Airport Master Plan for

Brown Field Municipal Airport

PAC Meeting #3

SD Airports

C&S COMPANIES®

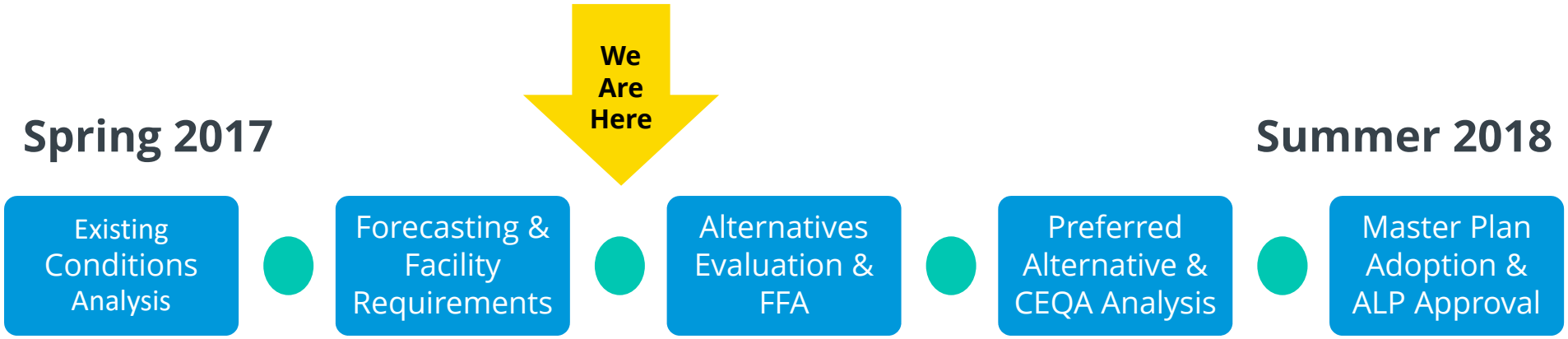
Public Meeting #1

- 8/24/17 from 5:30 to 8:00 pm
- 41 attendees signed-in
- Comments:
  - EAA area
  - Environmental constraints
  - Focus on General Aviation
  - Wash racks
  - User coordination
  - Facility condition

Agenda

- Introductions
- Public Meetings Overview
- Working Paper 3 - Facility Requirements
- Working Paper 4 - Environmental Baseline Report
- Mid-point Check-In
- Public Comment
- Next Steps

Master Plan Process



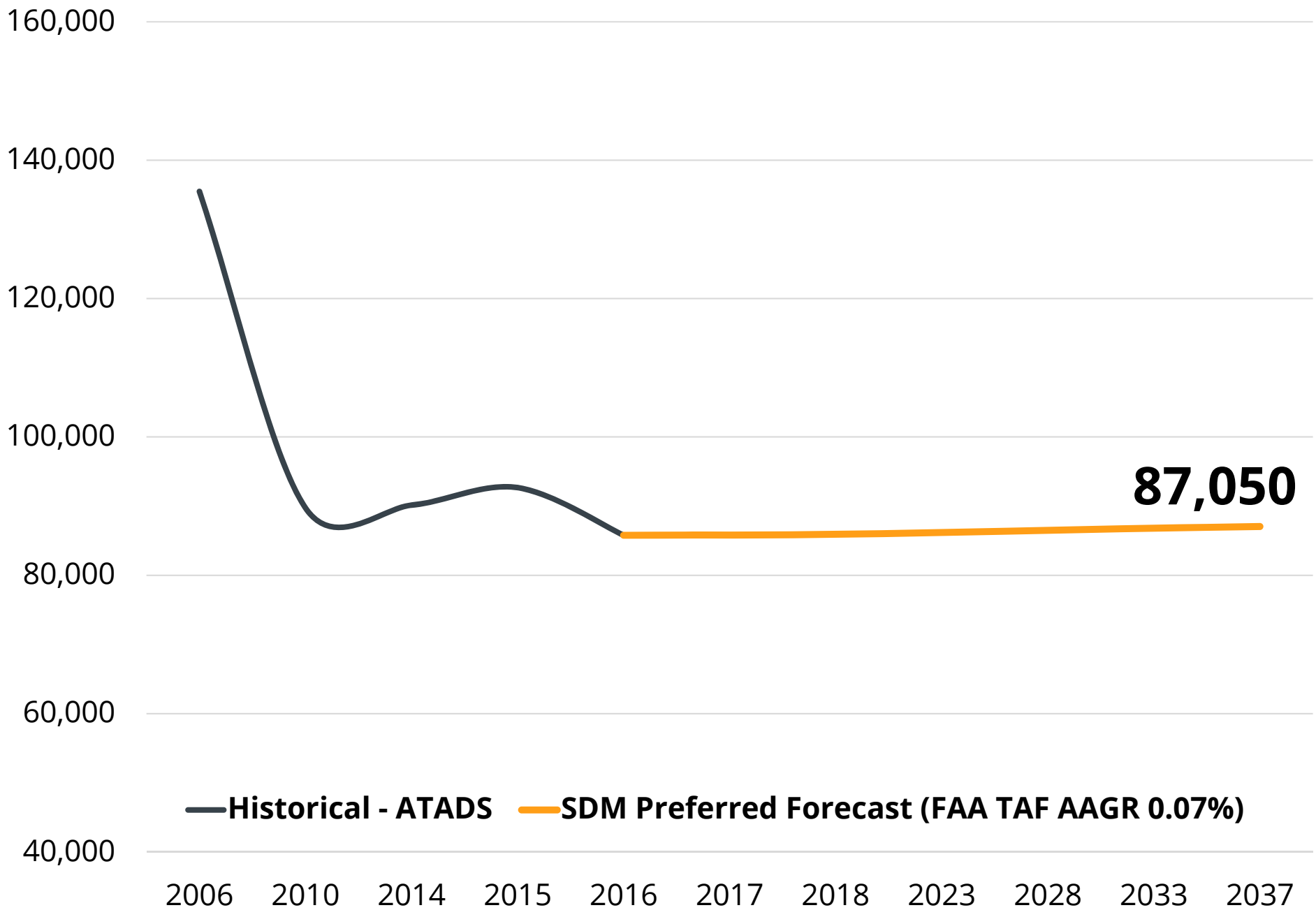
Ongoing Public Outreach

ALP – Airport Layout Plan
CEQA – California Environmental Quality Act
FFA – Financial Feasibility Analysis

