



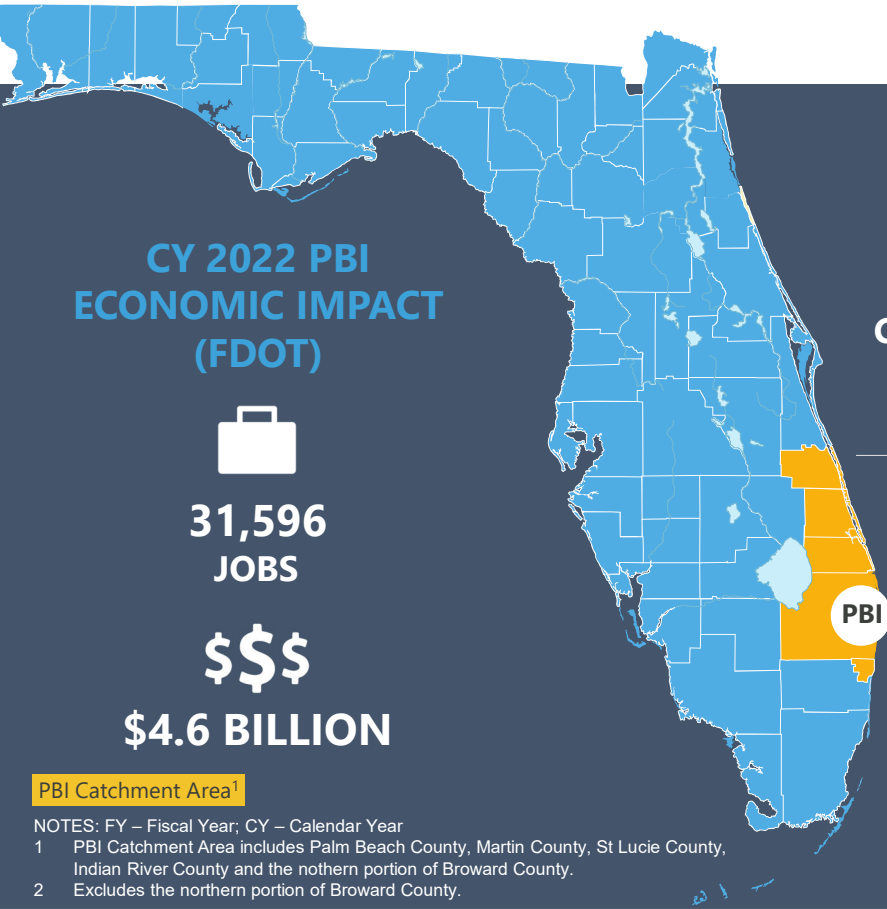
Citizens' Committee on Airport Noise

May 23, 2024

Presenters

- **Laura Beebe, Airports Director, DOA**
- **Dave Ramacorti, C.M., Ricondo**
- **Steve Culberson, Ricondo**
- **Mary Ellen Eagan, ME Eagan Consulting**

Palm Beach County Airport System By the Numbers



KEY ACTIVITY METRICS



CY 2023 PASSENGERS
7.8M

Up 17% from CY 2022



14

PASSENGER SERVICE AIRLINES

As of March 2024



NONSTOP SERVICE TO 44 DESTINATIONS

As of March 2024

SOCIOECONOMIC CHARACTERISTICS² (PBI CATCHMENT AREA)



