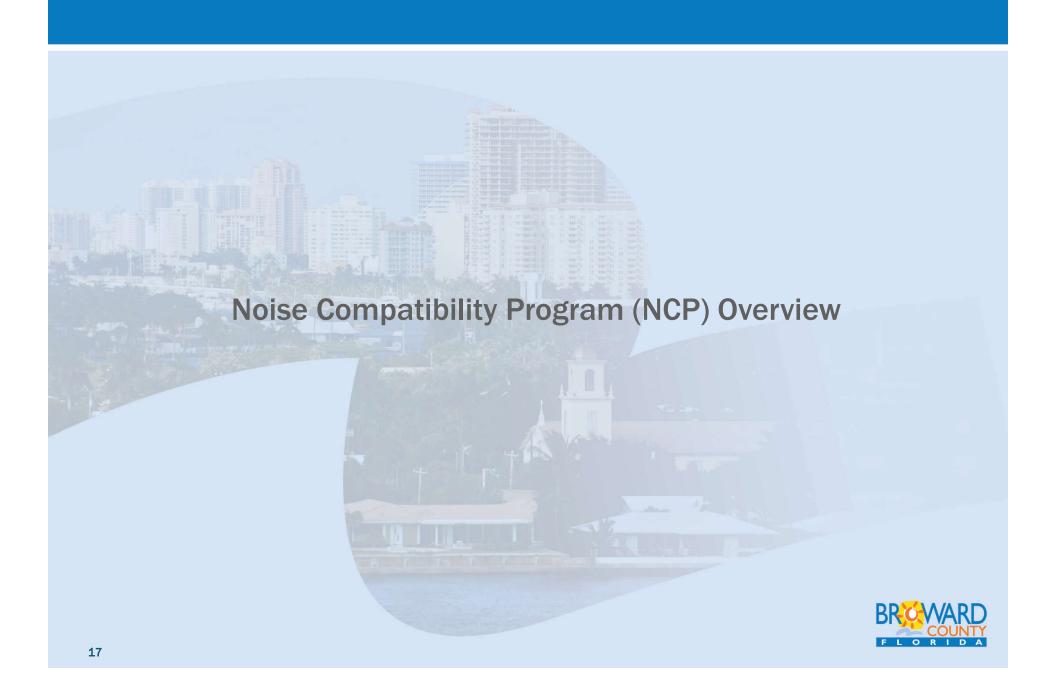
<sup>&</sup>lt;sup>1</sup> FLL Sound Insulation Program housing unit data from Broward County Aviation Department

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<sup>&</sup>lt;sup>2</sup> Noise contours from Environmental Science Associates (ESA)

<sup>&</sup>lt;sup>3</sup> Housing units derived from 2010 Census block-level data.

