

SESSION 8:

Airspace Protection

Legislation Study

Moderator: Matthew L. Smith, C.M., GAA Vice President, Airport Director, Gwinnett County Airport – Briscoe Field

Speakers: Stephanie Ward, AICP, Manager, Aviation Planning Mead & Hunt



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Georgia Airports Association Annual Conference & Expo

Session 8: Airspace Protection Legislation Study

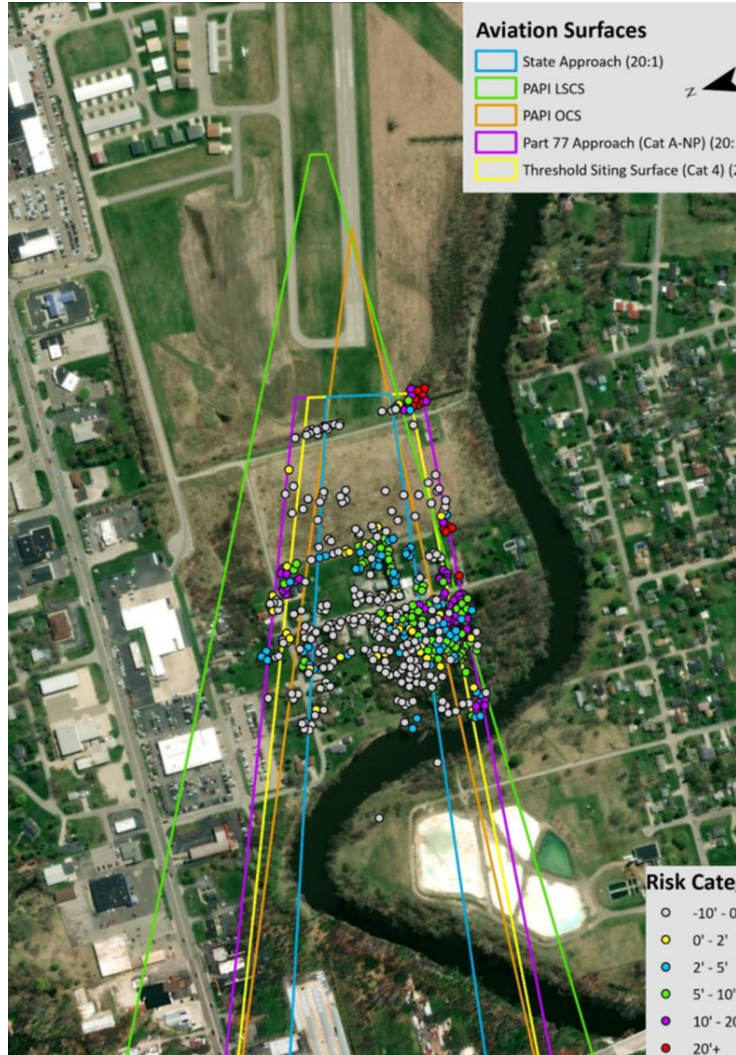
October 18, 2024

Stephanie Ward, AICP

Mead & Hunt



Discussion Today



Why Protect Airspace?

Extent of the Issue

Legislation Considerations

Summary & Questions

Why Protect Airspace?



Why Protect Airspace?

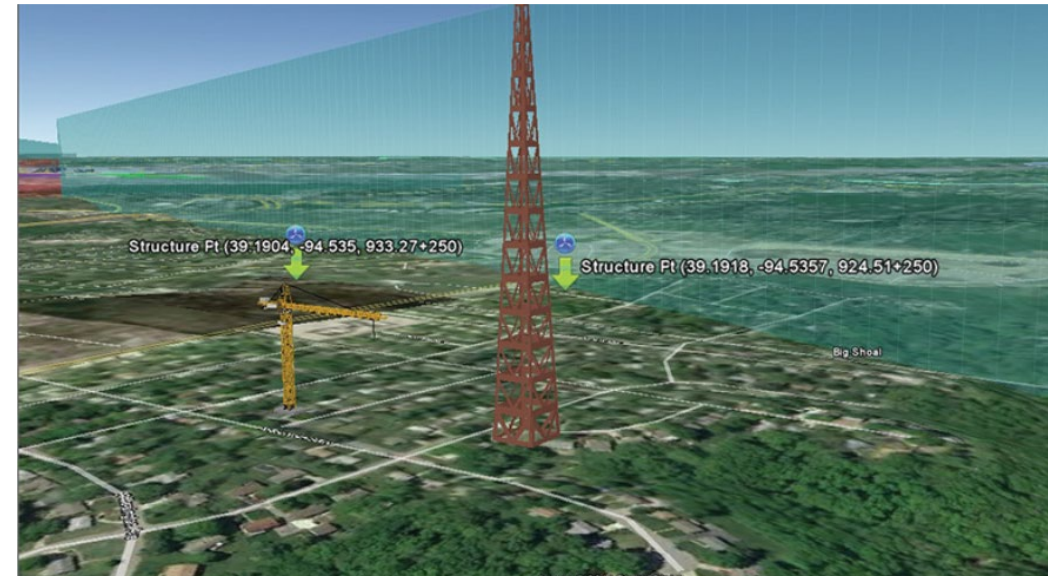
- FAA Grant Assurances
 - 97 of the 105 public-use airports are federally obligated with requirements to adhere to grant assurances
- FAA Criteria
- Capital Investment
 - Ongoing financial investment to address obstructions
- Safety of the traveling public
 - Penetrations to airspace create issues

FAA Grant Assurances

Grant Assurance 20 – Hazard Removal and Mitigation

- It* will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

*It references the Airport Sponsor



Grant Assurances

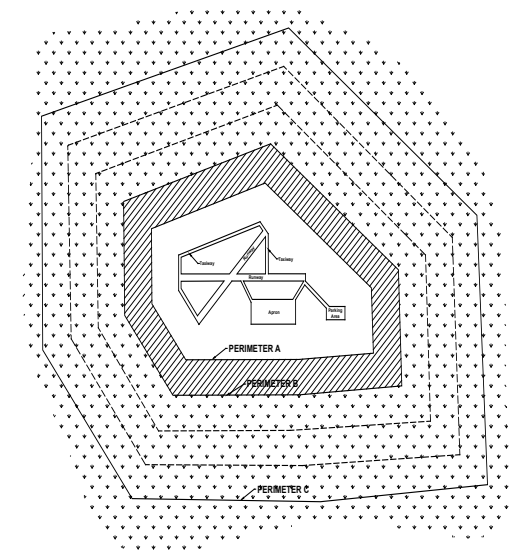
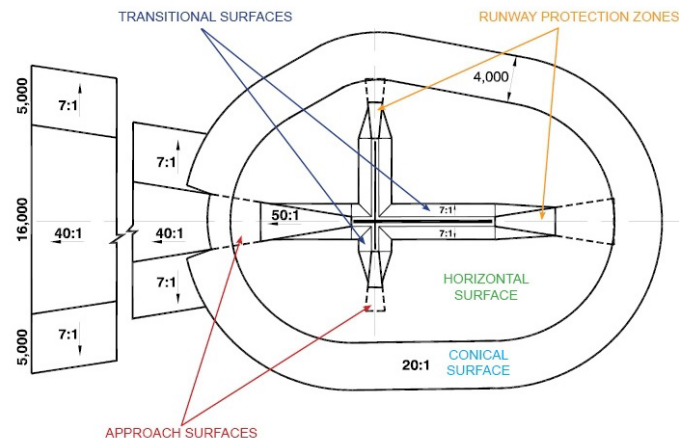
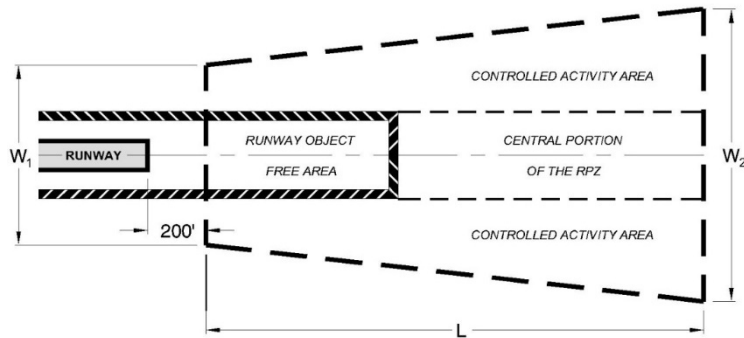
Grant Assurance 21 – Compatible Land Use

- It* will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

*It references the Airport Sponsor

Sample of FAA Criteria

- Federal Aviation Regulations (FAR) Part 77 Safe, Efficient Use and Preservation of Navigable Airspace (height restrictions)
- Advisory Circular (AC) 150/5300-13, *Airport Design*
- AC 150/5200-33, *Hazardous Wildlife Attractants on or near Airports*



Impact on Existing Facilities

- 105 Public-use Airports subject to existing and future impacts
- Five-year snapshot of the issue:
 - Requested capital improvement projects over Fiscal Year(s): 2029, 2028, 2027, 2026, 2025

Project Type	Number of Projects	Cost
Land Acquisition	11	\$4,954,710.00
Easement Acquisition	15	\$6,936,500.00
Obstruction Design	25	\$2,780,341.00
Obstruction Construction	47	\$15,875,914.00
Combined Projects	13	\$7,099,061.00
Total	111	\$37,646,526.00