TOTAL POPULATION

2.2M → 2.4M

FY 2023 FY 2030



TOTAL EARNINGS

\$74.3B → \$90.6B

FY 2023 FY 2030



TOTAL PER CAPITA PERSONAL INCOME

\$81,330 → \$90,595

FY 2023 FY 2030

CY 2022 GA Airports Economic Impact

F45



467 Jobs

\$\$\$ \$77.3 Million

LNA



772 Jobs

\$\$\$ \$144 Million

PHK



33 Jobs

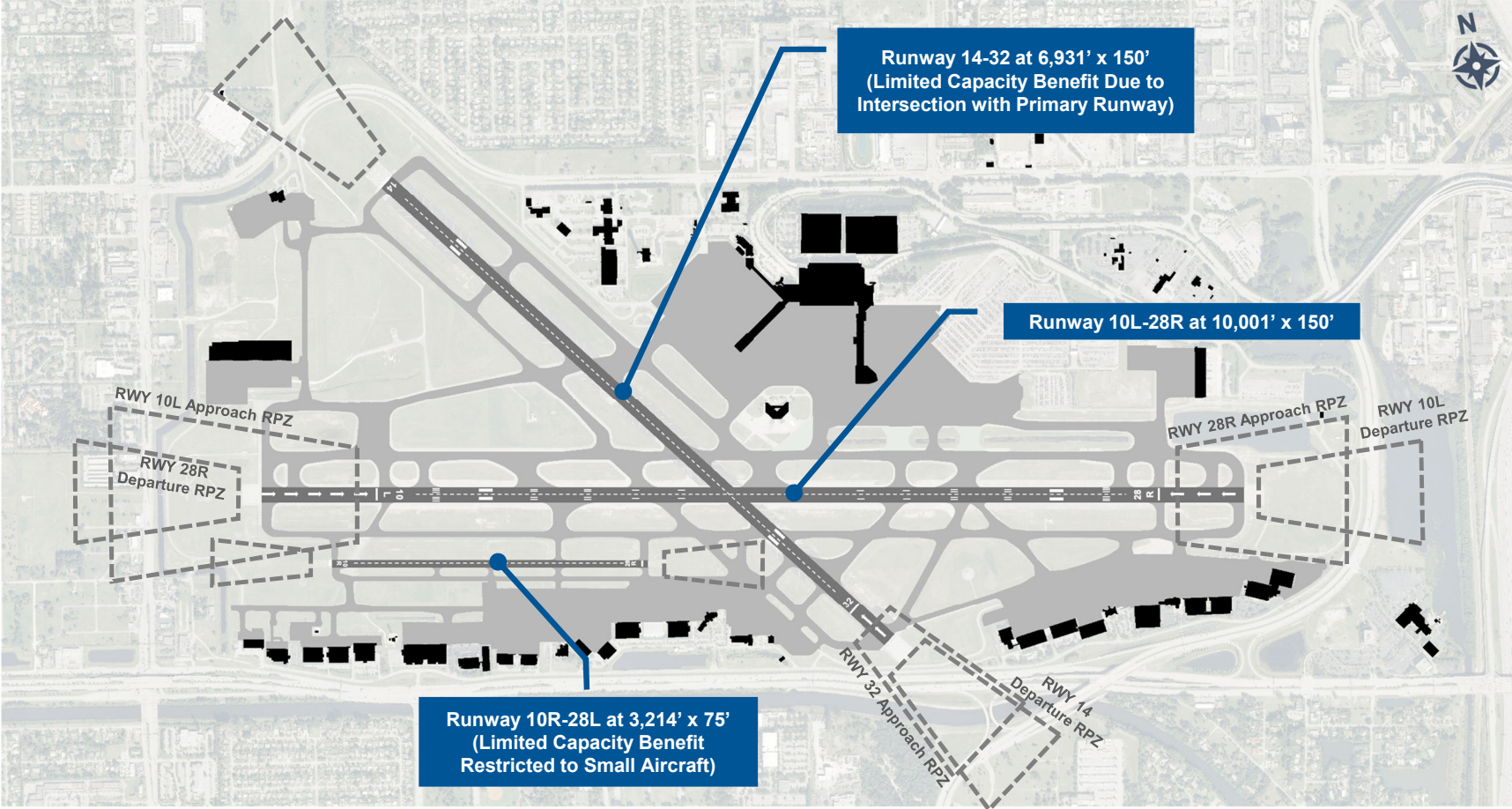
\$\$\$ \$5.7 Million

Agenda

- Existing Conditions
- Current Needs and Projections
- Planning Process
- Environmental Process
- Community Involvement
- Next Steps

Existing Conditions

Existing Airfield Limitations and Constraints



Operational Concerns Resulting from Airfield Limitations and Constraints

Operates as a single-runway airport during peak periods, resulting in delays and the following effects:



Airfield Congestion – increased departure delays cause congestion on taxiways, aircraft parking aprons and throughout the airspace



Increased aircraft emissions and operational costs due to increased taxiing/flight time and fuel burn



Noise Effects - Due to wider distribution of flight tracks because aircraft are dispersed out during peaks rather than localized along arrival and departure tracks



Economic Costs - Local economic impacts and airport revenue impacts that result from lost opportunities such as new service and increased flight frequencies

Current Needs and Projections

Airfield Capacity and Delay

Hourly Capacity: Provide insight into how changes in demand influence delay throughout the day

- Hourly delay and activity profiles – severity, frequency, and duration of peak period delays
- Proportion of aircraft delayed – measure of potential impact to the National Airspace System (NAS)

Annual Service Volume (ASV) is an estimate of an airport's annual capacity that considers hourly, daily, and seasonal variations in aircraft demand, the occurrence of low visibility and cloud ceiling heights, and assumed average annual aircraft delay in minutes¹

- Activity at 60% of ASV: Additional capacity should be planned
- Activity at 80% of ASV: Development should commence at this demand level and within 5-10 years of activity reaching ASV under an approved forecast

Annualized Delay Metrics: Represent average delay per aircraft operation, accounting for utilization of predominant airfield operating configurations throughout a year

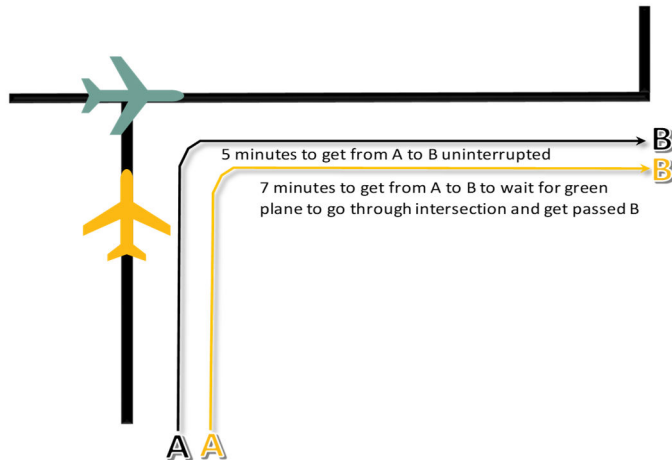
NOTES:

¹ Federal Aviation Administration, *Order 5090.5 Formulation of the NPIAS and ACIP*, September 2019.

What is Delay?

