



# BVY AIRPORT MASTER PLAN

## Planning Advisory Committee Meeting

January 16, 2020

**JVIATION**®

**ASG**  
AIRPORT SOLUTIONS GROUP, LLC  
*Innovation by Design*

  
**BEVERLY  
REGIONAL  
AIRPORT**



## MEETING OBJECTIVES

Today we will leave with:

- An understanding of the Airport Master Plan process and the value of airport planning
- An awareness of the key relationships and requirements in the airport industry including expectations of the PAC
- Knowledge of the work-to-date on the inventory and aviation demand forecasts
- Agreement on next steps

# MASTER PLAN PROCESS





## WHY DO WE MASTER PLAN AIRPORTS?

The Master Plan is a ***20-year plan*** to understand the needs of current and future users of the airport. It is important to ensure:

- ***safe and orderly development***
- ***reflective of the community's values and goals***
- ***through a purposeful, inclusive, and educational process***



## KEY PARTNERS

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Federal Aviation Administration (FAA)

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Massachusetts Department of Transportation  
(MassDOT), Aeronautics Division

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City of Beverly, Airport Sponsor

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Airport Commission

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Planning Advisory Committee (PAC)



## PARTNER ROLES

- ***This is the Airport's Master Plan!***
- Airport Master Plan
  - Recommended by FAA and MassDOT
  - FAA does ***not*** approve Master Plan
  - FAA approves the forecast
  - FAA and MassDOT approve ALP
  - FAA and MassDOT will ultimately endorse projects (following Master Plan and during annual CIP process)
- Airport Layout Plan (ALP)
  - Airport Commission must keep it current
  - Airport development must be consistent with the ALP



## KEY FEATURES

### Planning is not prejudicial

- FAA/MassDOT mandates against predetermined outcomes
- The plan must be based on current conditions, community input, and forecasts

### Master Plan Inclusions

- Establish future facility needs
- Measure aviation demand
- Create the Airport Layout Plan set
- Identify funding opportunities and strategies
- Identify compliance issues/recommendations

### Master Plan Exclusions

- Marketing strategies or management of the airport
- Formal business planning









## BE A PART OF THE PLAN!

PLEASE TAKE A SHORT SURVEY ABOUT BVY



THE BEVERLY REGIONAL AIRPORT (BVY) HAS STARTED AN AIRPORT MASTER PLAN PROCESS THAT WILL GUIDE BVY THROUGH ITS NEXT 20 YEARS OF DEVELOPMENT. INPUT IS BEING SOLICITED FROM BASED AIRCRAFT OWNERS, TENANTS, AND OTHER AIRPORT USERS TO HELP ESTABLISH THE EXISTING AND FUTURE NEEDS OF THE AIRPORT.

## BVY APPRECIATES YOUR INPUT!

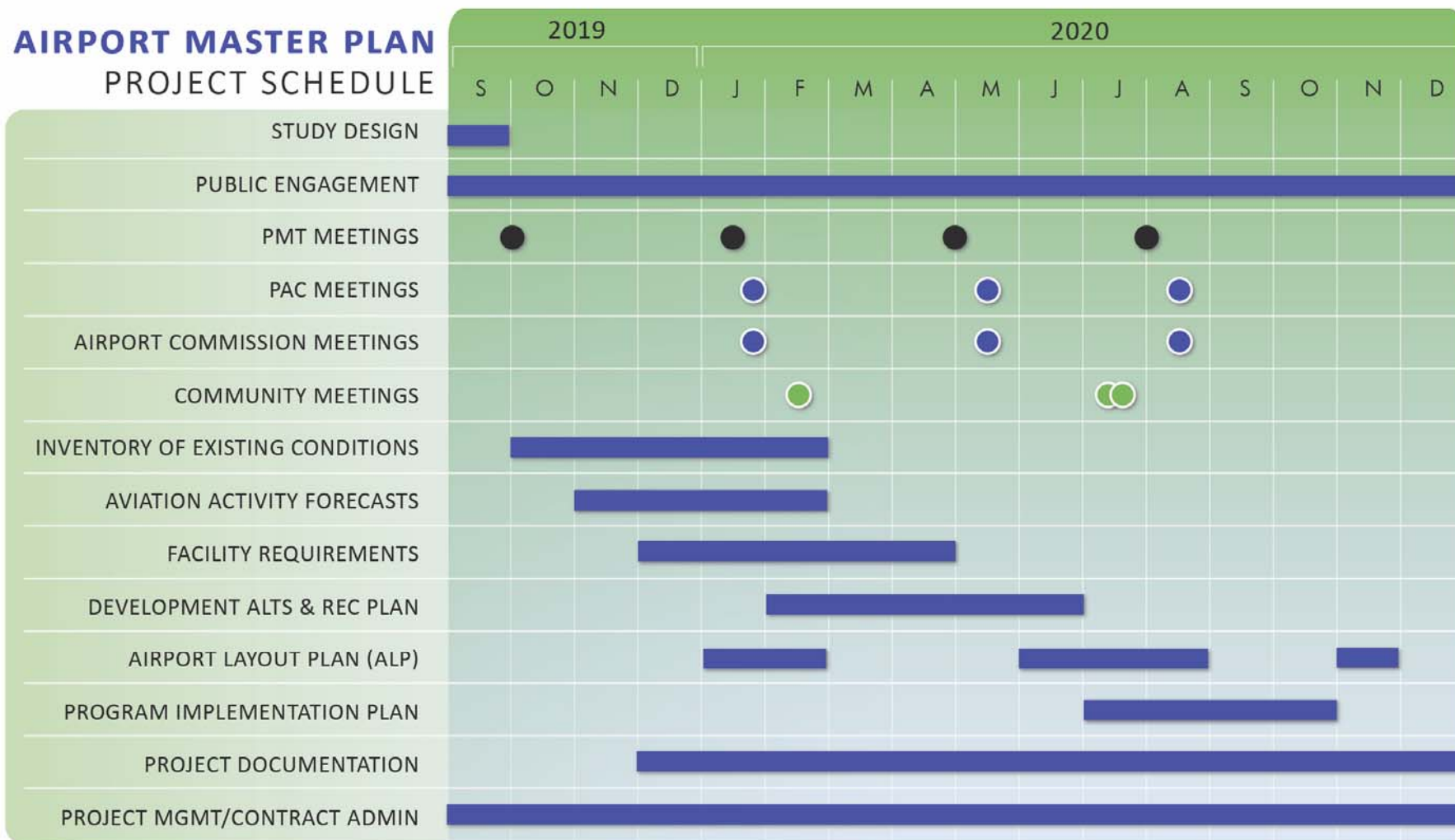
TO LEARN MORE ABOUT THE MASTER PLAN PROJECT, PLEASE GO TO  
**[WWW.BEVERLYAIRPORT.COM](http://WWW.BEVERLYAIRPORT.COM)**