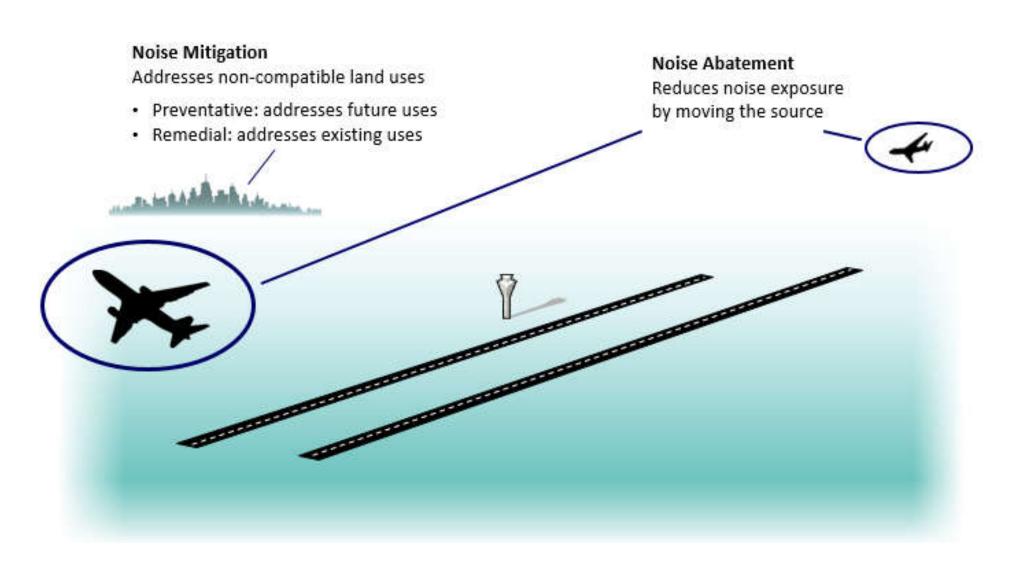


### Required Elements of an NCP

- The NCP explores operational, land use, and administrative measures to minimize aircraft noise exposure
- The FAA reviews entire NCP for completeness
  - Technical, policy, effectiveness review
- The NCP Report must include a provision for revising the NCP if made necessary by a revision of the Noise Exposure Map
- FAA has 180 days to review the NCP
- During its review, the FAA will respond as follows for each measure:
  - Approved
  - Disapproved
  - Approved or disapproved in part
  - No action (only relevant for NCP measures involving flight procedures)



## **Distinction Between Noise Abatement and Noise Mitigation**



## **Major NCP Strategy Options**

#### **Noise Abatement**

- Noise abatement flight tracks
- Preferential runway use
- Arrival/departure procedures
- Airport layout modifications
- Run-up enclosures
- Use restrictions\*
- Other actions proposed by stakeholders

#### **Land Use**

- Remedial Mitigation
  - Land acquisition
  - Sound insulation
  - Avigation easements
- Preventative Mitigation
  - Land use controls
  - Zoning
  - Building codes
  - Comprehensive plans
  - Real estate disclosures
- Other actions proposed by stakeholders

#### **Programmatic**

- Implementation tools
- Promotion, education, signage, etc.
- Monitoring
- Reporting
- NEM update
- NCP revision
- Other actions proposed by stakeholders



<sup>\*</sup> Subject to further notice, review, and approval requirements in 14 CFR Part 161

### **Review of NCP Measures**

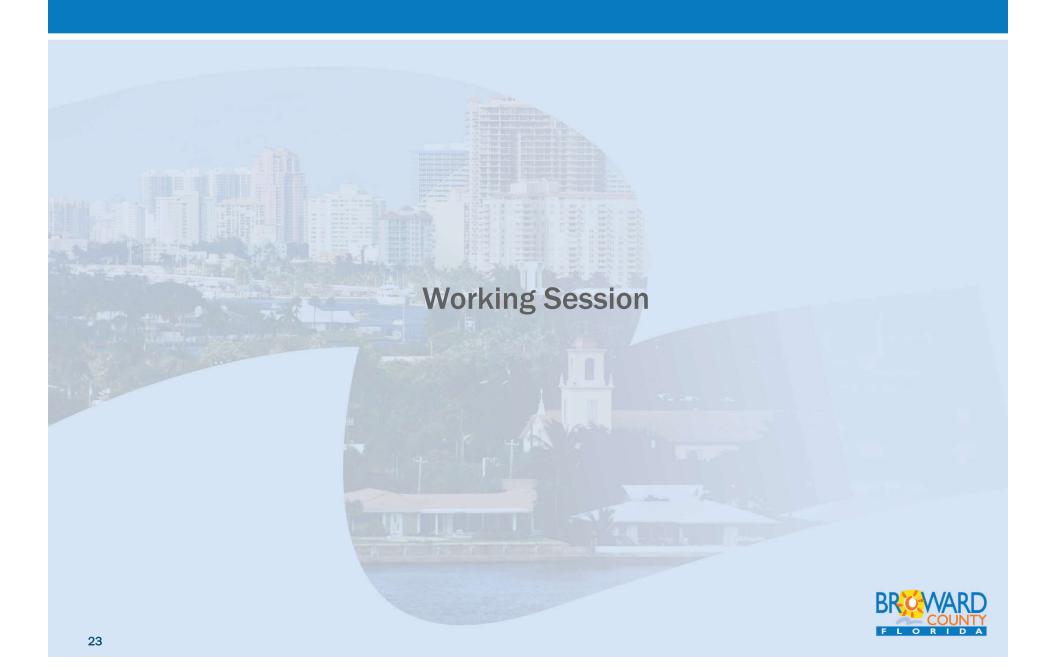
#### All NCP Measures Must Consider:

- Reduction of existing incompatible land use and prevention / reduction of future incompatible land use
  - The FAA will not approve NCP measures that do not reduce exposure to noise of DNL 65 and higher
- Safety and efficiency
- Consistency with the powers and duties of the FAA
- Avoidance of unjust discrimination against certain aircraft types
- Interstate commerce
  - Measures cannot impose an undue burden on interstate commerce (requires balancing of interests)
- The ability to meet both local needs and national air transportation system needs

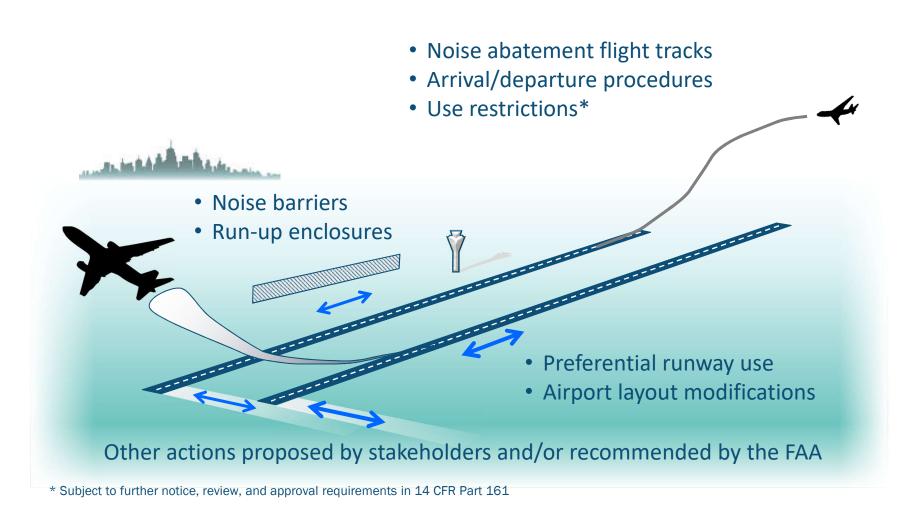
### Importance of TC Involvement During the NCP Phase

- TC members represent the interests of their organization and/or constituents
- TC involvement in the NCP phase is key for a successful NCP
  - Identify potential NCP measures
  - Provide subject matter expertise
  - Advise organization and/or constituents of NCP discussions
  - Solicit feedback from organization and/or constituents
- 14 CFR Part 150 requires consultation with the following stakeholders, and most are members of the TC:
  - FAA regional officials
  - Officials of the state and of any public agencies and planning agencies that have any area of jurisdiction within the DNL 65
  - Other Federal officials having local responsibility of land uses in an NEM
  - Aircraft operators using the airport
  - General Public





## **Types of Noise Abatement Strategies**



## **Types of Land Use Strategies**

#### **Remedial Mitigation**

- Land acquisition
- Sound insulation
- Avigation easements

#### **Preventative Mitigation**

- Land use controls
- Zoning
- Building codes
- Comprehensive plans
- Real estate disclosures



Other actions proposed by stakeholders and/or recommended by the FAA

## **Types of Programmatic Strategies**

- Reporting
- NEM update
- NCP revision
- Implementation tools
- Promotion, education, signage
- Monitoring
- Other actions proposed by stakeholders and/or recommended by the FAA

## General Challenges for Airports:

- Funding is required to implement and continue programmatic strategies
- Programs must be effectively staffed
- These challenges are not unique to FLL





## **Future Meetings**

#### **Technical Committee**

TC Meeting #6 (tentative)

**April 2019** 

## **Public Workshop**

NEM Report Public Workshop

January 2019

TC and Public Workshop materials will be available on the project website following each meeting www.fllpart150.com