Two primary definitions in aviation:

1. Aircraft departed/arrived more than 15 minutes from the time it was scheduled to leave/arrive at the gate – FAA Air Traffic Control (ATC) and Bureau of Transportation Statistics (BTS)
 2. The difference between actual and unimpeded aircraft travel times (e.g., the additional time it took an aircraft to get from point A to point B above what it should be if not interrupted)
- Airfield planning focuses on the latter definition
 - As demand for the same facility (e.g. taxiway or runway) increases, so does delay



Average Delay (minutes)	Definition
4-6	An airport is approaching its practical capacity and is generally considered congested. ¹
10	May be considered severe. ²
15	Considered excessive at a hub airport. ³
20+	Seldom observed, as airline and passenger behavior will begin to change (up-gauging to larger aircraft, not adding new service during peak periods, seeking alternate airports/modes, etc.) prior to reaching this level. ³

NOTES:

¹ Federal Aviation Administration, *Advisory Circular 150/5070-6B Airport Master Plans*, May 2007.

² Federal Aviation Administration, *Airport Benefit-Cost Analysis Guidance*, December 1999.

³ Federal Aviation Administration, *Airport Benefit-Cost Analysis Guidance*, September 2020.

What could happen to scheduled service as delay goes up?

Tolerable Level of Delays

Absorb some of the delay in the flight schedule

- Can absorb disruptions that involve higher level of delays and recover during good weather days
- Would not absorb instances of maximum delay (e.g., delay during bad weather days or when in East Flow)

Maximum Tolerable Level of Delays

Begin scheduling flights into non-peak periods and/or up-gauge aircraft size (as able)

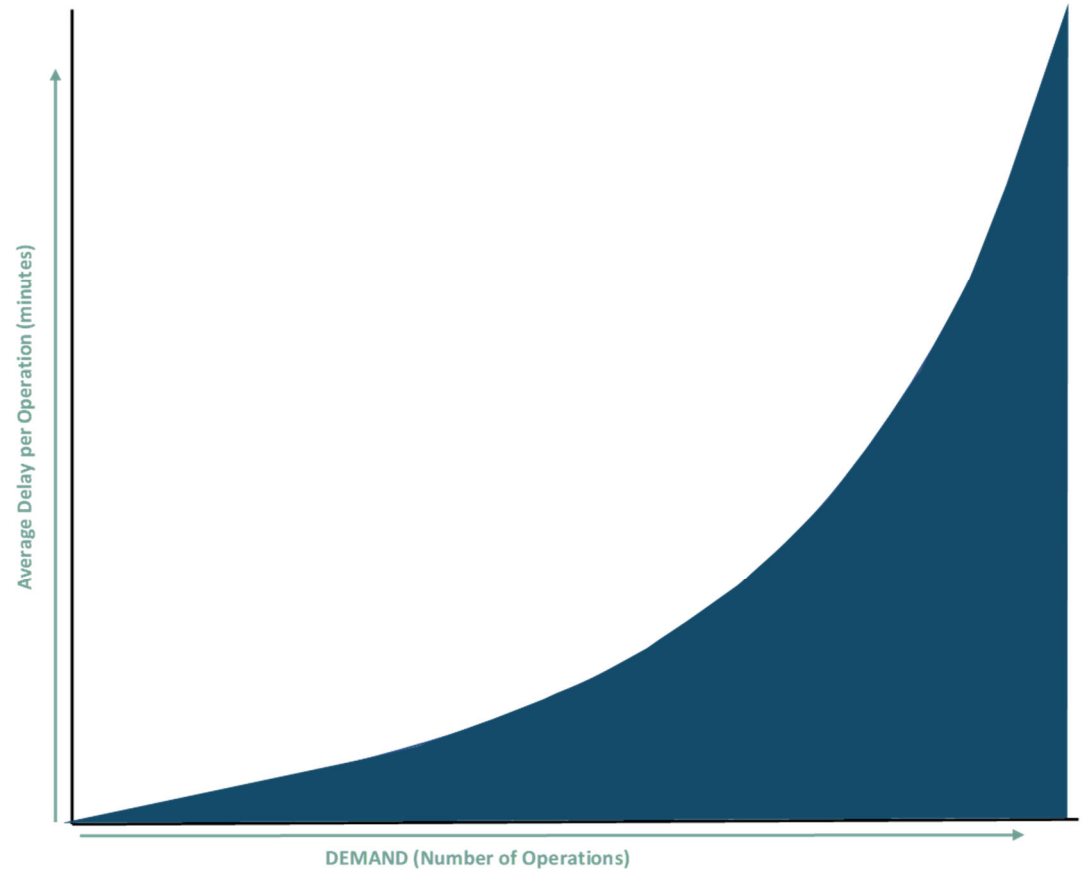
- Can occur when scheduled demand is at the hourly maximum throughput for the runways
- Valleys in the hourly demand profile begins filling up
- At higher delay levels in this range, airline schedules will become more difficult to recover after a delay causing event (e.g. bad weather, closed runway, etc.)