## COMMUNITY OUTREACH

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- Planning Advisory Committee
- Stakeholder/Neighborhood Meetings
- User and business surveys
- Social media updates
- Media releases
- Local Government briefings
- FAA/MassDOT collaboration
- Project website:  
**[www.beverlyairport.com](http://www.beverlyairport.com)**

## AIRPORT MASTER PLAN PROJECT SCHEDULE



## PAC ROLE AND RESPONSIBILITIES



The PAC functions best when it:

- Acts as a conduit for citizens, users & tenants to access accurate and timely information
- Provides focused feedback on key elements of the Master Plan working papers and findings
- Thinks critically through the key issues
- Shares varied perspectives on the future of the airport
- Serves in an advisory capacity to the Airport Commission

# AIRPORT INVENTORY





# SERVING THE NORTH SHORE

- Established in 1928
- Operated by the U.S. Navy during World War II (Naval Auxiliary Air Facility)
- Decommissioned in 1945 and returned to the City of Beverly in 1950
- Roles:
  - FAA NPIAS: General Aviation Regional Reliever
  - MassDOT MSASP: Corporate/Business Airport
- Governed by the Beverly Airport Commission appointed by the Mayor of Beverly
- BVY serves a primary role in regional economic activities, connected to state and national economies
  - Total Jobs (direct/indirect) = 269
  - Total Annual Payroll = \$11.6 M
  - Total Annual Economic Output = \$34.3 M

*(2019 Massachusetts Airport Economic Impact Study)*





## BEVERLY REGIONAL AIRPORT

- Located in **three** jurisdictions: City of Beverly, Town of Danvers and the Town of Wenham
- 470 acres
- Services: FBO, Flight Training, Aircraft Management Tie-Downs, Hangars, MRO
- 105 based aircraft
- 66,949 annual operations
- Air Traffic Control Tower hours: 0700-2100
- Per the 2019 Statewide Economic Impact Study, BVY's impact is **\$34,300,000**