Source: Individual airport ACIPS provided by GDOT

Safety of the Traveling Public & Community Members in Proximity to Airports

- Common penetrations to FAR Part 77 Surfaces



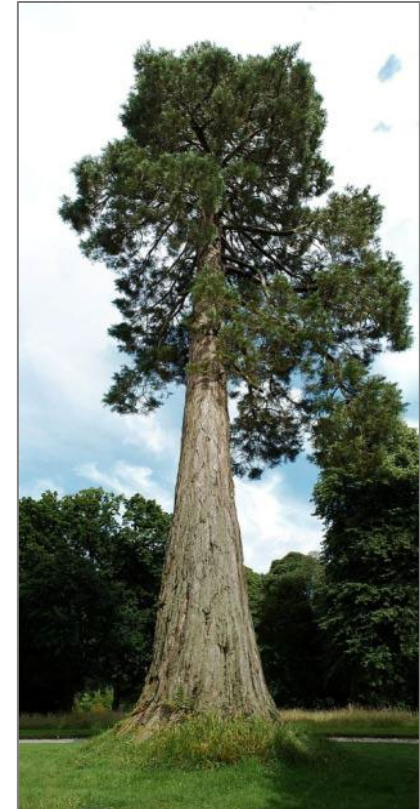
Buildings



Wind Turbine



Cell Tower

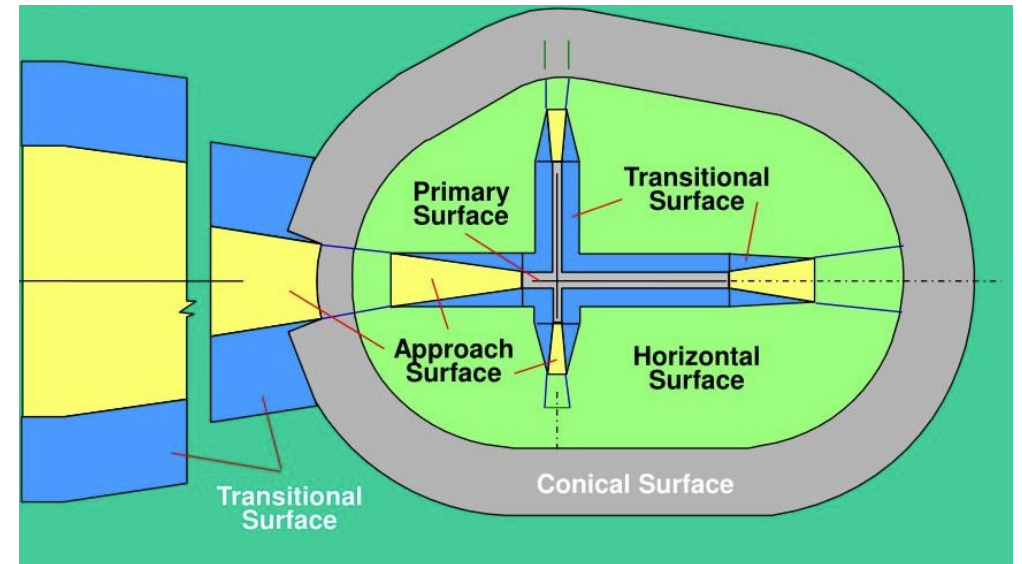


Vegetation

FAR Part 77 Surfaces

‘Civil Airport Imaginary Surfaces’

- Sizes depend upon:
 - Utility (12,500 pound aircraft or less) and Larger than utility (greater than 12,500 pound) designation
 - Types of Runway in terms of approach type – Visual, Non-Precision, and Precision Instrument
 - Visibility Minimums – Greater than $\frac{3}{4}$ mile, As low as $\frac{3}{4}$ mile
- Surfaces include:
 - Primary Surface
 - Approach Surface
 - Transitional Surface
 - Horizontal Surface
 - Conical Surface



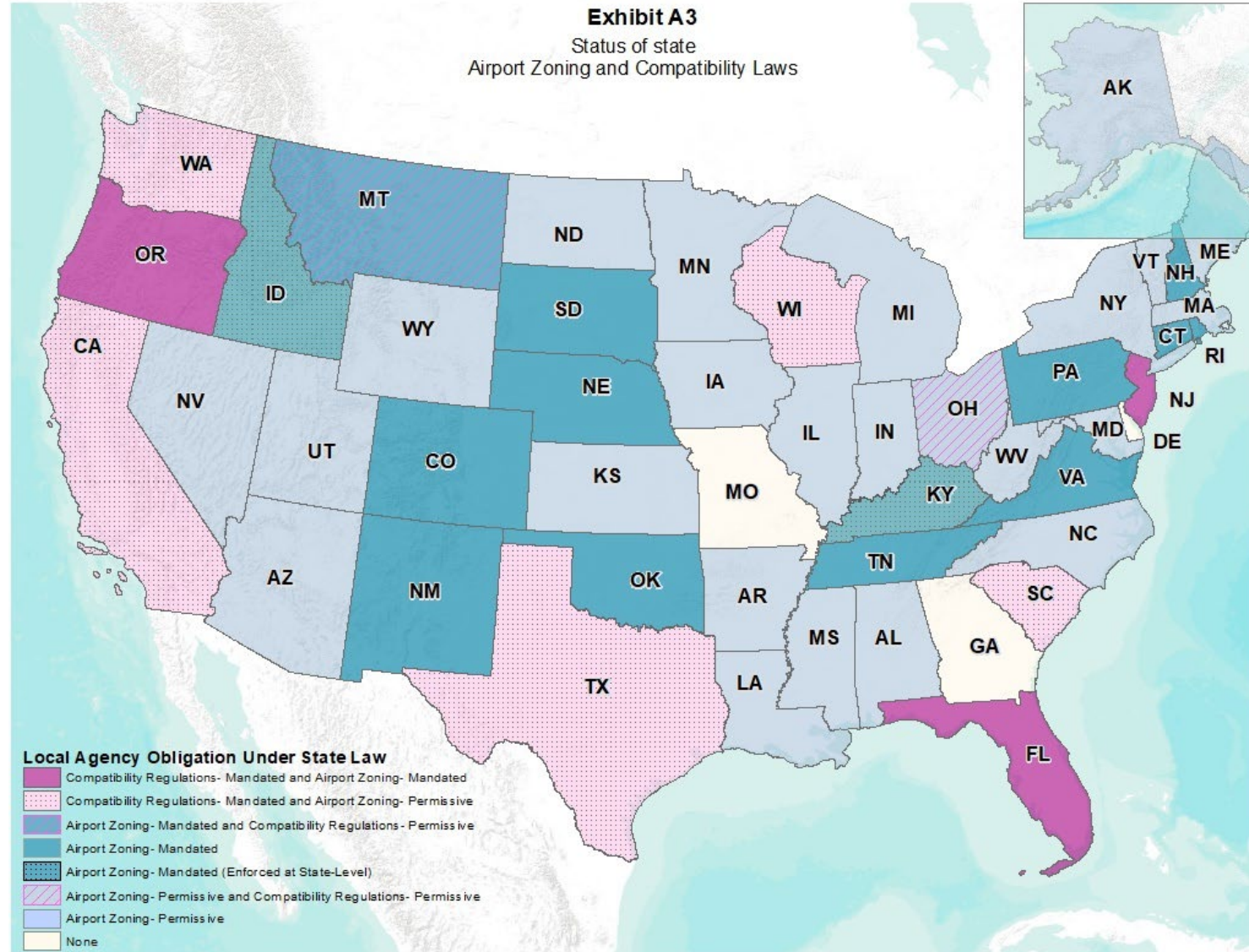
Source: FAA

Extent of the Issue

The background features a dark blue field on the left, transitioning into a series of overlapping, semi-transparent geometric shapes on the right. These shapes include triangles and quadrilaterals in various shades of blue, a vibrant red, a green, and a yellow-green. The shapes are layered, creating a sense of depth and movement.

Recognized as a National Issue

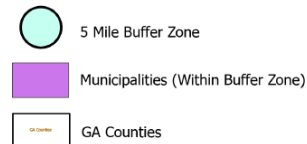
- **Most states:**
 - Mandated legislation
 - Zoning laws to address airspace hazards
- **Some states:**
 - Address other compatibility factors
 - Provide guidance
- **Few states:**
 - Implement laws at state-level (OR, NJ, FL)



Source: ACRP Report 206

Georgia Public Use Airports and Government Entities within 5-mile Radius

- 105 Public Use Airports
- 195 Municipalities Affected out of 539 (36%)
- 127 Counties Affected out of 159 (80%)

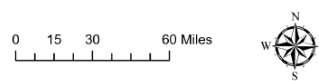


Notes:

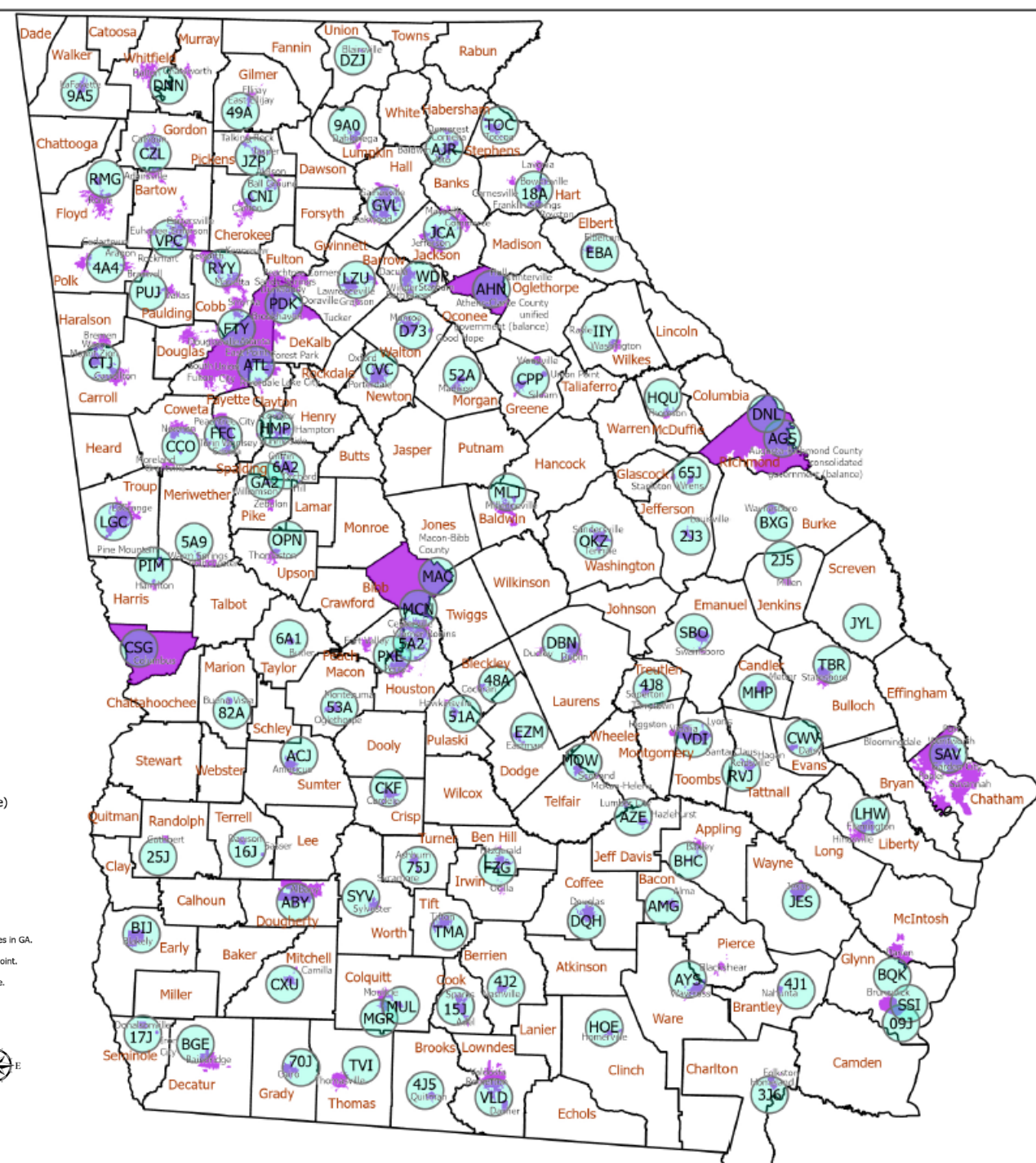
The map shows a five mile coverage of Municipalities and Counties in GA.