Constrained Level of Delays

Flight schedules may become controlled under demand management

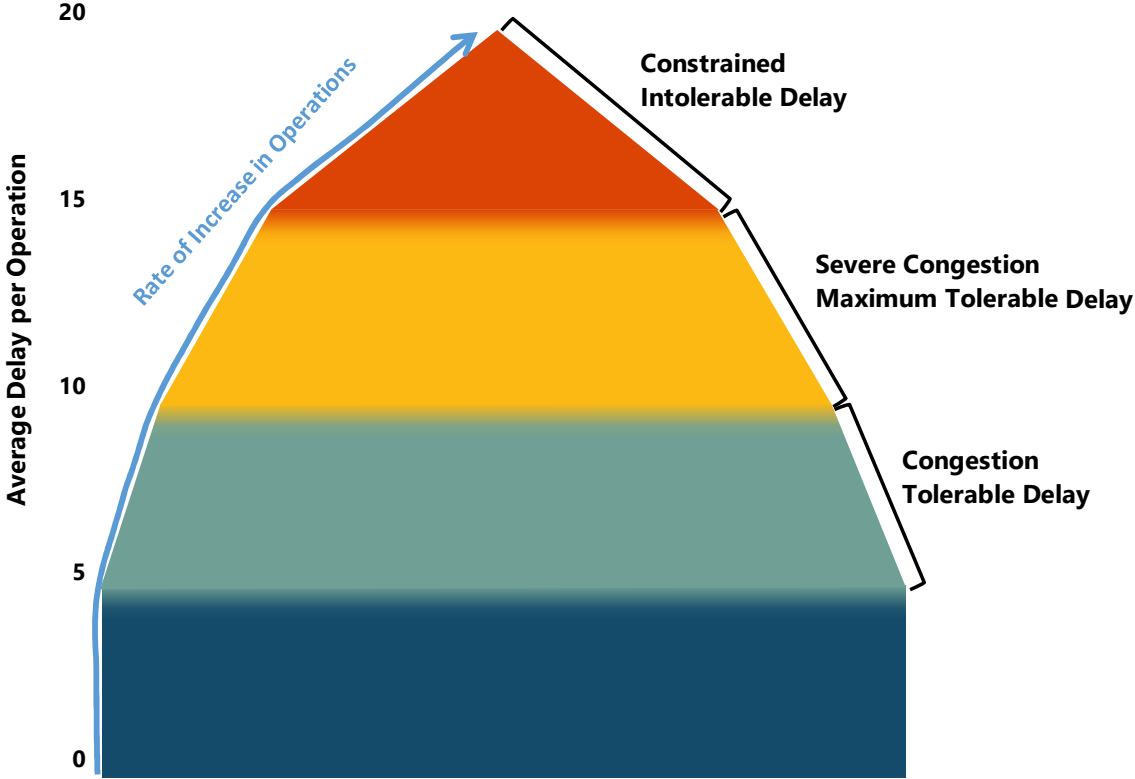
What happens if more flights use the airfield at the same time?

As daily operations increase and demand for same facility increases, delay will increase exponentially

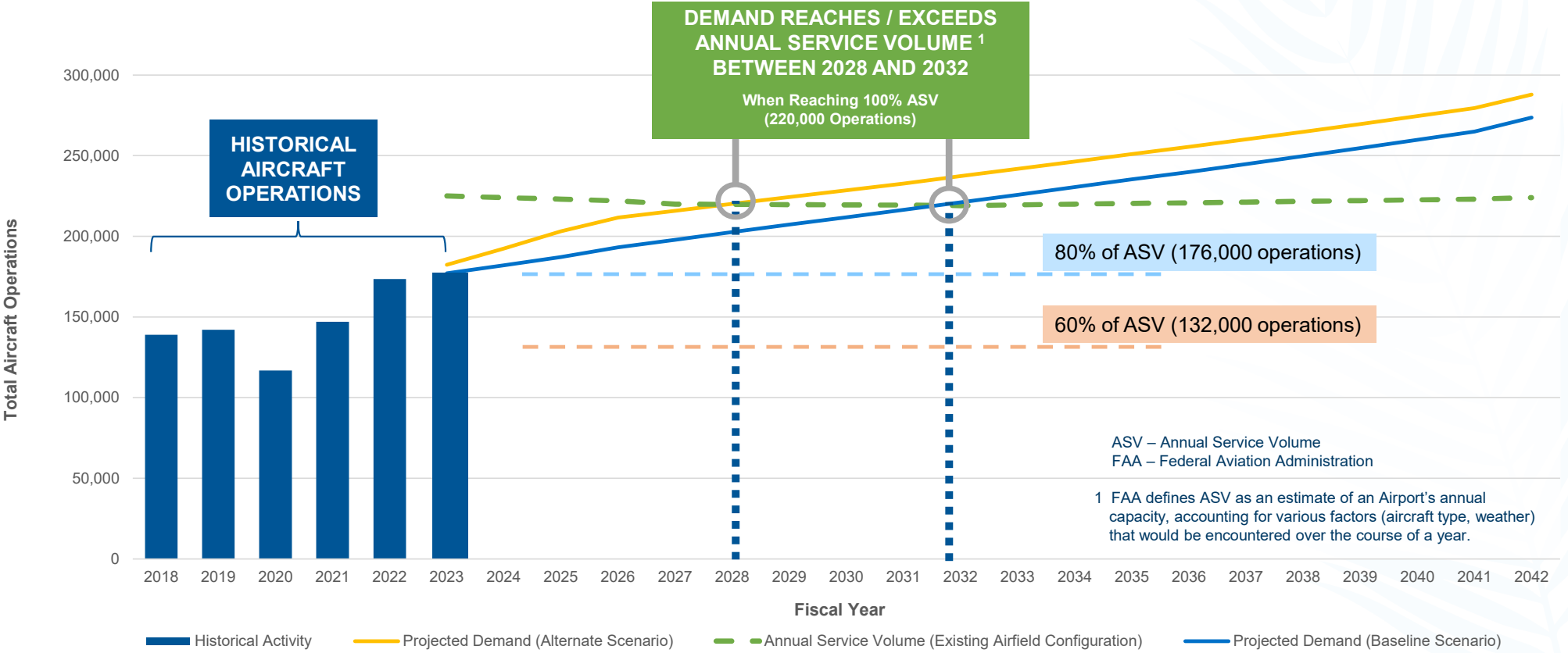


How much delay is “bad” delay?