# SURROUNDING AIRPORTS

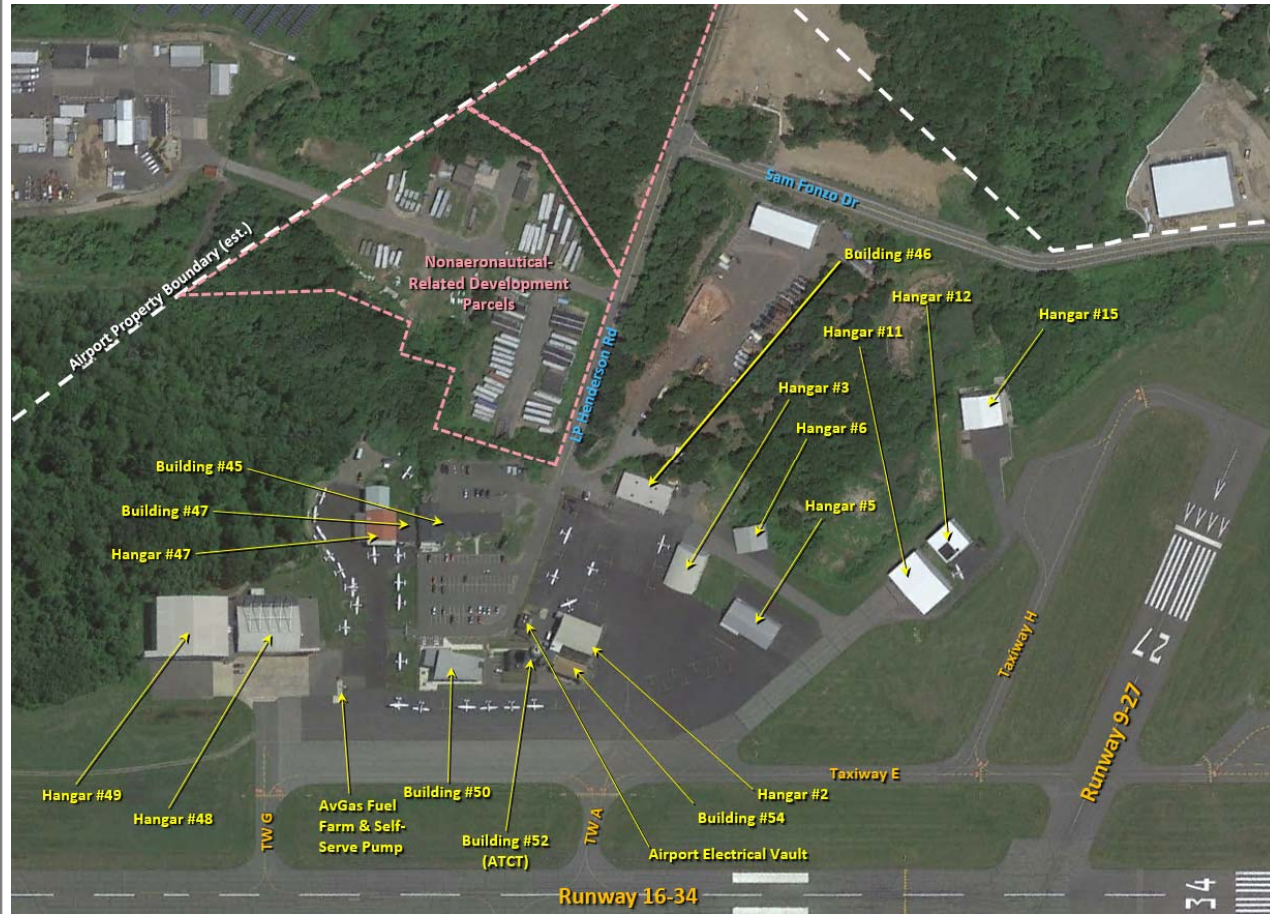




# AIRSIDE INVENTORY

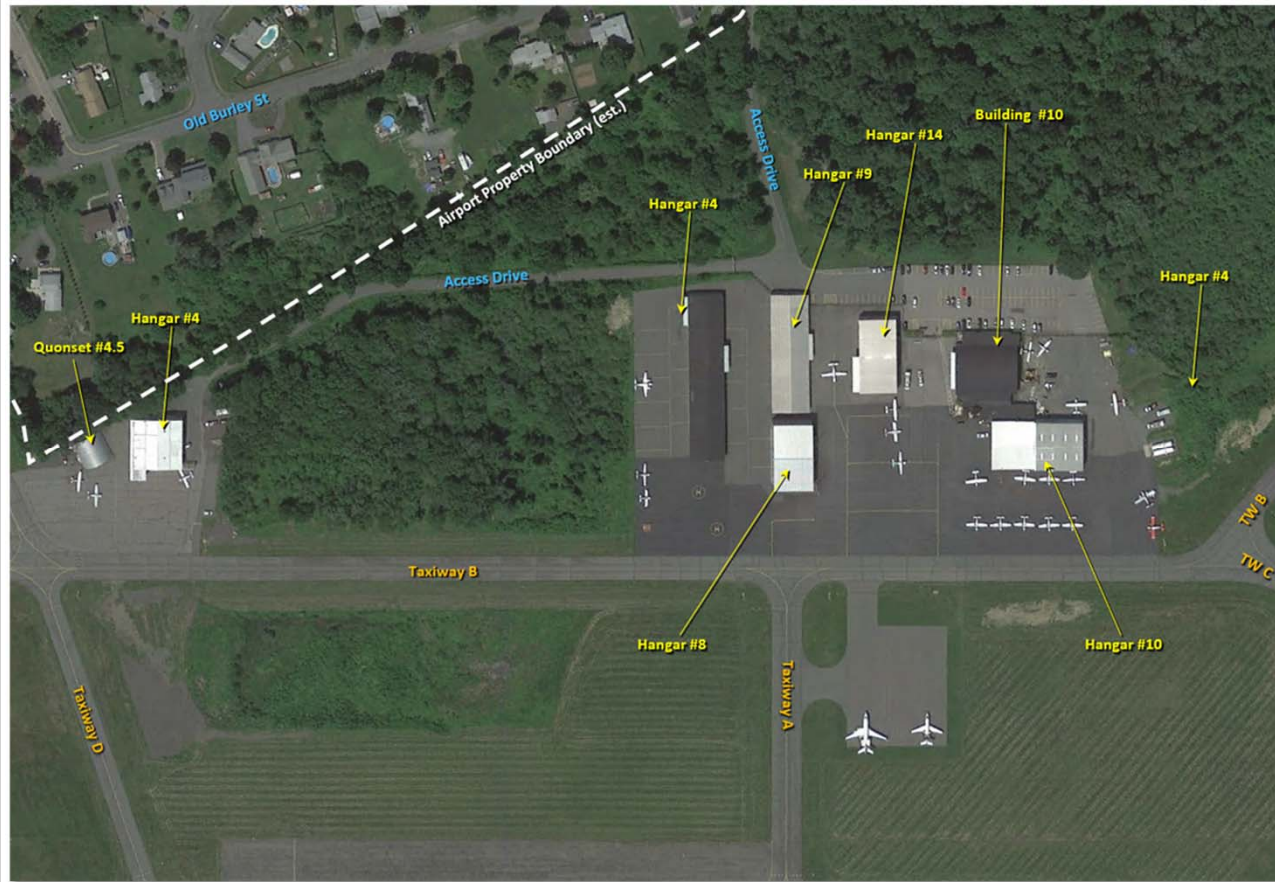


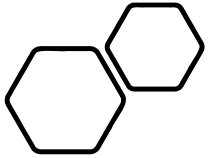
# LANDSIDE INVENTORY (East Side)