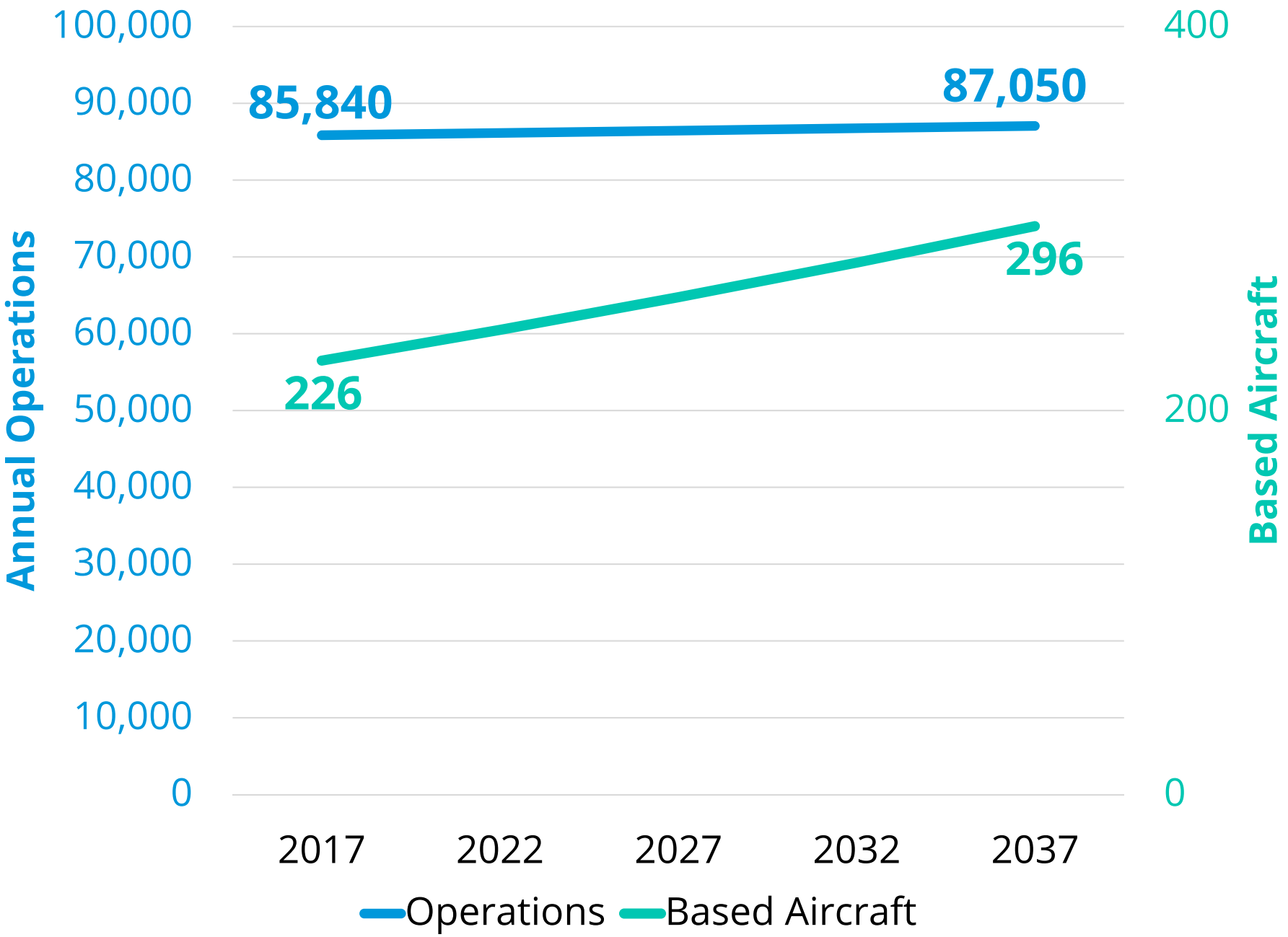
Working Paper 3

- Revisiting the Forecast
- What are Facility Requirements?
- Airside Facility Requirements
- Landside Facility Requirements

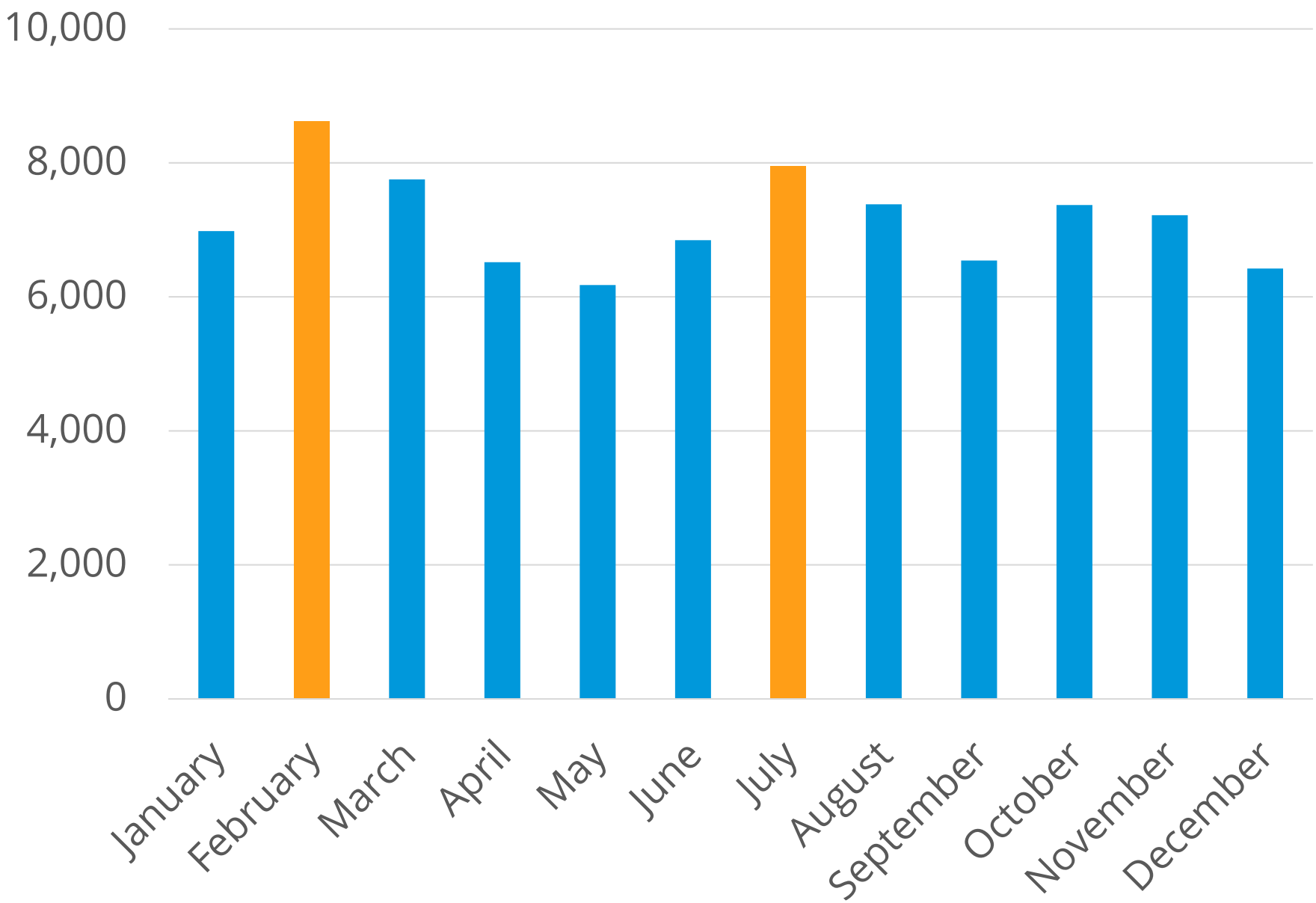
SDM Historical Activity and Demand Forecast