For airport planning purposes, an average delay per operation exceeding 15 minutes is typically considered intolerable and unsustainable on a long-term basis

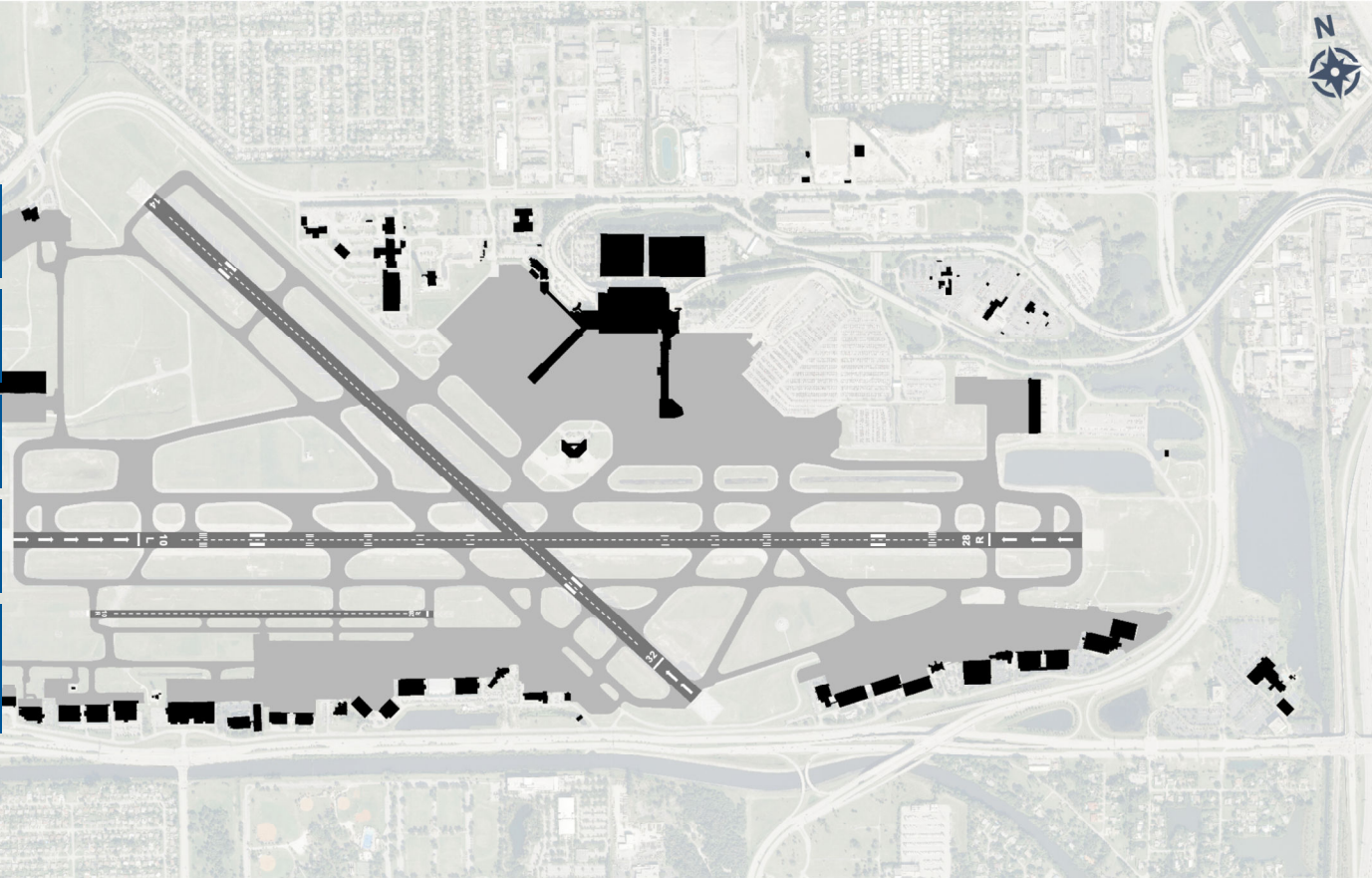


Current Needs and Projections



Anticipated Impacts with No Airfield Improvements

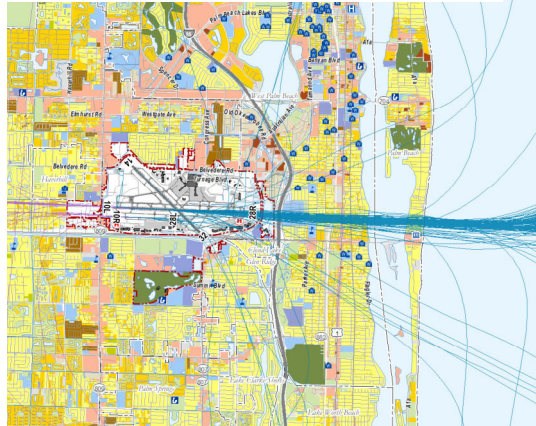
- Increased delays
- Constrains commercial air service
- Economic impacts
- Increased aircraft emissions
- Increased frequency of alternate headings