The buffer shows a 5 mile radius from the airport reference point.

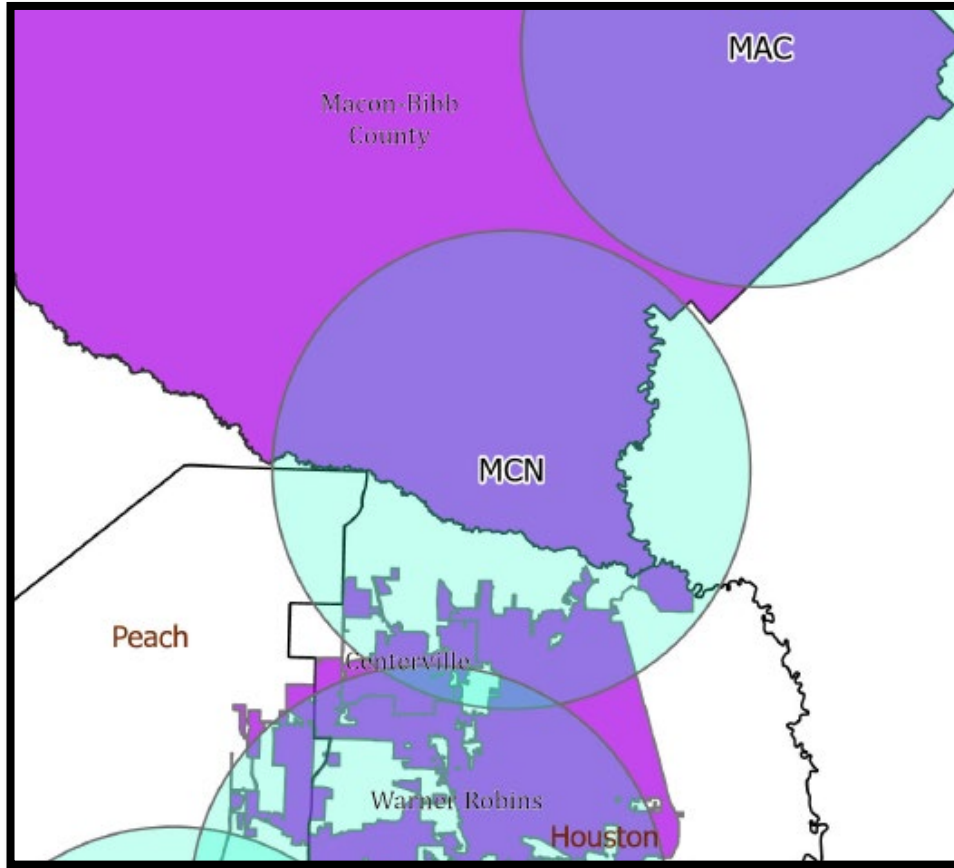
The airports are labeled with their three-letter airport code.



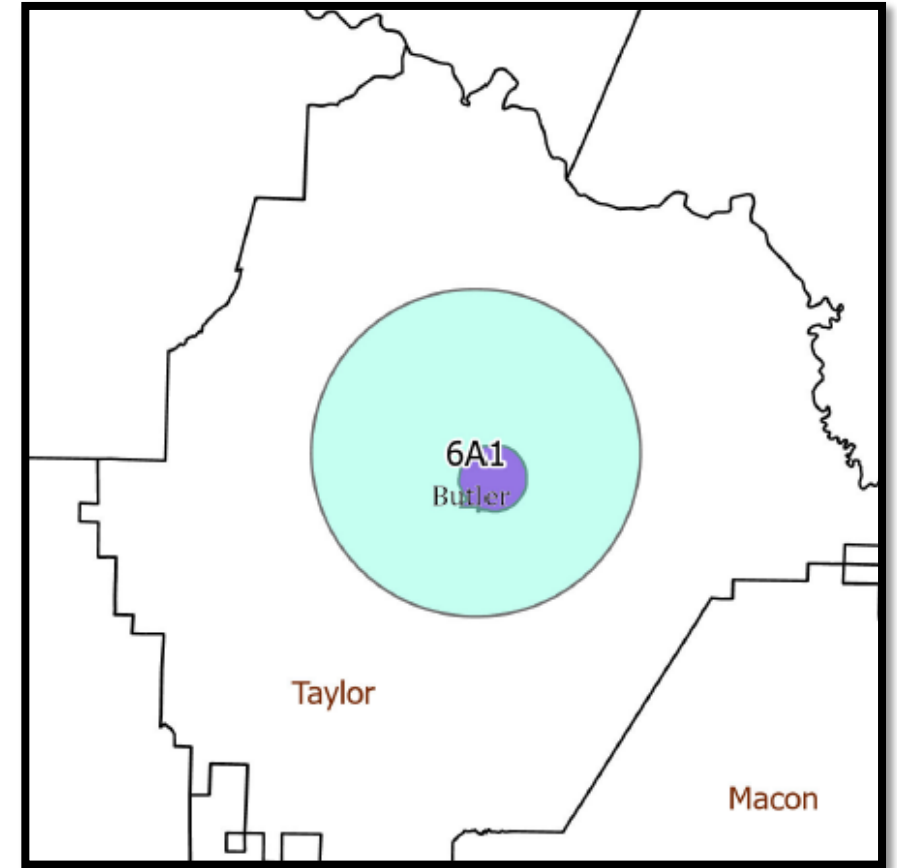
Credit: <https://data-hub.gio.georgia.gov/maps/Georgia-DCA:-latest-city-boundaries-tiger/about>



Examples of Georgia Public Use Airports and Government Entities within 5-mile Radius



- Middle Georgia Regional Airport (MCN)
 - 3 Municipalities (Macon, Centerville, Warner Robins)
 - 5 Counties (Crawford, Peach, Twiggs, Bibb, Houston)
 - Overlap with neighboring Warner Robins Air Park



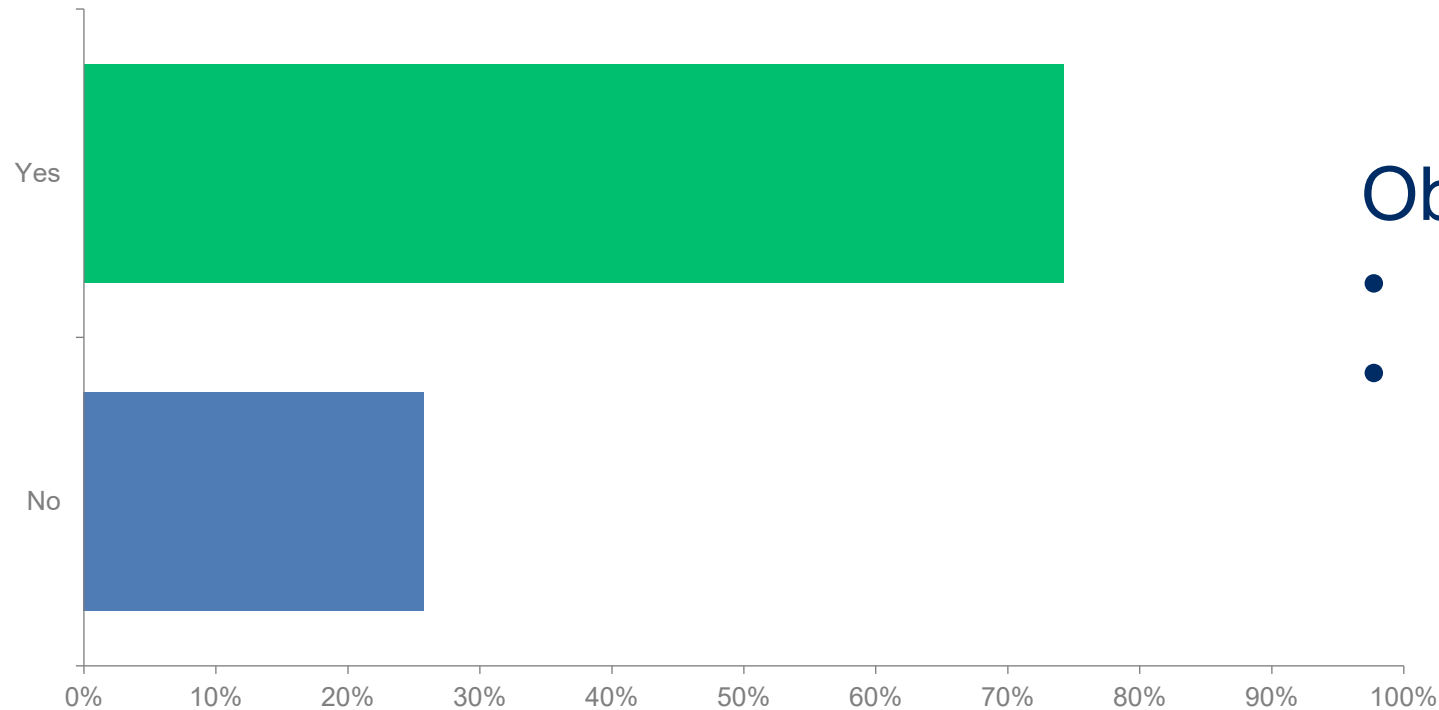
- Butler Municipal Airport (6A1)
 - 1 Municipality (Butler)
 - 1 County (Taylor)