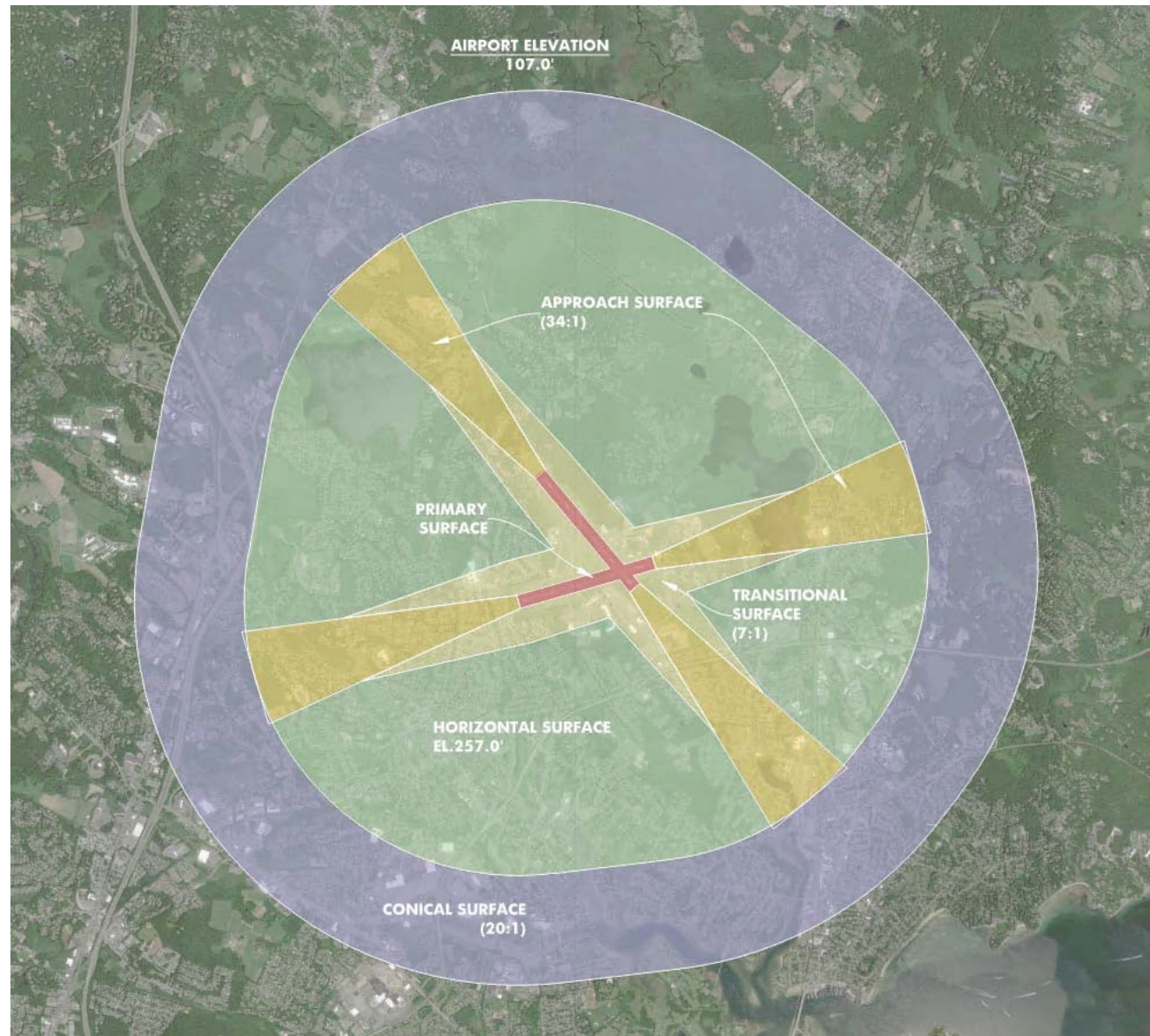
# LANDSIDE INVENTORY (West Side)





# AIRPORT AIRSPACE

- Federally-Mandated Requirements
  - 14 CFR Part 77
  - Airport Design
  - TERPS
- Help ensure safety of aircraft in the air and people/structures on the ground