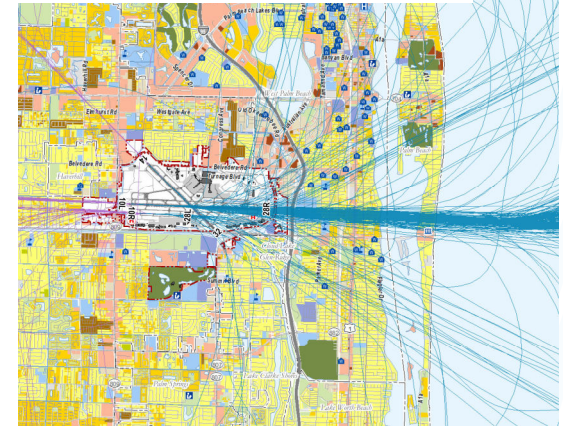
Impact of Alternate Headings During Peak Periods

Increased use of alternate headings during peak periods results in wider distribution of flight tracks and overflight of other neighborhoods

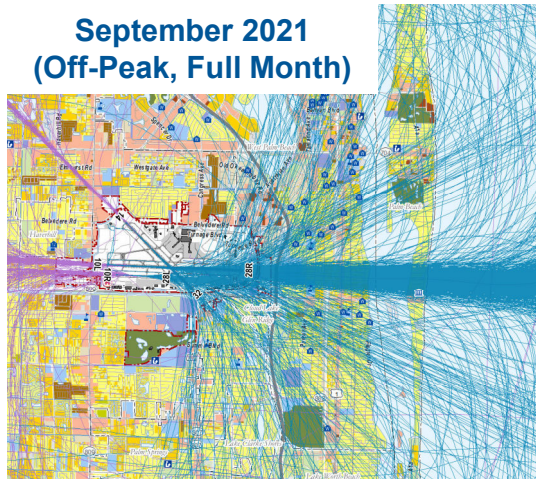
September 27, 2021 (Off-Peak)



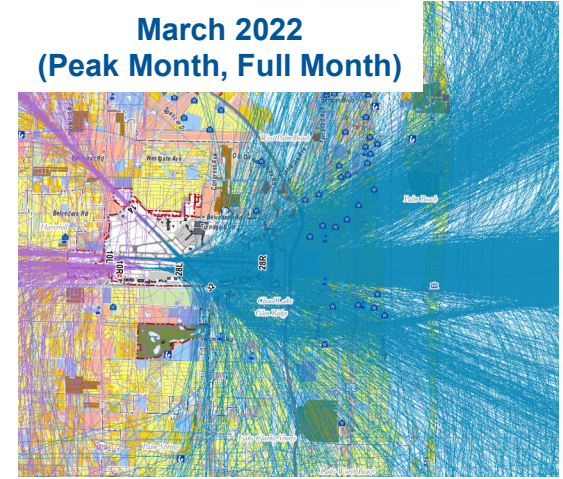
March 14, 2022 (Peak Month)



September 2021 (Off-Peak, Full Month)



March 2022 (Peak Month, Full Month)

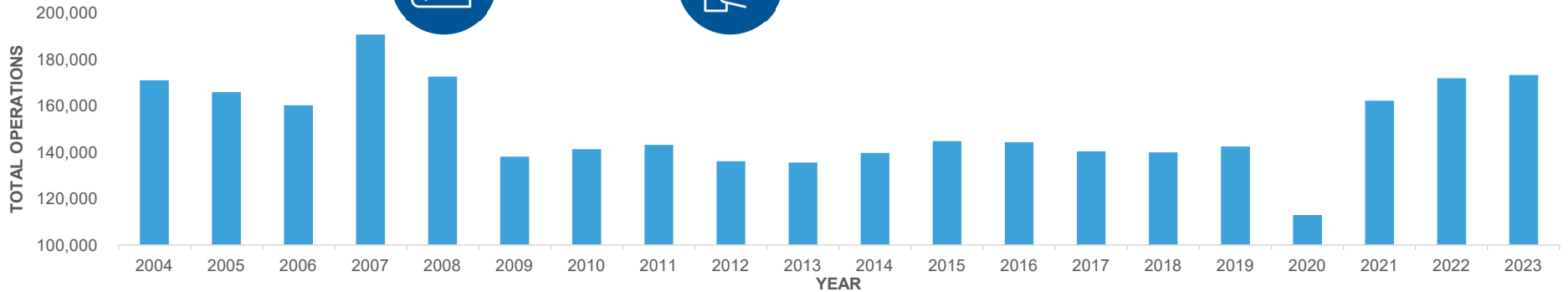
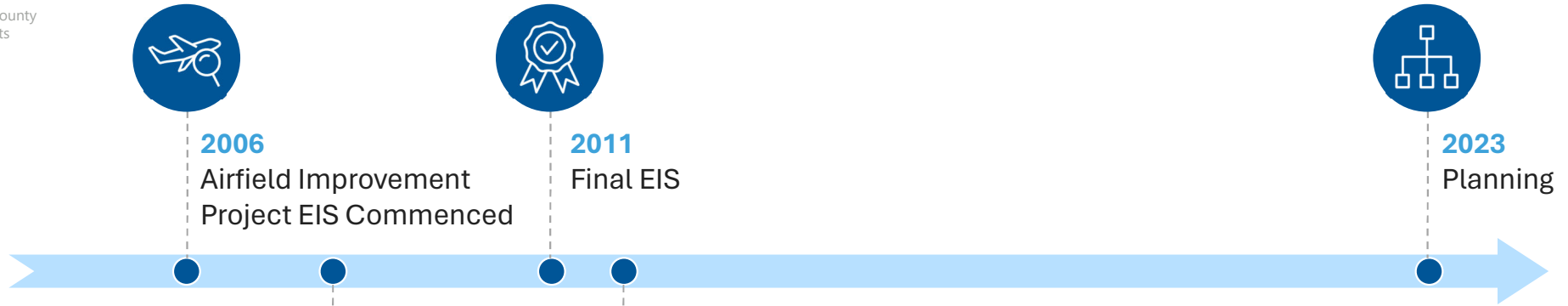