Airport Survey

- Distributed by GAA to airports across the state
- 66 responses received
- Captured current conditions of Georgia airports
- Provided information to support the need



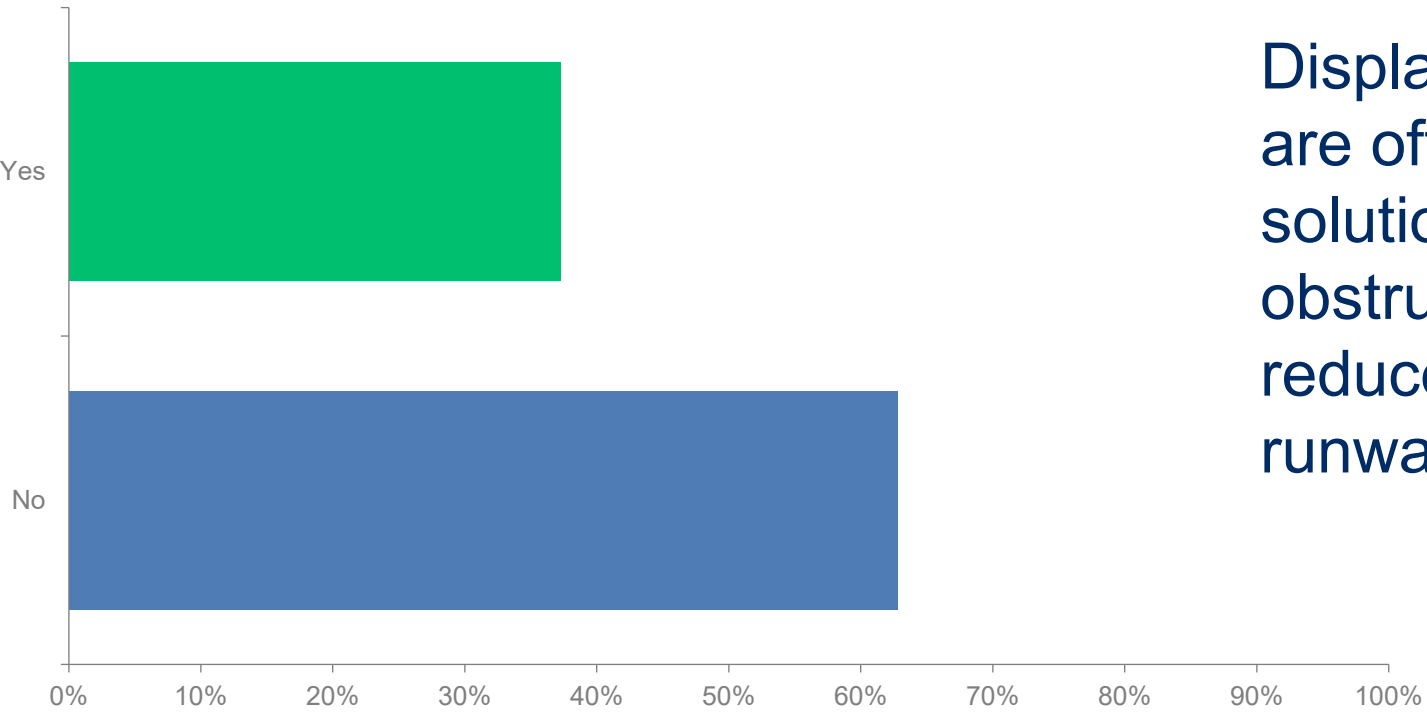
Does your airport currently have identified penetrations to approach areas from vegetation or tall structures?



Obstructions:

- Trees
- Some Building Obstructions

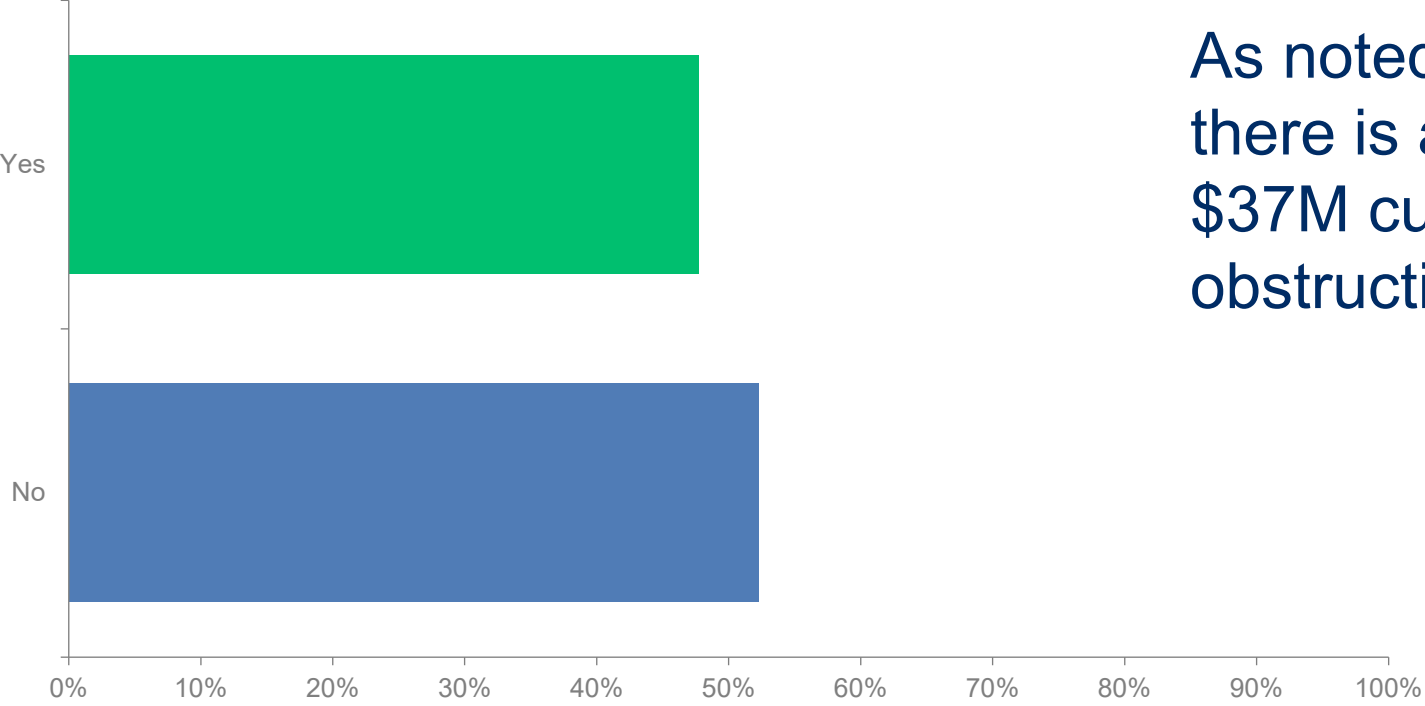
Does your airport currently have any displaced thresholds to mitigate approach penetrations/obstructions?



Displaced thresholds are often temporary solutions to tree obstructions and reduce the utility of the runway.



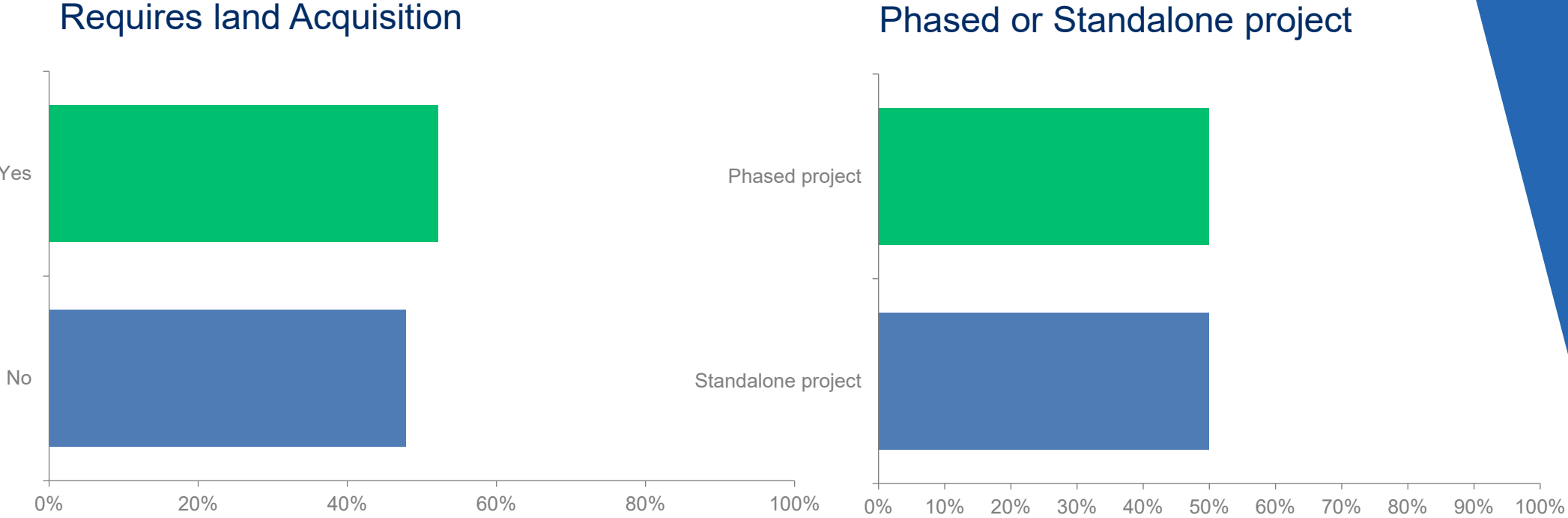
Does your airport have obstruction removal programmed into its Airport Capital Improvement Program (ACIP)?