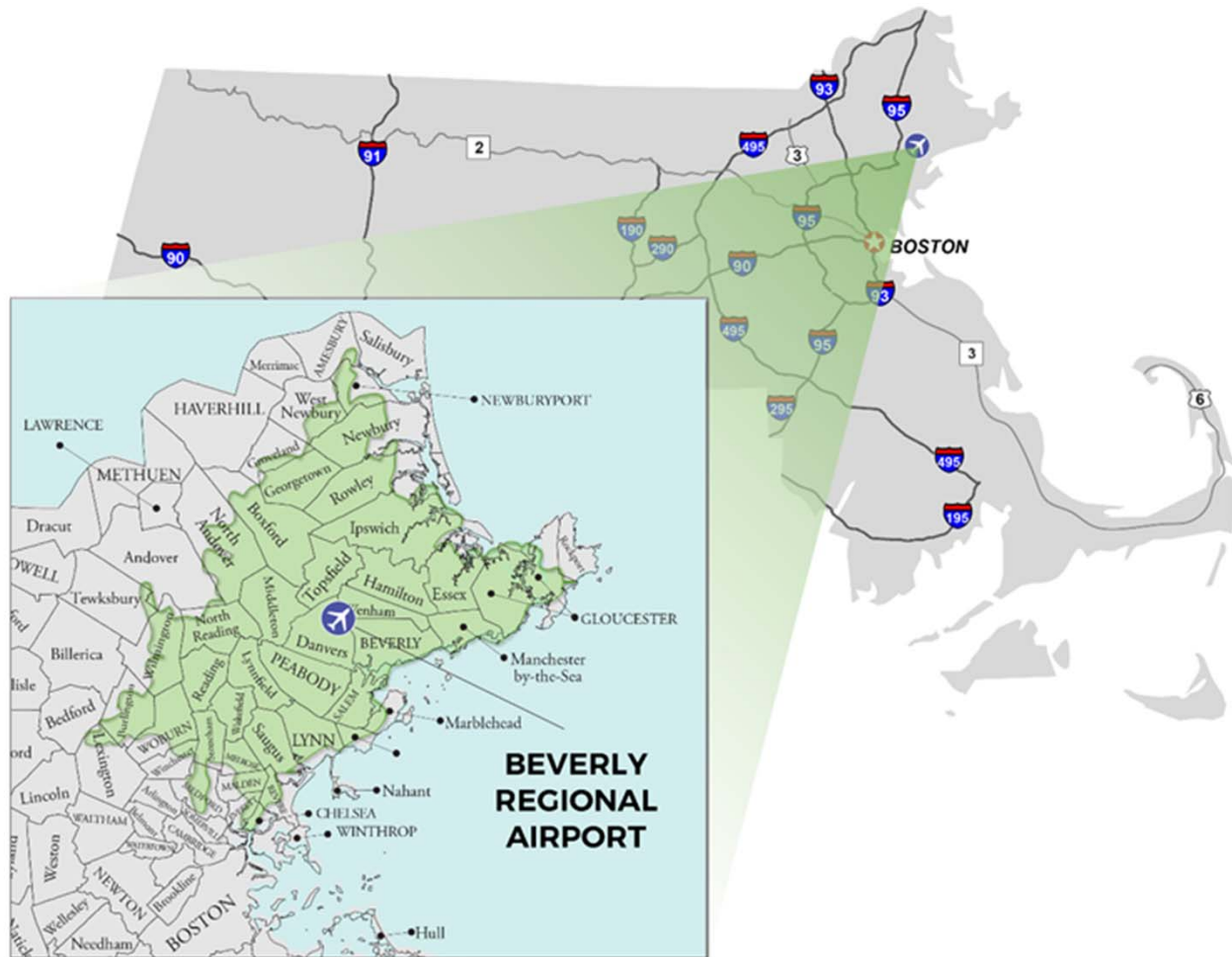


# AVIATION ACTIVITY FORECASTS



## BVY MARKET AREA

- Beverly
- Boxford
- Burlington
- Chelsea
- Danvers
- Essex
- Everett
- Georgetown
- Gloucester
- Groveland
- Hamilton
- Ipswich
- Lexington
- Lynn
- Lynnfield
- Malden
- Manchester-by-the Sea
- Marblehead
- Medford
- Melrose
- Middleton
- Nahant
- Newbury
- Newburyport
- North Andover
- North Reading
- Reading
- Revere
- Rowley
- Salem
- Stoneham
- Topsfield
- Wakefield
- West Newbury
- Wenham
- Wilmington
- Winchester
- Woburn



# FORECAST CONSIDERATIONS

- National General Aviation trends
  - Business Use
  - General Aviation Piston Operators
- Regional trends
  - Population
  - Employment
  - Personal Income
  - Economic Developments
- FAA Terminal Area Forecast (TAF)

