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2040



# Public Workshop #9

October 11, 2016



Raleigh-Durham Airport Authority

#rdu2040

# Agenda

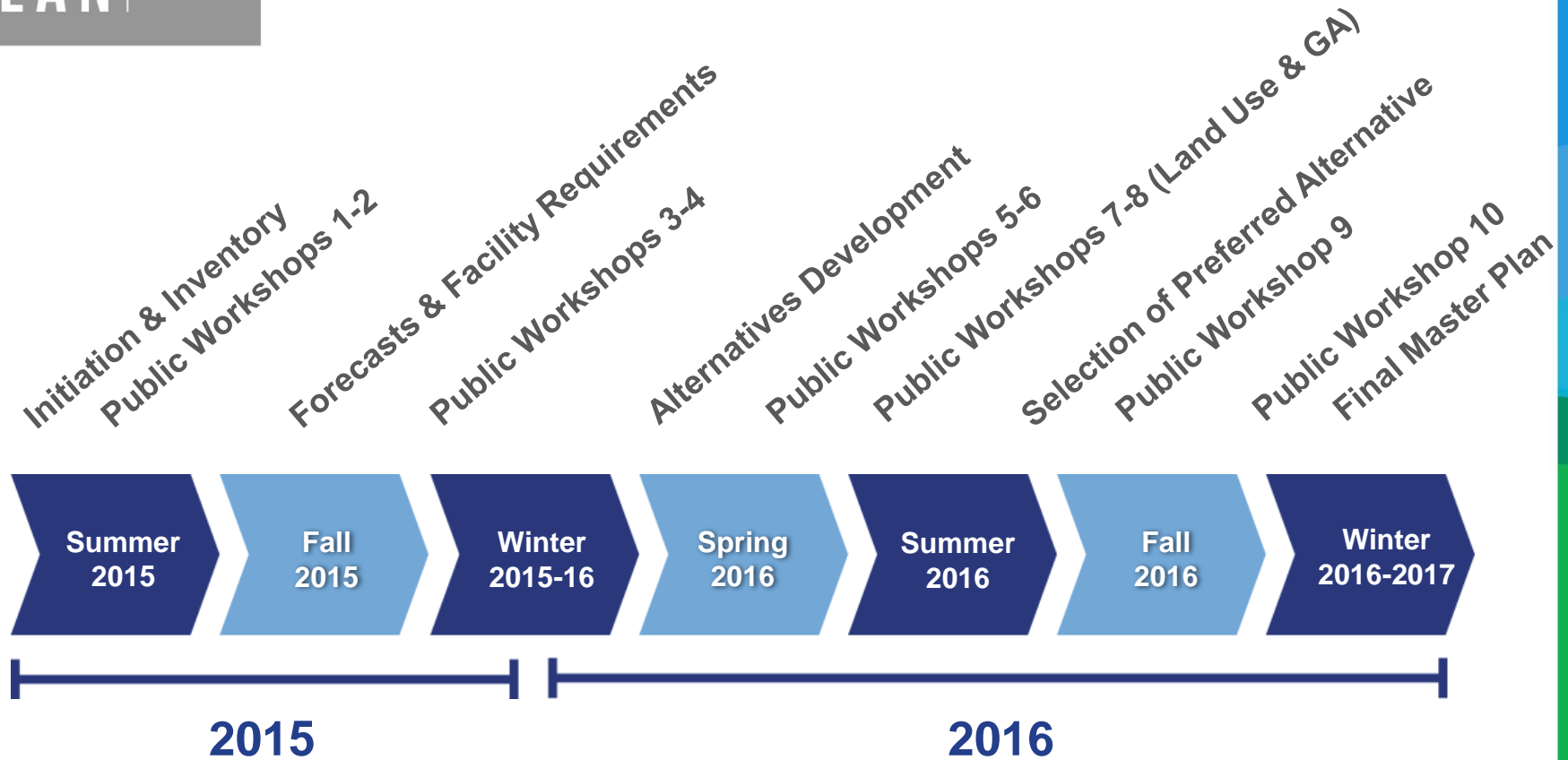
- ▶ Master Plan Status
- ▶ Preferred Alternative
- ▶ Environmental Considerations
- ▶ Vision 2040 Next Steps

## Master Plan Status

- ▶ Alternatives exploration and evaluation
- ▶ Environmental constraints analysis
- ▶ Preferred alternative refinement



## Schedule



Vision 2040 is following the defined 18-month schedule.