SDM Demand Forecast



Operations Peaking



Critical Aircraft

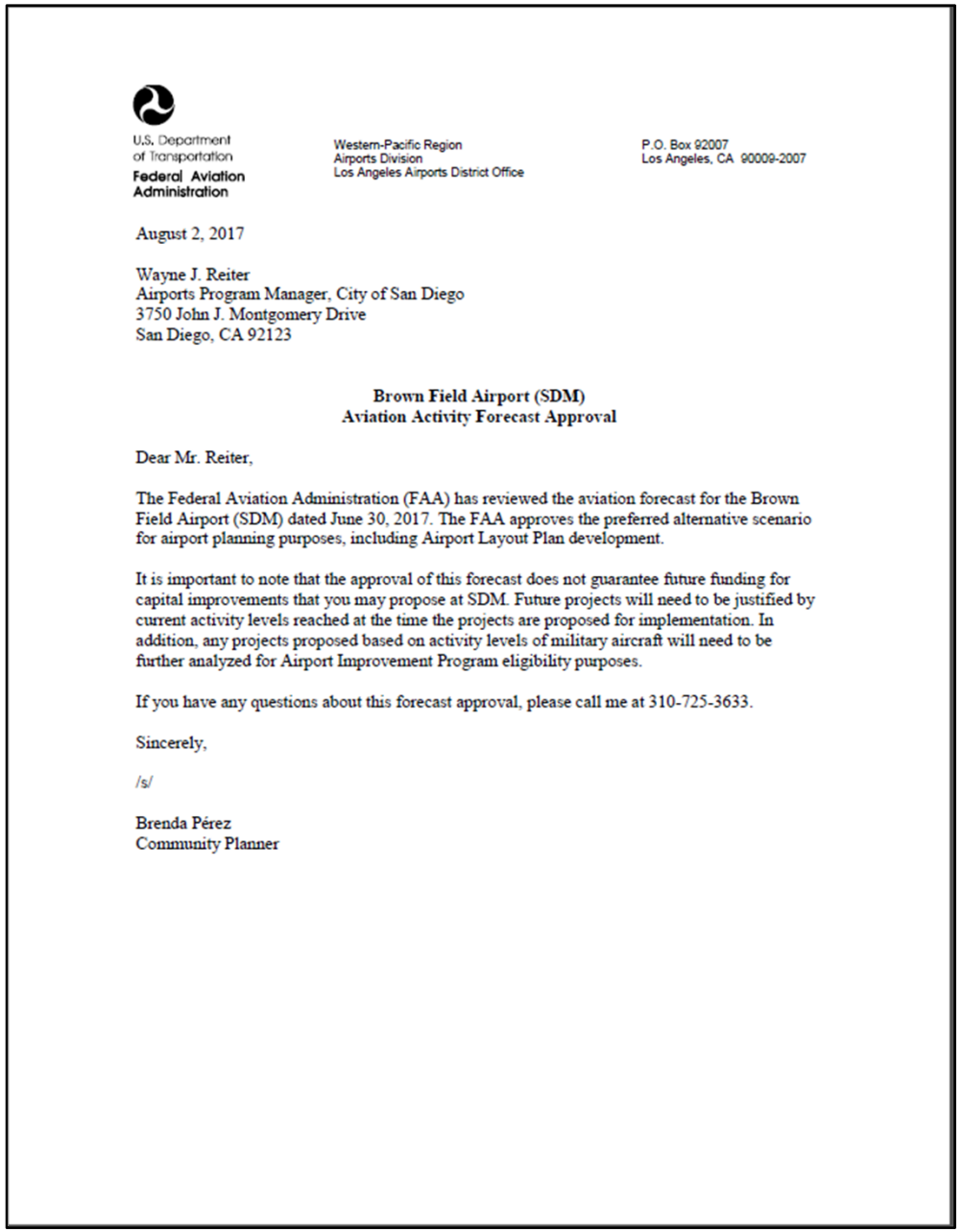
Gulfstream 550

Lockheed C-130

Beechcraft Baron 58

Forecast Working Paper 2

- FAA Approved



U.S. Department of Transportation
Federal Aviation Administration

Western-Pacific Region
Airports Division
Los Angeles Airports District Office

P.O. Box 92007
Los Angeles, CA 90009-2007

August 2, 2017

Wayne J. Reiter
Airports Program Manager, City of San Diego
3750 John J. Montgomery Drive
San Diego, CA 92123

Brown Field Airport (SDM)
Aviation Activity Forecast Approval

Dear Mr. Reiter,

The Federal Aviation Administration (FAA) has reviewed the aviation forecast for the Brown Field Airport (SDM) dated June 30, 2017. The FAA approves the preferred alternative scenario for airport planning purposes, including Airport Layout Plan development.

It is important to note that the approval of this forecast does not guarantee future funding for capital improvements that you may propose at SDM. Future projects will need to be justified by current activity levels reached at the time the projects are proposed for implementation. In addition, any projects proposed based on activity levels of military aircraft will need to be further analyzed for Airport Improvement Program eligibility purposes.

If you have any questions about this forecast approval, please call me at 310-725-3633.