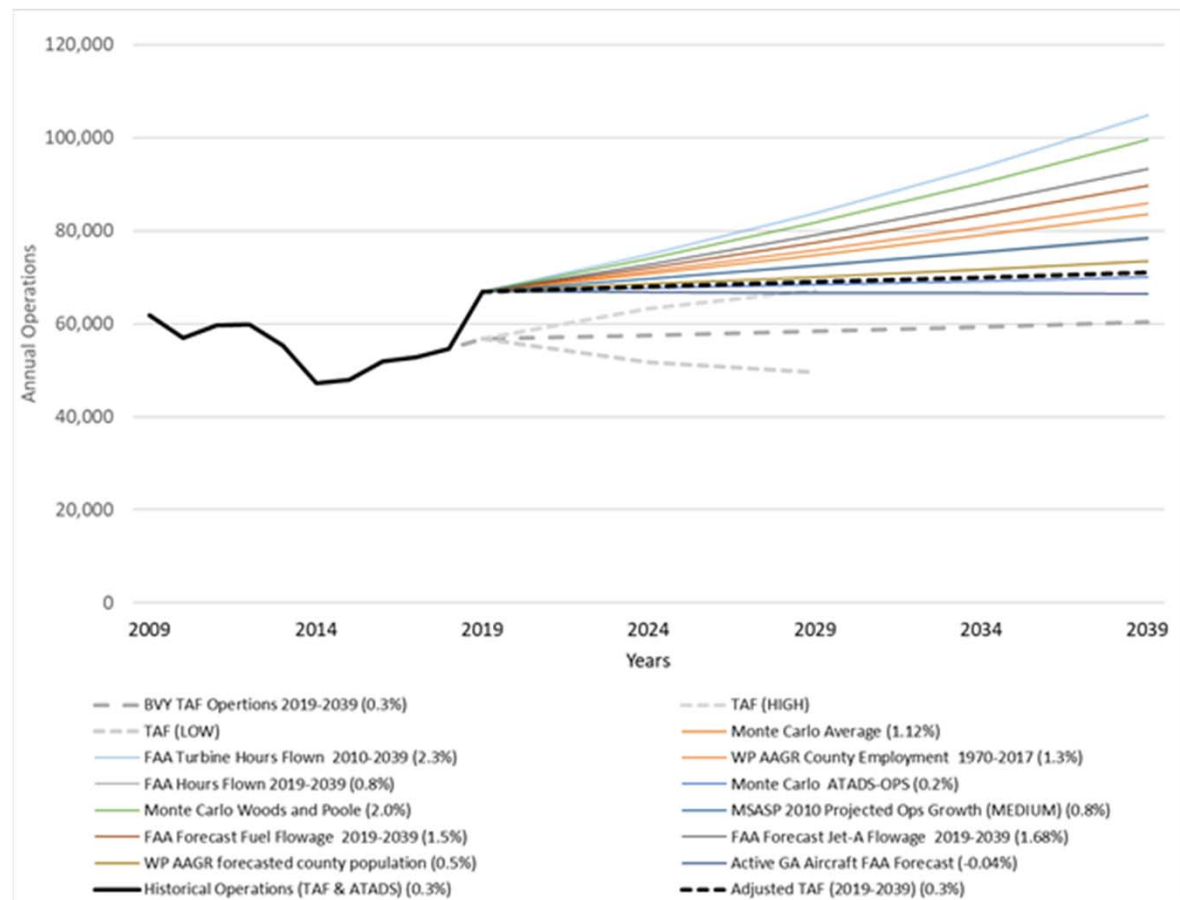




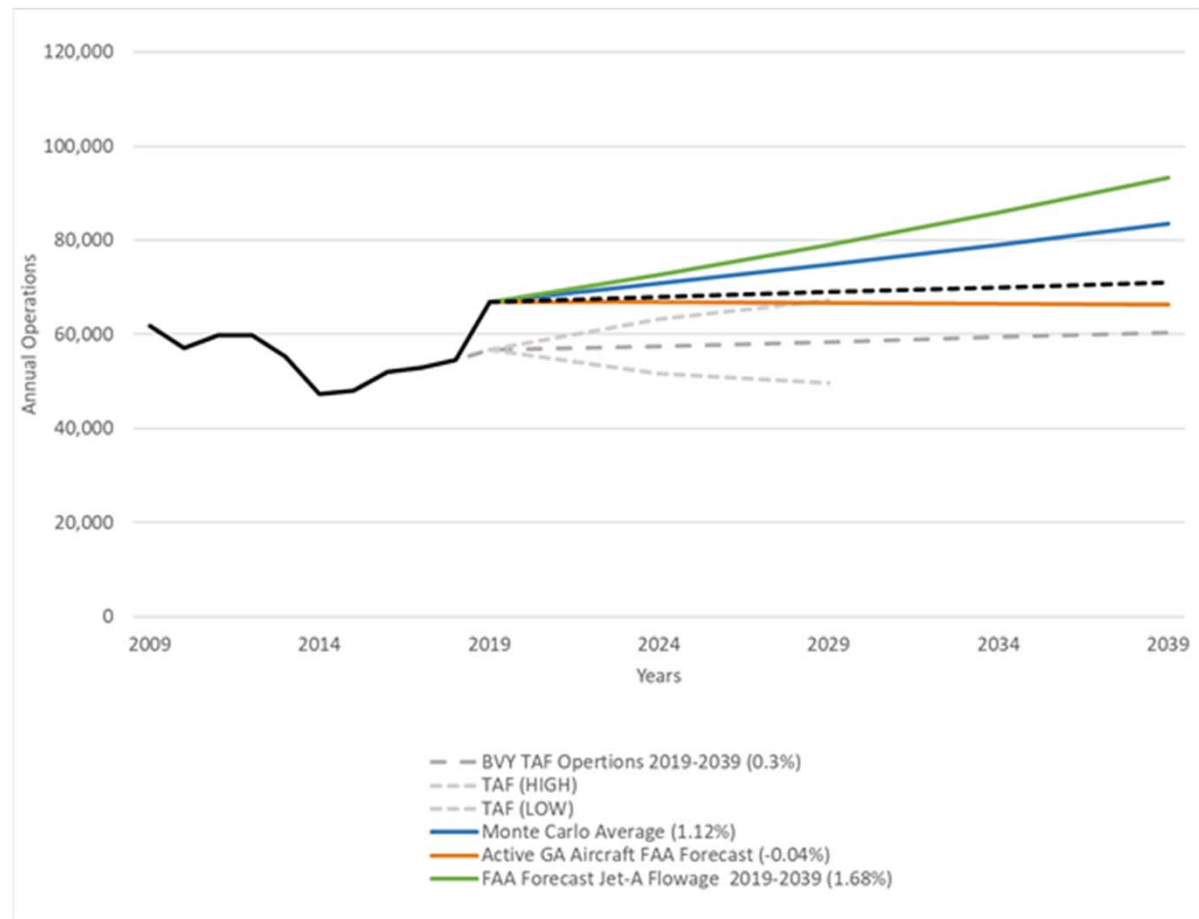
# ESSEX COUNTY SOCIOECONOMIC DATA

Year	Population	Employment	Per Capita Personal Income
<b>Historical</b>			
2000	725,030	390,460	\$38,118
2010	745,690	402,260	\$51,883
2016	779,020	461,140	\$61,442
2017	783,250	470,630	\$63,640
CAGR (2000-2017)	.5%	1.1%	3.1%
<b>Projected</b>			
2020	797,760	488,580	\$70,521
2025	822,140	515,760	\$86,579
2030	845,920	543,050	\$110,002
2040	884,250	595,030	\$180,259
CAGR (2020-2040)	.5%	1.0%	5.1%
<b>Massachusetts</b>			
CAGR (2010-2040)	.5%	1.2%	1.2%
<b>United States</b>			
CAGR (2010-2050)	.8%	1.1%	1.5%