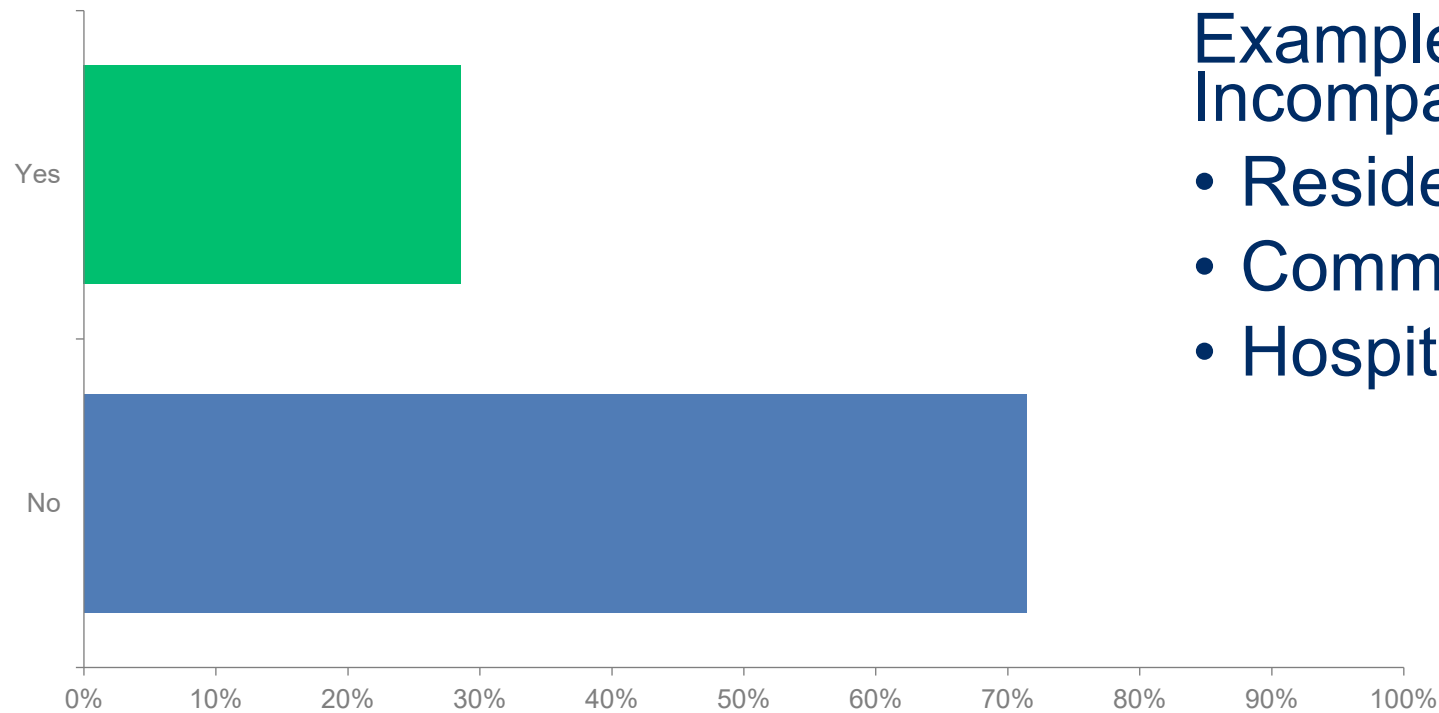
As noted by current ACIPs, there is a need for over \$37M currently to address obstruction removal.



Does the obstruction removal require land acquisition (fee simple or easements) & if so, is it a phased approach?



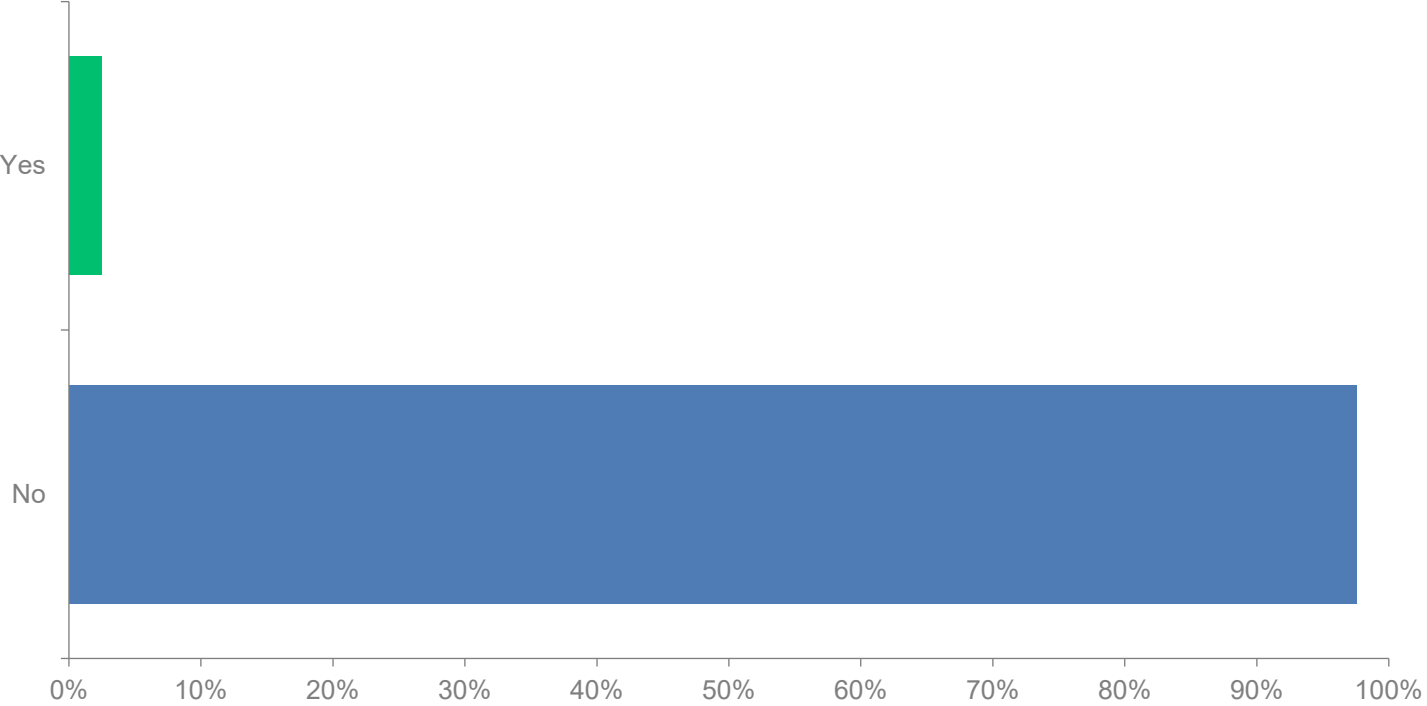
Does your airport currently have any noise sensitive areas or incompatible land uses within the vicinity of the airport?



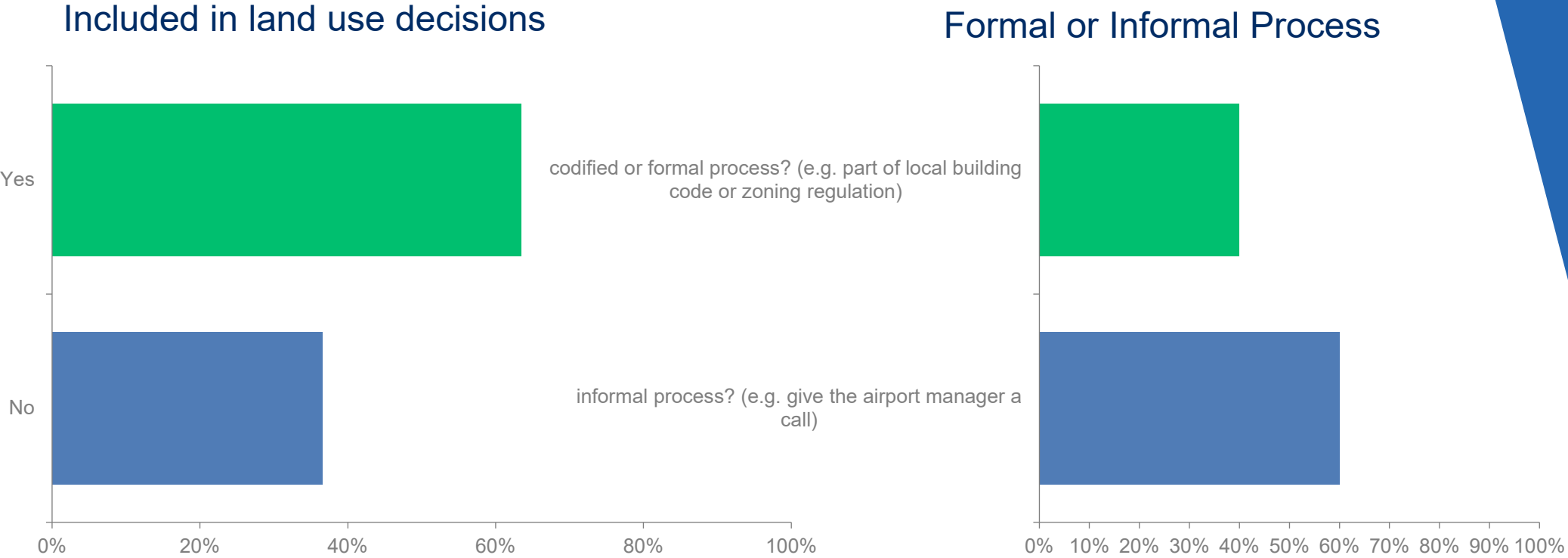
Examples of noted Incompatible Land Uses:

- Residential Areas
- Commercial Districts
- Hospitals

Has your airport been involved in any litigation related to land use decisions?

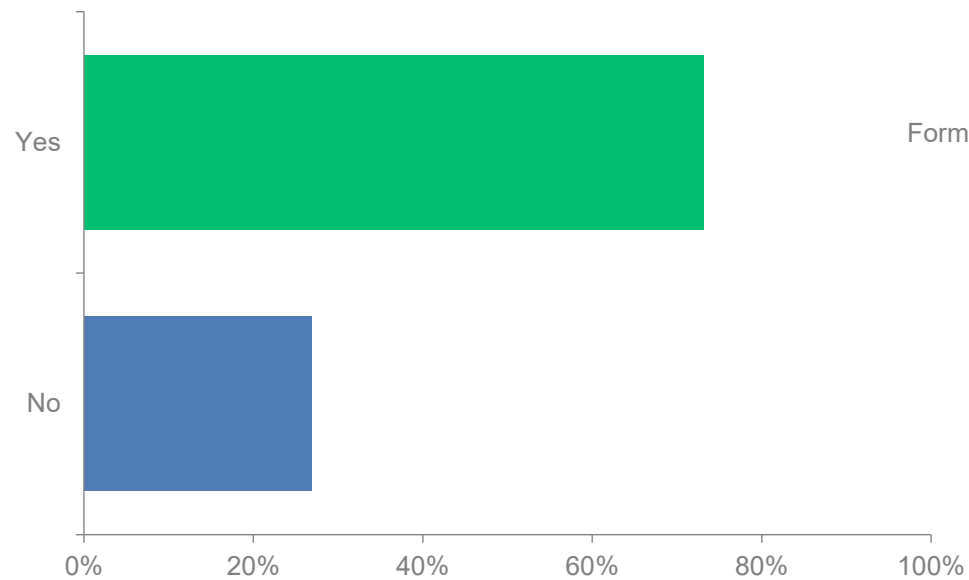


Does your local municipality include the airport when making land use decisions and does this engagement with the Airport have a codified/formal process or informal process?