Sincerely,

/s/

Brenda Pérez
Community Planner

PAC/Public Input

- Services
  - Keep user balance

- Facilities
  - Address condition of facilities
  - Address drainage
  - Protect existing users

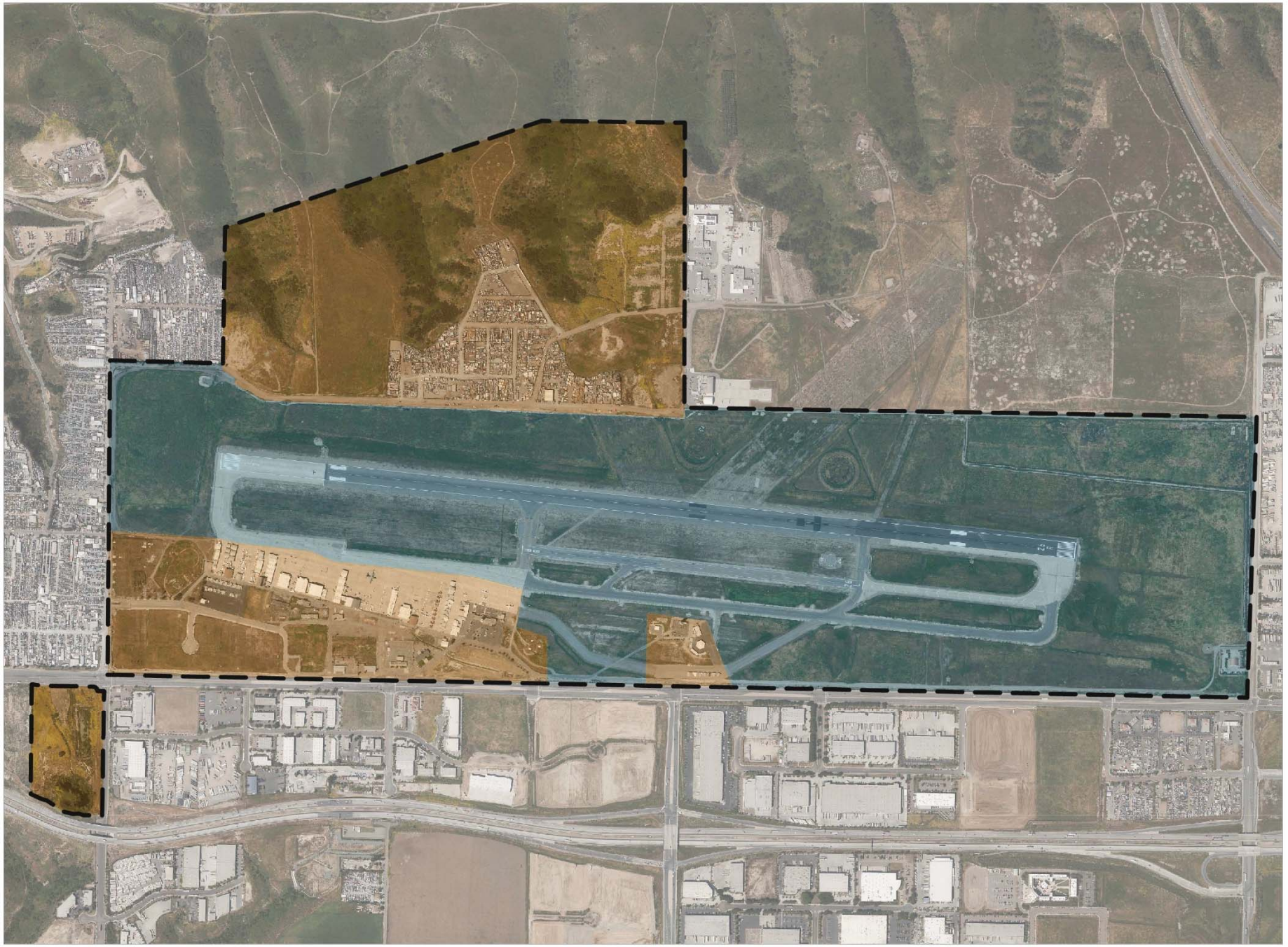
FAA Alignment

FAA Approvals	Funding Prioritization	Purpose & Need Establishment	Published Guidance
• Forecast: 7/26/17 • ALP: TBD	• Safety • Security • Capacity • Sustainability	• NEPA Approval	• Specific set of guidelines provided to planners

Data Sources

Working Paper #1	• Airport Inventory
Working Paper #2	• Forecast of Aviation Demand
FAA Advisory Circulars	• AC 150/5060-5 Airport Capacity and Delay • AC 150/5300-13A Airport Design
Airport Cooperative Research Program	• ACRP Report 113 Guidebook on General Aviation Facility Planning

Airside/Landside



Airside

Airfield Operating Configurations

	030° through 180°	0° through 180°	180° through 360°	180° through 360°
Arrivals	8L, 8R	8L	26R, 26L	N/A
Arrival Traffic Flows				N/A
IFR/VFR	VFR	IFR	VFR	IFR
Occurrence	41.16%	15.17%	38.06%	5.61%

Note: Scenario includes calm wind observations
Source: NCDC Wind & Weather Operations, 2017 & Atkins Analysis 2017

Airfield Capacity

- **Hourly Capacity** – Number of aircraft operations per hour under VFR/IFR conditions.

- **VFR Hourly Capacity**
  - Runways 8L / 8R ➡ 213 operations

  - Runways 26L / 26R ➡ 213 operations

- **IFR Hourly Capacity**
  - Runways 8L* ➡ 53 operations

*Note: Only Runway 8L has the equipment for IFR approaches (RNAV only)

Annual Service Volume

- **Annual Service Volume (ASV) -** Maximum number of annual operations that can occur at the airport before an assumed maximum operational delay value is encountered

- **60 percent of ASV** – The threshold at which planning for capacity improvements should begin.

- **80 percent of ASV** – The threshold at which planning for improvements should be complete and construction should begin.