### **Next Steps**

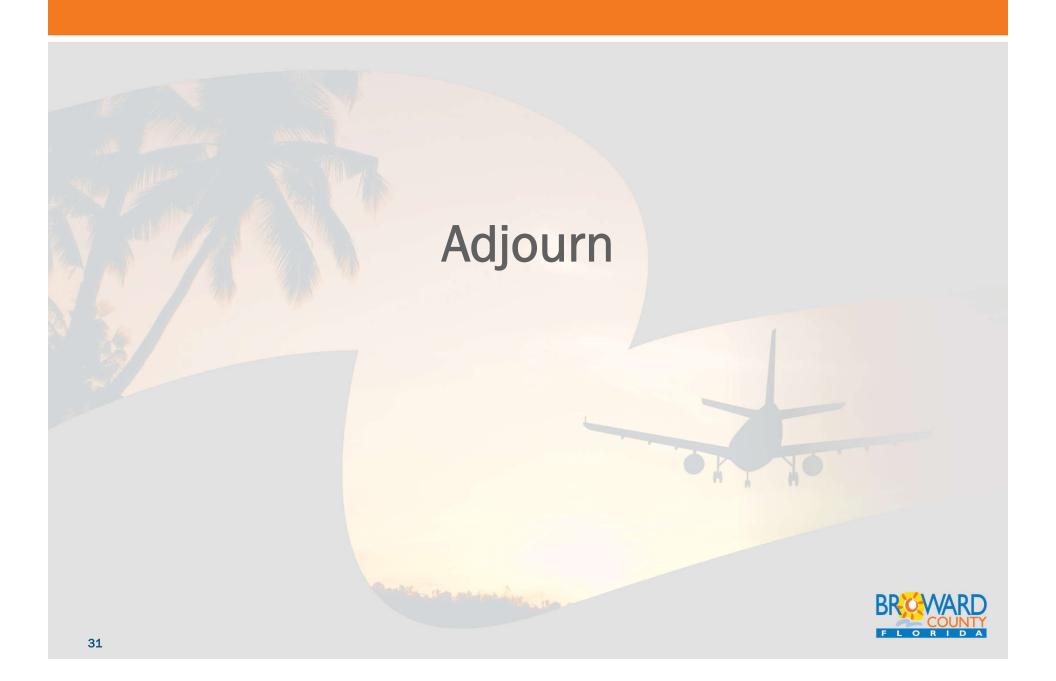
- NEM Public Workshop (January 16, 2019)
- Incorporate NEM Comments and Submit to FAA for Acceptance
- Solicit Alternatives to be Evaluated in Noise Compatibility Program (NCP)
- Categorize and Evaluate Measures