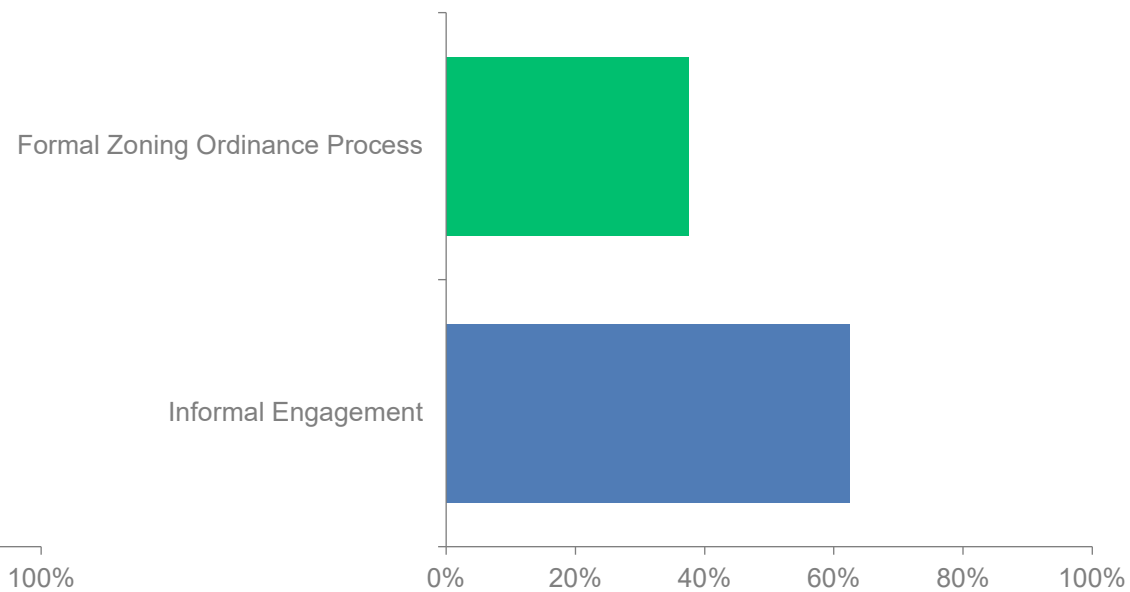


Is your local municipality cooperative in enforcing land use compatibility and/or height limitations in the vicinity of the airport and how it is administered, formally or informally?

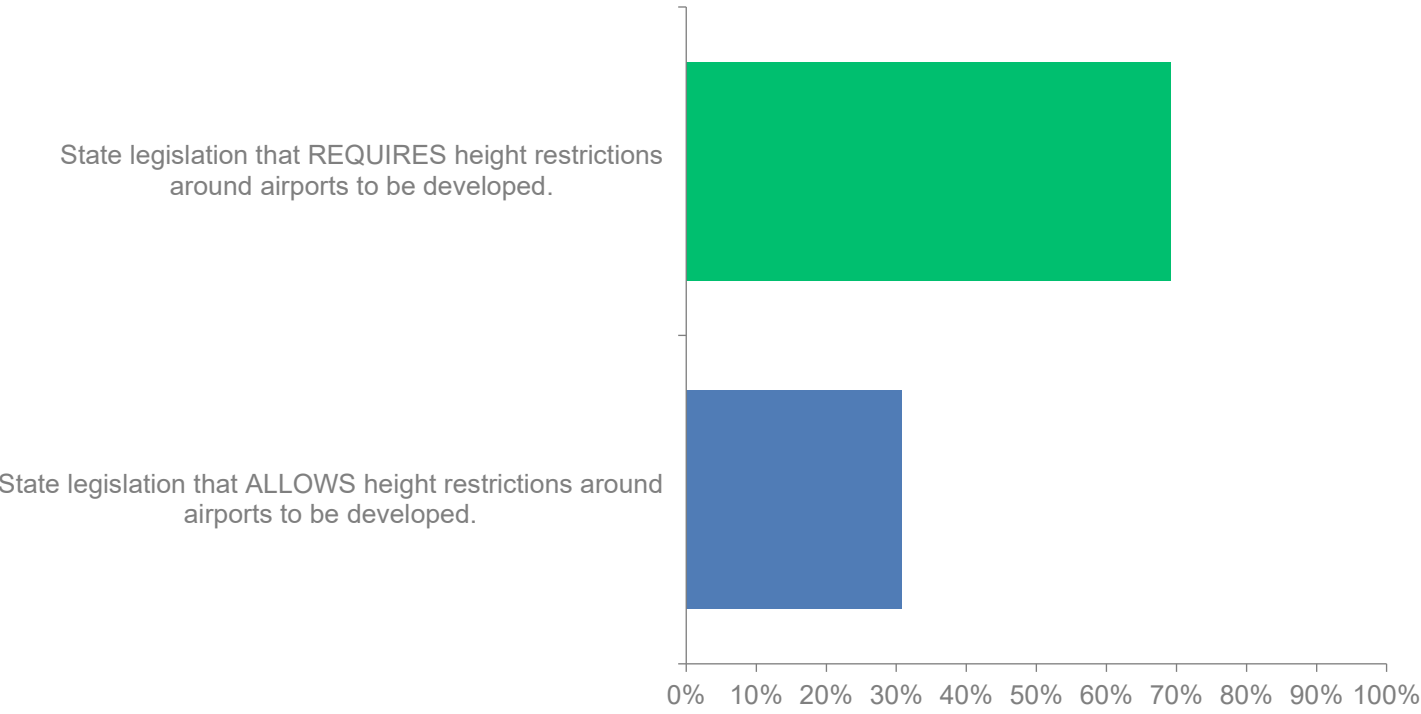
Enforcement of land use/height limitations



Formal or Informal Process

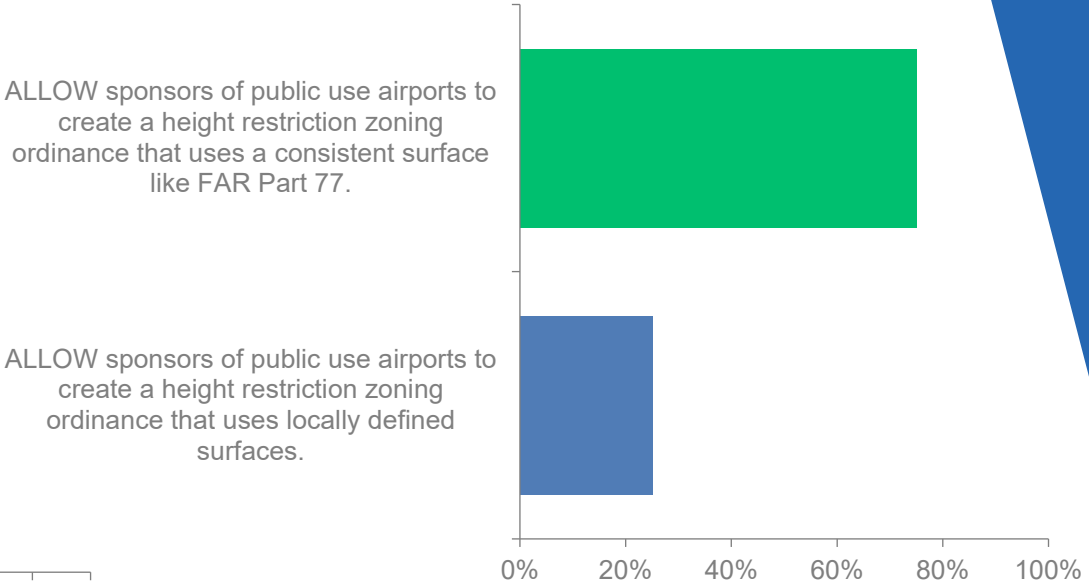
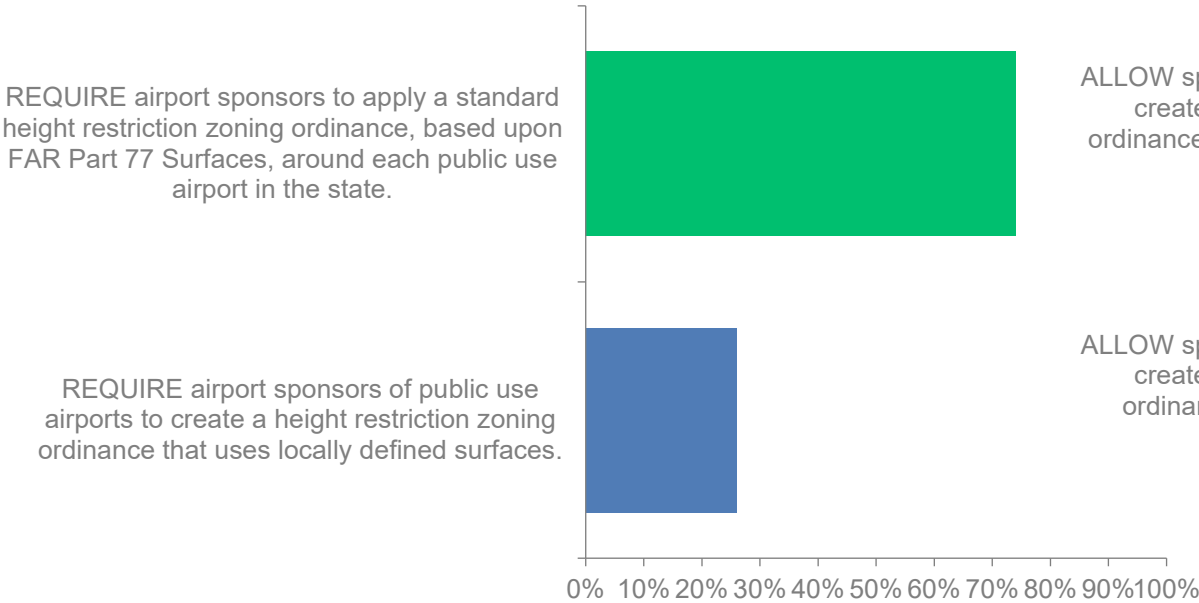


In your opinion, how do you think airports should be empowered to impose height restriction controls?