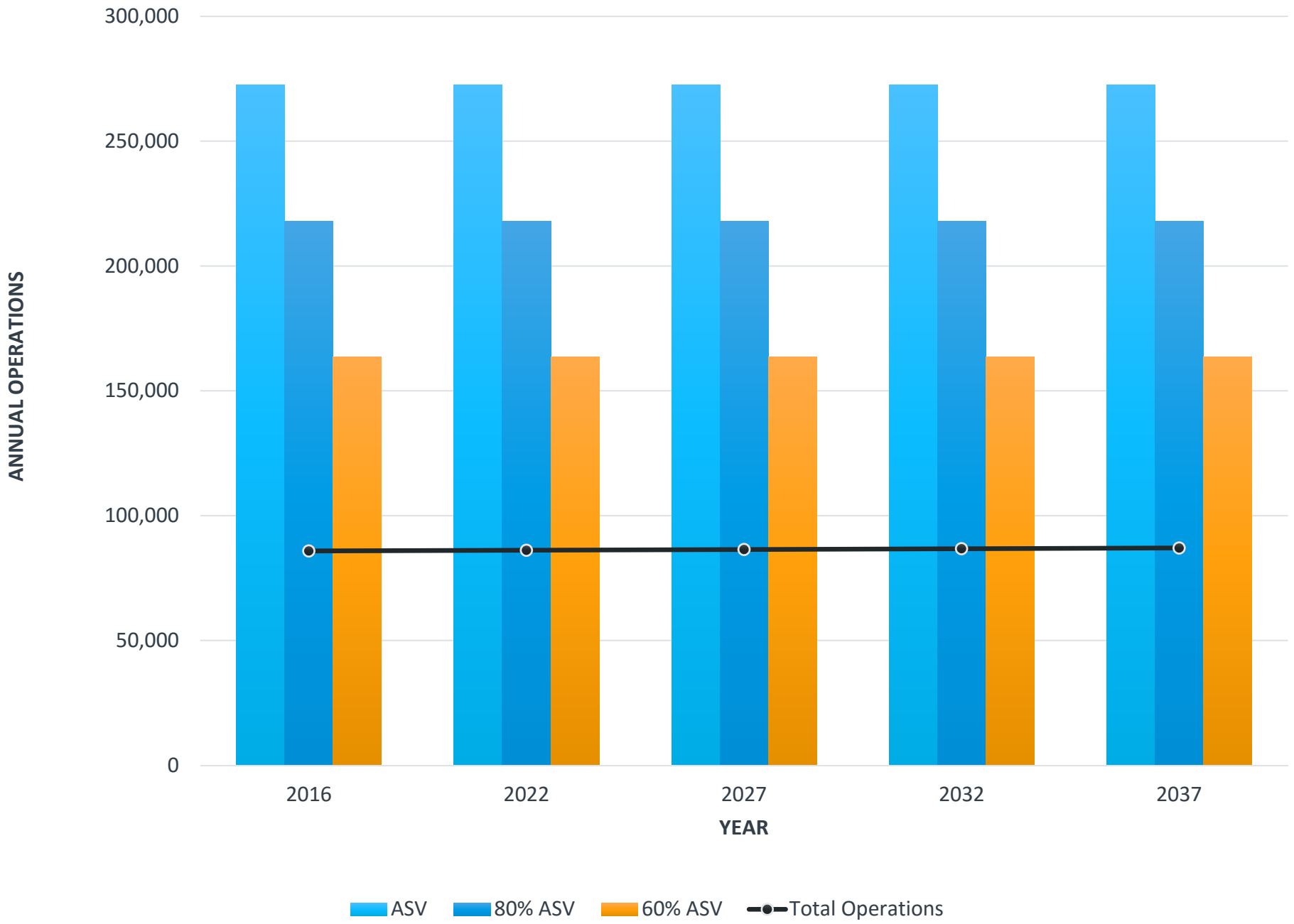
- **100 percent of ASV** – The airport has reached the total number of annual operations it can accommodate, and capacity-enhancing improvements should be made to avoid extensive delays.

Annual Service Volume vs. Annual Demand

Year	Annual Operations	Annual Service Volume	Percent of Annual Service Volume
2016	85,780	262,870	32.65%
2022	85,840	262,870	32.77%
2027	86,443	262,870	32.88%
2032	86,746	262,870	33.00%
2037	87,050	262,870	33.12%

Sources: FAA AC 150.5060-5, Airport Capacity and Delay
Analysis by Atkins, 2017

Annual Service Volume vs. Annual Demand



Airfield Capabilities

- **Arrivals vs. Departures**
  - Based on common practice, it is assumed that arrivals and departures are split equally
- **Instrument Approach**
  - IFR only on Runway 8L
  - Area Navigation (RNAV) using GPS
- **Runway Length**
  - Existing – 7,972 feet
  - Required for critical aircraft – 5,190 feet
- **Full Length Parallel Taxiway**
  - Only Runway 8R/26L has a full-length parallel taxiway

Airfield Capabilities (cont.)

- **Holding Bays**
  - Three holding bays on the airfield
  - Holding bays have deficiencies
    - lack of markings
    - lack room to maneuver safely

- **Airfield Lighting**
  - No major lighting deficiencies currently exist
  - Lighting will be analyzed further in future phases
  - Available airfield lighting on Runway 8L-26R
    - Runway End Identifier Lights (REIL)
  - Available airfield lighting on Runway 8R-26L
    - No Airfield Lighting