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# Preferred Alternative



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# Master Plan Preferred Alternative

- ▶ Master plan
  - **Comprehensive study** of an airport that defines and describes the short-, medium-, and long-term development plans to meet future aviation demand.
  - Authority's **framework/strategy** for the long term development of RDU
- ▶ Preferred alternative conceptually represents future airport development over 25-year planning horizon (2040)
  - Guides future development but is not a rigid development program
  - Decisions will be made as demand triggers are reached and opportunities arise
  - Demand, opportunity, or other factors will trigger development
  - Specific development actions will reflect changing conditions, business climate, evolving demand characteristics, and other relevant factors

## Master Plan Goals



Encompass improvements that will ensure the Airport's safety, efficiency, and capability to serve the community's aviation needs.



Optimize infrastructure and resources in an operationally, financially and environmentally sustainable manner.



Enhance the passenger and customer experience through long range development actions.



Define development plans that are scalable to respond to variations in demand over the planning horizon.



Preserve flexibility to adapt to emerging and future technologies.



Accommodate connectivity to various modes of transportation as components of Airport development plans.

# Facility-Specific Requirements

## AIRFIELD

ADEQUATE ANNUAL CAPACITY THROUGH 2040  
PEAK HOUR CAPACITY REACHED BY 2040 IN POOR WEATHER (HIGH SCENARIO)  
NEED TO PROTECT FOR LONG-TERM GROWTH  
INTERNATIONAL SERVICE MAY INFLUENCE RUNWAY LENGTH REQUIREMENTS  
NEAR TERM RECONSTRUCTION OF RW 5L/23R (10,000 FEET)

## TERMINAL

ADDITIONAL GATES NEEDED (UP TO +23 GATES) BY 2040 (HIGH SCENARIO)  
EXPANDED FIS CAPACITY NEEDED IMMEDIATELY

## LANDSIDE

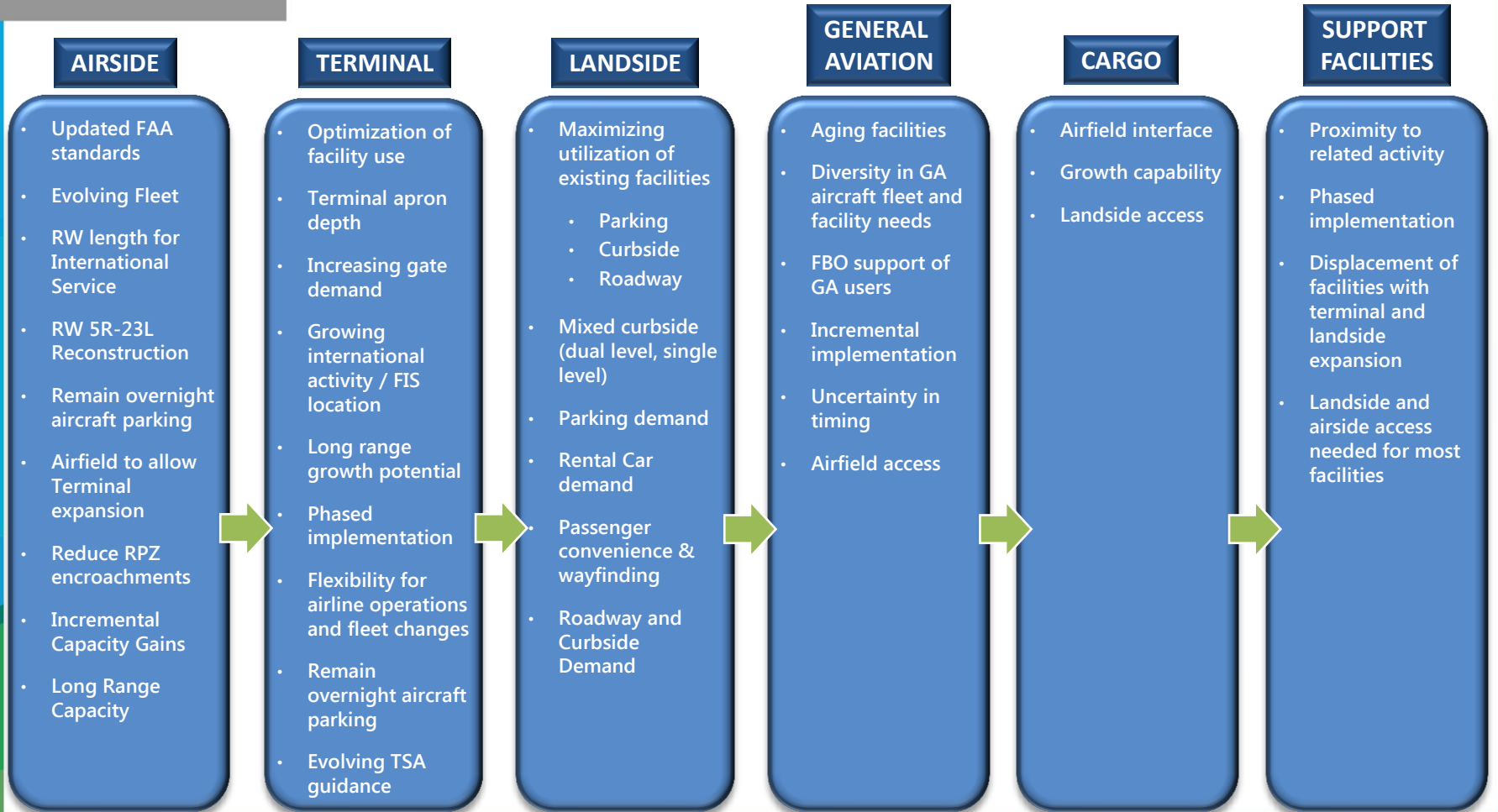
ROADWAY AND INTERSECTION IMPROVEMENTS NEEDED  
ADDITIONAL CLOSE-IN PARKING NEEDED – 8,000 (BASELINE) TO 14,000 (HIGH)  
ADDITIONAL RENTAL CAR FACILITIES NEEDED