Source: Harris Miller Miller & Hanson, Inc., August 2022

Planning Process

Planning History

Source: Palm Beach County
Department of Airports



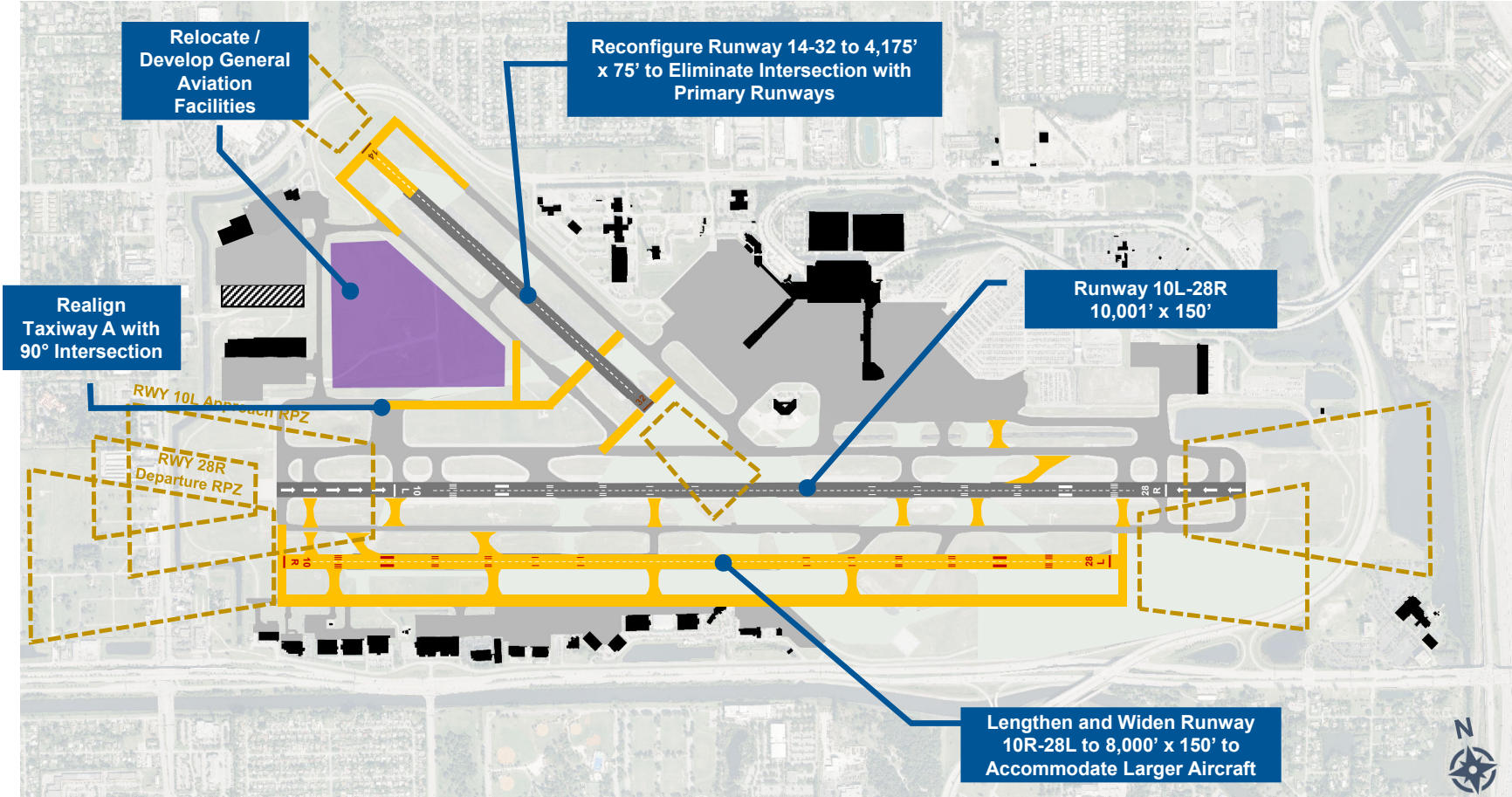
Preliminary Planning Requirements

Planning Issue	Planning Study	Duration
How much activity and what type of aircraft activity is expected in the future?	Forecast and Fleet Mix Update	6 months ¹
How much activity can the existing airfield accommodate?	Demand/Capacity Analysis	9 months ^{2 3}
If additional runway pavement is needed, how much and where should it be?	Runway Length Analysis Alternatives Analysis	6 months ^{2 3}
What existing facilities would be affected and how would the project be implemented?	Phasing Plan	4 months ^{2 3}
What is the location and relation of proposed facilities to existing airport facilities?	Airport Layout Plan Update	6 months ^{1 3}
Does the project pass FAA's benefit-cost analysis?	Benefit-Cost Analysis (BCA)	4 months ^{2 4}

- 1 Federal Aviation Administration (FAA) review and approval required
- 2 FAA coordination and review required

- 3 Task commences upon FAA approval of Aviation Activity Forecast
- 4 BCA performed in conjunction with Demand/Capacity Analysis