Feedback

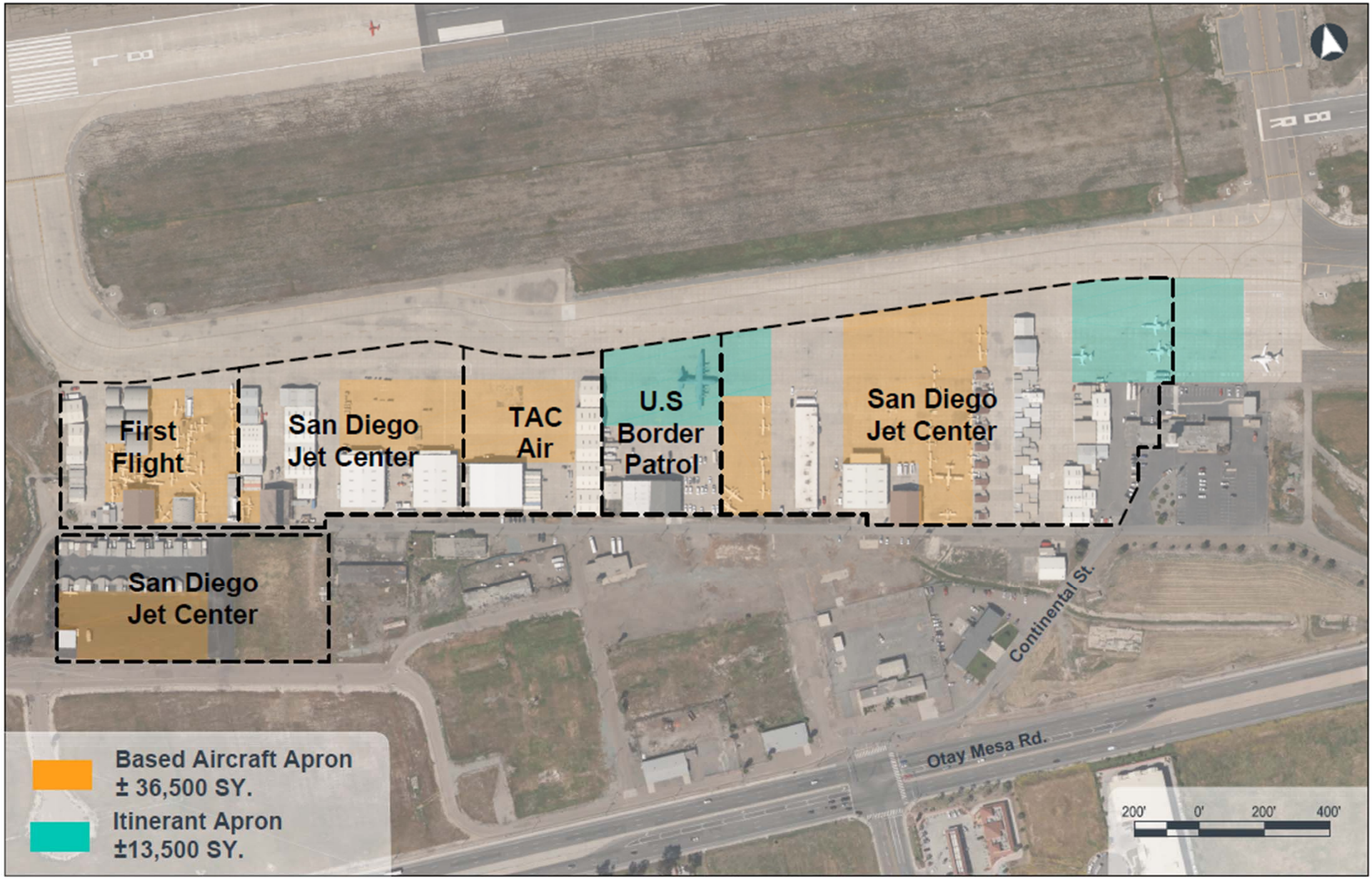
Landside

Aircraft Hangars

	2017 (Existing)	2022	2027	2032	2037
Conventional/ Box Hangar (SF)	**130,000**	53,400	55,800	58,200	63,200
T-Hangar (SF)	**105,000**	**155,400**	**165,200**	**177,800**	**190,400**
Total Hangar Area (SF)	**235,000**	208,800	221,000	**236,000**	**253,600**

61 additional T-hangars over 20-year planning period

Apron Area


First Flight
San Diego Jet Center
TAC Air
U.S Border Patrol
San Diego Jet Center
San Diego Jet Center
Continental St.
Otay Mesa Rd.
Based Aircraft Apron
± 36,500 SY.
Itinerant Apron
±13,500 SY.
200' 0' 200' 400'

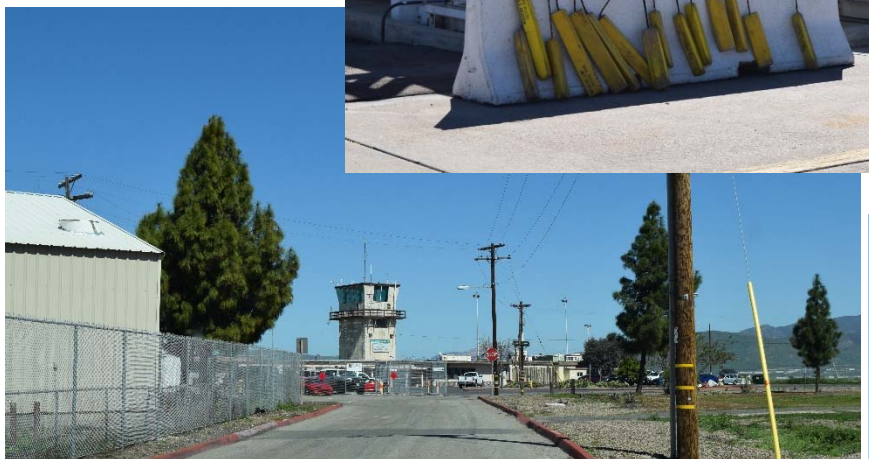
Aircraft Parking Apron

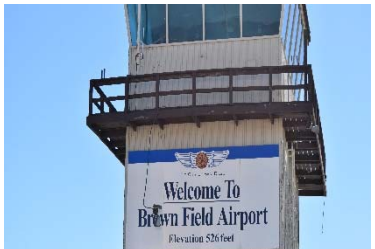
	2017 (existing)	2022	2027	2032	2037
Itinerant Apron (SY)	**13,500**	11,200	11,200	11,200	11,600
Based Apron (SY)	**36,500**	20,100	21,600	23,400	24,900
Total Apron (SY)	**50,000**	31,300	32,800	34,600	36,500

Terminal/Airport Administration Building

Year	Design Hour Operations	Peak-Hour Pilot & Passengers	Terminal Size Required (SF)
2017	**46**	**115**	**11,500**
2022	47	118	**11,800**
2027	47	118	**11,800**
2032	47	118	**11,800**
2037	47	118	**11,800**

Support Facilities





Feedback

Environmental Baseline for

Brown Field Municipal Airport

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Goals

- Establish existing conditions to help guide planners and designers to avoid or minimize impact to environmental resources

- Assess level of review under NEPA
  - Guided by FAA regulations

Resources

- There are 14 resources to be evaluated:
  - Air quality
  - Biological resources
  - Climate
  - Coastal resources
  - Section 4(f) (historic and recreation)
  - Farmlands
  - Hazardous materials
  - Cultural resources
  - Land use
  - Natural resources and energy supply
  - Noise
  - Socioeconomics and environmental justice
  - Visual effects
  - Water resources

Impact Categories

- Potentially significant impacts
  - Air quality, Biological resources, HazMat, Land Use,
- No Significant Impact
  - Climate, Section 4(f), Farmlands, Cultural resources, Visual, Water resources, Noise, Socioeconomics/enviro justice/children's health & safety
- No impact or resource is not present
  - Coastal Resources, Natural resources and energy supply

Presentation focuses on potentially significant impacts.

Air quality

Emissions & aircraft

On the ground

The main contribution aircraft emissions make to ground level air quality occurs while they are on the ground and operating their engines.

During take-off

As aircraft take-off the engines generate emissions.

Above 600ft, aircraft emissions have a negligible effect on ground level air quality around the airport.