## SUPPORT FACILITIES

BUSINESS ASPECTS INFLUENCE GENERAL AVIATION NEEDS  
CARGO AIRCRAFT APRON REQUIRED  
MISCELLANEOUS SUPPORT FACILITIES REQUIRED



# Preferred Alternative – Considerations



## Vision2040 Preferred Alternative

- ▶ Screen Facility Components
  - 10 Runway Alternatives
  - 24 Terminal Alternatives
  - 21 Landside Alternatives
  - 9+ Support Facilities Alternatives
- ▶ Integrate components → Hybridize and refine
- ▶ 9 Composite Alternatives (June 1 and 2)
- ▶ Final 4 Alternatives (June 28)
- ▶ Preferred Alternative
  - Continued evaluation, integration, mitigation of weaknesses
  - Preferred alternative reflects different elements of final four

## Land Use Plan

- ▶ Support financial sustainability of the Authority
- ▶ Identified property not directly used for aeronautical purposes could be used to generate revenue for the benefit of the Airport
- ▶ Developed a Land Use Plan to reflect aeronautical demand/facilities

[illegible]

# Alternative B

**Alternative B**

The proposed new library building is located on the east side of the campus, adjacent to the existing parking lot. The new building is a large, rectangular structure with a flat roof and a central entrance. The map also shows the existing roadways (dark blue) and the proposed new roadway (light green) connecting the new building to the existing parking lot. The map is labeled with 'University of Maryland Eastern Shore' and 'New Library Building'.