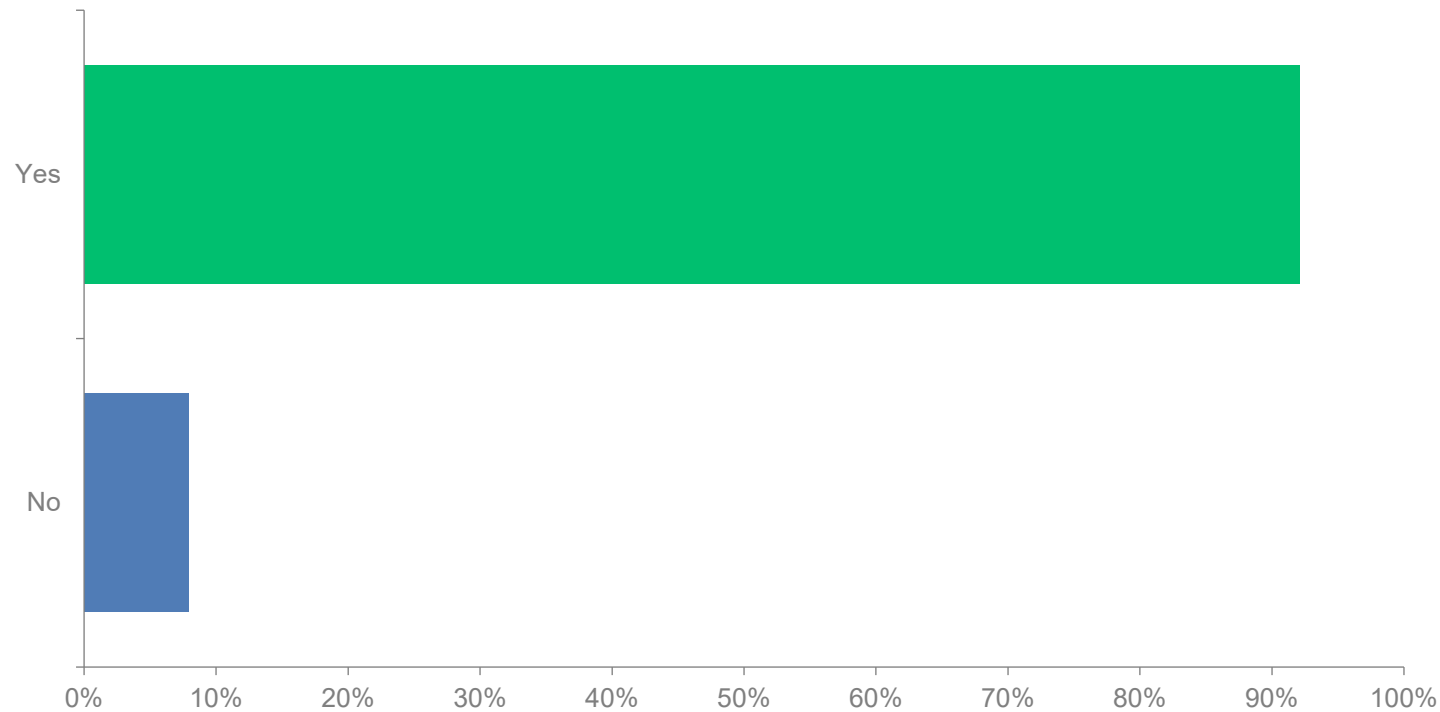


Type of Surface for Restrictions

Consistent surface such as FAR Part 77 is preferred.



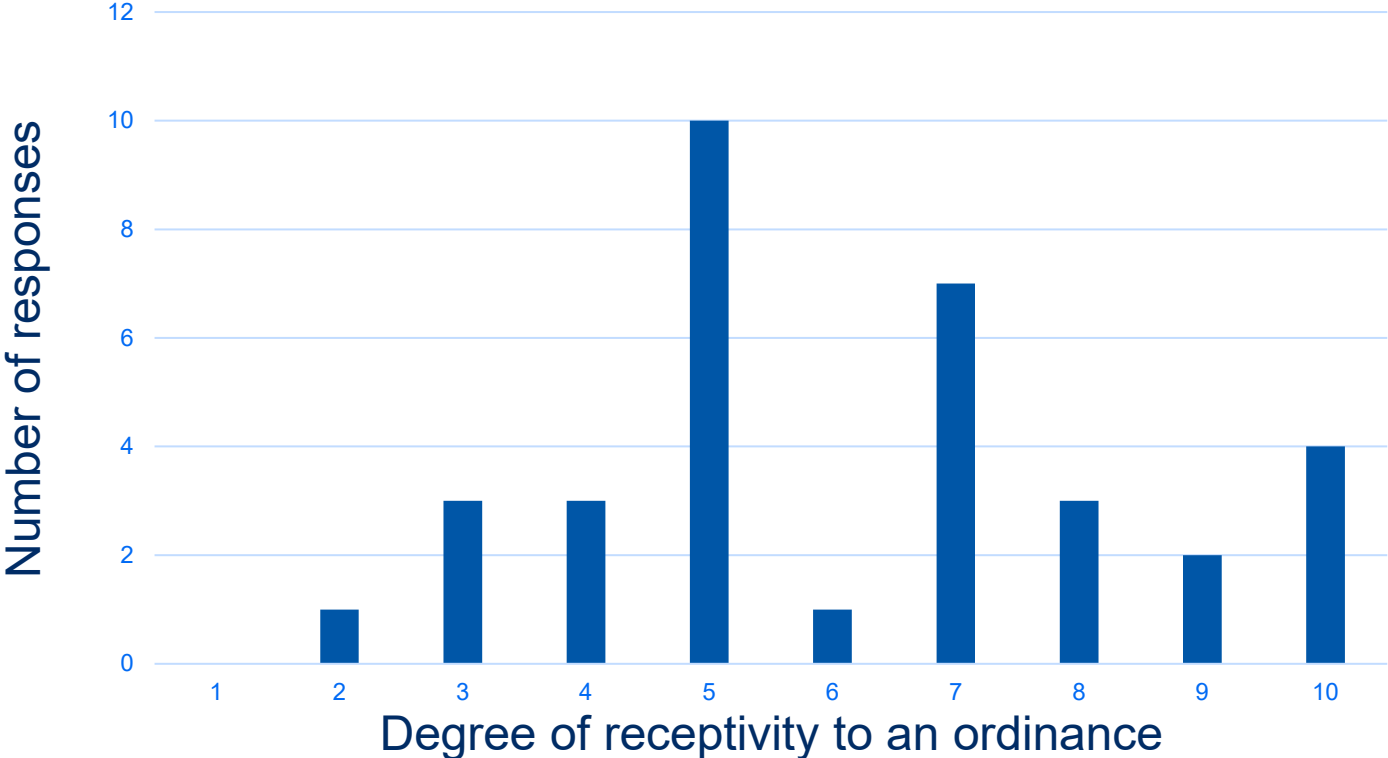
Do you think the legislation would need to provide the airport sponsor with the “right” to cross municipal boundaries to provide the height restrictions (extraterritorial zoning)?



How receptive do you think the municipalities around your airport would be to this sort of ordinance?

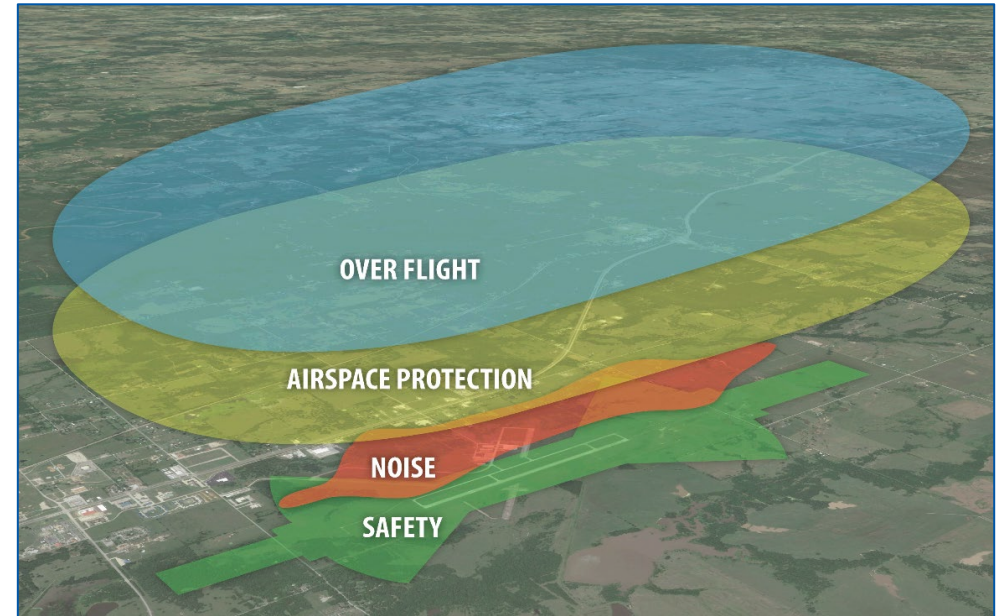
On scale of 1- not receptive to 10-receptive

Only 34 respondents answered this question.