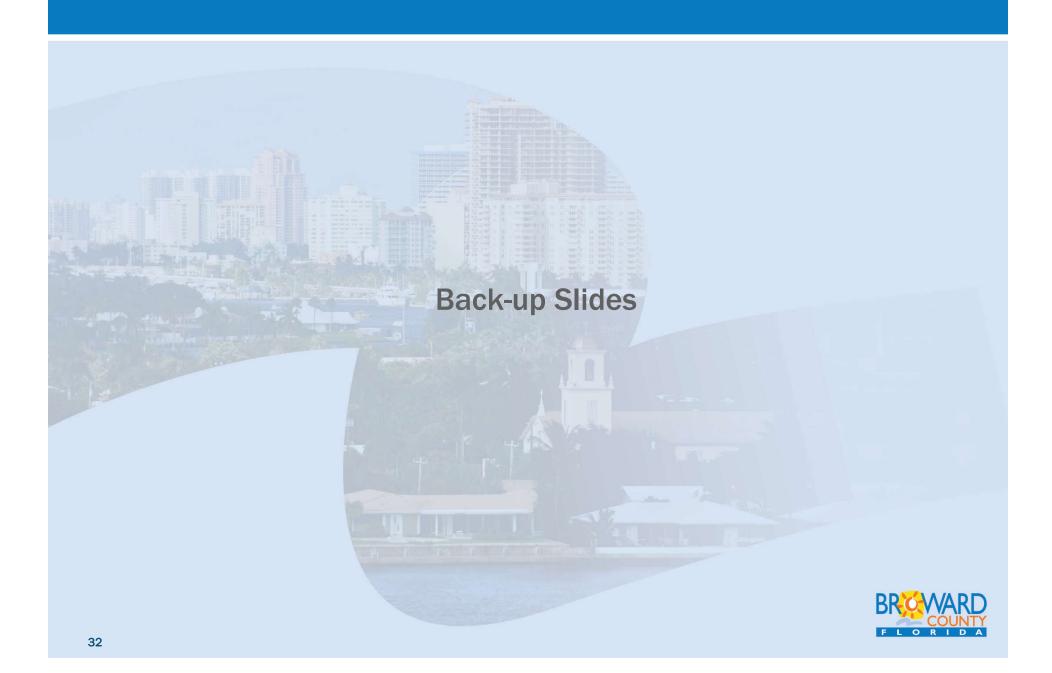


## **Questions from TC Members**

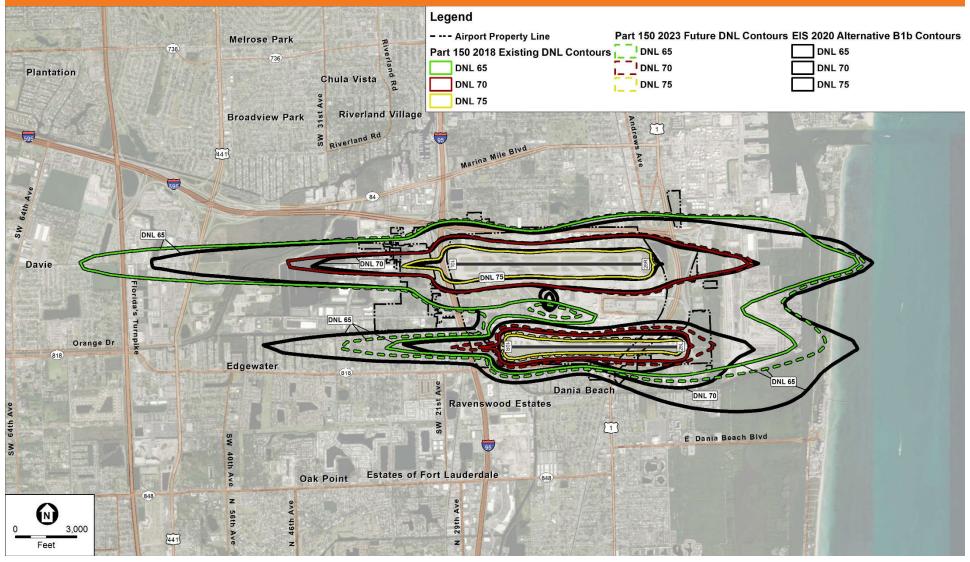




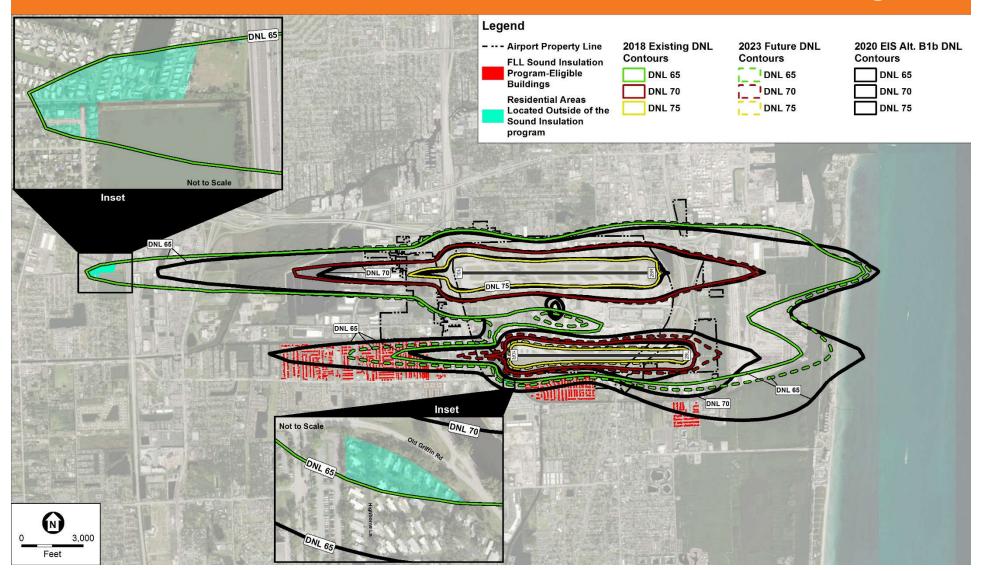




## FLL 2018 & 2023 Part 150 Noise Contours with EIS 2020 Alternative B1b Contours



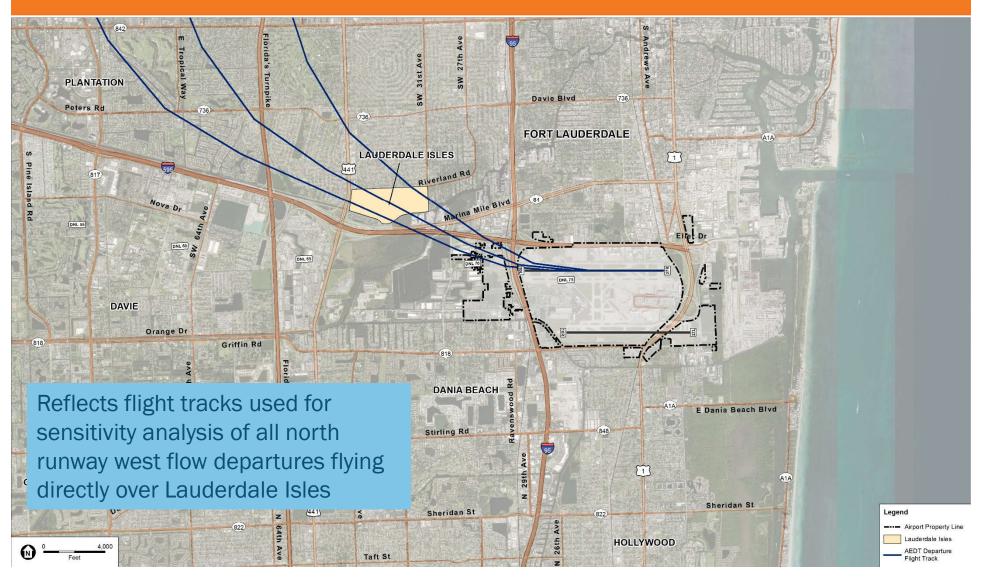
## FLL 2018 & 2023 Part 150 Noise Contours with EIS 2020 Alternative B1b