- Transportation System
- Existing Building
- New Building
- Existing Parking
- New Parking
- Existing Roadway
- New Roadway
- Existing Landscape

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[illegible][illegible]

# Preferred Alternative

# Major Comments and Feedback

- ▶ The Preferred Alternative...
  - ▶ focuses long range airfield development on the west airfield
  - ▶ assures flexible terminal expansion
  - ▶ accommodates growth for all GA components
  - ▶ supports local transit options
  - ▶ incorporates rental car facility in core area
  - ▶ to the extent practicable, incorporates recreation land uses in hard to develop areas





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# Environmental Considerations



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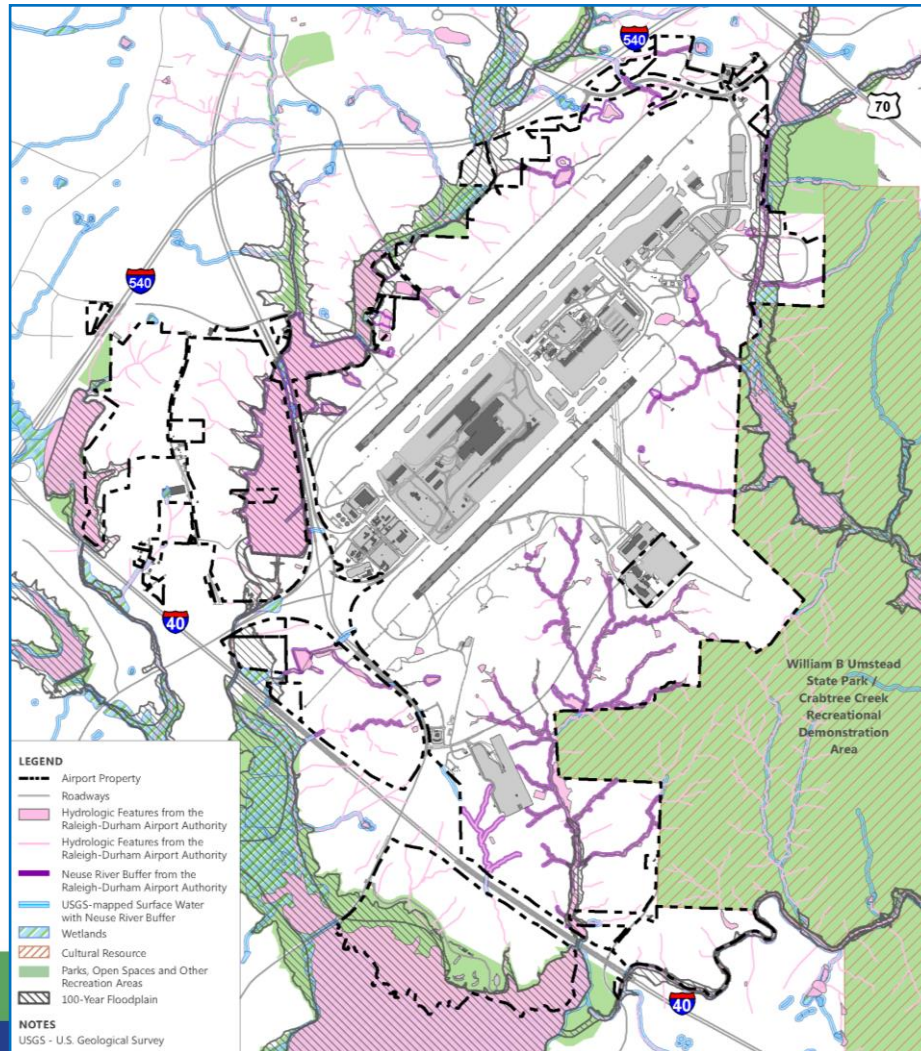
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# Environmental Considerations

- ▶ Purpose:
  - Identify Master Plan alternatives that minimize effects on environmental resources
  - Consider environmental resource impacts during evaluation of alternatives in Master Plan
  - Provide information to inform subsequent federal environmental processing (NEPA)
  - Provide information to inform environmental permitting strategy (e.g., the Neuse River Buffer)
- ▶ Achieve balance between manmade and natural environment