Survey Takeaways

- Height and land use issues are common across the state.
- Nearly 50% of respondents report obstruction issues on current ACIPs.
- While communication on obstructions exists, formal protection at local level are limited.
- Respondents desire legislation that **REQUIRES** approach protection

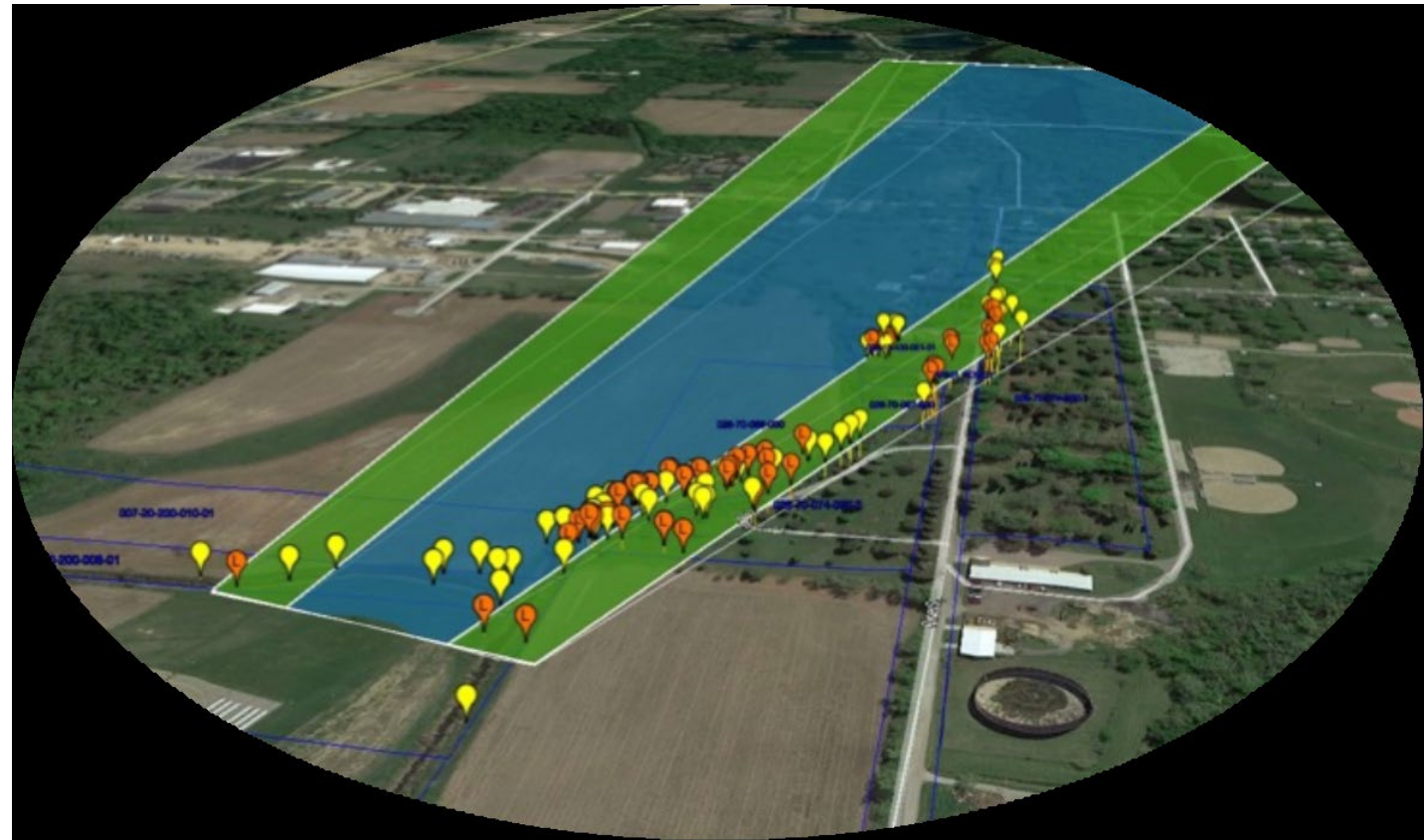


Legislation Considerations



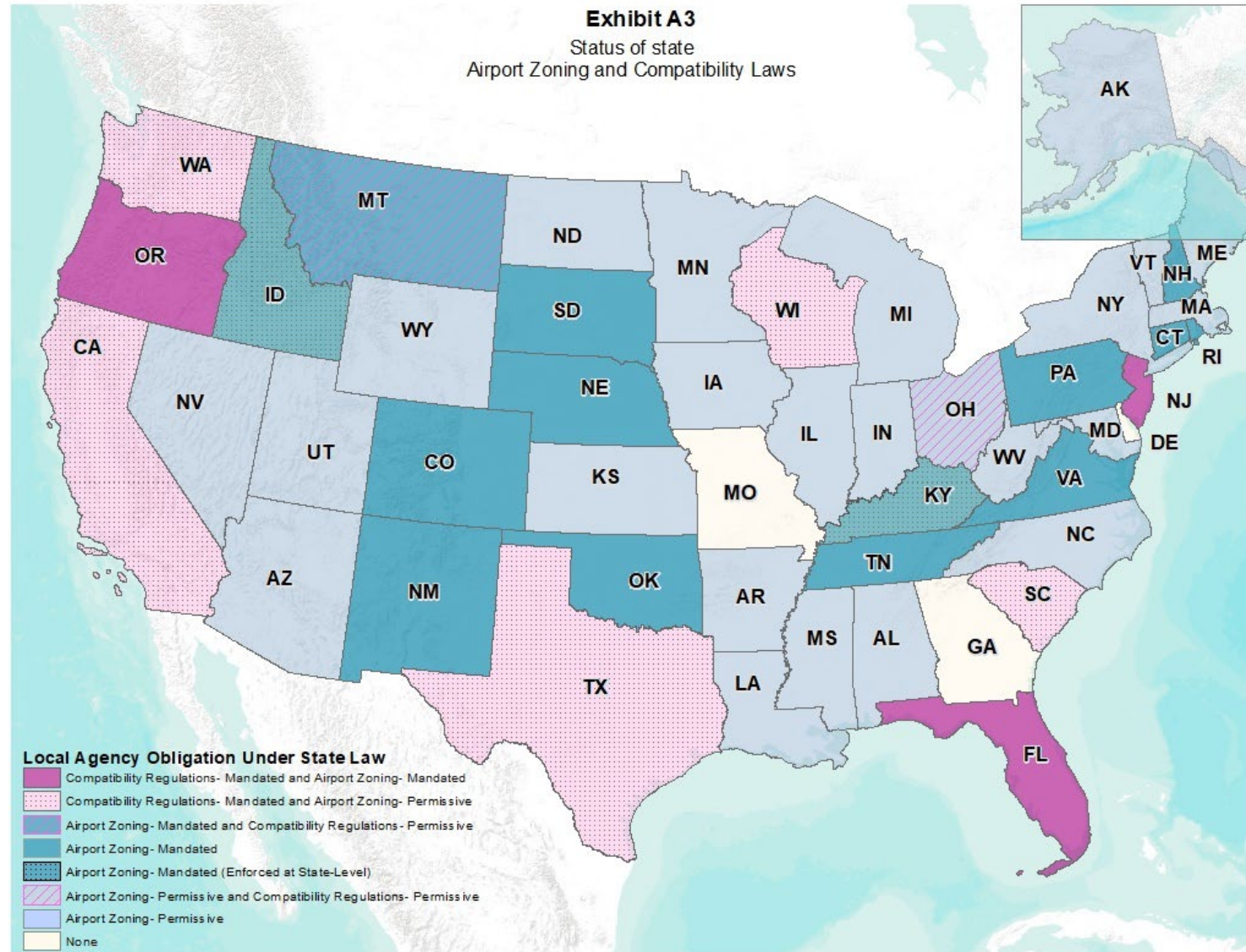
Elements Considered

- Comparison to Other States
- Receptivity to Governmental Oversight
- Consistent Application



National Comparison

- Seven high-level situations exist
- Details are variable within each as to specific restrictions and implementation



Neighboring State Comparison

State	Regulation Level (State/Local)	Area of Consideration (Radius/Mi)	Basis of Height Limitation (FAR Part 77/Other)	Land Use or Height Limitation	Method of Enforcement (State/Local)	Method of Evaluation (State/Local)	Penalties
Alabama	Local	Airport Hazard Area – 2 Miles from airport boundary		Both	Local	Local	The proper local authorities of the municipality, in addition to other remedies, may institute any appropriate action or proceedings to prevent such unlawful erection, construction, reconstruction, alteration, repair, conversion, maintenance or use, to restrain, correct or abate such violation, to prevent the occupancy of such building, structure or land or to prevent any illegal act, conduct, business or use in or about such premises.
Florida	State	3 Miles	FAR Part 77	Both	Local	Local	Misdemeanor of the second degree
North Carolina	Local	Land Use Zones		Both	Both		Class 1 misdemeanor
South Carolina	South Carolina Aeronautics Commission (SCAC)	Airport Overlay District (AOD); Airport Safety Zones; Airport Land Use Zones	FAR Part 77	Both	Local	Local	A fine not exceeding \$1,000, or imprisoned for not more than 30 days
Tennessee	State	Airport Hazard Area		Both	Both	Both	Class A misdemeanor

State Takeaways

- Provide for extraterritorial application
 - Cross multiple municipal/county boundaries
- Consistency in surface description makes for easier application
- Declaration of public nuisance is key
- Reasonable area is key
 - Full Part 77 surfaces may be extreme in some instances
- Defined penalties can be key to enforcement

Specific Georgia Concerns



- Balance landowner rights with public safety and welfare



- Create language that will guide growth and protect airport approaches



- Provide the authority to manage height limitations



- Focus on controls that are generally more permissive as distance from the airport increases

Draft Legislation

- Developed two options
 - Option 1 - Right to Zone - brief version
 - Option 2 – Right to Zone - with greater detail regarding process for creation and administration
- Provides extraterritorial rights across municipal/county boundaries
- Permits local airport owners to establish an ordinance for height limitations
 - Land use compatibility deferred for a later date
 - Option – Change “May” to “Shall” to provide REQUIRED Implementation
- Uses Part 77 Surfaces as basis
 - Current recommendation is full Part 77 Surfaces
 - Part 77 surfaces for precision instrument runways extend nearly 10-miles with approximately 250’ allowable height at end
 - Option - Could be cropped to shorter distance, for example 3-mile radius from the end of each runway
- Ties removal to Official Code of Georgia, Title 41 – Nuisances, Chapter 2 Abatement of Nuisances

Summary

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Summary

- Georgia public-use airports are experiencing impacts from approach obstructions
 - This impacts utility of each airport
 - Increases costs of operation of each airport
 - Requires use of funds that could be dedicated to airport development
 - Reduces safety of aircraft operations due to penetrations to the airspace
- More than \$37M worth of projects identified to address this issue in next five years alone, as of 2024
- Extraterritorial authority is key
- Consistent surface definition supports implementation

Questions

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