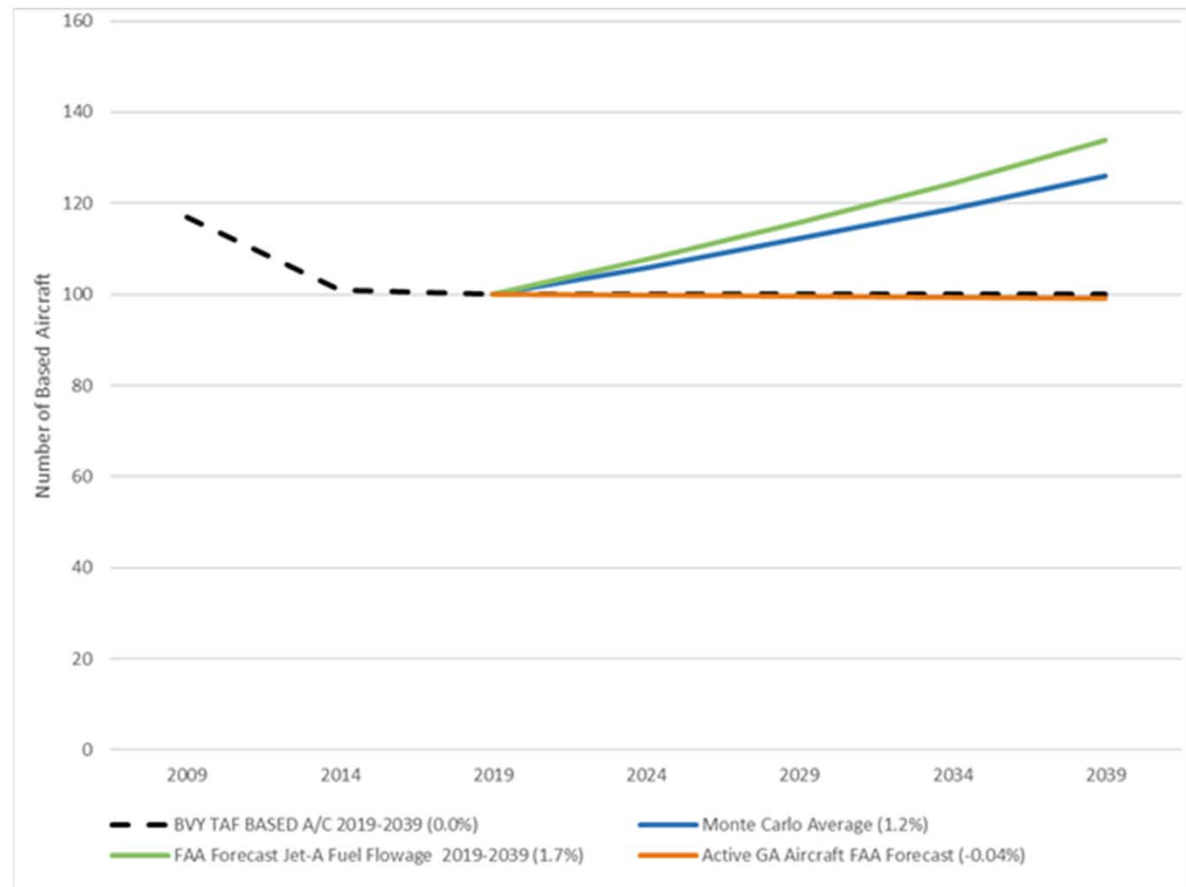
# OPERATIONS FORECASTS – ALL (2018-2038)

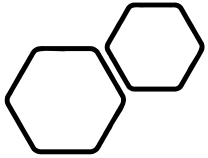


# PREFERRED OPERATIONS FORECAST (2018-2038)



# BASED AIRCRAFT FORECAST (2018-2038)





## CRITICAL DESIGN AIRCRAFT

- Airports should be designed to meet the needs and requirements of the aircraft that operate at them
- FAA AC 150/5000-17, *Critical Aircraft and Regular Use Determination*, provides for an airport's design be based on the most demanding or critical aircraft that operates regularly at that airport (500 annual operations or takeoffs/landings)
- At BVY, the Dassault Falcon (B-II) is the current critical aircraft as identified on the BVY ALP

**A-I**  
(Small  
Aircraft  
Only)



Cessna 150

**A-I**



Beech Baron

**A-II**



King Air 200

**B-I**



Citation CJ1

**B-II**



Phenom 300

**C-I**



Hawker 900XP

**C-II**



Challenger 300

**C-III**



Global Express

**D-II**



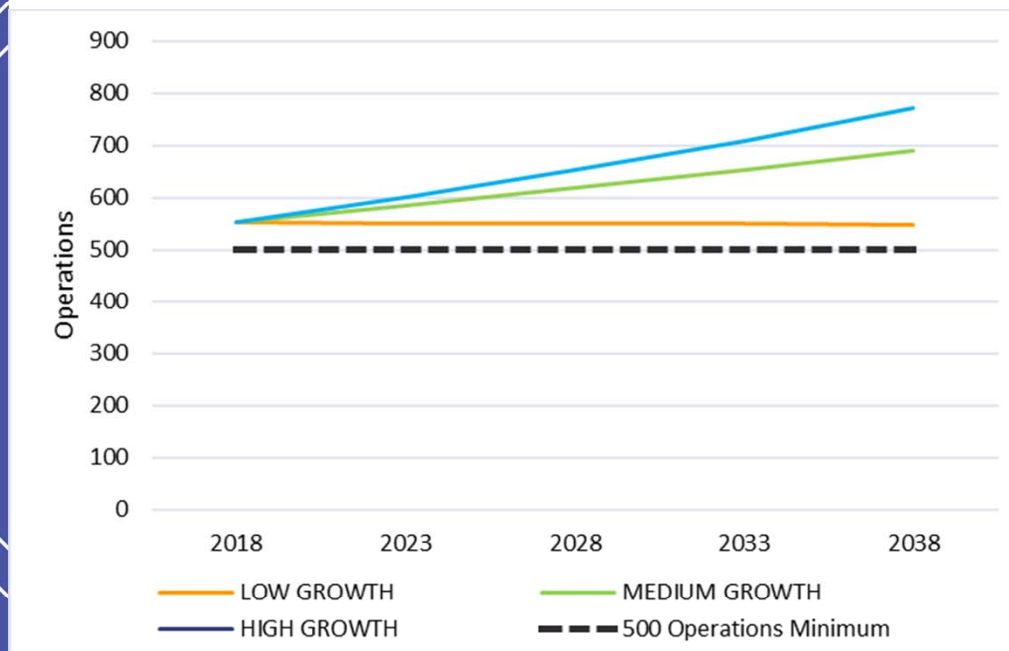
Gulfstream G200

**D-III**



Gulfstream G-V

## ANNUAL OPERATIONS OF C-II AIRCRAFT & ABOVE (2018-2038)



### Key considerations:

- Application of the FAA AC
- Prevailing industry and regional trends toward greater use of business jet aircraft
- Anticipated activity levels at BVY

***It is recommended that future airport facilities be designed to accommodate the Challenger 300 (C-II) or similar aircraft as the critical aircraft***