# Environmental Considerations



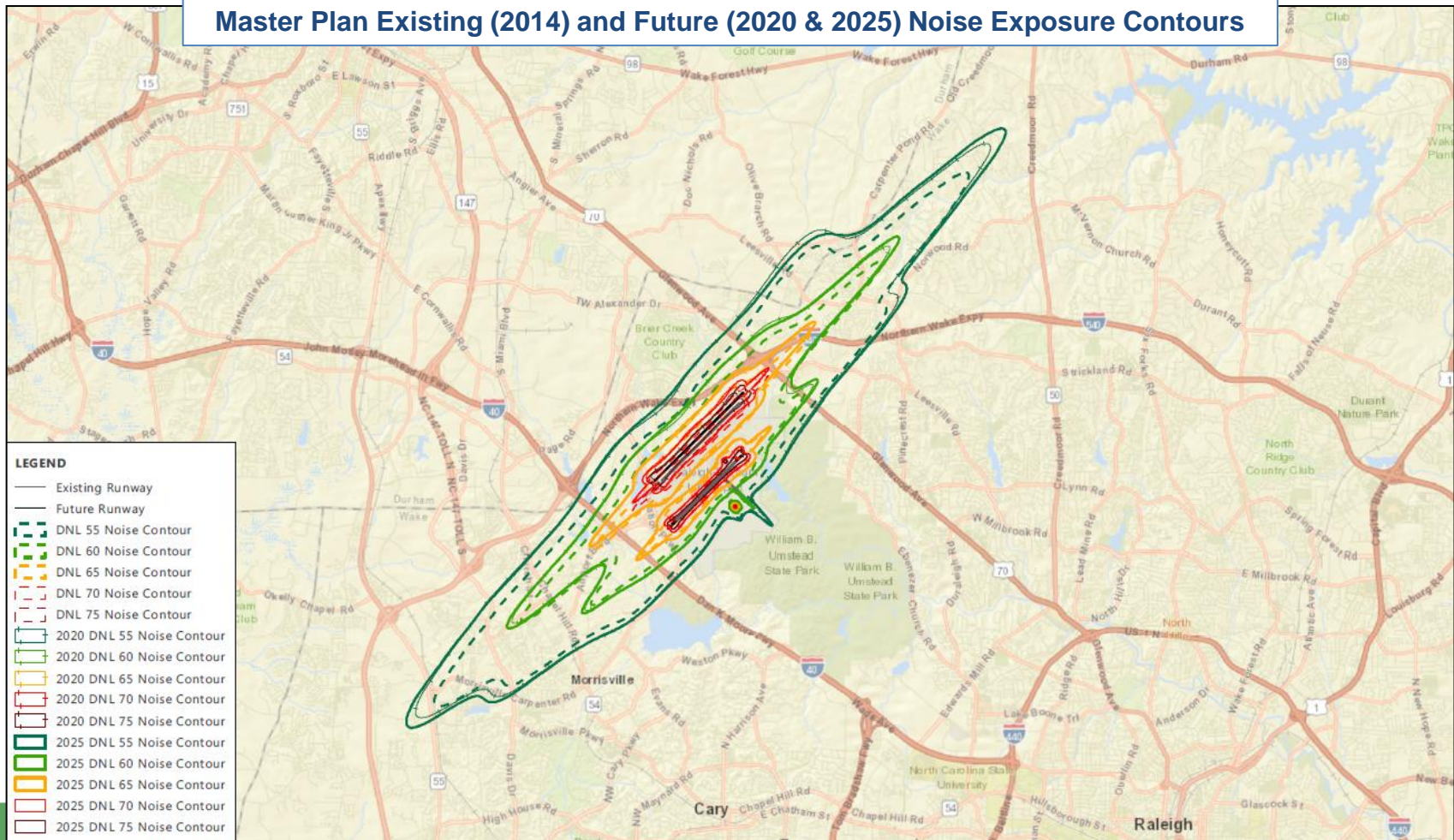
# Master Plan Noise Analysis

- ▶ Planning-level noise exposure contours intended for comparative purposes only
  - Existing contours provide a baseline of existing conditions
  - Future contours provide an indication of changes in noise exposure with implementation of alternative master plan development options
- ▶ Updated FAA noise modeling tool: INM → AEDT
- ▶ Analyzed noise exposure to DNL 55
  - FAA is considering the effects of aircraft noise below DNL 65
  - Consideration is being given to using DNL 60 and DNL 55 for land use compatibility planning purposes
  - Applying DNL 55 would allow the Airport and the community to maintain long-term compatibility if regulations change



# Noise Exposure – Master Plan

Master Plan Existing (2014) and Future (2020 & 2025) Noise Exposure Contours



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# Master Plan Next Steps



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## Next Steps

- ▶ Board Action – October 20, 2016
- ▶ Final Public Workshop – date to be determined





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## Q&A (Boards)



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