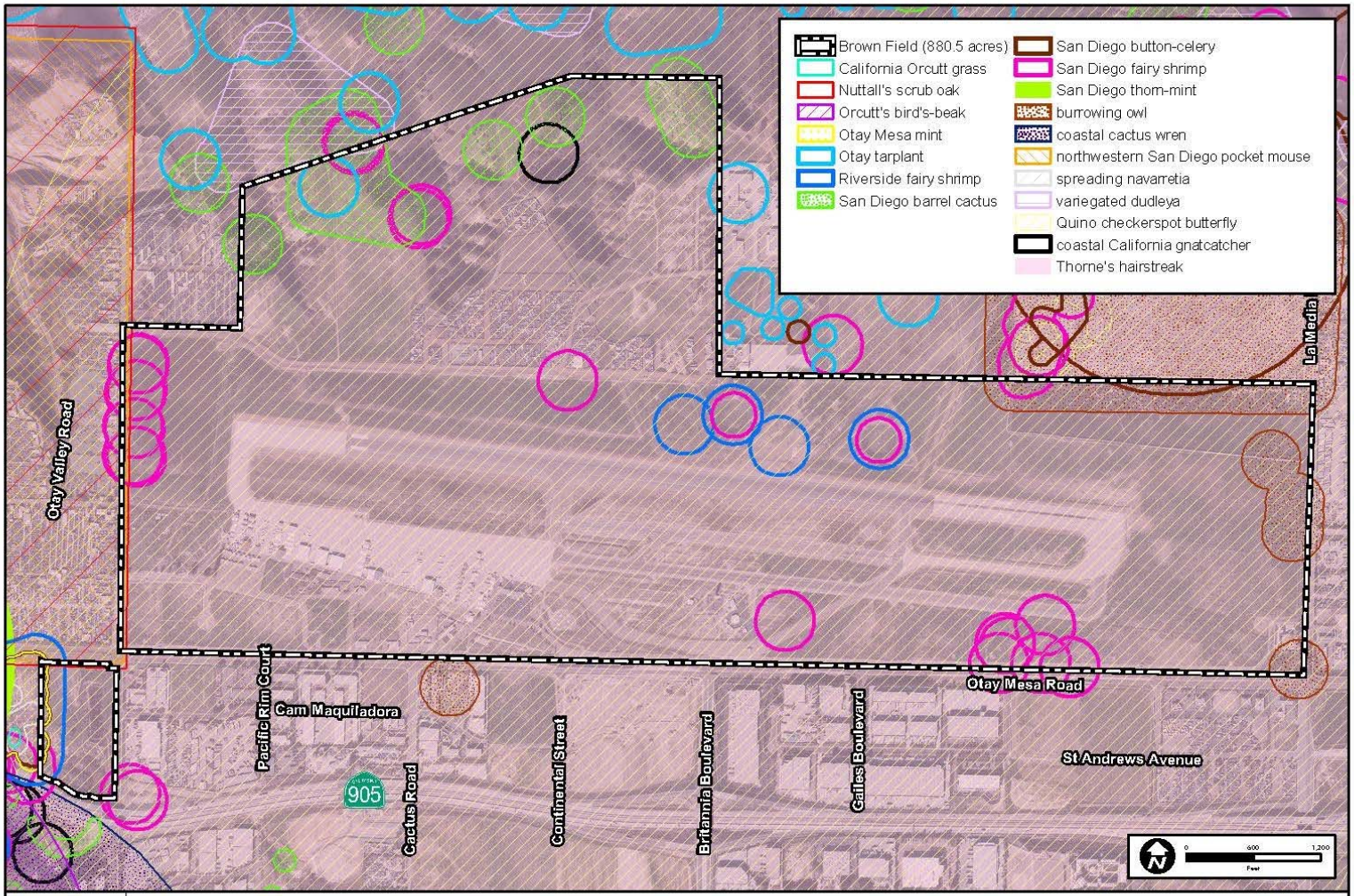
During landing

Aircraft produce fewer emissions landing compared to taking-off.

This is due to a combination of using engines less and carrying less weight in fuel.

Source: The Aeronautical Journal (DEFRA, 2002),

Biological Resources



ATKINS

FIGURE 5.2

CNDDB/USFWS Sensitive Species Database Records

Sources: Aerial (SanGIS, 2014); Sensitive Species (CNDDB 5/17, USFWS (4/17)