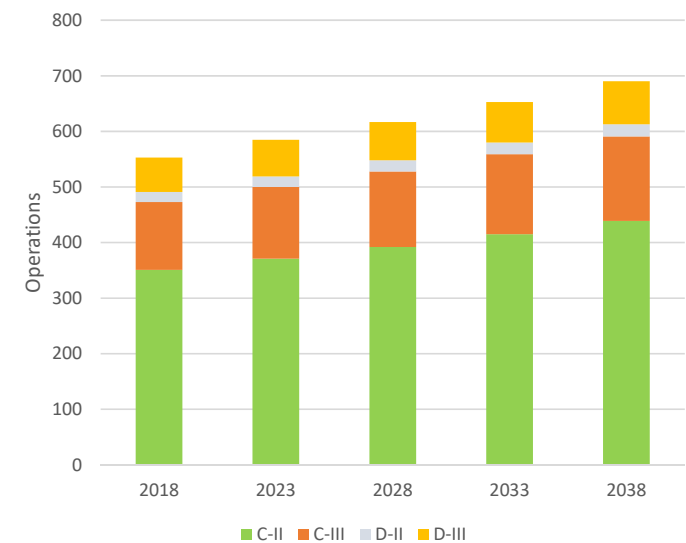
# CRITICAL DESIGN AIRCRAFT

- Historical BVY FAA TFMSC Data

Table 3-10: Beverly Regional Airport Recent TFMSC Counts

ARC	2017	2018
No Data	153	122
A-I	1477	1681
A-II	763	609
B-I	489	404
B-II	1226	1314
B-III	7	19
C-I	428	317
D-I	19	5
<b>Total</b>	<b>4,562</b>	<b>4,471</b>
C-II	361	351
C-III	68	122
D-II	24	18
D-III	70	62
<b>Total</b>	<b>523</b>	<b>553</b>

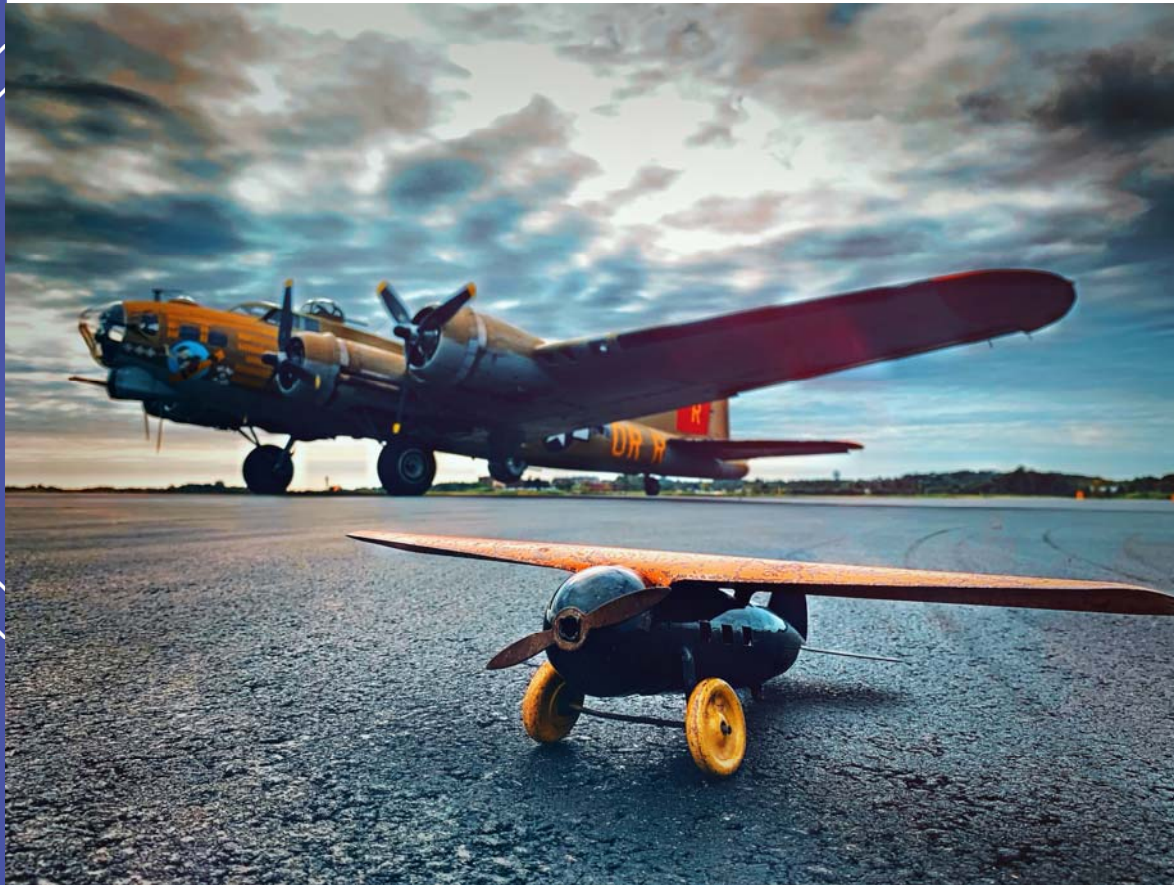
Source: FAA TFMSC



- Recommended ARC = C-II
- Current BVY FAA TFMSC Data (through 10/2019) = 549 operations
- BVY currently has a based Global Express, a Challenger 300, and a G-V



# NEXT STEPS





## PAC HOMEWORK

- Review and comment on Chapters 1 and 2 by ***January 31, 2020***
- Chapters and presentation will be available online January 17, 2020 at [www.beverlyairport.com](http://www.beverlyairport.com) (see Master Plan tab)
- Submit comments to:  
[jim.miklas@jviation.com](mailto:jim.miklas@jviation.com)
- Chapter 3 will be posted (with email link) for review and comment once FAA review is complete



## UPCOMING WORK EFFORT

- FAA review and approval of Chapter 3 Forecasts
- Final edits to Chapters 1, 2 and 3
- Community Outreach efforts
- Development of Facility Requirements and Alternatives Chapters



*THANK YOU!*

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