Contours with Sound Insulation Program



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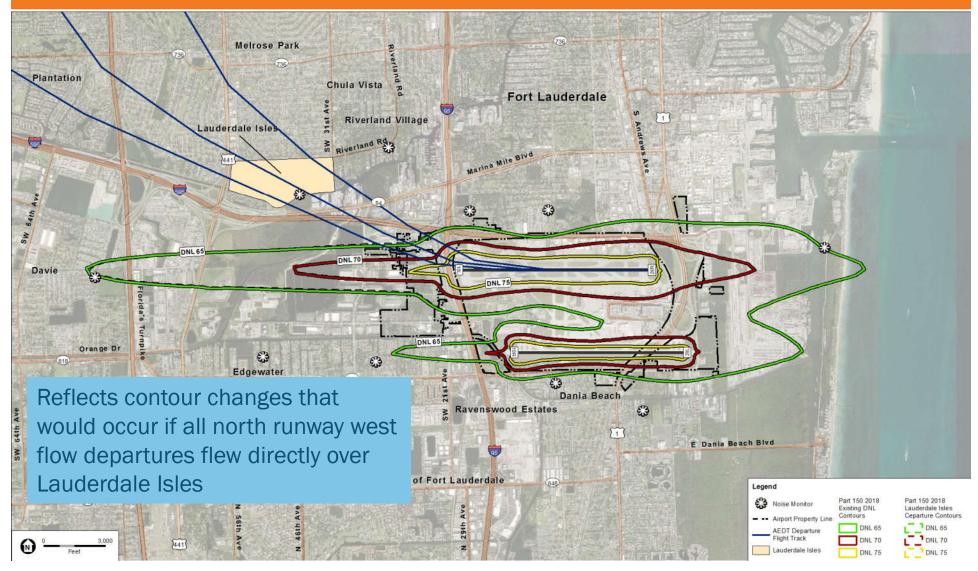


## Sensitivity Analysis: Lauderdale Isles Departure Flight Track



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## Sensitivity Analysis: 2018 Part 150 Noise Contour



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