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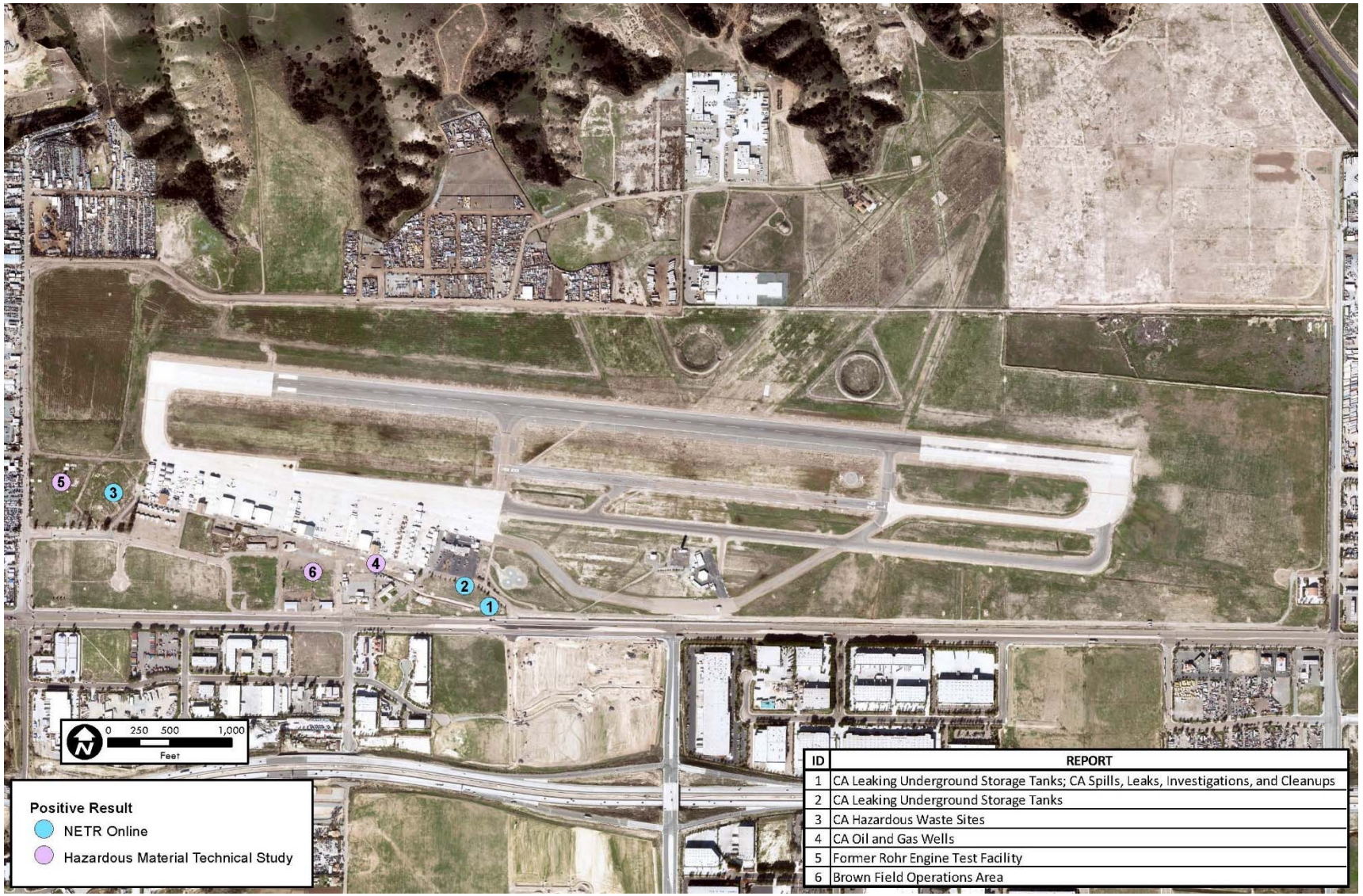
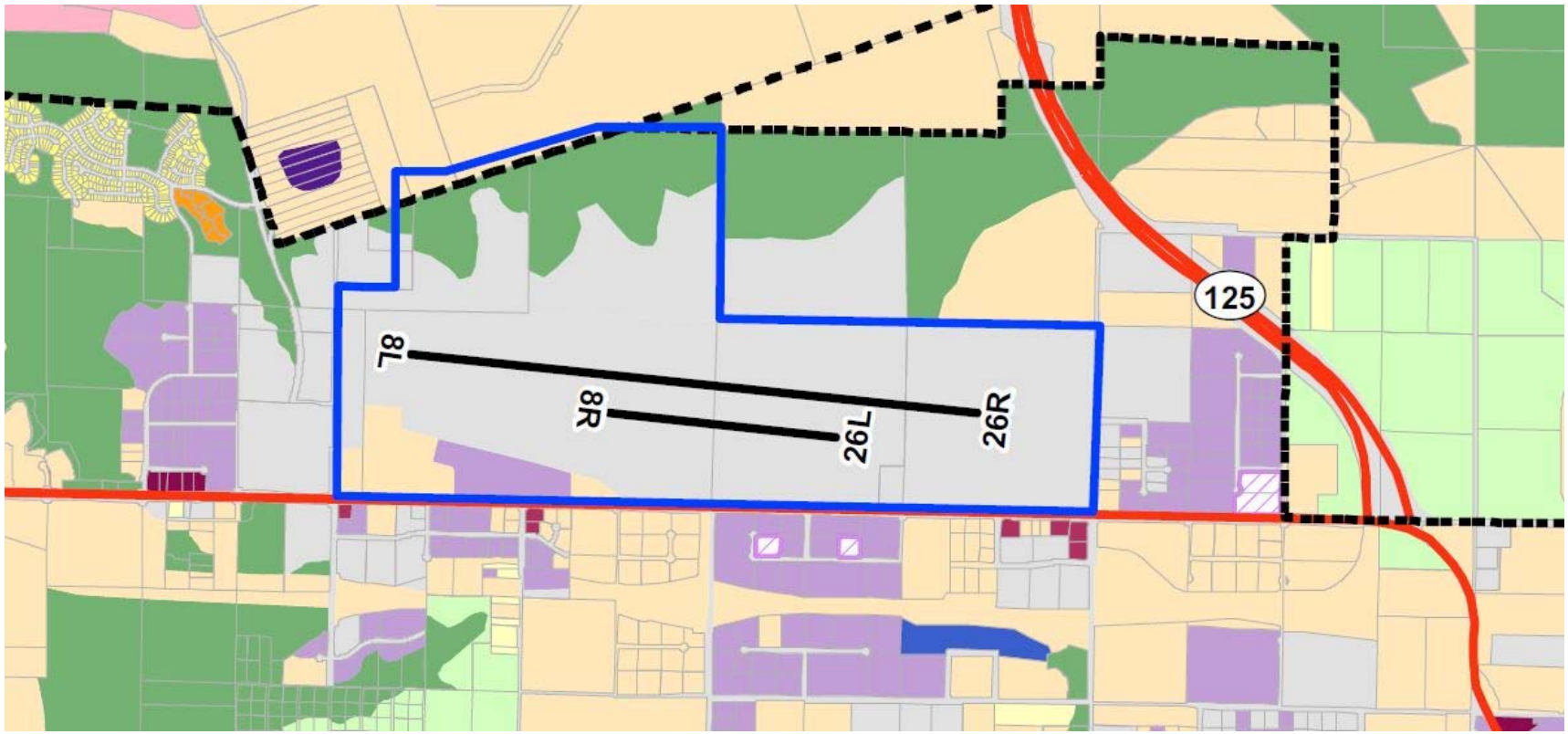
Hazardous Materials



ID	REPORT
1	CA Leaking Underground Storage Tanks; CA Spills, Leaks, Investigations, and Cleanups
2	CA Leaking Underground Storage Tanks
3	CA Hazardous Waste Sites
4	CA Oil and Gas Wells
5	Former Rohr Engine Test Facility
6	Brown Field Operations Area

Land Use



Recommendation

- Potential for significant impact does not mean there is an impact – just that more detailed study and design are necessary
- Environmental Assessment (EA) under NEPA, in order to better study and disclose impacts
  - Project dependent
  - Some projects may qualify for a categorical exclusion
- Awaiting selection of preferred alternative to determine CEQA requirements

Next Steps

- Provide environmental data to planners and designers
- Coordinate with the airports, city and FAA regarding NEPA and CEQA
- Determine level of documentation necessary under CEQA

Feedback

Public Comment

Next Steps

- Incorporate Feedback
- Finalize Facility Requirements
- Hold Public Meeting
- Progress to Alternatives Development