Preliminary Airfield Improvement Project




Environmental Process

National Environmental Policy Act (NEPA)

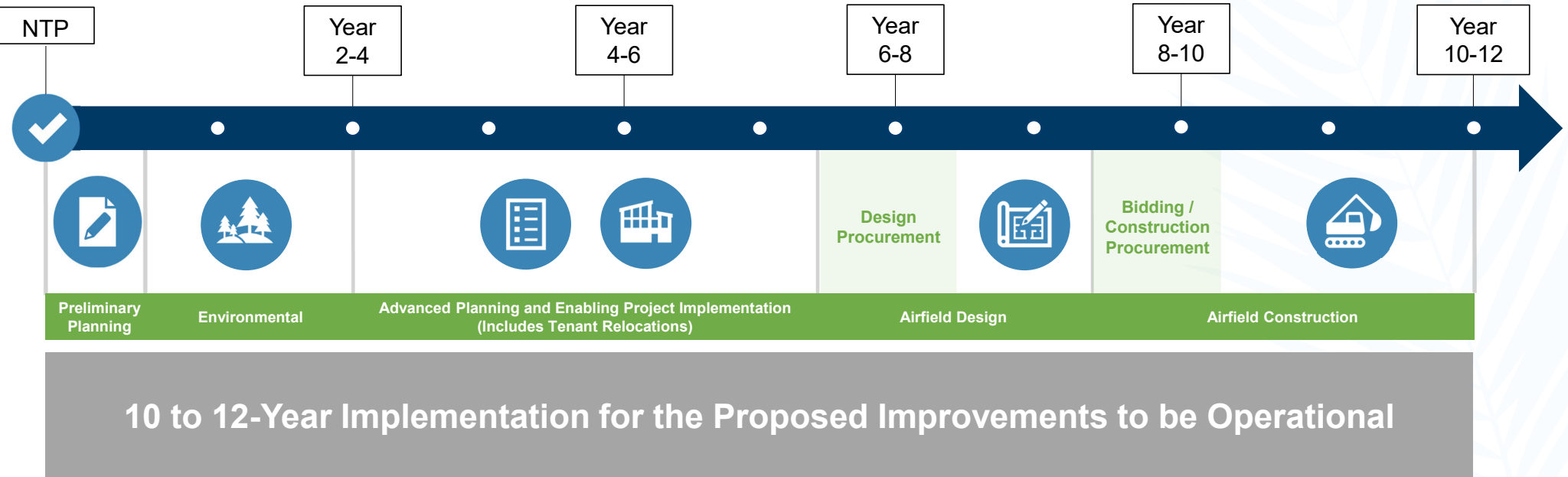
- National law to promote efforts to prevent or eliminate environmental damage
- Environmental effects must be considered before making decisions on proposed projects
- Applies to all actions where federal funding or federal approval is required
- Serves as public disclosure information and documents the basis for the federal agency's environmental finding
- NEPA is a comprehensive process meant to cover the various laws and regulations to protect the environment, all environmental reviews are typically coordinated as a single process
- FAA is lead NEPA federal agency for airport actions
 - FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*
 - FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*
 - Desk References

FAA Determines the Level of NEPA Review



LEVEL	DURATION	USE FOR ACTIONS THAT...	LEAD
Categorical Exclusion (CATEX)	3-6 months (approx.)	Fit in one or more of the categories of actions that FAA has determined do not individually or cumulatively have a significant effect on the environment	Project Sponsor (typical)
Environmental Assessment (EA)	1 year from NEPA Clock Start With pre-NEPA, 12-18 months (approx.)	Have the potential to significantly affect the environment but mitigation measures reduce the impacts below significance levels Action does not normally require an EIS and is not categorically excluded (see Section 3-1 of FAA Order 1050.1F)	Project Sponsor (typical)
Environmental Impact Statement (EIS)	2 years from NEPA Clock Start With pre-NEPA, generally 2-4 years	Have one or more environmental impacts that would be significant and mitigation measures cannot reduce the impacts below significance levels Action normally requires an EIS (see Section 3.1-3 of FAA Order 1050.1F)	FAA (typical)

Projected Timeline for Implementation of Airfield Improvement Program



NTP – Notice to Proceed



Public Participation

Public Participation

DOA committed to public involvement throughout both the planning and environmental process

Planning Process Opportunities

- Website (typical)
- Workshops
- Meetings (including quarterly CCAN meetings)

Environmental Process Opportunities

- Website (typical)
- Meetings (including quarterly CCAN meetings)
- Workshops
- NEPA process meetings (typical):
 - Scoping
 - Draft NEPA document



What is CCAN's Role?

- Serving as liaison to communities around PBI
- Providing perspectives on key issues
- Assisting with development of community engagement plan
- Actively participating in meetings



Next Steps

Preliminary Planning - Next Steps

- ✓ Preliminary project planning
- ✓ Consultation with stakeholders:
 - Federal Aviation Administration (FAA)
 - Community
- ✓ FAA concurrence on need and planning justification
- ✓ FAA decision on appropriate NEPA documentation
- ✓ Start of environmental review process

An aerial photograph of the Palm Beach International Airport (PBI) and its surrounding area. The image shows the airport's runways, taxiways, and parking lots. A large body of water, likely a canal or river, flows through the airport grounds. The surrounding city of West Palm Beach is visible in the background. The logo for PBI Palm Beach International Airport is overlaid in the center of the image.

PBI Palm Beach
INTERNATIONAL AIRPORT